

# **Oracle® Retail Macro Space Management**

User's Guide

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Oracle® Retail Macro Space Management User's Guide, Release 13.2

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# Preface

The Oracle® Retail Macro Space Management User Guide describes the application user interface and includes information that enables you to use the application effectively.

## Audience

This User Guide is for users of Oracle Retail Product. This includes merchandisers, buyers, business analysts, and administrative personnel.

## Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible to all users, including users that are disabled. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at <http://www.oracle.com/accessibility/>.

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## Related Documents

For more information, see the following documents in the Oracle Retail Macro Space Planning Release 13.2 documentation set:

- Oracle Retail Macro Space Management Administration Guide
- Oracle Retail Macro Space Management Administration Online Help
- Oracle Retail Macro Space Management Advanced Users Guide
- Oracle Retail Macro Space Management Configuration Guide
- Oracle Retail Macro Space Management Configuration Online Help
- Oracle Retail Macro Space Management Data Importer Online Help
- Oracle Retail Macro Space Management Online Help
- Oracle Retail Macro Space Management Release Notes
- Oracle Retail Macro Space Planning Installation Guide
- Oracle Retail Macro Space Planning Licensing Information

See also for In-Store Space Collaboration Documentation set:

- *Oracle Retail In-Store Space Collaboration User's Guide*
- *Oracle Retail In-Store Space Collaboration Online Help*
- *Oracle Retail In-Store Space Collaboration Release Notes*

## Conventions

The following text conventions are used in this document:

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

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When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

## Review Patch Documentation

When you install the application for the first time, you install either a base release or a later patch release. If you are installing the base release, additional patch, and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

## Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:

[http://www.oracle.com/technology/documentation/oracle\\_retail.html](http://www.oracle.com/technology/documentation/oracle_retail.html)

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

## Macro Space Management

Macro Space Management (MSM) is a complex, integrated program that allows users to carry out highly sophisticated store planning, fixturing, and merchandising operations. It allows them to monitor retail performance using KPIs and reports. MSM is primarily intended for centralized planning and is typically located at head or regional offices.

The results of Macro Space Management activities are stored in the central Macro Space Management database. This database can be accessed via the internet by authorized users.

MSM activities can be split into three main areas:

- Organization
- Store Planning
- Performance Measurement

**Figure 1-1 Macro Space Management Workflow**

Macro Space Management		
Organization	Planning	Performance Measurement
Integration with 3 <sup>rd</sup> Party Software	Architectural Plans	External Reporting Tools
Planogram Import	Zones	Quick Reports
Data Import	Fixtures and Gondolas	Key Performance Indicators
Admin Module	Products and Planograms	Store Comparison
Store Manager		
Fixture Studio		
Product Studio		

## In-Store Space Collaboration

Macro Space Management and In-Store Space Collaboration are members of a family of products from Oracle. Macro Space Management is used in head or regional offices to plan and control store layouts and In-Store Space Collaboration allows you to develop or revise store layouts on site.

Macro Space Management allows users to carry out highly sophisticated store planning operations involving fixturing and merchandising. These operations can either be carried out in a Computer Aided Design (CAD) environment (Planner), or in 3D Virtual Reality Environment (Merchandiser).

In-Store Space Collaboration is a web-based portable version of Macro Space Management that has most (but not all) of its functionality. In-Store Space Collaboration allows Internet or Intranet based access to store planning, merchandising and performance information held within the central Macro Space Management database. It enables users with laptop or tablet computers to develop or edit store plans on site within the actual stores.

In-Store Space Collaboration can be used either with a wireless Internet connection continuously updating the central database or by connecting to a company intranet after developing the store plan. This combination of remote access and the use of small tablet or laptop computers make the software highly portable, allowing the users to update information on-site in the varying retail outlets within the organization.

Depending on the user's access rights, these can include:

- Selecting a store plan.
- Selecting departments within the store plan to display.
- Viewing, adding, editing and deleting fixtures, fittings and gondolas.
- Viewing, adding, editing and deleting products and planograms.
- Using scanning or manual entries to update information on which planograms are physically present in a store.
- Using Key Performance Indicators (KPI) to look at every aspect of a stores operation including correctness of fixturing and merchandising, turnover and profitability and other performance information.

The data is first read from the central database. After adding, editing and deleting fixtures and merchandise within In-Store Space Collaboration, the results are saved back to the central Macro Space Management database.

## A Quick Tour of Macro Space Management

This section provides a quick tour of Macro Space Management. It includes the following sections:

- [Control of a Retail Organization](#)
- [Macro Space Management Modules](#)
- [Common Macro Space Management Components](#)
- [Macro Space Management Activities](#)

### Control of a Retail Organization

Controlling a retail organization can be a complex activity, particularly if the organization has many stores. Macro Space Management is designed to make this task

as easy as possible, allowing managers to focus on improving profitability, not on routine administrative tasks.

Macro Space Management allows four main activities to be carried out:

**Table 1–1 Macro Space Management activities**

<b>Activity</b>	<b>Description</b>
Store planning	Designing store layouts by placing fixtures, fittings and gondolas accurately within the bounds set by an architectural drawing.
Merchandising	Populating the store layouts with products or merchandise.
Information Management	The import or export of information to and from Macro Space Management. Such information could include EPOS (Electronic Point of Sale) data.
Performance measurement	Measuring the performance of the stores.

This allows you to carry out the following repeated sequence of events:

### **Plan Store Layout**

Normally carried out in the Planner environment, this allows users to plan a precise arrangement of fixtures, fittings and gondolas within the store. This is far more than a simple drawing, for Macro Space Management tools allow the user to determine which fixtures can be connected to one another, lists of required components, etc.

Macro Space Management also allows users to see (for example) what the sight-lines are for customers for the present arrangement of fixtures, or what percentage of the floor space is being utilized efficiently.

### **Merchandise Store Layout**

Store layouts can be merchandised with products, planograms or a combination of the two. Both products and planograms can be designed within Macro Space Management if required. Macro Space Management tools allow the user to pre-configure which fixtures will accept which products or planograms.

Merchandising can be carried out in either the Planner or Merchandiser environments. If carried out in Merchandiser then a 3D virtual reality representation of the store can be seen, allowing users to see the store through the eyes of a customer.

### **Send Store Layout to Store**

Macro Space Management contains provisions to activate pre-prepared store plans on specified dates. These plans can be automatically sent to the designated stores, allowing them to implement the revised layout.

### **Review Store Performance**

Macro Space Management has the facility to import EPOS data, so it is possible to graphically performance by color coding the fixtures within the store according to performance. For example fixtures could be color coded for profit, turn over, stock turns or any other designated criteria. This allows managers to see at a glance which areas of the store are performing and which is not.

### **Decide on Required Changes**

Once the performance of a store has been analyzed, it is possible to decide on what changes are required. These could be routine, for example switching from one seasons

goods to another, or they could be more far reaching, for example switching for one type or merchandise to another.

Macro Space Management provides powerful tools for managers to maximize profitability.

## Macro Space Management Modules

Macro Space Management consists of a series of interdependent modules. These can be bewildering for new users, so their main purpose is listed below.

**Table 1–2 Macro Space Management Modules**

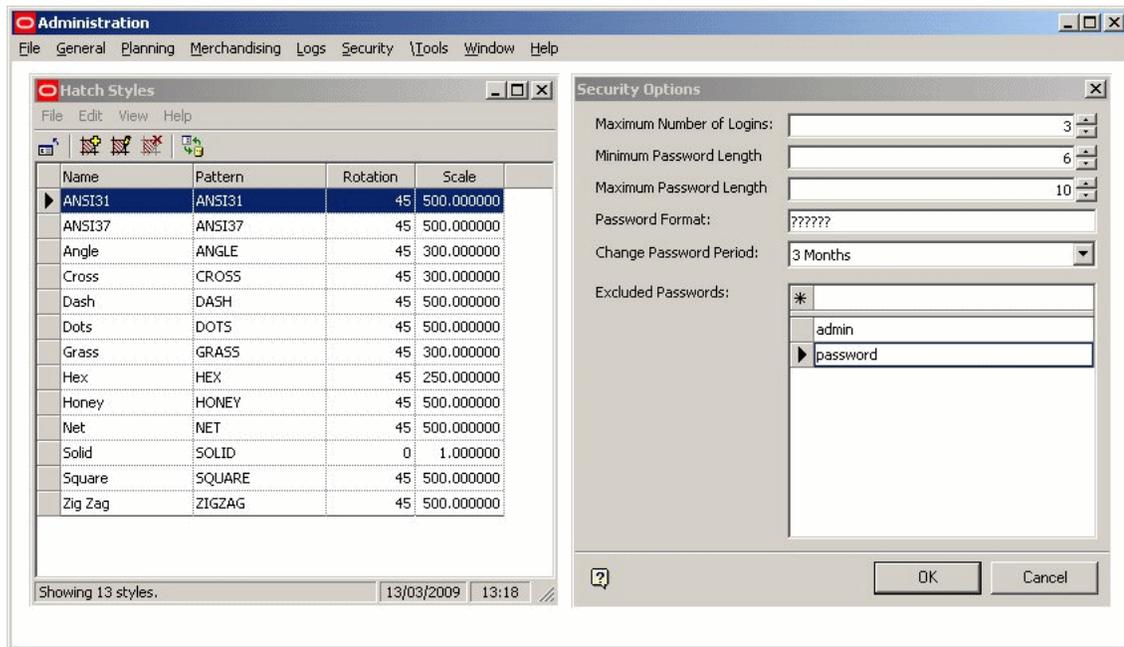
<b>Module</b>	<b>Purpose</b>
Administration	Used to change fundamental settings within Macro Space Management. Changes made in the Admin module will generally affect all users.
Data Import	Used to import data from third party software into Macro Space Management.
Fixture Studio	Used to set the properties for the Fixtures, Fittings, and Gondolas used in Macro Space Management.
Import	Used to import standard lists of data into Macro Space Management such as store details.
Merchandiser	Merchandiser has two purposes: <ul style="list-style-type: none"> <li>■ Design of Planograms.§</li> <li>■ Store planning in a 3D (Virtual Reality) environment.</li> </ul>
Product Studio	Design of products for placement in either Planner or Merchandiser
Planner	Store planning in a CAD (Computer Aided Design) environment
Report Studio	Allows users to get customized reports in data within Macro Space Management

### Admin Module Overview

The Admin Module enables a series of fundamental settings within Macro Space Management to be configured. This module is only available to those with Administrative privileges.

Some settings in the Admin Module are transferred to the Configuration Module and vice versa.

Figure 1–2 Administration Module



### Settings in the Administration Module

The following facets of Macro Space Management operations can be configured within the Admin Module.

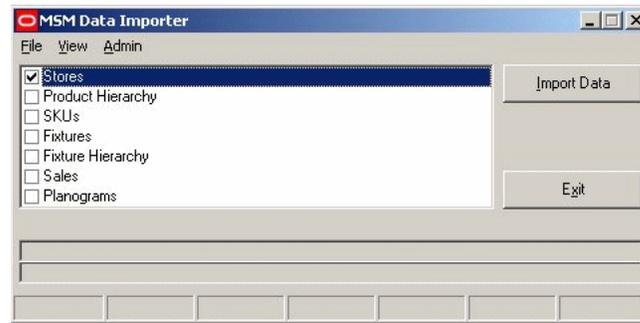
Individual Module	Purpose
Calendars	The Calendars module allows the dates to be set for any specified period within Macro Space Management. An example would be the start and finish dates for accounting quarters.
Hatch Styles	Hatch Styles are the markings that are used to color or otherwise delineate zones.
Manufacturers	The Manufacturers module allows Macro Space Management users to build up a customized list of suppliers and service providers for use elsewhere in the software.
Planogram Substitution	Planogram substitution allows the Macro Space Management user to administer the substitution of one planogram for another when a specified conditions for example a trigger date, is met.
Processes	Currently not enabled.
Product Code Types	This Module enables Macro Space Management users to specify the form of varying Product Code types.
Ranges	This Module allows the user to specify permissible ranges for specified products. An example would be acceptable temperatures for chilled and frozen goods.
Scales	Scales allow the scale to be set for drawings, etc.
Severity Types	Severity types are a pre-defined list that specifies the desirability of placing specific types of products or planograms next to each other.

<b>Individual Module</b>	<b>Purpose</b>
Status	The Status option allows Macro Space Management Administrators to configure the available status for Stores, Floors, Revisions, Drawings and other objects.
System Variables	System variables allow a number of basic parameters for Macro Space Management to be set globally. This module is used in conjunction with the Configuration module.
Tax Codes	Tax Codes enables the user to customize the tax rates used for accounting purposes.
Data Security	The Data Security section allows Administrators to specify which Stores, Products and Planograms individual users can access.
Functional Security	Functional Security allows Administrators to specify which sections of Macro Space Management individual users can access.
Security Options	Security Options allow Administrators to configure the nature of the passwords used.
Seasons	The Seasons Module allows date ranges to be set for specific merchandising seasons. These could be general, such as Spring and Summer, or specific, such as Halloween.
Styles	Styles allow the detail of fixtures and gondolas to be customized to allow only specific planograms to required style to be placed.
Text Styles	Text Styles allows the font size and type to be specified for the different forms of annotation.
Title Blocks	Title blocks allows the user to define the size, etc., of the title blocks that hold information on the issue date, revision number, etc., of a drawing.
Units	The Units option allows users to specify the units of measurement to be used within Macro Space Management.
User Defined Attributes	User Defined Attributes allows the user to specify the form of certain types of user defined data.
Zone Types	Zone types are broad classes of zones.
Zone Definitions	Zone definitions are zones for specific purposes. Each Zone definition is assigned to a Zone type.

The administration module is explained in detail in the *Oracle Retail Macro Space Management Administration Guide*.

### **Data Import Module Overview**

The Data Import module is used to define and execute import information that needs importing on a regular basis.

**Figure 1-3 MSM Data Importer**

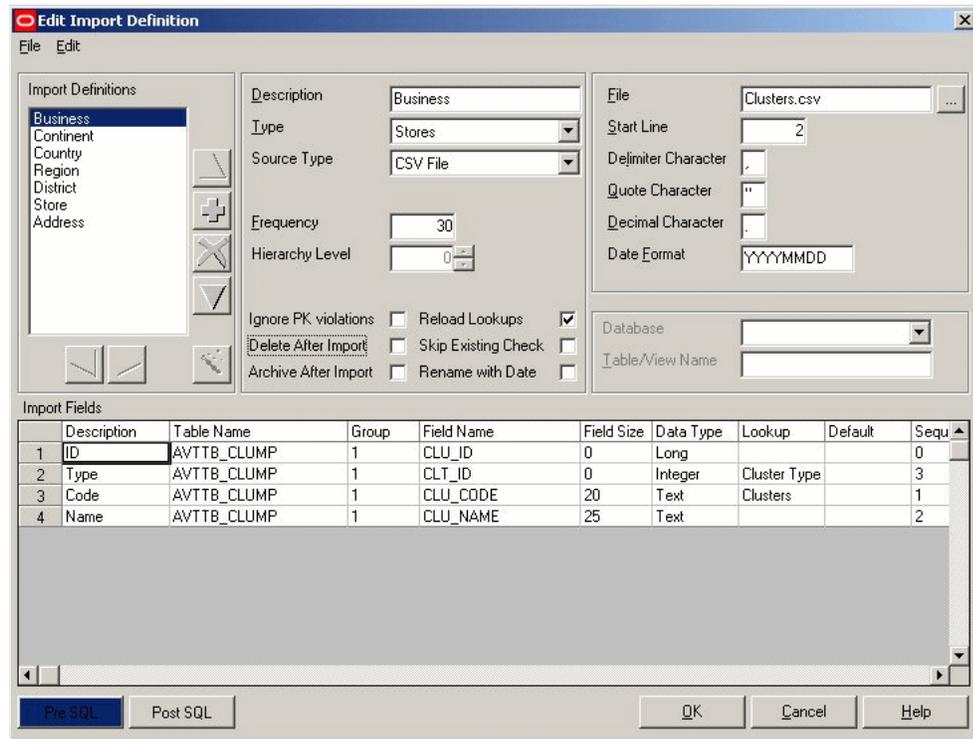
Data is exported from third party databases in a specified CSV (Comma Separated Value) format. This data can then be imported into the central Macro Space Management database using the data import module.

Some import routines are provided as standard with Macro Space Management. These include:

- **Calendar** allows users to carry out data imports to fill the Calendar fields in the central database. Once imported, results can be maintained using the Admin Module.
- **Suppliers** allow users to carry out data imports to fill the Supplier (or Manufacturer) fields in the central database. Once imported, results can be maintained using the Admin Module.
- **Products** allow users to carry out data imports to fill the Products fields in the central database.
- **Sales** allow users to import EPOS (Electronic Point of Sale) data into for performance measurement purposes.

Other import routines can be customized according to requirement. This can be done by using the data importer option (only available to administrators).

**Figure 1–4 Edit Import Definition**



This allows the import of non-standard data from third party software to be set up for customer specific requirements.

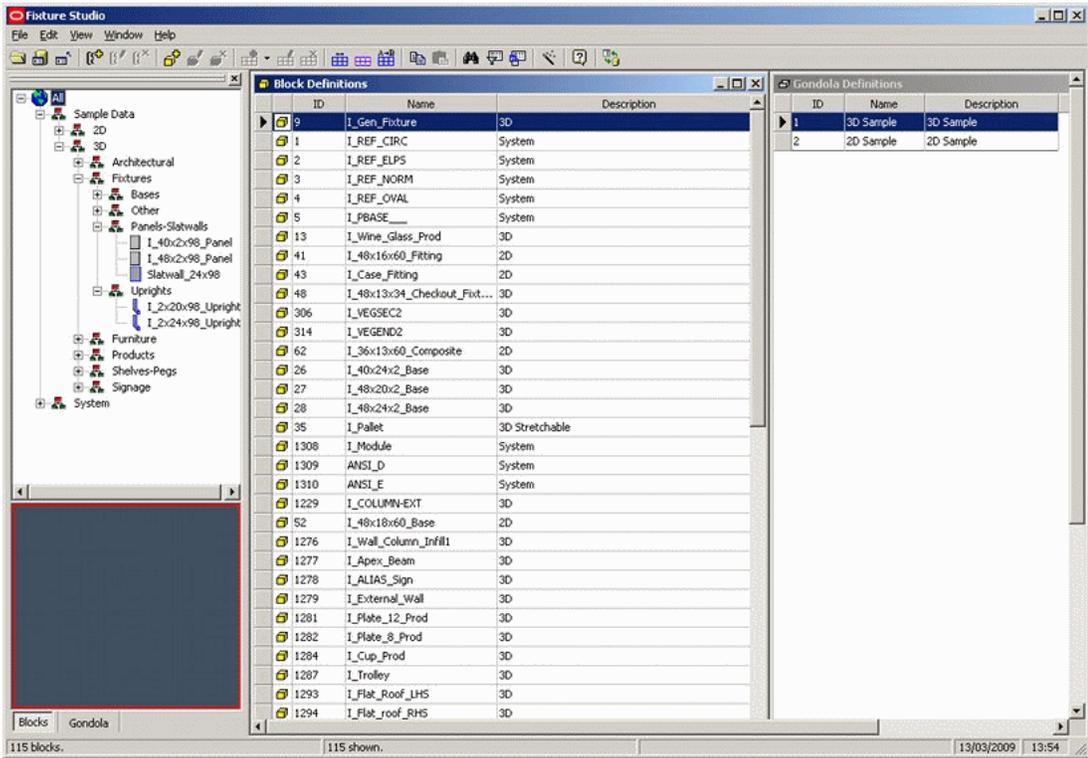
### Planogram Import Module Overview

The Import Module is used to import planograms in bulk from external software such as Apollo or Spaceman.

### Fixture Studio Module Overview

Fixture Studio is a stand-alone module used to assign Macro Space Management properties to Fixtures, Fittings and Gondolas. These are intelligent properties that allow Macro Space Management to gather and analyze a wide variety of data when the fixture, etc. is placed in a store layout drawing.

Figure 1-5 Fixture Studio



A wide range of properties can be assigned including:

Property	Effect
Category	Information on the general class the fixture falls in, what areas is calculated to occupy and how product is stacked onto it.
Insertion	How the fixture is inserted into the drawing and how product is inserted onto the fixture.
Size	The fixture dimensions and whether those dimensions are variable (stretchable).
Connection	How the fixture connects to other fixtures
Parts	What parts the fixture is made up from. (Bolts, castors, etc.)
Fixture	How shelving and products fit onto a fixture
UDAs	What information (User Designed Attributes) is assigned to a fixture.
Styles/Ranges	What styles of shelving and products can be put on the fixture - and what range of temperatures and weights any product placed on the fixture can be.
Merchandisable Areas	What volume can be taken up by merchandise.
Shelf	Details about the angles of any shelving placed on the fixture.
Preview	Allows some aspects of the fixture to be previewed.

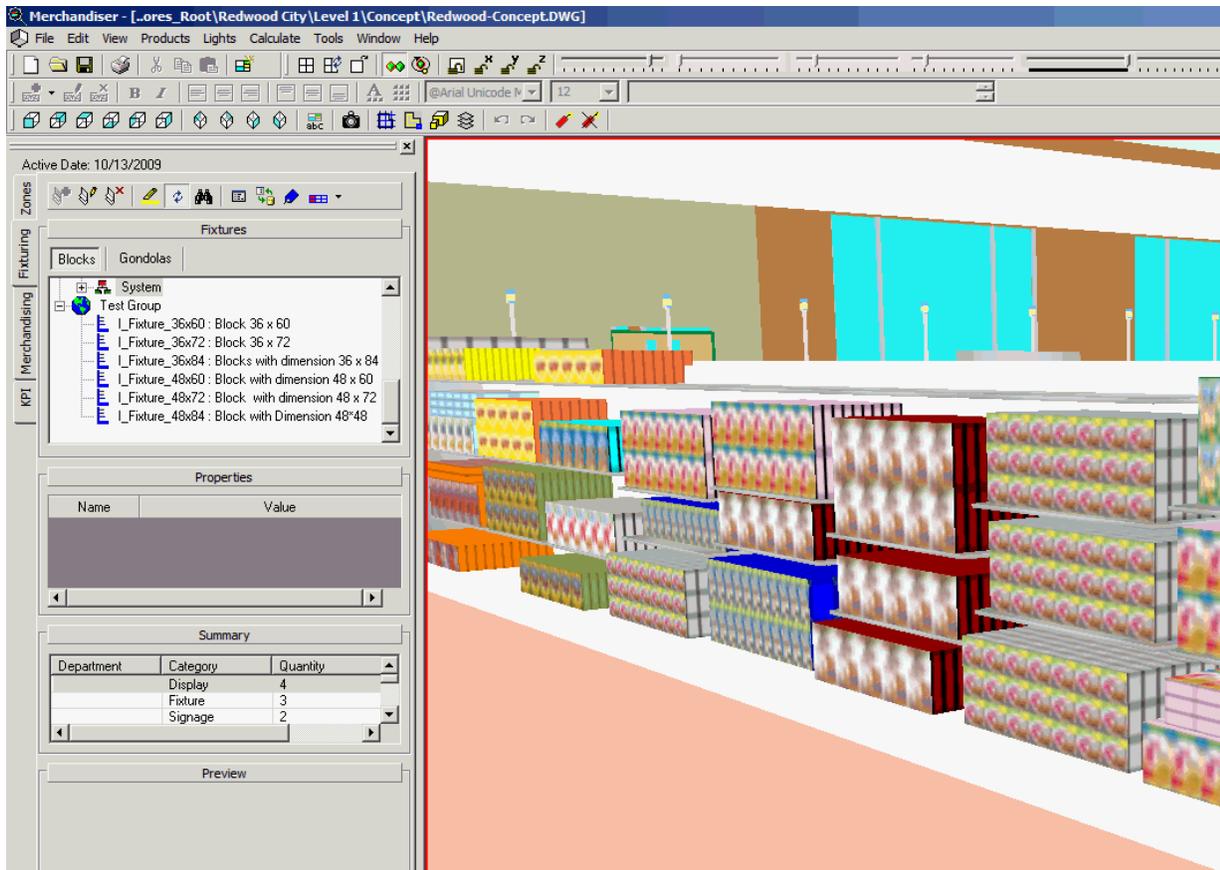
In addition, Gondolas can be created, edited and deleted.

### Merchandiser Module Overview

Merchandiser has two main functions:

- Design of Planograms.
- Store planning in a 3D (Virtual Reality) environment.

**Figure 1–6 Merchandiser Window**



Planograms can be designed in varying levels of detail. These planograms can be arranged in a hierarchy and subsequently used to populate a store.

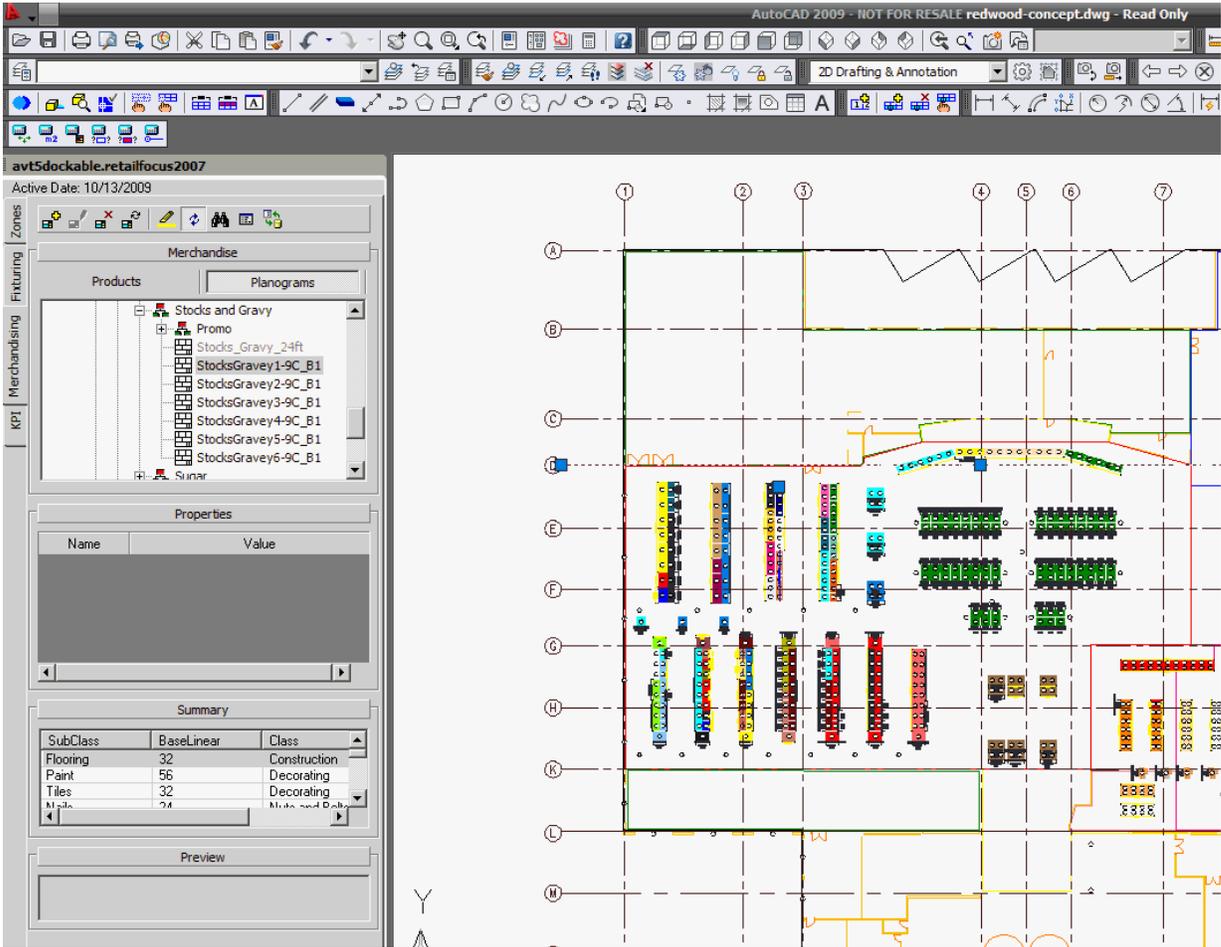
Merchandiser also allows the planograms, and the fixtures on which they have been placed, to be viewed in a Virtual Reality (VR) 3D environment. Using the provided controls, the Macro Space Management user can 'fly' round the VR store.

If required, the user can also take snapshots or short movies of the VR store to demonstrate its appearance to colleagues, suppliers and customers.

### Planner Module Overview

The Planner Module is primarily used for the layout of zones, fixtures, and fittings within a store. It can do this with extreme accuracy. It can also be used to merchandise a store, but will show less detail than the same store if viewed in Merchandiser.

Figure 1-7 Planner Module Window



Starting with an architectural drawing:

- Zones can be placed
- Fixtures and Gondolas can be placed.
- The fixtures and gondolas can be merchandised with placeholders or planograms.
- Reports can be obtained on the store.

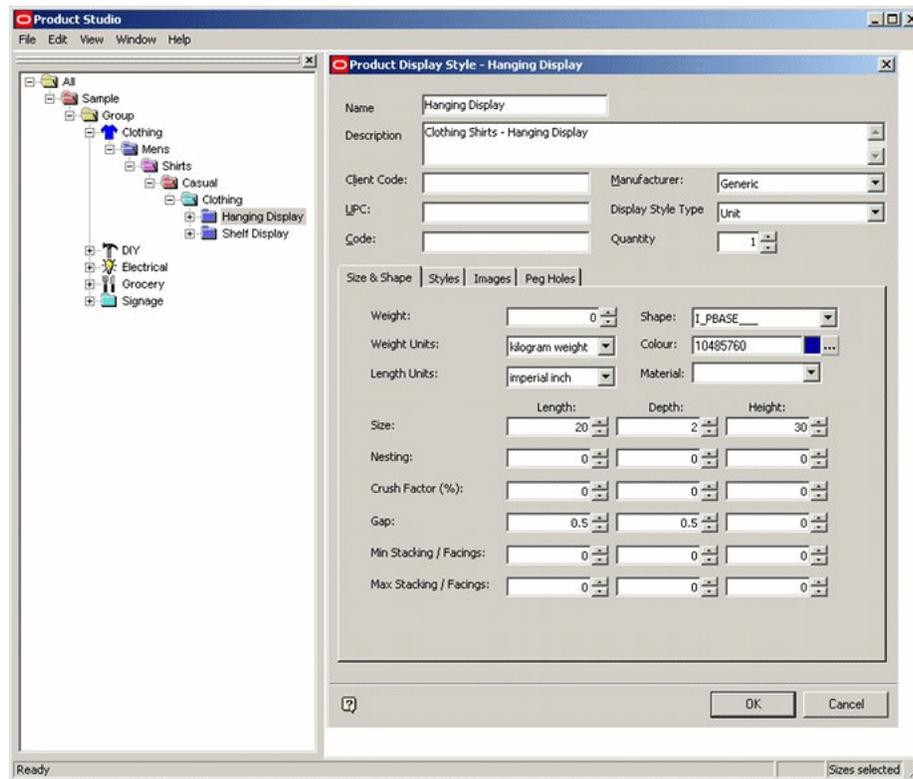
**Product Studio Module Overview**

Product Studio allows the design and editing of product information. This information has two main purposes:

- It allows the dimensions, space around the product, maximum and minimum number of products, etc., to be specified. This allows Macro Space Management to calculate how the product will fit onto a fixture or shelf when the store is merchandised.
- It allows images to be associated with products. This allows a virtual reality representation to be displayed when the product is viewed in a merchandised store in Merchandiser.

These images are arranged in a hierarchy that can be accessed in the Planner and Merchandiser environments.

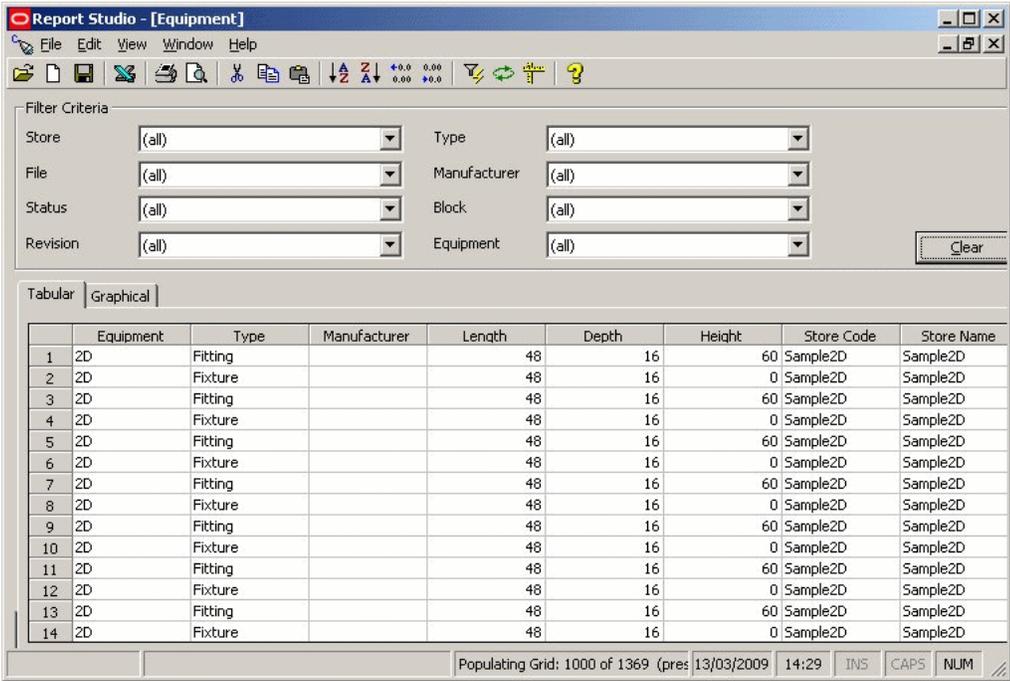
Figure 1–8 Product Studio Window



### Report Studio Module Overview

Report Studio allows the design, production, and review of customized reports giving an overview of the current and historical performance of the varying stores, floors, and revisions within Macro Space Management.

Figure 1-9 Report Studio Window



Reports can be designed using specifying customized lists of data and can be run to generate current information on performance by the retail outlets within Macro Space Management. Already generated reports can be reviewed to provide a comparison between historical and current performance.

**Common Macro Space Management Components**

Some Macro Space Management components can be accessed from a number of modules.

Component	Modules	Purpose
Configuration Module	Admin Module Data Import Module Fixture Studio Merchandiser Planner Product Studio	Used to make changes to Macro Space Management settings that are mainly local in effect.
Store Manager	Planner Merchandiser	Used to administer the available stores belonging to a retail organization.
Object Browser	Planner Merchandiser	User to control operations for zones, fixturing, merchandising and KPIs (performance measurement).
Object Grid	Planner Merchandiser	Used to select fixtures, fittings, gondolas, products and planograms from the list of those available.

These components are used to carry out tasks common to the modules. For example, the configuration module is used to set parameters that can affect how the Admin Module, Data Import Module, Fixture Studio, Merchandiser, Planner and Product studio operate.

### **Configuration Module Overview**

The Configuration Module allows many of the features of Macro Space Management to be switched on or off. It also allows details of servers, directories, files to be customized, and a number of fundamental values set.

Changes made in the Configuration Module can change information held in the Admin Module and vice versa. For more information, refer the *Oracle Retail Macro Space Management Configuration Guide*.

### **Store Manager Overview**

Store Manager is a module within Macro Space Management that allows the administration of Clusters, Stores, Floor, Revisions, and Files.

Macro Space Management contains large amounts of information. This can be as specific as the current contents of a shelf in a single store or as general as the floor plans to be implemented business wide in 6 months time. This mass of information has to be organized and administered. Within Macro Space Management this is achieved by the Store Manager module. For more information, refer the section on [Store Manager Overview](#).

### **Object Browser**

The Object Browser is a separate window on the main screen. It is found in both the Planner and Merchandiser environments and is used to control the various activities within those environments.

Refer section on [Object Browser](#).

### **Object Grid**

The Object Grid provides an alternative to selecting lower level objects in the Object Browser, including the following:

- Zones
- Fixtures
- Products
- Planograms

It is a window that is used in conjunction with the hierarchies visible in the Object Browser and is available in both the Planner and Merchandiser environments.

## **Macro Space Management Activities**

This section lists some of the common activities performed in Macro Space Management. It includes the following sections:

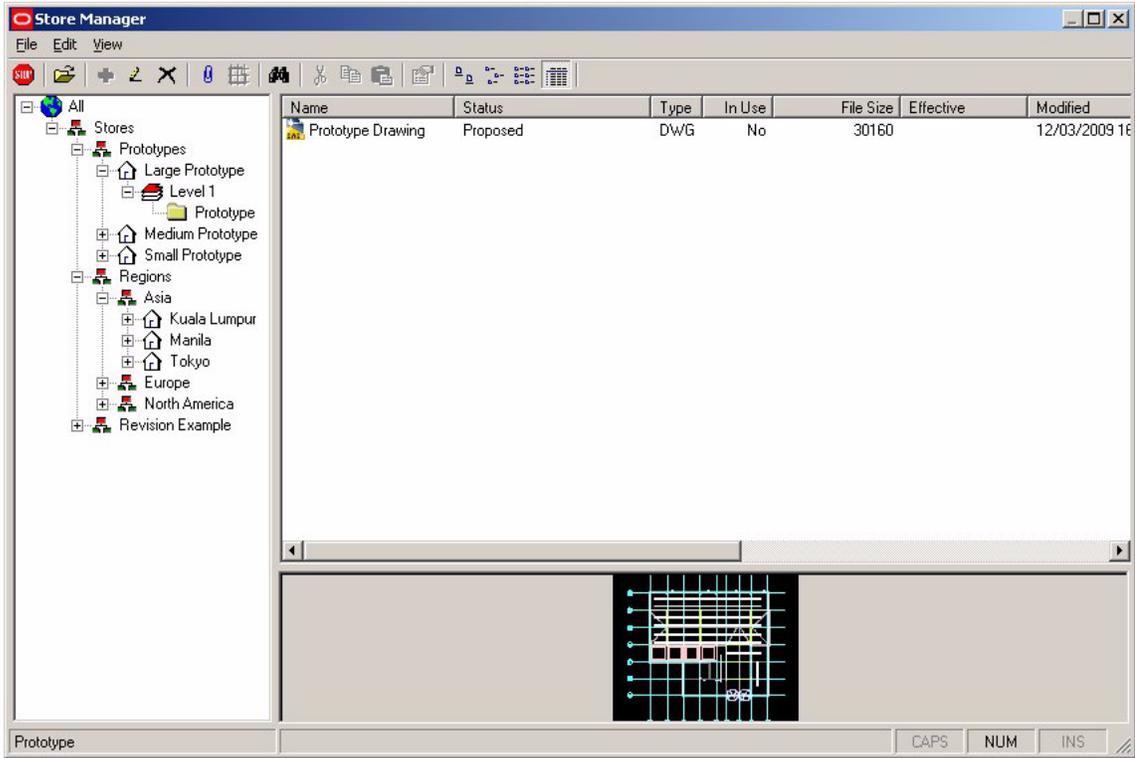
- Organizing Stores
- Zones Overview
- Fixturing Overview
- Merchandising Overview

- KPIs (Performance Measurement)
- Reporting
- Distributing Store Plans to Stores for Implementation

### Organizing Stores

Stores are organized using Store Manager. This can be accessed from either Planner or Merchandiser.

Figure 1-10 Store Manager Window

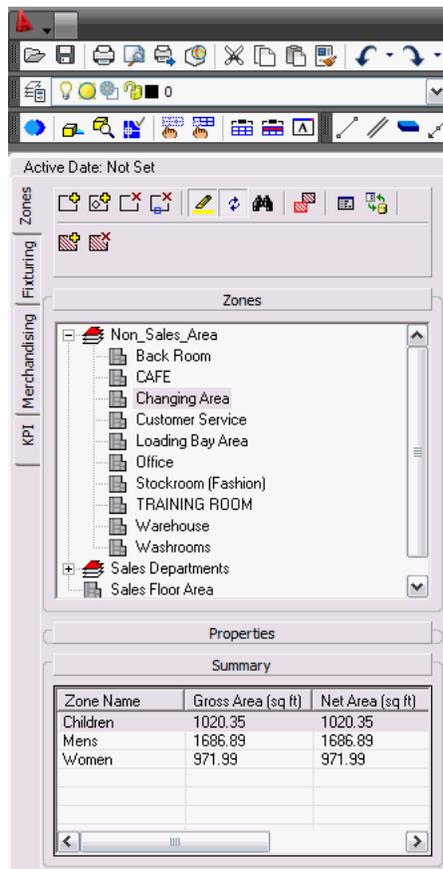


Store data can either be imported from a third party database or it can be created within Macro Space Management.

### Zones Overview

Zones allow the internal area of the store to be subdivided into areas of different purposes. Some Zones have Sales functions; for example, electrical goods, fruit and vegetables, or women's fashion. Other Zones are used for non-sales purposes; for example offices, stock rooms, or toilets.

Zone Types are configured in the Admin Module. Zones are added, edited, and, deleted in Planner using the Zones Tab on the Object Browser.

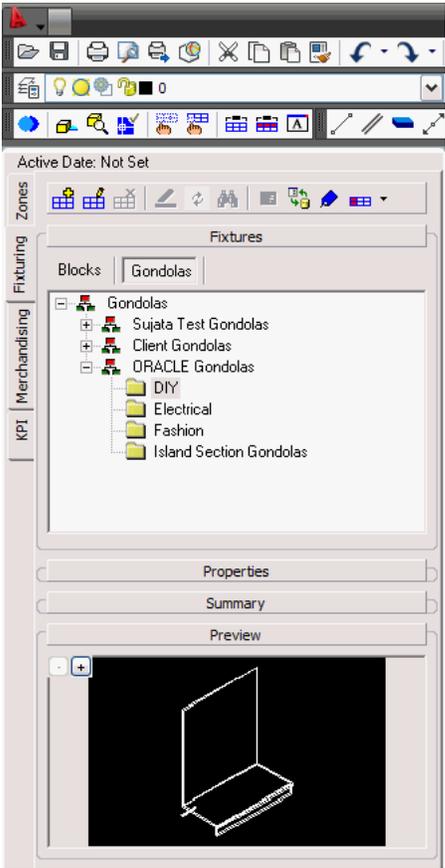
**Figure 1–11 Object Browser - Zones**

### Fixturing Overview

Fixturing is the placement of fixtures, fittings, and gondolas into a drawing to form a coherent arrangement within a store. (The fixtures and gondolas can then be populated with merchandise).

Fixtures are drawn in the Planner environment, then imported into Fixture Studio and given intelligent (Macro Space Management) properties. Once in Fixture Studio, fixtures can be combined to form gondolas. These fixtures and gondolas then become available to Planner and Merchandiser where they can be added, edited, and deleted from the active drawing using the Fixtures Tab on the Object Browser

Figure 1–12 Object Browser - Fixturing

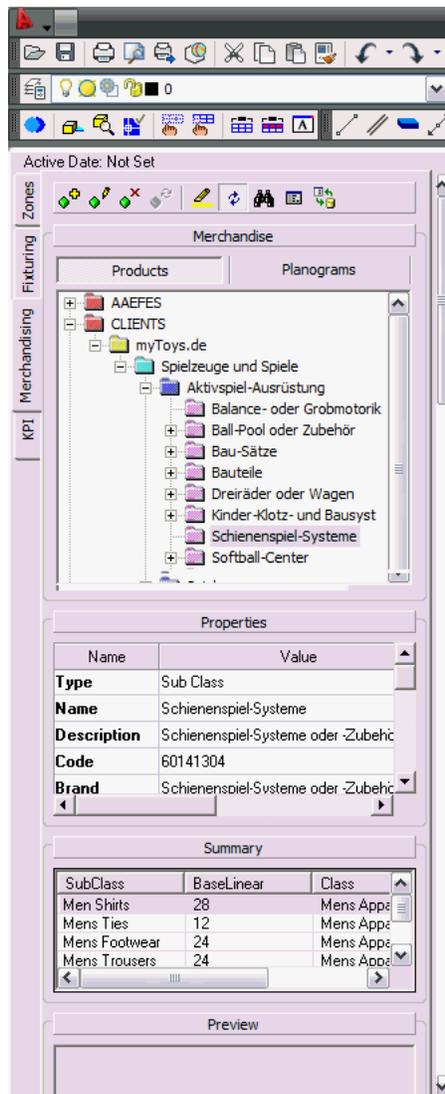


**Merchandising Overview**

Merchandising is the placement of Products or Planograms on the fixtures and gondolas within a store. Products are created, edited, and deleted in Product Studio. Planograms can be imported or created, edited, and deleted in Merchandiser.

Products and Planograms are added, edited, and deleted to fixtures in the drawing using the Merchandising Tab on the Object Browser.

**Figure 1–13 Object Browser - Merchandising**

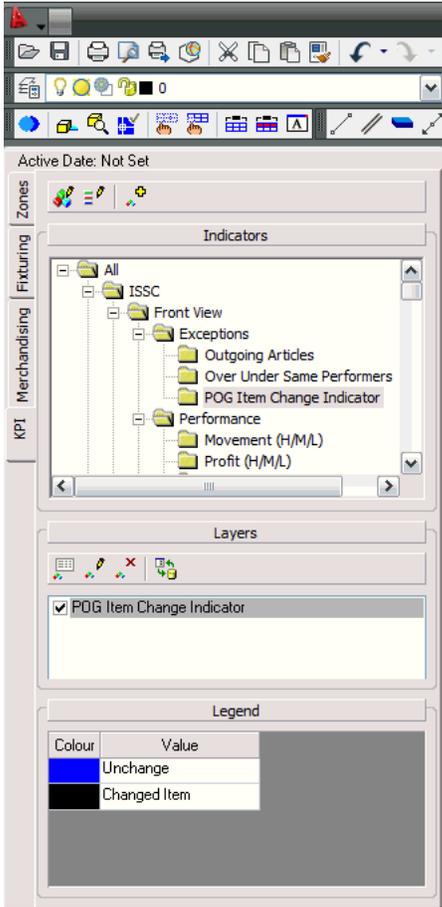


Macro Space Management allows some constraints on what can be placed where. For example styles which will only allow products to be placed on fixtures with a compatible style. Another example is planograms which can only be placed on fixtures that match preset criteria for that planogram.

### **KPIs (Performance Measurement)**

Key Performance Indicators are available within Planer and Merchandiser. They can be applied to imported data (for example EPOS data) or to data within Macro Space Management (for example fixtures that have multiple planograms placed in error).

Figure 1–14 Examples of KPI



KPIs work as follows:

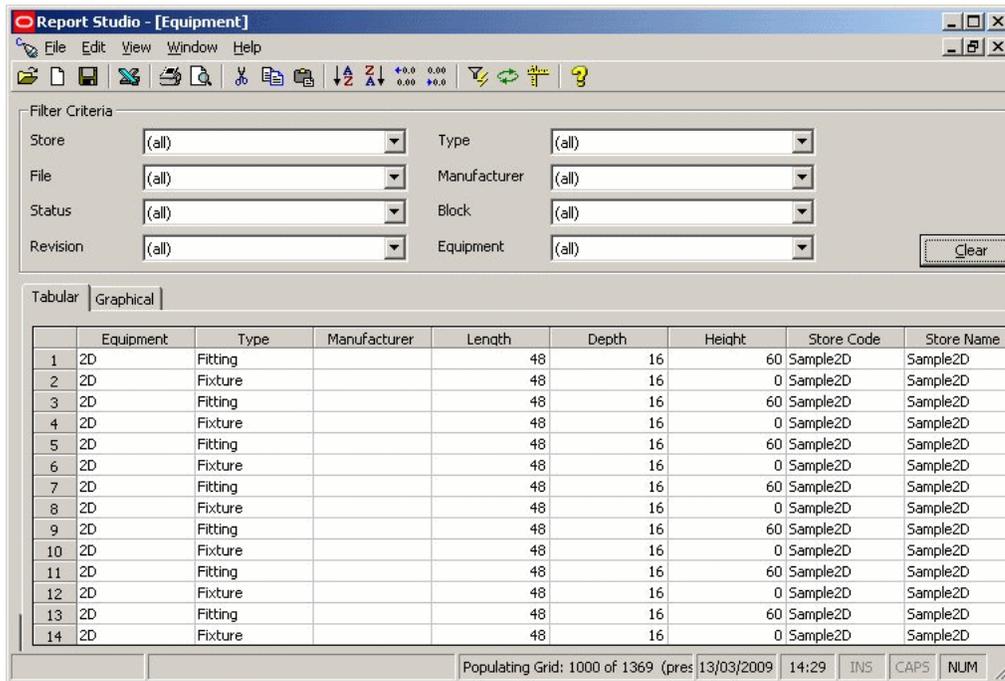
- The base data is selected by means of a SQL script.
- Maximum and minimum expected values are assigned to the data.
- The data range is then assigned to color coded bands.
- The fixtures in Merchandiser are color coded according to the specified criteria.

KPIs can either be configured by the customer or customized by Oracle if required.

**Reporting**

Reports can be obtained either by Report Studio or by other Oracle tools. The figure below is a Report Studio report.

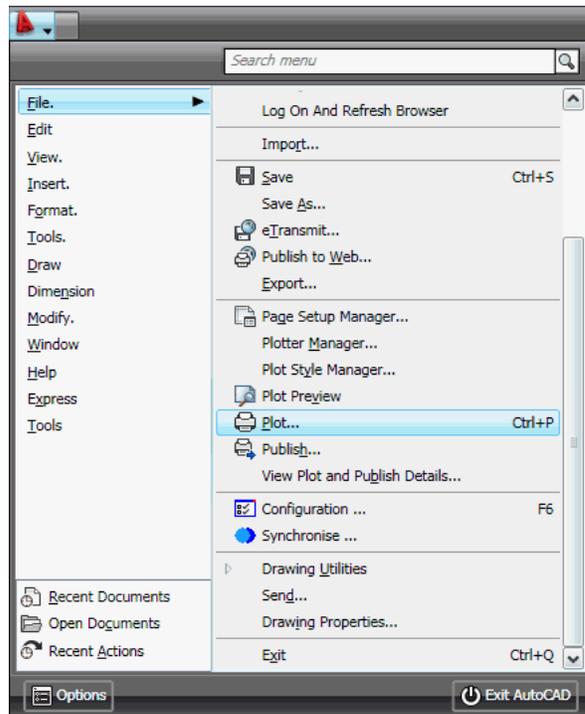
**Figure 1–15 Reporting Studio Window**



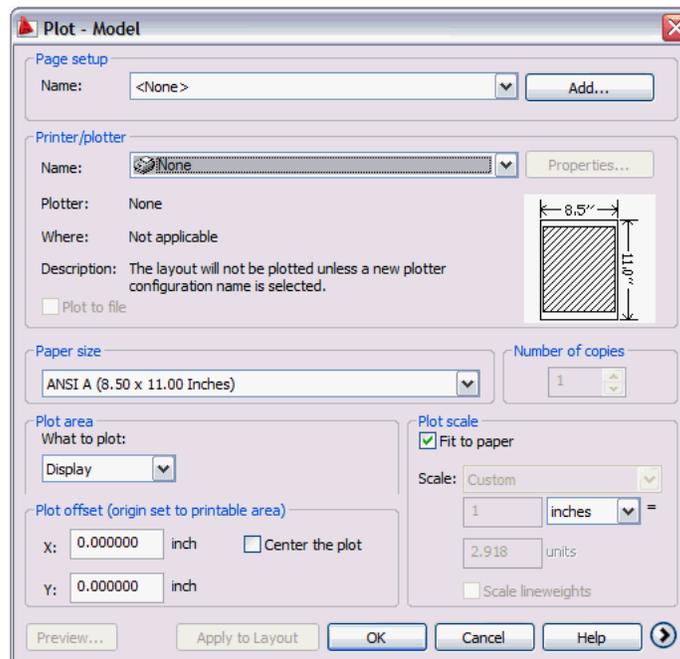
This enables the production of tabulated reports of data. Customizable filters allow the user to extract the precise data required.

### Distributing Store Plans to Stores for Implementation

There are several ways of distributing store plans to stores for implementation. One way is to use the AutoCAD Plot option. This is invoked from the File Menu.

**Figure 1–16 Planner - Plot Option**

This will bring up the Plot dialog box.

**Figure 1–17 Plot Dialog Box**

This allows you to output store plans in several forms including printed, PDF, and DWF file. These can then be sent to the designated store.

## Some Useful Concepts

This section introduces you to some of the following useful concepts:

- [Hierarchy](#)
- [Status and Life Cycles](#)
- [Synchronization and Adjacencies](#)
- [Checking in and checking out](#)
- [Read Only Files](#)

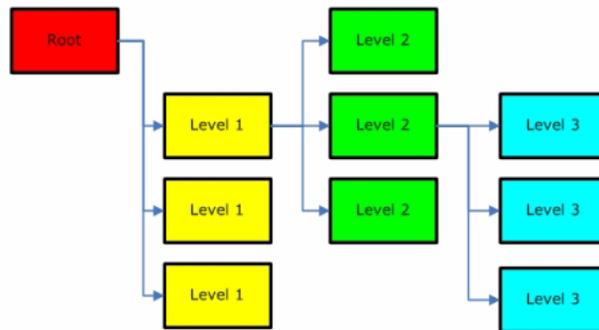
### Hierarchy

Lot of information in Macro Space Management is arranged in Hierarchies. Examples include:

- Stores
- Fixtures
- Gondolas
- Products
- Planograms

A hierarchy is simple a logical way of arranging a list of data. It is in the form of a tree, where you can open out branches in the tree as you move through it.

**Figure 1–18 Data Hierarchy**



In the simplified example below, you can view the hierarchy started at the root (All) and opened it to show 3 level 1 options - Clothing, Electrical Goods and Food & Drink.

Hierarchies can be imported from third party databases or set up within Macro Space Management. The main hierarchies can be added to, edited or deleted from as follows:

Hierarchy	Where Maintained
Stores	Store Manager
Fixtures	Fixture Studio
Gondolas	Fixture Studio
Products	Product Studio
Planograms	Merchandiser

### Status and Life Cycles

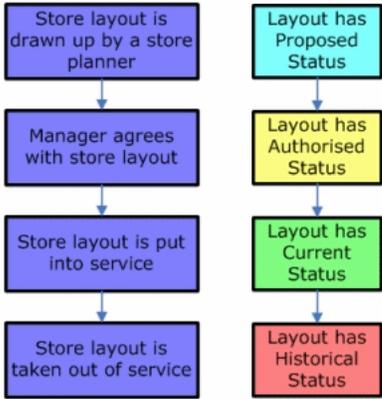
Objects within Macro Space Management go through a life cycle.

Object	Life Cycle
Store	A store could start as a management proposal, then be built and opened. Over the years it could become obsolescent and the decision be taken to close it.
Store Plans	Stores plans go through a series of stages. They could start as a concept, be approved by a manager, go into service at a specified date, become outdated by the passage of time and be retired.
Fixtures	Fixtures could be designed, go into service, then ultimately be replaced by a newer version.
Products	Products (for example special offers) could have a specified life.
Planograms	Planograms (just like products) could have a specified life.

Macro Space Management needs to keep track of where these objects are in their life cycle and it does this through Statuses. A status is no more than a label attached to an object which tells the software (and the user) where it is in its life cycle.

Considering the example of the store above, it would go through the following statuses during its life cycle.

Figure 1-19 Status Example



These statuses could either be changed manually, or be changed automatically when they reach specific dates. (The exact details will depend on how Macro Space Management is configured).

What you can do with objects within Macro Space Management often depends on their status. For example, only one store layout at a time for a floor within a store can have Current status - because in real life you can only have one possible arrangement for a store layout.

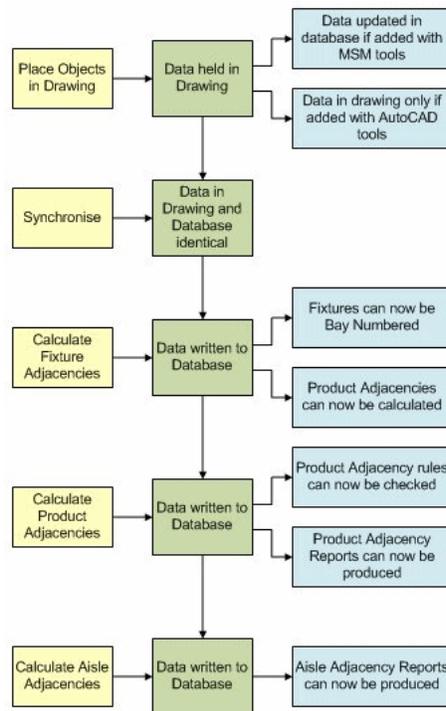
In similar vein, once a store layout becomes Historical - because it has been superseded by another more current layout - it is locked from any further changes.

**Note:** Sometimes you cannot carry out an action in Macro Space Management because the status of the object does not allow it. For example, if a fixture has had its status changed from Current to Old it will no longer be possible to see it in the hierarchy of available fixtures in Planner or Merchandiser (although it can be accessed via Fixture Studio).

### Synchronization and Adjacencies

Synchronization and Adjacency Calculations are essential to the correct functioning of Macro Space Management.

**Figure 1–20 Synchronization Flowchart**



After fixtures have been placed (and edited), Synchronization is run to ensure the details in the central database are the same as those on the drawing. Running Calculate Adjacencies then successively calculates Fixture Adjacency and Product Adjacency. These respectively calculate the relationship of fixtures and products to each other.

### Checking in and checking out

The central Macro Space Management database holds many files. It is important that only one person at a time can make changes to a specific file. This is done by Checking Out and Checking In files.

When an In-Store Space Collaboration or Macro Space Management user opens a file, it is automatically registered as Checked Out. Checked Out files can only be altered by the user who has checked it out. Other users can view the file in Read Only mode, but they cannot make alterations in it.

Checked In files are files that have been closed (and normally saved) by their current user. Checked in files can be opened and altered by any In-Store Space Collaboration or Macro Space Management user.

Checking Out and Checking In are normally automatic, but some files may have to be manually checked in if there has been a system failure. Manual Checking In can only be done using Store Manager in Macro Space Management. In-Store Space Collaboration users have no way to manually check in files.

### Read Only Files

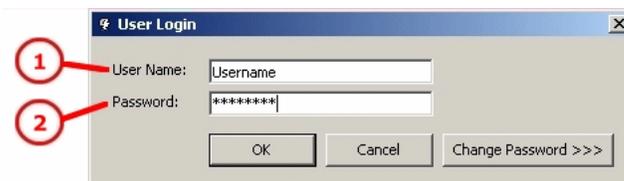
Read Only files are files the user has permission to view but not to change. Within Macro Space Management there are three common reasons why files open as Read Only:

- The file has is in use by another user and has been Checked Out to them.
- The user does not have the privileges to make changes to the file.
- A file has been set to Read Only status by Macro Space Management. An example would be files of Historical status.

## Logging On to Macro Space Management

When Macro Space Management is started a login dialog box appears to enter User Name and Password.

**Figure 1–21 User Login Window**



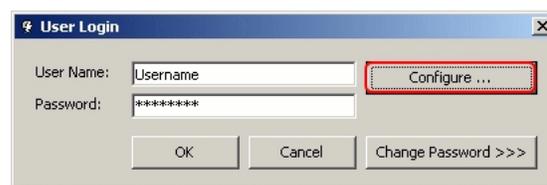
The User Name identifies the individual and specifies the privileges (access rights) they have. The Password which should be kept secret, confirms the identity of the individual logging in.

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**Note:** The Configuration Module can be accessed directly from the log in window for users with Administrator's privileges. The Configure button can be toggled into view by use of <Ctrl + A>. You will not be able to use this option unless you have Administrator's Privileges.

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**Figure 1–22 Configure Login**



## Access Rights and Privileges

This section provides information on the access rights and privileges in Macro Space Management. It includes the following sections:

- [Macro Space Management Privileges](#)
- [Passwords](#)
- [Assigning and Changing Passwords](#)
- [User Privileges](#)
- [Security Server](#)

### Macro Space Management Privileges

Access Rights allow Macro Space Management users different levels of access to the software. They are set in the Admin Module.

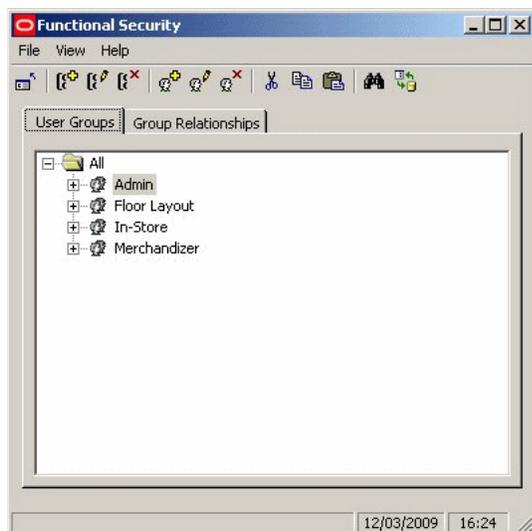
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**Note:** Access to the Admin Module is restricted to a limited number of users. This is because the Admin Module can be used to set a wide variety of parameters affecting how Macro Space Management operates.

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Setting Access Rights is done by means of the Functional Security option, which can be accessed from the Security option.

**Figure 1–23 Functional Security**



Passwords are also initially assigned in the Admin Module, but can be changed by the user.

### Passwords

The Password Format is set in the Admin Module using the Security Options.

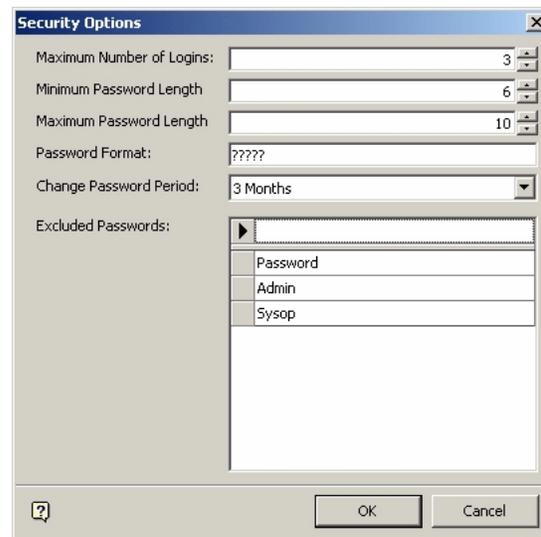
**Note:** Access to the Admin Module is restricted to a limited number of users. This is because the Admin Module can be used to set a wide variety of parameters affecting how Macro Space Management operates.

Depending on these settings a password should have:

- A maximum and minimum length
- A number of permissible log in attempts before the program
- A time period between mandatory password changes

Certain passwords can also be excluded by the Administrator. These would normally be easy to guess passwords such as Password, Admin or Sysop.

**Figure 1-24 Security Options**

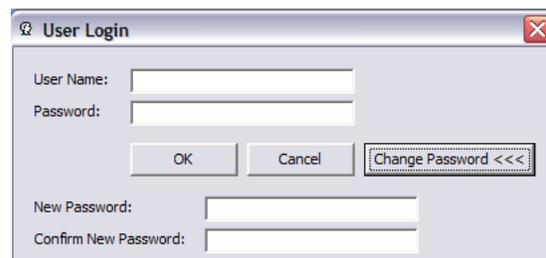


### Assigning and Changing Passwords

Passwords are initially assigned in the Admin Module when a new user is given access rights by an Administrator.

This password can be changed by the user at any time during log in by clicking on the Change Password button. This will bring up an additional dialog that will allow the user to select and confirm a new password.

**Figure 1-25 Change Password**



Depending on settings within the Admin Module, users may also be forced to change passwords at preset intervals. This interval could be daily, weekly, monthly, yearly or never.

### User Privileges

The user **Privileges** (access rights) are determined by the User Group he/she is put into by an Administrator. User Groups are defined within the Admin Module. Each User Group is given access to specified parts of Macro Space Management. For example, users assigned to the Admin User Group would have access to all parts of the program.

Users assigned to the Store Planners group may have access restricted to the Store Manager, Configuration and Fixture Studio Modules, as well as general access to the main part of Macro Space Management.

Users assigned to the *Merchandiser* group may have access restricted to the Store Manager, Configuration, Planogram and Product Studio Modules, as well as general access to the main part of Macro Space Management.

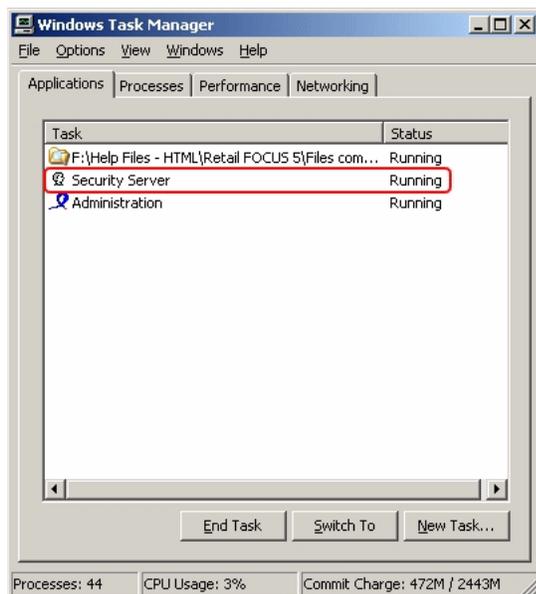
Attempts by the user (with Store Planners or Merchandisers privileges) to gain access to other parts of the program they have not been assigned rights, for example Admin Module, is not allowed. If users do not have access rights to a specific part of a module, those options are not activated and not available to that user.

### Security Server

**Security Server** is a part of Macro Space Management that runs in the background. Once a user has logged into Macro Space Management, Security Server retains a record of the user's access rights. Each time a Macro Space Management user attempts to open another module, Security Server either allows or prevents it, depending on the user's rights.

This means that a user only has to log into Macro Space Management once per session. Its operation can be verified via the Windows Task Manager.

**Figure 1–26 Security Server Window**



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## Common Components of MSM

Macro Space Management application shares some common components across some of the modules. These components are used to carry out tasks common to the MSM modules. For example, the configuration module is used to set parameters that can affect how the Admin Module, Data Import Module, Fixture Studio, Merchandiser, Planner, and Product studio operate.

The common components of MSM are:

- [Configuration Module Overview](#)
- [Store Manager Overview](#)
- [Object Browser](#)
- [Object Grid](#)

The Macro Space Management components can be accessed from a number of modules.

**Table 2-1 Common Components of MSM**

Component	Modules	Purpose
Configuration Module	Admin Module Data Import Module Fixture Studio Merchandiser Planner Product Studio	Used to make changes to Macro Space Management settings that are mainly local in effect.
Store Manager	Planner Merchandiser	Used to administer the available stores belonging to a retail organization.
Object Browser	Planner Merchandiser	User to control operations for zones, fixturing, merchandising and KPIs (performance measurement).
Object Grid	Planner Merchandiser	Used to select fixtures, fittings, gondolas, products and planograms from the list of those available.

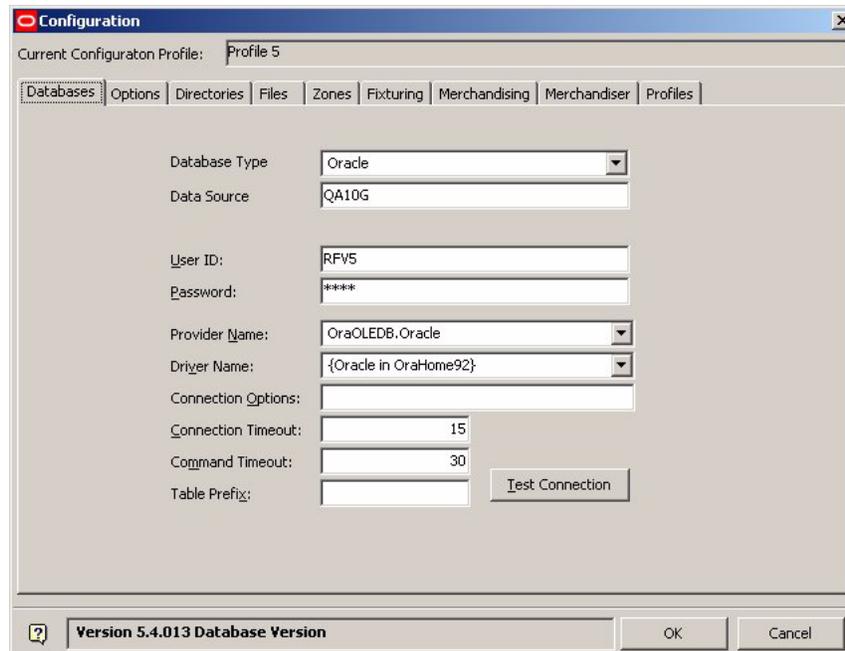
### Configuration Module Overview

The Configuration Module allows many of the features of Macro Space Management to be switched on or off. It allows details of servers, directories, files to be customized, and a number of fundamental values to be set.

The Configuration module allows various Macro Space Management operations to be set to suit the user. The effect of some of these changes are global-changes made affect all users of Macro Space Management and some changes are local-changes made only affects the performance of Macro Space Management on the individual users machine. Current settings for individual users are stored in their active Profile.

For detailed information on the Configuration module, refer the *Oracle Retail Macro Space Management Configuration Guide* or refer the Online help of Configuration module.

**Figure 2–1 Configuration Module**



## Making Changes in the Configuration Module

A number of Configuration Module changes significantly affect the way Macro Space Management operates. Some of these changes not only affect the user's machine, but also affect all other computers running Macro Space Management.

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**Note:** It is recommended that changes are only made if the expected effects are understood. If necessary, discuss the intended changes with your System Administrator, or consult Oracle's Technical Support team.

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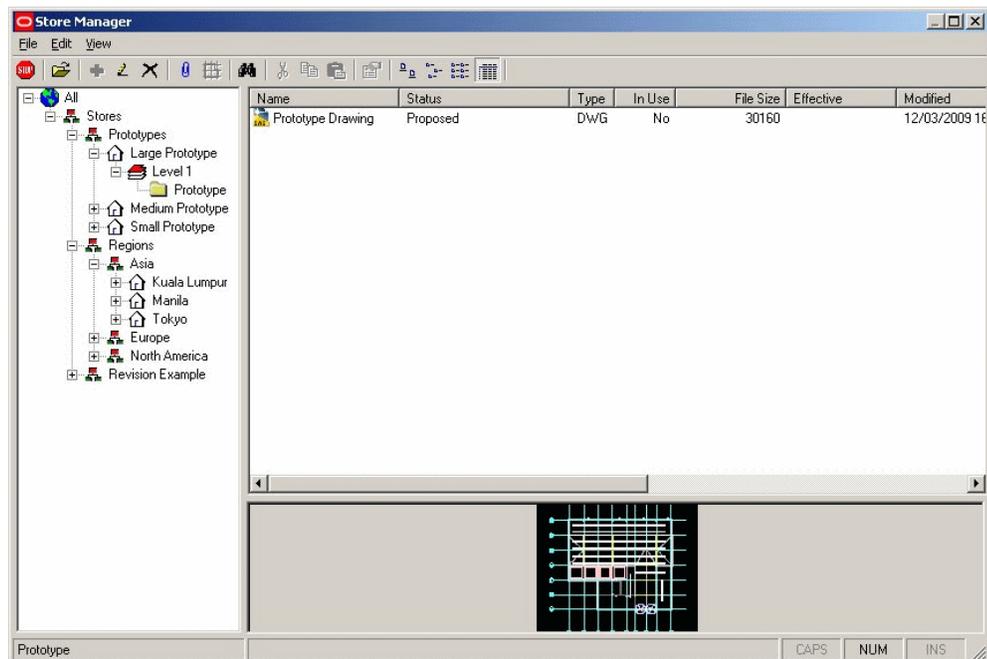
**Recommendation:** If you need to make major changes in the Configuration Module, it is recommended that all modules are closed with the exception of the Administration Module. The Configuration module can then be called from the Administration module.

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## Store Manager Overview

Store Manager is a module within Macro Space Management that allows the administration of Clusters, Stores, Floor, Revisions, and Files.

**Figure 2–2 Store Manager Window**



Macro Space Management contains large amounts of information. This can be as specific as the current contents of a shelf in a single store or as general as the floor plans to be implemented business wide in 6 months time. This mass of information has to be organized and administered. Within Macro Space Management this is achieved by the Store Manager module.

Store Manager operates in a similar way to Windows Explorer. It has been designed to be easy to use and allows information to be grouped in a way that reflects the structure of the organization.

Using Store Manager you can:

- Assign your retail outlets to logical groupings, allowing comparisons and analysis of sales to be made between individual stores or groups of stores.
- Assign or change floor plans for stores, allowing the effects of differing store layouts or merchandising mixes to be evaluated.
- Carry out routine administration on the files used within Macro Space Management.
- Get reports on the data used within Macro Space Management.
- Interface with external programs allowing import and export of data to and from those programs.

## Overview of Store Manager Module

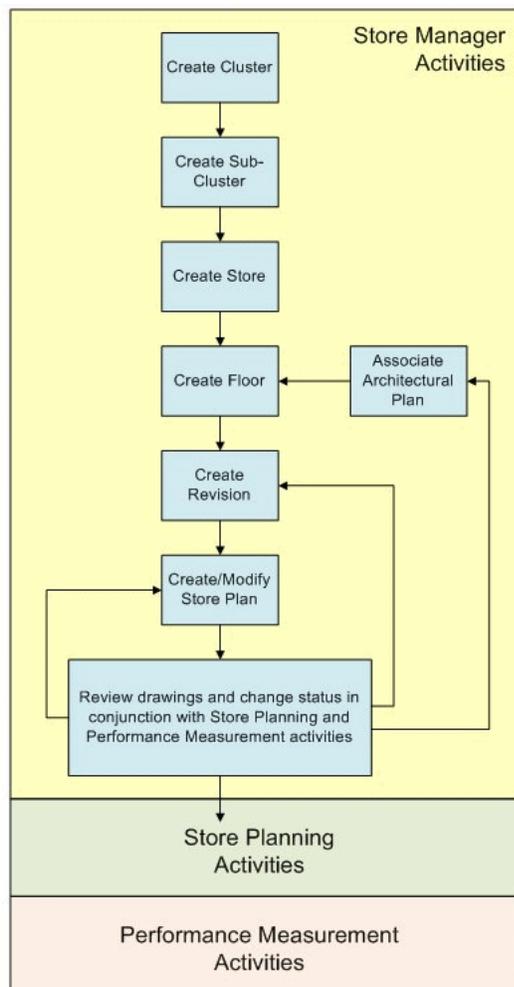
Oracle Retail Macro Space Management application combines the traditional merchandising approach with store planning, construction, operation, and inventory management. It is designed to maximize profitability and returns by enabling the optimum layout and mix of products to be efficiently planned right across an organizations's range of retail outlets.

Macro Space Management contains large amounts of information. This can be as specific as the current contents of a shelf in a single store or as general as the floor plans to be implemented business wide within a specified time period. This mass of information has to be organized and administered. Within Macro Space Management this is achieved by the Store Manager module.

Store Manager operates in a similar way to Windows Explorer. It has been designed to be easy to use and allows information to be grouped in a way that reflects the structure of the organizations.

Store Manager Flowchart

**Figure 2-3 Store Manager Flowchart**



The Store Manager module contains the following sections:

- Basic Concepts
- Accessing Store Manager
- System Variables
- Setting up Store Manager
- Maintaining Store Manager
- Advanced Administration

### **Basic Concepts of Store Manager**

Some of the concepts of Store Manager are:

- [Objects](#)
- [Hierarchical Structure](#)
- [Parent-child relationships](#)
- [Status](#)
- [Publish dates and effective dates](#)
- [Birth Dates and Death Dates](#)

### **Objects**

There are varying types of data used within Store Manager. Each distinct type of data is described as an Object. Objects include:

- Clusters
- Sub-clusters
- Stores
- Floors
- Revisions
- Files

For administrative purposes, these objects are organized within a hierarchy. They often have a status and their use is governed by rules.

### **Cluster**

A Cluster is a logical grouping of Sub-clusters or Stores that meet specified criteria. Examples of possible groupings for Clusters include sub-clusters or stores that are:

- In the same country.
- In the same region.
- Of the same size.
- Of the same turnover.
- Of the same internal layout.

Clusters of a specific type can be further divided into sub-clusters. A cluster is purely used as a container to arrange groupings of stores and behaves in the same way as a folder within Windows Explorer.

### **Sub-cluster**

A Sub-cluster is a sub-division of a Cluster. Sub-clusters are used to allow a finer level of detail when analyzing the performance of groups of stores. For example the cluster of stores labelled England might be further sub-divided into sub-clusters called north, central and south.

If necessary, this process could be continued further, with the north sub-cluster being further divided into, for example, city and suburban sub-sub-clusters.

### **Prototype store**

In some implementations of Macro Space Management a Prototype Store is a store that is used as a basis for comparison for other stores within the Store Manager hierarchy. Prototype Stores can be theoretical, in that they can be designed by marketing staff as an exemplar of what a store should be. They can also be practical examples selected from operational stores.

There can be many Prototype Stores, but each operating store can only have a single Prototype Store assigned to it at one time. Prototype status can be assigned to a store by editing its properties.

### **Stores**

A Store is the unique description of a specific retail outlet. Stores are made up of one or more floors. Stores are normally associated with one or more clusters; although they can, (less usually), be directly associated with the Store Root.

Stores can be associated with more than one cluster. However, this multiple association is merely a series of links to the same store within the central database. Stores act as containers for floors and their associated files.

### **Floor**

A Floor is a distinct physical level within a store. A Floor can contain one or more revisions, (arrangements of fixtures and fittings), associated with it.

### **Revision**

Revision is the name given to a version of the arrangement of fixtures and fittings on a floor. Floors can have many revisions. For example a floor could have Spring, Summer, Autumn and Winter revisions, each representing a planning arrangement to be used at the appropriate time.

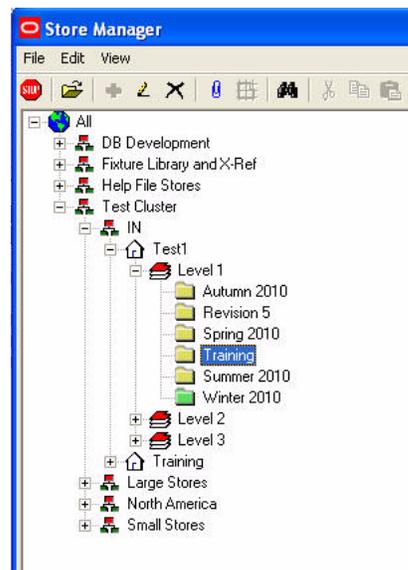
Revisions are often color coded to show their status. Floors can also have different revisions showing different marketing mixes, fixture arrangements, etc. Only one Revision can be active at any one time.

### **Files**

A File is a general description for a category of records. Stores, floors and revisions are all types of file. Note that files can be of different types. For example, a Planogram might be an Planner drawing, while an architectural drawing might have been produced using a different form of software.

### **Hierarchical Structure**

A Hierarchical Structure is one where objects are organized in levels in the form of a tree. This allows objects to be set out in a logical relationship to each other. The more fundamental data is close to the trunk, while the more dependent data is further out on the branches. The most fundamental part of the hierarchical structure is the Store Root.

**Figure 2–4 Example of Hierarchy**

### Parent-child relationships

Some objects within Store Manager are linked together in such a manner that changes to one object may result in changes to other objects linked to it. Such objects are described as being in a parent-child relationship. The object that has dependent objects associated with it is known as the parent, while the objects that are associated with the parent object are known as the children.

In a hierarchical structure, children of one parent can be parents of their own children in turn.

When the status of a parent object is changed; it can often result in changes to the status of child objects. Similarly, the status of parent objects can sometimes only be changed when the status of the appropriate child object is correct. When a parent object is deleted, it affects all the associated child objects. Conversely, a child object can often be deleted without affecting the parent.

### Status

Status defines the current standing of an object within the system. For example, Stores and Floors generally have three statuses.

**Figure 2–5** *Statuses of Stores*

At the beginning of the process, the Store or floor has a *Proposed* status as it is only at the design status. When the store (or floor) has been built, its status will change to *Open*. Finally, if the store (or floor) has reached the end of its useful life, it will be assigned *Closed* status.

Similarly, an arrangement of fittings for a floor layout can be defined as either a *Proposal*, (at the design stage), *Authorized*, (approved for use in the future), *Current*, (in use), or *Historical*, (taken out of service).

The status of an object thus changes as Macro Space Management users move through the business cycle.

#### **Publish dates and effective dates**

Publish and Effective dates are associated with the status of the drawing of a floor plan in some implementations of standard Macro Space Management and the automated Enterprise version of Macro Space Management. The Publish date is the date at which the drawing is issued to the stores. Drawings are typically published a number of days in advance of the time the changes are required.

The Effective date is the date at which the published drawing becomes current. Publish and Effective dates can be turned on by making changes to the OracleTB\_SYSTEM\_VARIABLE table in the database.

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**Note:** It is recommended that users discuss this with Oracle's Technical Support team before making the changes.

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Once enabled, Publish and Effective dates can be used to automatically change the status of revisions and drawings by making use of the UpdateStaus.exe file in the Macro Space Management/Tools sub-directory.

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**Note:** UpdateStatus.exe can be set to run on a daily or weekly basis by the Windows task manager, allowing some degree of automation of common tasks. However, for full automation of common tasks, it is recommended that Macro Space Management users use the Enterprise version of Macro Space Management.

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### Birth Dates and Death Dates

Birth Dates and Death Dates are associated with the status of a revision. The Birth Date is the date at which the Revision becomes active, and the Death Date is the date at which the Revision ceases to become active and becomes Historical.

### RFBin

The RFBin is Macro Space Management's equivalent of the Recycle Bin. Files marked for deletion are sent to the RFBin, but will not be permanently deleted until the Purge option is used in the Tools menu.

### XREFS

XREF is a method Planner uses to link drawings. When you attach a drawing as an XREF, you link that referenced drawing to the current drawing. Any changes to the referenced drawing are then displayed in the current drawing when it is opened.

This is used within Macro Space Management where an architectural drawing can be attached as an XREF to multiple drawings at the same time. This allows a single architectural drawing to be used as a framework on which multiple arrangements of zones, fixtures, aisles and merchandise may be planned.

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**Note:** Using XREF's reduces the quantity of data stored, as each architectural plan is only used once for each floor, not copied under multiple file names.

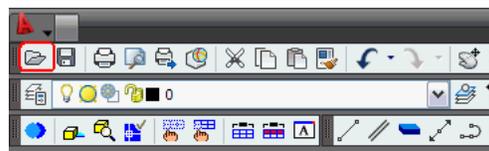
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## Accessing Store Manager

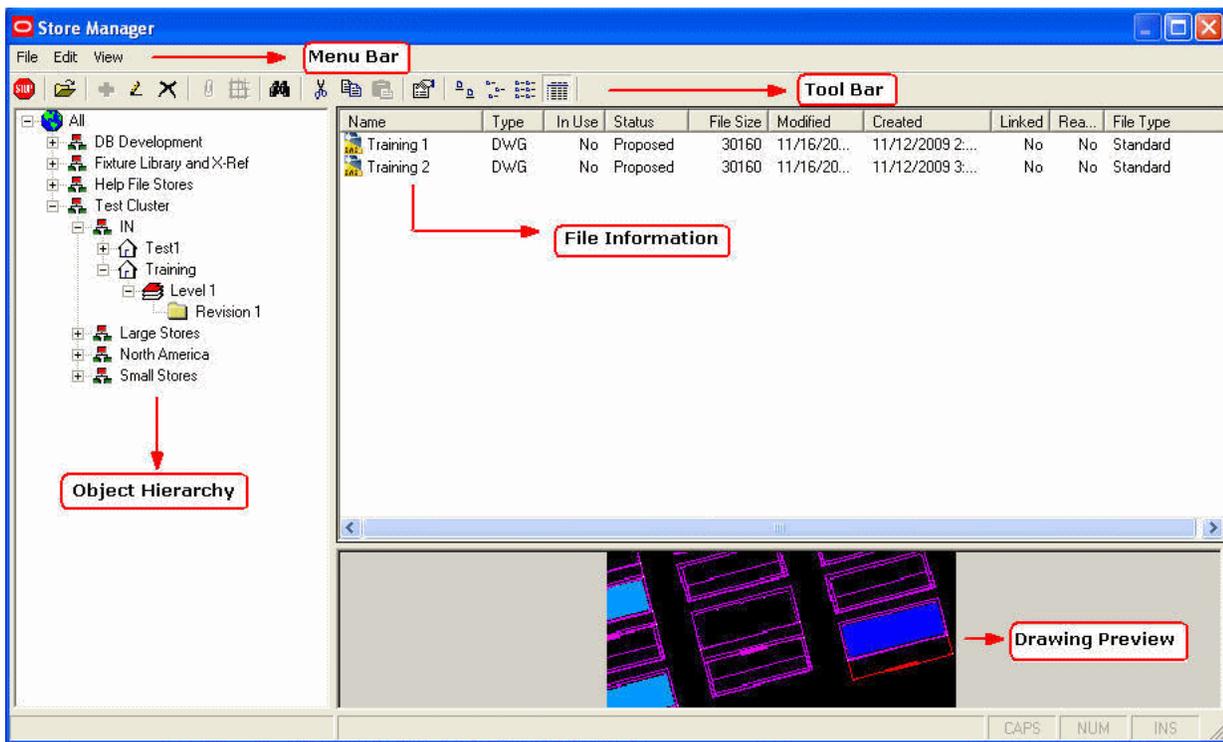
The Store Manager module is accessed by clicking the Open file option in the Macro Space Management menu bar.

**Figure 2-6** Store Manager Button



After clicking the Open file icon, the Store Manager window opens.

Figure 2-7 Store Manager window



- The menu and tool bars can be seen to the top left of the window.
- A frame showing the hierarchical tree of Clusters, Stores, Floors, and Revisions can be seen to the left of the window.
- The files associated with a particular Revision can be seen in the frame to the upper right.
- A preview of the drawing to be selected can be seen towards the lower right.

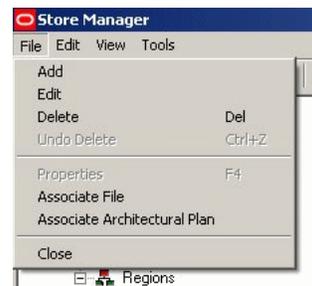
### Store Manager Menu Bar

The Store Manager Menu bar contains the following options:

- File Menu
- Edit Menu
- View Menu
- Tools Menu

### File Menu Options

The File Menu option activates a menu with options primarily concerned with operations on files. This menu can be used to add, edit and delete files and to associate files and architectural plans.

**Figure 2–8 Store Manager File Menu**

To add a file:

1. From the File menu, select Add.  
Depending on the hierarchy level you are at, the corresponding Add dialog box opens. For example, if you clicked at the cluster level, Add Cluster dialog opens; from the store level, Add Store dialog opens.

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**Note:** Some of these may be grayed out depending on the Store Manager function being used.

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**Figure 2–9 Add Store**

2. Enter the Store Code and the Store Name. The Directory name is auto-populated.
3. Enter the Latitude, Longitude, and Status details of the store.
4. Select the Opened Date and Closed Date of the store.
5. On the Store Prototype field, from the list of store prototypes, select one of the option.
6. If you wish to set this store as a prototype, check the box against Set as Prototype.
7. Click OK to continue, or Cancel to cancel adding the store.

To edit a file:

1. From the File menu, select Edit. The Edit dialog opens. Depending on the hierarchy level you are at, the corresponding Edit dialog box opens. For example, if you clicked at the cluster level, Edit Cluster dialog opens; from the store level, Edit Store dialog opens.
2. Edit the required fields and click OK.

To delete a file:

1. From the File menu, select Delete. A confirmation message appears.
2. Click Yes to delete the file or No to cancel the deletion.

The deleted files are displayed in Store Manager with the crossed symbol. You may retrieve the deleted files by selecting the Undo Delete option.

To undo delete:

1. Select the file that you want to retrieve.
2. Select the Undo Delete option from the File menu.

**Properties:** The Properties window displays detailed information on the selected file. For more information, refer sections Significance of Dates and File Identification Numbers.

**Associate File:** For a revision to be fully active, it needs files to be associated with it. This can be done via the file menu. For more information, refer section Associating files.

**Associate Architectural Plan:** Architectural Plans can be associated with Floors. For more information, refer section Associating Architectural Plans.

### Edit Menu Options

The Edit Menu options allows you to cut, copy, or paste files.

**Figure 2–10** Store Manager Edit Menu



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**Note:** Some of these may not be available depending on what Store Manager function is being used.

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### View Menu Options

The View Menu options activates a menu with various options controlling the way Store Manager appears. These can be used to change the way Store Manager displays information.

**Figure 2–11 Store Manager View Menu**

You can select the file display by selecting the Large Icons, Small Icons, List, or Detail from the View Menu option.

- The **Arrange** option allows you to arrange the data displayed on the Store Manager as per your choice. You can choose to arrange the data by name, status, type or by date.
- The **Find** option helps you search for data in the Store Manager. The **Refresh** option refreshes the data in the Store Manager.
- **Options** enables you to customize the view, editing, and performance options in the Store Manager. For more information, refer section Customizing Administration Options.

### Tools Menu Options

The Tools Menu option is available only to administrators and is toggled on and off by using <Ctrl + A>.

**Figure 2–12 Store Manager Tools Menu**

It contains the following options:

- List Checked Out Files
- Purge
- Stores / Cluster View
- Directory Integrity Check

### Store Manager Toolbar

**Figure 2–13 Store Manager Toolbar**

The Store Manager toolbar contains a series of options for administering the objects and files in Macro Space Management. Depending on which operation is being carried out, one or more options may be inactivated (unavailable).

### Configuring System Variables

Some of the variables affecting how Macro Space Management and Store Manager operate can be customized. For example, if you change the status of a parent file, the status of its associated children files gets affected automatically.

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**Note:** Changing these variables can have a significant effect on how Macro Space Management operates. It is strongly recommended that changes are made only after consulting the Oracle technical support team.

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Configuring System Variables is done by accessing the Admin Module making changes using the System Variable option. Some of these system variables only affect the operation of Macro Space Management Generic, others affect the operation of both the Generic and Enterprise versions of Macro Space Management.

- **ENABLE\_FILE\_TRIGGER\_DATE**  
 This system variable may be set to 0 or 1. If set to 0 all file status changes must be made manually. If set to 1 then the file status changes when the *Update Status* module is run and generates an additional status of *Published* between the *Authorized* and *Current* statuses.  
  
 Depending on the settings within the `DIVORCE_FILE_REVISION_STATUS` system variable, changing the status of a parent file automatically changes the status of any children files, with the proviso that there can only be one *Current* file at any one time.
- **DIVORCE\_FILE\_REVISION\_STATUS**  
 This system variable may be set to 0 or 1. If set to 0, all child files change status automatically. If set to 1 the status of any associated child files has to be changed manually when the status of a parent file changes.
- **PUBLISH\_DATE\_LEAD\_PERIOD**  
 This system variable may be set to any positive integer. It determines the number of days between a file being *Authorized* and it being *Published*. It primarily affects the operation of Macro Space Management Enterprise.
- **EFFECTIVE\_DATE\_LEAD\_PERIOD**  
 This system variable may be set to any positive integer. It determines the number of days between a file being published and it becoming effective. Note that when a file becomes effective it becomes the *Current* file. The previous *Current* file then has its status changed to *Historical*. It primarily affects the operation of Macro Space Management Enterprise.

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**Note:** Changing these system variables can have a significant effect on how Macro Space Management operates. It is strongly recommended that changes are made only after consulting the Oracle technical support team.

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### Configuring System Variables affecting In-Store Space Collaboration

Configuring System Variables is done by accessing the System Variable option in the Admin Module.

- **IN\_STORE\_SUBMITSTATUS**

This system variable determines which status a Survey drawing is changed to when the Save Submit option is used in In-Store Space Collaboration. It is normally set to Submitted, but can be set to other statuses.

### Setting up Store Manager

Before Macro Space Management can be used, it is necessary to set up a Hierarchical Tree within Store Manager. This structure enables the stores to be arranged in logical groupings by means of Clusters and Sub-clusters. The performance of individual Stores can be compared against selected Prototype Stores, while the performance of one cluster of stores can be compared against another cluster.

The structure of this hierarchical tree should be carefully considered as it will affect the quality of information that can be produced using Macro Space Management, and hence determine the effectiveness of Macro Space Management as a tool for improving the profitability of a business.

### Planning the Structure

Typical information needed to plan how individual stores should be assigned within the structure includes:

- Store Size
- Store Turnover
- Store Location
- Store Demographics

Criteria can then be developed as to cluster types and whether individual stores should be assigned to single or multiple clusters. For example, a store could be associated with three separate and distinctive clusters. One cluster would enable the store to be compared against those in other regions, one against stores of similar turnover, and the third against stores of similar size.

Consideration should also be given to which stores can be designated as Prototypes for comparison purposes. Correctly assigned prototype stores will allow swift and effective comparison of individual store performance against an exemplar. A correctly planned structure can significantly improve the performance of a retail organization - a poorly planned structure could prevent the full power of Macro Space Management being used.

### Data Import

You can import data using the Data Import module of the Macro Space Management application. This enables data to be imported from external databases into the Macro Space Management central database.

To import data:

1. Open the Data Import module from Start > All Programs > Oracle Corporation > MSM > Data import.
2. Select the data that you want to import by checking the box.
3. Click **Import Data**. You can view the Log files by selecting Import Log / Import error log from the View option.
4. When done, click **OK**.

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**Note:** Oracle's consultants can configure the exact nature of the data import so that specified data is selected from the designated databases and imported into the required fields within Macro Space Management's central database.

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Some companies set up Macro Space Management starting from scratch, manually entering all data as it is developed. Most of Oracle's customers have pre-existing data. Oracle's consultants can find the most effective way of importing this data into Macro Space Management.

## Maintaining Store Manager

### Significance of Dates

There are a series of dates associated with individual files. These can be seen both in the Store Manager file display and in the properties tab for each file.

**Figure 2–14 Store Manager**

Name	Type	In Use	Status	File Size	Modified	Created	Died	Linked	Read Only	Archive Date
0001_04VT-61	DWG	No	Current	178006	11/01/2007...	16/11/2006	16/02/2007	No	Yes	
Proposal3748	DWG	No	Historical	26656	11/01/2007...	27/10/2006	10/01/2007	No	Yes	
0001_04VT-611	DWG	No	Pending	178006	11/01/2007...	05/12/2006		No	No	
0001_04VT-6111	DWG	No	Proposal	178006	10/01/2007	07/01/2007		No	No	

Figure 2–15 File Properties User Interface



- **Created** is the date at which the file was created.
- **Accessed** is the date at which the file was last viewed (without making any changes to the file).
- **Modified** is the last date at which changes to the file were saved.
- **Last Modified by** is the user name of the last individual to modify the file.
- **Last Published** is the last date at which the file was published.
- **Archived** indicates if the file has been moved to the Archive database.
- **Publish** is the date the file is set to be published on. (If the file has been published this date will be greyed out).
- **Effective** is the date at which the file will become current at. (If the file is Current or Historical this date will be greyed out).
- **Died** is the date at which the file has lost or will lose current status. (This date will be in the future if the file has *Current* status, and in the past if it has *Historical* Status).

### File Identification Numbers

Each drawing within Macro Space Management has a File Identification Number. This can be found by opening the Properties dialog box associated with that drawing. The File ID can be seen on the lower right.

### Saving and back-ups

The Planner Module can be set to automatically save Planner drawings at regular intervals. This can be done during installation of Macro Space Management - consult Oracle's Technical Support Team for further information.

The database for Macro Space Management should be saved at regular intervals and back-up data stored in a safe place.

## Building the Structure

### Adding Clusters

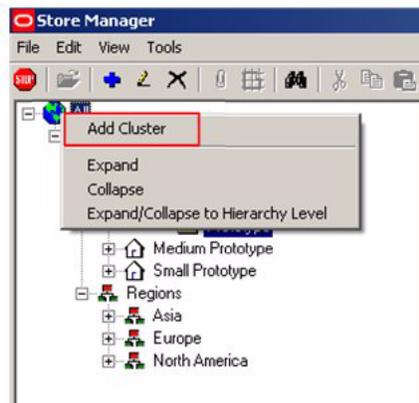
Clusters are containers used to group together stores of a specific type. For example, all stores in a geographic region, all stores of a particular size, or all stores serving a particular population demographic. Unlike stores (and their associated child objects) they do not result in a folder in the Windows file structure. Clusters can have other clusters, called sub-clusters, as child objects.

Multiple clusters improves options for reporting and manual finding of stores within the Store Hierarchy.

To add a cluster:

1. From the hierarchy tree in Store Manager, click the Store Root to highlight it.
2. With the mouse pointer over the Store Root icon, right click to bring up the drop down menu.

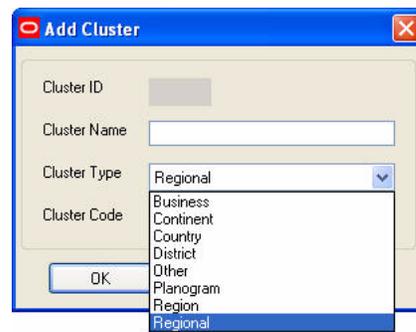
**Figure 2–16 Add Cluster Window**



3. Select Add Cluster. The Add Cluster dialog box appears.

**Figure 2–17 Add Cluster Dialog Box**

4. Enter Cluster Name and Code and select the Cluster Type from the drop down list. Selecting the correct Cluster Type is important as this information will be used for reporting purposes. If clusters are allocated to the wrong type, errors will occur in reporting.

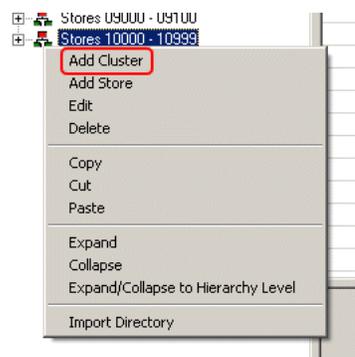
**Figure 2–18 Add Cluster Dialog Box - Cluster Type**

5. Click OK.

### Editing Clusters

To edit a cluster or add sub-cluster to an existing cluster:

1. Click on the existing cluster to highlight it and right click to view the drop down options.

**Figure 2–19**

2. Select Add cluster. The Add Cluster dialog box appears. If you want to edit the cluster details, select Edit. The Edit Cluster dialog box appears.
3. Enter the required information and click OK.

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**Note:** The list of drop down options is customizable. Please consult Oracle's Technical Support team for information.

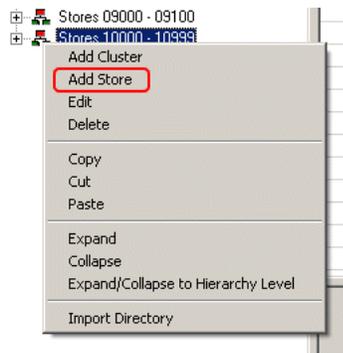
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### Adding Stores and Prototype Stores

Stores can be associated with one or multiple clusters. Stores act as containers for floors and their associated files.

To add a Store:

1. From the hierarchy tree in Store Manager, click the Cluster icon to highlight it.
2. With the mouse pointer over the cluster or sub-cluster icon, right click to view the drop down list. Alternatively, highlight the select cluster and select Add from the File menu option or select the plus sign from the Tool bar.

**Figure 2–20 Add Store**

3. Select the Add Store option. The Add Store dialog box appears.

**Figure 2–21 Add Store Dialog Box**A screenshot of the 'Add Store' dialog box. The 'General' tab is selected. The dialog contains the following fields and controls:

- Store ID: (empty)
- Store Code: E123
- Store Name: Example
- Directory Name: Example
- Latitude: 0
- Longitude: 0
- Status: Open (dropdown menu)
- Opened Date: 09/03/2009 (calendar icon)
- Closed Date: 31/12/2999 (calendar icon)
- Store Prototype: Medium Prototype (dropdown menu)
- Set as Prototype:

Buttons for 'OK', 'Cancel', and 'Help' are at the bottom.

4. On the General tab, enter the following information:
  - Store code
  - Name
  - Latitude
  - Longitude
  - Status
  - Opened Date
  - Closed Date
  - Store Prototype: If the store is not a prototype, select the Prototype Store from the drop down list at the bottom of the dialog box. If the store is designated as a Prototype, then selecting a prototype store from the drop down list is not possible.
  - Set as Prototype

5. Select on the Units tab and select the required units for Display and Input measure of units.

The units set in the Units tab are for information purposes only, and will not have any direct effect in current implementations of Macro Space Management.

6. Select on the Address tab and enter the required information.
7. Select the Attributes tab and enter the value for each of the property.
8. Click OK when done.

You can edit the information for a store by selecting the Edit option.

### Prototype Stores

Stores can be designated as Prototype Stores. Once designated as prototype stores, they can be assigned to other stores to act as a basis for comparison. For example when laying out zones, fixtures, and merchandise in a new store, it is possible to compare the parameters for those in the new store with those present in the prototype store.

Prototype Stores can be used in reports for comparing stores with prototype store, can be used in Summary Window in Object Browser to compare Store with Prototype and can be used in Custom SQL in Object Grid, for example to color code results.

### Comparing Store to Prototype

Once a store has been assigned a prototype, comparisons can be drawn between the store and its prototype. Examples of comparisons that could be made are:

- Areas of zones
- Numbers and types of fixtures placed
- Numbers and types of merchandise placed
- Financial performance

Once a store has been assigned a prototype, there are number of ways of making comparisons. Examples include:

- Using the Object Browser
- Using KPIs
- Using external reports such as Oracles BI Publisher.

For example, the Summary Window in the Object Browser contains information on the Zones, Fixtures and Merchandise in the current store and its assigned prototype. By use of custom SQL, comparisons can be made between the area of a zone (department) in the current store and the prototype it is being compared to.

**Figure 2–22 Summary Window**

Zone Name	Gross Area (sq ft)	Net Area (sq ft)	Prototype Gross Area (sq ft)	Prototype Net Area (sq ft)
MEAT FRESH AND FROZEN	0	0	1808.11	1808.11
MENSWEAR	5318.97	5318.97	11229.39	11229.39
NON SALES AREA	2409.09	2409.09	7086.82	7086.82
OFFICES	1510.02	1510.02	4426.96	4426.96
PHARMACY	0	0	1668.71	1668.71
PRODUCE	0	0	1428.32	1428.32
SALES FLOOR SPACE	20121.59	20121.59	60337.62	60337.62
SHOES	0	0	591.46	591.46

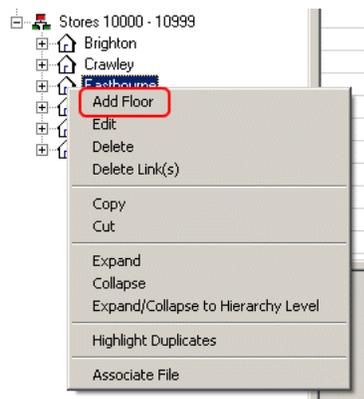
## Adding Floors

A floor can only be associated with a store. Floors have types used to indicate if the floor is a ground, basement, first floor etc. A floor can contain revisions, associated files, drawings & architectural drawings.

To add a floor:

1. From the hierarchy tree in Store Manager, select the store to which you want to add floor.
2. With the mouse pointer over the store icon, right click to view the drop down list.

**Figure 2–23 Add Floor**



3. Select the Add Floor option. A dialog box comes up. Alternatively, click on the plus sign to add an Item in the toolbar.

**Figure 2–24 Add Floor Dialog Box**

 A screenshot of the 'Add Floor' dialog box. The dialog box has a title bar with 'Add Floor' and a close button. It contains several fields: 'Floor ID' (empty), 'Floor Type' (dropdown menu with 'Level 2' selected), 'Description' (text box with 'Level 2'), 'Directory' (text box with 'Level 2'), 'Status' (dropdown menu with 'Existing' selected), 'Allocated Area' (spin box with '0'), 'Percentage Tolerance' (spin box with '0'), and 'Elevation' (spin box with '0'). There is an 'Edit Levels ...' button next to the 'Elevation' field. At the bottom, there are 'OK', 'Cancel', and 'Help' buttons.

4. Select the Floor Type.
5. If you want to enter additional information, edit the Description of the floor; else you may retain the default value which is the Floor type.
6. If necessary, edit the Directory. (This is the name that will be given to the associated directory).
7. Select the Status of the floor. Available options are:
  - Proposed

- Existing
- Closed

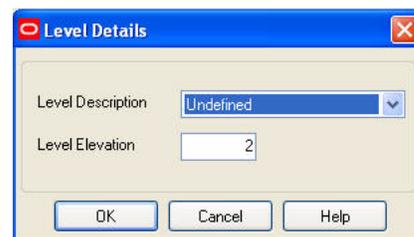
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**Note:** Only one floor at each level can have Existing status at a time. If a floor at the level being added already has Existing status, a message stating "A floor already exists of this type" will appear. To give the new floor Existing status, the status of the floor with current Existing status will have to be changed.

---

8. Set the Allocated Area % Tolerance to any figure up to 100%. This figure is used to check the allocated area of the floor meets a specified level of efficiency. For example, setting the percentage to 95 % will result in a warning if the planning of fixtures and fittings results in less than 95% of the floor area being allocated.
9. Enter the Elevation value. The Elevation option allows the merging of floors for planning purposes.
10. Select the Edit Levels option to edit the levels. It allows fixtures to be located at higher than floor level. An example would be display cabinets placed high on the wall.

**Figure 2–25** *Level Details*



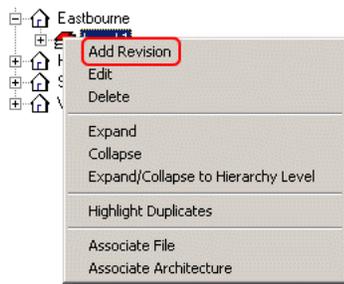
11. Click OK to add the floor.

### Adding Revisions

Revisions are alternative layouts for floors. Changing from one Revision to another allows the layout of a floor to be changed, (for example), from the Spring to the Summer arrangement.

To add a revision:

1. From the hierarchy tree in Store Manager, select the floor.
2. With the mouse pointer over the store floor, right click to view the drop down list.

**Figure 2–26 Add Revision**

3. Select the Add Revision option. A dialog box comes up. Alternatively, click on the plus sign on the tool bar to add an Item.

**Figure 2–27 Add Revision Dialog Box**

4. Enter the Revision Number. If you inadvertently select an existing revision number, the revision number will default to the next available number.
5. Enter the Revision Description and Revision Directory Name.
6. Select the status of the revision from the available options:
  - Proposal
  - Authorized
  - Current

---

**Note:** At this stage it will only be possible to set the revision status to "Proposal".

---

7. Set the season to one of the available options.
  - Spring
  - Summer

- Autumn
  - Winter
  - All
8. The Birth date will automatically set to the current date. The Death date will automatically set to 31st December 9999. Neither the Birth nor Death date need changing at this stage.
  9. If you want to add a proposal drawing, check the box against Add Proposal Drawing.
  10. Click OK to add the Revision.

### Associating Architectural Plans

Architectural Plans can only be associated with Floors. An example of a file of this type would be a Planner drawing (file extension \*.DWG).

To associate an Architectural Plan with a Floor:

1. From the hierarchy tree in Store Manager, select the floor to which you want to associate plan.
2. With the mouse pointer over the floor, right click to view the drop down list, and select Associate Architectural Plan.

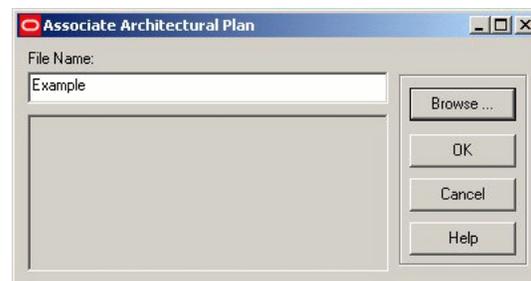
**Figure 2–28 Associate Architectural Plan**



Alternatively, you can select the Associate Architectural Plan icon from the toolbar.

The Associate Architectural Plan dialog box comes up.

**Figure 2–29 Associate Architectural Plan dialog box**



3. Click on the Browse button and select the required file.
4. Select the file and click Open to confirm. This will return you to the Architectural Plan dialog box.
5. Click OK on this dialog box to confirm the Architectural Plan to be associated.

### Associating Files

For a revision to be fully active, it needs files to be associated with it. This can be done via the file menu.

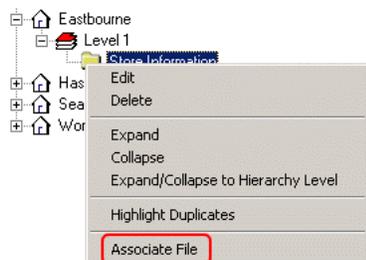
**Figure 2–30 Associate File**



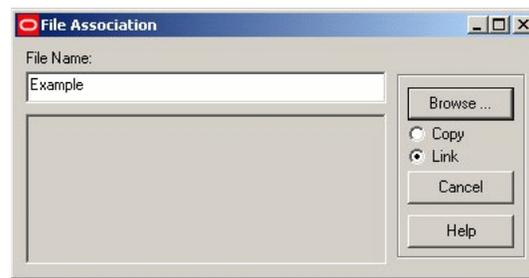
To associate a file:

1. From the hierarchy tree in Store Manager, select the revision by clicking on it.
2. With the mouse pointer over the revision, right click to bring up the drop down list. Alternatively, you can use the associate file icon on the toolbar.

**Figure 2–31 Associate File**



3. Select the Associate File option. The File Association dialog box comes up.

**Figure 2–32 File Association dialog box**

4. Click the Browse button and select the required file.
5. Click OK to confirm. Or you may link or copy a file.

---

**Note:** Macro Space Management will automatically update files that are linked if they are changed or modified by an external program. Copied files updated by Macro Space Management may not have their original versions changed.

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## Modifying and Deleting the Structure

### A Note on Parent-child Relationships

When deleting clusters, sub-clusters, stores, floors or revisions, it should be noted that all associated child files will be deleted along with the parent file.

These files are not permanently deleted and can be recovered by use of the purge option in the Admin functions in the Store Manager module, (accessed by <Ctrl + A>).

Changing the status of a revision may also affect the status of an associated child file.

### Moving Stores between Clusters

To move a store from one cluster to another:

1. Select the store.
2. Click the right mouse key and select Cut.
3. Paste the store on to the required cluster.

Alternatively, you can move the store by dragging the store icon to the required cluster. Multiple stores can be selected by using the mouse key in conjunction with the <Shift> or <Control> keys.

### Putting stores into multiple clusters

A cluster, (or sub-cluster), is used to group together stores sharing a common characteristic such as size or geographical location. Stores can logically belong to more than one category when they meet more than one criteria. Accordingly, stores can be assigned to more than one cluster.

To put stores into multiple clusters:

1. Select the store from an existing cluster.
2. Click the right mouse key and select Copy.
3. Click the right mouse key and select Paste on to the second cluster or sub-cluster.

This process can be continued until the required store(s) have been put into all the appropriate clusters or sub-clusters.

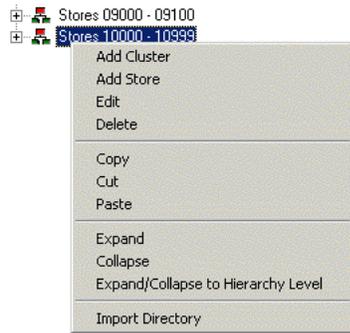
### Modifying and Deleting Clusters

Existing clusters can be modified to deleted.

To edit a cluster:

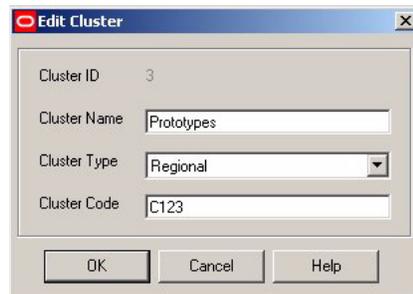
1. Select the cluster you want to edit.
2. Click the right key of the mouse and select the Edit option. Alternatively, you can select the Edit option from the File menu option after selecting the cluster you want to edit.

**Figure 2–33 Edit Clusters**



The Edit Cluster dialog box appears.

**Figure 2–34 Edit Cluster dialog box**



3. Enter the following details on the dialog box.
  - Cluster ID: The Cluster ID is allocated on creation and cannot be changed. It is unavailable for editing.
  - Cluster Name: Enter a suitable name.
  - Cluster Type: Select the type from the drop down list.
  - Cluster Code: Enter a specific code for the cluster.
4. Click OK.

## Deleting Clusters

The cluster and all its associated child files are removed from the hierarchical tree and moved to the RFBin. At this stage the files have not been permanently deleted and can be restored via the Administrator menu, (accessed via <Ctrl + A>). When deleting a cluster, all copies of the stores associated with are removed, but copies of the stores associated with other clusters are not affected.

## Modifying and Deleting Stores

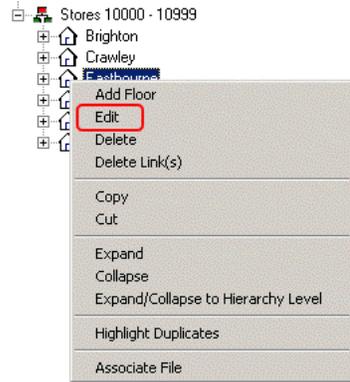
You can edit most of the characteristics of a store and may delete any existing store.

### Editing Stores

To edit a store:

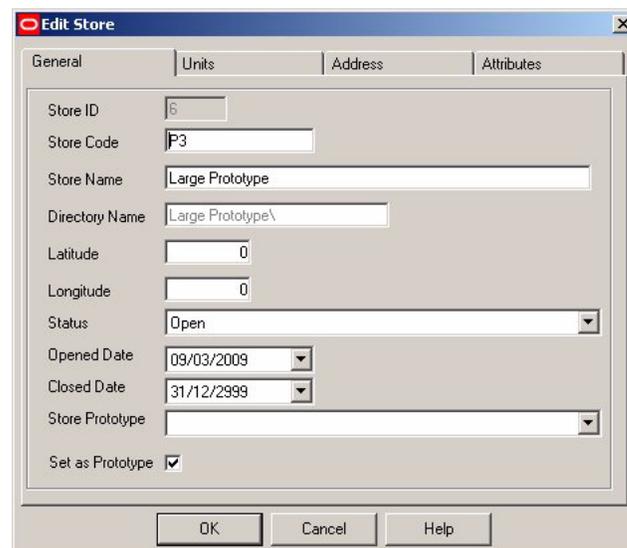
1. Select the store to be edited.
2. Right click on the store and select the Edit option.

**Figure 2–35 Edit Stores**



The Edit Store dialog box comes up.

**Figure 2–36 Edit Store dialog box**



3. Enter the following information:
4. The store ID is allocated on creation and cannot be changed.
5. Enter the Store Code and the Store Name. The Directory name is auto-populated.
6. Enter the Latitude and Longitude, although this information is not required at this stage.
7. Enter the Status of the store from the drop down list.
8. Select the Opened Date and Closed Date of the store.
9. On the Store Prototype field, from the list of store prototypes, select one of the option.
10. If you want to set this store as a prototype, check the box against Set as Prototype.
11. Click OK to continue, or Cancel to cancel adding the store.

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**Note:** The units set in the Units tab are for information purposes only, and will not have any direct effect in current implementations of Macro Space Management.

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### Deleting Stores

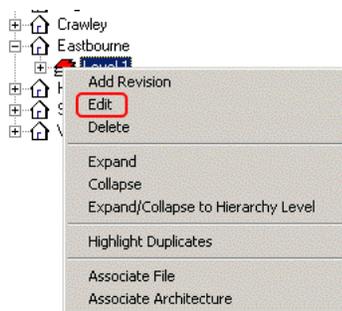
To delete a store from all the clusters it is associated with, right click and select the Delete option. The store and all its associated child files are removed from the hierarchical tree and moved to the RFBin. At this stage the files have not been permanently deleted and can be restored via the Administrator menu, (accessed via <control> A).

To remove a store from a specific cluster, left click on the store to select it. With the left mouse key held down, drag the store icon to another cluster that the store is associated with. Release the mouse key to drop the store. The store will be removed from the original cluster.

### Modifying and deleting Floors

Most of the characteristics of the floor can be edited by right clicking and selecting the Edit option.

**Figure 2-37** Edit Floor



The Edit Floor dialog box comes up.

**Figure 2–38 Edit Floor dialog box**

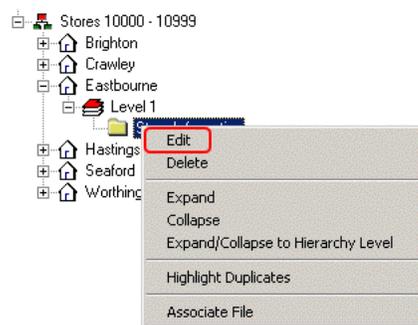
The store ID is allocated on creation and cannot be changed. Provide information in other fields and click OK.

### Deleting Floors

To delete a floor from the store it is associated with, right click and select the Delete option. The floor and all its associated child files are removed from the hierarchical tree and moved to the RFBin. At this stage the files have not been permanently deleted and can be restored via the Administrator menu, (accessed via <control> A).

### Modifying and deleting Revisions

Most of the characteristics of a Revision can be edited by right clicking and selecting the Edit option.

**Figure 2–39 Edit Revision**

The Edit Revision dialog box comes up.

**Figure 2–40 Edit Revision dialog box**

The revision ID is allocated on creation and cannot be changed. Enter other information on the user interface and click OK.

### Deleting Revisions

To delete a revision, right click on the revision and select the Delete option. The revision and all its associated child files are removed from the hierarchical tree and moved to the RFBin. At this stage the files have not been permanently deleted and can be restored via the Administrator menu, (accessed via <control> A).

### Modifying and Deleting Architectural Plans

Architectural Plans can be modified or deleted.

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**Note:** Architectural Plans can only be associated with Floors.

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**Note:** When adding an Architectural Plan to a floor it is normally advisable to link it, rather than copy it as linked files are automatically updated within Macro Space Management when the original file is modified. Copied files remain unchanged if the original is updated.

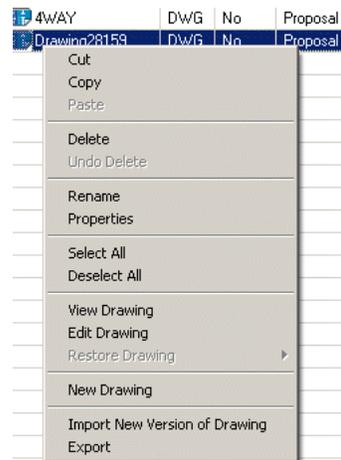
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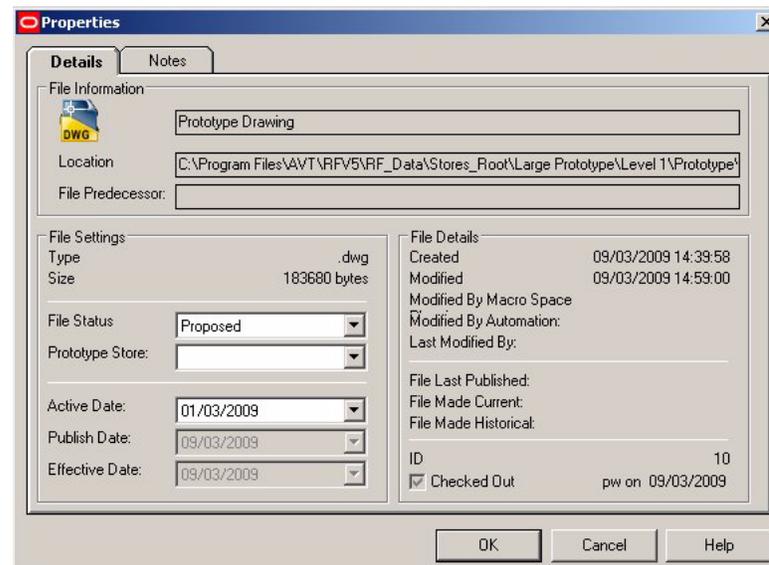
To access a list of Architectural Plans:

1. Select the appropriate floor. Files on which operations are to be carried out on can be selected by use of the:
  - Select All option.
  - Deselect All option.
  - Using the mouse, (using the <Shift> or <Ctrl> keys for multiple selections).
2. Right click on a selected file in the right hand frame to bring up a list of options.

**Figure 2–41 Modify Architectural Plans**

Files for external editing, (for example drawings to be changed using Planner), will be shown as Checked Out by Store Manager.

3. To modify the properties of the Architectural Plan, right click on the file and select properties. This displays the Properties dialog box.

**Figure 2–42 Properties dialog box**

The file attributes reflect the current status of the file. There will be checks in the appropriate check boxes if opened Read-Only or if Checked Out.

### Deleting Files

To delete an Architectural Plan, right click on it and select Delete. The file will be removed from the hierarchical tree and moved to the RFBin. At this stage the Architectural Plan has not been permanently deleted and can be restored via the Admin menu, (accessed via <Ctrl+A>).

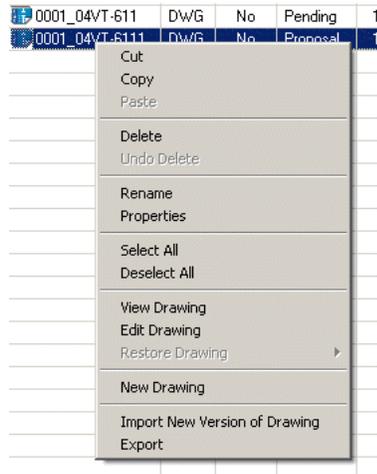
## Modifying and deleting Associated Files

Associated files can be edited or deleted.

To access a list of associated files:

1. Select the appropriate revision.
2. Right click on the list of files to bring up a list of options.

**Figure 2–43 Edit Associated Files**



Files on which operations are to be carried out on can be selected by use of the:

- Select All option.
- Deselect All option.
- Using the mouse, (using the <Shift> or <Control> keys for multiple selections).

Files for external editing, (for example drawings to be changed using Planner), will be shown as Checked Out by Store Manager.

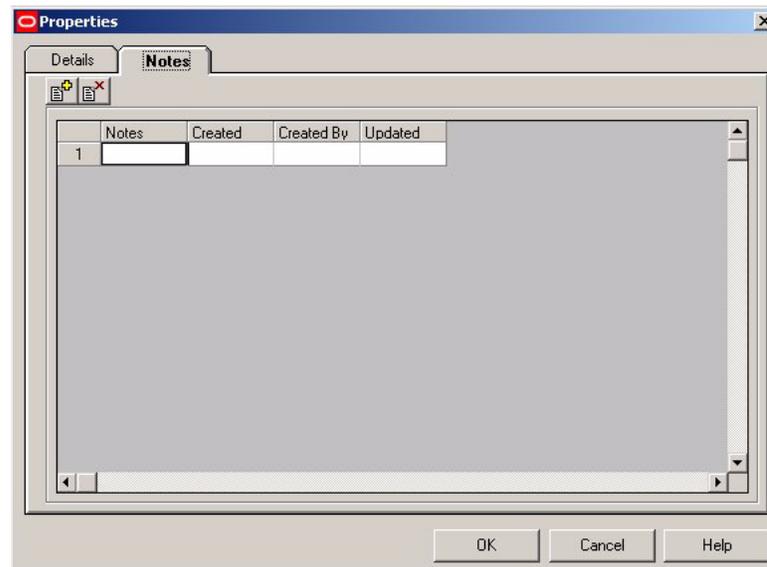
To modify the properties of the file, right click on the file and select properties. This brings up the Properties dialog box. The Details tab gives a series of information about the file.

**Figure 2–44 Details tab**

The file attributes reflect the current status of the file. There will be checks in the appropriate check boxes if opened Read-Only or if Checked Out.

Auto-Archive and Auto-Replenish relate to Automation features.

The Notes tab can be used to store information on the changes made to the drawing.

**Figure 2–45 Notes tab**

Notes can be added and deleted using the two buttons to the upper right of the dialog box.

### Deleting files

To delete a file, right click on it and select Delete. The file will be removed from the hierarchical tree and moved to the RFBin. At this stage the file has not been

permanently deleted and can be restored via the Administrator menu, (accessed via <Ctrl + A>).

### **Business Flows**

Stores can vary in status; starting from proposed, spending the bulk of their life open and finally closing. Similarly, Floors can start their lives as proposals, open for business, and finally close if their purpose is changed or the Store itself closed.

However, the most common change due to the business cycle is the ever changing configuration and merchandising of a floor. The configuration and product mix on the Floor is controlled by selecting the appropriate Revision - the Revision selected being governed by its status.

The ability to revise and continually update the details of stores and their contents allows the full power of Macro Space Management to be used.

### **Putting together the data for a new Revision**

#### **Creating a new Revision**

If necessary, create a new revision for the floor, naming it appropriately. This revision should have the status of proposed. Import or create the necessary drawings. These will also have the status of proposed. At this stage the folder icon is buff color.

#### **Changing the Revision status to Approved**

Two options are available; firstly, the revision alone can be changed to Authorized, with the drawing remaining at Proposed status. Alternatively, the drawing and then the revision can be changed to Authorized status.

If the revision alone is changed to Authorized status, then before the revision can be made Current, the drawing will have to be changed to Authorized status. For this reason, it is recommended that the drawing status be changed at the same time as the revision status.

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**Note:** Only one drawing and one revision can have the status of Approved. If another authorized version exists, you will be prompted as to whether the previously authorized revision should be set to proposal.

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On changing to approved status the folder icon changes to a green color.

#### **Changing the Revision status to Current**

Use the properties option to change the revision status to current. The drawing automatically changes to current status. On changing to current status the folder icon changes to a pink color.

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**Note:** Only one drawing and one revision can have the status of current.

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---

The birth date for the revision will be set to the current date.

#### **Historical status**

When the approved revision is being set to current, the previously current revision will automatically be set to historical.

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**Note:** All drawings within a revision set to historical status are also set to historical status, irrespective of their previous status.

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The death date for the revision will be set to the current date.

### Status

The status of an object is continually changing as it moves through the business cycle. For example stores start as Proposed. After approval they become Open. When the store reaches the end of its life it will become Closed.

Understanding the changing status of objects is fundamental to the operation of Macro Space Management. All objects except clusters and sub-clusters have a status. Clusters and sub-clusters are administrative devices for arranging stores in logical groupings, and hence do not have status. Stores and floors have independent status and their status can be changed without affecting the status of any objects below them in the hierarchical tree. Changing the status of a revision may affect the status of its associated child files. Changing the status of a revision may also affect the status of any other revisions for that floor.

Some status changes are reversible. For example a store can be changed from open to closed status for a major refurbishment. On completion of the refurbishment, the stores' status can then be changed back to open.

Some status changes are irreversible. For example, once a floors' status has been changed from current to historical it cannot be changed back. Whether a status is reversible or irreversible is determined when Macro Space Management is first implemented.

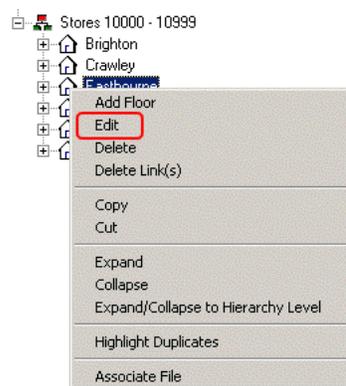
### Changing the status of Stores

- Stores can have the following status:
- Proposed
- Open
- Closed

They can also be set to Prototype status

Status of a Store is changed through the Edit Store dialog box. This is accessed by right clicking on the Store icon in the hierarchical tree and selecting the Edit option.

**Figure 2–46** *Edit Status of Store*



**Figure 2–47 Edit Store dialog box**

The status of the Store can be changed by means of the drop down list. A stores' status can be changed without affecting status of the floors, revisions or files below it in the hierarchy.

### Changing the status of Floors

Floors can have the following status:

- Proposed
- Existing
- Closed

Status of a Floor is changed through the Edit Floor dialog box. This is accessed by right clicking on the Floor icon in the hierarchical tree and selecting the Edit option.

**Figure 2–48 Edit Floor dialog box**

A floors' status can be changed between Proposed to Existing without affecting status of the revisions or files below it in the hierarchy.

Changing the status to Closed turns any Current file to Historical status.

## Changing the Status of Revisions

Revisions within Macro Space Management can have the following generic statuses:

- Proposal
- Authorized
- Current
- Historical

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**Note:** Revisions cannot be directly changed to Historical status - they are automatically changed by Macro Space Management when another Revision becomes Current.

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Status of a Revision is changed through the Edit Revision dialog box. This is accessed by right clicking on the Revision icon in the hierarchical tree and selecting the Edit option.

**Figure 2–49** Edit Revision dialog box

- Only one Revision can have the status of Authorized for a specific Store.
- Only one Revision can have the status of Current for a specific Store.

Changing the status of a Revision can affect the status of its associated child files.

**Table 2–2** Changing the Revision Status of Files

Changing from	Changing to	Result
Proposal	Authorized	Children not affected by status change. If another revision has currently has authorized status, this revision will automatically have its status changed back to proposal. The change back to proposal will require confirmation by a prompt.

**Table 2–2 (Cont.) Changing the Revision Status of Files**

Changing from	Changing to	Result
Authorized	Current	<p>A revision can only be changed to current if it has only one related drawing, or if only one drawing has been given authorized status.</p> <p>If another revision within the same floor has a status of current, that revision will have its status changed to historical.</p> <p>The change to historical will require confirmation by a prompt.</p> <p>"Current" children of the revision which is having its status changed to historical will also have their status changed to historical. Other children of that revision could also have their status changed.</p>
Current	Historical	<p>This change is automatic, all pertinent children being changed automatically.</p> <p>This change is irreversible.</p>

The status of a Revision can be seen from the color of its associated folder.

**Figure 2–50 Revision Status**

### Changing the status of Files

Files can exist at the store, floor or revision level in Macro Space Management. Within Macro Space Management, files at Revision level can have a generic status of:

- Proposed
- Authorized
- Current
- Historical

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**Note:** Files cannot be directly changed to Historical status, they are automatically changed by Macro Space Management when another Revision becomes Current.

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If Macro Space Management is being used in parallel with In-Store Space Collaboration, then other generic statuses are possible:

- Survey

- Submitted

Status of a Revision is changed through the Edit Revision dialog box. This is accessed by right clicking on the Revision icon in the hierarchical tree and selecting the Edit option.

The status of a file can only be reversed if the status has been marked as reversible in the database. If the file is the child of a revision currently changing its status to current, the file automatically has its status changed. If the file is the child of a revision automatically having its status changed from current to historical, the file automatically has its status changed.

Only one drawing within a revision can have a status of authorized. If you are attempting to change a second file to authorized status, the initial file with authorized status is automatically changed back to proposed first. The automated change to of a revision to historical requires confirmation by a prompt.

### Macro Space Management Files and In-Store Space Collaboration

Two types of drawings are often present in Macro Space Management and derived from the use of In-Store Space Collaboration:

- Survey drawings
- Submitted drawings

Survey Drawings are created in Macro Space Management to represent store layouts that are currently in place, but where there the information is to be updated. They consist of a building outline and dummy fixtures, fitting and gondolas. A surveyor then walks the store and updates the drawing using In-Store Space Collaboration so that it reflects the actual arrangement in place.

Fixtures, Fittings, Gondolas, Products and Merchandise can be updated on a Survey Drawing using In-Store Space Collaboration. Survey drawings start at Survey status. If they are saved using the In-Store Space Collaboration Save option, their status remains at Survey status.

Submitted drawings are drawing that have been fully updated using In-Store Space Collaboration and are being saved back to the central Macro Space Management database with a modified status.

When they are saved using the Save Submit option within In-Store Space Collaboration, their status is automatically changed to Submitted.

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**Note:** Other statuses can be selected using the IN\_STORE\_SUBMITSTATUS system variable.

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The status of the drawing cannot be further changed by In-Store Space Collaboration.

### Advanced Administration

#### Underlying directory structure

Macro Space Management holds all the information for a retail organization. A retail organization can contain lots of information on stores. Each store may have multiple floors and each floor can have hundreds of fixtures and fittings on it. Each fixture may have multiple products or planograms placed on it.

This information must be organized in a such way that you can quickly find the information you want. Macro Space Management does this by means of hierarchies.

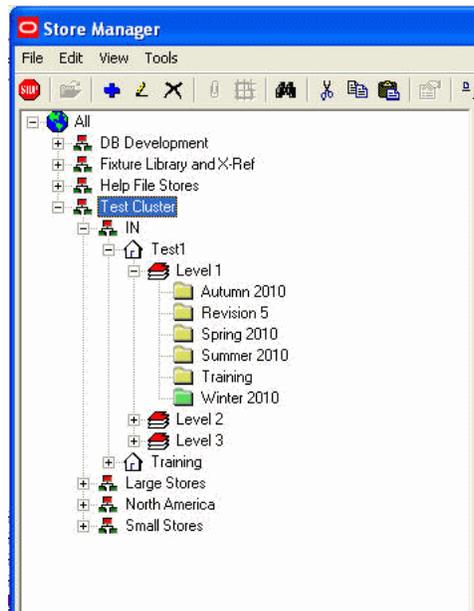
The hierarchy is split into a number of levels, each a child of the one above. The top level is the starting point for the hierarchy. It cannot be edited or deleted. Each level within the hierarchy can store files against itself, with the exception of File type objects. The general format of the directory structure is thus All/Cluster/Sub-cluster/Store/Floor/Revision/File.

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**Note:** Clusters and sub-clusters will not have a Windows folder associated with them.

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**Figure 2–51 Directory Structure**

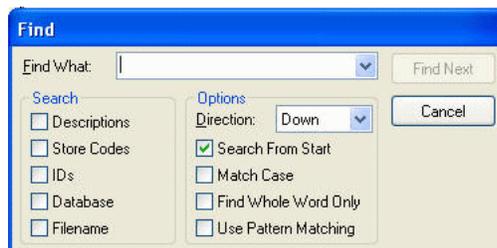


### Searching the directory structure

The search facility can be activated by clicking the search icon on the toolbar.

This brings up a dialog box with a dialog box with a series of options. Select the required options and click OK.

**Figure 2–52 Search Directory Structure**



The search function in Store Manager performs an *in-string* search and does not support wild-cards. It will thus only return exact matches. The search starts from any selected node, and can be set to search up or down from that node.

### Customizing Administration Options

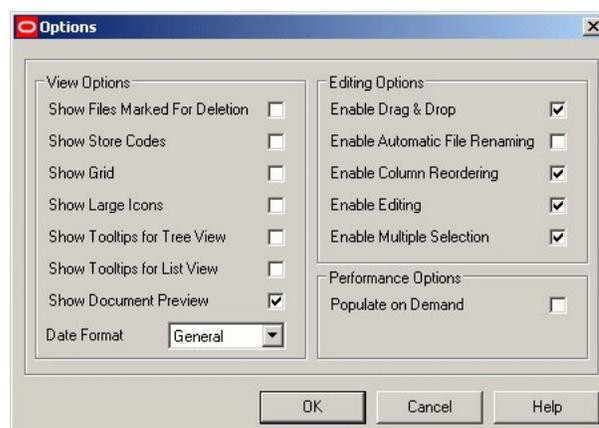
Some of the operations of the Admin module can be customized via the Options menu on the View menu.

**Figure 2–53 Store Manager Options Menu**



This brings up the Options dialog box.

**Figure 2–54 Options dialog box**



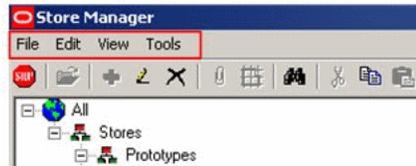
### Log Files

Log files are files recording events and problems during operation of Macro Space Management. This enables problems to be investigated at a later date. They can be found at the location specified in the Configuration Module. Double click a specific file to bring up a log of a particular Macro Space Management's operation.

### The Store Manager Menu Bar

The Store Manager Menu bar contains the following options:

- File Menu
- Edit Menu
- View Menu
- Tools Menu



## File Menu Options

The File Menu option activates a menu with options primarily concerned with operations on files. This menu can be used to add, edit and delete files and to associate files and architectural plans.



## Add a file

From the File menu, select Add. Depending on the hierarchy level you are at, the corresponding Add dialog box opens. For example, if you clicked at the cluster level, Add Cluster dialog opens; from the store level, Add Store dialog opens. Note: Some of these may be grayed out depending on the Store Manager function being used.

 A screenshot of the "Add Store" dialog box. It has four tabs: "General", "Units", "Address", and "Attributes". The "General" tab is active. The fields are: "Store ID" (empty), "Store Code" (text box with "E123"), "Store Name" (text box with "Example"), "Directory Name" (text box with "Example"), "Latitude" (text box with "0"), "Longitude" (text box with "0"), "Status" (dropdown menu with "Open" selected), "Opened Date" (dropdown menu with "09/03/2009" selected), "Closed Date" (dropdown menu with "31/12/2999" selected), "Store Prototype" (dropdown menu with "Medium Prototype" selected), and "Set as Prototype" (checkbox, unchecked). At the bottom are "OK", "Cancel", and "Help" buttons.

1. Enter the Store Code and the Store Name. The Directory name is auto-populated.
2. Enter the Latitude, Longitude, and Status details of the store.
3. Select the Opened Date and Closed Date of the store.
4. On the Store Prototype field, from the list of store prototypes, select one of the options.

5. If you wish to set this store as a prototype, check the box against Set as Prototype.
6. Click OK to continue, or Cancel to cancel adding the store.

### Edit a File

1. From the File menu, select Edit. The Edit dialog opens. Depending on the hierarchy level you are at, the corresponding Edit dialog box opens. For example, if you clicked at the cluster level, Edit Cluster dialog opens; from the store level, Edit Store dialog opens.
2. Edit the required fields and click OK.

### Delete a File

1. From the File menu, select Delete. A confirmation message appears.



2. Click Yes to delete the file or No to cancel the deletion.

### Undo Delete

The deleted files are displayed in Store Manager with the crossed symbol as shown below.

You may retrieve the deleted files by selecting the Undo Delete option.

- Select the file that you want to retrieve.
- Select the Undo Delete option from the File menu.

### Properties

The Properties window displays detailed information on the selected file. For more information, refer sections Significance of Dates and File Identification Numbers.

### Associate File

For a revision to be fully active, it needs files to be associated with it. This can be done via the file menu. For more information, refer section Associating files.

### Associate Architectural Plan

Architectural Plans can be associated with Floors. For more information, refer section Associating Architectural Plans.

### Edit Menu Options

The Edit Menu options allow you to cut, copy, or paste files.




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**Note:** Some of these may not be available depending on what Store Manager function is being used.

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### View Menu Options

The View Menu options activate a menu with various options controlling the way Store Manager appears. These can be used to change the way Store Manager displays information.



You can select the file display by selecting the Large icons, Small icons, List, or Detail from the View Menu option.

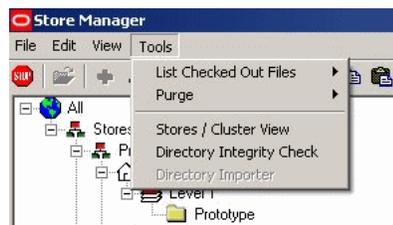
The Arrange option allows you to arrange the data displayed on the Store Manager as per your choice. You can choose to arrange the data by name, status, type or by date.

The Find options help you search for data in the Store Manager. The Refresh option refreshes the data in the Store Manager.

Options enable you to customize the view, editing, and performance options in the Store Manager. For more information, refer section Customizing Administration Options.

### Tools Menu Options

The Tools Menu option is available only to administrators and is toggled on and off by using <Ctrl + A>.



It contains the following options:

- List Checked Out Files
- Purge

- Stores / Cluster View
- Directory Integrity Check

### The Store Manager Toolbar



The Store Manager toolbar contains a series of options for administering the objects and files in Macro Space Management. Depending on which operation is being carried out, one or more options may be inactivated (unavailable).

### System Variables

Some of the variables affecting how Macro Space Management and Store Manager operate can be customized. For example, if you change the status of a parent file, the status of its associated children files gets affected automatically.

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**Note:** Changing these variables can have a significant effect on how Macro Space Management operates. It is strongly recommended that changes are made only after consulting the Oracle technical support team.

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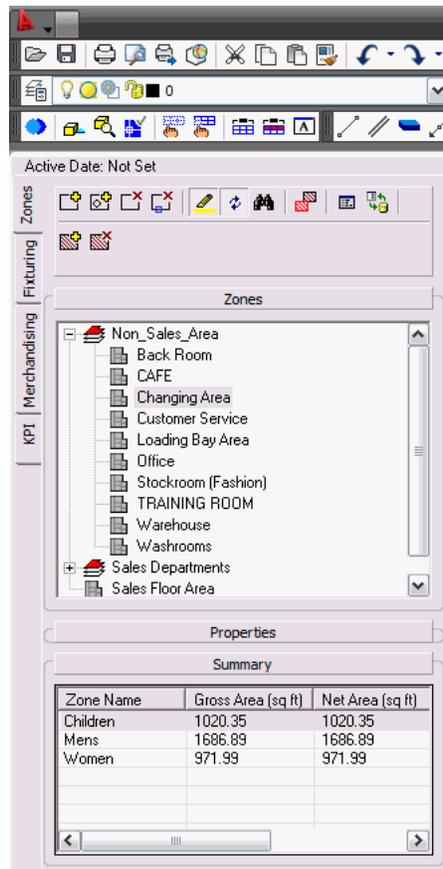
Configuring System Variables is done by accessing the Admin Module making changes using the System Variable option. Some of these system variables affect the operation of Macro Space Management Generic, others affect the operation of both the Generic and Enterprise versions of Macro Space Management.

For detailed information on configuring the system variables, refer the *Oracle Retail Macro Space Management Configuration Guide*.

## Object Browser

The Object Browser is a separate window on the main screen. It is found in the Planner and Merchandiser environments and is used to control the various activities within these environments.

It offers Macro Space Management users a single point of access to the Zone, Fixture, Product, and Planogram libraries and the Key Performance Indicators (KPIs).

**Figure 2–55 Object Browser**

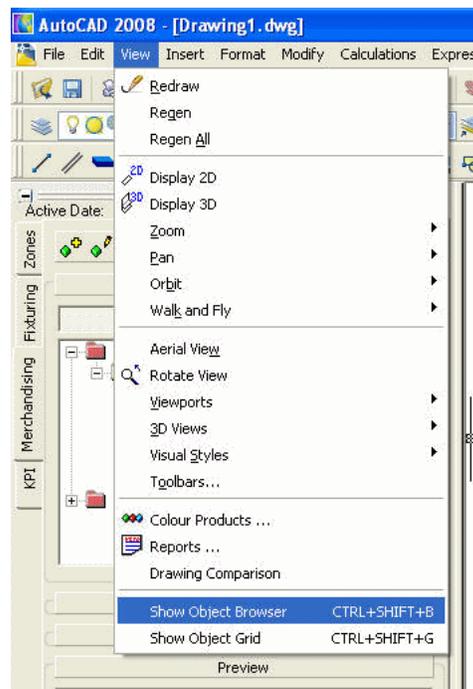
The Object Browser is made up of four tabs positioned on the left-hand side. The four tabs are as follows:

- Zones - this includes tools for drawing boundaries to represent departments etc. in to the store plan.
- Fixturing - this includes tools for adding and removing fixtures, fittings and gondolas etc. in to the store plan.
- Merchandising - this includes tools for adding and removing product categories and planograms etc. in to the store plan.
- KPI - this includes tools for displaying Key Performance Indicators (KPIs) on the store plan.

## Turning off and Accessing the Object Browser

The Object Browser can be turned off by clicking on the close button (x) in the upper right corner.

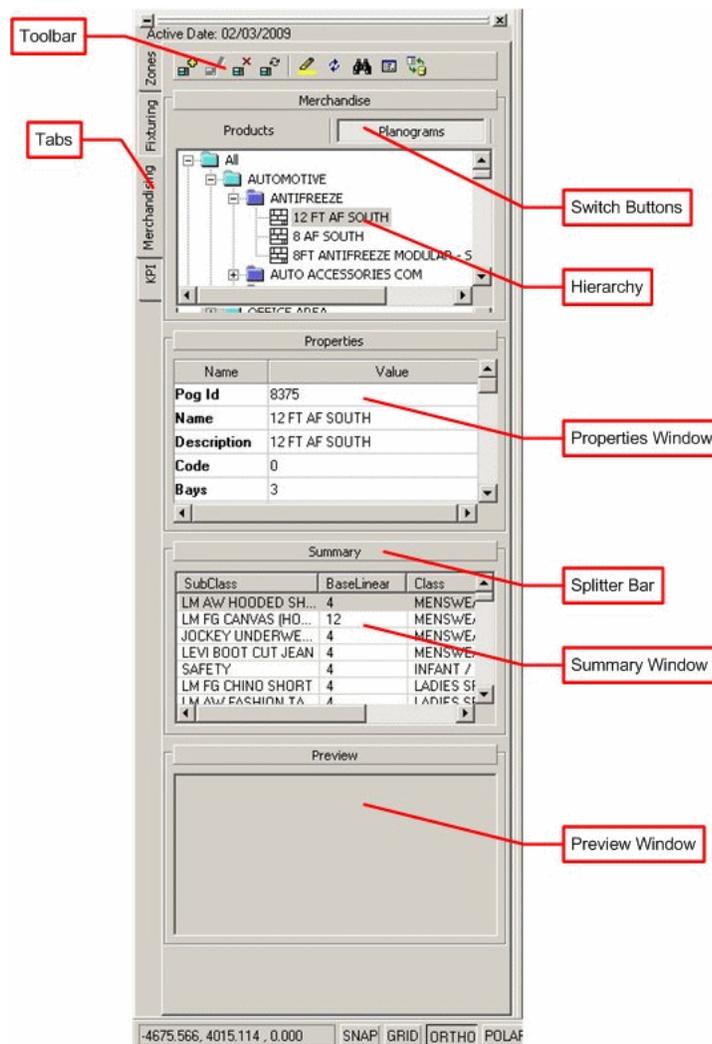
The Object Browser can be opened by selecting the Show Object Browser option on the View drop down menu.

**Figure 2–56 Show Object Browser**

## Parts of the Object Browser

The Object Browser has a series of parts. These are described below.

Figure 2–57 Parts of Object Browser



- **Tabs** allow the Object Browser to be switched from one function to another. The Object Browser can be used to add, edit and delete Zones, Fixtures, and Merchandise. Each tab has the same general components.
- A **Toolbar** at the top allows various functions to be accessed. These typically allow adding, editing and deleting of the required objects, together with searching, filtering and refreshing options.
- The Fixturing and Merchandising tabs have **Switch Buttons**. In Fixturing, you can click on one or other button to select Fixturing or Gondola operations. In Merchandising you can use the buttons to switch between planograms and products.
- Each tab has a series of Information Windows. These vary from each tab but can include:
  - **Hierarchical trees:** these give information on what objects can be added, edited or deleted in the drawing. In the Zones Tab for example, the hierarchical tree allows you to select different types of zones.
  - **The Properties window** gives details of the selected object.

- **The Summary window** gives totals of types of objects placed in the drawing.
- **The Preview window** shows a low resolution image of the selected object. In the Fixturing tab for example, this would be an image of the selected fixture.
- The Information windows can be opened or closed by clicking the **Splitter Bars**.

## Refresh Option

All the toolbars in the various Object Browser tabs contain a Refresh button.

When clicked, it updates the hierarchies in that particular tab with the latest information from the central Macro Space Management database. Once the hierarchies have been refreshed, the latest information from the database can be incorporated in the drawing. For example, once the refresh button has been used in the Fixturing tab, the hierarchies contains the most recent fixture and gondola information for insertion into the drawing. This allows to update these definitions in Fixture Studio then make them immediately available within Merchandiser.

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**Note:** In this instance, if the drawing is already open then fixtures already placed in the drawing will not use any changes loaded in the refresh operation until the drawing is closed and re-opened.

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However, all new fixtures and gondolas added to the open drawing will use the new data.

## Using Object Browser

### Opening and Closing the Object Browser

The Object Browser is open by default the first time you log in to Macro Space Management.

There are two ways to close the Object Browser.

- Press the button at the top right of the Object Browser.
- Right click the double bar on the Object Browser and click the **Close** option.

There are two ways to open the Object Browser.

- Use the View - Show Object Browser menu option.
- Use <Ctrl> + <Shift> + B.

### Moving the Object Browser

The Object browser behaves differently in the Planner and Merchandiser environments. In the Planner environment it can be docked on any side of the screen or can be floated. In the Merchandiser environment it can be docked on any side of the screen, but not floated.

#### Planner

By default the Object Browser is docked on the left-hand side of the screen the first time you log in to the Planner module. The Object Browser can be moved to dock on any of the four sides of the screen. To move the Object Browser, click and hold the double bar on the Object Browser and drag to it to a new position.

The Object Browser can also be un-docked or float on the screen. This can be done in two ways.

- Right click the double bar on the Object Browser and deselect the **Allow Docking** option.
- Click and hold the double bar on the Object Browser and drag it to the middle of the screen.

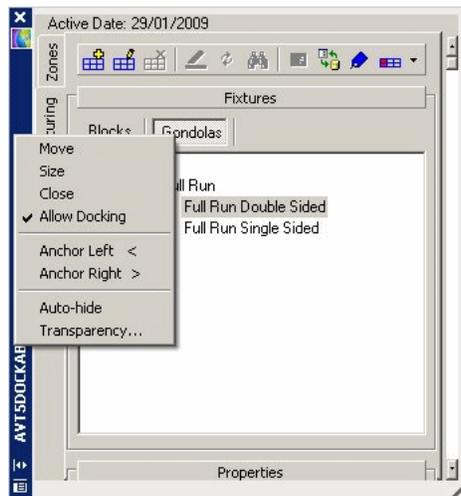
**Figure 2–58 Object Browser Docking**



When the Object browser is floating, it can be minimized to save space while still leaving it visible on the screen.

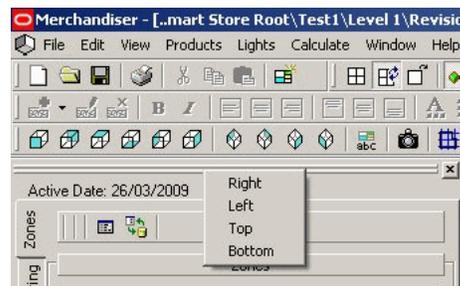
The Object Browser can be re-docked by right clicking the title bar on the left and selecting **Allow Docking**, then drag the Object Browser to the side of the screen where you want to dock it.

**Figure 2–59 Object Browser - Allow Docking**



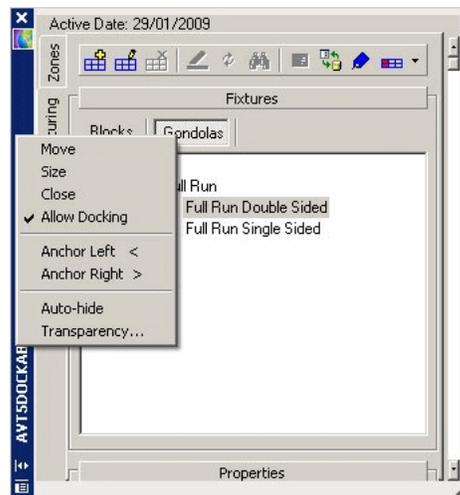
## Merchandiser

By default the Object Browser is docked on the left-hand side of the screen the first time you log in to the Merchandiser module. The Object Browser can be moved to dock on any of the four sides of the screen. To do this, right click on the double bar at the top and select the required location.

**Figure 2–60 Object Browser - Merchandiser**

### Anchoring the Object Browser

The Object Browser can also be anchored in the Planner environment only. It can be anchored on the left or right side of the AutoCAD window. By anchoring the Object Browser it remains on screen, but in a minimized state, which allows you to bring it back up when needed. This also helps to increase the amount of visible drawing area. This can be done from the right click menu.

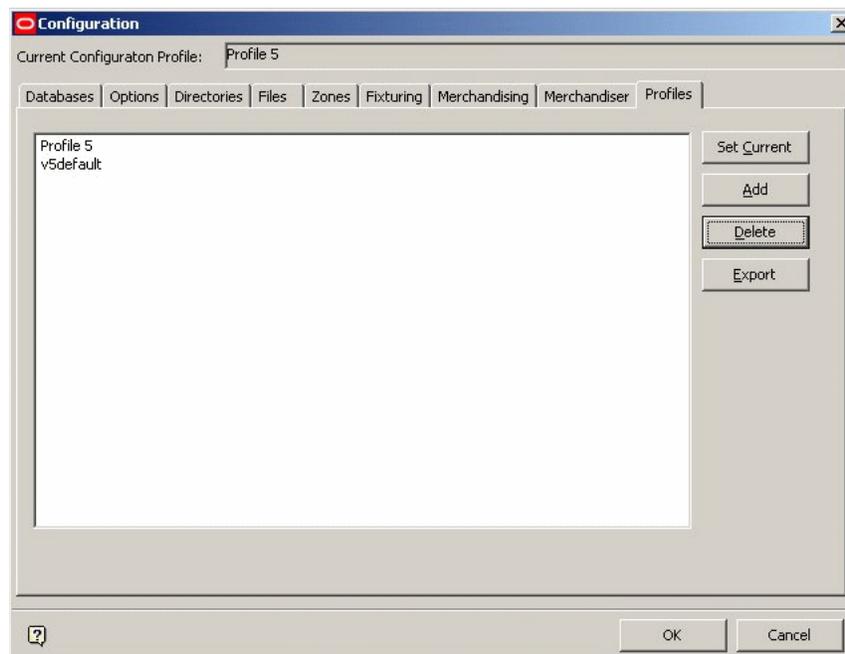
**Figure 2–61 Object Browser - Anchor**

### Adjusting the Object Browser

The width of the Object Browser can be adjusted by moving the mouse cursor to the right-hand edge and dragging the mouse to the desired width. The windows displayed on the Object Browser can be minimized by clicking on the title buttons at the top of each window.

### Saving Settings for the Object Browser

Settings for the Object Browser are saved by Macro Space Management so if closed, it re-opens in the same state as it was closed. Individual settings are saved to the profile currently selected in the Profiles tab of the Configuration module.

**Figure 2–62 Object Browser - Settings**

The Object Browser opens at the same width and height and in the same tab as when it was closed, if the user profile remains selected. The application retains the appearance of the hierarchy displayed and the information window from the last session.

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**Note:** If you have not used that machine or profile before, then default settings will be used. Similarly, if you logs onto another machine, then the settings used will be the same as when you last used that machine.

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## Zones Tab

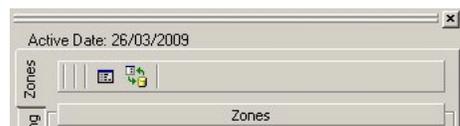
Macro Space Management uses Zones to assign space to different departments and non-sales areas. The zone types available to your business are customized within the Administration module. Zones can also be used to help you select fixtures or merchandise.

The Zones tab is divided into four sections:

- The Toolbar - provides controls to add, modify, and delete zones from a store plan.
- The Zones Window - shows a hierarchy of available zones.
- The Properties Window - when a Zone is selected from the hierarchy, its properties are visible in this window.
- The Summary Window - shows details of the zones based on the open store plan.

### Zones Tab Toolbar

Zones are 'read-only' in the Merchandiser environment. Accordingly, the majority of the functionality that is present when the Object Browser is used in the Planner module is absent.

**Figure 2–63 Zones Tab in Object Browser of Planner****Figure 2–64 Merchandiser Zones Toolbar**

## The Hierarchy, Properties and Summary Windows

### The Hierarchy Window

The hierarchy window displays the zone hierarchy. This hierarchy is defined in the Administration module and shows all the zones that can be added to a store plan. The hierarchy can be expanded using the plus control next to each item on the hierarchy. It can also be collapsed by using the minus control next to each item.

### The Properties Window

The Properties window displays information for the zone that has been selected in the zone hierarchy. The content of this window is customizable by an Oracle Retail consultant.

### The Summary Window

The Summary window displays information on the zones placed in the open store plan. The content of this window is customizable by an Oracle Retail consultant. If set up to do so, this window can also show the zones drawn in the prototype store plan and their areas. This allows you to see what zones should be added to the new store plan and the target areas.

## Fixturing Tab

The Fixturing tab allows you to add fixtures, fittings, gondolas, and other equipments to the store plan. Fixtures and fittings can be placed one at a time if required. Fixtures, fittings, and other equipments that are placed one at a time are known as blocks.

Gondolas are a collection of fixtures and fittings that have been designed to be placed in a specific layout. Gondolas can place the correct number of fixtures and fittings for a given size by using a simple control.

The Fixturing tab is divided into 5 parts as follows:

- The toolbar - provides controls that allow you to add, edit, and delete fixtures and gondolas.
- The Fixtures window - shows a hierarchy of available blocks and gondolas.
- The Properties window - after selecting a block from the hierarchy, this window shows the details for the selected block.
- The Summary window - shows details of equipment placed based on the active store plan. The content of this window is customizable by an Oracle Retail consultant.

- The Preview window - shows a sample picture of the block selected in the block hierarchy.

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**Note:** In Merchandiser, fixtures can only be added by dragging and dropping from the hierarchy. The Add icon is not active.

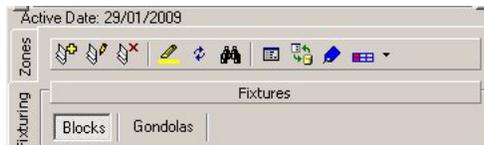
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### Fixturing Tab Toolbar

The Fixturing tab toolbar in the Object Browser enables you to control all aspects of adding, editing, and deleting fixtures and gondolas within the Planner and Merchandiser environments.

Clicking on the Switch Buttons determines whether the Fixturing or Gondola options are active.

**Figure 2–65** Fixturing Toolbar



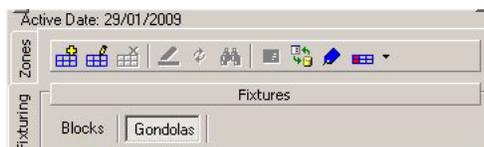

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**Note:** When Fixtures are added, the Add Fixture dialog box (present in the Planner Environment) does not appear in Merchandiser.

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### Gondola Toolbar

**Figure 2–66** Gondola Toolbar




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**Note:** The graphics for fixtures are created in the Planner environment.

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When editing fixtures, care must be taken that the information held in the central Macro Space Management database continues to reflect the actual details of the graphic. If information in the central database does not match the graphic, then there could be problems with alignment in the Virtual Reality environment, adjacency calculations, etc.

## Hierarchy, Properties, Summary and Preview Windows

### Hierarchy Window

The Hierarchy window displays both the block and the gondola hierarchies. To toggle between the hierarchies use the Blocks or Gondolas buttons respectively. The

hierarchies are defined in the Fixture Studio environment and show all the fixtures and gondolas that can be added to a store plan.

The hierarchy can be expanded using the plus control next to each item on the hierarchy. It can also be collapsed by using the minus control next to each item. An item in the hierarchy can be highlighted by clicking on the name of the block or gondola.

### The Properties Window

The Properties window displays information for the block that has been selected in the blocks hierarchy. The content of this window is customizable by an Oracle Retail consultant.

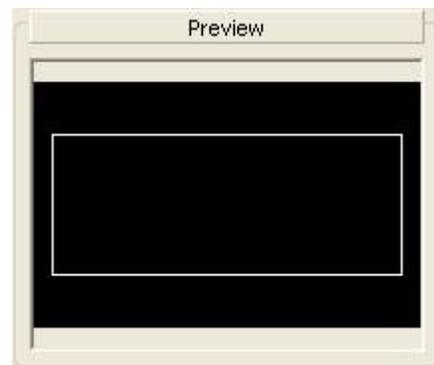
### The Summary Window

The Summary window displays information on the blocks placed in the open store plan. The content of this window is customizable by an Oracle Retail consultant.

### The Preview Window

The Preview window shows a sample picture of the block selected in the block hierarchy.

**Figure 2–67** *Preview Window*

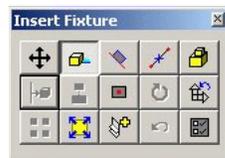


The preview is not updated when the Gondola hierarchy is displayed.

### Placing Fixtures and Gondolas

To add a block to the store plan, highlight the required block in the hierarchy. You can then either press the Add Fixture button on the tool bar, or drag and drop the fixture to the store plan drawing. When a block is added the Insert fixture dialog opens.

**Figure 2–68** *Insert Fixture Dialog Box*



These controls allow blocks to be positioned accurately in the store plan. Pressing the left mouse button places the block in an initial position. Pressing the right mouse button or the <Esc> key finishes placing the block.

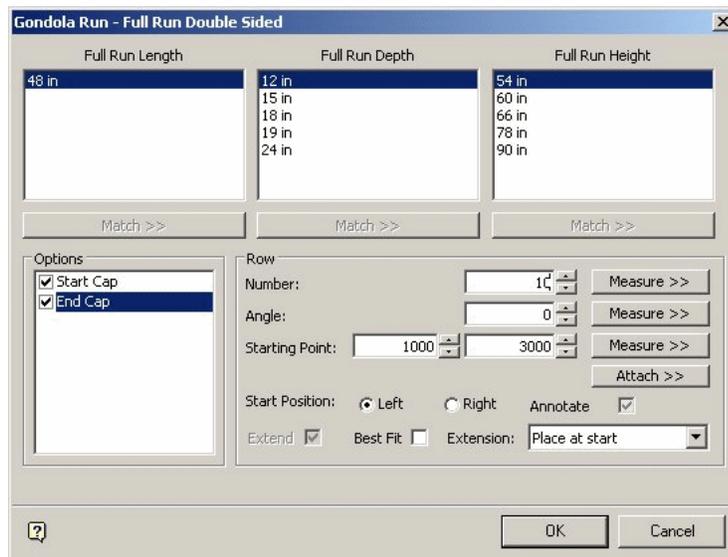
When placing fixtures or a block to the store plan in the Merchandiser module, highlight the required block in the hierarchy then drag and drop the fixture to the store plan drawing. The Insert Fixture dialog box does not appear in Merchandiser.

### Placing Gondolas

To add a gondola to the store plan:

1. Select the required gondola in the hierarchy.
2. Press the **Add Gondola** button on the toolbar or drag and drop the gondola to the store plan drawing. You are prompted to select a start point for the gondola.
3. Press the left mouse button and the Gondola Run dialog box opens.

**Figure 2–69** Gondola Run dialog box



4. Select the dimensions of the blocks to use in the gondola.
5. Select the **Row** details of the gondola.
6. Select the **Start Position** of the gondola.
7. Once the options are set, press the **OK** button. The dialog box closes and places all the blocks required for the gondola run in to the store plan.

## Merchandising Tab

The Merchandising tab allows you to add product placeholders (products), and planogram placeholders (planograms) to the store plan. A product is any category, sub-category, or SKU that is included in the product hierarchy, i.e. any level in the hierarchy. Planograms are also organized in to a hierarchy of planogram groups. However, you can only place planograms in to the store plan. Planogram groups cannot be placed. Placeholders are markers that can be placed on to fixtures to indicate the product category, sub-category or planogram that will be used.

The Merchandising tab is divided in to 5 parts:

- The toolbar - provides controls that allow products and planograms to be added, edited, and deleted

- The Merchandise window - shows a hierarchy of available products and planograms
- The Properties window - shows details for the product that has been selected in the product hierarchy. Similarly it will show details of a planogram that has been selected in the planogram hierarchy. The content of this window is customizable by an Oracle Retail consultant.
- The Summary window - shows details of products and planograms placed based on the active store plan. The content of this window is customizable by an Oracle Retail consultant
- The Preview window - shows a sample picture of product display styles selected in the product hierarchy

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**Note:** Product display styles are only available in Merchandiser.

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**Note:** In Merchandiser, products and planograms can only be added by dragging and dropping from the hierarchy. The Add icon is not active

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### Merchandising Tab Toolbar

The Merchandising tab Toolbar in the Object Browser enables you to control all aspects of adding, editing, and deleting products and planograms within the Planner and Merchandiser environments.

Clicking on the Switch Buttons will determine whether the Product or Planogram options are active.

### Products Toolbar

**Figure 2–70 Products Toolbar**



### Planogram Toolbar

**Figure 2–71 Planogram Toolbar**



## The Hierarchy, Properties, Summary and Preview Windows

### The Hierarchy Window

The hierarchy window displays the product and the planogram hierarchies. To toggle between the hierarchies use the Products or Planograms buttons.

The Product hierarchy is defined in the Product Studio module and shows all the products that can be added to a store plan. The Planogram hierarchy can be configured in Merchandiser and shows all the planograms that can be added to a store plan. The hierarchies can be expanded using the plus control next to each item on the hierarchy. It can also be collapsed by using the minus control next to each item.

An item in the hierarchy can be highlighted by clicking on the name of the product or planogram.

### The Properties Window

The Properties window displays information for the merchandise that has been selected in the products or planograms hierarchy. The content of this window is customizable by an Oracle Retail consultant.

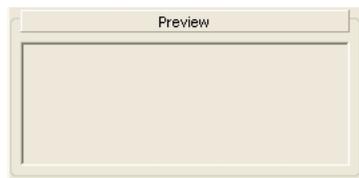
### The Summary Window

The Summary window displays information on the merchandise placed in the open store plan. The content of this window is customizable by an Oracle Retail consultant. The window can show the merchandise allocated per zone in the prototype store plan. This allows you to see what merchandise should be added to the new store plan.

### The Preview Window

The Preview Window is blank for both Products and Planograms.

**Figure 2–72** *Preview Window*



## KPI Tab

The KPIs tab of the Object Browser allows you to see performance of a store plan at a glance. The available KPIs can be customized and more KPIs can be added either by an Oracle Retail consultant or a trained Macro Space Management super user.

The KPI tab is divided into different parts:

- The toolbar - provides controls that allow KPIs to be run and modified.
- The Indicators window - shows a hierarchy of available KPIs.
- The Layers window - shows a list of KPIs that have been run against the store plan.
- The Legend window - shows the color bands associated with a KPI that has been run.

When the tab is first opened, the Layers and Legend windows are blank. These windows are populated when a KPI is run.

## KPI Tab Toolbar

The KPI tab toolbars in the Object Browser are used to add and edit KPIs and to edit the list of KPIs selected for display in the ViewPorts.

**Figure 2–73 KPI Toolbar**

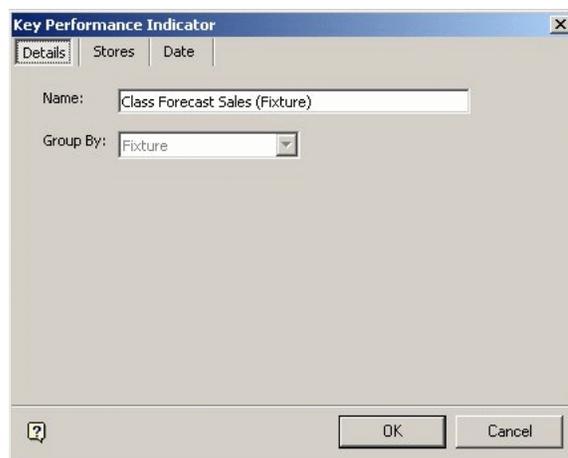


## Running a KPI

To run a KPI:

1. Select the KPI that is to be run from the hierarchy of Indicators that are shown on the Object Browser.
2. Press the **Add KPI** button to open the Key Performance Indicator dialog for the highlighted KPI.

**Figure 2–74 KPI - Details tab**

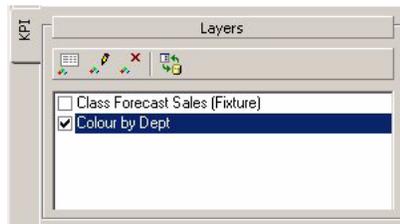


The Details tab shows the name of the selected KPI in the **Name** field.

3. Edit the name is required. This will only change the name that is shown in the Layers section of the KPI tab on the Object Browser and not the name of the KPI definition saved in the database. The **Group By** field is automatically populated with the KPI Type that was saved in the KPI definition.
4. Press the **OK** button to close the dialog and apply the KPI to the store plan drawing. The Layers frame shows the KPI that has just been run and the legend is updated with the Color Theme for the KPI.

## Turning Off KPIs

**Figure 2–75 KPI - Turn Off**



KPIs can be turned off in the store plan view by clear the check box next to the KPI name in the Layers pane on the Object Browser.

When no KPIs are checked the store plan view returns to the normal view mode.

## Deleting KPIs

The Delete KPI button removes the highlighted KPI from the list in the Layers pane. If this is the KPI being displayed in the store plan view, then the results are cleared and the view returns to normal, that is, with no KPI applied.

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**Note:** The Delete KPI only stops the results from being displayed. The KPI definition is still saved in the database. If the KPI needs to be run again, this can be done by selecting it within the KPI hierarchy again and clicking the Add KPI button.

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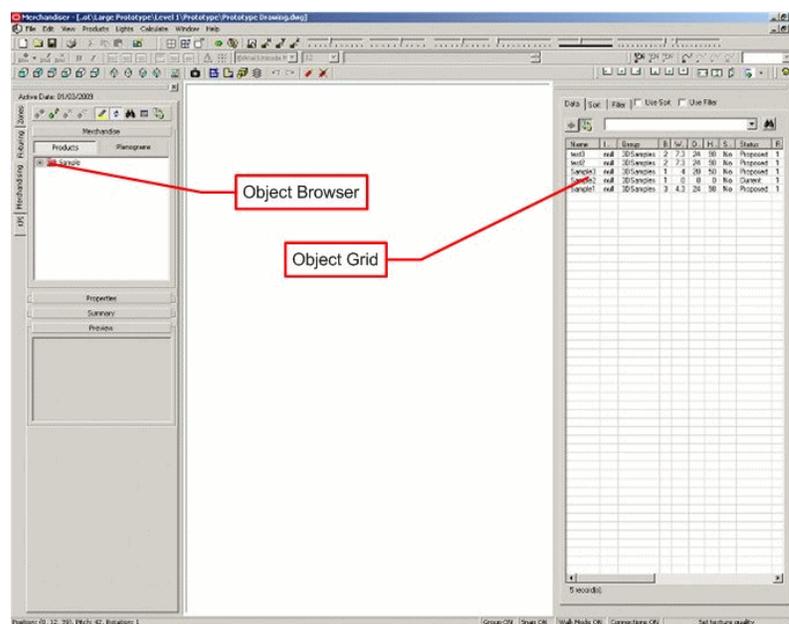
## Object Grid

The Object Grid provides an alternative to selecting lower level objects in the Object Browser, including the following:

- Zones
- Fixtures
- Products
- Planograms

It is a Object Browser window that is used in conjunction with the hierarchies visible in the Object Browser and is available in both the Planner and Merchandiser environments.

Figure 2–76 Object Grid



## Selecting Data from Object Grid

Information selected from a hierarchy in the Object Browser appears in the form of a list in the Object Grid. The user can then sort and filter the data to find the objects they want. Once the required object has been found it can be added to the drawing by dragging the item from the grid. In the Planner environment it can also be added by clicking the Add button. (The Add button is disabled in Merchandiser).

The higher the level selected in a hierarchy in the Object Browser, more items will appear in the list on the Object Grid. For example selecting 'Food' in the Merchandising tab would result in all food product (or planograms) appearing in the Object Grid. Selecting 'Fruit' would restrict the information displayed to just fruit items.

The type of information that is displayed in the grid (as well as the sort and filter panels) is determined by the active panel in the object browser (that is zones, fixturing, products or planograms).

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**Note:** The number of items displayed is set to a default maximum of 250 items. This is to prevent the Object Grid having to filter and sort thousands of items each time these operations are carried out. This default value can be changed - consult Oracle Technical Support for further information.

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The Object Grid contains three tabs:

- Data - displays the actual object data.
- Sort - allows you to sort the data by multiple columns.
- Filter - allows you to filter the data by multiple columns.

The data is automatically filtered by clicking on a node in the object browser tree; for instance, clicking on a product sub-category shows all SKUs that are related that

sub-category. This automatic filtering affects the filters on the Filter tab, which you can then modify.

This automatic filtering may only work for the following levels (dependant on the custom SQL):

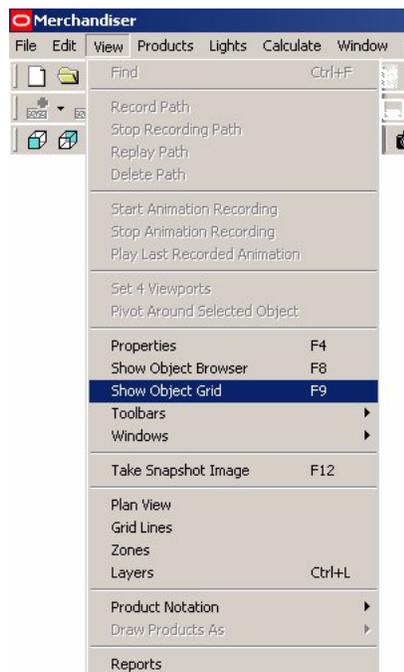
- Product Department (BA)
- Product Category (RA)
- Product Sub-Category (PA)
- Planogram Group Parent
- Fixture Group Parent
- Zone Group Parent

It is also possible to trigger a change in the list of displayed products, if a different zone is selected. In this way, the application can restrict which products are placed in which zone.

### Showing and Hiding the Object Grid

The Object Grid display can be turned On or Off using the Object Grid option on the View menu in both the Planner and Merchandiser environments.

**Figure 2–77 Show Object Grid**



Display can also be toggled On or Off by use of the F9 key.

### Opening and Closing the Object Grid

There are two ways to open the Object Grid:

- Use the View - Show Object Grid menu option.
- Use <Ctrl> +<Shift> +<G> keyboard shortcut.

There are two ways to close the Object Grid:

- Press the button at the top right of the Object Grid.
- Right click the double bar on the Object Grid and click the Close option.

### Moving the Object Grid

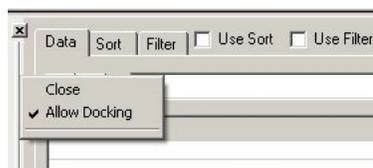
The Object browser behaves differently in the Planner and Merchandiser environments. In the Planner environment it can be docked on any side of the screen. It can also be floated. In the Merchandiser environment it can be docked on any side of the screen, but not floated.

By default in Planner, the Object Grid is docked on the bottom of the screen the first time you log in to Macro Space Management. The Object Grid can be moved to dock on any of the four sides of the screen. To move the Object Grid click and hold the double bar on the Object Grid and drag to it to a new position.

The Object Grid can also be un-docked or float on the screen. This can be done in two ways.

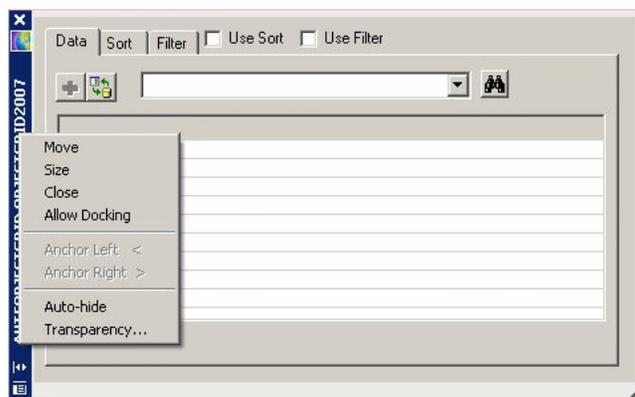
- Right click the double bar on the Object Grid and clear the Allow Docking option.
- Click and hold the double bar on the Object Grid and drag it to the middle of the screen.

**Figure 2–78 Allow Docking**



When the Object Grid is floating, it can be minimized to save space while still leaving it visible on the screen. The Object Grid can be re-docked by right clicking the title bar on the left and selecting Allow Docking. Then drag the Object Grid to the side of the screen where you want to dock it.

**Figure 2–79 Object Grid - Docking**



By default in Merchandiser, the Object Grid is docked on the left-hand side of the screen the first time you log in to the Planner module. The Object Grid can be moved

to dock on any of the four sides of the screen. To do this, right click on the double bar and select the required location.

**Figure 2–80 Object Grid in Merchandiser - Docking**

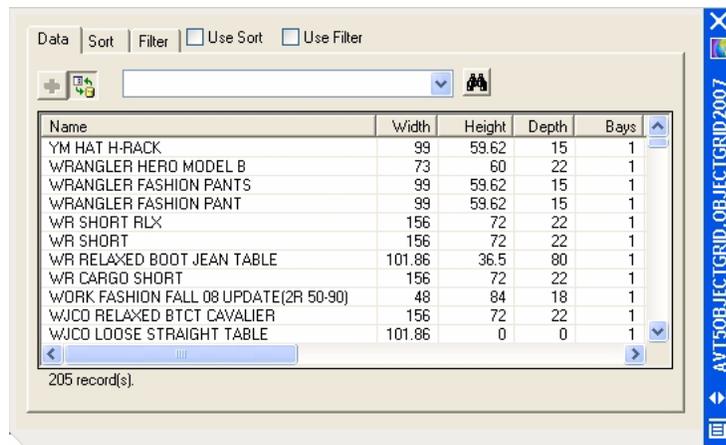


### Anchoring the Object Grid

Anchoring can be done in the Planner module only.

The Object Grid can be anchored on the left or right side of the AutoCAD window. By anchoring the Object Grid it remains on screen, but in a minimized state, which allows you to bring it back up when needed. This also helps to increase the amount of visible drawing area.

**Figure 2–81 Anchoring Object Grid**



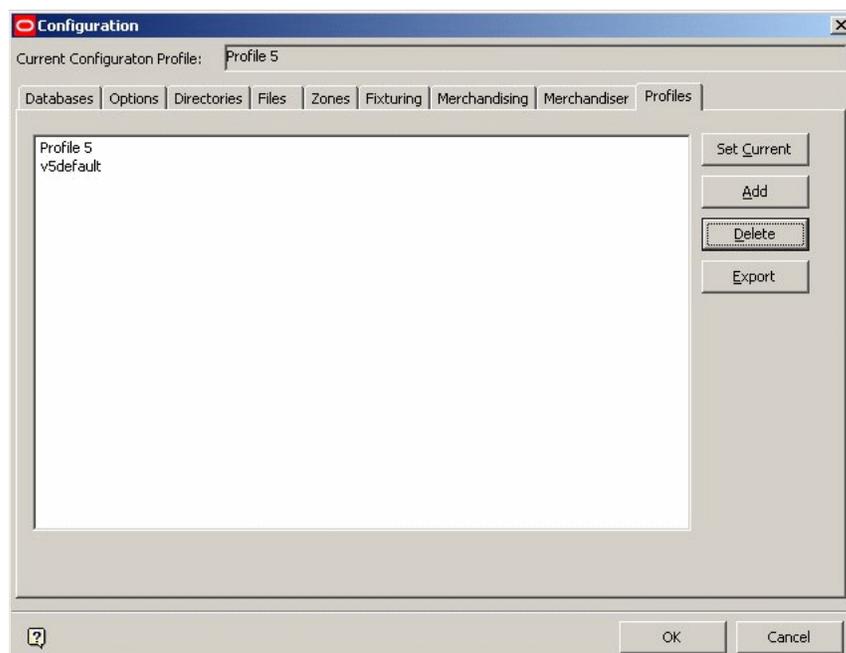
To anchor the Object Grid press the minus sign on the bottom right. To restore the Object Grid to normal, press the Auto-hide button on the title bar of the Object Grid.

### Adjusting the Object Grid

The width of the Object Grid can be adjusted by moving the mouse cursor to the right side edge and dragging the mouse to the desired width. Windows displayed on the Object Grid can be minimized by clicking the title buttons at the top of each window.

### Saving Settings for the Object Grid

Settings for the Object Grid are saved by Macro Space Management. When reopened, it opens in the same state as it was closed by an individual user. Individual settings are saved to the profile currently selected in the Profiles Tab of the Configuration Module.

**Figure 2–82 Object Grid Configuration**

When the user profile is selected, the Object Grid opens at the same state and tab as when it was closed. By default, the Object Grid opens at the Data tab. (For example, if closed in the Sort Tab, it reopens in the Data Tab). When reopened, the columns that were visible and hidden within the Object Grid Data panel when the module was closed, remain in the same state.

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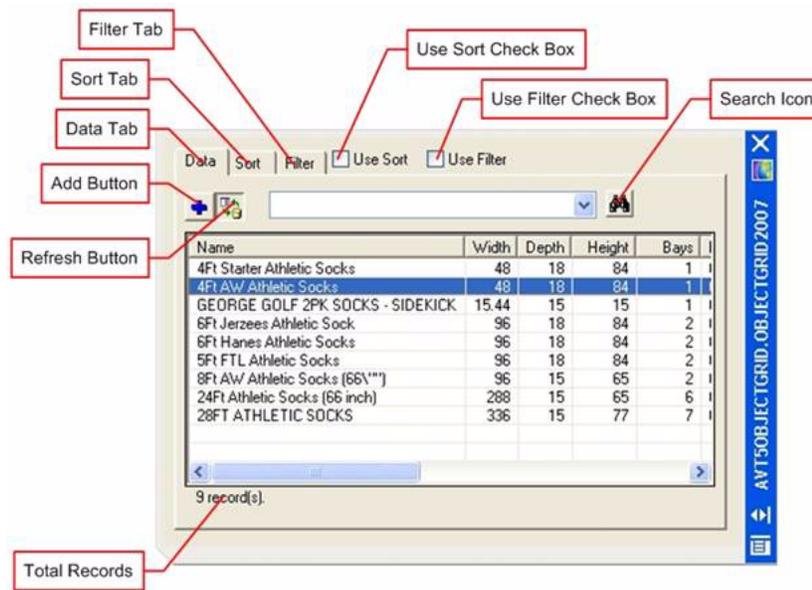
**Note:** If you have not used a machine with your profile on it, then default settings will be used. Similarly, if you log onto another machine, then the settings used will be the same as when you last used that machine.

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### Using the Object Grid

The Object Grid has a series of controls which enable you to sort and filter data.

Figure 2–83 Object Grid Options



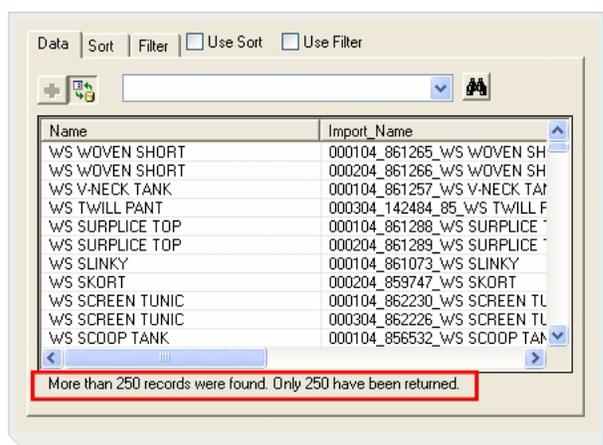
- The **Refresh** button can be toggled on and off. It determines whether data in the Object Grid will be updated if a different point is selected in the current hierarchy in the object Browser.
- The **Add** button allows you to add the currently selected object to the drawing.
- The **Data** tab allows you to see the list of currently selected data.
- The **Sort** tab allows you to set the selected sort sequences into ascending or descending.
- The **Filter** tab allows you to filter the currently selected data.
- The **Use Sort** checkbox enables you to toggle sorting On and Off.
- The **Use Filter** checkbox allows you to toggle filtering On and Off.
- The **Search** icon allows you to search for specific text strings.
- The Total Records displayed are located at the bottom of the screen.

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**Note:** If there are more records than the maximum specified in the software, a warning message appears at the bottom of the Object Grid as follows.

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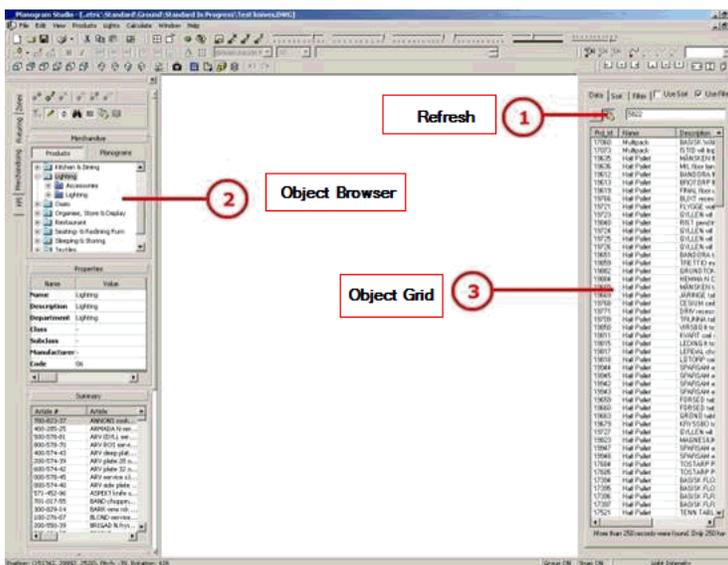
Figure 2–84 Object Grid - Records



Selecting Data to Load into the Object Grid

Data is selected from the currently selected hierarchy in the Object Browser. For example, if the products hierarchy is selected in the merchandising tab, then the selected list of products are loaded into the object grid.

Figure 2–85 Object Grid - Selecting Data



To select a list of products ensure the **Refresh** button on the Object Grid is selected.

Figure 2–86 Refresh Button



Select an appropriate node from the hierarchy in the Object Browser, the appropriate list of information appears in the Object Grid. If there are more than the permitted number of entries a warning appears at the base of the Object Grid.

### Selecting Objects

You can select fixtures or planograms from the Object Grid.

- **Fixtures**

To populate the Object Grid with Fixtures, from the Fixtures tab on the Object Browser, select a fixture group. The Object Grid populates with all fixtures that have been associated with that group.

- **Gondolas**

Gondolas cannot be selected using the Object Grid.

- **Products**

As most merchandising is done using planograms, the Object Grid populates with planograms even if a product is selected (down to sub-class level). That list of planograms is then displayed in the Object Grid.

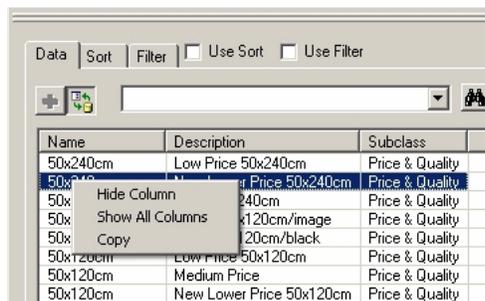
- **Planograms**

To populate the Object Grid with planograms, select a planogram group in the Object Browser. All planograms associated with that group are then displayed in the Object Grid.

### Hiding and Changing Order of Columns

Columns can be hidden by positioning the mouse cursor over the column you wish to hide, then right click to bring up the pop-up menu.

**Figure 2–87 Object Grid - Columns**



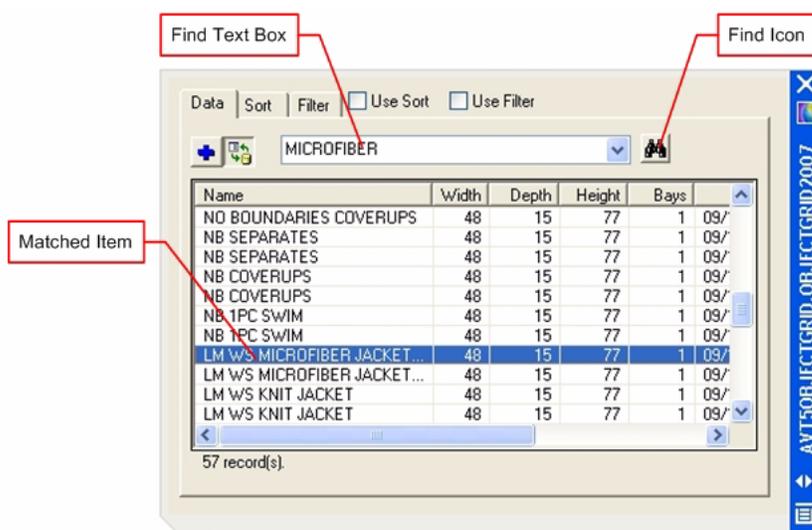
The same pop-up menu can be used to show all columns and copy data from the cell last clicked on by the mouse.

You can reorder the column position in the Grid by positioning the mouse cursor over the required column heading, hold the left mouse key down and drag it to its new position. Release the mouse key in its new position.

### Searching Data

To search for data:

1. Select the Data Tab.

**Figure 2–88 Object Grid - Data Tab**

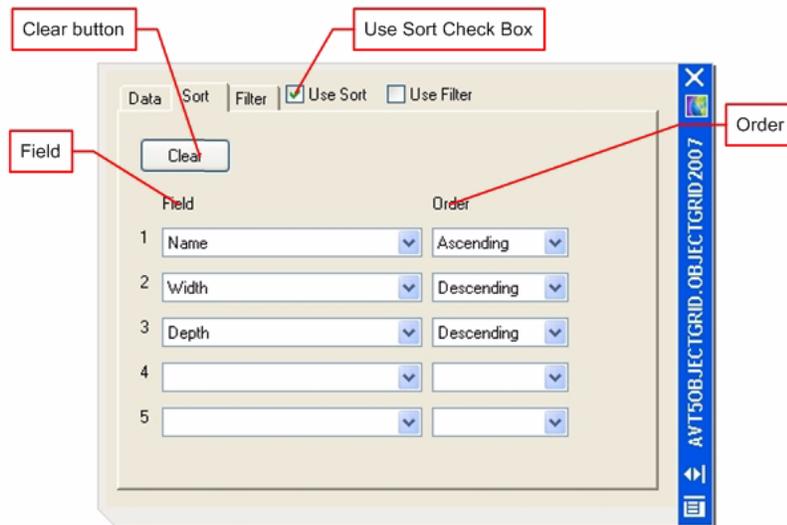
2. Type a text string into the Find Text box. The Search String can include wild cards. The drop down list in the Find Edit Box displays the last 10 search criteria, allowing you to revert back to previous searches. You can use <Ctrl + X>, <Ctrl + C> and <Ctrl + V> to cut, copy and paste data between the Windows clipboard and the Find Edit Box.
3. Click the Find icon, the first matched item appears highlighted in the list of objects. Successive clicks on the Search icon brings up further matches. When the list of matches has been exhausted (or if there are no matches) then a warning message appears.

**Figure 2–89 Find Warning Message**

### Sorting Data

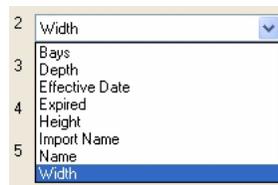
Data can be sorted in the Sort tab.

**Figure 2–90 Object Grid - Sort Tab**



For Sorting to be enabled, the Use Sort checkbox must be enabled. If you sort the data in the data tab by clicking on a column header, this automatically clears the Use Sort checkbox. Select the required Field from the drop down list. The sequence fields that can be ordered are set by the drop down list.

**Figure 2–91 Object Grid - Sort Data**

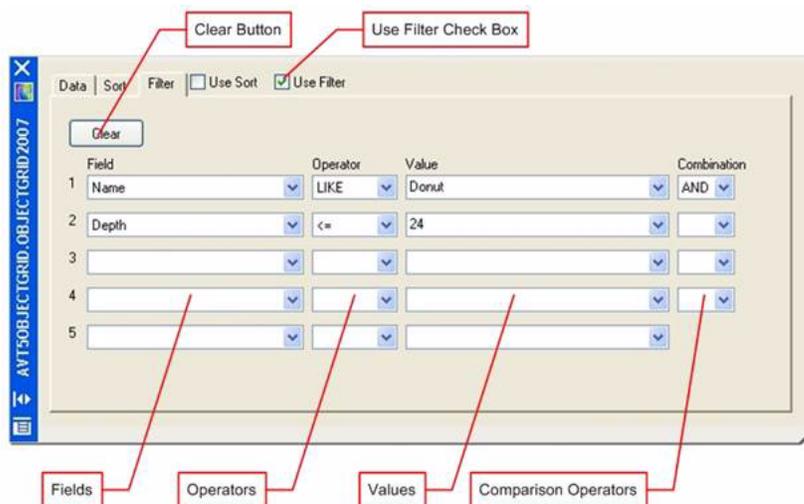


Settings can be removed by clicking the Clear button.

### Filtering Data

Data can be filtered from the Filter Tab.

Figure 2–92 Object Grid - Filter Tab



For Filtering to be enabled the Use Filter checkbox must be selected. The Field to be filtered can be selected from a drop down list. The available fields include those from any columns that have been hidden.

The operator to be used for filtering is also selected from a drop down list. Operators include =, <>, <, <=, >, >=, IN, NOT IN, LIKE, NOT LIKE. A value can be typed into the Value text box. The Combination drop down list can be set to AND or OR.

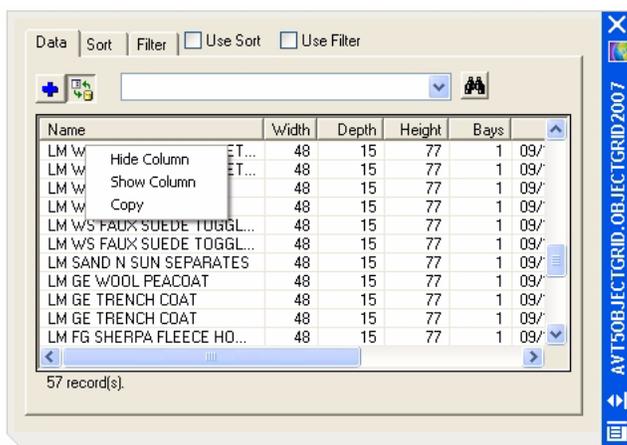
AND means all the conditions specified have to be satisfied for a filtered object to be selected.

OR means that if either of the conditions specified met are specified, a filtered object is selected.

### Working with Columns

There are two actions that can be carried out with columns in the Object Grid; showing/hiding column and changing the column order. Columns can be hidden by positioning the mouse cursor over the column you wish to hide, then right clicking to bring up a pop-up menu.

Figure 2–93 Object Grid - Columns



The same pop-up menu can be used to show all columns and to copy data from the cell last clicked on by the mouse. The column order can be changed by positioning the mouse cursor over the required column heading, holding down the left mouse key and dragging it to its new position. Releasing the mouse key leaves it in its new position.

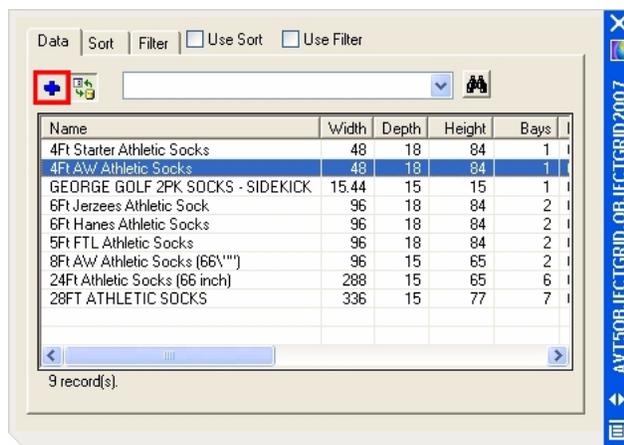
### Adding an Object to the Drawing

In the Planner Environment, objects can be added from the Object grid into the drawing in two ways:

- Dragging and dropping
- Add button in the Data Tab.

The Add button is enabled if an object is selected by clicking on it.

**Figure 2–94 Object Grid - Add**



Only a single object can be added to the drawing at one time.

In Merchandiser, objects can only be added by 'dragging and dropping' as the Add button is disabled in this environment. Only a single object can be added to the drawing at one time.

### Technicalities

- Operators

Operators are used to select or filter data. Valid operators that can be used depends on the type of data to be filtered.

**Table 2–3 Operators**

Comparison	Means	Boolean	Numeric	Text	Date
=	Equal to	x	x	x	x
<>	Not equal to	x	x	x	x
<	Less than		x	x	x
<=	Less than or equal to		x	x	x
>	Greater than		x	x	x

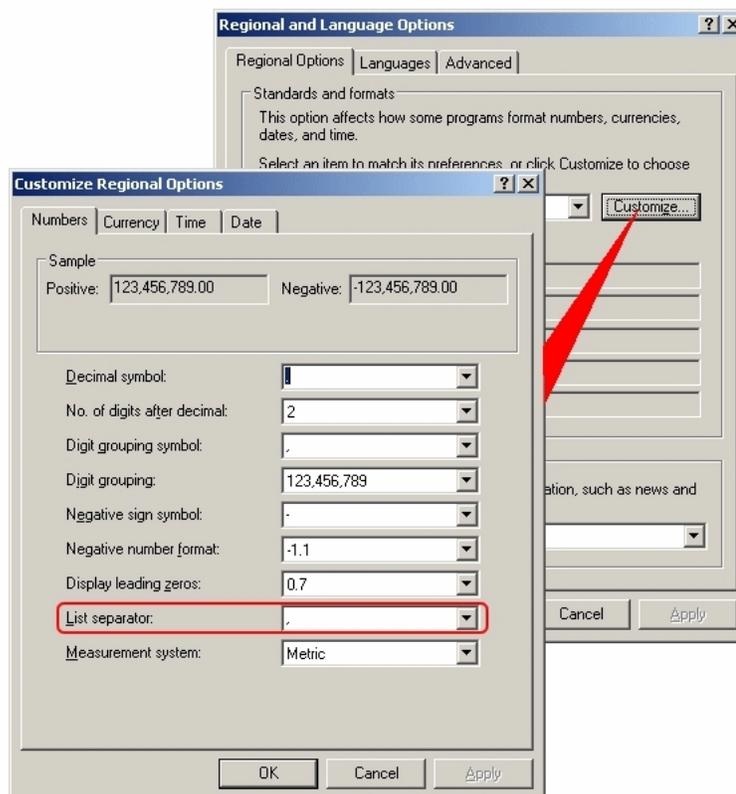
**Table 2–3 (Cont.) Operators**

Comparison	Means	Boolean	Numeric	Text	Date
>=	Greater than or equal to		x	x	x
IN	x		x	x	x
NOT IN	x		x	x	x
LIKE	x			x	
NOT LIKE	x			x	

In the case where the LIKE operator is used, it assumes wild cards (\*Value\*) unless you define them explicitly.

In the case where the IN operator is used, you need to separate the values using a space or the Operating System locale setting for the list separator.

The Operating System locale setting can be found by going to the Windows control panel and selecting the Regional and Language Option.

**Figure 2–95 Regional and Language Options**

Clicking on the Customize button in the Regional and Language Options dialog box brings up the Customize Regional Options dialog box. This shows the current setting for the List Separator.

### Examples of Combinations

The effect of multiple filters depends on whether AND or OR is selected.

- Class = Tinned Goods AND Description = Beans will find all tinned goods with a description of 'beans'.
- Class = Tinned Goods OR Description = Beans will find all tinned goods. It will also find any item with a description of 'beans'. (This could include dried beans in plastic packaging).
- Use of AND will normally give a more specific result than OR.

### **Wild Card**

A wild card character can be used to substitute for any other character or characters in a search string.

- The asterisk (\*) substitutes as a wild card for any number of characters.
- The question mark (?) substitutes as a wild card for any single character.
- The hash mark (#) substitutes for any single number.

### **Example 2-1 Example of Wild Card**

Beans 50g will find an exact match.

Beans\* will find Beans 50g, Beans 100g, Beans - Special, Beans - barbecue, etc.

Be??? will find Beans and Beers.

Beans ##? will find Beans 50g, Beans 75g, etc.

### **Cut, Edit and Paste**

- To cut data, highlight it and use <Ctrl + X>.
- To copy data, highlight it and use <Ctrl + C>.
- To paste previously selected data, position the cursor where you want the text to appear and use <Ctrl + V>.

### **Colored Rows**

The data is selected from the database by custom SQL. If the custom SQL includes a column named RGB, then the row is colored using the value in the column. This allows certain rows to be highlighted, which could be used to indicate high performing products or planograms, or simply indicate which products have already been placed.

The Planner Module is primarily used for the layout of zones, fixtures, and fittings within a store. It can do this with extreme accuracy. It can also be used to merchandise a store, but will show less detail than the same store if viewed in Merchandiser.

Starting with an architectural drawing, zones, fixtures and gondolas can be placed. The fixtures and gondolas can be merchandised with placeholders or planograms. Reports can be generated on the store.

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**Note:** The screen captures in this section are taken using AutoCAD 2008/2009. If you are using any other version of AutoCAD, the view may be different.

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This section contains following topics:

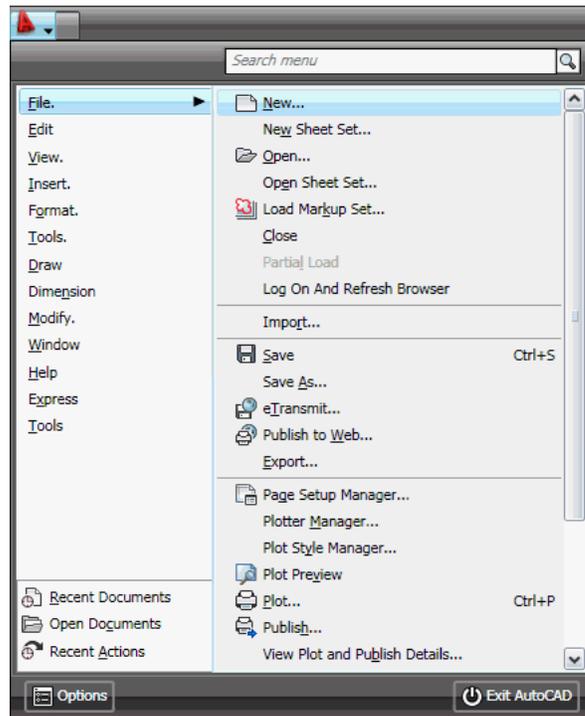
- [AutoCAD Menu Options](#)
- [Zones](#)
- [Fixturing](#)
- [Merchandising](#)
- [Calculations](#)
- [Synchronization](#)

## AutoCAD Menu Options

### File Menu

The File menu allows you to access to a number of general options.

**Figure 3–1 Planner - File menu**



**Table 3–1 Planner - File Menu**

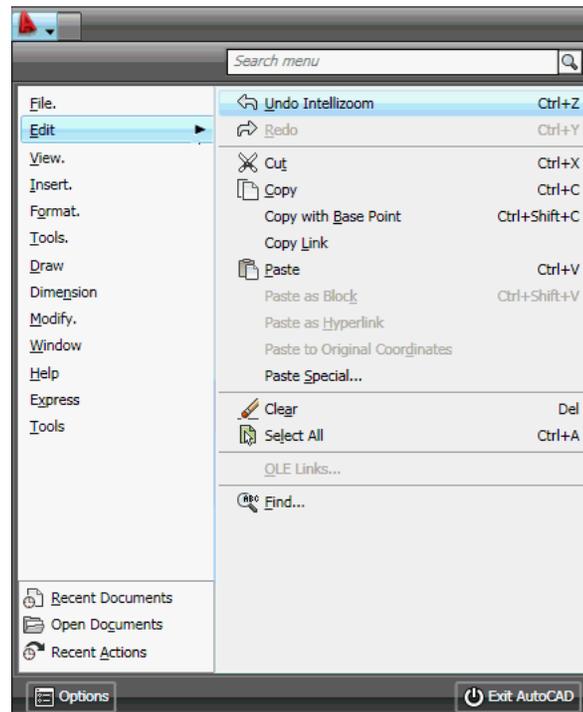
Functionality	Source	Comment
Open	Macro Space Management	Opens Store Manager
Close	Macro Space Management	Closes the current drawing
Save	Macro Space Management	Saves the current drawing
eTransmit	AutoCAD	See AutoCAD Help File for further information.
Export	AutoCAD	See AutoCAD Help File for further information.
Publish	AutoCAD	See AutoCAD Help File for further information.
Plot	AutoCAD	See AutoCAD Help File for further information.
Options	AutoCAD	See AutoCAD Help File for further information.
Configuration	Macro Space Management	Opens the Configuration Module

**Table 3–1 (Cont.) Planner - File Menu**

Functionality	Source	Comment
Synchronize	Macro Space Management	Opens the Synchronization Module
Refresh Browser	Macro Space Management	Refreshed the Object Browser with the latest information from the database
Drawing Utilities	AutoCAD	Calls varying AutoCAD utilities - see AutoCAD Help File for further information.
Send	AutoCAD	See AutoCAD Help File for further information.
Drawing Properties	AutoCAD	See AutoCAD Help File for further information.
Exit	Macro Space Management	Exits the Module

## Edit Menu

The Edit menu gives you access to the AutoCAD functionality.

**Figure 3–2 Planner - Edit menu**

**Table 3–2 Planner - Edit Menu**

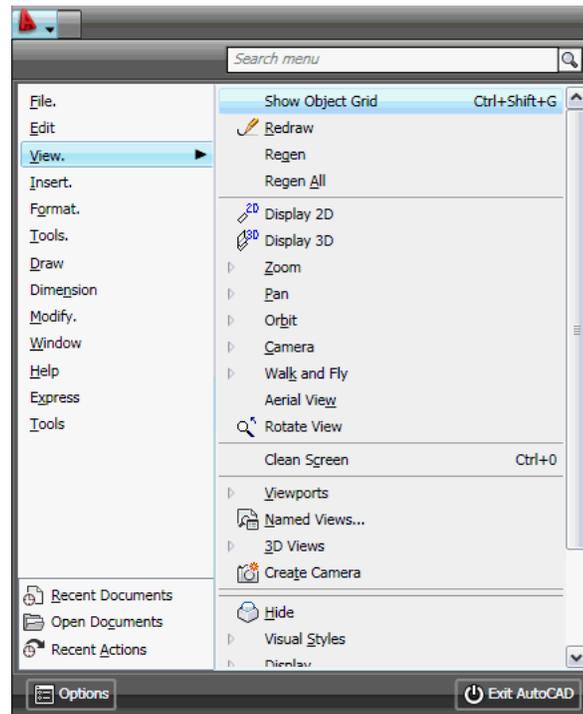
<b>Functionality</b>	<b>Source</b>	<b>Comment</b>
Undo	Macro Space Management	Allows the last command(s) to be undone. (The exact text will vary depending on what the last executed command was).
Redo	Macro Space Management	Allows the last command(s) to be undone. (The exact text will vary depending on what the last executed command was).
Cut	AutoCAD	See AutoCAD Help File for further information.
Copy	AutoCAD	See AutoCAD Help File for further information.
Copy with Base Point	AutoCAD	See AutoCAD Help File for further information.
Copy Link	AutoCAD	See AutoCAD Help File for further information.
Paste	AutoCAD	See AutoCAD Help File for further information.
Paste as Block	AutoCAD	See AutoCAD Help File for further information.
Paste as Hyperlink	AutoCAD	See AutoCAD Help File for further information.
Paste to Original Coordinates	AutoCAD	See AutoCAD Help File for further information.
Paste Special	AutoCAD	See AutoCAD Help File for further information.
Clear	AutoCAD	See AutoCAD Help File for further information.
Select All	AutoCAD	See AutoCAD Help File for further information.
OLE Links	AutoCAD	See AutoCAD Help File for further information.

**Table 3–2 (Cont.) Planner - Edit Menu**

Functionality	Source	Comment
Find	AutoCAD	See AutoCAD Help File for further information.

## View Menu

The View menu provides the following options:

**Figure 3–3 Planner - View Menu****Table 3–3 Planner - View Menu**

Functionality	Source	Comment
Redraw	AutoCAD	See AutoCAD Help File for further information.
Regen	AutoCAD	See AutoCAD Help File for further information.
Regen All	AutoCAD	See AutoCAD Help File for further information.

**Table 3–3 (Cont.) Planner - View Menu**

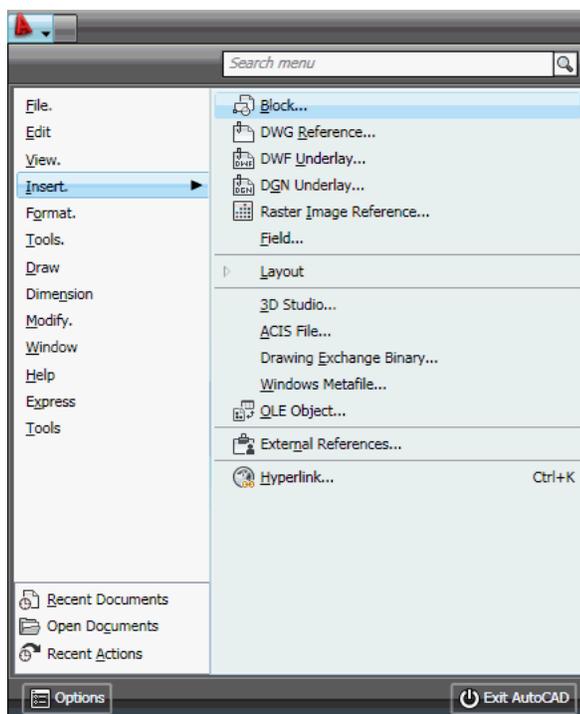
<b>Functionality</b>	<b>Source</b>	<b>Comment</b>
Display 2D	Macro Space Management	Displays the drawing in Macro Space Management 2D Mode. (The blocks must have been configured accordingly).
Display 3D	Macro Space Management	Displays the drawing in Macro Space Management 3D Mode. (The blocks must have been configured accordingly).
Zoom	AutoCAD	See AutoCAD Help File for further information.
Pan	AutoCAD	See AutoCAD Help File for further information.
Orbit	AutoCAD	See AutoCAD Help File for further information.
Walk and Fly	AutoCAD	See AutoCAD Help File for further information.
Aerial view	AutoCAD	See AutoCAD Help File for further information.
Rotate View	AutoCAD	See AutoCAD Help File for further information.
Viewports	AutoCAD	See AutoCAD Help File for further information.
3D views	AutoCAD	See AutoCAD Help File for further information.
Visual Styles	AutoCAD	See AutoCAD Help File for further information.
Toolbars	AutoCAD	See AutoCAD Help File for further information.
color Products	Macro Space Management	Allows products be to colored according to their general type.
Reports	Macro Space Management	Allows simple reports to be produced on objects within the current drawing.

**Table 3–3 (Cont.) Planner - View Menu**

Functionality	Source	Comment
Drawing Comparison	Macro Space Management	Allows one drawing to be compared with another.
Show (Hide) Object Browser	Macro Space Management	Will show or hide the Object Browser.
Show (Hide) Object Grid	Macro Space Management	Will show or hide the Object Grid.

## Insert Menu

The Insert menu provides ways to attach further information to the store plan.

**Figure 3–4 Planner - Insert Menu****Table 3–4 The Insert Menu**

Functionality	Source	Comment
Block	AutoCAD	See AutoCAD Help File for further information.
External References	AutoCAD	See AutoCAD Help File for further information.
DWF Underlay	AutoCAD	See AutoCAD Help File for further information.

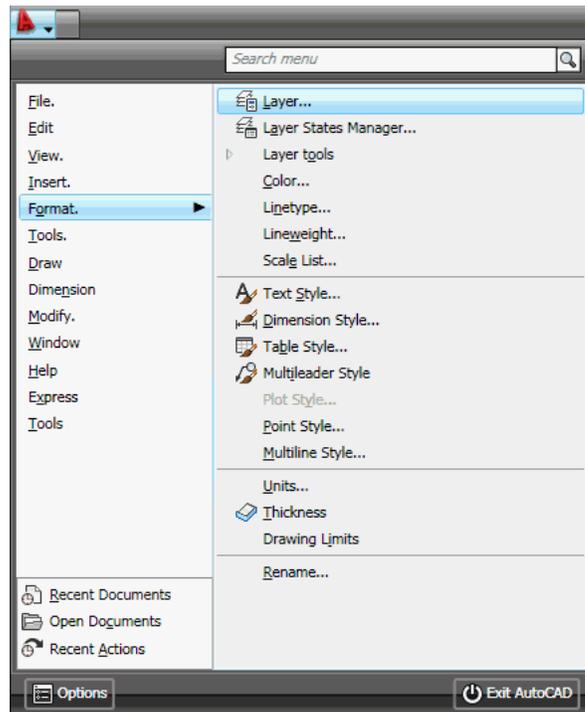
**Table 3–4 (Cont.) The Insert Menu**

Functionality	Source	Comment
Add Architectural Plan	Macro Space Management	X-Refs an architectural plan to the currently active drawing
Add Title Block	AutoCAD	See AutoCAD Help File for further information.
Update Title Block	AutoCAD	See AutoCAD Help File for further information.
Bay Numbering	Macro Space Management	Add numbering to the fixtures in the store plan

## Format Menu

The Format menu allows you to control the layers, dimensions and units associated with the drawing.

**Figure 3–5 Planner - Format Menu**



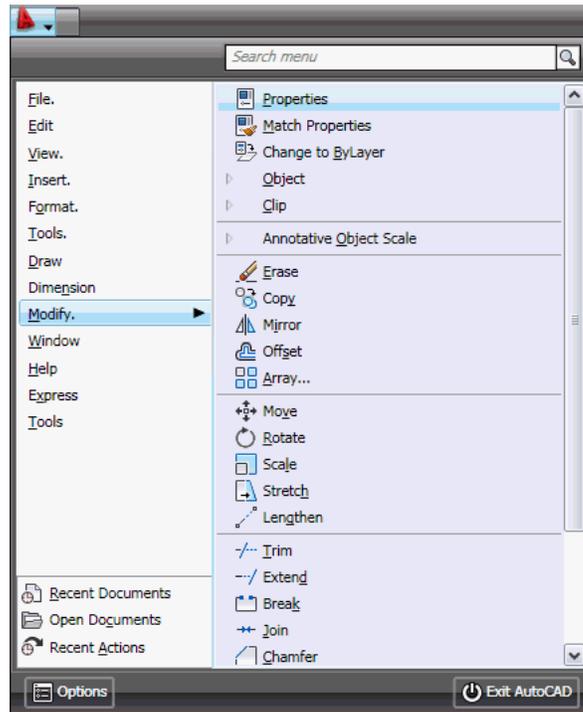
**Table 3–5 Planner - Format Menu**

<b>Functionality</b>	<b>Source</b>	<b>Comment</b>
Layer Aliases	Macro Space Management & AutoCAD	Calls a mixture of Macro Space Management and AutoCAD functionality.
Layer	AutoCAD	See AutoCAD Help File for further information.
Layer States Manager	AutoCAD	See AutoCAD Help File for further information.
Layer Tools	AutoCAD	See AutoCAD Help File for further information.
Dimension Style	AutoCAD	See AutoCAD Help File for further information.
Units	AutoCAD	See AutoCAD Help File for further information.
Drawing Set Up	Macro Space Management	Allow the user to select the scales for Paper space.

## Modify Menu

The Modify menu allows you to modify objects in the store plan.

**Figure 3–6 Planner - Modify Menu**



**Table 3–6 Planner - Modify Menu**

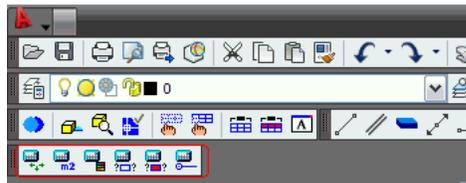
Functionality	Source	Comment
Properties	AutoCAD	See AutoCAD Help File for further information.
Match Properties	AutoCAD	See AutoCAD Help File for further information.
Change to ByLayer	AutoCAD	See AutoCAD Help File for further information.
Object	AutoCAD	See AutoCAD Help File for further information.
Clip	AutoCAD	See AutoCAD Help File for further information.
Erase	AutoCAD	See AutoCAD Help File for further information.
Copy	AutoCAD	See AutoCAD Help File for further information.
Array	AutoCAD	See AutoCAD Help File for further information.

**Table 3–6 (Cont.) Planner - Modify Menu**

Functionality	Source	Comment
Move	AutoCAD	See AutoCAD Help File for further information.
Rotate	AutoCAD	See AutoCAD Help File for further information.
Blocks	Macro Space Management & AutoCAD	Calls a mixture of Macro Space Management and AutoCAD functionality.
Attributes	Macro Space Management	Allow the user to select the scales for Paper space.
Text	Macro Space Management & AutoCAD	Calls a mixture of Macro Space Management and AutoCAD functionality.

## Calculations Menu

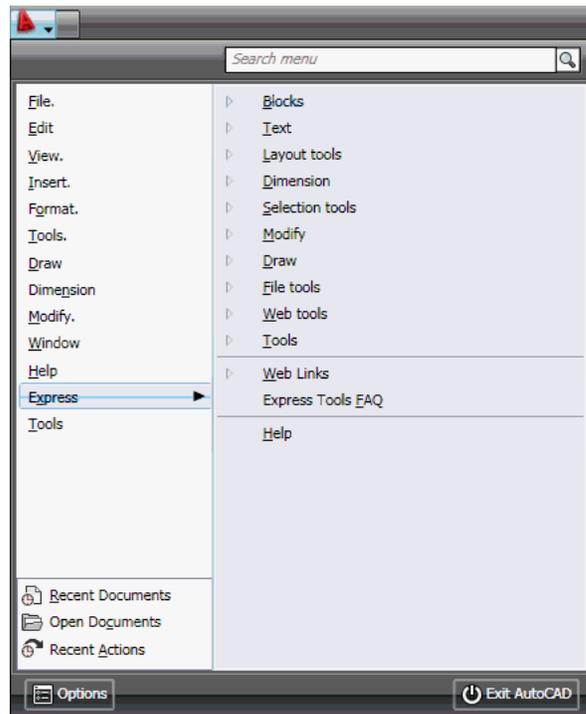
The Calculations menu enables you to initiate various calculations that enter data into the central Macro Space Management database.

**Figure 3–7 Planner - Calculations Menu**

## Express Menu

The Express menu provides quick access to commonly used AutoCAD functionality.

**Figure 3–8 Planner - Express Menu**



## Help Menu

The Help menu contains a number of options that access Help and Assistance.

**Table 3–7 Planner - Help Menu**

Functionality	Source	Comment
AutoCAD Help	AutoCAD	See AutoCAD Help File for further information.
New Features Workshop	AutoCAD	Not yet available
Planner Help	Macro Space Management	Calls Macro Space Management's Help File for this module.
Additional Resources	AutoCAD	See AutoCAD Help File for further information.
Customer Involvement Program	AutoCAD	See AutoCAD Help File for further information.
About	AutoCAD	Gives the AutoCAD version.
About Planner	Macro Space Management	Gives the Planner version

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## Store Manager

Oracle Retail Macro Space Management application combines the traditional merchandising approach with store planning, construction, operation, and inventory management. It is designed to maximize profitability and returns by enabling the optimum layout and mix of products to be efficiently planned right across an organization's range of retail outlets.

Macro Space Management contains large amounts of information. This can be as specific as the current contents of a shelf in a single store or as general as the floor plans to be implemented business wide within a specified time period. This mass of information has to be organized and administered. Within Macro Space Management this is achieved by the Store Manager module.

Store Manager operates in a similar way to Windows Explorer. It has been designed to be easy to use and allows information to be grouped in a way that reflects the structure of the organizations.

Using Store Manager you can:

- Assign your retail outlets to logical groupings, allowing comparisons and analysis of sales to be made between individual stores or groups of stores.
- Assign or change floor plans for stores, allowing the effects of differing store layouts or merchandising mixes to be evaluated.
- Carry out routine administration on the files used within Macro Space Management.
- Get reports on the data used within Macro Space Management.
- Interface with external programs allowing import and export of data to and from those programs.

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**Note:** In-Store Space Collaboration, a web-based module of Macro Space Management, can be used to access and edit drawings held in the central Macro Space Management database.

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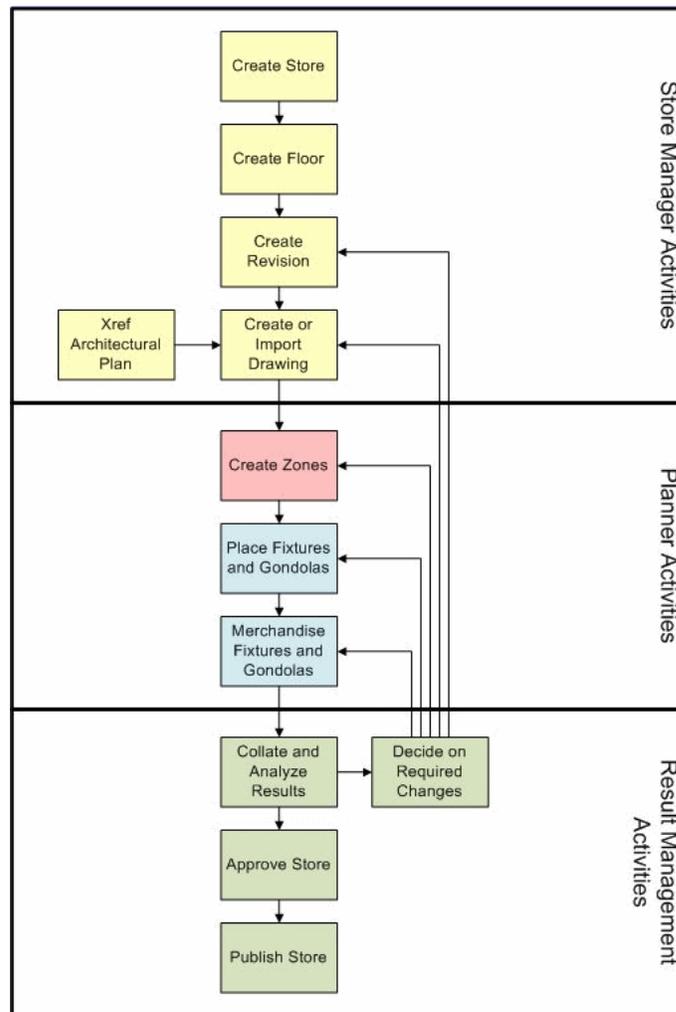
## Zones

### Business Flow for Zones

A Zone defines a section of floor used for a specific and clearly defined purpose, based on the floor layout specified by an architectural drawing. The Zone might define an area used for sales or storing stock, or it might define areas used for non-sales purposes such as offices, corridors or toilets. The starting point is a layout specified by a cross-referenced architectural drawing. This sets out the boundaries defined by external and internal walls.

From a technical standpoint, a Zone is a Macro Space Management Block that allows additional information to be put into an AutoCAD architectural drawing. This subsequently allows more structured Macro Space Management reports to be produced on the associated layout of fixtures, fittings, and Planograms within that drawing.

Figure 3–9 Business Flow - Zones



A Zone is defined by an AutoCAD Polyline enclosing a specific section of floor. Further Polylines within the Zone can be used to define pillars or other obstructions. The designation of pillars and other obstacles allows taking these pillars and other obstacles into account when calculating sales areas. This results in a more accurate calculation of the area of usable floor, enabling sales performance analysis to take into account the effect of obstructions.

The Zone is used to assign a specified part of the total floor area to a specific function. Such functions include allocating to specific types of retail goods, (for example electrical goods), or designating the area as a non-sales area; for example a manager's office or a corridor. Zones thus allow the total floor area in the store to be split into sales and non-sales areas and then further sub-divided as to purpose. This sub-division of the store allows Planograms and fixtures to be filtered by Zone, allowing the store planner to rapidly establish which goods and which fixtures are in a specific part of the store.

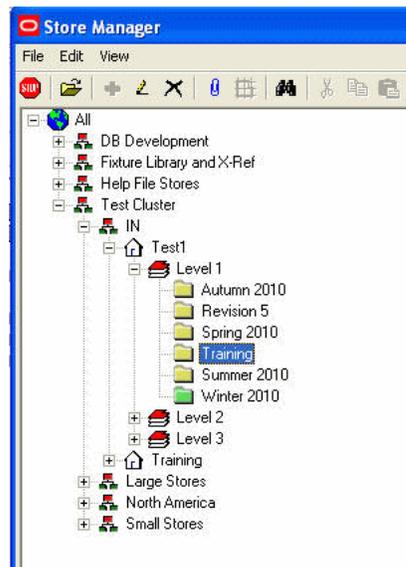
Zones can also be designated as being excluded from certain types of reports. This allows fixtures and Planograms that have been placed in a storage area to be excluded from any calculations or reports on the performance of that part of the store. Many of the characteristics of Zones can be configured within the Administration Module.

## Basic Concepts of Zones

### Hierarchical Tree

A Hierarchical Tree is one where objects are organized in the form of a tree. This allows objects to be set out in a logical relationship to each other. The more fundamental data is close to the trunk, while the more dependent data is further out on the branches. The most fundamental part of the hierarchical structure is the Store Root.

**Figure 3–10 Hierarchical tree**



Hierarchies can be defined to any level of detail. For example, the Sales Floor Space zone can be divided into a number of broad classes, such as Hardware, Food and Drink, and Concession Area.

The Food and Drink area can further be divided into a variety of departments (zones) like Frozen Foods, Bakery, Dairy, and Meat and Fish.

### Internal Area

The basis for any store plan is generally an architectural drawing. This is normally cross referenced (xrefed) to another AutoCAD drawing to act as a blueprint for the arrangement of zones, fixtures, fittings, and merchandise.

The first zone to be drawn is often the Internal Area Zone. This defines the maximum area available for sales activities. The Internal Area can include both Sales and Non-Sales areas.

It is also possible to draw both sales and non-sales Zones outside of the internal area. Any Zones outside the Internal Area will not be included in any Area Calculations.

### Net Area - Zones

Net Area is the area remaining in a Zone after Holes have been taken into account.

### Gross Area - Zones

The Gross Area of a Zone is the total area of a Zone before any Holes or other non-usable areas have been taken into account.

### **Holes, (Cut Holes)**

A Hole is an area cut into a Zone to represent a pillar or similar obstruction. The hole floor area is not allocated to a zone for the purpose of merchandising. For example an area allocated to the sale of Men's Clothing might have a pillar and a stairwell in it. This area is reduced for the calculation of actual area available for retailing and is taken into account when reviewing the performance of the zone.

The area is subtracted from the Gross Area of the Zone to give the Net Area. To allow for these obstructions, the zone can be modified by cutting holes in it - each hole representing an area that cannot be used for the intended purpose of the zone.

### **Layers**

Planner drawings are often divided into layers. Each layer contains a specific type of information. For example one layer might contain information on fixtures, another data on electrical wiring.

Layers can be further sub-divided into aliases. Each aliased layer contains very specific information. For example, one aliased layer may contain details of all the fixtures capable of holding chilled goods; another all fixtures holding fruit and vegetables.

Layers are one of the methods used by Macro Space Management to filter fixtures, planograms, etc.

### **OSNAP AutoCAD Command**

The OSNAP (Object Snap) AutoCAD command has significant effect on the way Zones are drawn. OSNAP can be turned on and off by clicking on the button at the bottom of the AutoCAD window.

If OSNAP is On, then when Zones are drawn, the lines snap to pre-specified points in any existing objects. Depending on AutoCAD setting, a series of small boxes appears as the mouse is moved about. These represent the points to which lines can be snapped.

Lines can only be drawn to these points.

If OSNAP is Off, then Zones can be drawn to any desired shape within the drawing.

### **Zone Type**

A Zone Type is the broad class a zone falls into. Zone Types are user defined and can include:

- Internal Areas
- Departments
- Non-Sales areas

Each Zone Type is drawn onto its own AutoCAD layer - only Zones on the same layer can be detected as clashing or overlapping.

### **Zone Definition**

After defining the Zone Types (broad classes of Zones), individual types of Zones can be defined.

Examples of Department (Sales Zones) Definitions may include:

- Chilled Goods
- Furniture
- Ladies clothing

Examples of Non-Sales Zone Definitions might include:

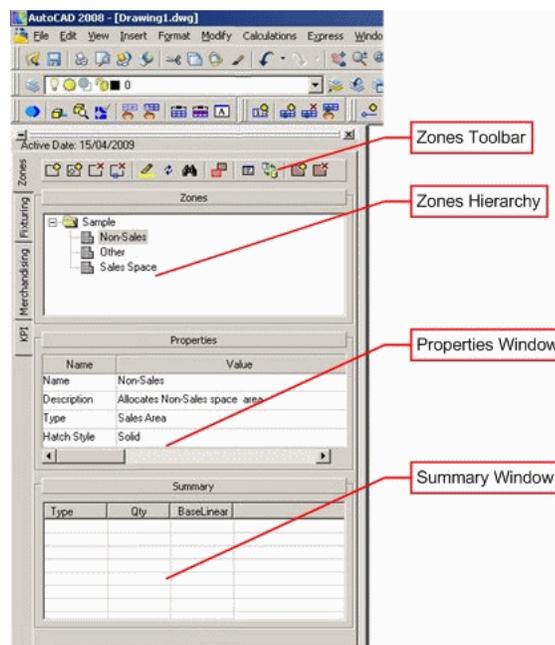
- Corridors
- Offices
- Toilets

In addition to the name and zone type, Zone Definitions can include the type of hatching used in the drawing, the color of the hatching and a user defined code.

### Zone Toolbars and Display Windows on the Object Browser

Click the Zones tab on the Object Browser to display the Zones tab that has options for adding, editing, and deleting Zones.

**Figure 3–11** Zones tab on the Object Browser



### The Zones Toolbar

The Zones Toolbar is found on the Object Browser.

**Figure 3–12** Zones Toolbar

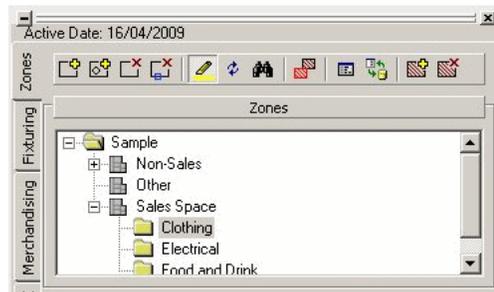


It contains a series of icons allowing various operations to be carried out on Zones.

## The Zones Hierarchy Window

The Zones Hierarchy Window is found immediately below the toolbar.

**Figure 3–13** *Zones Hierarchy Window*



It contains a hierarchical tree giving a list of all the available Zone types.

---

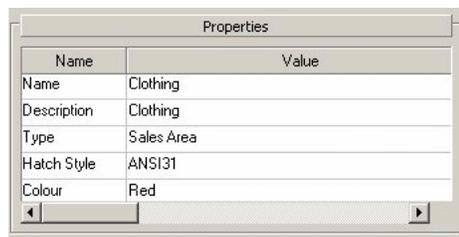
**Note:** Zone types and descriptions can be added, edited or deleted using the Administration Module.

---

## The Properties Window

The Properties Window gives details of the Zone Definition that has been selected in the hierarchy.

**Figure 3–14** *Properties Window*



## The Summary Window

The Summary Window shows a user defined list of fixtures placed in the drawing.

**Figure 3–15** *Summary Window*

The screenshot shows a window titled 'Summary' containing a table with three columns: 'Type', 'Qty', and 'BaseLinear'. The table has the following data:

Type	Qty	BaseLinear
Pillar	73	36.5

The 'Pillar' row is highlighted in blue. A vertical splitter bar is visible between the 'Qty' and 'BaseLinear' columns.

Click on a column heading to re-order that column. To reverse the sort order, click again.

The Summary window can be minimized by clicking the splitter bar.

## Zone Operations

### Adding Zones/Boundaries

Adding zones is a simple process, initiated from the Object Browser.

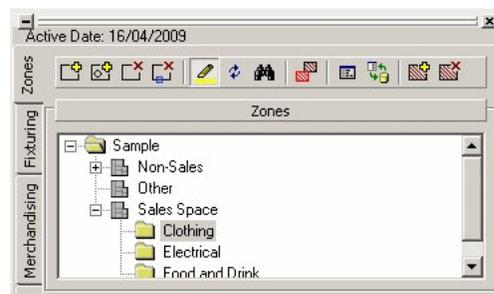
To add zones:

1. Select the Zones tab on the Object Browser.
2. Select the required Zone Description from the Zones Hierarchy Window.
3. Select the Add Zone option from the toolbar.
4. Draw the required Zone shape and complete the drawing by using the 'close' command.

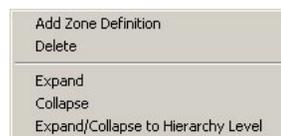
### Selecting the Zone Description

The Zone Description is selected from the Zones hierarchical tree window.

**Figure 3–16** Zones hierarchical tree window



The tree can be expanded or collapsed by clicking the + or - signs. Alternatively right click with the mouse to bring up a menu of options.



This can be used to expand or collapse the hierarchical tree. The required Zone can then be selected by left clicking it to highlight the zone. Details of the Zone appear in the Properties window.

**Figure 3–17** Properties window



This enables the Zone Description to be confirmed as correct.

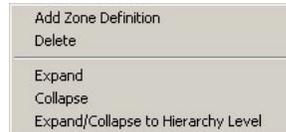
## Initiating Drawing a Zone

When the Zone description has been selected, the process of drawing the Zone is initiated by selecting the Add Zone option.

To draw a zone:

1. Select the Add Zone icon can be clicked in the tool bar to initiate drawing the Zone.

Alternatively, you can right click in the Zone Descriptions window to bring up menu options.



2. Select Add Zone Definition to initiate drawing the zone.

## Drawing the Zone

After you have selected the Add Zone Boundary option, the cursor is active and ready to start specifying the Zone Boundaries.

---

---

**Note:** The way the Zone is drawn depends on whether OSNAP (Object Snap) has been selected or not. If selected, Lines can only be drawn to specified points. If OSNAP is off, then lines may be drawn to any location on the drawing. OSNAP AutoCAD Command

Entering 'Close' in the command line completes the Zone drawing process by turning the currently drawn line into a Polyline enclosing the Zone.

---

---

## Drawing a Simple Rectangle

To draw a simple rectangle position the cursor at the required start point and left click to fix it. Draw the cursor to the diagonally opposite corner of the required rectangle and left click to fix it. Press <Escape>. A rectangle of the required dimension is immediately drawn.

## Drawing Zones with OSNAP On

When OSNAP is on, a series of symbols appear as the cursor moves about. These show the available points that can be selected. Click on successive points to draw the outline of the Zone.

---

---

**Note:** With OSNAP on, the Polylines can only be drawn to a limited number of specified points. To draw to a wider selection of points, turn OSNAP off.

---

---

## Drawing Zones with OSNAP Off

With OSNAP is off, Polylines can be drawn to any point of the drawing. Draw the required points, left clicking to fix each in turn. Entering 'Close' in the command line

completes the Zone drawing process by turning the currently drawn line into a Polyline enclosing the Zone.

### Editing Zones

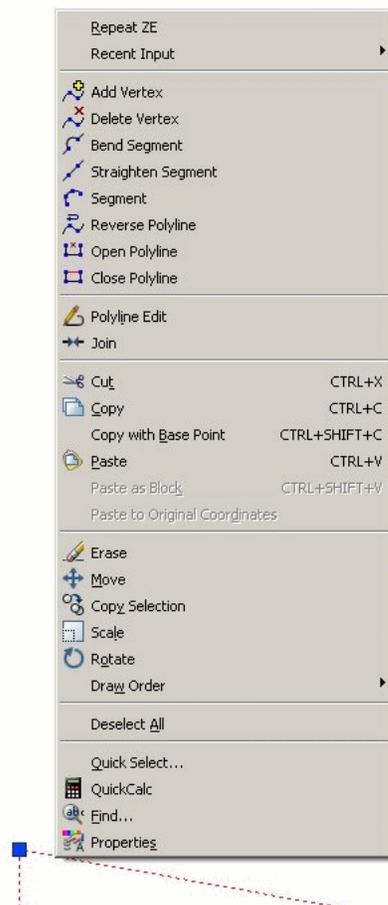
Zones can be edited in two ways:

- Zone Types and Zone Definitions can be modified using the Administration Module. (This option is only available to those with Administrator's privileges).
- The physical dimensions of a zone can be altered using AutoCAD tools.

### Editing Zones with AutoCAD Tools

Zone shapes and dimensions can be changed using AutoCAD tools that are available by clicking on the zone boundary to highlight it, and then right click to bring up a menu of edit options.

**Figure 3–18** Zones - edit menu



Zones can have vertexes added and deleted, segments bent and straightened and segments added. See the AutoCAD help File for further information.

### Editing Zones with AutoCAD

Editing a Zone in AutoCAD can be done by using the AutoCAD grip points.

1. Click on the required Zone to get the grip points to show.

2. Click on the required grip point and move it to the desired new location.
3. Left click to set the new location for the grip point and <Escape> to complete the AutoCAD editing process.
4. The Zone is now fixed in its new shape.

### Zone Notation

If the shape of a Zone is substantially changed, the position of the notation remains in the original position. This should be selected using AutoCAD tools then dragged to a new and more appropriate position.

### Cutting Holes

You can cut holes in the zones from the Object Browser.

To cut holes:

1. Select the Zones tab on the Object Browser.
2. Highlight the required Zone in the Zones Hierarchy.
3. Select the Cut Holes icon, and draw the shape of the hole.
4. Enter 'Close' in the command line to complete the hole drawing process by turning the currently drawn line into a Polyline enclosing the hole.

### Selecting the Zone to Cut a Hole

---

---

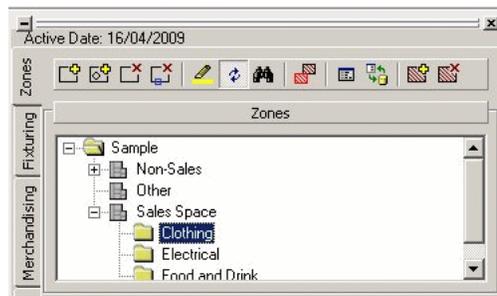
**Note:** Holes can only be cut in the Zone currently highlighted in the Zone Hierarchy

---

---

If the name of the zone is known, the appropriate Zone Description can be selected from the Zones Hierarchical Tree window.

**Figure 3–19** Zones Hierarchical Tree window



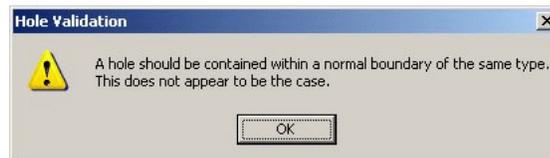
Alternatively, the Highlight zone in tree command can be used to select the appropriate Zone description in the Zones Hierarchy.

**Figure 3–20 Zones - Highlight zone**


---

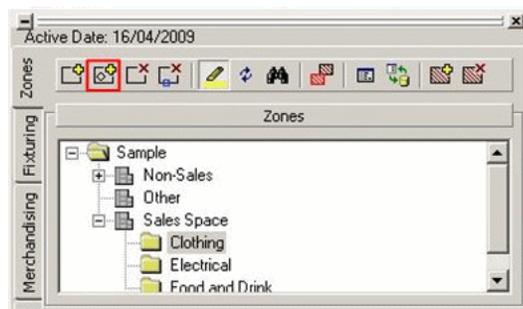
**Note:** If the Zone Definition is not correctly selected before a hole is cut, the error message depicted will result.

---

**Figure 3–21 Validation message**

### Initiating Drawing the Hole

When you have selected the Zone description, initiate the process of drawing the Hole by selecting the Add Hole Option. This can be done by clicking on the tool bar to initiate drawing the Hole.

**Figure 3–22 Add Hole Option**

### Defining the Hole

After you have selected the Cut Hole option, the cursor is active and ready to start specifying the Hole Boundaries.

---

---

**Note:** The way the hole is drawn depend on whether OSNAP (Object Snap) has been selected or not. If selected, Lines can only be drawn to specified points. If OSNAP is off, then lines may be drawn to any location on the drawing. OSNAP AutoCAD Command

Entering 'Close' in the command line completes the hole drawing process by turning the currently drawn line into a Polyline enclosing the hole.

---

---

### Drawing a Simple Rectangle

To draw a simple rectangle position the cursor at the required start point and left click to fix it. Draw the cursor to the diagonally opposite corner of the required rectangle and left click to fix it. Press <Escape>. A rectangle of the required dimension is drawn.

### Drawing Holes with OSNAP On

When OSNAP is on a series of symbols appear as the cursor moves about. These show the available points that can be selected. Click on successive points to draw the outline of the hole.

---

---

**Note:** With OSNAP on, the Polylines can only be drawn to a limited number of specified points. To draw to a wider selection of points, turn OSNAP off.

---

---

### Drawing Holes with OSNAP Off

With OSNAP off, Polylines can be drawn to any point of the drawing. Draw the required points, left clicking to fix each in turn. Entering 'Close' in the command line completes the hole drawing process by turning the currently drawn line into a Polyline enclosing the hole.

### Deleting Zones and Holes using MSM tools

You can delete zones from the drawing using either of the two options:

- Delete all zones of that description
- Delete a specific zone or hole

#### Delete all Zones of that Description

To delete all examples of a specific Zone Description, first select the required zone in the hierarchical tree. Click on the Delete Zone icon in the toolbar to delete the Zone.

**Figure 3–23 Delete Zone icon**

**Note:** If there are multiple Zones of this type in the drawing, all Zones of this type are deleted.

If you need to identify the Zone type to be deleted, use the highlight Zone in Tree option. Highlight Zone in Tree

### Delete a Specific Zone or Hole

To delete a specific zone or hole, click on the Delete Boundary/Hole option on the toolbar.

**Figure 3–24 Delete Boundary/Hole option**

Click on a zone or Hole in the drawing to delete that zone or hole.

### Deleting Zones using AutoCAD

You can delete Zones using the AutoCAD Erase tool. However, it is recommended users delete Zones using the Macro Space Management Delete Zone option as this is a simpler and more effective way of achieving deletion. To erase a Zone using AutoCAD tools select the zone so that the markers show.

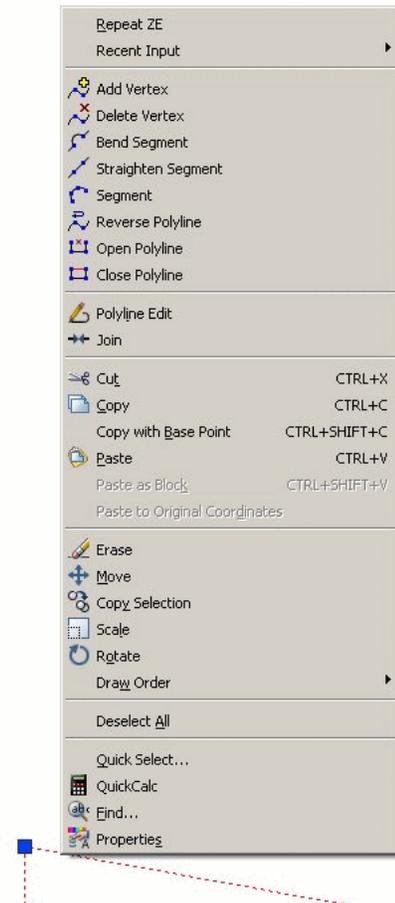
Right click to bring up the menu and click on the Erase icon.

This removes the Zone from the drawing. The Zone is not removed from the Macro Space Management database until the Synchronize tool has been used. For more information, refer the chapter Synchronization.

## Editing Holes

Hole shapes and dimensions can be changed using AutoCAD tools. A range of these is available by selecting the required hole, then right clicking. This will bring up a menu with a number of edit options.

**Figure 3–25 Holes - Edit Menu Options**



Holes can have vertices added and deleted, segments bent and straightened and segments added.

One way of Editing Holes is by using the AutoCAD grip points.

1. Click the required Hole to get the grip points to show.
2. Click the required grip point and move it to the desired new location.
3. Left click to set the new location for the grip point and <Escape> to complete the AutoCAD editing process.
4. The Hole should now be fixed in its new shape.

## Highlight Zone in Drawing

The Highlight Zone in drawing icon allows the location of a zone to be identified in the drawing.

**Figure 3–26 Highlight Zone**

This operation can be toggled on and off by clicking the icon. When toggled on the icon appears pressed down.

When active, left clicking any Zone in the hierarchical tree causes that zone to display in the drawing.

---

**Note:** Only Zones currently in the drawing can be displayed. Selecting a zone which has not been placed has no effect. The precise way the zone highlights is determined by the setting in the Zones tab of the Configuration module.

---

### Highlight Zone in Tree

The Highlight Zone in tree option allows you to highlight the zone boundary in the drawing.

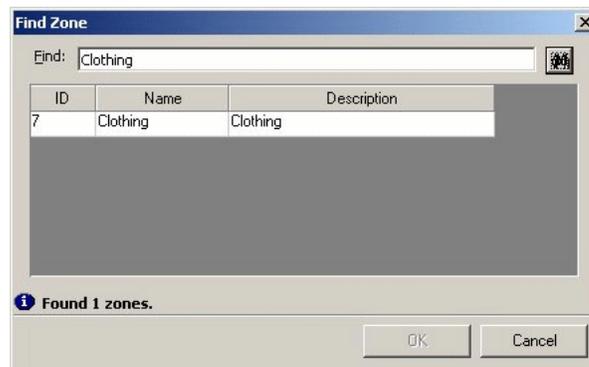
**Figure 3–27 Highlight Zone in tree**

### Find In Tree

Find in Tree allows you to search for Zone Names in the Zone Hierarchy.

**Figure 3–28 Zones - Find**

Click the icon to bring up the Find Zone dialog box.

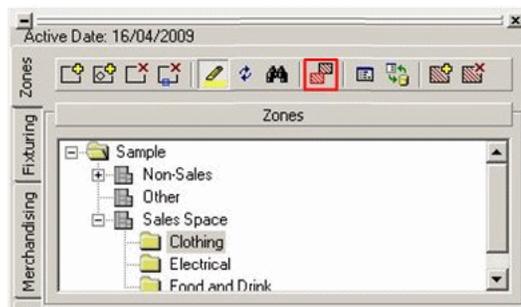
**Figure 3–29 Find Zone dialog box**

To use the dialog box:

1. Type a text string in the Find text box.
2. Click on the search icon. Zone names matching the search string are listed.
3. To select a zone in the hierarchy, highlight it and click the **OK** button.

### Detect Clashes

The Detect Clashes option can be accessed from the Zones toolbar.

**Figure 3–30 Detect Clashes option**

If this option is selected, then any Zones of the same type with overlapping boundaries are highlighted. Zones of the same type that share a common boundary are not highlighted.

---

**Note:** Zones of different type are drawn on different AutoCAD layers. Zones on different layers that overlap will not be shown as clashing.

---

## Configuration Options

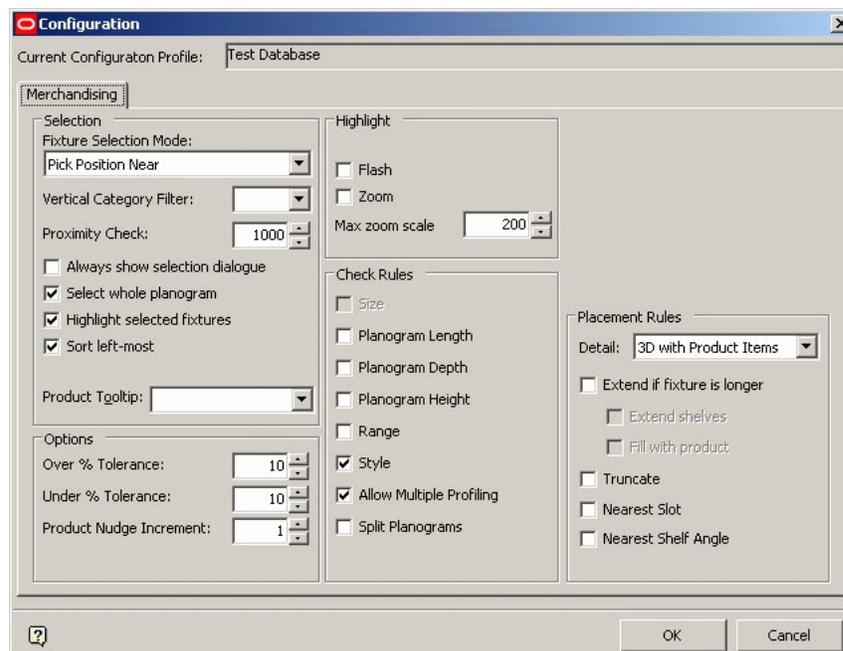
The Merchandising tab in the Configuration Module can be called by clicking on the Configuration icon on the Merchandising toolbar.

**Figure 3–31 Merchandising toolbar**



This brings up the Merchandising tab from the Configuration Module.

**Figure 3–32 Configuration Module**



## Refresh

The Refresh option causes the hierarchical tree in the Zones window to be updated with any Zone Definitions that have been added or edited since the Planner module was opened for the current session. (This is useful if work is being carried out in parallel in the Administration module).

**Figure 3–33 Zones - Refresh**



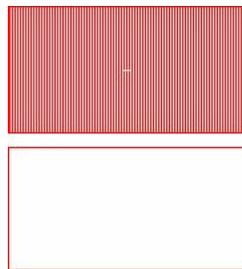
**Hatching**

Hatching can be added to or removed from zones using the appropriate option.

**Figure 3–34 Zones - Hatching**



In the example below the top zone is hatched, the bottom one is not.



**Prototype Stores**

If a Prototype Store has been assigned to the current store in store manager, comparisons can be made between the areas of the zones in the prototype store and the current store.

Zone Name	Gross Area (sq ft)	Net Area (sq ft)	Prototype Gross Area...	Prototype Net Area ...
AUTOMOTIVE	580.48	580.48	555.02	555.02
BOOKS	1291.35	1291.35	1160.15	1160.15
BOYSWEAR	529.83	529.83	577.76	577.76
COMMERCIAL BREAD	0	0	1168.21	1168.21
DOMESTIC GOODS	0	0	1480.13	1480.13
DRY GROCERY	2894.05	2894.05	1138.45	1138.45
FROZEN FOOD	0	0	1131.91	1131.91
GIRLSWEAR	0	0	1214.91	1214.91

In the above example, it can be seen that (for example) the Automotive, Books and Boys' Wear zones exist in both stores, but that the Commercial Bread and Domestic Goods zones do not yet exist in the current store.

It is also possible to compare the areas of the respective zones in the Prototype and current stores, and make adjustments if necessary.

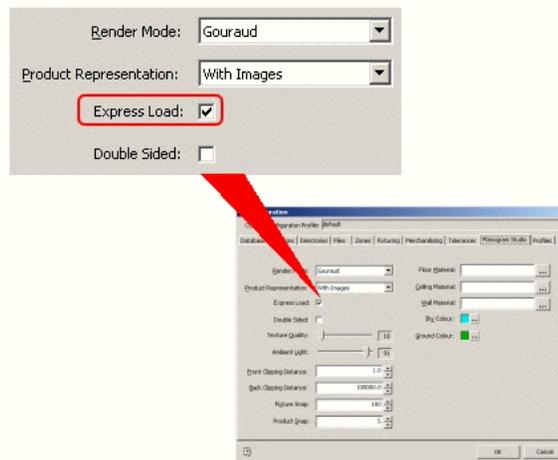
### Zones and Products

When using the Object Browser, it is possible to filter products by zone. This enables the user to select products from (for example) Floral products.

### Selecting Active Zones

The Express Load option in the Merchandiser tab in the Configuration Module enables to load the active zones.

**Figure 3–35 Express Load**



This option is not active in the AutoCAD environment and only applies to Merchandiser.

### Configuring System Variables

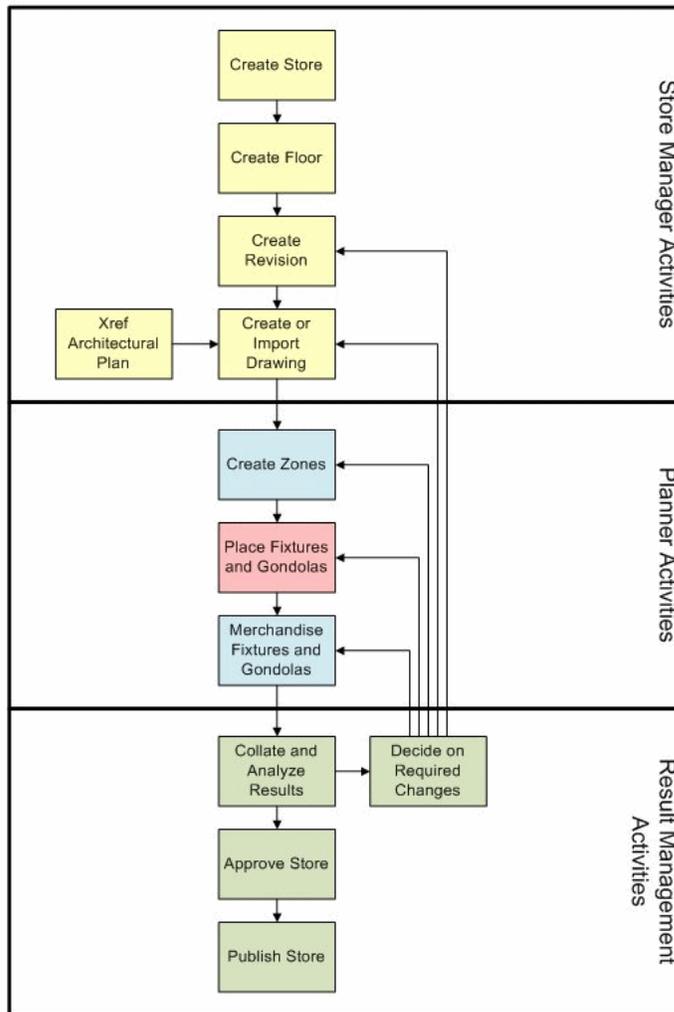
Some of the variables affecting how Macro Space Management operates can be customized. Within Macro Space Management these can be changed via the Administration Module.

**Note:** Changing these System Variables can have a significant effect on how Macro Space Management operates. It is recommended that any changes are made only after consulting the Oracle technical support team.

## Fixturing

### Planner Module and the Business Life Cycle

The Planner module is part of the Business Life Cycle.



Store Manager Activities start the business cycle

The Store Manager enables you to add, edit, or delete stores, floors, and revisions. Revisions contain store plans. These are often associated with architectural plans so that fixtures and gondolas can be placed relative to the walls of the store. Store Manager can be accessed from both Planner and Merchandiser.

Store Planning involves the placement of zones, fixtures and merchandise. Zones can only be placed in Planner, although they can be seen in Merchandiser.

Fixtures and merchandise can be placed in both Planner and Merchandiser. It is normally more convenient to carry out fixturing operations in Planner and merchandising operations in Merchandiser).

After the floor plan has been designed, each fixture can be subsequently populated by a predetermined quantity and arrangement of sales products using the Planogram Selection and Add Product modules. After the floor has been merchandised, Macro Space Management can be used to analyze and report on the effectiveness of the layout.

Using the Fixtures module, you can:

- Place single or multiple fixtures, fittings and gondolas.
- Move or rotate fixtures, fittings and gondolas.
- Erase fixtures, fittings and gondolas.
- Number bays in fixtures and gondolas.
- Calculate effective sales areas.
- Collate information on fixtures and fittings.

Result Management involves checking the completed store layout by means of Reports and Key Performance Indicators before releasing the layout to stores for implementation or starting on the next phase of planning.

## About Fixture Studio

Fixture Studio is a stand alone module where fixtures and gondolas can be added, edited, and deleted. These fixtures and gondolas can be used in the Planner and Merchandiser environments. Fixture Studio can be opened from the Object Browser in the Planner module by clicking the Edit icon on the Fixturing toolbar.

---

**Note:** The Edit Fixture icon is activated only when working with fixtures and Edit Gondola icon when working with gondolas.

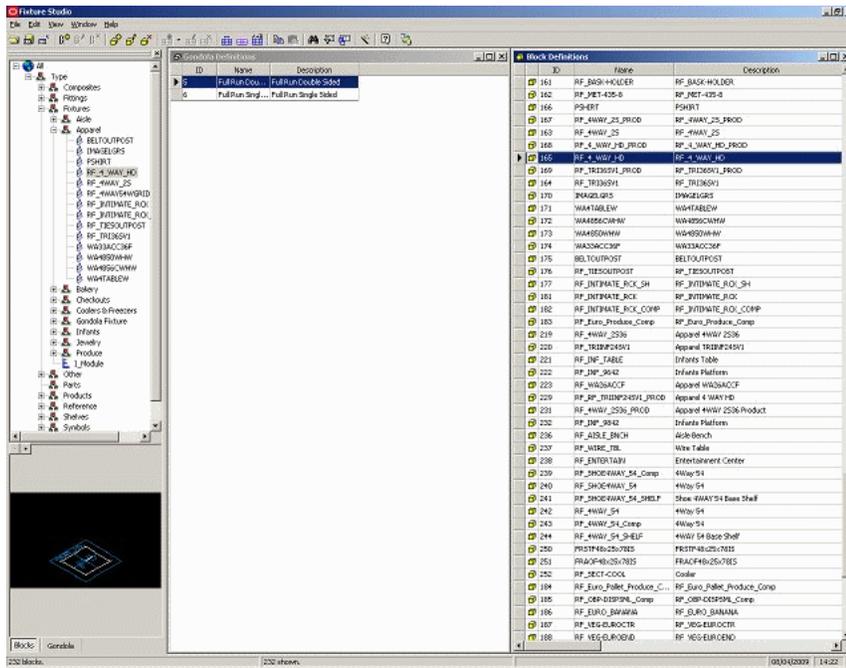
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**Figure 3–36** *Edit Gondola option*



Fixture Studio allows the properties of fixtures and gondolas to be specified. It also allows the hierarchical tree in which they are organized to be modified.

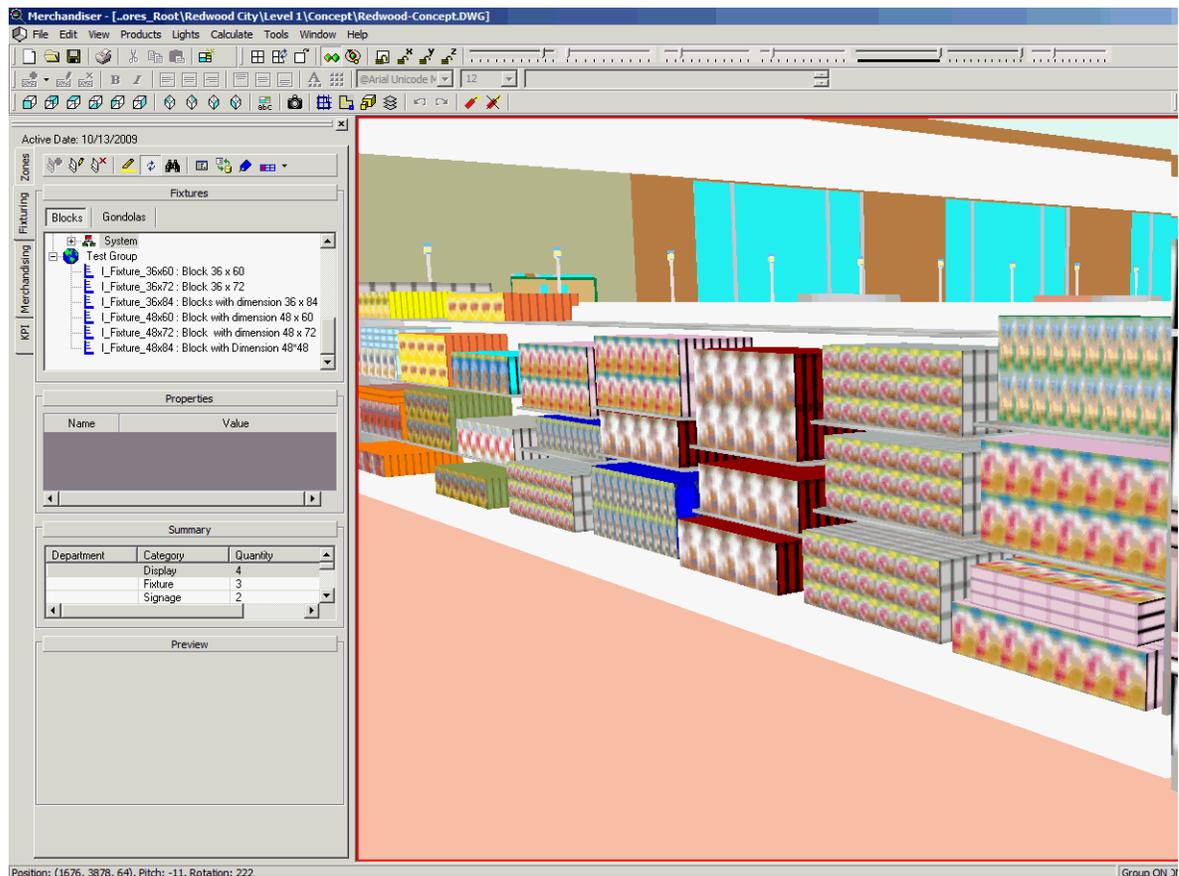
Figure 3-37 Fixture Studio



### About Merchandiser

The Merchandiser module is a virtual reality environment that can be used in conjunction with the Computer Aided Design (CAD) environment of the Planner module.

Figure 3–38 Merchandiser module



The Merchandiser module is used to design planograms and floor layouts wherein fixtures, fittings and gondolas are placed and viewed in the 3D virtual reality (VR) environment. It is not as precise as the Planner environment, but gives a more visual representation of the store plan. The Merchandiser module also enables you to populate the fixtures and gondolas shelves, products and planograms in the 3D virtual reality (VR) environment.

---

**Note:** Shelves can only be placed in the Merchandiser environment, although they can be seen in the Planner environment after Synchronization.

Products can only be placed at display style level in Merchandiser. Such products are not visible in Planner.

---

## Basic Concepts

### Bays

Fixtures and gondolas can be allocated bay (or gondola) numbers to simplify identifying locations. A fixture is assigned a single bay number, where as gondolas, which comprise a number of fixtures, may have multiple bay numbers associated with them.

### **Connection points**

The Connection Point for a fixture or fitting is a representation of the physical connections that can be used to join one unit to another. They are typically on the left and right sides of a fixture, or on the back.

Clicking on the insertion point during addition of fixtures or fittings automatically aligns the fixture or fitting to be placed with the connection point.

### **Fixtures, Fittings, and Shelves**

Fittings are items within a store that aid the retail effort, but do not themselves hold merchandise. For example, display material and checkout counters. Some fittings are used to support or augment fixtures. For example a shelving unit could be made up of support legs and shelves. Fittings always remain separate items on the drawing.

A fixture is a structure designed to hold merchandise for sale. It can take many forms including runs of shelving, display cabinets, and kiosks. A fixture can hold product directly, or via shelves. A shelf always has a parent fixture.

A shelf is equipment within a fixture which can hold products. For example, a backboard might hold several support bars. The support bars could in turn have rods attached. Product could then be hung from those rods. The arrangement of rods emanating from a single support bar is generically called a shelf for planning purposes. Each shelf or fixture always has a product block associated with it. This serves as a placeholder for any merchandise placed on it.

Fixtures and fittings are often color coded on purpose. For example, fixtures holding groceries might be drawn in green, fixtures holding chilled goods in blue.

### **Gondolas**

A Gondola is an arrangement of two or more fixtures linked together by means of connection points or in sufficiently close proximity to meet the definition of adjacency. For example, a run of 10 fixtures placed back to back, with end caps on each end to maximize the area devoted to sales.

Gondolas are internally sub-divided into sections, each new section beginning where fixtures go through more than a 30o change of angle when connected. Gondolas are often color coded on purpose. For example, gondolas holding groceries might be drawn in green, fixtures holding chilled goods in blue. Note that single fixtures are numbered as gondolas if the gondola numbering option is used.

### **Hierarchical Tree**

A Hierarchical tree is the structure of objects organized in the form of a tree. This allows objects to be set out in a logical relationship to each other. The more fundamental data is close to the trunk, while the more dependent data is further out on the branches. The most fundamental part of the hierarchical structure is the Store Root.

### **Insertion Points**

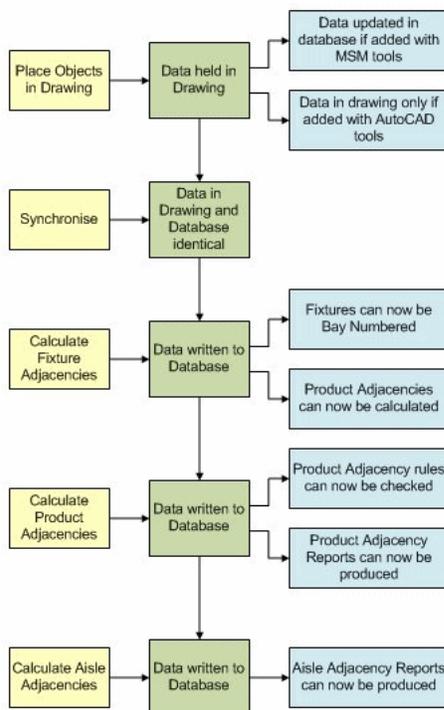
The Insertion point is the point where a fixture, fitting, or gondola is located on the drawing. It can be designated anywhere within the fixture during the drawing stage and appears as a small blue square. Insertion points can be revealed by left clicking on any line within the drawing of the fixture, fitting, or gondola.

### Synchronization

When fixtures, fittings, and gondolas are placed on the drawing, they are also sent as data to the Macro Space Management central database. If fixtures in the drawing are modified with AutoCAD tools, this changes the drawing, but not the central database.

Synchronization is the process of synching the AutoCAD drawing and the Macro Space Management Central database information.

**Figure 3–39 Synchronization Flowchart**



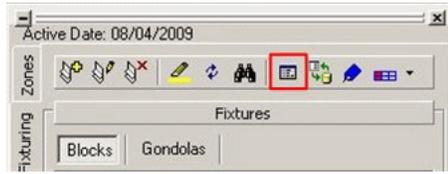
After the drawing has been synchronized with the central database, the Adjacency calculations can be run.

Fixture Adjacency calculations establish the physical relationship of one fixture to another. These relationships are used for both bay numbering and as the basis for subsequent Product Adjacency calculations. Product Adjacency calculations establish the relationship of one type of product to another. They cannot be run until the Fixture Adjacencies have been calculated.

### Accessing the Configuration Options

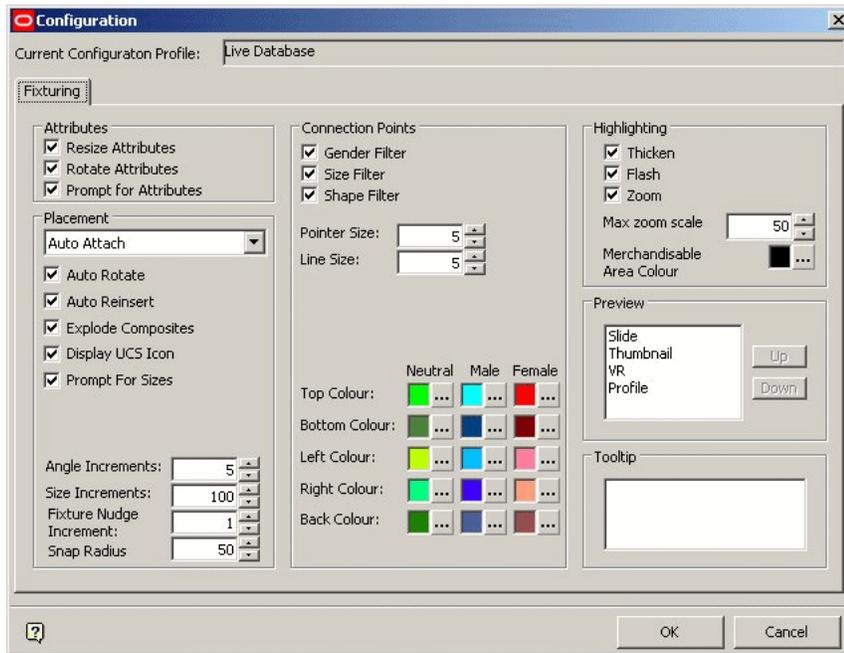
The Configuration Options can be accessed by clicking the Properties icon on the Fixturing toolbar.

**Figure 3–40 Configuration Options**



This brings up the Fixturing tab from the Configuration Module.

**Figure 3–41 Configuration Module**



## Fixture Module Toolbars and Windows

The Fixturing tab on the Object Browser allows you to add fixtures, fittings, gondolas, and other equipments to the store plan. Fixtures and fittings can be placed one at a time if required. Fixtures, fittings, and other equipments that are placed one at a time are known as blocks.

Click the Fixturing tab on the Object Browser to bring up a series of options for adding, editing, and deleting fixtures and gondolas.

Fixturing tab on the Object Browser provides:

- Toolbar access to a series of options concerning fixtures.
- Buttons to toggle between Fixtures (Blocks) and Gondolas.
- Hierarchy Window to select fixtures (or gondolas) from the list available.
- Properties Window shows the properties assigned to the selected fixture.
- Summary Window shows the number of instances of the selected fixture placed in the drawing.
- Preview Window shows a preview of the selected Fixture

## The Fixturing Toolbar

The Fixturing toolbar is found on the Object Browser. It is selected by clicking Blocks in the Fixturing window.

**Figure 3-42** Fixturing toolbar

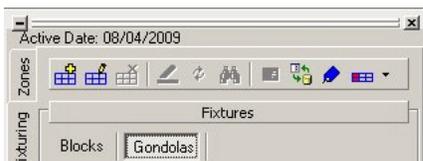


It contains a series of icons allowing various operations to be carried out on fixtures. Some of the icons may not be available for use.

## The Gondolas Toolbar

The Gondolas toolbar is found on the Object Browser. It is selected by clicking Gondolas in the Fixturing window.

**Figure 3-43** Gondolas toolbar

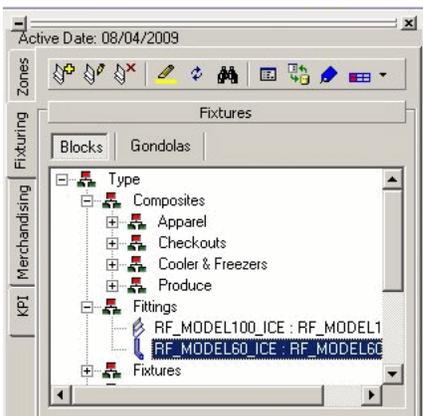


It contains a series of icons allowing various operations to be carried out on fixtures. Some of the icons may not be available for use.

## The Fixtures Hierarchy Window

The Fixtures Hierarchies window shows a hierarchical tree of all the available fixtures or gondolas.

**Figure 3-44** Fixtures Hierarchies window



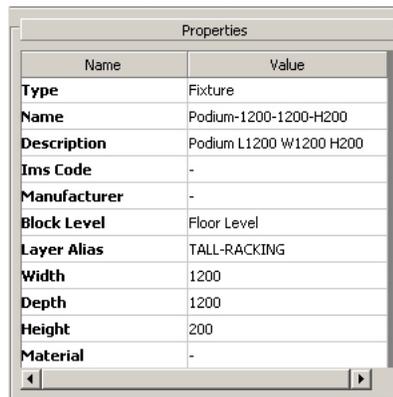
The tree can be expanded or contracted by clicking on the + or - icons. The Fixturing window can be minimized by clicking on the splitter bar.

The Blocks or Gondolas buttons immediately above the window determines whether the hierarchical tree shows fixtures or gondolas. The hierarchical tree can be configured in Fixture Studio using the Add Group, Edit Group, and Delete Group icons on the toolbar.

## The Properties Window

The Properties window shows the properties for the currently selected fixture.

**Figure 3–45** *Properties window*



Name	Value
Type	Fixture
Name	Podium-1200-1200-H200
Description	Podium L1200 W1200 H200
Ims Code	-
Manufacturer	-
Block Level	Floor Level
Layer Alias	TALL-RACKING
Width	1200
Depth	1200
Height	200
Material	-

The Properties window can be minimized by clicking on the splitter bar.

## The Summary Window

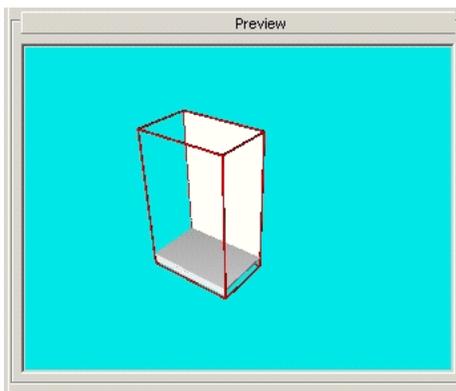
The Summary Window shows a user-defined list of products or planograms placed in the drawing.

Select a column heading to re-order the column. Click again to reverse the sort order. The Summary window can be minimized by clicking on the splitter bar.

## The Preview Window

The Preview window shows a low resolution image of the fixture selected in the hierarchical tree.

**Figure 3–46 Preview window**



The window can be resized in the horizontal plane by dragging the edge of the Object Browser with the mouse. It can be resized in the vertical plane by dragging the bottom of the window with the mouse. The Preview window can be minimized by clicking on the splitter bar.

The image can be rotated by positioning the mouse pointer in the screen and holding down the left mouse key. The position of the mouse cursor determines the direction of rotation, while the distance of the mouse cursor from the object determines the speed of rotation.

The image can be moved up and down using the central wheel on the mouse. The image can be resized by holding down the <Ctrl> key, then left clicking the mouse and dragging the object.

## Fixture Module Operations

### Restructuring the Drawing

Restructuring the drawing can be initiated from the Retail Toolbar. This enables users to select blocks in a drawing, then carry out one or more operations on those blocks. These results in the blocks being reset to match the latest definitions associated with that block.

**Figure 3–47 Retail Toolbar**



**Table 3–8 Options include**

Option	Effect
Redefine Blocks from Disc	Update the drawing with the latest version of the block (.dwg file) that is held on disc.

**Table 3–8 (Cont.) Options include**

<b>Option</b>	<b>Effect</b>
Explode Composite Blocks	Explodes any composite blocks into their individual parts.
Reset Level	Changes the level the block is placed to the level currently defined in Fixture Studio.
Reset color, Line Type and Line Weight to BYLAYER	Resets the block properties to BYLAYER - i.e. it resets the block color, line type and line weight to the defaults for that layer.
Reset Layer	Changes the layer the block is currently placed on to the one currently defined in Fixture studio.
List Unknown blocks	Lists any blocks in the drawing that are not registered in the central database.

### Selecting Blocks for Restructuring

Selecting Blocks for Restructuring is done by using the varying selection options and building up a list of blocks for the Restructuring operations to be carried out on.

Each selection is added to the current list (Add to Selection radio button) or removed from the current list (Remove from Selection radio button). A list containing several types of blocks can thus be built up - the total number of blocks currently selected being shown in the dialog box.

Clicking on the Select button temporarily hides the Restructure Drawing dialog box and takes the user to the drawing. The required blocks can be individually selected by left clicking on each individual block. When all the blocks have been selected, the selection process is completed by right clicking in the drawing.

Clicking on the Select by Block button temporarily hides the Restructure Drawing dialog box and takes the user to the drawing. The required type of blocks can be selected by left clicking on an example. All other blocks of that type on the drawing will then be selected. Multiple types of blocks can be selected before the selection process is completed by right clicking in the drawing.

Clicking on Select All Blocks will select all blocks in the drawing. The OK button will remain grayed out until one or more options are ticked in the Options frame.

### Restructuring Options

Once the blocks have been selected, varying restructuring options can be chosen.



### Redefine blocks from Disk

It is possible to edit the block definition of a specific block within the drawing. The block properties will not then match the generic block details held in the dwg file stored within Macro Space Management.

Redefine Blocks from Disk compares each block definition selected in the drawing and, if different from the dwg file stored in Macro Space Management, changes the block definition in the drawing to match that stored in the software.

---

**Note:** Block names will be ignored if they are not registered in the database.

---

### Explode Composite Blocks

This option will take any selected blocks and determine if they are composite (made up of two or more previously combined blocks).

If any blocks are composite, they will be separated into their component blocks and any connection points associated with the composite blocks removed. (If individual blocks within the composite have connection points assigned, these will not be affected).

---

**Note:** Composite blocks cannot be reassembled after this operation, except by means of an 'undo' command.

---

### Reset Level

This option results in any selected blocks being reassigned to the level they are assigned to in the block Definition in Fixture Studio.

If the level is set to 'undefined', no changes will be made in the level for the block.

---

**Note:** Both shelves and products should be on undefined levels and should not be affected by this command.

---

### Reset color, Line Type and Line Weight to BYLAYER

If the colors, line types and line weights of any selected block are different from the default properties of the layer on which they have been placed, the properties of the selected blocks will be set to those defaults.

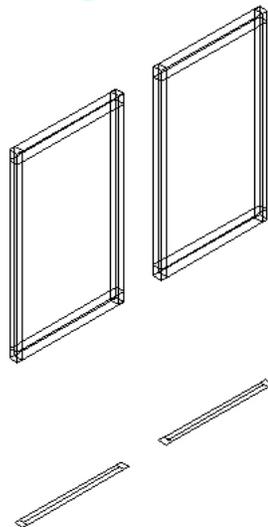
### Reset Layer

If the selected block is on a different layer to that defined for that block in Fixture Studio, the block will be moved to that layer in the drawing.

### List Unknown Blocks



The advantage of display 2D over the AutoCAD plan view is that it displays a simple outline of the fixture. If seen in plan in 3D mode, all the construction lines are visible. This may make the plan view look much cluttered when the drawing is printed out. This can be seen in the example below where the fixture can be seen in both 3D (top) and 2D (bottom).

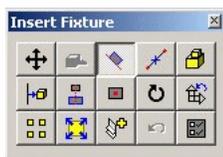


## Placing Fixtures

### Insert/Edit Feature Dialog Box

The Insert/Edit Fixture dialog box appears when the Add Fixture icon is clicked on the Fixtures toolbar.

**Figure 3-50** Insert/Edit Fixture dialog box



This dialog box contains a series of options for manipulating the fixture during placement.

Click on each button to activate the required option. When fixture placement options are satisfactory; complete insertion by clicking on the cross in the upper right corner of the Insert/Edit Fixture dialog box, or press <Escape>.

---

**Note:** The availability of some of these options depends on settings within the Fixturing tab of the Configuration Module. For example the arraying option is not available if the Auto Reinsert option is checked.

---

### Move Fixture option

The Move Fixture option is active when the Insert/Edit Fixture dialog box appears. It enables you to insert the fixture in the drawing at a point determined by the mouse cursor. Moving is completed by clicking on the x in the upper right part of the Insert/Edit Fixtures dialog box, or pressing <Escape>.

### Attach Fixture to Another option

The Attach Fixture button allows you to attach one (or more) fixtures to another when both have compatible connection points. If the connection points are not compatible, the fixtures cannot be attached.

To use this option, place a fixture and then click the Attach Fixture to another icon. The fixture can then be moved around and snaps to any compatible connection points.

### Move and Align Fixture option

The Move and Align fixture option allows you to move the fixture to another position and, if necessary, align with an existing fixture.

#### Move Fixture Between Others option

1. Click the Move Fixture icon to bring up a dialog at the cursor asking for the start position of the line on which the fixture is placed at the midpoint.
2. Left click to select the start point. The dialog then asks for the endpoint of the line on which the fixture is placed at the midpoint.
3. Left click in the fixture to place at the midpoint of the selected line.

### Place Fixture on Top of Another option

The Place Fixture button allows one fixture to be placed on top of another when both have compatible connection points.

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**Note:** At present this feature is not enabled in Macro Space Management.

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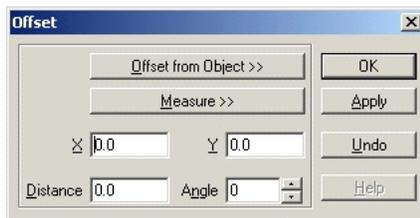


---

### Offset the Fixture option

Click the Offset fixture icon to bring up the Offset dialog box.

**Figure 3–51** Offset dialog box



To select the object to be offset from, click the Offset from Object button. Click on an object to select it. The fixture is temporarily placed at this point. There are then two ways of determining the offset.

When the fixture is first positioned in the drawing, a dialog box appears giving the offset from the selected fixture:

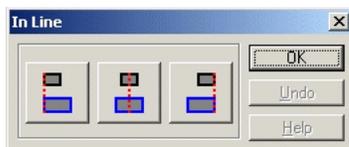
This can be used to select the required offset. Left click to return to the Offset dialog box, which now has the X, Y, Distance and Angle co-ordinates showing.

Alternatively, when the fixture is selected, press <Escape> to return directly to the Offset dialog box. The X and X coordinates of the offset can then be input. (Alternatively, they can be entered as a distance and an Angle).

Click Apply or OK places the fixture at the desired offset.

### In-Line the Fixture option

Click the In-Line fixture option to bring up the In-Line dialog box.

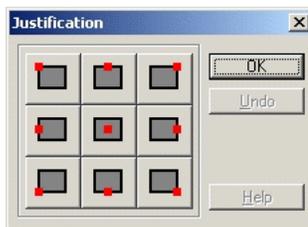


Click the appropriate button to select how the fixture being inserted is placed relative to the selected fixture. On clicking the button for the first time, you are invited to select a fixture.

On selecting the fixture, you are returned to the dialog box. Click OK to complete the process.

### Change Justification option

Click the Change Justification icon to bring up the Justification dialog box.

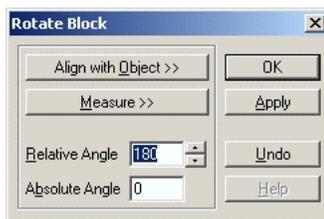


Click the appropriate button to change the justification of the annotation for that particular type of fixture.

### Rotate the Fixture option

Click the Rotate fixture icon to bring up the Rotate Block dialog box.

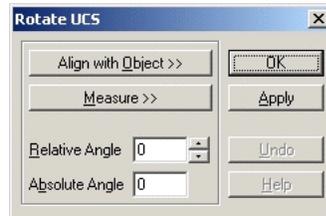
**Figure 3-52 Rotate Block**



Click the Align with Object button to enable you to select a previously placed fixture. The new fixture is placed at the same angle as the selected fixture. Alternatively, the angle required for the fixture being placed can be entered directly into either the Relative Angle or Absolute Angle boxes.

### Rotate the UCS option

Click the Rotate the UCS icon to enable the orientation of the Universal Co-ordinate System (UCS) to be changed.



WCS (World Co-ordinate System) and UCS (Universal Co-ordinate System)

MSM AutoCAD has two coordinate systems: a fixed system called the World Co-ordinate System (WCS) and a movable system called the User Co-ordinate System (UCS). The UCS is useful for entering coordinates, defining drawing planes, and setting views. Changing the UCS does not change your viewpoint. It changes only the orientation and tilt of the coordinate system.

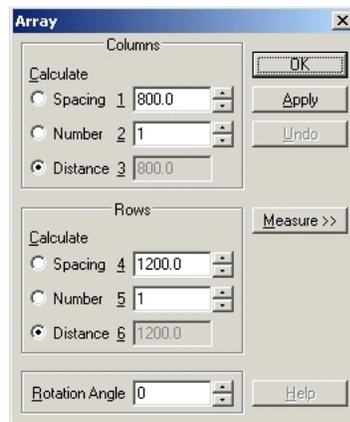
If you are working in a drawing, you can continually relocate the UCS to simplify your work. For example, if you have created a 3D object, you can edit each of its six sides easily by aligning the UCS with each side as you edit it.

If you change the UCS relative to the WCS, you can always make the two align again by using the World option of the UCS command.

### Create an Array of Fixtures option

Click the Create an Array icon to bring up the Array dialog box.

**Figure 3–53** Array dialog box



The usual method is to select the numbers of row and columns for the array by means of the number radio buttons. Alternatively, click the Measure button to define a

rectangle. Left click returns you to the dialog box where the number of rows and columns are defined.

Click OK or Apply completes the process.

### Change the Size of the Fixture option

This button will allow the fixture to change in size during insertion. This option will only work for fixtures that are stretchable - it will not work for non-stretchable ones.

### Insert the Same Fixture as Last Added

The Insert a Copy option allows you to insert another instance of the last block to be inserted by clicking the icon.

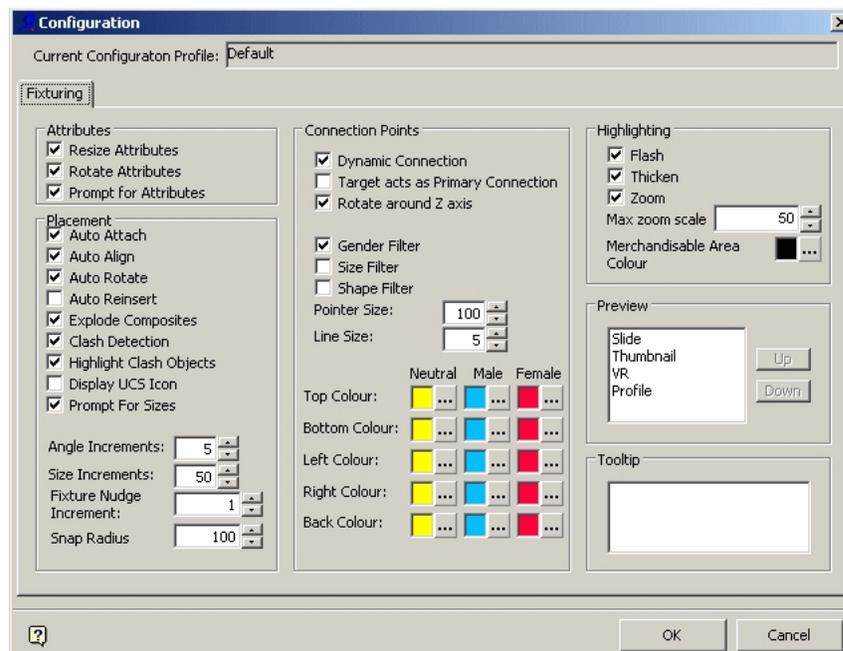
### Undo the Last Change option

The Undo the Last Change option undoes the effect of the last action.

### Modify the Options for this Fixture

Selecting this option brings up the Fixturing tab from the Configuration Module.

**Figure 3–54 Configuration Module**



This allows you to configure some options as to how fixtures behave.

### Editing and Deleting Fixtures

Fixtures can be edited and deleted from the drawing using AutoCAD tools in addition to editing and deleting them using Macro Space Management tools.

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---

**Note:** Editing and deleting using AutoCAD tools does not write the changes into the Macro Space Management database. This must be done using the Synchronize option.

---

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The properties of fixtures can be also modified using the fixture editing capabilities of Fixture Studio.

### Editing and Deleting Fixtures using AutoCAD Tools

Fixtures can be edited using AutoCAD tools. These can be accessed from the Modify > General drop down menu options.

**Figure 3–55** General menu options



This allows objects to be erased, moved or rotated.

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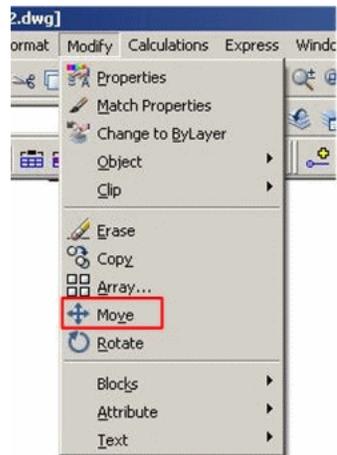
**Note:** Objects manipulated using the AutoCAD tools do not have those changes registered in Macro Space Management's central database. The Synchronization option has to be run before the central database is updated.

---

---

### Moving Fixtures

Moving Fixtures can be done by selecting the Move option from the Modify Menu.

**Figure 3–56 Modify Menu**

This brings up a prompt asking you to select the fixtures to be moved.

Any objects selected changes from solid to dotted lines.

Right click to complete the selection process. You need to specify a base point.

Following specification of a base point, you are now prompted to specify a second point.

In both cases the points can be specified either by left clicking, or by typing in the X and Y coordinates. The two points specified define a vector. This indicates how far and in what direction the selected fixtures are to be moved.

---

---

**Note:** Using MSM AutoCAD tools changes the drawing, without the changes being recorded in the central Macro Space Management database. Run Synchronize then Adjacencies to ensure the central database contains the effects of all AutoCAD changes.

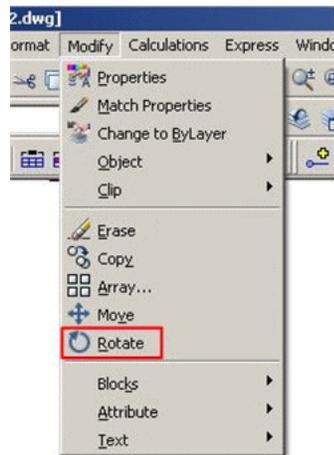
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### Rotating Fixtures

To rotate a fixture:

1. Select the Rotate option from the Modify menu.

**Figure 3–57 Modify menu**

This brings up a prompt asking you to select the fixtures to be rotated.

Selected objects change from solid to dotted lines.

2. Right click to complete the selection process.
3. Now, specify a base point. The point can be specified either by left clicking, or by typing in the X and Y coordinates.
4. Following this, enter a rotation angle.

The rotation angle can be specified by typing it in. Alternatively, the mouse cursor can be used to draw a line at the required angle.

5. Left click to cause the specified objects to be rotated.

---

---

**Note:** Using AutoCAD tools changes the drawing, without the changes being recorded in the central Macro Space Management database. Run Synchronize then Adjacencies to ensure the central database contains the effects of all AutoCAD changes.

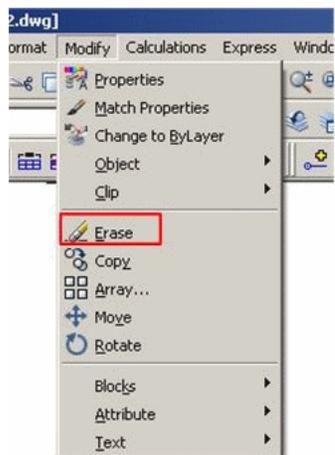
---

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### Erasing Fixtures

To erase a fixture:

1. Select the Erase option from the Modify menu.

**Figure 3–58 Modify menu - Erase**

This brings up a prompt asking you to select the fixtures to be erased.  
Selected objects change from solid to dotted lines.

2. Right click to complete the selection process; the selected objects are removed from the drawing.

---

**Note:** Using AutoCAD tools changes the drawing, without the changes being recorded in the central Macro Space Management database. Run Synchronize then Adjacencies to ensure the central database contains the effects of all MSM AutoCAD changes.

---

### Undoing changes

Moved, rotated, or erased fixtures can generally be restored to their original position by making use of the Undo command on the AutoCAD toolbar.

---

**Note:** Using MSM AutoCAD tools changes the drawing, without the changes being recorded in the central Macro Space Management database. Run Synchronize then Adjacencies to ensure the central database contains the effects of all AutoCAD changes.

---

### Editing Fixtures using Fixture Studio

Fixture Studio allows the properties of a fixture of fitting to be edited. It is accessed from the Object Browser by clicking on the Edit Fixture icon on the Fixturing tool bar.

**Figure 3–59 Fixturing toolbar**

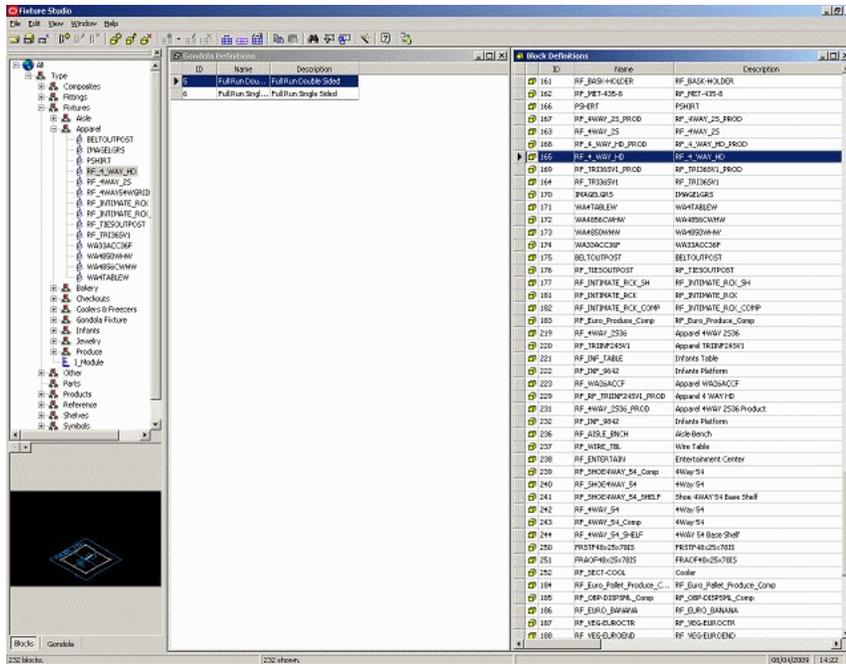
In Fixture Studio a wide range of properties for the selected fixture or fitting can be customized. These include:

- Insertion points
- Size
- Connection points
- Parts
- Shelving
- Merchandisable areas

Changes made to a fixture or fitting in Fixture Studio affects all blocks of that type.

The Fixture Studio window contains two main parts.

**Figure 3–60** *Fixture Studio*



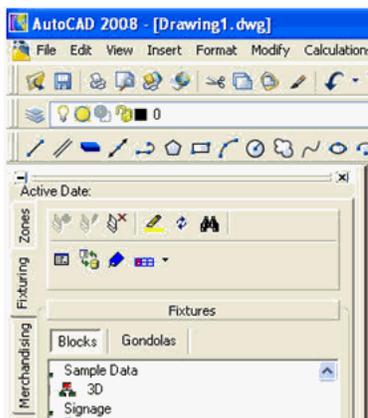
On the left is a hierarchical tree of all the available gondolas, on the right window you can customize the block details of the currently selected gondola.

### Deleting Fixtures

It is recommended that fixtures are deleted using Macro Space Management tools. This can be achieved by means of the Delete Fixture option on the Fixturing toolbar.

To delete fixture(s) click the fixtures required. Alternatively, use the AutoCAD selection tools.

The outline of the fixture(s) turns to dotted and the insertion point shows. At the same time the Delete icon changes from inactive to active button, while the Add Fixture and Edit Fixture icons are inactivated.

**Figure 3–61 Planner - Delete Blocks**

Click the Delete icon to remove all selected fixtures (and gondolas).

## Fixture Operations

### Highlighting Selected Item in View

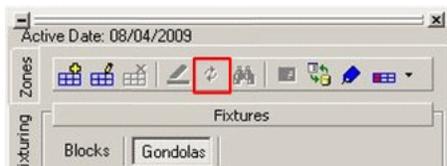
The Highlight option highlights the selected item in view and can be accessed by clicking the Highlight icon in the Blocks toolbar of the Object Browser.

**Figure 3–62 Blocks toolbar**

This option can be toggled On and Off by selecting it. When toggled on, the button is pressed down. When the Highlight Selected Item in View option is selected, clicking a fixture in the hierarchical tree of fixtures results in that type of fixture in the visible portion of the drawing being highlighted.

### Highlighting Selected Item in Tree

The Highlight option highlights the selected item in the hierarchical tree. This option is only available in the Blocks toolbar and not activated in the Gondolas toolbar.

**Figure 3–63 Gondolas toolbar**

### Using the Find Function

The Find function is used to search for blocks or gondolas in the drawing and can be accessed by clicking the Find icon in the Fixturing toolbar.

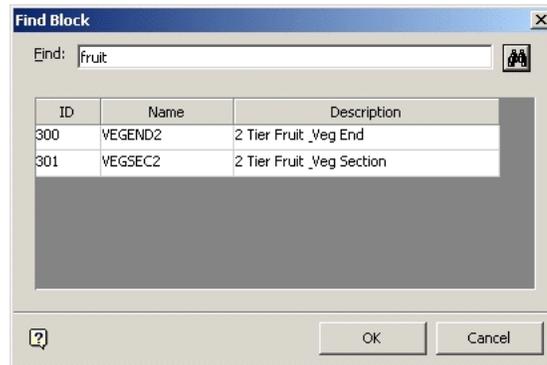
**Figure 3–64 Fixturing toolbar - Find**



To search for blocks:

1. Click the Find icon to bring up the Find Block dialog box.

**Figure 3–65 Find Block dialog box**



2. In the Find field, type the required search string and click the Find icon to the right of it. This brings up a list of any blocks matching the search string.
3. Left click any result to return to the Fixtures window, where the selected block is highlighted in the hierarchy tree.

### Refreshing

The Refresh icon refreshes both fixtures and gondola information in the respective hierarchical trees.

**Figure 3–66 Fixturing toolbar - Refresh**



Click the Refresh button in the Gondolas tab to load the latest gondola information from the database into the gondola hierarchy. At the same time, the latest fixture information from the database is also refreshed in the fixture hierarchy.

Dragging and dropping a gondola from the appropriate hierarchy after the refresh button is pressed adds that gondola to the drawing using the latest definition from Fixture Studio. Similarly, using the Add button adds a gondola to the drawing using the latest definition from Fixture Studio.

If a drawing is already open then gondolas already placed in the drawing do not use any changes loaded during the refresh operation until the drawing is closed and reopened. However, new gondolas added to the open drawing use the new data.

### Fixture Attributes

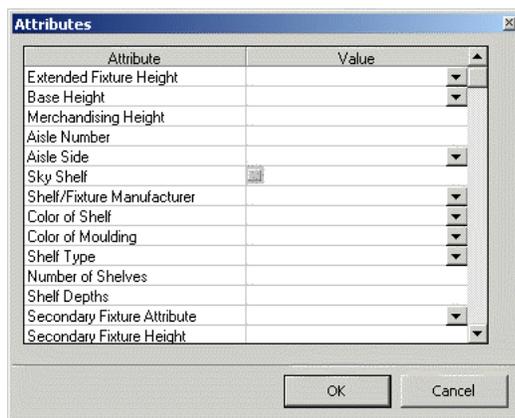
Fixture Attributes can be set by selecting a fixture or fixtures and clicking on the Fixture Attribute icon in the toolbar.

**Figure 3–67** Fixturing toolbar - Fixture Attribute



The Fixture attributes dialog box appears when clicked on the Fixture Attributes icon.

**Figure 3–68** Fixture attributes dialog box



This enables you to add or edit fixture information. If multiple fixtures are selected, only fields with common data display information. These attributes are configurable in Fixture Studio, for detailed information, refer chapter Fixture Studio.

### Promotional Fixtures

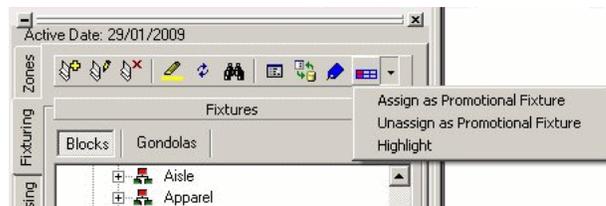
Promotional Fixtures are fixtures that can be allocated for the specific purpose of rapidly changing offers. Promotional Fixtures are normally used for reporting purposes.

**Figure 3–69 Fixturing toolbar - Promotional Attribute**



It can be assigned by selecting a fixture or fixtures and selecting the Fixture Attribute icon in the toolbar. You can assign, unassign and highlight the fixture used for promotional purpose.

**Figure 3–70 Fixturing toolbar - Promotional Attribute**



Fixtures designated as Promotional can be identified by using the Highlight option. The fixtures are highlighted in the drawing by the configured method in the Configuration tab.

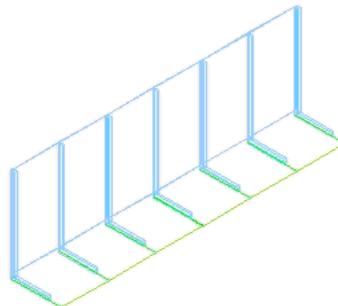
In the above example, Thicken has been used as the highlight option.

Alternatively, they can be identified by running a report on the drawing or by using a KPI.

**Placing Gondolas**

A Gondola is a collection of fixtures and fittings placed in a predetermined arrangement such as bases and spines. This enables long runs of fixtures to be placed very quickly. They can either be placed as an island, (away from a store wall), or as a perimeter run, (against a wall).

**Figure 3–71 Gondolas**



Gondola placement is in two stages:

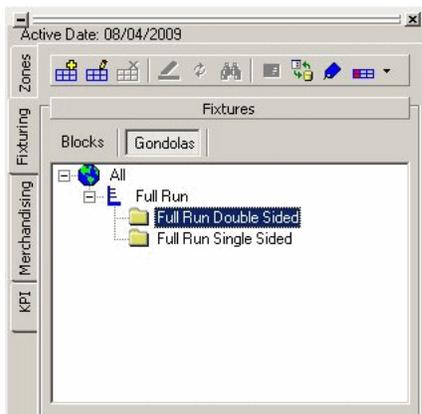
- gondola selection and

- gondola insertion

### Gondola Selection

Gondolas are selected from the hierarchical tree in the Fixturing tab.

**Figure 3–72 Gondolas selection**



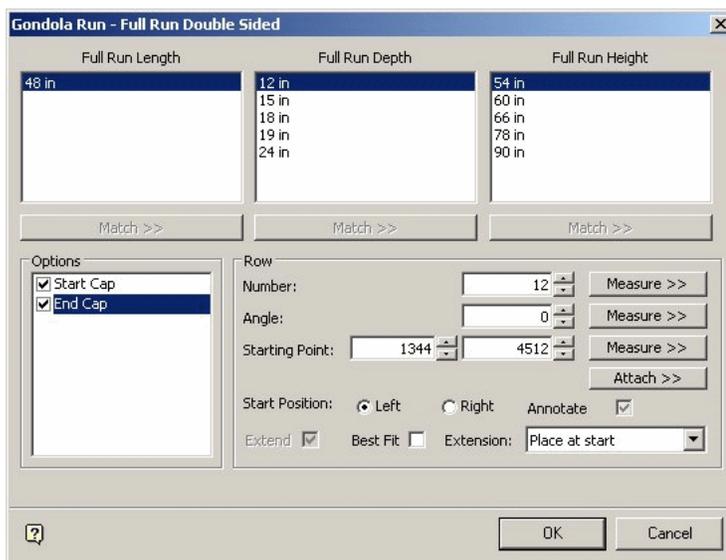
### Gondola Insertion

Once the Gondola is selected in the hierarchical tree it can be placed in the drawing in one of two ways:

- The required gondola can be dragged and dropped in the AutoCAD drawing.
- The **Add Gondola** icon can be clicked on the toolbar.

After selecting an insertion point, the Gondola Run dialog box comes up, you can customized the gondola being placed.

**Figure 3–73 Gondola Run dialog box**



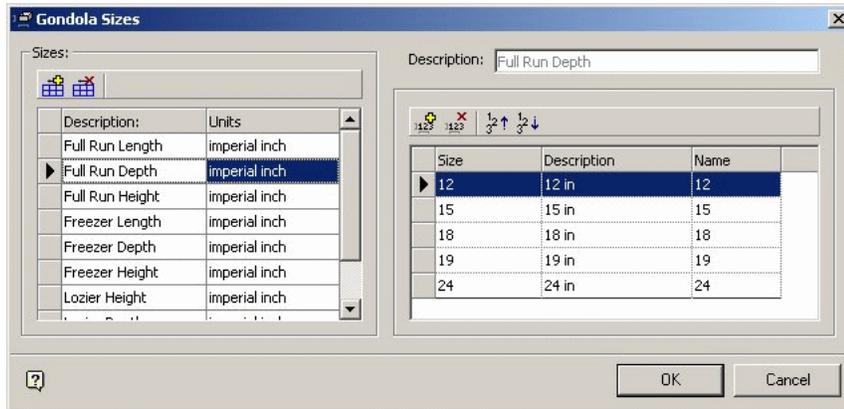
The Gondola Run dialog box appears after the start point for the gondola run has been selected. The exact form of the dialog box that appears depends on how the gondola was specified.

**Note:** Gondolas are specified in Fixture studio.

**Dimensions**

The dimensions allow parameters such as Width, Height, Number of Bays, Placement angle, etc. to be specified. Most of the options available to be selected are predetermined when the Gondola is defined in Fixture Studio.

**Figure 3–74 Gondola Sizes**



**Gondola Parts and Positions**

Gondola parts and positions are specified in the Gondola definition dialog box.

**Figure 3–75 Gondola definition dialog box**

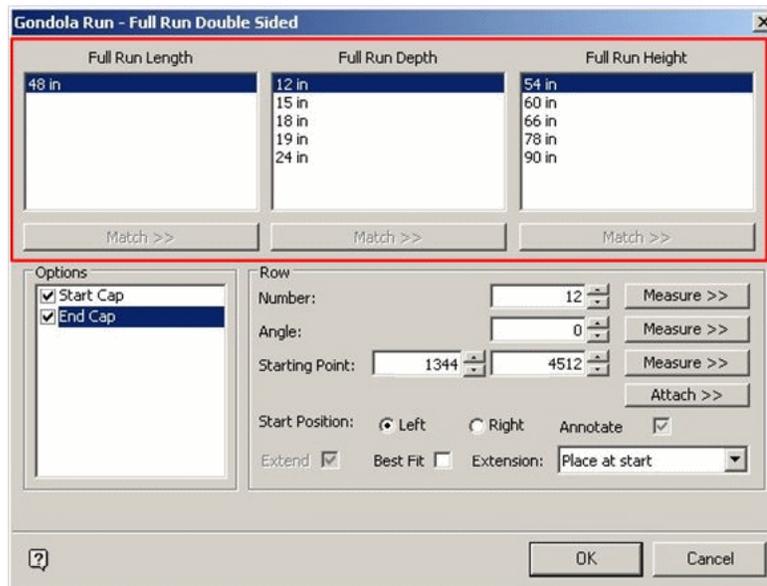


## Gondola Dimensions

The dimensions allow parameters such as Width, Height, Number of Bays, Placement angle, etc. to be specified. Most of the options available to be selected are predetermined when the Gondola is defined in Fixture Studio.

The Dimensions displays a list of sizes that can be selected for that particular gondola.

**Figure 3–76** *Gondola Run*



The number of dimensions displayed is determined by those specified in the Gondola Definition dialog box in Fixture Studio. The actual dimensions available are defined in the Gondola Size dialog box in Fixture Studio. Dimensions can either be selected from the available list, or selected using the Match button.

Clicking on the Match button temporarily hides the dialog box and takes you to the drawing. You are prompted to measure a distance on the drawing. The Gondola Run dialog box then is re-displayed with the dimension closest to that measured highlighted.

---

**Note:** Adding a gondola requires the blocks corresponding to the chosen combination of sizes to be present in the database. If a block is not present, the gondola cannot be drawn and an error message is displayed.

---

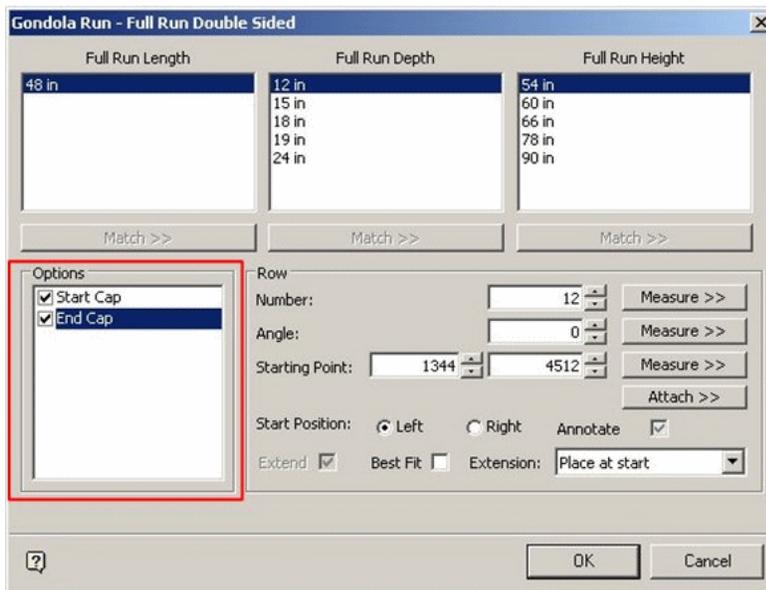
**Figure 3–77 Gondola Run - Errors**



**The Options Frame**

The Options Frame displays a list of parts that are optional for that particular gondola.

**Figure 3–78 Gondola Run - Options Frame**



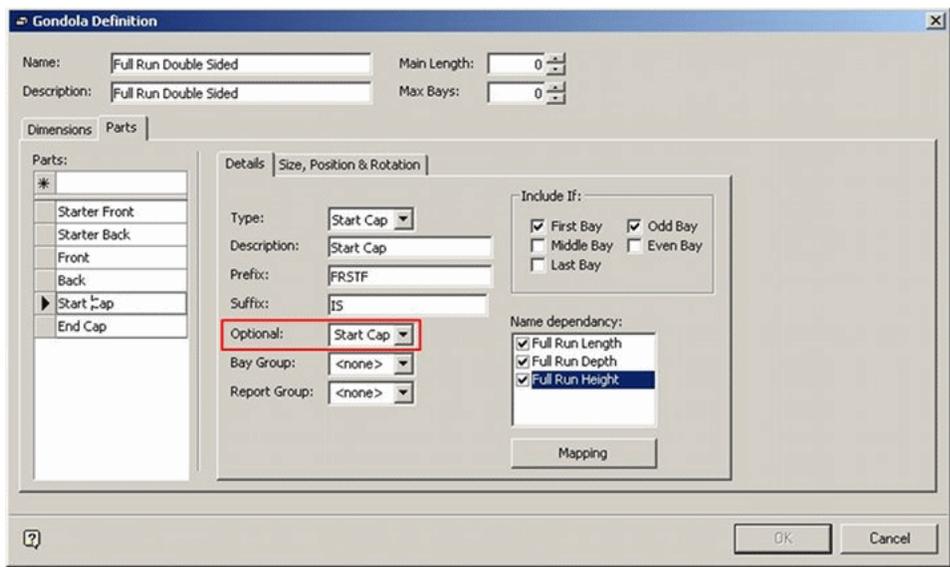
Ticking the appropriate check box ensures the optional parts are included in the gondola when it is placed in the drawing.

---

**Note:** Optional parts are specified in the Gondola Definition dialog box in Fixture Studio.

---

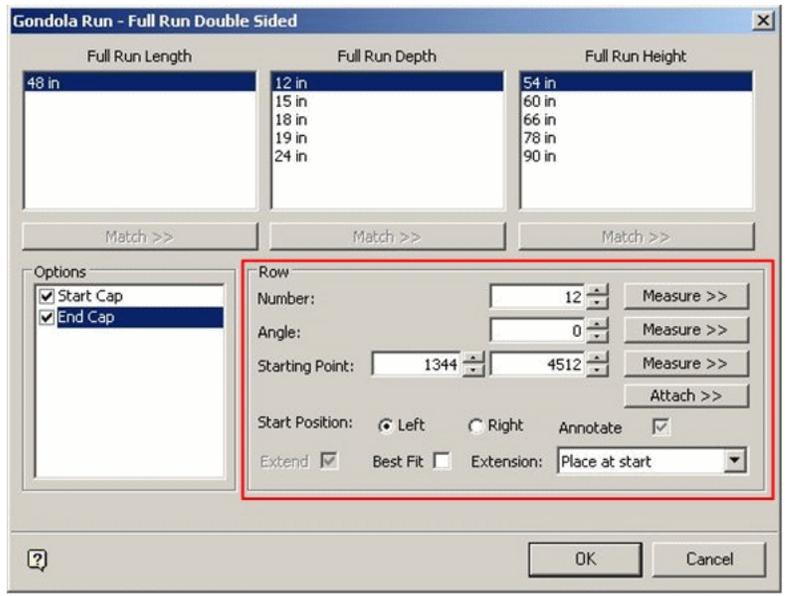
Figure 3–79 Gondola Definition dialog box



**The Row Frame**

The Row Frame allows the number of bays, placement angle, start position, etc., to be specified.

Figure 3–80 Gondola Run dialog box



Number can be any integer greater than 0. This number can be changed using the spin control.

---

**Note:** The maximum number of bays permissible may be restricted by settings in Fixture Studio.

---

If you click the Measure button, you are prompted to pick a second point in the Planner drawing. This point is relative to the previously selected insertion point of the gondola. The distance between the two points determines the length of the gondola run, as well as its direction. Based on the length of the gondola run, Macro Space Management calculates the number of full bays that fit into the measured distance.

---

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**Note:** The distance occupied by the number of full bays is often less than the distance measured. To add another bay, check the Extend option.

---

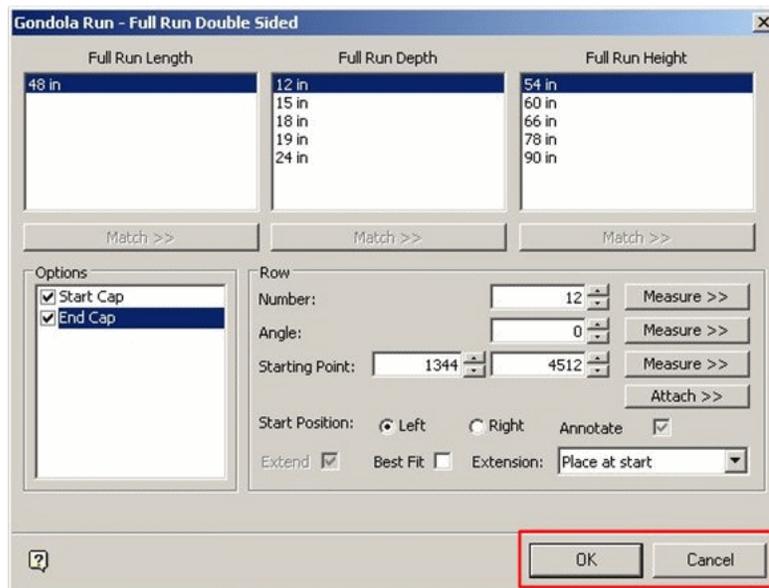
---

- End caps are additional to the number of bays calculated using measure.
- A calculated angle based on the displacement between the two points is calculated. (Angle is measured in degrees from East anti clockwise). Alternatively, an angle can be input. The direction bays added are dependent on the insertion angle. A gondola with an insertion angle of 180 degrees will be facing in a different direction to a gondola an insertion angle of 0 degrees.
- Start Position determines whether the specified number of bays is added to the left or right of the insertion point.
- The Extend option is primarily used when placing island gondolas, (i.e. away from walls). The number of bays calculated is normally less in length than the measured distance.
- The Best Fit option is only enabled if the length dimension on the gondola definition contains more than one size. It is primarily used when placing a run of gondolas against a wall. It uses the selected length of the gondola for all but one fixture. The program selects an extension piece of the best practical length to fill the remaining space. The Extend option is only available if the Best Fit option is enabled. A drop down list enables you to choose whether to place the extension piece at the start of the gondola run, in the middle, or at the end.

### Completing Insertion

Insertion is completed by clicking the OK button at the bottom of the Gondola Run dialog box.

**Figure 3–81 Gondola Run dialog box**



Alternatively, the insertion can be aborted by means of the Cancel button.

---

**Note:** Adding a gondola requires the blocks corresponding to the chosen combination of sizes to be present in the database. If a block is not present, the gondola cannot be drawn and an error message is displayed.

---

**Figure 3–82 Gondola Run - Error**



### Editing and Deleting Gondolas

Gondolas can be edited and deleted from the drawing using AutoCAD tools.

---

**Note:** Editing and deleting using AutoCAD tools does not write the changes into the Macro Space Management database. This must be done using the Synchronize option.

---

The properties of Gondolas can be modified using the Gondola editing capabilities of Fixture Studio. Gondolas can be deleted from the drawing using Macro Space Management tools.

### Editing and deleting Gondolas using AutoCAD

Gondolas can be edited using AutoCAD tools. These can be accessed from the Modify > General drop down menu options.

**Figure 3–83 Planner - General Menu**



This allows objects to be erased, moved or rotated.

### Moving Gondolas

Gondolas can be moved by selecting the Move option from the Modify menu.

**Figure 3–84 Planner - General Menu > Move**



1. When you select the Move option, a prompt asks you to select the gondolas to be moved. When selected, the selected object changes from solid to dotted lines.
2. Right click to complete the selection process. Now specify a base point by left clicking or by typing in the X and Y coordinates.
3. After the base point, you are prompted to specify a second point by left clicking or by typing in the X and Y coordinates.

The two points specified define a vector. This indicates how far and in what direction the selected fixtures are to be moved.

---

**Note:** Using MSM AutoCAD tools, changes made in the drawing are not automatically recorded in the central Macro Space Management database. To update the changes in the database, run Synchronize and Adjacencies to ensure the central database contains the effects of all MSM AutoCAD changes.

---

### Rotating Gondolas

You can rotate a gondola in the drawing by selecting the Rotate option from the Modify menu.

**Figure 3–85** *Planner - General Menu > Rotate*



1. When you select the Rotate option, a prompt asks you to select the fixtures to be rotated.  
When selected, the selected object changes from solid to dotted lines.
2. Right click to complete the selection process. Next, specify a base point by left clicking or by typing in the X and Y coordinates.
3. After the base point, specify the rotation angle. The rotation angle can be specified by typing it in.

Alternatively, use the mouse cursor to draw a line at the required angle. Left click to rotate the specified objects.

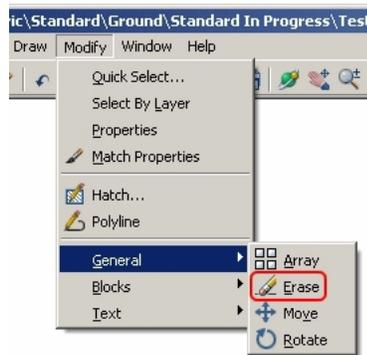
---

**Note:** Using MSM AutoCAD tools, changes made in the drawing are not automatically recorded in the central Macro Space Management database. To update the changes in the database, run Synchronize and Adjacencies to ensure the central database contains the effects of all MSM AutoCAD changes.

---

### Erasing Gondolas

You can erase a gondola from the drawing by selecting the Erase option from the Modify menu.

**Figure 3–86 Planner - General Menu > Erase**

1. When you select the Erase option, a prompt asks you to select the fixtures to be erased.  
When selected, the selected object changes from solid to dotted lines.
2. Right click to complete the selection process, after the selection the selected objects are removed from the drawing.

---

**Note:** Using MSM AutoCAD tools, changes made in the drawing are not automatically recorded in the central Macro Space Management database. To update the changes in the database, run Synchronize and Adjacencies to ensure the central database contains the effects of all MSM AutoCAD changes.

---

### Deleting Gondolas

Gondolas can only be deleted using AutoCAD tools as the Delete Gondola option is not available for use in the Gondolas toolbar.

**Figure 3–87 Delete Gondola option**

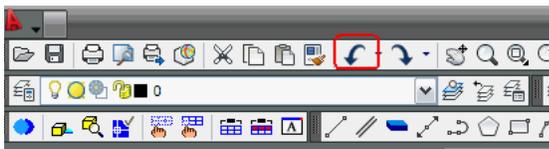

---

**Note:** After using AutoCAD tools, the drawing must be synchronized so that the changes are written to the central Macro Space Management database.

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### Undoing Changes

Moved, rotated, or erased gondolas can generally be restored to their original position by making use of the Undo command on the Planner toolbar.

**Figure 3–88** Planner toolbar

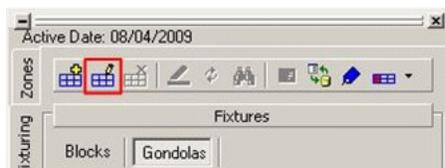

---

**Note:** Using MSM AutoCAD tools, changes made in the drawing are not automatically recorded in the central Macro Space Management database. To update the changes in the database, run Synchronize and Adjacencies to ensure the central database contains the effects of all MSM AutoCAD changes.

---

### Editing Gondolas using Fixture Studio

Fixture Studio allows the properties of a gondola to be edited. It can be accessed from Planner by clicking the Edit Gondola icon on the Fixturing tool bar.

**Figure 3–89** Fixturing tool bar - Edit

While in Fixture Studio a wide range of properties for the selected gondola can be customized. These include:

- Sizes
- Fixture Positions
- Whether parts are optional or not

Changes made to a Gondola while in Fixture Studio affects further placements of that type.

## Gondola Operations

### Highlighting Selected item in Tree

The Highlight Selected Item in Tree option enables you to highlight the selected item in the hierarchy tree by clicking the icon in the Blocks toolbar. Although the option is not available in the Gondolas toolbar, when selected from the Blocks toolbar, it highlights the selected item in the tree.

**Figure 3–90** Fixturing tool bar - Highlight



This button can be toggled On and Off by clicking on it. When toggled on, the button appears pressed down. When the option is toggled on, clicking on any fixture in the drawing results in that fixture type being highlighted in the hierarchical tree.

---



---

**Note:** Some of the options are not available in the Gondola toolbar such as Highlight Selected Item in View, Find, and Options.

---



---

### Refreshing

The Refresh option refreshes both blocks and gondola information in the respective hierarchical trees.

**Figure 3–91** Fixturing tool bar - Refresh



Click the Refresh button in the Blocks tab to load the latest fixture information from the database into the fixture hierarchy. At the same time, it will load the latest gondola information from the database into the gondola Hierarchy.

Dragging and dropping a fixture or using the Add button to add a fixture to the drawing from the appropriate hierarchy after the refresh button is selected adds that fixture to the drawing using the latest definition from Fixture Studio.

If a drawing is already open then fixtures already placed in the drawing do not use any changes loaded during the refresh operation until the drawing is closed and reopened. However, new fixtures added to the open drawing use the new data.

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**Note:** Some of the options are not available in the Gondola toolbar such as Highlight Selected Item in View, Find, and Options.

---

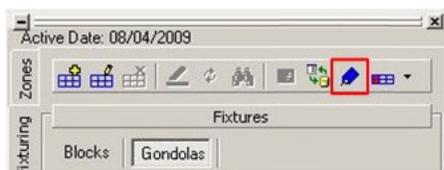


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### Gondola Attributes

Attributes only apply to fixtures.

**Figure 3–92** Fixturing tool bar - Attributes



To get information in individual fixtures within a gondola, select the required fixtures within the gondola and click on the attributes icon.

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**Note:** Some of the options are not available in the Gondola toolbar such as Highlight Selected Item in View, Find, and Options.

---

### Promotional Fixtures

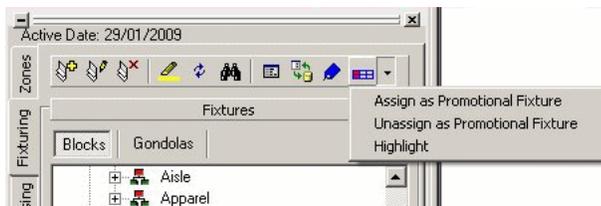
Promotional Fixtures are fixtures that can be allocated for the specific purpose of rapidly changing offers. Promotional Fixtures are normally used for reporting purposes.

**Figure 3–93** Fixturing tool bar - Promotional Fixtures



It can be assigned by selecting a fixture or fixtures and selecting the Fixture Attribute icon in the toolbar. You can assign, unassign and highlight the fixture used for promotional purpose.

**Figure 3–94** Fixturing tool bar - Promotional Fixtures



Fixtures designated as Promotional can be identified by using the Highlight option. The fixtures are highlighted in the drawing by the configured method in the Configuration tab.

Alternatively, they can be identified by running a report on the drawing or by using a KPI.

### Bay Numbering

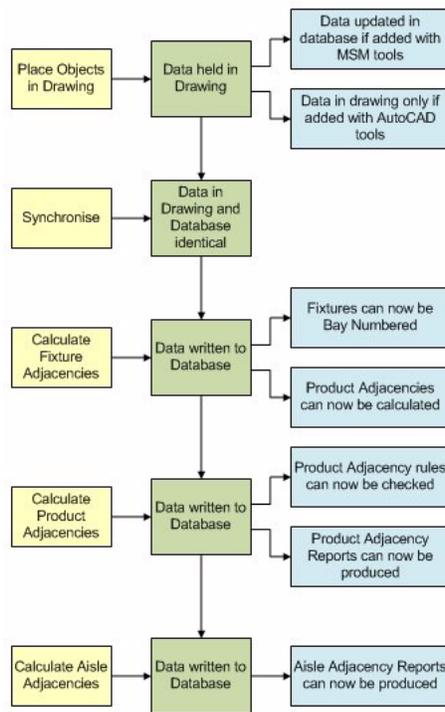
Bay numbering assigns a unique identification code to each fixture within the drawing for reporting and identification purposes.

Bay numbering is based on either fixture or gondola:

- Fixture based bay numbering numbers each fixture in an incremental sequence starting from a designated number.
- Gondola based bay numbering numbers fixtures within a gondola with a four part sequential code unique to the drawing.

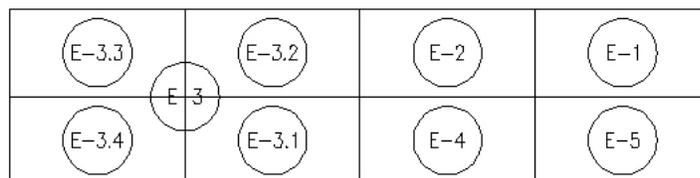
Before Bay Numbering can be carried out, the Synchronization module must be run to ensure the information from the drawing has been fully transferred to Macro Space Management's central database. Following this, the Adjacency option must be run so the central database has up to date information on which fixture is next to which fixture.

**Figure 3–95 Synchronization Flowchart**



Bay Groups are where two or more fixtures have been linked together for bay numbering purposes.

**Figure 3–96 Bay Grouping**



Bay groups can contain any number of fixtures, but care should be exercised in using this feature. The Bay Number appears in the geometric centre of the selected fixtures, causing it to appear in an unpredictable place if the fixtures selected occupy too wide an area.

### Preparations - Before Bay Numbering

To synchronize the drawing, select the Synchronize option from the File menu or from the toolbar. This brings up the Synchronize dialog box.



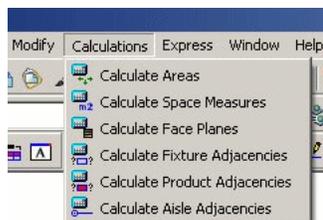
In the Synchronize dialog box, select the Match the Drawing option, Fixtures, Other Blocks, and Zones check boxes (under the Items to Synchronize section), and then click the Synchronize button.

### Fixture Adjacency

Fixture Adjacency is used by the Planner application to calculate the fixtures that are adjacent to each other. If they are within a specified distance (usually just a few mm), they are treated as part of a gondola; otherwise they are treated as individual fixtures. If fixture adjacency is not run, then fixtures may have bay numbers in an odd sequence.

To run Fixture Adjacency, select the Calculate Fixture Adjacencies option from the Calculations menu or toolbar.

**Figure 3-97** Calculations - Options



### Select Bays Frame

The Select Bays frame provides options to select fixtures for bay numbering.

**Figure 3–98 Bay Numbering - Select Bays**



- The Add or Remove radio buttons determine whether fixtures are added or removed from the list for bay numbering. The number selected is shown immediately below.
- Clear Selection removes all fixtures from the list of those selected.
- Preview shows the fixtures selected for bay numbering - these briefly blink on the drawing.
- Select Bays >> enables you to select fixtures from the drawing. Multiple selections can be made by using AutoCAD selection techniques. The selected bays flash in the drawing three times.
- By Bay Run enables you to select gondolas for bay numbering. You are returned to the drawing to select a gondola by left clicking on it. A dialog box appears.

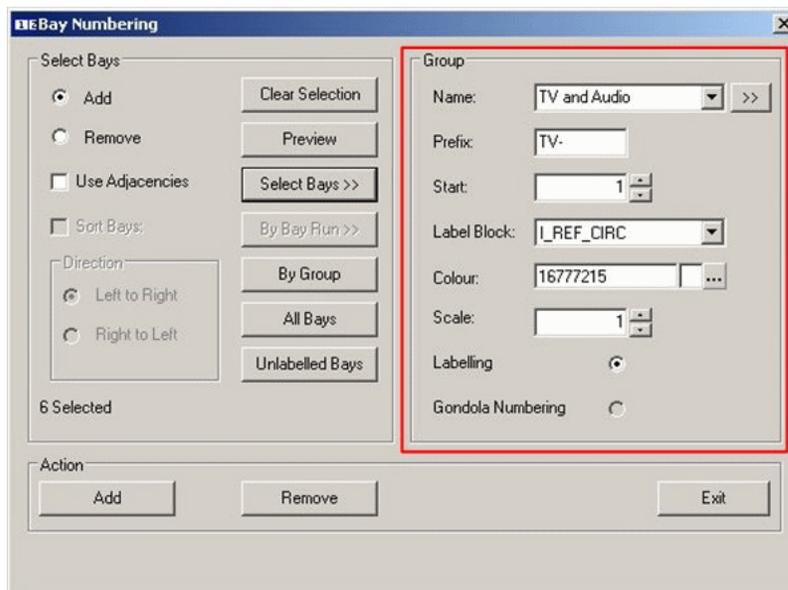
If the Whole Run option is selected, every fixture in the gondola will be selected. If the whole run is not included, then only part of the gondola will be included; you will be asked to specify a stop position. This option should only be used by Macro Space Management users who understand the numbering sequence within gondolas. This option may also be used to select fixtures that have been placed individually. The selected bays flash in the drawing three times.

- By Group enables fixtures to be selected that have already been designated as belonging to a Group. The selected bays flash in the drawing three times.
- All Bays selects all fixtures on the drawing.
- Unlabelled Bays selects all fixtures that have not been allocated a bay number.
- Sort Bays when checked causes fixtures to be numbered according to the adjacency rules. It is inactivated unless the Sort Adjacencies option is checked. If Sort Bays is checked, the Direction radio buttons become available, allowing you to select the numbering direction. If Sort Bays is unchecked, then fixtures can be numbered using the sequence defined by a user specified AutoCAD option.

## Group Frame

The Group frame enables you to specify a number of options concerning Bay Numbering.

**Figure 3–99 Bay Numbering - Group**



- Name enables a specified selection of fixtures to be given a collective name. This must be entered prior to labeling the selected fixtures. For example, a group of fixtures designated for electrical sales might simply be named Electrical. Whenever this group is selected in the future, all fixtures that were designated as part of it are selected.
- Prefix is added to any bay number as it is applied. For example, choosing a prefix of E- results in all selected fixtures being labeled E-1, E-2, E-3, etc. Prefixes are useful for giving visual indication that a fixture belongs to a specific group.
- Start specifies the number at which bay numbering is to commence. This is important where grouping has been used, as it enables overlapping ranges of bay numbers to be avoided.
- Label Block brings up a list of label blocks. These enclose the actual bay numbers.

Color enables bay numbers to be assigned a color. Clicking on the button with the ellipsis will bring up a color pallet.

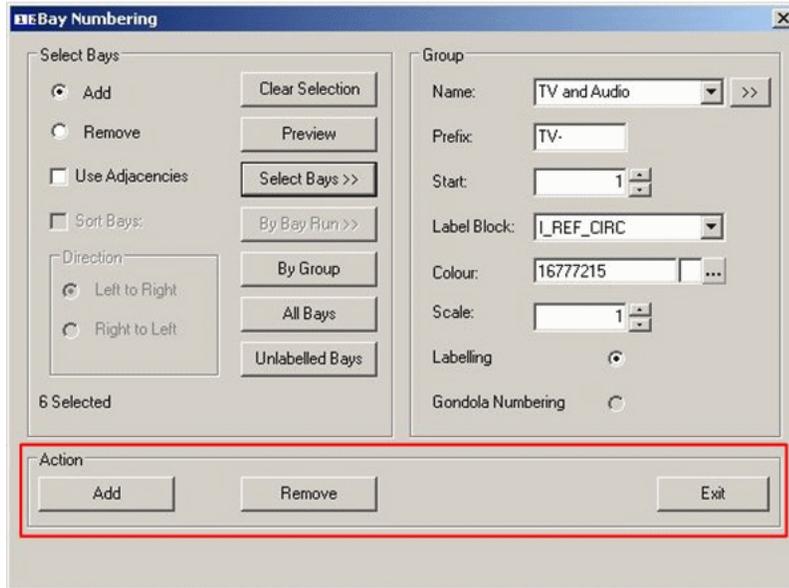
The selected color is then applied to all selected bays. This is useful for color coding bays assigned to different groups.

The Labeling and Gondola Numbering buttons allow you to select whether Bay or Gondola numbering is used. (Gondola numbering uses a slightly different logic from Bay Numbering).

## Action Frame

The Action frame completes the bay numbering process.

**Figure 3–100 Bay Numbering - Action**

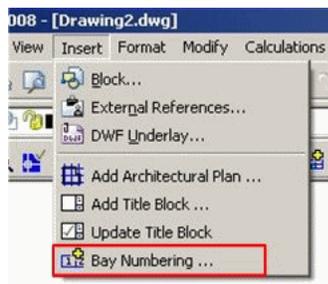


- Add: adds numbering to any selected fixtures.
- Remove: removes any existing numbers from any selected fixtures.
- Exit: enables you to leave the bay numbering routine, having completed all required actions.

**Accessing the Bay Numbering Options**

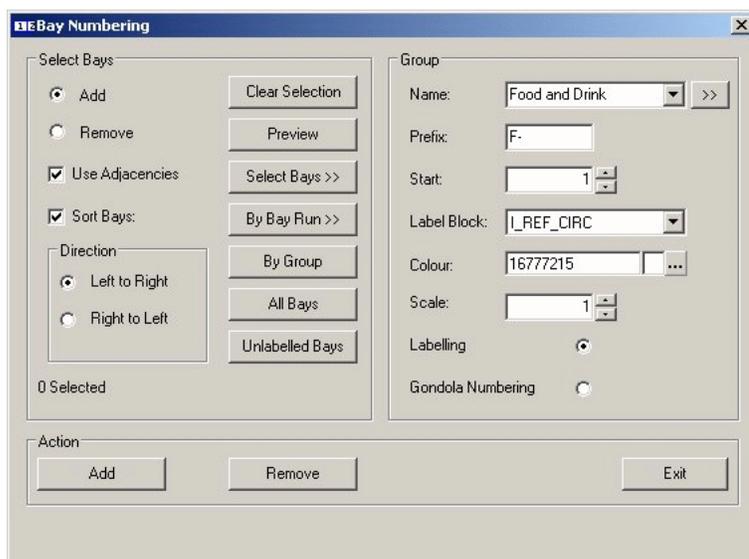
Bay numbering is accessed from the Insert menu.

**Figure 3–101 Bay Numbering - Insert menu**



The Bay Sequence Numbering dialog box comes up.

**Figure 3–102 Bay Sequence Numbering dialog box**



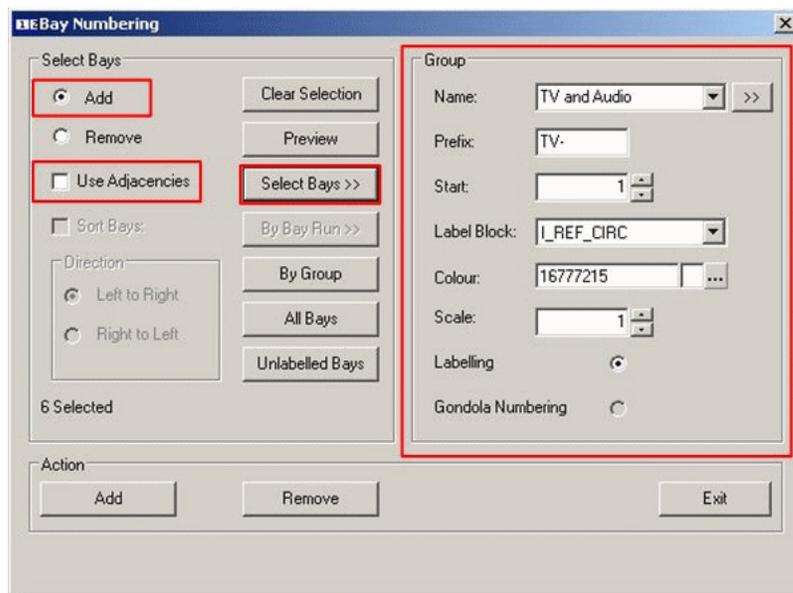
### Adding Basic Bay Numbering

To add basic bay numbering:

1. Select the Bay Numbering option from the Insert menu. The Bay Numbering dialog box appears.
2. The Select Bays section allows you to select the bays that will be numbered. Within the Select Bays frame, specify your selection:
  - Check the Add radio button
  - Check the Use Adjacencies check box
  - Check the Sort Bays check box
  - The Direction area specifies the direction bay numbering will operate in, select Left to Right radio button.
  - Click the All Bays button. This selects all fixtures in the drawing.
3. The Group section controls the notation that will be added. In the Group frame, set the following options:
  - Give the selected fixtures a collective name by typing in the Name text box.
  - Add a prefix in the Prefix text box. This will be added to all the bay numbers.
  - Select the Start number in the Start drop down list. The bay numbering will start from this value.
  - Select the shape of the block from the Label Block drop down list.
  - Select the color of the text from the Color dialog box.
  - Scale
  - Labeling determines what form of labeling will be applied.
  - Gondola Numbering
4. In the Action frame, click the Add button. The Bay Numbers are added.



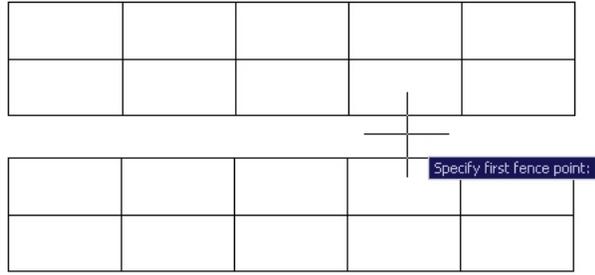
Figure 3–104 Bay Numbering dialog box



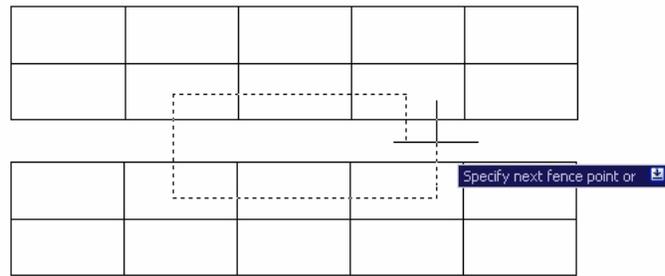
- In the Group frame, set the following options
  - In the Name field, type in the required name for the group of fixtures to be selected.
  - In the Prefix field, type in the prefix that will precede the bay numbers.
  - In the Start drop down list, set the start number for the numbering.
  - In the Label Block drop down list, select the shape of the Label Block that will be used for bay numbering
  - In the Color dialog box, select the color for the bay numbering text.
  - In the Scale field, enter the value.
  - Select the Labeling radio button.
3. In the Select Bays frame, click the Select Bays button. The cursor will appear in the drawing.
  4. Type in Fence and then press enter.


□


5. A Prompt appears next to the cursor to specify the first fence point. Left click to set it.

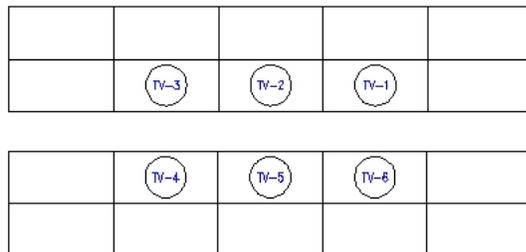


- Continue to draw the fence by clicking to set successive points.



**Note:** It is important for the fence line to start and finish outside the fixtures to be selected. If the fence line starts inside a fixture, the numbering of that and the next fixture might become confused.

- When all the points in the fence have been drawn, press enter until the Bay Numbering dialog box reappears.
- Click the Add button in the Action frame. The selected bays are numbered.



The above figure shows the bays numbered in the sequence specified by the fence.

### Removing Bay Numbering

You can remove the bay numbering from the fixtures.

To remove bay numbering:

- From the Insert menu, select the Bay Numbering option. This brings up the Bay Numbering dialog box.

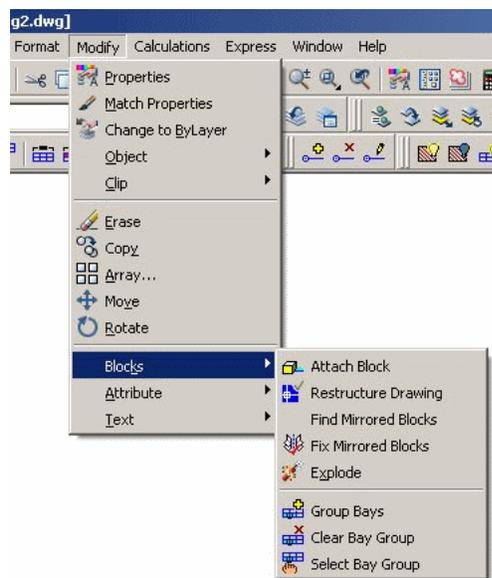
2. Click the Select Bays button to have bay numbering removed from specific bays, or select the All Bays button to remove bay numbering from all bays.
3. Click the Remove button, and Bay Numbering is removed.

## Defining Bay Groups

### Accessing the Bay Groups option

The Bay Group options can be accessed from the Modify > Blocks option on the menu bar.

**Figure 3–105 Bay Groups - Blocks**



They can also be accessed from the Bay Numbering toolbar.

- Group Bays allows you to select fixtures to group together a number of fixtures into a single bay.
- Clear Bay Group converts grouped fixtures back into fixtures that will receive individual bay numbers.
- Select Bay Group causes other members of a bay group to be highlighted when an individual fixture within the bay group is selected.

### Making Fixtures into Bay Groups

To make Bay Groups from fixtures:

1. From the Modify>Blocks menu, click the Group Bays option. Alternatively use the Group Bays option from the Bay Numbering toolbar. A prompt appears next to the cursor to select the required fixtures.
2. Select the objects by left clicking on the required fixtures, or by a fence.
3. Complete the selection by a right click. The selected Bay Group is numbered as such when the fixtures are bay numbered.

### **Removing Bay Groups**

To remove fixtures in a bay group:

1. Select the Remove Bay Group option from the Modify > Blocks menu or from the Bay Numbering toolbar. A prompt appears next to the cursor to select the blocks to remove from the group.
2. Select a block from the bay group. All the blocks of the bay group are selected.
3. Right click to complete the selection, the blocks are removed from the group.

### **Showing Bay Groups**

To show all the fixtures in a bay group:

1. Select the Show Bay Group option from the Bay Numbering toolbar or the Modify menu. A prompt appears next to the cursor to select a block.
2. Select a Block Prompt.
3. Select any block in the bay group and the other blocks are selected.

## **Merchandising**

### **Business Flows in Merchandising**

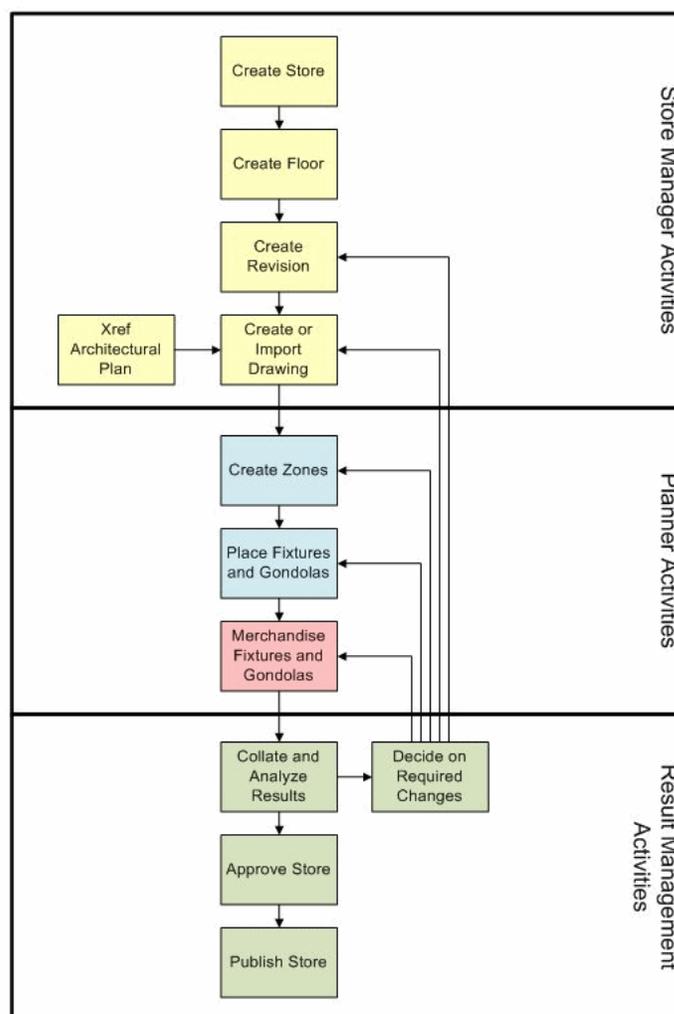
You need to have detailed information on the stores for Macro Space Management to operate effectively. The starting point is the Store Manager module. This allows stores to be organized into a logical structure and individual stores to be sub-divided into floors. Details of the floors can then be imported into Macro Space Management as Planner drawings. These floors can be subdivided into Zones dedicated to sales of particular product lines.

The Fixtures module within Macro Space Management then allows the detailed layouts of the floors to be planned (multiple plans for a floor within a store being administered by Store Manager). Each fixture can subsequently be populated by a predetermined quantity and arrangement of sales products using the Merchandising Tab on the Object Browser.

Within the Merchandising Tab, you can:

- Select single or multiple bays to be populated with merchandise.
- Quickly and efficiently select the required merchandise.
- Substitute merchandise as required.

Figure 3–106 Business Flow - Merchandising



You can see information on the effectiveness of the merchandising plan by switching to Merchandiser and looking at the Key Performance Indicators (KPI). After the floor has been merchandised, Macro Space Management Reports can be used to analyze and report on the effectiveness of the layout. These are available from the Report Studio standalone module.

## Basic Concepts

### Fixtures, Fittings, and Shelves

#### Fittings

Fittings are items within a store that aid the retail effort, but do not themselves hold merchandise. Examples are display material and checkout counters. Some fittings are used to support or augment fixtures. For example a shelving unit could be made up of support legs, (a fitting), and shelves, (a fixture). Fittings always remain separate items on the drawing and can be hidden from view using the Hide Fittings command.

## **Fixtures**

A fixture is a structure designed to hold products for sale. It can take many forms including runs of shelving, display cabinets, and kiosks. A fixture can hold product directly, or via shelves. A shelf always has a parent fixture. A shelf can be used as a generic description as equipment within a fixture which can hold product.

For example a backboard might hold several support bars. The support bars could in turn have rods attached. Product could then be hung from those rods. The arrangement of rods emanating from a single support bar is generically called a shelf for planning purposes.

## **Shelves**

Each shelf or fixture always has a product base associated with it. This serves as a placeholder for any merchandise placed on it. Fixtures and fittings are often color coded as to purpose. For example, fixtures holding groceries might be drawn in green, fixtures holding chilled goods in blue.

## **Layers**

AutoCAD drawings are often divided into Layers. Each layer contains a specific type of information. For example, one layer might contain information on fixtures another data on electrical wiring. Layers can be further sub-divided into aliases. Each aliased layer contains very specific information. For example, one aliased layer might contain details of all the fixtures capable of holding chilled goods; another all fixtures holding fruit and vegetables.

Layers are one method used by Macro Space Management to filter fixtures, planograms, etc.

## **Product**

A Product is a single specific category of merchandise. For examples, baked beans, television sets, and dining tables.

## **Planograms**

Planograms are blocks within Macro Space Management that hold details of merchandise to be placed into the fixtures within a store. Planograms define the type, quantity, and arrangement of the sales goods to be placed in the bay(s). These are designed to maximize sales revenue by placing the optimum combination of products into the available sales space.

Planograms are infinitely flexible and can be configured to hold any combination of products. Planograms are placed in fixtures and gondolas, but must be of suitable configuration for that specific fixture or gondola.

## **Gondolas**

A Gondola is an arrangement made up from two or more fixtures linked together by means of connection points (or in sufficiently close proximity to meet the definition of adjacency). An example of a gondola might be a run of 10 fixtures placed back to back, with end caps on each end to maximize the area devoted to sales.

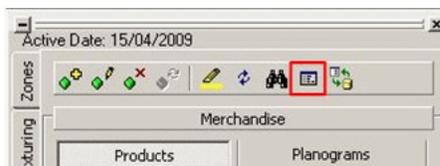
Gondolas are often color coded to differentiate from one to another. For example gondolas holding groceries might be drawn in green, fixtures holding chilled goods in blue. Note that single fixtures are numbered as gondolas if the Gondola Numbering option is used.

## Configuration

### Accessing the Configuration Options

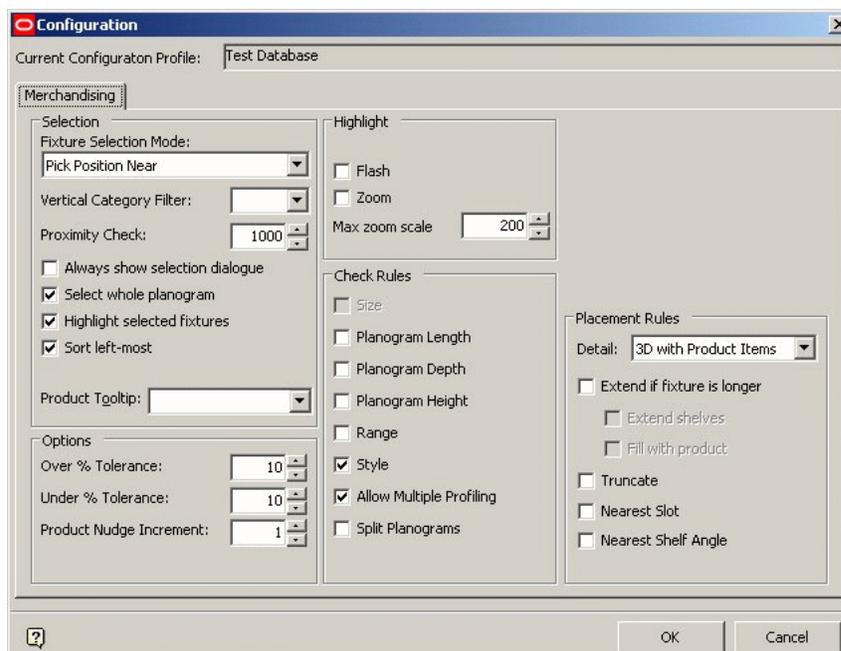
The Configuration options can be accessed by clicking on the Properties icon on the Merchandising toolbar. (This is available when either Products or Planograms are selected).

**Figure 3–107 Merchandising toolbar - Configuration**



This will bring up the Merchandising Tab from the Configuration Module.

**Figure 3–108 Configuration Module**



**Table 3–9 Configuration Module**

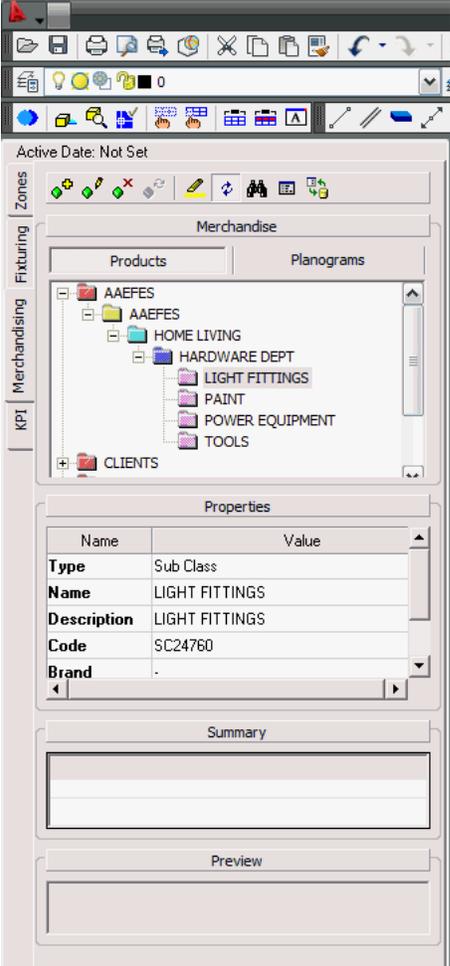
<b>Fields</b>	<b>Description</b>
Selection	<p><b>Fixture Selection Mode</b> is selected from a drop down list.</p> <p><b>Vertical Category Filter</b> enables the user to select Planograms that have previously been assigned to a vertical category within an aliased layer.</p> <p><b>Always show selection dialog</b> permanently turns on the selection dialog window when planograms are deleted. If this option is not enabled, then the dialog will only show when multiple planograms are selected - single planograms will be deleted without the need for confirmation.</p> <p><b>Select whole planogram</b> is used when a Planogram requires multiple bays to be placed.</p> <p><b>Highlight selected fixtures</b> highlights fixtures previously selected using Macro Space Management tools.</p> <p><b>Sort left-most</b> sorts selected fixtures in a left to right order. If this option is not enabled, then fixtures are selected in the order they were placed on the drawing.</p> <p><b>Product tooltip</b> enables the type of tooltip to be selected from a drop down list.</p>
Highlight	Enables to highlight a fixture in the drawing by flashing or zooming to a set value.
Options	Enables to set the tolerance levels.
Check Rules	Enables to set the check rules for planograms.
Placement Rules	Defines the placement rules.

## Merchandising Toolbar and Display Windows

### Merchandising on the Object Browser

Clicking on the Merchandising tab on the Object Browser brings up a series of options for adding, editing, and deleting Products and Planograms.

Figure 3-109 Merchandising Toolbar



**The Product Toolbar**

The Product toolbar is found on the Merchandising Tab of the Object Browser. It is active when the Product button is selected.

Figure 3-110 Product toolbar



It contains a series of icons allowing various operations to be carried out on Products.

**The Planogram Toolbar**

The Planogram toolbar is found on the Merchandising Tab of the Object Browser. It is active when the Planogram button is selected.

**Figure 3–111 Planogram toolbar**



It contains a series of icons allowing various operations to be carried out on Planograms.

**The Merchandising Hierarchy Window**

The Merchandising window shows a hierarchical tree of all the available products or planograms.

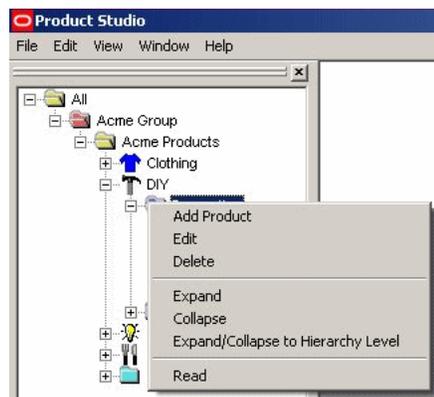
**Figure 3–112 Merchandising window**



The tree can be expanded or contracted by clicking on the + or - icons. The Merchandising window can be minimized by clicking on the splitter bar.

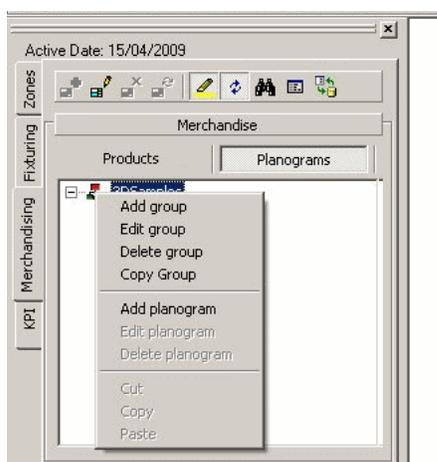
The Products or Planograms buttons determine whether the hierarchical tree shows products or planograms. The Products hierarchical tree can be configured in Product Studio using the Add Product, Edit, and Delete options on the menu available by right clicking.

**Figure 3–113 Product Studio Window**



The Planograms hierarchical tree can be configured in the Merchandiser module using the Add, Edit, and Delete options on the menu available by right clicking.

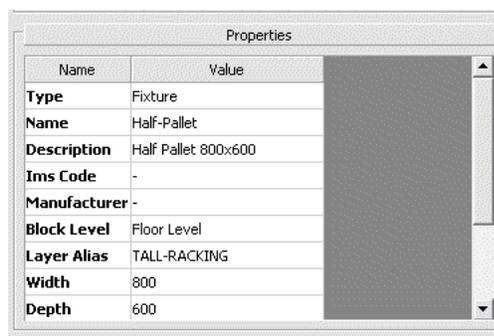
**Figure 3–114 Merchandiser module**



### The Properties Window

The Properties Window shows the properties for the currently selected product or planogram.

**Figure 3–115 Properties Window**



The Properties window can be minimized by clicking on the splitter bar.

### The Summary Window

The Summary Window contains details of Zones within the currently active drawing. The information typically includes Zone Name, Zone Description, and Gross and Net Areas.

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**Note:** Information displayed can be customized by Oracle - contact Technical Support if necessary.

---

Zone Names and Zone Descriptions can be sorted by clicking on the column headings. If a zone has been selected in the drawing, it will be highlighted in the summary of zone properties.

### The Preview Window

The Preview Window shows an image of the product or planogram selected in the hierarchical tree.

**Figure 3–116** *Preview Window*



The window can be resized in the horizontal plane by dragging the edge of the Object Browser with the mouse. It can be resized in the vertical plane by dragging the bottom of the window with the mouse.

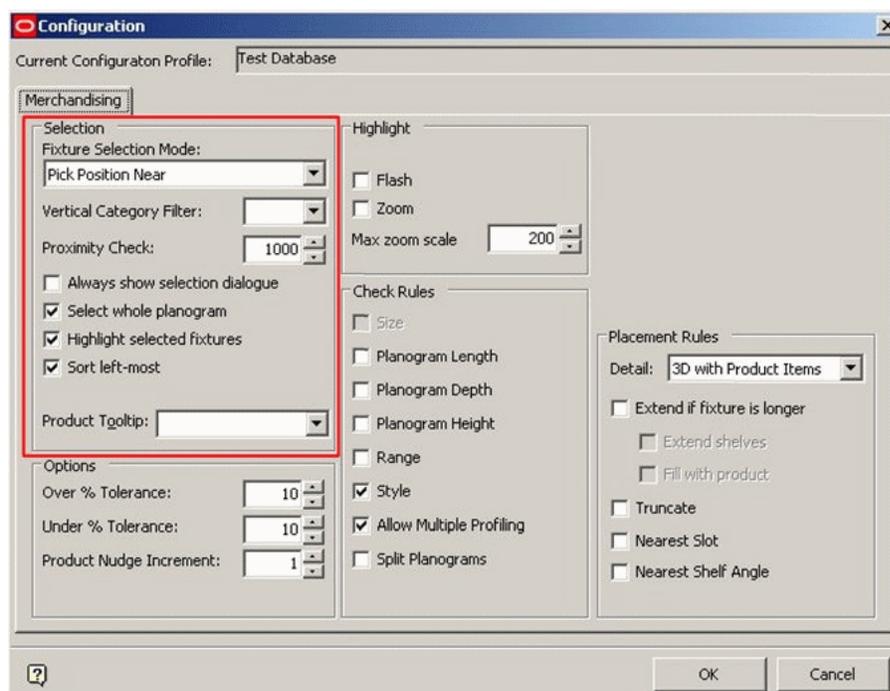
The Preview window can be minimized by clicking on the splitter bar.

## Merchandising Operations

### Selection Methods for adding Products or Planograms to Fixtures

The Selection frame in the Merchandising Tab of the Configuration Module specifies a series of options determining how fixtures are selected for placement of Products or Planograms.

Figure 3-117 Configuration Module - Merchandising Tab

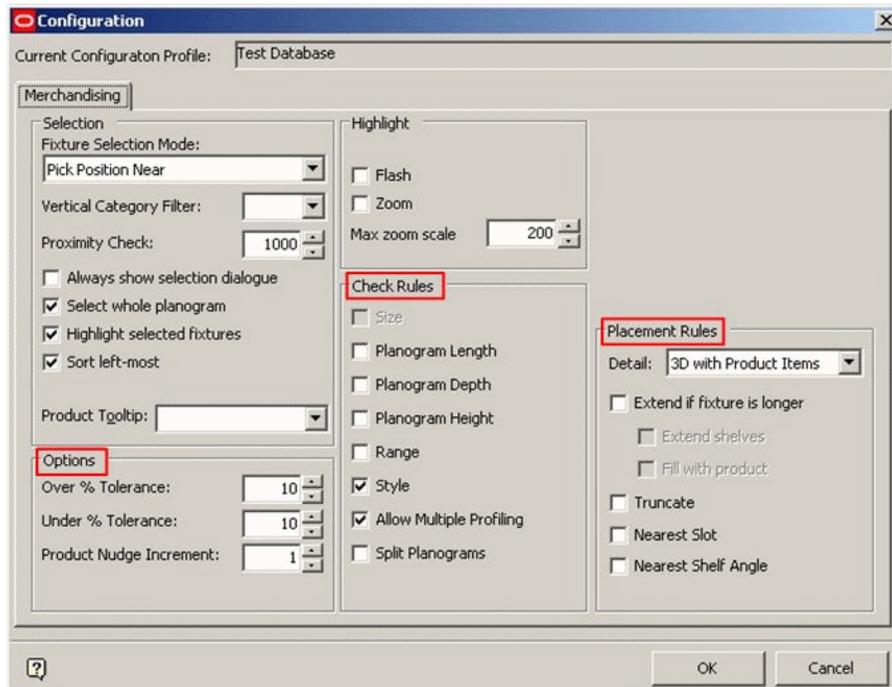


- Fixture Selection Mode is selected from a drop down list.
- Pick Position Near selects the nearest position from a range of fixtures previously selected using Macro Space Management tools.
- Standard Selection uses the standard Planner selection boxes to pick the fixture(s).
- Vertical Category Filter enables you to select Planograms that have previously been assigned to a vertical category within an aliased layer.
- Always show selection dialog permanently turns on the selection dialog window when planograms are deleted. If this option is not enabled, then the dialog only shows when multiple planograms are selected - single planograms are deleted without the need for confirmation.
- Select whole planogram is used when a Planogram requires multiple bays to be placed.
- Highlight selected fixtures highlights fixtures previously selected using Macro Space Management tools.
- Sort left-most sorts selected fixtures in a left to right order. If this option is not enabled, then fixtures are selected in the order they were placed on the drawing.
- Product Tooltip enables the type of tooltip to be selected from a drop down list.

### Planogram Placement Options

The Configuration Module also contains a series of options concerning how planograms are placed.

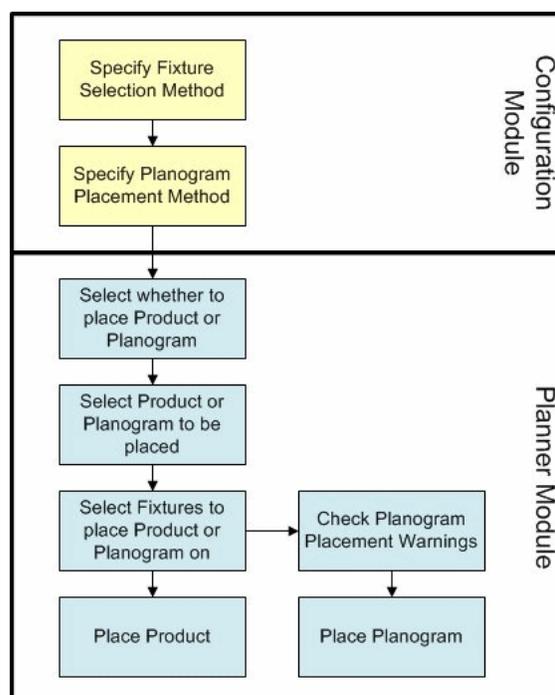
**Figure 3–118 Configuration Module - Merchandising Tab**



- Check Rules specify what warnings are given if the selected fixtures do not match the data specified in the planogram definition.
- Options allow you to specify the tolerance allowed if the dimensions of the selected fixtures do not match that specified in the planogram definition.
- Placement Rules specify what happens if the planogram is longer or shorter than the selected fixtures.

### Adding Products or Planograms to Fixtures

The flowchart below specifies the sequence of actions required to place Products or Planograms on Fixtures.

**Figure 3–119 Workflow - Placing Products/Planograms on Fixtures**

#### Actions in the Configuration Module

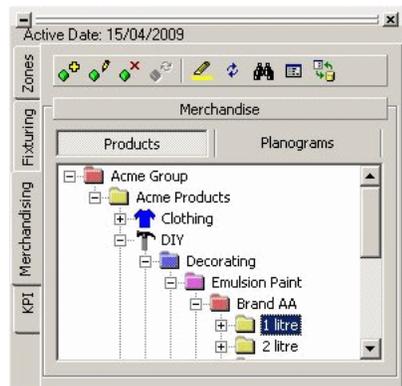
- Specifying the Fixture Selection Method enables you to choose how fixtures for population are selected.
- Specifying the Planogram Placement method enables you to choose what options control how planograms are placed.
- The options are specific to a user.

#### Actions in the Merchandising Module

- Clicking on the appropriate button toggles between the Product and Planogram hierarchical trees, allowing you to select the class of object to be placed.
- The required Product or Planogram can then be found in the hierarchical tree.
- The Fixture on which the Product or Planogram is to be placed is selected.
- The Product or Planogram is placed.
- If a planogram is placed, you may receive one or more warnings if the selected fixtures do not match the details in the planogram definition.
- You may choose to override the warnings, in which case the planogram will place.

#### Selecting Whether to Add Products or Planograms

Whether Products or Planograms are added will depend on whether you have selected the Product or Planogram hierarchical tree.

**Figure 3–120 Product hierarchical tree**

In the above example, the Products hierarchical tree has been selected.

### Selecting the Product or Planogram Required

There are two ways of finding the Product or Planogram required for merchandising a fixture. The first is to select the required Product or Planogram directly from the hierarchical tree. This can be done by clicking on the + or - sign to expand or contract the hierarchical tree as required, then highlighting the required Product or Planogram.

The second is to use the Find option in the merchandising toolbar.

1. Type the required search string into the Find Product dialog box. The result brings up a list of any blocks matching the search string. Left click on any result will return to the Merchandising Window, where the selected Product or Planogram is highlighted in the hierarchy tree.
2. When the required Product or Planogram has been found, it can be selected for insertion into the drawing in one of three ways:
3. The Product or Planogram can be 'dragged' from the hierarchical tree and 'dropped' into the drawing.
4. The Product or Planogram can be double clicked to activate it for insertion.
5. You can click on the Add Product or Add Planogram icons.

### Constraints on Products that can be Added

Product Effective or Product Expired dates outside File Effective date

When a drawing is created, Store Manager allows you to set an effective date for when that file will become active. Products that have a Product Effective Date (when they become current) after the File Effective Date will not be capable of being added to that drawing.

Products that have a Product Expired Date (when they become historical) before the File Effective Date will not be capable of being added to that drawing. This will prevent products that will not be current or will be historical at the date of implementation of the Store Plan being added to that drawing.

Products those are not current for the active store plan will be grayed out in the Object Browser and the Object Grid.

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**Note:** If a file has not been given an effective date, all products will be available. If products are copied from one drawing to another, they will be placed in the drawing even if their product dates are not valid for this file.

This functionality does not apply to planograms, which have parallel mechanisms for version change and planogram substitution.

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#### Placed Products Expiring before File is Effective

Placed products that have Product Expired Dates (dates when the product will revert to historical status) before the File Effective Date will be transparent and colored grey in the graphic for the Merchandise Report and Merchandising window. The row in the Merchandise Report that refers to the expired product will also be grayed.

This will allow you to readily identify placed products that have become historical and need replacement.

#### Selecting the Required Fixture(s)

The exact method of selecting the required fixtures will depend on the settings within the Configuration Module.

Pick Near Position selects the nearest position from a range of fixtures previously selected using Macro Space Management tools.

1. If there is more than one bay to be placed, then you are prompted to pick another point to indicate the direction of placement.
2. If one of the bays adjacent to the first selected fixture is already populated, that direction is automatically excluded as a possibility and the opposite direction selected.
3. If both fixtures adjacent to the first selected fixture are already populated, you are prompted to select another bay - the process continuing until the whole planogram has been placed.
4. You can cancel the product or planogram placement at any time by pressing <Enter>, <Escape> or right clicking.

Standard Select uses the standard Planner selection boxes to pick the fixture(s). If this method is used, Planner filters by layer, eliminating any fixtures that are not on the required layer. It will then determine groups of runs from fixture adjacencies and start placement at the left most fixture.

For all selection methods, selected fixtures change from solid to dotted outlines, and the insertion point will show as a small blue square.

#### Placing the Products or Planograms

Once the required fixtures have been selected, together with the required products or planograms, clicking on the add product or add planogram icon results in the fixture(s) being populated.

The fixture(s) will be annotated with the number and description of the product or planogram placed.

#### Editing Definitions of Products or Planograms

##### Editing Product Definitions

Clicking on the Edit Definitions icon in the Products toolbar opens Product Studio.

**Figure 3–121 Products toolbar - Edit Definitions**



If Product Studio is already open, it will be made the active window. The currently selected product is displayed for editing.

**Figure 3–122 Product Studio - Edit**

 A screenshot of a dialog box titled 'Product SKU'. It has four tabs: 'Details', 'Physical', 'Financial', and 'Custom'. The 'Details' tab is active. The dialog contains several fields:
 

- Name: [text input]
- Description: [text input]
- UPC Type: [dropdown menu, 'Anything' selected]
- Code: [text input]
- UPC: [text input]
- Category Role: [dropdown menu]
- Strategy: [dropdown menu]
- Manufacturer: [dropdown menu, 'Generic' selected]
- Supplier: [dropdown menu, 'Generic' selected]
- Status: [dropdown menu, 'Active' selected]
- Icon: [dropdown menu, 'Product SKU' selected]
- Brand: [text input]
- Sub-brand: [text input]
- Client Code: [text input]
- Client Barcode: [text input]
- Publish Date: [dropdown menu]
- Effective Date: [dropdown menu]
- Expiry Date: [dropdown menu]
- Rank: [spin box, '0' displayed]
- Import Identifier: [text input]
- Import Name: [text input]
- Import Date: [text input]
- Creation Date: [text input]
- Created By: [text input]
- Last Modified Date: [text input]
- Last Modified By: [text input]

 At the bottom right, there are 'OK' and 'Cancel' buttons.

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**Note:** The Product Studio dialog box that opens depends on what level in the product hierarchy has been selected.

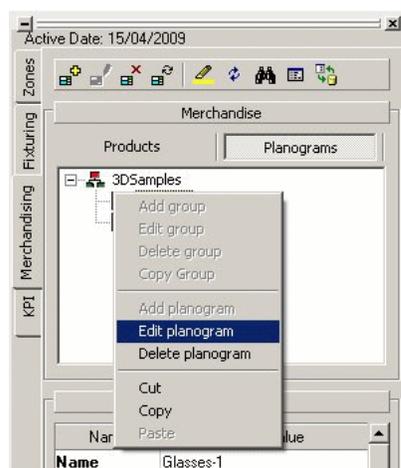
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Once changes have been made and saved, they can be used within Merchandising after the Refresh option has been used on the Object Browser.

### Editing Planogram Definitions

To Edit a Planogram:

1. highlight the required planogram in the hierarchy and right click to bring up the pop-up menu.

**Figure 3–123 Planograms toolbar - Edit Planogram**

2. If the merchandiser module is already open, it will be made the active window. The currently selected Planogram is displayed for editing.

**Figure 3–124 Planogram - Edit**

 A screenshot of a dialog box titled 'Planogram: StocksGravey1-9C\_B1'. It has tabs for 'Details', 'Properties', 'Stores', 'Seasons', 'Fixture Styles', 'Design', 'Financial', and 'UDAs'. The 'Details' tab is active, showing fields for Name, Description, Size Description, Status, Family Code, Assortment Code, Temperature Range, Weight Range, Publish Date, Effective Date, Expiry Date, Stock Type, Autofill Rule, Can be Split, Client Code, Buddy Family Code, Units, Time Units, Manpower Set Time, Manpower Dismantle Time, Category Role, Inventory Model, Rank, Traffic Flow, and Requires Power. At the bottom are 'OK', 'Save As', and 'Cancel' buttons.

Once changes have been made and saved, they can be used within Merchandising after the Refresh option has been used on the Object Browser.

### Removing Products or Planograms from Fixtures

Products or planograms can be removed from fixtures using the remove icons.

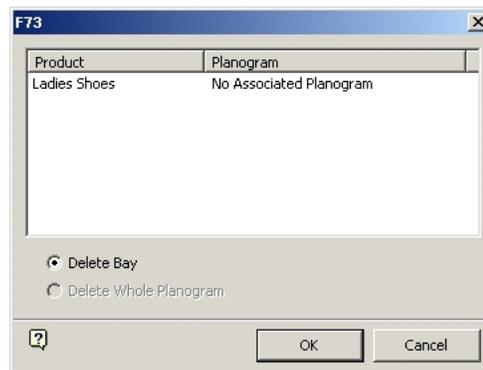
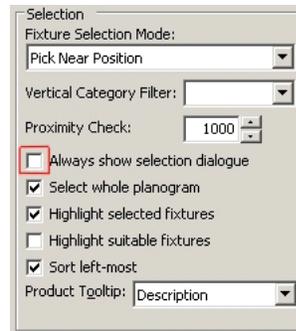
Option that is currently active depends on whether you have selected Products or Planograms in the Merchandising hierarchical tree.

To remove a product or planogram:

1. Select the fixture from where they are going to be removed.
2. When all required fixtures have been selected, click on the appropriate remove icon.

If the Always show selection dialog is enabled in the Merchandising tab of the Configuration module, then a dialog box is displayed to confirm the items to be removed. If the Always show selection dialog is not enabled, then the dialog box is displayed if more than one fixture is selected.

**Figure 3–125 Merchandising tab - Always show**



The number at the top of the dialog box is the fixture number. Options available on the dialog box to delete bay and planogram are mutually exclusive options selected by a radio button.

- Delete Bay removes the planogram from the selected bay only.
- Delete Whole Planogram removes the planogram from all bays that it has been placed in.

When the selection has been made, click OK to remove the product or planogram, or cancel to retain it.

### Reverse Planogram Population Direction

Option that is currently active depends on whether you have selected Products or Planograms in the Merchandising hierarchical tree.

When placing the planogram, it reverses the order of the profiles, and within each profile, it reverses the positions of the products. A left justified planogram is right justified, and vice versa.

## Product and Planogram Operations

### Highlight Where Used in Store

The Highlight where used in Store icon enables products or planograms selected from the appropriate hierarchical tree to be highlighted on the drawing.

**Figure 3–126 Highlight Options**



You can toggle this option On or Off. To toggle the option on, click the icon, which shows as pressed on the toolbar. To toggle the option off, click the icon again. When off, the icon is not pressed in.

---

**Note:** It is recommended this option be only selected when required. When activated, (toggled on), it takes up processing capacity. Leaving this option toggled on when not required will slow other operations.

---

To highlight a product or planogram find the required item in the hierarchical tree and click on it. The item is highlighted in the drawing - the exact method of highlighting depending in the options selected in the Configuration Module.

### Highlight Selected Item from Tree

The Highlight Selected Item from Tree option enables products or planograms selected from the appropriate hierarchical tree to be highlighted when they are selected in the drawing.

**Figure 3–127 Highlight Options**



You can toggle this feature On or Off. To toggle the option on, click on the icon, which then shows pressed on the toolbar. To toggled the option off, click on the icon again. When off, the icon is not pressed in.

---

**Note:** It is recommended this option be only selected when required. When activated, (toggled on), it takes up processing capacity. Leaving this option toggled on when not required will slow other operations.

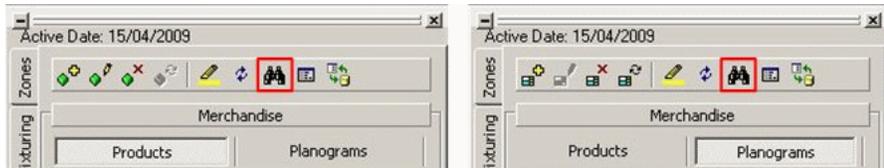
---

To highlight a product or planogram find the required item in the drawing and click on it. The item is highlighted in the hierarchical tree - the exact method of highlighting depending in the options selected in the Configuration Module.

### Find Product or Planogram

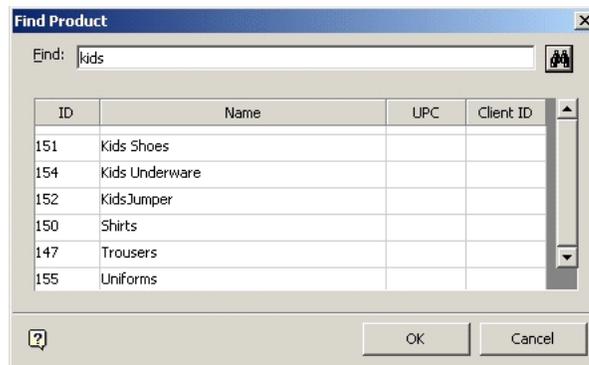
The Find Product/Planogram function is accessed by clicking on the Search icon in the Merchandising toolbar.

**Figure 3–128 Find Product/Planogram**



This brings up the Find Product (or Find Planogram) dialog box.

**Figure 3–129 Find Product dialog box**



Type the required search string into the Find box and click the Search icon. This will bring up a list of any blocks matching the search string.

Left click on any result to return to the Merchandising Products Window, where the selected Product or Planogram will be highlighted in the hierarchy tree.

### Configuration Options

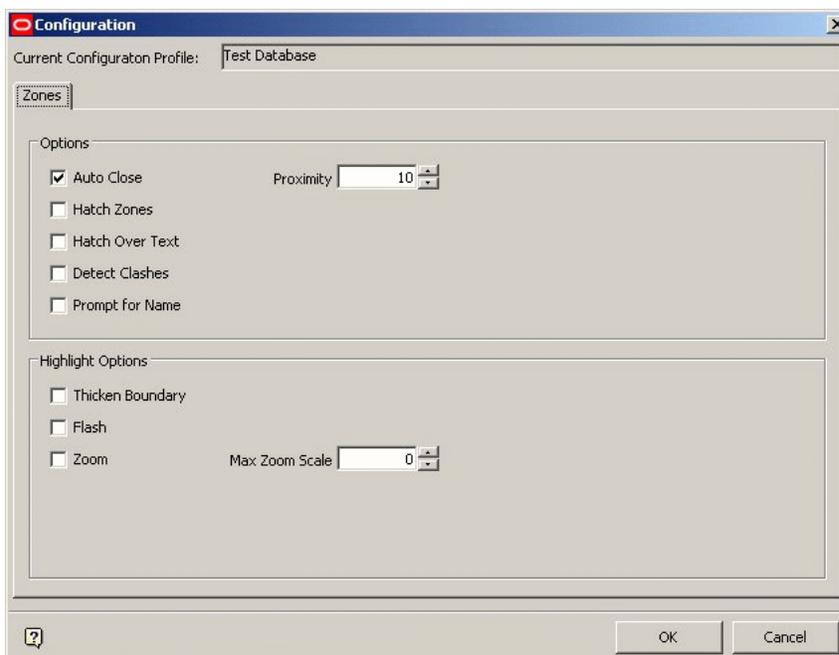
The Zones tab in the Configuration module can be called by clicking on the Configuration icon on the Zones toolbar.

**Figure 3–130 Zones toolbar - Configuration**



This brings up the Zones Tab.

**Figure 3–131 Configuration - Zones Tab**



This dialog box contains a series of check boxes controlling the way Zones display.

#### Options

- **Auto Close:** if a point in the zone being drawn is within the specified Proximity of the first point drawn, the zone will automatically close or complete drawing.
- **Hatch Zones:** determines whether the Zones drawn are color coded or not when the zone is first drawn. Hatching may be added later using the hatch commands.
- **Hatch over Text:** determines whether the hatch pattern leaves a gap for the zone text or not.
- **Detect Clashes:** determines whether Zones on the same layer, (i.e. the same type), overlap each other.
- **Prompt for Name:** allows to locally rename the zone when first drawn.

Highlight Options - determines how the zone highlights in the drawing if the 'highlight in drawing' option is selected in the Object Browser.

- **Thicken Boundary:** increases the thickness of the Polyline used to draw the Zone.
- **Flash:** makes the Zone boundaries to flash.
- **Zoom:** when the Zone is selected, it zooms, (expand) either to the limits of the drawing, or by the scaling factor set in the Max Zoom Scale parameter.

### The Refresh Option

The Refresh icon refreshes both Planogram and Product information in the hierarchical tree.

**Figure 3–132 Products Tab - Refresh**



Using Refresh ensures that the information is brought up to date with any changes made in Merchandiser or Product Studio, both to the hierarchical tree and to any products or planograms added to, edited, or deleted from it.

### Annotation

Annotation is used to label fixtures within a drawing. The number is the product or planogram identification code. Annotation also displays the name of the product or planogram. Products or planograms are annotated when placed, but the annotation requires refreshing when they are moved or deleted.

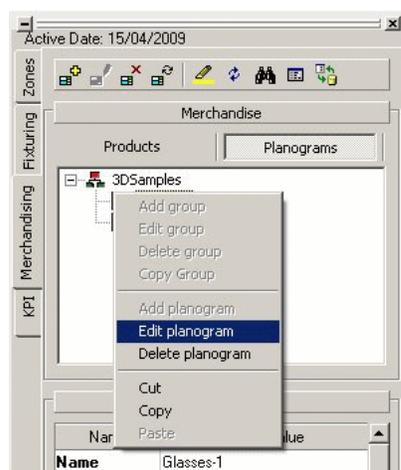
### Refreshing Annotation

To refresh annotation in the drawing:

1. From the Modify menu, select the Text options.
2. Select the required objects in the drawing.
3. Right click to stop selecting objects. All selected objects will be re-annotated.

### Merchandiser

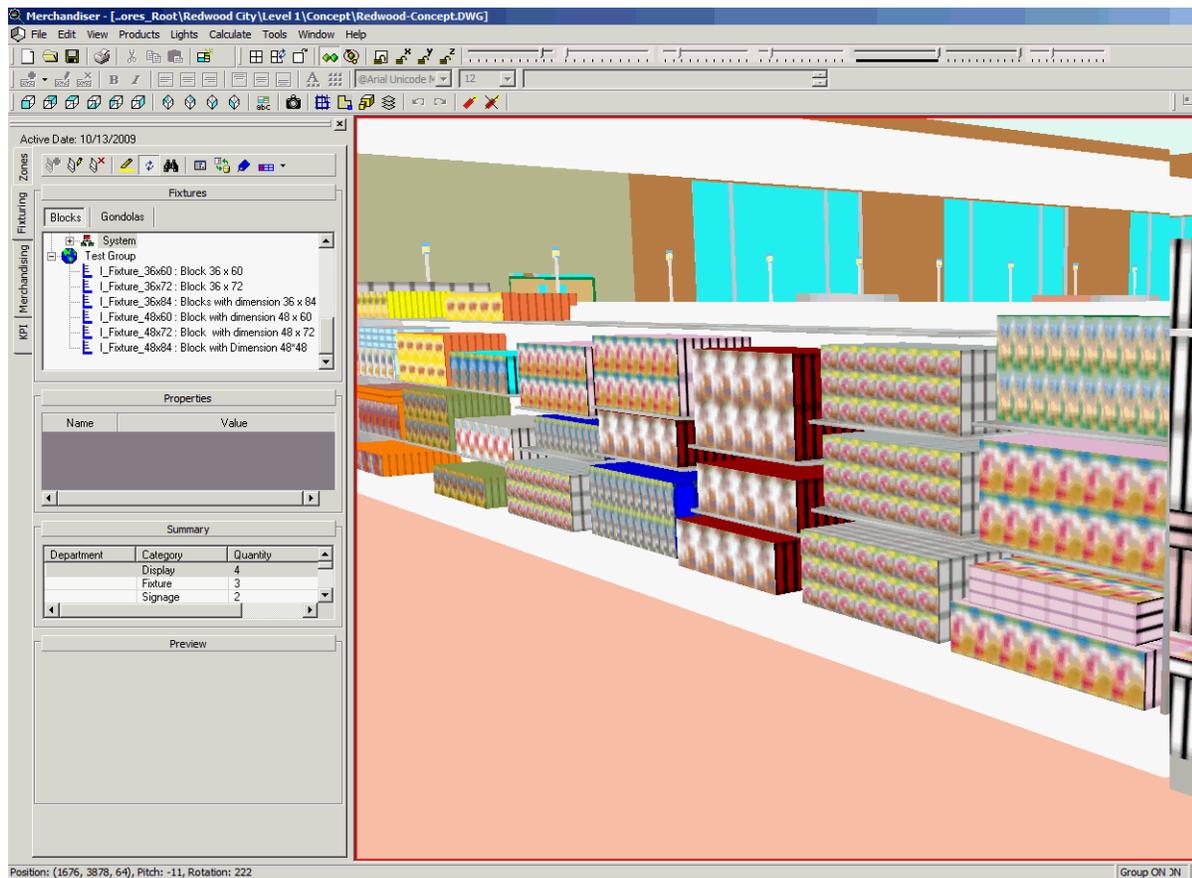
Merchandiser module can be accessed from the Edit Planogram option from the pop-up menu in the Object Browser.

**Figure 3–133 Merchandising - Edit Planogram**

Merchandise allows the planograms and the fixtures on which they have been placed, to be viewed in a Virtual Reality (VR) 3D environment. Using the provided controls, you can move around the VR store.

Merchandise is also used to design and edit planograms and to place them in a 3D environment.

Figure 3–134 Merchandiser Module



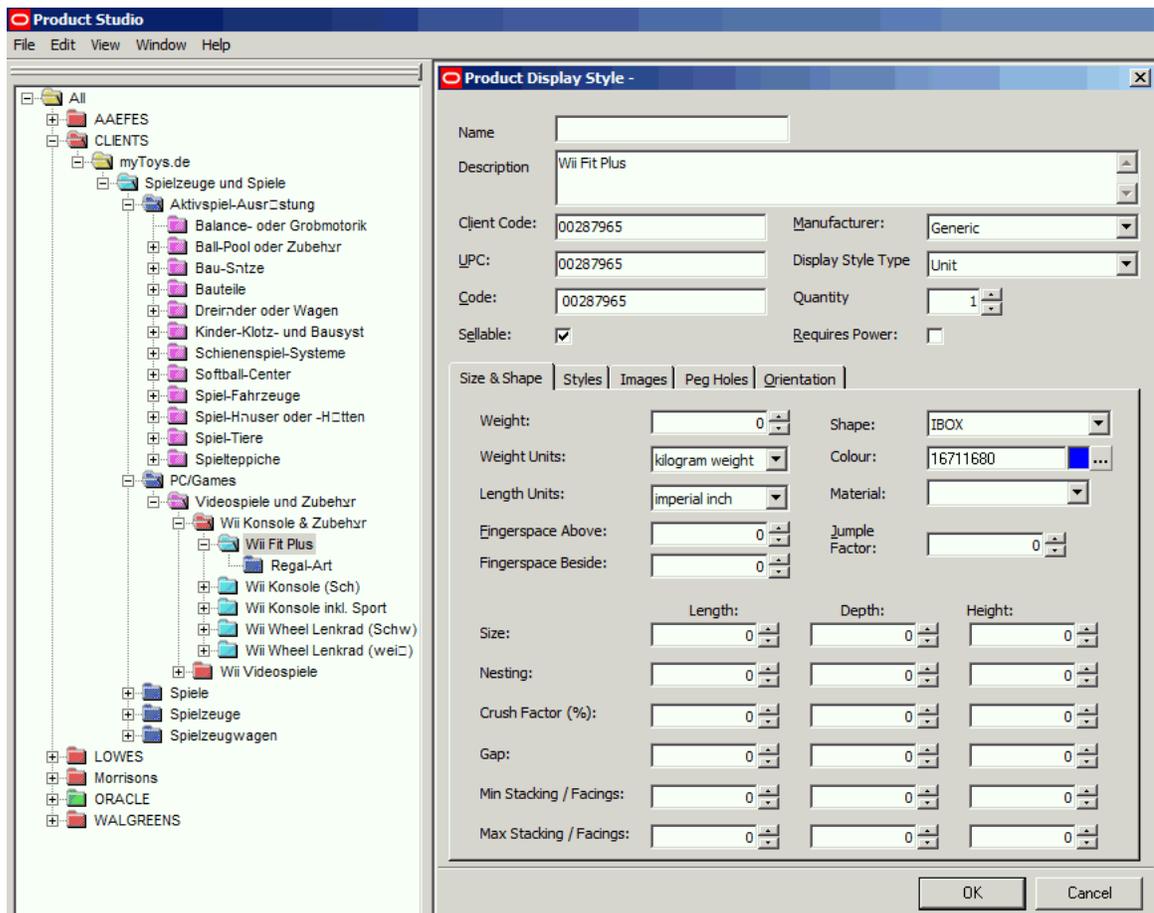
Planograms can be designed in varying levels of detail. These planograms can be arranged in a hierarchy and subsequently used to populate a store.

### Product Studio

Product Studio module can be accessed using the Edit Definition option in the toolbar in the Merchandising tab of the Object Browser.

Product Studio allows the design and editing of product images. These images can be arranged in a hierarchy and subsequently used to populate a store. Options within the module allow attributes to be assigned to each product, giving it intelligent properties.

Figure 3–135 Product Studio

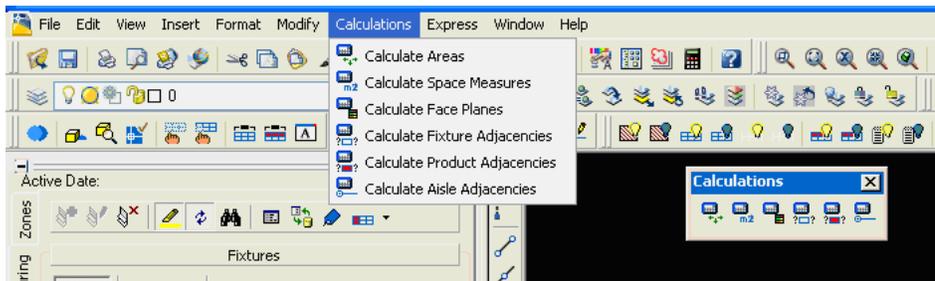


### Measuring Performance - Key Performance Indicators

Key Performance Indicators (KPI) allows the performance of a merchandised layout to be evaluated. Click the KPI tab in the Merchandiser Object Browser to view the hierarchy of Key Performance Indicators. KPIs color-code the drawing according to configurable criteria. This allows views to see the performance of merchandised layout at a glance.

## Calculations

Macro Space Management provides for the manual initiation of a series of calculations. Some of these assist functionality in the drawing. Others are useful for reporting purposes. They can be initiated from the Calculations menu or the Calculations toolbar.

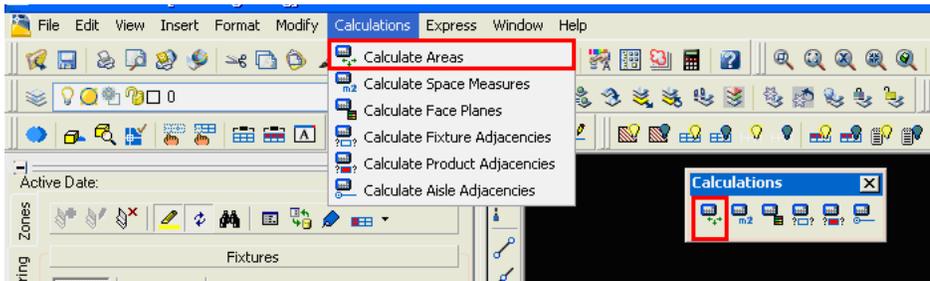
**Figure 3–136 Calculations menu**

Macro Space Management provides the following types of calculations:

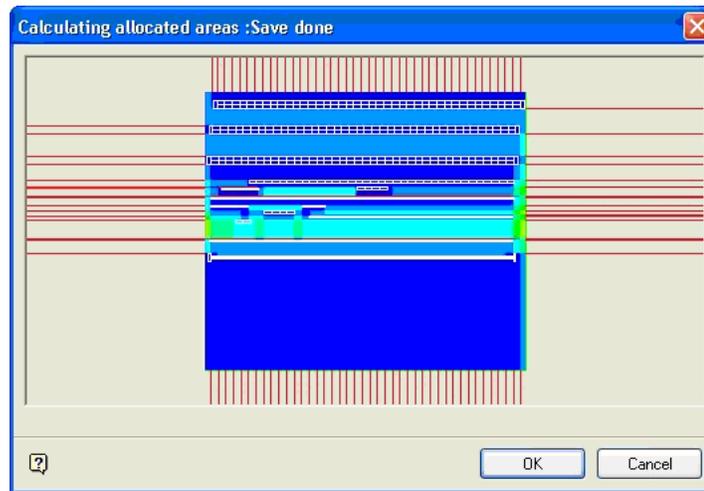
- Area Calculations
- Space Measures
- Face Planes
- Fixture Adjacency
- Product Adjacency
- Aisle Adjacency

## Area Calculations

Area calculations are used to apportion the area enclosed by the Total Building (Internal Area) zone to specific fixtures. Area calculations are initiated by selecting the Calculate Areas option from the Calculations menu or the Calculations toolbar.

**Figure 3–137 Calculations menu - Area calculations**

A window appears showing the progress of the calculation.

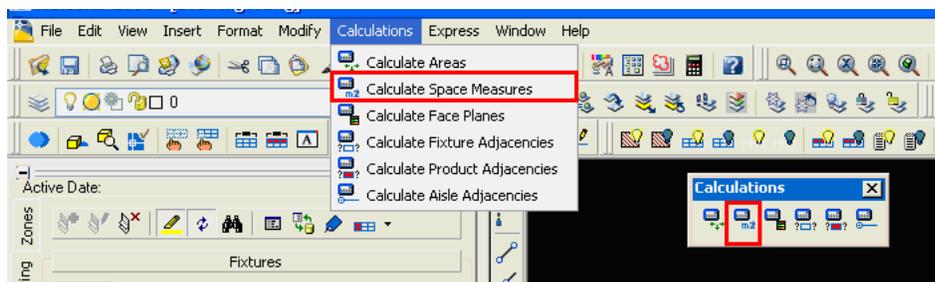
**Figure 3–138 Window Showing Calculation Progress**

Once area calculations have been carried out, they can be used for several purposes:

- Area apportioned to fixtures can be used to color a drawing using the appropriate KPI. This will show by means of color coding the area in square feet apportioned to each fixture.
- Areas apportioned to fixtures can be output in the form of a tabulated report via the Reporting tool.
- Areas apportioned to fixtures can be used for other calculations, for example to show the profit per square foot of allocated area for that fixture, via the Reporting tool.

## Space Measures

Space Measures are used for reporting purposes. Space Measure calculations are initiated by selecting the Calculate Space Measures option from the Calculations menu or Calculations toolbar.

**Figure 3–139 Calculations menu - Calculate Space Measures**

A confirmation message appears when the calculation is complete.

The information can then be used in the Reporting tool to report such information as:

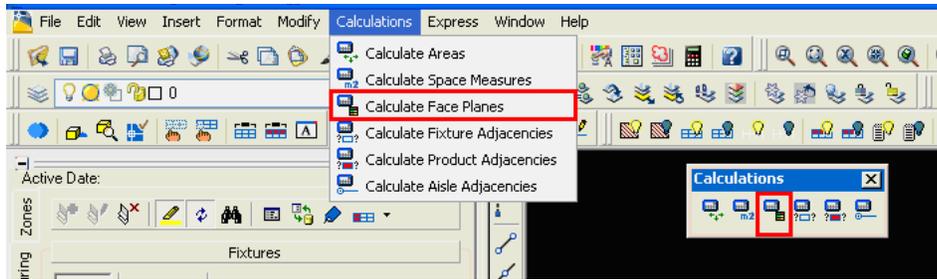
- Base Linear for products
- Shelf Linear for products
- Product display volumes

## Face Planes

Face Planes are used to calculate the area (in percentage) each product (SKU) takes in a planogram when viewed from the front. For example, the Men's Shirts planogram might have a frontal area of 16 square feet, with Walmart Own Brand shirts taking up 15% of the available space.

Face Planes are used for reporting purposes. Face Plane calculations are initiated by selecting the Calculate Face Planes option from the Calculations menu or Calculations toolbar.

**Figure 3–140** *Calculations Menu - Calculate Face Planes*



## Fixture Adjacency

When fixtures (blocks) are first inserted into a drawing the data is written into the central database. As yet the database contains no information on the physical relationship of one fixture to another.

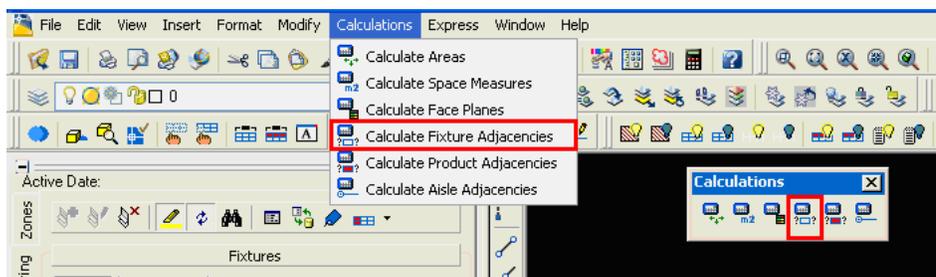
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**Note:** If fixture positions are being modified or if fixtures are being deleted using AutoCAD tools, then the Synchronization Module must be run at intervals to ensure the information held in the Macro Space Management central database is the same as that held in the drawing.

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When the fixtures adjacent to each other are known, the nature of the relationship of adjacent fixtures is further specified. They can then be defined as being to the left or right or a specific fixture. The calculation of Fixture Adjacency is initiated by selecting the Calculate Fixture Adjacencies option from the Calculations menu or Calculations toolbar.

**Figure 3–141** *Calculations Menu - Calculate Fixture Adjacencies*

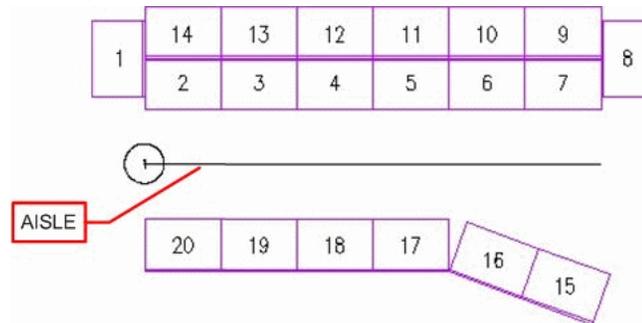


Once the relationships of fixtures are known relative to one another, this information can be used for several purposes. These include:

- Determining what arrangements of fixtures should be treated as gondolas.
- Bay Numbering and Bay Groups.
- As a preparation for Product and Aisle Adjacency calculations.

## Aisle Adjacency

Aisle Adjacency allows you to determine which fixtures (and hence which products) share an aisle. This information is used for reporting purposes.



Aisle Adjacency is used as follows:

- Aisles are drawn in a store plan. (This can only be done in the Planner module).
- The Aisle Adjacency option is run from the Calculate Menu.
- Reports are used to establish which products or planograms share an Aisle.

### Adding, Editing and Deleting Aisles

Aisles can only be added, edited, and deleted in the Planner Module. This is done using the Aisles toolbar.



### Adding an Aisle

To Add an Aisle click on the Add Aisle option in the Aisles toolbar. This brings up the Aisle dialog box.

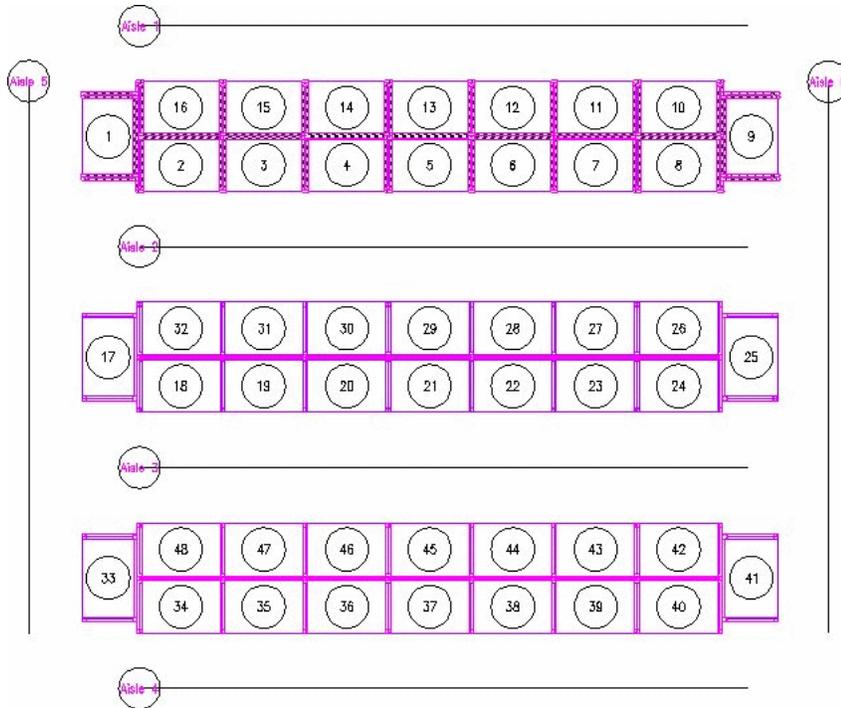
**Figure 3-142** Aisle dialog box



Enter an Aisle name and click OK. This Aisle name must be unique within a store plan; else, a warning message is displayed.



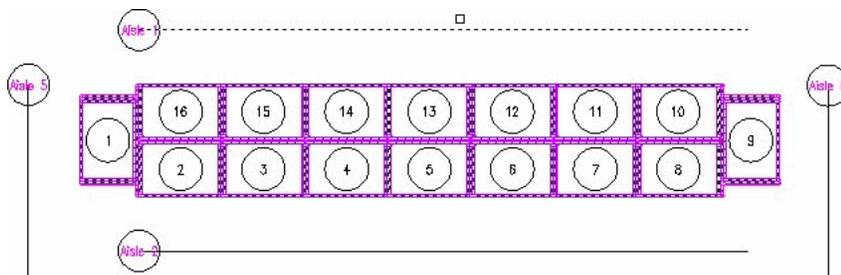
If the Aisle name is unique, the user will be taken to the drawing. The line representing an Aisle can be drawn using standard AutoCAD methods. Pressing <Enter> will complete drawing the aisle.



In the above example six Aisles have been drawn. Each fixture will belong to one (and only one aisle).

**Editing an Aisle**

To edit an Aisle, click on the Edit Aisle option in the Aisles toolbar. The cursor in the store plan will change to a box. Click on the required Aisle to select it. The outline will turn to dotted.



Right click to complete the selection process. The Aisle dialog box appears.

The name of the Aisle can then be edited. On clicking OK, the aisle name will be changed (but must still remain unique).

### Deleting an Aisle

To delete an Aisle, click on the Delete Aisle option in the Aisles toolbar. The cursor in the store plan will change to a box. Click on the required Aisle to select it. The outline will turn to dotted. (Aisles can be multi-selected with successive left clicks.

Right click to complete the selection process. The selected Aisles will then be deleted without any further confirmation.

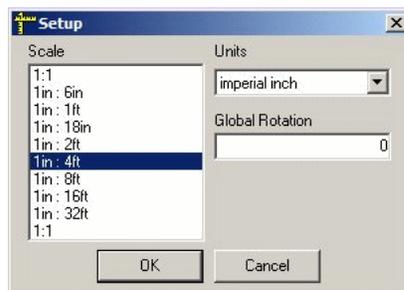
### Aisle Annotation and Scales

Each Aisle has annotation at the start. The size of the annotation is controlled by the Scale set for the drawing/store plan.



To set the scale for the drawing, select the Drawing Setup option from the Format menu. This will bring up the Setup dialog box.

**Figure 3–143 Setup dialog box**

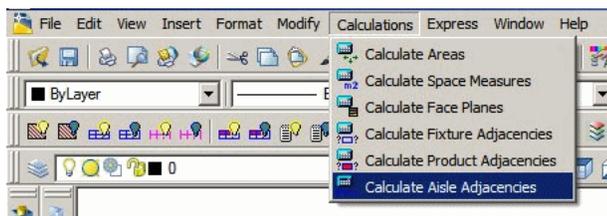


Select a scale that will be appropriate when the store plan is set up for printing in paper space.

### Running the Aisle Adjacency Calculation

The Aisle Adjacency calculation can currently only be run in the Planner Module. To do this first ensure the store plan has been synchronized as appropriate to ensure the drawing matches the database. Then select the Calculate Aisle Adjacencies option from the Calculations Menu.

**Figure 3–144 Calculations Menu - Calculate Aisle Adjacencies**



The Aisle Adjacency calculations will then run and the results will be stored in the database. When complete, a confirmatory dialog will appear.

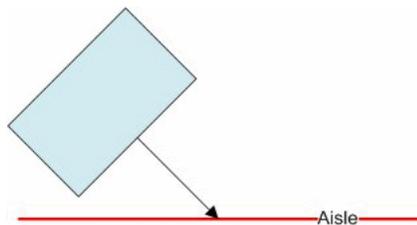


The results can then be accessed via a report - for example via a tool like BI Publisher.

### Aisle Adjacency Calculation Technicalities

The following criteria apply to Aisle Adjacency Calculations:

- Only Fixtures are included in Aisle Adjacency Calculations. Fittings and shelves are excluded from the calculations.
- Each fixture can only be associated with a single aisle in a store plan. If there are multiple aisles within the distance specified by the ADJACENCY\_AISLESIZE system variable, the fixture will be associated with the aisle within the shortest distance.
- Fixtures are associated with an Aisle if the distance from the front of the fixture is within the distance set in the ADJACENCY\_AISLESIZE System Variable. The ADJACENCY\_AISLESIZE System Variable (set using the System Variables option on the General Menu in the Admin Module) determines the maximum distance a fixture can be from an aisle and still associated with it.



The distance to the Aisle is measured perpendicular to the centre of the front of the fixture. If the fixture is at an angle to the Aisle (as in the diagram above) the distance from the fixture to the Aisle may exceed the value set in the System Variable.

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**Note:** The Front Direction of the fixture is set on the Insertion Tab of the Block details dialog box in Fixture Studio.

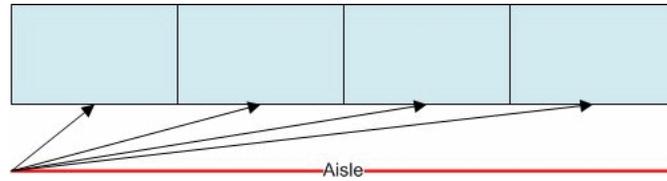
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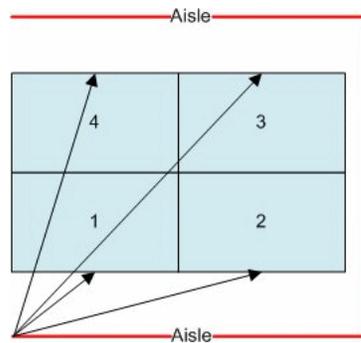
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### Distance from Start of Aisle

Distance from the start of the aisle and distance from the aisle are measure relative to the centre of the front of the fixture. For a straight, single segment aisle, 'distance from start of aisle' is measured as follows. Note how the distance does not increase by linear increments.



For a multi-segment aisle, the situation is more complex.



The distance is still measured from the start of the aisle, but may be deceptive. In the above example, Fixture 4 may show as closer to the start of the aisle than Fixture 3.

#### Distance from Aisle

For a single segment aisle, the distance to the aisle is measured perpendicular to the centre of the front face of the fixture.

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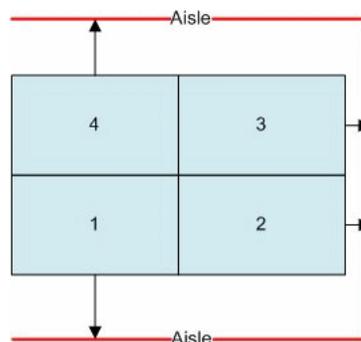
**Note:** If the distance from the Aisle is greater than that set in the ADJACENCY\_AISLESIZE System Variable, the fixture will not be shown as belonging to the aisle.

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For a multi-segment aisle, the distance is measured from the nearest face.



Note how Fixtures 2 and 3 will have the distance measured to the second segment of the aisle.

### Setting Up Aisle Adjacency Reports

Generating reports on Aisle Adjacency requires extracting information from the database. A simplified version of the table structure is shown below for Administrators wishing to customize reports.

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**Note:** Refer Oracle Retail Macro Space Management Data Model for more information.

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## Synchronization

Data is stored in two ways within the Planner environment. Data stored in an AutoCAD drawing is retained in the dwg file that contains all the pertinent information. Macro Space Management also stores information in its central database. Macro Space Management is integrated with AutoCAD. However, some AutoCAD tools can modify AutoCAD drawings in ways that are not registered by Macro Space Management's central database. For example, if AutoCAD tools are used to move or delete fixtures or gondolas from the drawings, this does not alter the information held in the Macro Space Management database.

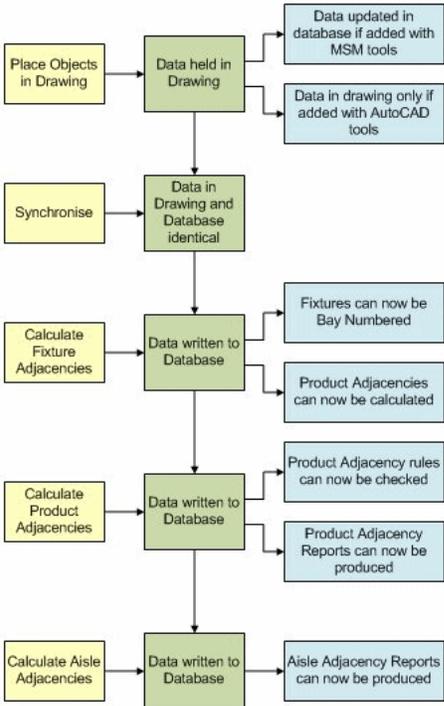
Potential differences between the AutoCAD drawing and the information held in Macro Space Management must be resolved. This is done using the Synchronization option. After data has been synchronized, the information held in the AutoCAD drawing is identical to that held in the Macro Space Management central database.

Merchandiser only operates on data held within Macro Space Management's central database. If a drawing is worked on the Merchandiser environment, any changes will not be reflected in the drawing when it is next opened in the Planner environment. Accordingly, when a drawing is opened in the Planner environment after being worked on in the Merchandiser environment, it must be 'synchronized to database' in order to bring the drawing up to date with the changes made in Merchandiser.

## Adjacency Calculations

Adjacency calculations are used to establish the relationships of fixtures and merchandise to each other. Before running adjacency calculations, it is good practice to run Synchronization. This ensures that the information in the drawing matches that in the database and hence any adjacency calculations will be correct.

Figure 3–145 Relation between Adjacency and Synchronization



### Saving and Synchronization

Each time a Macro Space Management command is used, the information is written directly to the database at the same time as a change is made in the drawing. (These commands are also held in temporary memory so that 'undo' commands can be used).

Each time an AutoCAD command is used, changes are made to the drawing, but are not written to the central Macro Space Management database. This can lead to differences between drawing and database.

When working in Planner, it is therefore good practice to synchronize the drawing immediately before saving and exiting.

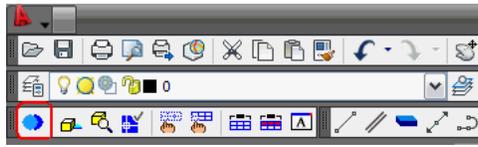
The working environment in the Merchandiser is a virtual reality environment. All changes made to the store plan are written directly to the database.

When a drawing is subsequently opened in the Planner (CAD) environment, these changes are not incorporated in the drawing. Before the drawing can be worked on in the Planner (CAD) environment, it must first be updated with the latest information in the database. This is done through Synchronization.

### Using Synchronize button

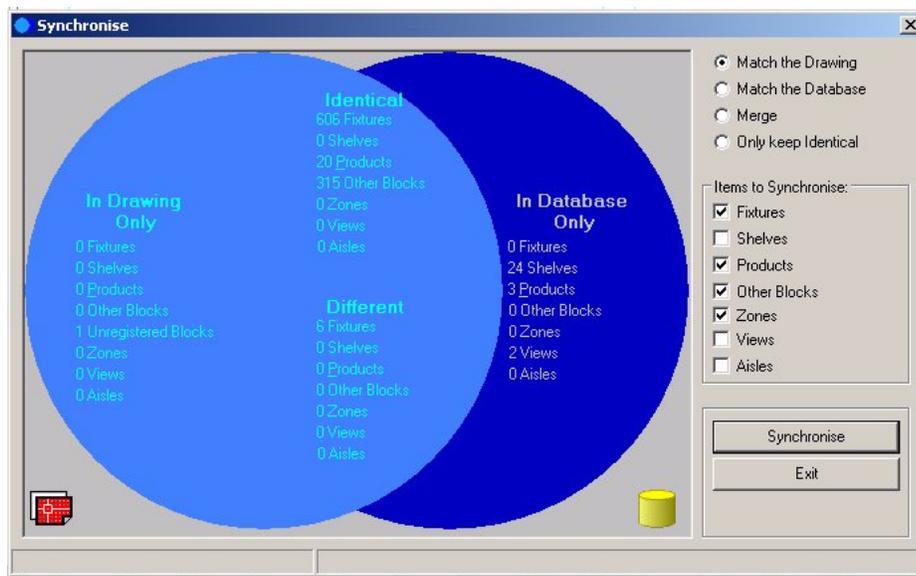
To synchronize data:

1. Select the Synchronize button from the Planner toolbar. Alternatively, select the synchronization option from the File menu.

**Figure 3–146 Synchronize Button**

The Synchronization dialog box appears.

**Note:** When opening a Planner (CAD) drawing after modifying it in the merchandiser diagram it is very important to select the Match the Database option. If the Match the Drawing option is selected, all changes made in the Merchandiser environment will be lost.

**Figure 3–147 Synchronize Dialog Box**

2. To synchronize the changes from the Merchandiser environment into the Planner (CAD) environment, select the following settings:
  - Set to Match the Database.
  - Check the following items to synchronize:
    - Fixtures
    - Shelves
    - Products
    - Other Blocks
3. Click the **Synchronise** button.
4. Click the **Exit** button.

The Planner (CAD) drawing now contains all the changes made in the Merchandiser environment.

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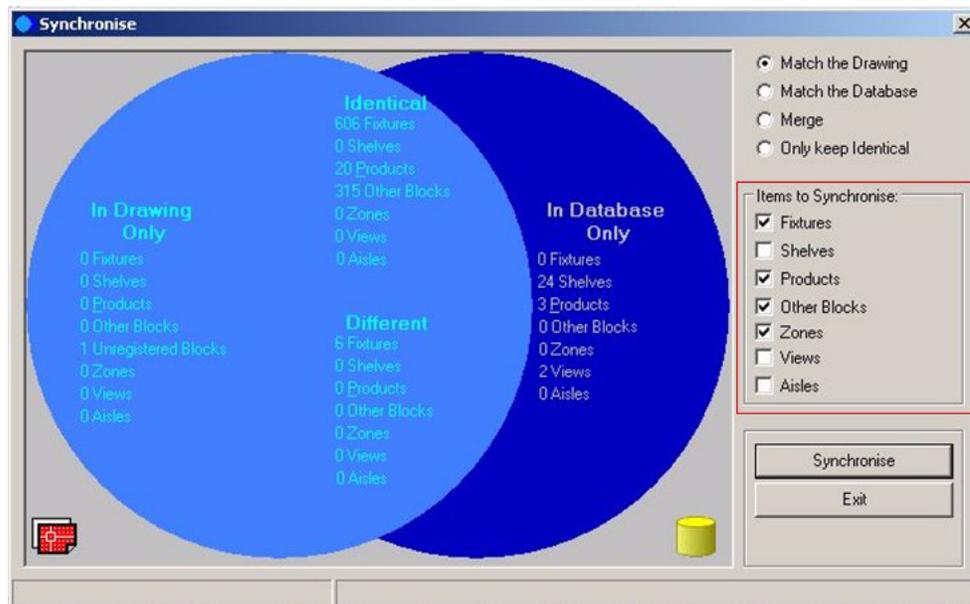
**Note:** The Planner (CAD) environment only displays products down to SKU level. Accordingly, shelves that were merchandised at display style level in Merchandiser shows as empty in the Planner (CAD) environment.

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## Accessing the Synchronization Module

You can access the Synchronization option from the File menu in Planner.

**Figure 3–148 Synchronization Option**



This dialog box allows the type of synchronization to be selected by means of the Action frame in the upper right corner of the dialog box. The types of items to synchronize can be selected by means of the Items to Synchronize frame in the centre right of the dialog box. The current status of the synchronization can be seen in the main frame of the dialog box. This details the information held in the drawing only and in the database only. It also displays totals of identical and different items.

### Selecting Items to be Synchronized

The items that can be synchronized are detailed in a small check box frame in the Items to Synchronize dialog box as shown in the image above.

One or more options can be selected by ticking the appropriate check box:

- **Fixtures** ensures all fixtures, fittings and gondolas are synchronized.
- **Shelves** ensure all shelves are synchronized. This may be necessary when planograms have been used to populate features with product and the planogram contains information on what is on the varying shelves within the fixture. It may also be necessary if shelves have been added to fixtures in the Merchandiser environment.
- **Products** ensure all products placed as products or using planograms are synchronized.

- **Other Blocks** enables additional drawing features such as blocks representing lights or power-points to be synchronized.
- **Zones** enable Zone locations to be synchronized.
- **Views** enables views (temporary tables in the database) to be synchronized.
- **Aisles** enable the physical position of Aisles to be synchronized.

### Setting Synchronization Options

The varying **options for synchronization** are selected using radio buttons. Only one action may be selected.

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**Note:** All changes made to drawings using Macro Space Management tools are stored in the central database at the same time as the action is carried out. All changes made to the drawing using AutoCAD tools are only stored in the drawing. Synchronization means drawing and database contain identical information.

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- **Match the Drawing** updates the central database with all AutoCAD changes to the drawing made since the last synchronization. No changes will be made to the drawing, and all new information in the drawing will be stored in the database.
- **Match the Database** restores the drawing to the last version held in the central database. All AutoCAD changes made to the drawing since the last time the drawing was synchronized with the database will be removed.
- **Merge** updates the database based on data held in both the drawing and the database. If objects exist in both the drawing and database, but there are slight differences between them (for example in position) which data will be used depends on whether merge priority is given to the drawing or to the database.
- **Only Keep Identical** updates the drawing with only those objects common to both the drawing and the database. All objects in the drawing that are not identical with objects held in the central database will be removed from the drawing. Similarly, all objects in the central database that are not identical with objects on the drawing will be removed from the database.

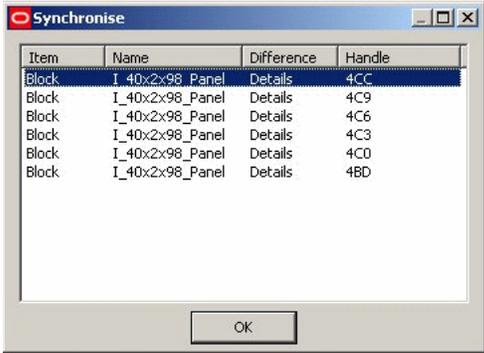
### Identifying Items in Specified Categories

The Synchronization Module dialog box contains tabulated lists of objects in specified categories. For example there are 606 Fixtures that are Identical in both Drawing and Database and there are 24 shelves in the Database only.

If the mouse pointer is poised over a category of information with items in it, a question mark appears. This indicates that left clicking on the category will bring up a dialog box.

The dialog box contains a list of all objects:

Figure 3-149 Synchronization



- **Item** specifies the type of object. These are normally blocks, but can also be Views or other types of Macro Space Management options.
- **Name** is the user input file name of the block.
- **Difference** specifies whether the objects are in the drawing only, database only or are identical.
- **Handle** is the AutoCAD handle. This handle is the unique alphanumeric tag for an object in that specific drawing.

Clicking OK returns the user to the main Synchronization dialog box.

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## Merchandiser

Merchandiser allows you to work in a 3D virtual reality environment and allows details to be seen at a greater level of granularity such as the shelf and display style.

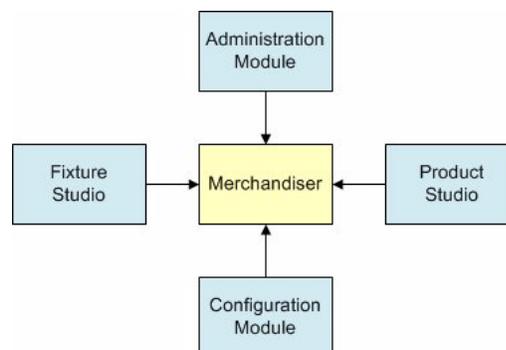
Using the Merchandiser module, you can use store plan from Planner, fixtures from Fixture Studio, products from Product Studio and planogram definitions either imported or from Merchandiser. Some of the functions of Merchandiser are:

- Ability to link to Store Manager to allow management of store plans.
- Laying store plans using fixtures, fittings and gondolas.
- Populate fixtures and gondolas with products or planograms.
- Populate fixtures with shelves, pegs, and other equipment.
- Populate fixtures, shelves, pegs and other equipments with SKU products in the appropriate display style.
- Annotate drawings with information.
- Display information such as sales areas allocated to fixtures.

### Overview of Relationships between other Modules

The settings made within Merchandiser are affected by and interact with settings made within other modules within Macro Space Management.

**Figure 4–1 Relationship between Merchandiser and other Modules**



#### Administration Module

The following can be configured within the Admin module:

- Available Status
- List of possible Styles
- User Defined Attributes

### **Configuration Module**

The following can be configured within the Configuration module:

- Connection Point Appearance
- Connection Point Filters
- Merchandising Check Rules
- Settings affecting how the Merchandiser environment displays.

### **Fixture Studio**

The following can be configured within the Fixture Studio module:

- Fixture and Gondola Hierarchies
- Visual appearance of Fixtures
- Fixture Definitions
- Gondola Definitions
- Connection Points
- Fixture and Shelf Styles

### **Product Studio**

The following can be configured within the Product Studio module:

- Product Hierarchy
- Visual appearance of Products
- Styles
- Peg Holes

### **Difference between Merchandiser and Planner**

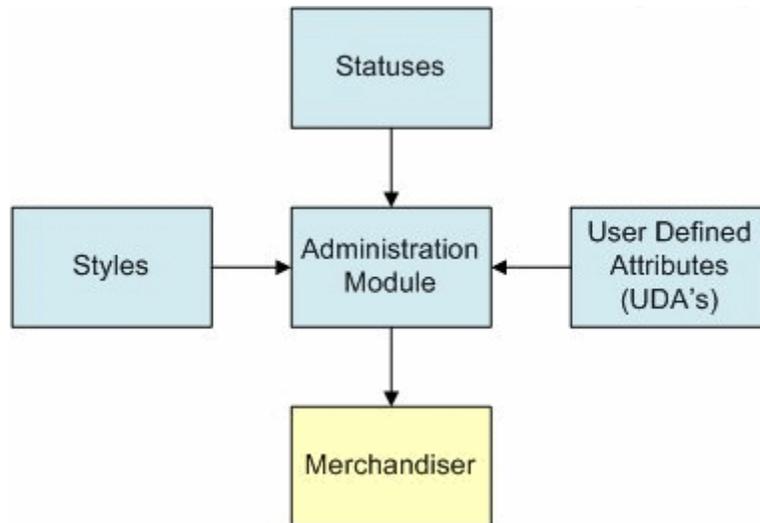
Some of the differences between the Planner and Merchandiser modules are:

- Zones are read-only in Merchandiser
- Shelves can only be added in Merchandiser
- Products can be added at Display style level in Merchandise. In Planner they can only be added as placeholders.
- Merchandiser allows details to be seen at a greater level of granularity. In Planner, you can only see data at Fixture Level and SKU. In Merchandiser, you can see data at shelf and display style level.

## **Relationships between Merchandiser and Other Modules**

### **Merchandiser and the Admin Module**

Some Administration Module settings determine how Merchandiser behaves.



### Styles

Styles determine which fixtures, shelves and products are compatible with each other.

### Statuses

Statuses determine which fixtures, planograms and products appear in the hierarchies in the Object Browser.

### UDAs (User Defined Attributes)

UDAs determine what customer specific information can be associated with fixtures, shelves and products.

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**Note:** For more information consult the Admin Module Help File - please be aware that access to the Admin Module is only available to users with Administrator's privileges.

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### Configuring the Available Statuses

The list of Statuses can affect which fixtures, planograms and products appear in their respective hierarchies in the object browser. Objects of Proposed or Historical status may not appear.

The list of available Statuses can be configured using the Status option on the General menu in the Admin Module. For more information refer the *Oracle Retail Macro Space Management Administration Guide*.

### Configuring the List of Styles

The List of Styles is used to determine which fixtures, shelves and products are compatible with each other. Objects with incompatible styles are not allowed to be placed on each other.

The List of Styles can be configured using the Styles option on the Merchandising menu of the Admin Module. For more information refer the *Oracle Retail Macro Space Management Administration Guide*.

### Configuring User Defined Attributes

The list of User Defined Attributes is used to add user specific information to fixtures, shelves and products. The List of User Defined Attributes (UDAs) can be configured using the User Defined Attribute option on the Edit menu of the Admin Module.

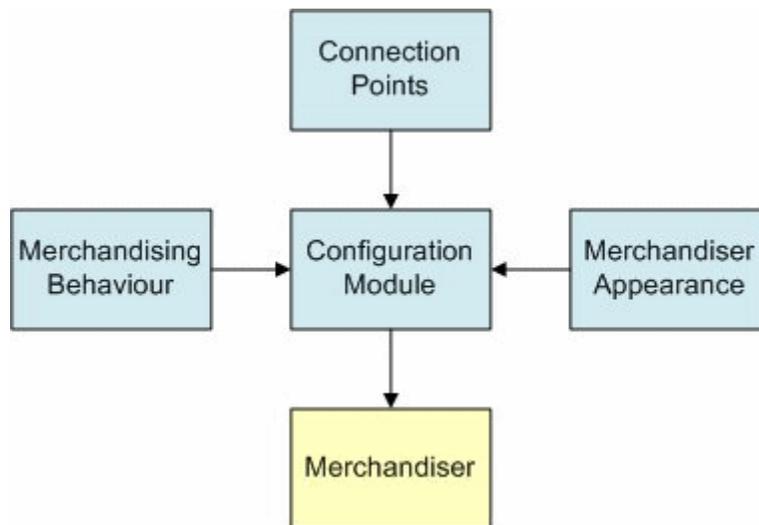
For more information refer the *Oracle Retail Macro Space Management Administration Guide*.

### Configuration

#### Merchandiser and the Configuration Module

Settings in the Configuration Module affect how connection points and merchandising operate. They also determine some aspects of the visual appearance of Merchandiser.

**Figure 4–2 Connection Points**



The visual appearance of connection points can be changed in the Configuration Module, as can the filters determining whether one connection can mate to another.

#### Merchandising behavior

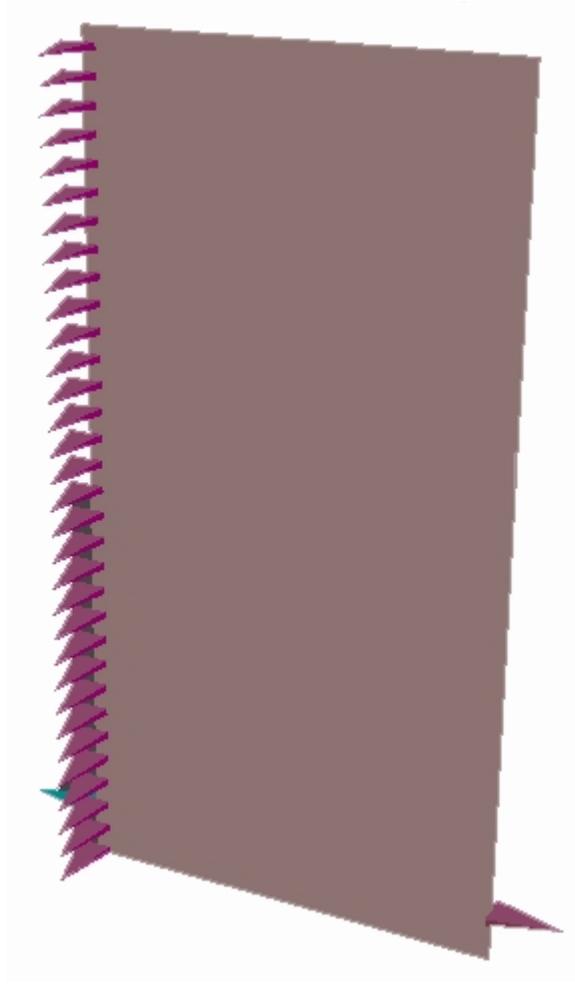
Filters determining merchandising behavior can be set in the Configuration Module.

#### Merchandiser Appearance

A number of parameters affecting how Merchandiser appears on screen can be set in the Configuration Module.

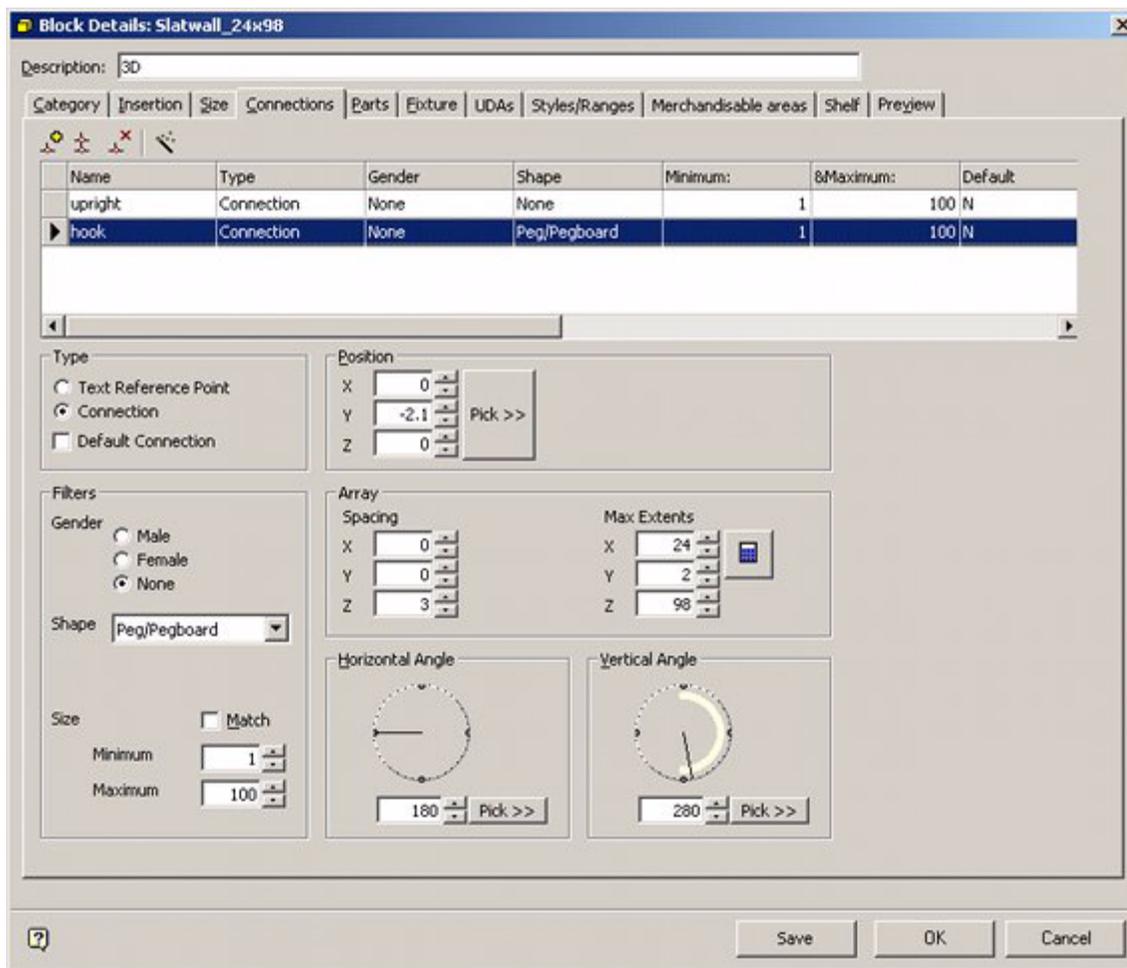
#### Connection Points

**Connection Points** determine how one piece of equipment connects to another.



They are configured in the Connections tab of the Block Details dialog box in Fixture Studio.

Figure 4-3 Block Details dialog box



Connection point details can only be changed in Fixture Studio.

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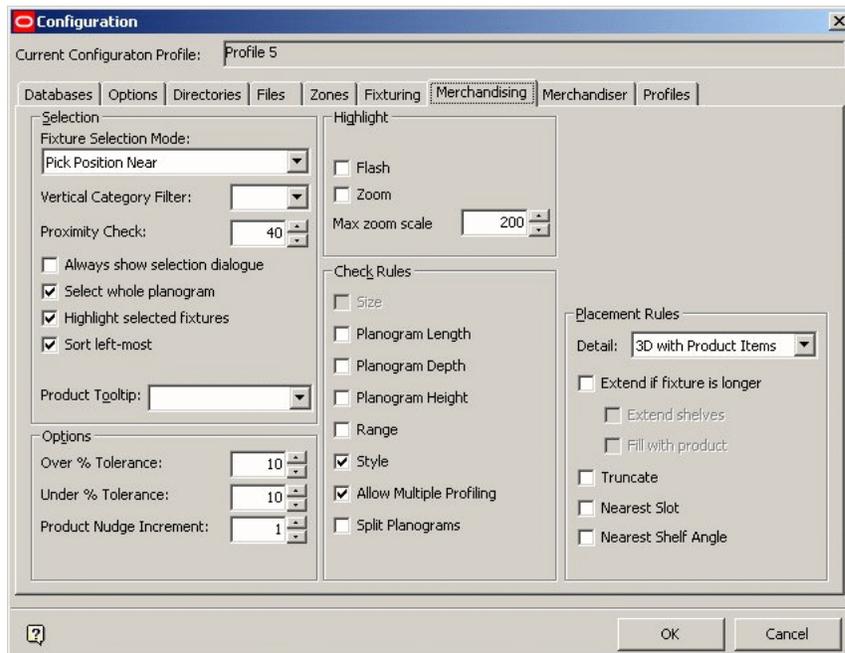
**Note:** For more information consult the Fixture Studio Help File.

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### Merchandising

Some details of how Merchandising operates are determined by settings in the Configuration Module.

**Figure 4–4 Configuration Module**

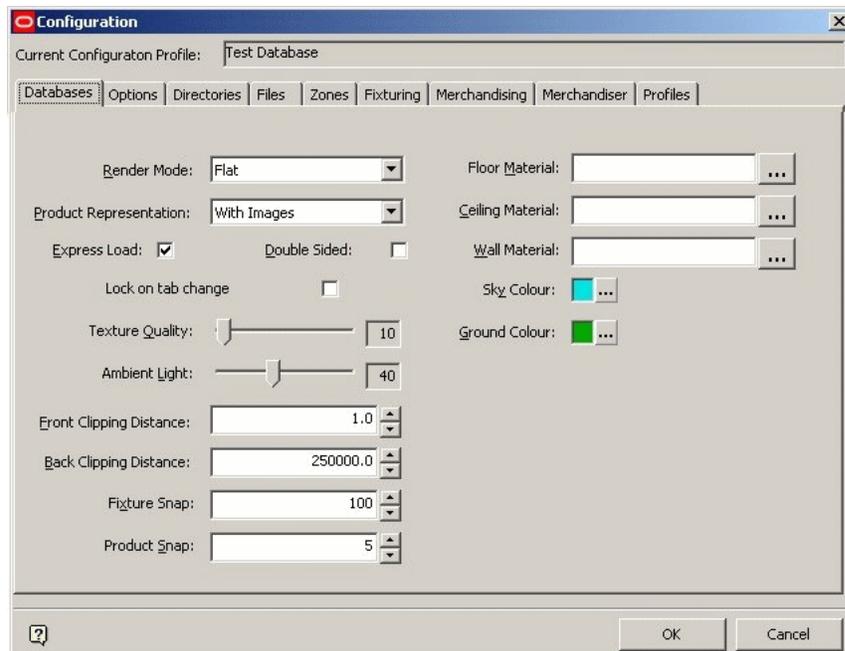


Specifically, some options in the Check Rules frame can be turned on or off. These include Size, Range and Style.

### Merchandiser

Some aspects of the visual appearance of Merchandiser are determined by settings in the Configuration Module.

**Figure 4–5 Configuration Module**



These include:

- Whether express load (only load specific zones) is active.
- Whether changes can be made to equipment and merchandise when not in the specific tab (lock on Tab Change).
- Default settings for front and back clipping distances.
- Colors for Sky, Ground, etc.
- For more information refer the Oracle Retail Macro Space Management Configuration Guide.

## Merchandiser Controls

### Shortcut Keys

These shortcut keys provide alternatives to call the required function from the toolbar menus. Some of the shortcut keys are listed below.

- [General Shortcuts](#)
- [Display Shortcuts](#)
- [Editing Shortcuts](#)

#### General Shortcuts

**Table 4–1 General Shortcuts**

Shortcut Keys	Also available from	Function
<Ctrl> + O	File Menu or Standard Toolbar	Open Drawing (Via Store Manager)
<Ctrl> + P	Standard Toolbar	Show Print Preview
<Ctrl> + <Shift> + C	File menu	Show Configuration Module
<Ctrl> + S	File menu	Save Drawing
<Ctrl> + Q	File menu	Quit Application
<Ctrl> + N	File menu	Create New Planogram
F8	View Menu	Show/Hide Object Browser
Delete	N/A	Delete all selected objects

#### Display Shortcuts

**Table 4–2 Display Shortcuts**

Shortcut Keys	Also available from	Function
<Ctrl> + F	Edit menu	Display Find Dialogue

**Table 4–2 (Cont.) Display Shortcuts**

Shortcut Keys	Also available from	Function
<Ctrl> + L	Directions and Product Text Toolbar	Display Layers Dialogue
F12	View Menu	Take snapshot of Virtual Reality Store

## Editing Shortcuts

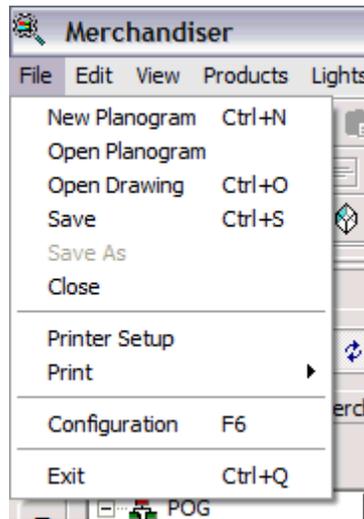
**Table 4–3 Editing Shortcuts**

Shortcut Keys	Also available from	Function
<Ctrl> + G	Edit menu	Toggle Group On or Group Off
<Ctrl> + A	Edit menu	Select All
<Ctrl> + E	Edit menu	Empty selected fixture/shelf of products
<Ctrl> + C	Edit menu	Copy the Selected Products to the Clipboard
<Ctrl> + X	Edit menu	Cut the Selected Products and Paste on Clipboard
<Ctrl> + V	Edit menu	Paste the Selected Products onto the selected fixture/shelf
<Ctrl> + Z	Edit menu	Undo last action
<Ctrl> + D	Edit menu	Deselect all selected objects
<Shift> + up or down cursor keys	N/A	Move selected shelf up or down on parent object

## Menu Bar

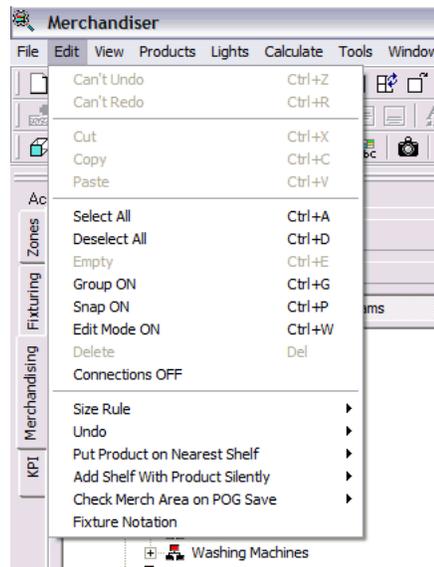
### File Options Menu

The **File** menu gives access to creating and editing of planogram definitions, accessing Store Manager, Printing and accessing the Configuration module.

**Figure 4–6 Merchandiser - File Menu**

### Edit Options Menu

The **Edit** menu gives access to various editing options.

**Figure 4–7 Merchandiser - Edit Menu**

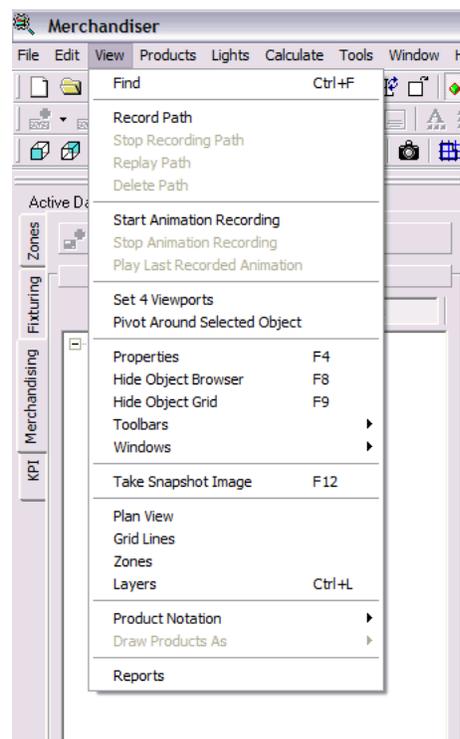
- The Undo and Redo options allow you to undo or redo recent actions.
- Cut, Copy and Paste allows you to carry out those operations on objects in the drawing.
- Select all, De-select all, Empty and Delete enables you to carry out bulk operations on the drawing.
- Group On or Snap Off determines how Families and Groups are selected.
- Edit Mode ON allows you to toggle between the Walk and Edit mode.
- Connections OFF allows to switch off or on the connection points.

- Size Rule allows you to specify if the product size has to be taken into account when placing products on shelves.
- Undo
- Put Product on Nearest Shelf places a product onto the peg nearest to the mouse cursor when adding individual hung products. Select from the On or Off options.
- Add Shelf With Product Silently allows you to set the option to On or Off when adding a product on a shelf that is not added in the drawing. If set to On, the product will be added along with the shelf. For example if a product goes on a peg, and the peg is not there, the peg will be added along with the product (providing a joint has been set up in the Styles option in Admin).
- Check Merch Area on POG Save checks that the merchandise in a planogram (POG) design is within the bounds of the merchandisable area. If set to ON, it checks there is no merchandise overhanging the edges of shelves/fixtures.
- Fixture Notation allows you to configure the fixture annotation.

### View Options Menu

The **View** menu options allow you to specify a number of options affecting the view on screen.

**Figure 4–8 Merchandiser - View Menu**



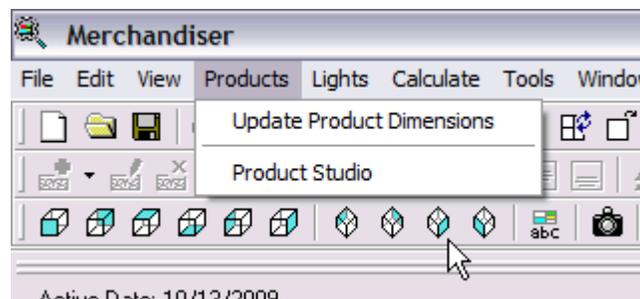
- **Find** enables you to find an object in the drawing.
- **Record Path, Stop Record Path, Replay Path** and **Delete Path** allow you to configure a path specified through the drawing for the purpose of making a Virtual Reality movie of the store layout.

- **Start Animation Recording, Stop Animation Recording and Replay Last Recorded Animation** are options concerned with Virtual Reality movies of the store layout.
- **Set 4 ViewPorts** determines how many views of the virtual store are available.
- **Pivot Around Selected Object** enables you to select an object in the drawing to rotate around.x
- **Properties**
- **Hide/Show Object Browser** enables you to either hide or show the Object Browser.
- **Show Object Grid**
- **Toolbars** allows you to turn the display of specific toolbars On or Off.
- **Windows** enables you to select the Move, Rotate, Views or Camera window dialog boxes.
- **Take Snapshot Image** allows you to take a printable image of the Virtual Reality store.
- **Plan View, Grid Line, Zones and Layers** all affect display options in the Virtual Reality environment.
- **Product Notation and Display Products** As also affect display options in the Virtual Reality environment.
- **Reports** brings up Quick Reports

### Product Options Menu

The **Product menu** Options enables you to update Product Dimensions. It also allows access to Product Studio.

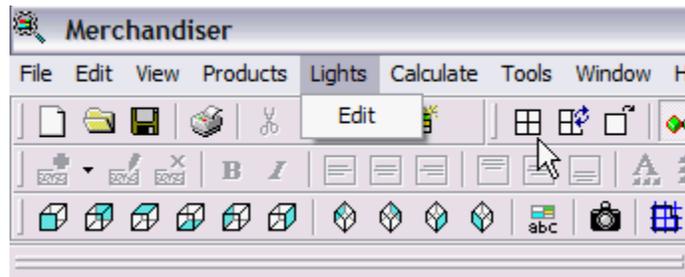
**Figure 4–9 Merchandiser - Products Menu**



### Light Options Menu

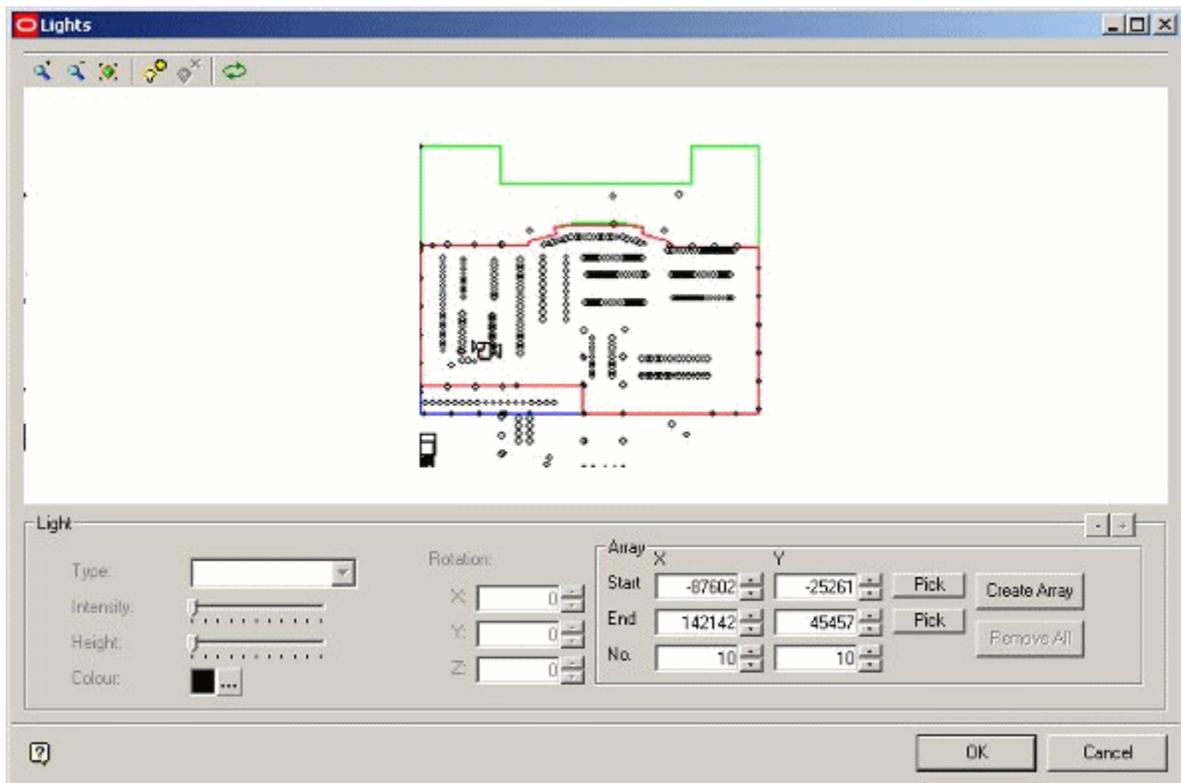
Light sets the light intensity level in the Store Plan. Light levels can be increased or decreased by using the slider on the Merchandiser toolbar. The effect depends on whether the light is generic, or has been set up using the Edit Lights option.

Figure 4-10 Merchandiser - Lights Menu



The Lights menu allows you to specify the light arrangements for the store. This allows you to specify the lighting arrangements for the store. This dialogue box may also be called from the Lights Toolbar.

Figure 4-11 Light Menu

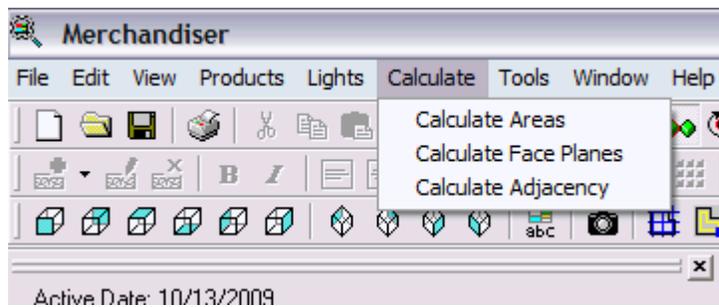


Using the Lights Dialog box, you can add, delete, zoom in, zoom out, zoom to fit, and refresh the information in the drawing.

### Calculation Options Menu

The **Calculate** menu Options gives you access to area, Face Plane, and Adjacency calculations.

**Figure 4–12 Merchandiser - Calculate Menu**

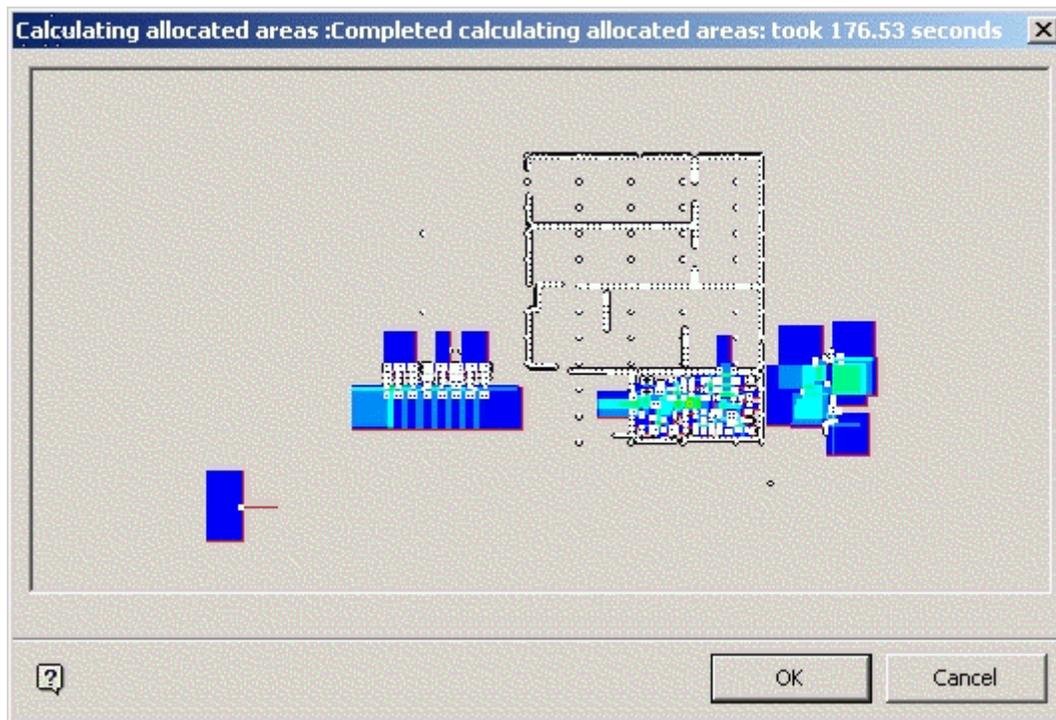


### Calculate Areas

Calculate Areas gives a visual indication of how efficiently space in the store has been allocated. Each registered fixture definition defines the directions in which it faces North, South, East, or West relative to the block. For each fixture, it will create a boundary around it in each direction until it hits another fixture or until it reaches its defined tolerances.

Selecting this option brings up the Area Calculation window.

**Figure 4–13 Area Calculation window**



### Calculate Face Planes

Calculate Face Planes looks at space from a front view perspective, so that if there were two categories on a fixture, it determines what proportion of space is given to each category.

Calculate Face Planes is a customer specific requirement, and may not be enabled in generic implementations of Merchandiser.

### Calculate Adjacencies

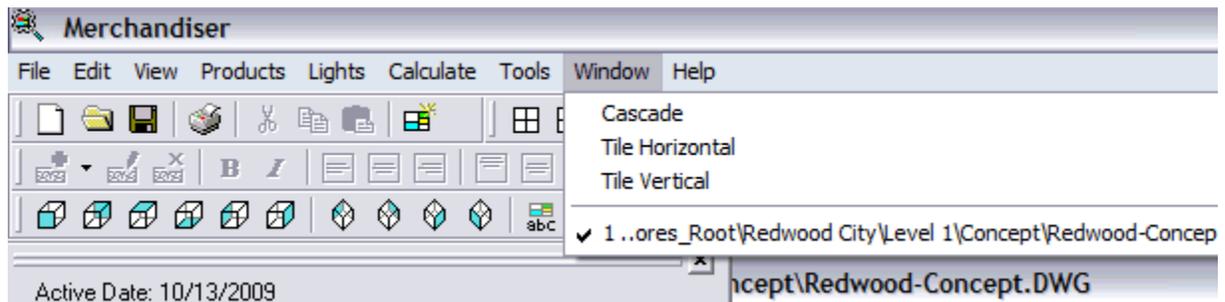
Calculate Adjacencies calculates which fixtures and which products are adjacent to each other determines. Having determined which other fixtures are adjacent it then works out whether it is to the right, to the left, in front, behind, above, below or opposite. Next it will work out sequence numbers, and group fixtures together by giving them the same number.

While the calculation is in progress, a window will give a visual indication of the stage it has reached.

### Window Options Menu

The **Window** menu options allows you to arrange multiple store plans (if open) and select the which store plan you wish to be active.

*Figure 4–14 Merchandiser - Window Menu*



### Help Options Menu

The **Help** menu options gives access to the online help file and check the version of the software.

## Toolbars

### Animation Toolbar

The **Animation Toolbar** enables you to define store walk through paths for taking movies. It also allows you to record movies of the store layout in the Virtual Reality Environment.

*Figure 4–15 Animation Toolbar*



The varying Path options allow you to set, edit, or delete a path along which a recording takes place.

The Recording options allow you to make movies of the Virtual Reality store, either by controlling the camera directly, or by setting it to follow a predefined path.

### Directions and Product Text Toolbar

The **Directions and Product Text** toolbar is mainly concerned with views of selected objects.

**Figure 4–16** *Directions and Product Text Toolbar*



After an object (or objects) has been selected it may be viewed from any of six axis or four isometric directions. Other options specify whether zones, gridlines, etc., display.

### Formatting Toolbar

The **Formatting** toolbar has a whole series of options concerning the appearance of annotation in the Virtual Reality store.

### Standard Toolbar

The **Standard** toolbar enables you to carry out a series of common actions.

### View Toolbar

The **View** toolbar enables you to set varying options for viewing the Virtual Reality environment.

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**Note:** There are no tooltips for the Movement Speed, Texture Quality, Level of Detail, Front Clipping Plane and Back Clipping Plane sliders. Instead, they show as prompts towards the right hand end of the status bar.

---

### The Align Products Toolbar

The **Align Products** toolbar allows shelves or products to be aligned.

## Movement in the Drawing

Moving in the drawing can be done in several ways. These are:

- General movement with the mouse
  - Holding down the left mouse key enables you to move viewpoint forward and back and to rotate left and right.
  - Holding down the right mouse key enables you to move viewpoint up and down and left and right.
  - Using the mouse wheel enables you to rotate the viewpoint up and down.

- **Pivoting about a selected object:** This option allows you to circle around a selected object in the drawing.
- **Viewing objects from selected directions:** This option allows you to view an object from one of ten perspectives by selecting it, then clicking on the appropriate icon.

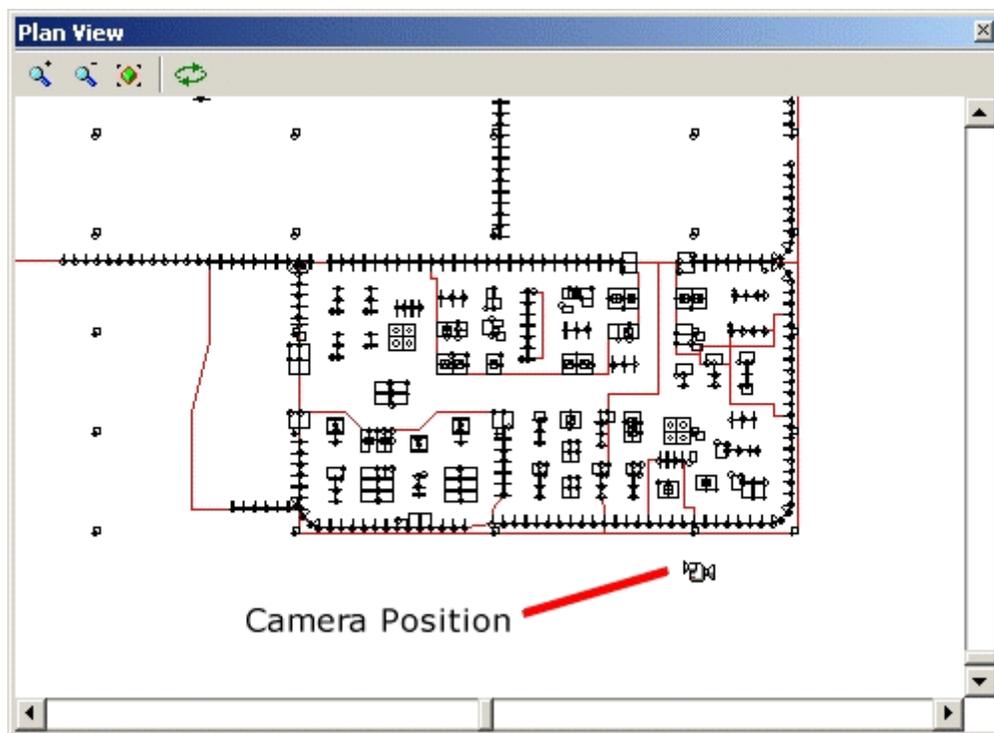
In addition you can select a plan view, to choose the general section of the Virtual Reality environment to view.

### Plan View

The plan view is a simplified overhead view of the Virtual Reality store. The mouse position within the store can be changed by 'dragging and dropping' the camera icon within this view.

The Plan View Option can be activated from the Plan View option on the View Menu.

**Figure 4-17 Plan View**



This shows a plan view of the store and the current position of the camera within the store. The camera position can be repositioned by holding down the left mouse key and dragging it to its new position.

### Mouse Wheel

The mouse wheel behaves differently depending on whether movement within the Virtual Reality environment is Normal or Pivoting about an Object.

- **Normal Movement:** The Mouse wheel is used to change the pitch of the Virtual Reality View. Rotating the wheel forward increases the angle of pitch, tilting the camera view upwards. Rotating the wheel backwards decreases the angle of pitch, tilting the camera view downwards.

- **Pivot around object:** The mouse wheel is used to move forward towards or back from the selected object. This option is toggled on and off using the View toolbar.

## Mouse Buttons

### Left Mouse Button

Normal movement while holding down the left mouse button allows movement in the X, Y plane. The viewpoint may be moved either forward or backward or rotated left and right.

The position of the mouse cursor relative to the centre of the drawing determines the type of motion. The further from the centre, the more rapid the motion.

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**Note:** General motion speed can be set using the appropriate slider control in the view toolbar.

Pivoting around an object will change left mouse button behavior.

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### Right Mouse Button

Normal movement while holding down the right mouse button allows movement in the Y, Z plane. The viewpoint may be moved either left or right or back or moved up and down.

The position of the mouse cursor relative to the centre of the drawing determines the type of motion. The further from the centre, the more rapid the motion.

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**Note:** General motion speed can be set using the appropriate slider control in the view toolbar.

Pivoting around an object will change left mouse button behavior.

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## Locking Movement in Planes

The View toolbar contains several controls for restricting the available movement in the drawing.

The options can be toggled on and off by clicking them.

- **Lock View Position** will freeze the drawing with no movement possible
- **Lock X Axis Movement** will freeze the drawing with respect to left and right movement.
- **Lock Y Axis Movement** will freeze the drawing with respect to forward and back movement.
- **Lock Z Axis Movement** will freeze the drawing with respect to vertical movement.

## Pivoting About a Selected Object

The Pivot About Selected Object option in the View toolbar enables you to rotate about a specific point in the drawing. It is toggled On and Off by clicking it.

**Figure 4–18 View Toolbar - Pivot About Selected Object**

Click an object to select it. If the Pivot About Selected Object option has been selected, all movement will be relative to the selected object. Only the left mouse button and the mouse wheel will be enabled when this option is selected. The right mouse button will be disabled.

---

**Note:** If Pivot About Selected Object is enabled, the selected object will always remain in the centre of the selected field of view.

---

### Viewing Objects from Specified Directions

Objects can be viewed from specified directions by clicking on the appropriate icons on the Directions and Product Text toolbar.

**Figure 4–19 Directions and Product Text Toolbar - View Objects**

First select the objects to be shown by <Ctrl> and left clicking with the mouse. Next, click on an icon to show the specified viewpoint. Depending on the icon selected, the selected objects can be shown from the front or back, above or below, or left and right. They can also be shown from one of four isometric views.

### Selecting with the Mouse

One or more objects in the drawing can be selected for editing or deleting. The objects chosen are known as a Selection set.

- If the chosen objects are not in a Group or Family they are known as a Simple Selection Set.
- If the objects selected have previously been included in a Group they are known as a Group Selection Set.
- If the objects selected have previously been included in a Family they are known as a Family Selection Set.
- The selection status of selected objects can be seen from their colors.
- Simple Selection Sets are shown in red and blue.
- Family and Group Selection Sets are shown in yellow and green (and sometimes cyan).

The behavior of the selected objects sometimes varies depending on whether they are in Simple, Family or Group Selection Sets.

### Selecting and De-selecting Objects

Objects can be selected by holding down the <Ctrl> key and left clicking on them with the mouse.

**Standard Selection Set**

Standard Selection Sets occur when the objects are not in a Group or Family. The first object selected for a Standard Selection Set is enclosed in a red frame. Subsequent objects selected for a set of objects are enclosed in blue frames.

Individual objects can be de-selected by holding down the <Ctrl> key and left clicking on them with the mouse for a second time. All objects in the Standard Selection Set can be de-selected by holding down the <Ctrl> key and clicking on the red frame for a second time.

**Family and Group Selection Sets**

Objects that have been put into Families or Groups are enclosed by yellow and green frames.

If Grouping is Off it is also possible that cyan frames are visible.

If Grouping is On, then all objects in the set can be selected or de-selected by clicking on any member of the set. If Grouping is Off, individual objects can be de-selected by holding down the <Ctrl> key and left clicking on them with the mouse for a second time. All objects in the set can be de-selected by holding down the <Ctrl> key and clicking on the yellow frame for a second time.

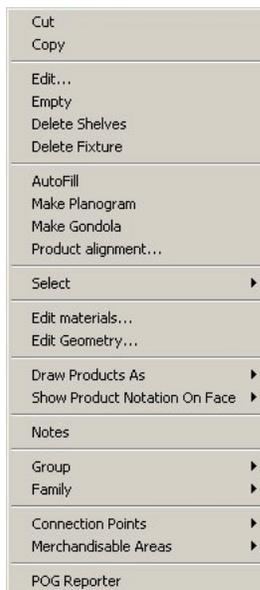
**General De-Selection**

All currently selected objects can be de-selected by <Ctrl + D>.

**Editing Objects**

Objects can be edited by holding down <Ctrl> and right clicking on them with the mouse. This brings up the Editing menu.

**Figure 4–20 Editing menu**



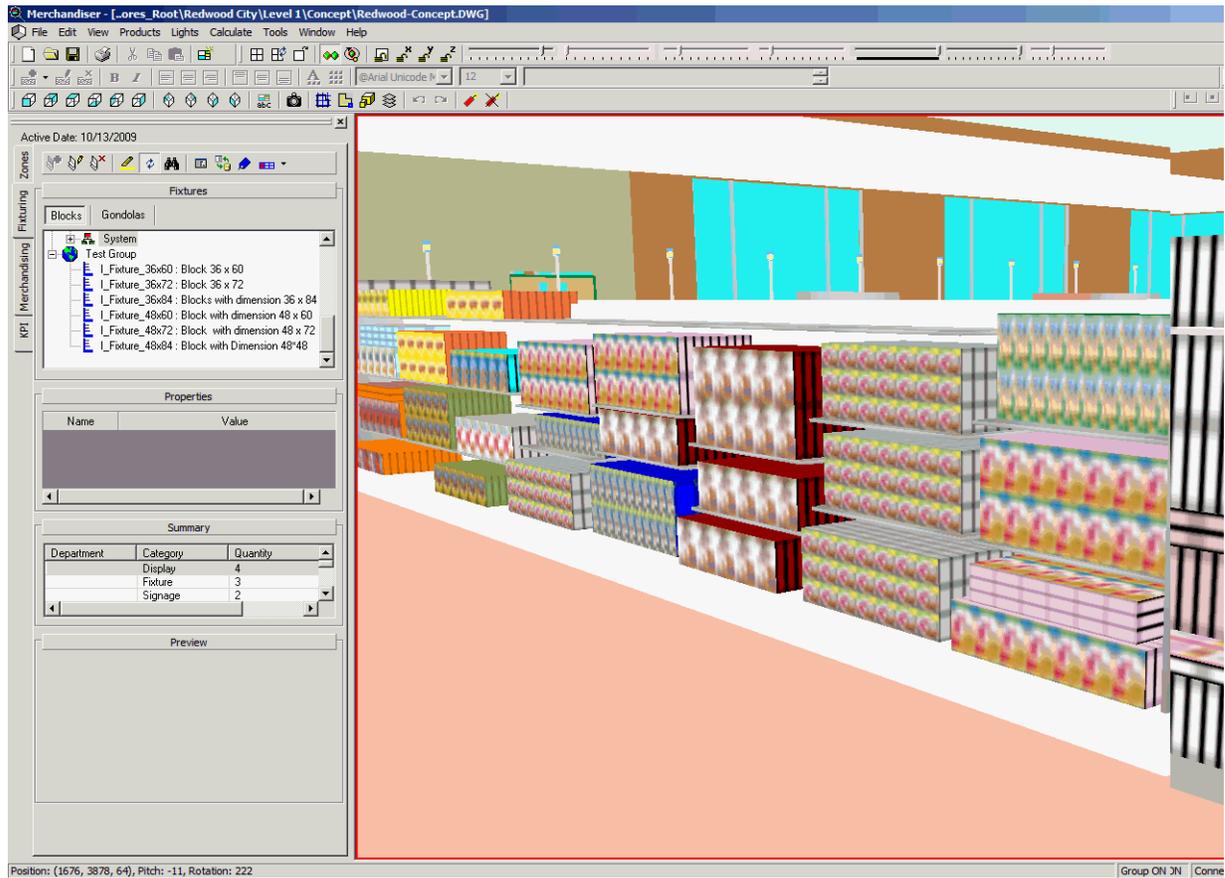
This gives access to a wide range of options.

## Viewing the Objects

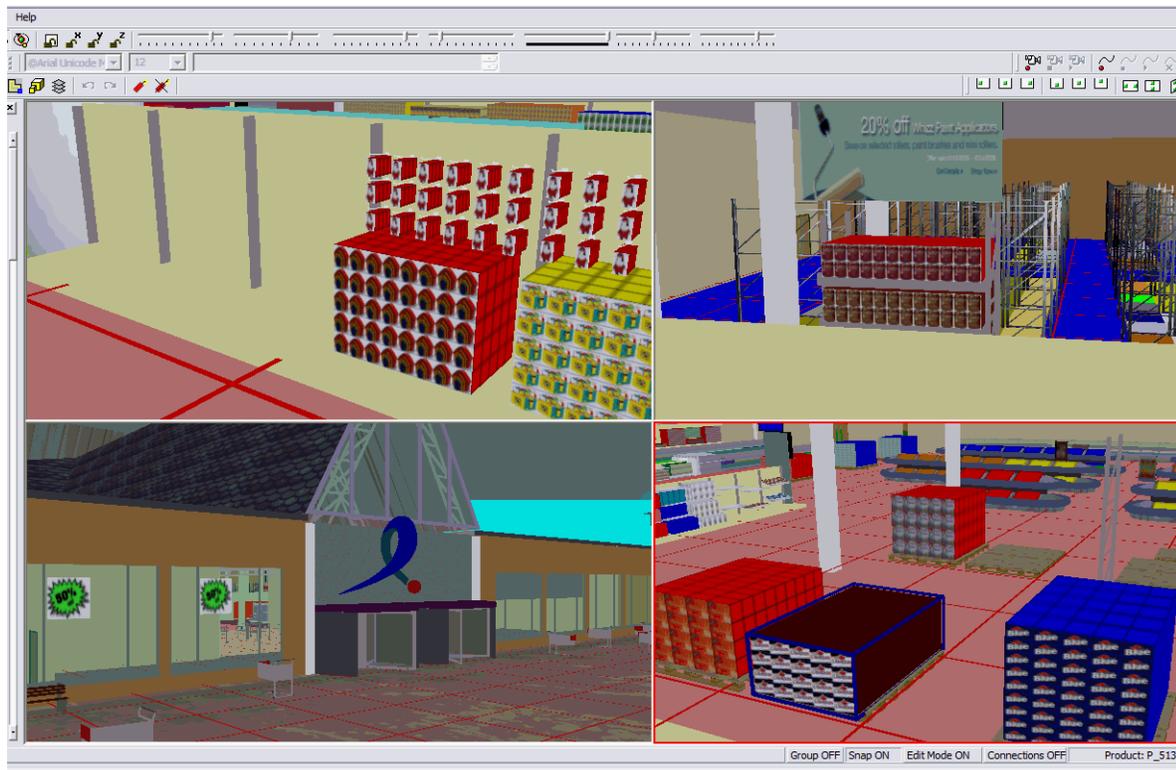
### Viewports

Merchandiser can be viewed using single or multiple ViewPorts. A single ViewPort shows one image of the Virtual Reality Store.

**Figure 4–21** *Single ViewPort*



Changing to 4 ViewPorts shows four images of the Virtual Reality store.

**Figure 4–22 Four Viewports**

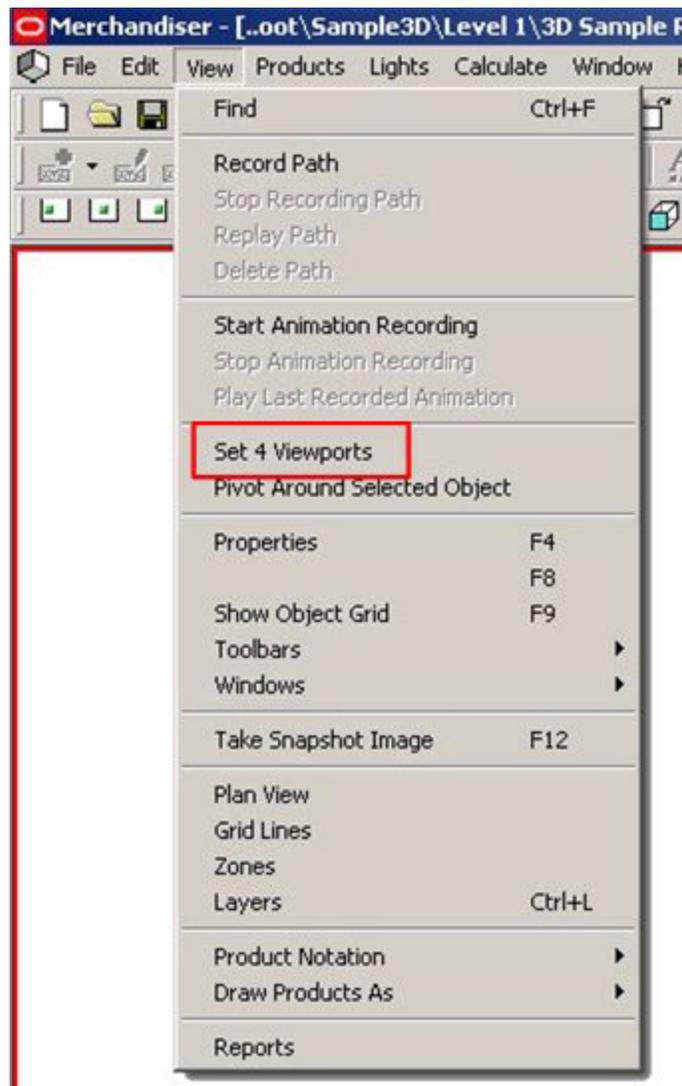
These 4 ViewPorts can either be treated as separate entities or they can be synchronized. If used as separate entities, they can be used, for example, to move merchandise from one set of shelves to another. If used when synchronized, they can be used, for example, to show three different KPIs (Key Performance Indicators), for the same part of the store.

#### **Setting Up and Switching Between ViewPorts**

When the drawing opens, it shows a single view of the store plan. If 4 ViewPorts are enabled when the drawing was last saved and closed, the top left ViewPort is displayed when the drawing is re-opened. Starting/returning to the 4 ViewPorts option can be achieved using the menus or toolbars. If using the View menu, clicking on Set 4 ViewPorts changes the display from one to four viewpoints.

If you are already using four viewpoints, then the menu reads Set 1 view point, enabling you to toggle back to a single view point.

Figure 4-23 View Menu - Viewport Options

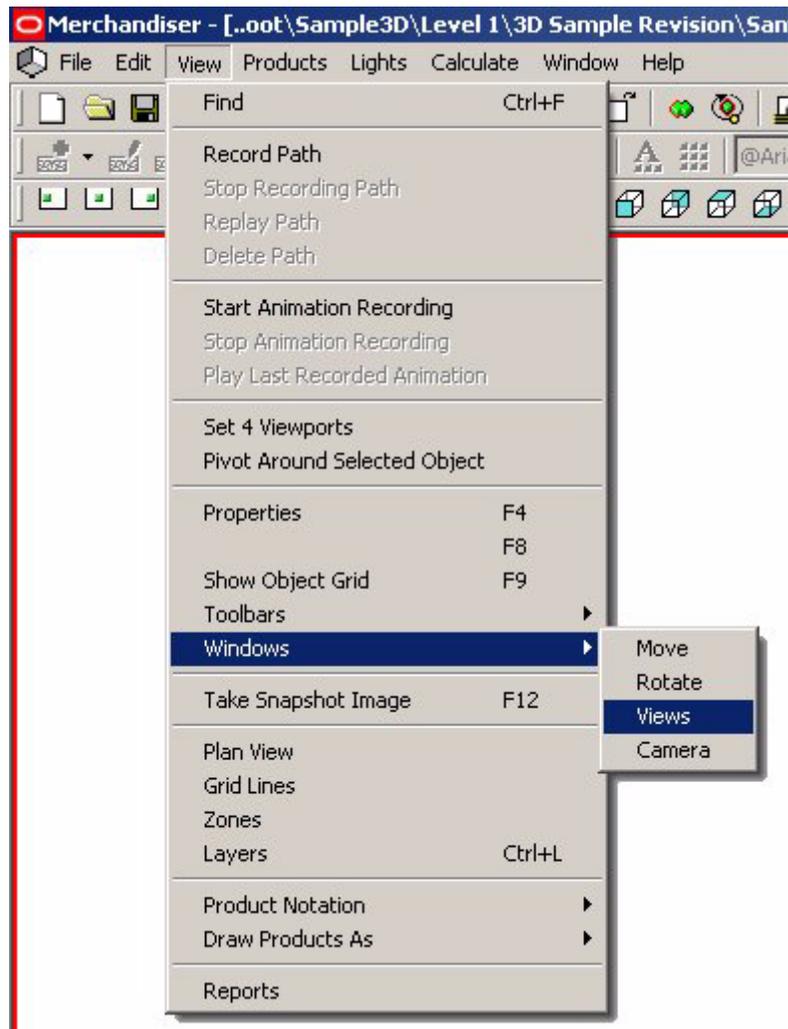


Alternatively, you can click on the appropriate icon in the toolbar. You can toggle between Show 4 ViewPorts and Show 1 viewport. The Next View icon toggles between the available views.

#### Saving and Restoring ViewPorts

While working in a Virtual Reality store, it is possible to save **ViewPorts** for later restoration. To do this, select the Windows > Views option from the View menu.

Figure 4–24 View menu



This brings up the Views dialog box.

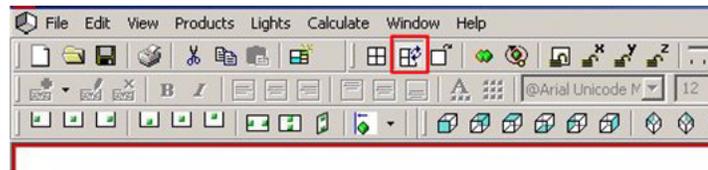
Figure 4–25 Views dialog box



This enables you to either save or restore specific ViewPorts.

### Synchronizing ViewPorts

The views in the 4 ViewPorts can be **synchronized** if required. This is achieved from the toolbar.

**Figure 4–26 Synchronize Viewports**

Click the Synchronize icon immediately switches all four viewpoints to mirror the viewpoint in the currently active window. Click the Synchronize icon again to desynchronize the four viewpoints so that they can be manipulated independently.

---

**Note:** If you have toggled from Show 1 Viewport to Show 4 ViewPorts and 3 Viewports are blank, clicking on the synchronize icon is a quick way of populating the blank ViewPorts with views.

---

### Changing the Visibility of Objects

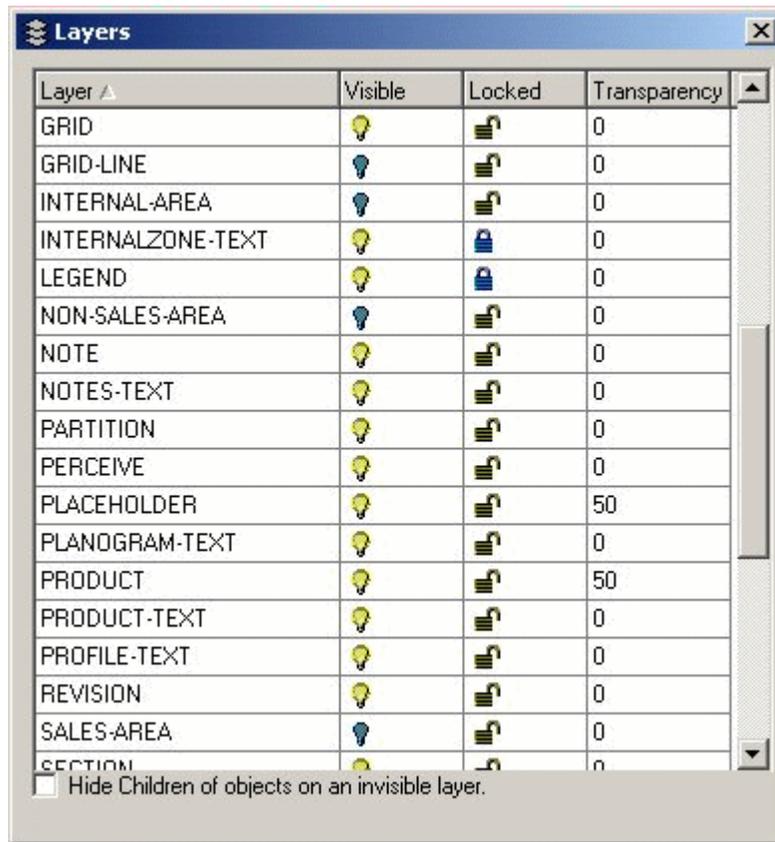
The way objects display in a store plan can be changed in three ways in Merchandiser. The drawing is subdivided into layers and each class of object (fixture, fitting, product, etc.), has its own specific layer. By changing the properties of the layer, you can change the display of objects on that layer.

- Locking the Layer - Locking the layer prevents objects on that layer being moved or deleted.
- Changing the Visibility - It is possible to turn layers on or off. If a layer is turned on, objects on it are visible. If a layer is turned off, they are hidden.
- Changing the Transparency - The transparency values for a layer (and the objects on that layer) can be changed anywhere within a range of 0% - 100%. If the transparency is set to 0%, objects are completely opaque. If the transparency is set to 100% objects are completely transparent.

### Locking the Layers

It is possible to lock objects so that they cannot be altered when in place in the Merchandiser environment. This is done by using the locking option in the Layers dialog box, accessible from the View toolbar.

Figure 4–27 Layers options



The lock for each layer can be toggled on or off by clicking on the appropriate icon.

---

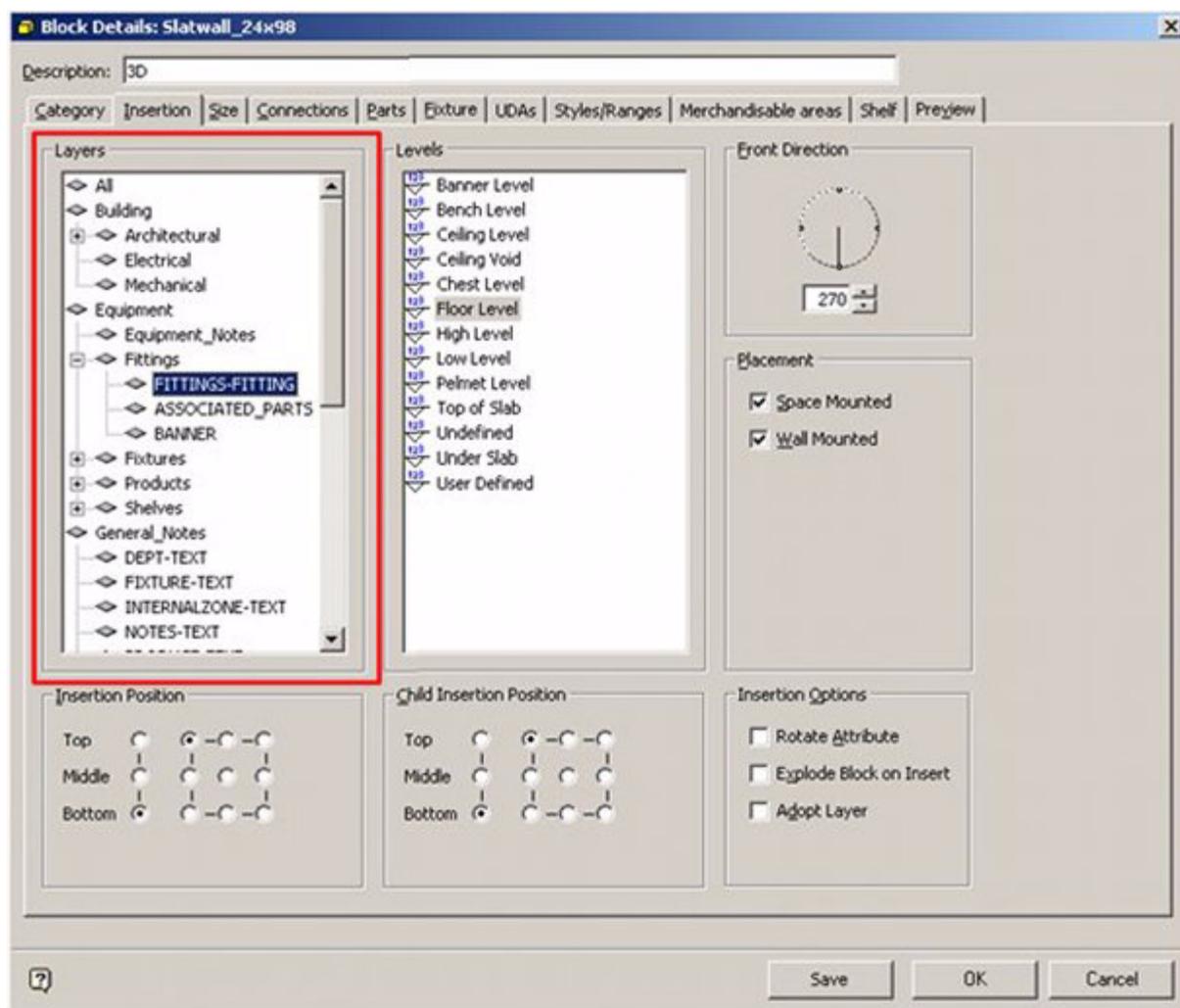
**Note:** Depending on the system variable settings, some layers are automatically locked depending on which Object Browser tab you are in.

---

If the system variable is enabled, when in the Fixturing Tab, all layers associated with merchandising are locked. Similarly, when in the Merchandising Tab, all layers associated with fixturing are locked.

Locking of specific classes of objects is achieved by locking the layers that those objects are placed on. The layer for the majority of objects, such as fixtures, fittings and shelves, are determined when the object is created in Fixture Studio.

Figure 4–28 Block Details




---

**Note:** Layers selected for classes of objects should be consistent. If they are not then only some of the class of objects is locked when a specific layer is turned off.

---

Layers for zones are determined by the Zone Type. Fixtures and fittings must be placed on specifically defined and consistent layers. Products are placed on their own specific layer.

Locking layers is particularly useful for any object that is on the building layer, that is, pillars, which should not be modified in the Merchandiser environment. Locked objects can still be selected, so that properties can be determined.

When locked objects are selected, a warning message appears at the bottom of the screen.

---

**Note:** If objects are locked, then they cannot be deleted, moved, etc. If it is desired to do this, the layer must first be unlocked.

---

### Changing the Visibility of Objects

The visibility of objects can be changed so that they show or are hidden from view in store plans. This is done by using the Visibility option in the Layers dialog box, accessible from the View toolbar

**Figure 4–29 View Toolbar - Objects Visibility**



The visibility for each layer can be toggled on or off by clicking on the appropriate icon. If the layer is not visible, all objects on the layer will be hidden.

### Changing the Transparency of Objects

It is possible to change the transparency of objects so that they become more or less opaque when in place in the Virtual Reality environment. This is done by using the Transparency option in the Layers dialog box, accessible from the View toolbar.

The degree of transparency for each layer can be set anywhere within a range of 0% - 100%. If the transparency is set to 0%, objects are completely opaque. If the transparency is set to 100% objects are completely transparent.

In the example below, the transparency is set to 0% - opaque.

In the example below, the products and back panels have been set to 75% transparency.

## Groups and Families

Groups and Families are two ways of linking similar objects together and to associate combinations of objects together. The advantages of groups and families are:

- All objects in these combinations can then be selected and de-selected in a single operation.
- Objects in Groups or Families can be collectively manipulated using operations such as move, rotate or delete.
- The spatial relationship between objects in Groups and Families taken into account by Macro Space Management when carrying out changes in fixturing or merchandising. This means (for example) entire runs of shelves can be merchandised at once.

Groups and Families operate differently depending on whether the objects involved are Fixtures, Shelves, or Products.

### Groups

Groups are objects that share a horizontal alignment. Only objects of the same type can be grouped, for example, fixture with fixture, shelf with shelf and product with product. Groups can be Fixture Groups, Shelving Groups and Product Groups. They are used for operations on similar objects, such as shelves at the same level that span multiple fixtures.

An example is the shelf group above, which spans three fixtures and can now be treated as one long shelf for merchandising purposes.

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**Note:** Objects in Groups will have their horizontal alignments taken into account by Macro Space Management.

---

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### Families

Families are objects that share a vertical alignment. Families are used when grouping vertical combinations of objects and act as a parallel version of grouping. Families can be Fixture Families or Product Families. Shelves cannot be incorporated into Families. For instance, pallets may be placed in front of back panels, and made into a family. Their vertical alignments and interferences are taken into account. With products, families can be made of different (but probably broadly similar) products, for example, a family of small, medium and tall vases stacked in a vertical plane.

An example is the back panel and its associated shelves. This forms a family with the pallet. This means that when the pallet is merchandised, Macro Space Management will automatically calculate the clearance to the shelf above it, and adjust the amount of merchandise it places on the pallet accordingly.

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---

**Note:** Objects in Families will have their vertical alignments taken into account by Macro Space Management.

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### Sets

A Set is an array of products that has been ungrouped. Grouped product can be turned into sets, but the process is not reversible.

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**Note:** Do not un-group products unless necessary. Un-grouping cannot be reversed. Too many un-grouped products will significantly increase the amount of calculation required by Macro Space Management and may degrade performance.

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### Multiple Associations

Objects can only belong to one Group at a time. Similarly, objects can only belong to one Family at a time. However, there are circumstances where objects can belong to both a Group and a Family. When objects with multiple associations are selected for being part of a Group, horizontal alignments will be taken into account. When selected for being part of a Family, vertical alignments will be taken into account.

### Turning Grouping On or Off

**Grouping** can be turned On or Off in one of three ways; the keyboard, the status bar and from the toolbar menus. Turning Grouping On and Off turns both Groups and Families On and Off.

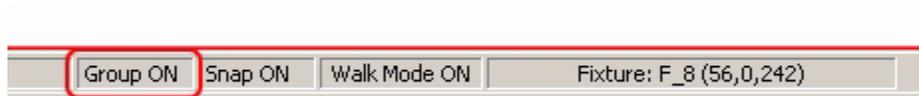
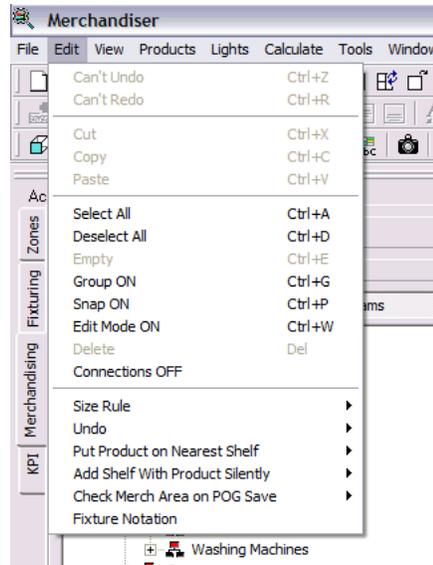
#### Keyboard

Grouping can be toggled On or Off using <Ctrl> + G.

#### Status Bar

Grouping can be toggled On or Off by clicking on the Grouping option on the Status Bar.

Grouping can be toggled On or Off by clicking on the Grouping option in the Edit menu.

**Figure 4–30 Status Bar****Figure 4–31 Edit Menu**

If Grouping is enabled, then if an object is selected that belongs to a Group or Family, then all other objects in that Group or Family will be automatically selected or de-selected. If Grouping is not enabled, then selecting or de-selecting on object in a Group or Family will have no effect on the other members of that Group or Family.

Turning Grouping On is not retrospective - the option must be enabled before selecting all the members of a Group or Family. If Grouping is turned On after an individual member of a Group or Family has been selected, it will not result in the selection of the remaining members of that Group or Family.

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**Note:** If Grouping is Off, then clicking on the first member of the Group or Family (the yellow fixture) will still de-select the whole Group or Family. However, re-clicking on this yellow fixture will not re-select all members.

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This is because with Grouping Off, the yellow fixture is acting like the first fixture in a normal (ungrouped) selection set.

### Selection of Objects

Objects are selected by means of <Ctrl> and left click. They are de-selected by using <Ctrl> and left click.

### Initial Selection of Objects

When objects are initially selected for Groups or Families, the first object selected is outlined in red, and all subsequent selections are outlined in blue.

---

**Note:** In the selection set, re-selecting the first object selected (outlined in red) deselects all objects in the selection set. Re-selecting any of the subsequent selections (outlined in blue) only deselects that object.

---

After objects have been selected and added to a Group or Family, the initially selected object is outlined in yellow, and all subsequent selections are outlined in green.

---

**Note:** While Grouping is turned on, clicking on any object in the set selects or deselects the set as appropriate.

---

If Grouping is turned Off and objects are de-selected then re-selected by <Ctrl> + left clicking, then the re-selected objects are outlined in cyan.

Unselected objects remain in yellow (first selected object) and green (subsequent objects).

---

**Note:** In the selection set, re-selecting the first object selected (outlined in yellow) deselects all objects in the selection set. Selecting any of the subsequent selections (outlined in yellow or cyan) only deselects that object.

---

With Grouping turned Off, individual objects in the Group or Family can be manipulated as separate objects. However objects remain in the group, and can be selected or de-selected collectively once Grouping is turned back On.

### Making Objects into Groups

Objects can be made into Groups if they are of similar type. Thus shelves can be made into Groups and products can be made into Groups, but a Group may not contain both shelves and products. Grouped objects are in Horizontal alignments.

Making and Removing Groups is only possible when the appropriate Tab has been selected in the Object Browser:

- For Fixtures this must be the Fixturing tab.
- For Shelves this may be either the Fixturing or Merchandising Tabs.
- For Products this must be the Merchandising Tab.

To make a Group:

- Select the objects required. The initial object selected is in red, subsequent objects in blue.
- When all objects have been selected, hold down <Ctrl> and right click to bring up the pop-up menu.

Select the Join option and the selected objects will be made into a Group.

This is signified by the initially selected object from the selection set turning to a yellow color and subsequently selected objects turning to a green color.

## **Fixture Groups**

### **Fixture Group Operations**

The primary purpose of Fixture Groups is to form combinations of fixtures that can then be manipulated collectively. Fixture Groups can be selected or de-selected by clicking on any fixture within the group (as opposed to individually selecting the fixtures each time they are required).

Fixture Groups can then be manipulated (moved, rotated or edited) collectively.

### **Gondolas, Fixtures and Fittings**

When Gondolas are placed, they are automatically designated a Fixture Group.

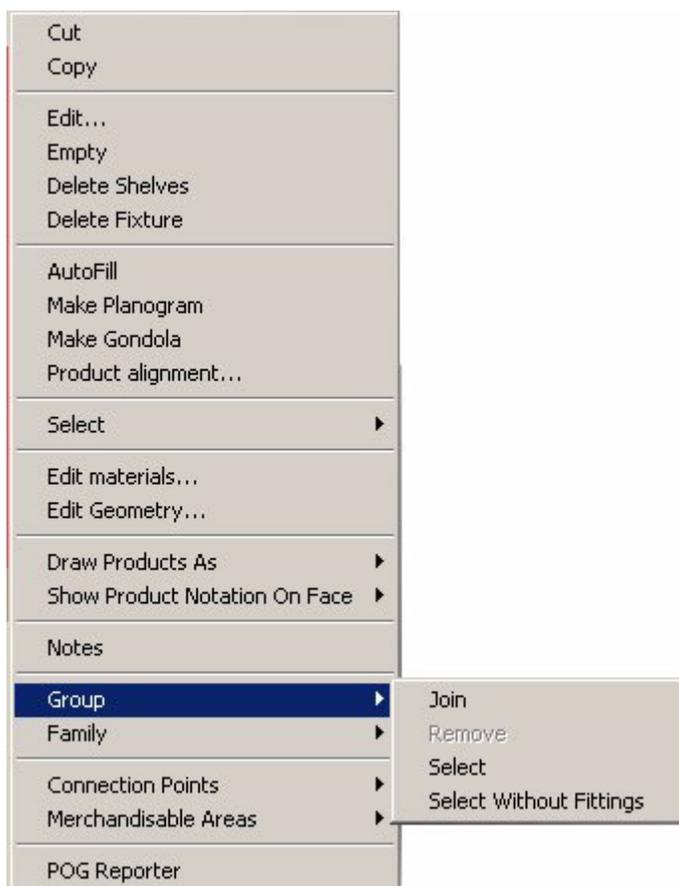
When Fixtures and Fittings are placed they are not included in any groups and have to be selected and designated a Fixture Group before they can be collectively manipulated.

### **Group Members**

Fixtures and fittings can only belong to one group at a time. Fixture Groups cannot contain different types of objects such as shelves.

### **Group Functions**

Group Functions are accessed from the Group option on the pop-up menu accessed by <Ctrl> and right clicking.

**Figure 4–32 Group Functions****Join Group**

Join Group creates a group from the selected fixtures. If a fixture belongs to a group already, then it is removed from that group and added to the new group. A confirmation message appears before the group is created.

---

**Note:** If the objects selected are not compatible for forming a Group, the Join option is not activated.

---

**Remove from Group**

Remove from Group allows you to remove fixtures from the selected group. If Grouping is turned On, all objects are removed from the group.

If Grouping is turned Off, then individual objects can be removed from the group by first de-selecting all members of the Group, then re-selecting the objects it is desired to remove. Clicking on Remove then removes those objects from the group. A confirmation message appears before the object(s) are removed.

**Select**

Select serves two functions. It reverses the effect of the Select Without Fixtures command and the group will now have both Fixtures and Fittings active. If Grouping is Off, then selecting any single member of the Group and using the Select option will

result in the other members of the group being selected. If Grouping is On then all members of the family will automatically be selected by clicking on any member of it.

### **Select Without Fittings**

Select Without Fittings selects only the fixtures within the group. All subsequent operations only affects these fixtures until the fittings are included again using the Select command.

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**Note:** Care should be taken in manipulating the Group while the Select Without Fixtures command is active. For example, only the fixtures will be moved, leaving any fittings in their original position.

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### **Shelf Groups**

Shelf Groups are groups of shelves that are at the same height, at the same angle and form a continuous run.

Shelves can be added to Shelf Groups providing they are adjacent and their height and angle match the existing members of the group. Grouped shelves allow you to treat adjacent shelves as one long shelf. This enables you to place products that span more than one shelf.

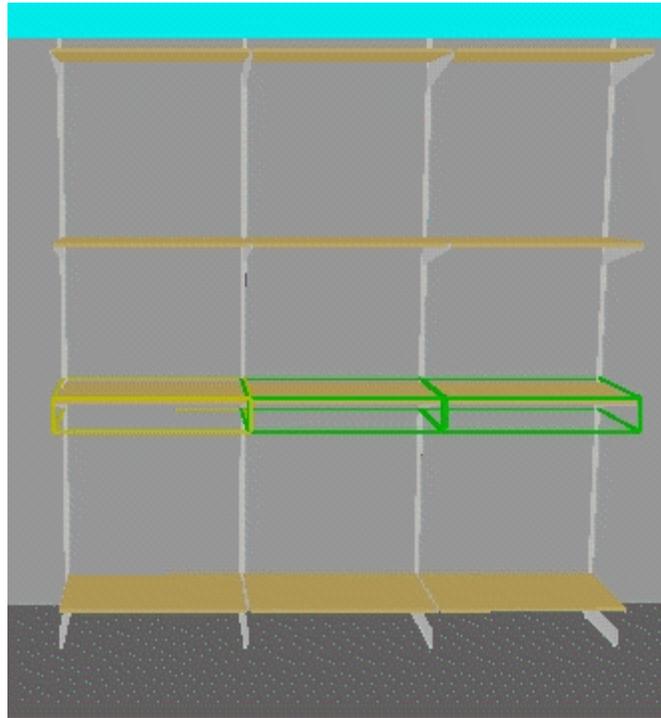
Grouping can be applied to any type of shelf objects, such as open shelves, rods, bars, pegs, dividers etc.

### **Group Members**

Fixtures and fittings can only belong to one group at a time. Fixture Groups cannot contain different types of objects such as shelves.

### **Group Functions**

Group Functions are accessed from the Group option on the pop-up menu accessed by <Ctrl> and right clicking.

**Figure 4–33 Group Options**

The following functions are available:

#### **Join Group**

Join Group option creates a group from the selected shelves. If a shelf belongs to a group already, then it removes the shelf from that group and adds to the new group. A confirmation message appears before the group is created.

---

**Note:** If the objects selected are not compatible for forming a Group, the Join option is not activated.

---

#### **Remove from Group**

The Remove from Group option allows you to remove shelves from an existing group. If Grouping is turned On, all objects are removed from the group.

If Grouping is turned Off, then individual objects can be removed from the group by first deselecting all members of the Group, then re-selecting the objects to remove. Click Remove to remove those objects from the group. A confirmation message appears before the object(s) are removed.

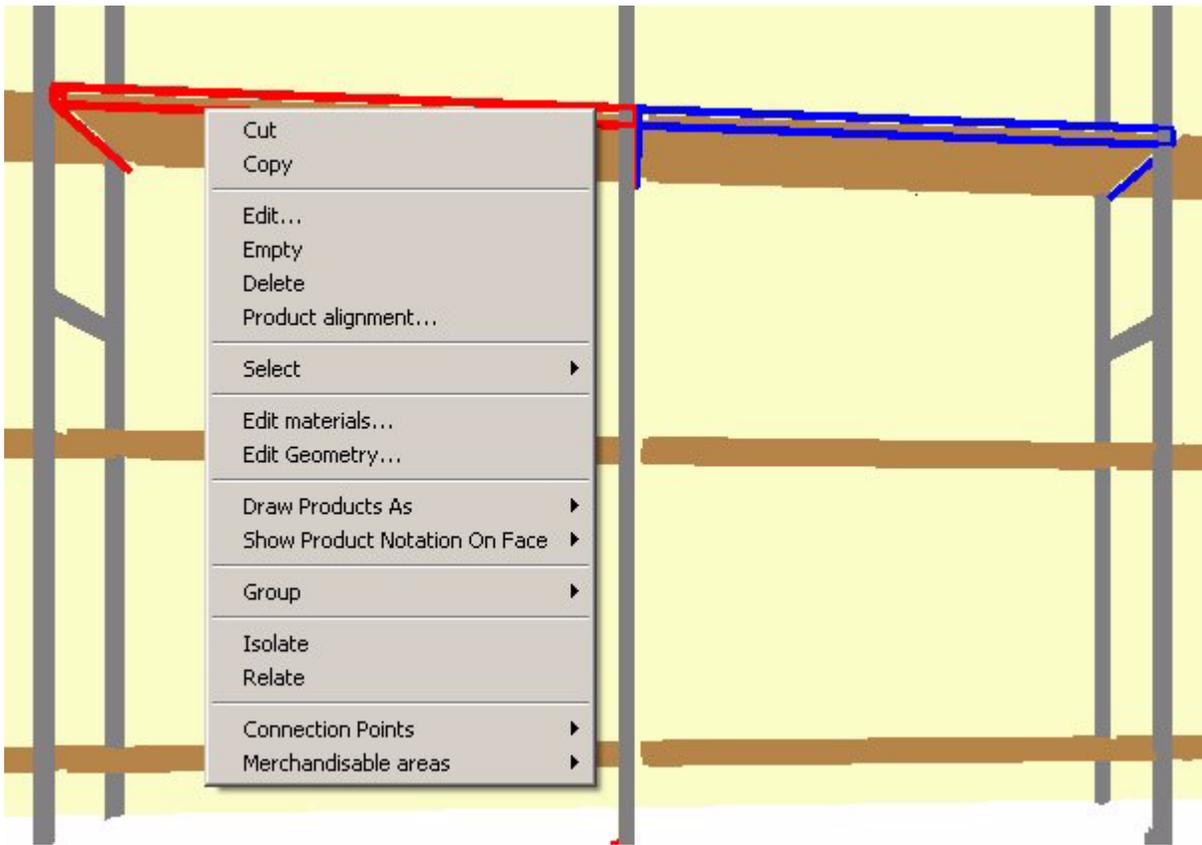
#### **Select**

If Grouping is Off, then selecting a shelf and selecting this command causes all other shelves in the shelf group to be selected and displayed.

#### **Editing Grouped Shelves**

Grouped Shelves can be edited by selecting the Edit option from the right click pop-up menu.

**Figure 4-34 Edit Shelf**



This brings up the Edit Shelf dialog box. This can be used to make changes to the Grouped Shelves.

Figure 4–35 Edit Shelf Dialog Box

Position:	Slot:	Angle:	Size:
X: 0	0	X: 0.0	X: 900.00
Y: 0.00		Y: 0.0	Y: 400.00
Z: 933	18	Z: 0.0	Z: 30.00

Fixture - Height: 2900 Slots: 61 First Slot: 123 Spacing: 45  
Width 900 Slots: 900 First Slot: 0 Spacing: 0

Material: (none)

Preferred Style: (None)

? OK Cancel

### Product Groups

Product Groups are organized stacks of products. Product Groups are automatically generated when products are placed in the Virtual Reality environment as an array.

While Products are grouped, all the products within the Group can be treated as a single object that can be rotated, moved or deleted. Product Groups are highlighted using red and blue selection boxes.

If products are ungrouped, they become a set and can be manipulated as individual or collective items. Sets are highlighted using yellow and green selection boxes (if Grouping is On) and yellow, green or cyan selection boxes (if Grouping is Off).

Un-grouping is carried out by selecting in single product group by holding down <Ctrl> and right click to bring up the pop-up menu.

**Figure 4–36 Product Ungroup**

Un-grouping is a one-way action; products cannot be regrouped once they have been ungrouped.

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**Note:** Un-grouping cannot be carried out if two separate product groups have been selected simultaneously.

Do not un-group products unless necessary. Un-grouping cannot be reversed. Too many ungrouped products will significantly increase the amount of calculation required by Macro Space Management and may degrade performance.

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### Editing Grouped Products

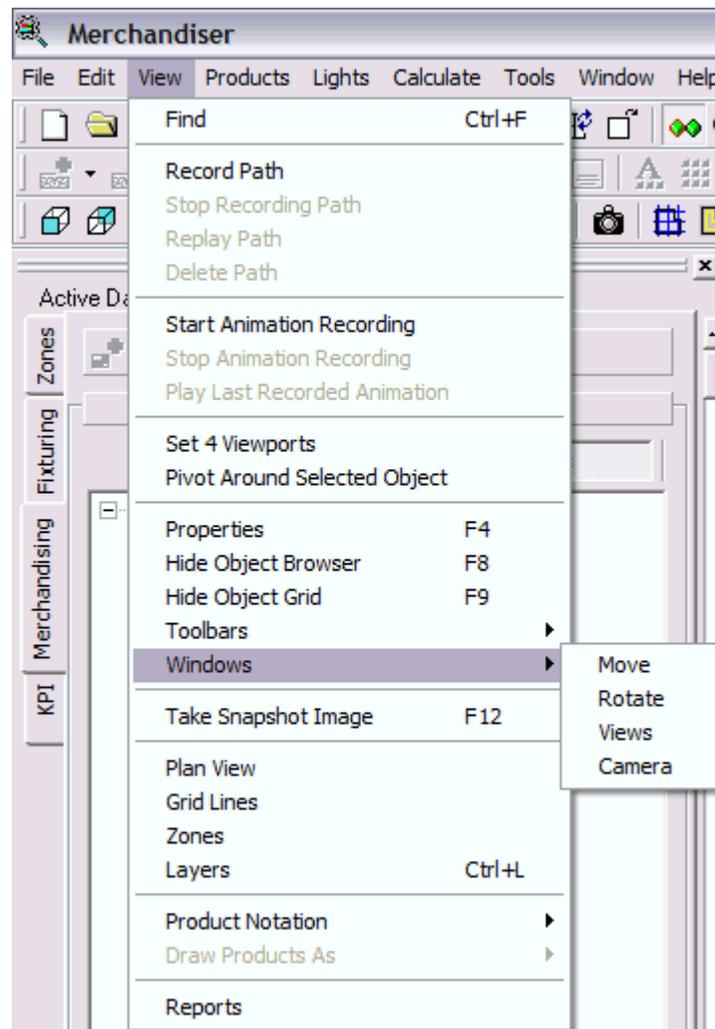
Grouped Products can be edited by selecting the edit options from the right click pop-up menu.

Edit allows the spatial orientation of the product group to be changed. Edit Group allows the number of instances of the product placed to be altered.

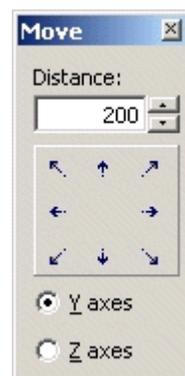
## Group Operations

### Moving and Rotating Families

Objects in Families can be moved or rotated by using the View > Windows menu. In addition they may be moved and rotated using <Ctrl> and the mouse keys.

**Figure 4–37 Moving and Rotating Families****Move**

Selecting the Move option brings up the Move dialog box.

**Figure 4–38 Move Dialog Box**

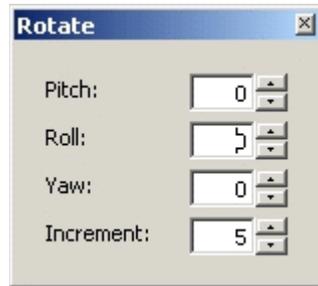
This enables objects to be moved horizontally (Y axes) or vertically (Z axes).

If fixtures are to be moved then the Fixturing tab must be selected on the Object Browser. If products are to be moved then the merchandising tab must be selected on the Object Browser. Shelves can be moved with either the Fixturing or Merchandising tabs selected on the Object Browser.

## Rotate

Selecting the Rotate option brings up the Rotate dialog box.

**Figure 4–39 Rotate Dialog Box**



This enables objects to be rotated in all three axis.

If fixtures are to be rotated then the fixturing tab must be selected on the Object Browser. If products are to be rotated then the merchandising tab must be selected on the Object Browser. Shelves can be rotated with either the fixturing or merchandising tabs selected on the Object Browser.

## Using <Ctrl> and the Mouse Keys

### Moving Fixture Groups

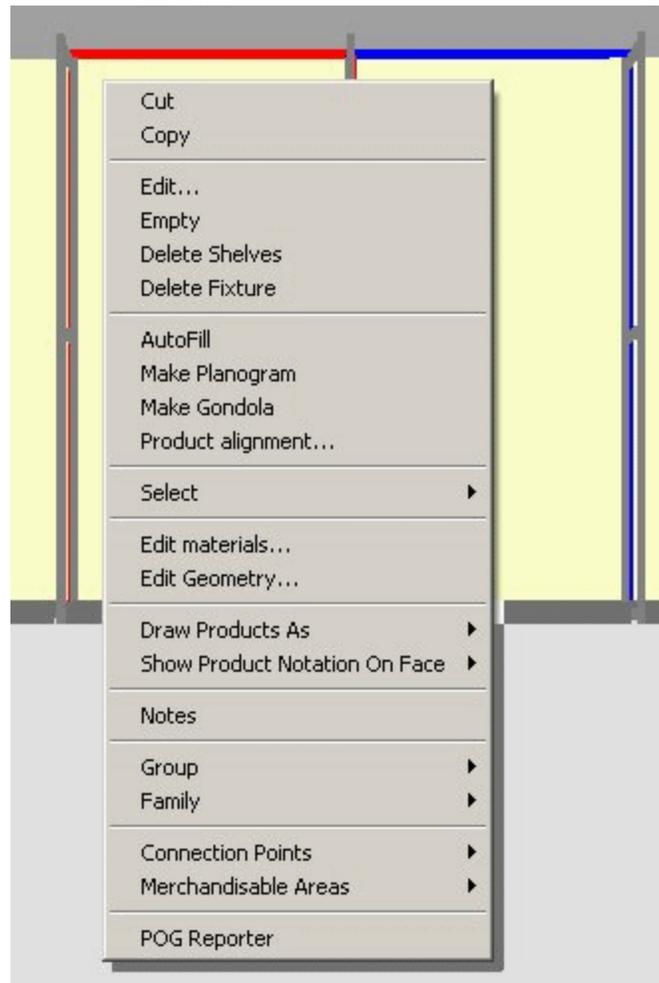
To move a Fixture Group, first ensure that the Fixturing Tab is selected in the Object Browser. Now move the Fixture Group by holding down the <Ctrl> and left mouse key. The selected Group follows the mouse cursor.

### Rotating Fixture Groups

Rotating Fixture Groups by using the <Ctrl> and right mouse key is only available for individual fixtures.

### Editing Fixtures

The properties of a specific fixture or fixtures by selecting those required. This is done by holding down the <Ctrl> key and left clicking on the desired fixtures. The first instance of a selected fixture is highlighted in red, subsequent ones in blue. Holding down the <Ctrl> key and right clicking then brings up the pop-up Menu.

**Figure 4–40 Edit Fixtures**

Click on the Edit option to bring up the Edit Fixture dialog box.

**Figure 4–41 Edit Fixture dialog box**

Position:	Angle:	Size:
X: 138077.95	X: 0.0	X: 900.00
Y: 33724.87	Y: 0.0	Y: 3.00
Z: -70.00	Z: 0.0	Z: 2900.00

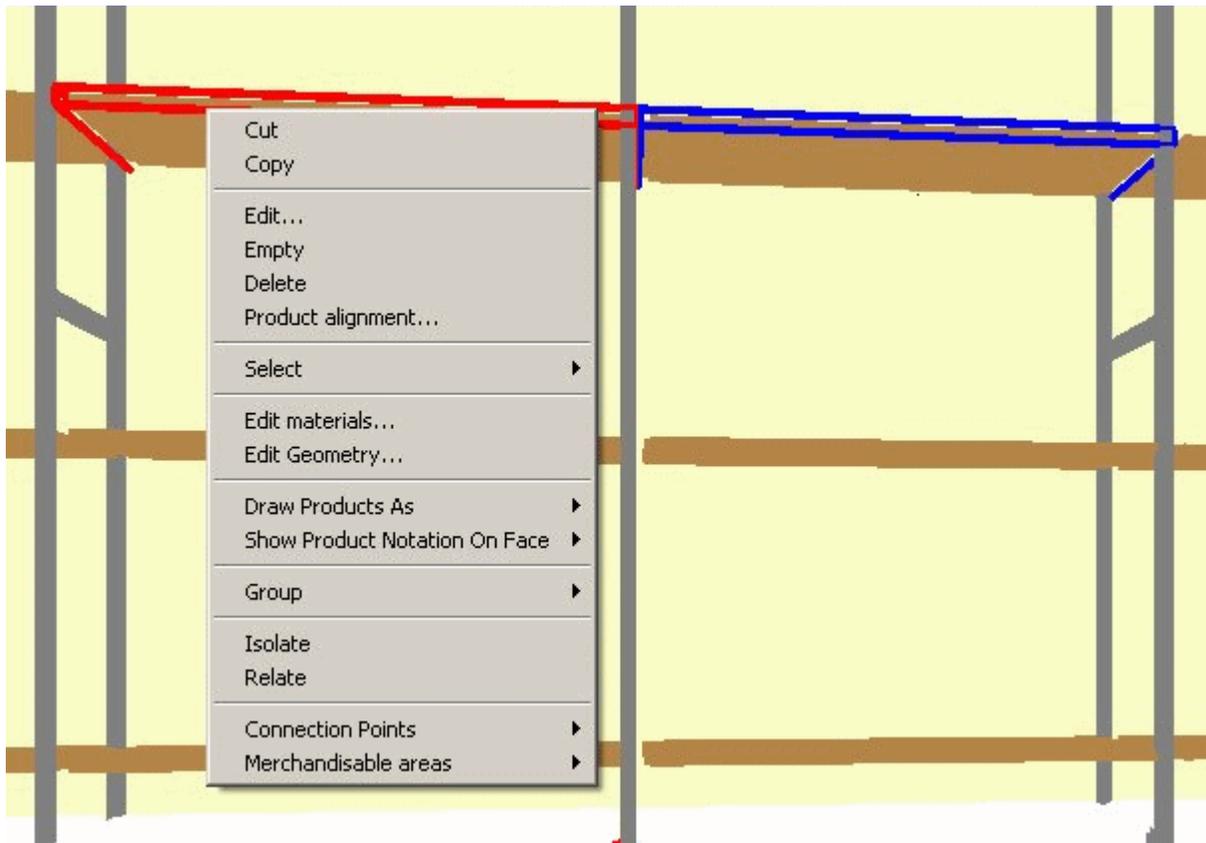
Material: Backpanel

Buttons: ? OK Cancel

This can be used to set the preferences for that specific fixture or fixtures. If different types of fixtures have been included in a multiple fixture selection, only options common to the different types are shown. If there are no common options, then the affected fields are blank.

### Editing Shelves

You can edit the properties of a specific shelf or shelves by selecting those required. This is done by holding down the <Ctrl> key and left clicking on the desired shelves. The first instance of a selected shelf is highlighted in red, subsequent ones in blue. Holding down the <Ctrl> key and right click then brings up the pop-up Menu.

**Figure 4–42 Edit Shelves**

Click on the Edit option to bring up the Edit Shelves dialog box.

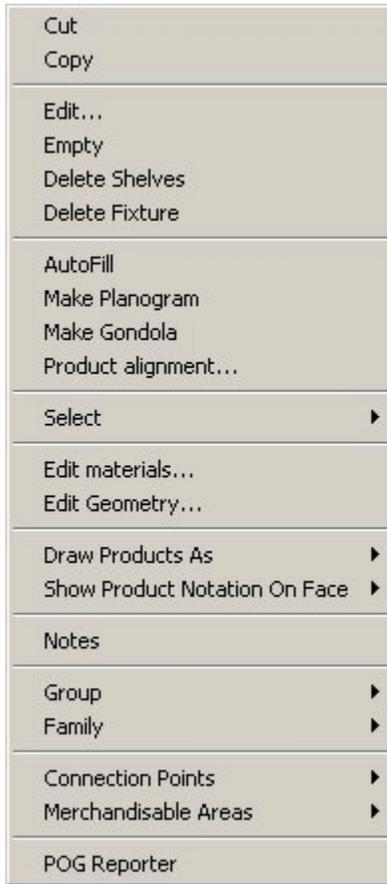
This can be used to set the preferences for that specific shelf or shelves. If different types of shelves have been included in a multiple shelf selection, only options common to the different types will be shown. If there are no common options, then the fields in the preferences box will be blank.

### **Editing Products**

Products can be edited from the Merchandising tab in the Object Browser. Holding down <Ctrl> and right click brings up the pop-up menu.

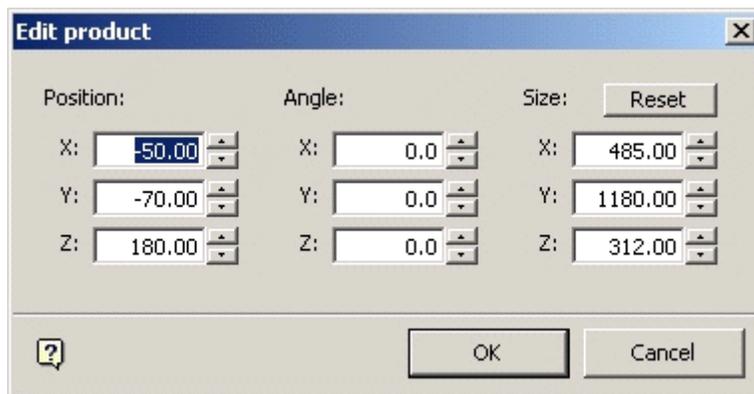
There are two options: Edit and Edit Group.

**Figure 4–43 Edit Products**



**Edit**

The Edit dialog enables a product to be edited for Position, Angle and Size.




---

**Note:** If dissimilar products are selected as part of the Group, only options that are common to those products are available for editing.

---

**Edit Group**

The Edit Group dialog enables the Quantity, Alignment, Detail, Orientation and Properties of a Product Group to be edited.

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---

**Note:** If dissimilar products are selected as part of the Group, only options that are common to those products are available for editing.

---

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### Making Objects into Families

Similar type objects can be made into Families. Thus fixtures and products can be made into Families, but a Family may not contain both fixtures and products.

Families of objects are normally in Vertical alignments. Product families can be made from horizontally or vertically grouped products. Shelves may not be made into Families.

- For Fixtures, use the Fixturing tab.
- For Products, use the Merchandising Tab.

---

---

**Note:** Making and Removing Families is only possible when the appropriate tab has been selected in the Object Browser.

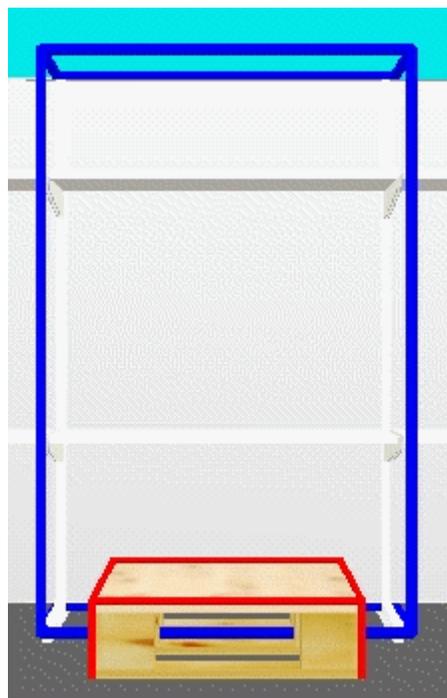
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To make a Family:

Select the required objects from the Object Browser. The initial object selected will be in red, subsequent objects in blue.

**Figure 4-44 Family Options**



When all objects are selected, hold down <Ctrl> and right click to bring up the pop-up menu.

Select the Join option and the selected objects are made into a Family.

This will be signified by the initially selected object from the selection set turning to a yellow color and subsequently selected objects turning to a green color.

### **Avoiding Alignment Problems with Families**

Fixture Families are used to establish relationships between fixtures where vertical alignment is important. Once fixtures are associated in families, Macro Space Management calculates the spatial relationship between the fixtures in the family.

In the example below the pallet and the shelves on the back panel behind it belong to the same family. When product is placed on the pallet, the vertical height is automatically restricted to that of the shelf above the pallet.

If the pallet and the shelves on the back panel behind it do not belong to the same family, then Macro Space Management does not take into account the spatial relationship between the two fixtures. When product is placed on the pallet, it is inserted to the full dimensions allowed by the pallet block details. This can result in product being positioned so that it clashes with the shelves.

### **Fixture Families**

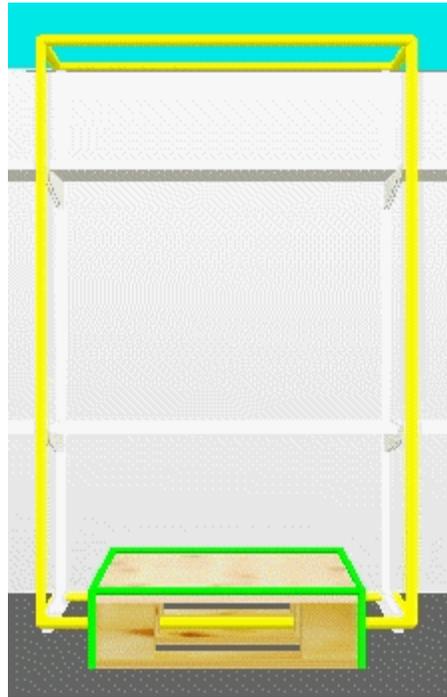
The primary purpose of Fixture Families is to form combinations of fixtures that can then be manipulated collectively. Fixture Families can be selected or de-selected by clicking on any fixture within the Families (as opposed to individually selecting the fixtures each time they are required). Fixture Families can then be moved, rotated or edited collectively. They can also be used to prevent vertical alignment problems for fixtures and products within a specific family.

#### **Family Members**

Fixtures and fittings can only belong to one Family at a time. Fixture Families cannot contain different types of objects such as products.

### **Family Functions**

Family Functions are accessed from the Family Option on the pop-up menu accessed by <Ctrl> and right click.

**Figure 4–45 Family Options - Join****Join Families**

Join option from the Family menu creates a Family from the selected fixtures. If a fixture belongs to a Family already, then it is removed from that Family and added to the new Family. A confirmation message is displayed before the Family is created.

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---

**Note:** If the objects selected are not compatible for forming a Family, the Join option is not activated.

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**Remove from Family**

Remove option allows you to remove fixtures from the selected Families. If Grouping is turned On, all objects are removed from the Family. If Grouping is turned Off, then individual objects can be removed from the Family by first de-selecting all members of the Family, then re-selecting the objects that need to be removed.

Click on Remove to remove objects from the Family. A confirmation message is displayed before the object(s) are removed.

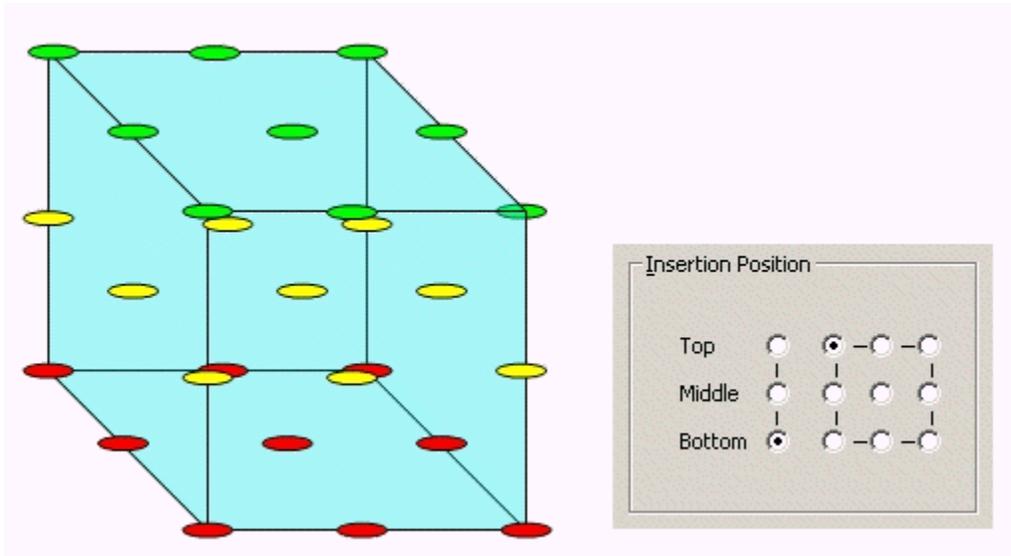
**Select**

When Grouping is Off, selecting any single member of the Group and using the Select Option results in other members of the group being selected. If Grouping is On, all members of the family are automatically selected by clicking on any member.

**Family Operations****Moving and Rotating Families**

You can move or rotate Objects in Families by using the View > Windows menu. Or they may be moved and rotated using <Ctrl> and the mouse keys.

**Figure 4–46 Rotate Objects in Families**



### Move

You can move the objects horizontally (Y axes) or vertically (Z axes) using the Move option. Select the Move option to bring up the Move dialog box.

- If you want to move the fixtures, then the Fixturing tab must be selected on the Object Browser.
- If you want to move products, select the Merchandising tab on the Object Browser.
- If you want to move shelves, use either the Fixturing or Merchandising tabs on the Object Browser.

### Moving Fixture Groups

If you want to move a Fixture Group using the Control key, select the Fixturing Tab on the Object Browser. Now move the Fixture Group by holding down the <Ctrl> and left mouse key. The selected Group follows the mouse cursor.

### Rotate

Using the Rotate option, you can rotate the objects in all three axes. Select the Rotate option to bring up the Rotate dialog box.

- If you want to rotate the fixtures, use the Fixturing tab on the Object Browser.
- If you want to rotate the products, use the Merchandising tab on the Object Browser.
- If you want to rotate the shelves, use either the Fixturing or Merchandising tabs on the Object Browser.

### Rotating Fixture Groups

Rotating Fixture Groups by using the <Ctrl> and right mouse key is only available for individual fixtures.

### Editing Fixtures

Fixtures can be edited from the Fixtures tab on the Object Browser. Hold down <Ctrl> and right click to bring up the pop-up menu.

Click on the edit option to bring up the Edit Fixture dialog Box.

This allows the Position, Angle, and Size of the fixtures to be edited.

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---

**Note:** If dissimilar fixtures have been selected as part of the Group, only options that are common to those fixtures will be available for editing.

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### Editing Shelves

Shelves can be edited from either the Fixtures or Merchandising tabs on the Object Browser. Hold down <Ctrl> and right click to bring up the pop-up menu.

Click the edit option to bring up the Edit Shelves dialog Box.

This allows the Position, Slot Number, Angle, and Size of the shelves to be edited.

---

---

**Note:** If dissimilar shelves have been selected as part of the Group, only options that are common to those shelves will be available for editing.

---

---

### Editing Products

Products can be edited from the Merchandising tab on the Object Browser. Hold down <Ctrl> and right click to bring up the pop-up menu.

There are two options: Edit and Edit Group.

#### Edit

You can edit the Position, Angle and Size of the product using the Edit dialog box.

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---

**Note:** If dissimilar products are selected as part of the Group, only options that are common to those products will be available for editing.

---

---

#### Edit Group

The Edit Group dialog enables you to edit the Quantity, Alignment, Detail, Orientation, and Properties of a Product Group.

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**Note:** If dissimilar products are selected as part of the Group, only options that are common to those products will be available for editing.

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## Calculations

The purpose of calculations is to determine various metrics against data in a drawing and save these results in the database. Calculations can be run from the Calculate menu option located in the Merchandiser module of the Macro Space Management application. The various types of calculations are as follows:

- Calculate Areas
- Calculate Face Planes
- Calculate Adjacency

### Calculate Areas

Area calculations are used to apportion the area enclosed by the Total Building (Internal Area) zone to specific fixtures. Area calculations are initiated by selecting the Calculate Areas option from the Calculations menu.

Calculate Areas gives a visual indication of how efficiently space in the store has been allocated. Each registered fixture definition defines the directions in which it faces North, South, East, or West relative to the block. For each fixture, it creates a boundary around it in each direction until it hits another fixture or until it reaches its defined tolerances.

Selecting this option brings up the Area Calculation window.

### Calculate Face Planes

You can calculate Face Planes to calculate the space each product occupies in a planogram. It looks at space from a front view perspective, so that if there were two categories on a fixture, it determines what proportion of space is given to each category. For example, the Men's Shirts planogram might have a frontal area of 16 square feet, with Walmart Own Brand shirts taking up 15% of the available space.

Calculate Face Planes is a customer specific requirement, and may not be enabled in generic implementations of Merchandiser.

### Calculate Adjacency

Calculate Adjacency calculates which fixtures and which products are adjacent to each other. Having determined which other fixtures are adjacent it then works out whether it is to the right, to the left, in front, behind, above, below or opposite. Next it works out sequence numbers, and groups fixtures together by giving them the same number.

While the calculation is in progress, a window gives a visual indication of the stage it has reached.

## Styles

Styles are used to define whether different types of objects fit together. They can be used to specify (for example) whether a shelf will fit on a fixture, or whether a product can be placed on a shelf.

Using Styles in Merchandiser requires settings to be configured in the Administration, Merchandiser, Fixture Studio, and Product Studio modules.

Each of these steps is discussed in more detail.

### Assigning Fixture, Shelf, and Product Styles

## Types of Styles

There are three broad classes of style (although others can be defined).

- Fixture styles
- Shelf styles
- Product styles

In additions there are:

- Joints

## Fixture

**Table 4–4 Fixture Style**

Fixture style	Shelf style	Product style
Fixtures must have one or more fixture styles. The Fixture Style Relationships determine what shelves and products it can accept.	If shelving is to be placed on the fixture then a style relationship must exist between the assigned fixture style and the required shelf style.	For products to be placed a fixture, a style relationship must exist between the assigned Fixture Style and the required Product Style.

## Shelf

**Table 4–5 Shelf Style**

Fixture style	Shelf style	Product style
For shelves to be placed on a fixture, a style relationship must exist between the assigned Shelf Style and the required Fixture Style.	Shelves must have one or more Shelf Styles. The Shelf Style Relationships determine what equipment the shelf can be placed on and what products it can accept.	For products to be placed on the shelf, a style relationship must exist between the assigned Shelf Style and the required Product Style.

## Product

**Table 4–6 Product Style**

Fixture style	Shelf style	Product style
For products to be placed a fixture, a style relationship must exist between the assigned Fixture Style and the required Product Style.	For products to be placed on the shelf, a style relationship must exist between the assigned Shelf Style and the required Product Style.	Products must have one or more product styles. The Product Style Relationships determine what equipment and shelves the product can be placed on.

**Note:** Products can only be assigned styles at the Display Level. They cannot be assigned styles at SKU level and above.

**Joints**

Allows products to be placed directly on fixtures, placing at the same time the associated shelf object.

**Table 4–7 Joints**

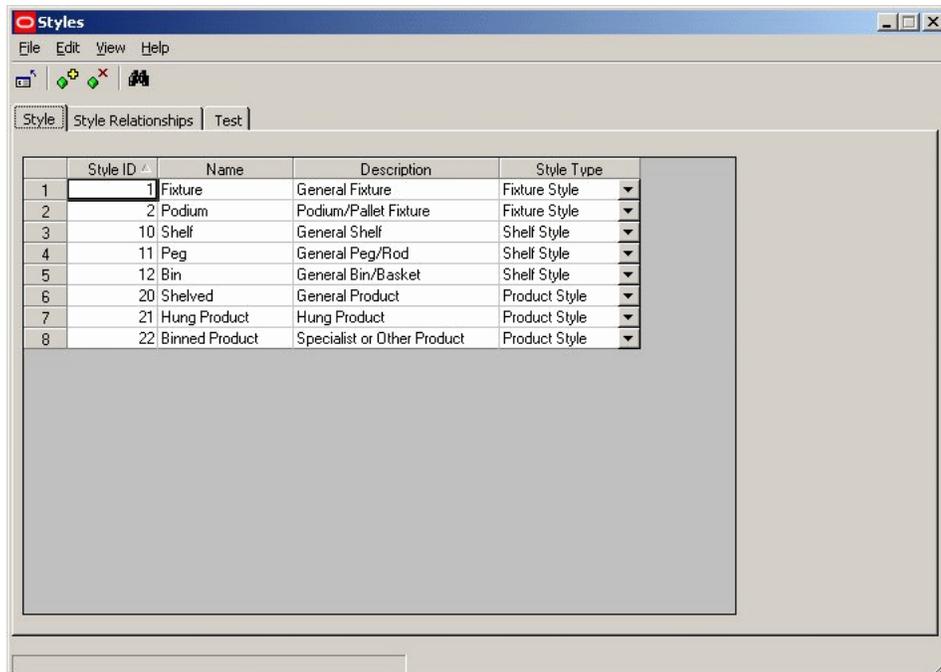
Fixture style	Product style	Shelf style
For products to be placed a fixture, a style relationship (using a joint) must exist between the assigned Fixture Style and the required Shelf style.	For products to be placed on the shelf, a style relationship (using a joint) must exist between the assigned Shelf Style and the required Product Style.	Products must have one or more product styles.  The Product Style Relationships determine what equipment and shelves the product can be placed on.

When creating a joint, if a fixture-shelf style relationship similar to the type being defined already exists it must be deleted before the joint (a combination of fixture, product and shelf styles) can be created.

**Example 4–1 Style Relationship example**

In the following Style Relationship (created in Admin) fixtures that have a Fixture Style of Metal assigned can accept shelves that have had an Open Shelf, Heavy Duty Shelf or Lateral Rod Shelf Style assigned.

**Figure 4–47 Style Dialog Box**



Conversely, if a shelf has only had a Peg Slatted Style assigned it cannot be placed on a Fixture that has only has a Fixture Style of Metal assigned.

### Fixture Styles

Each fixture should be associated with one or more Fixture Styles. An example of a fixture style might be 'Metal'. This style might also be associated with fitting and shelves and can be used to indicate that particular items of equipment can be fitted together.

If product is to be placed directly on any fixture, it also requires a shelf style.

### Shelf Styles

Each shelf must be associated with one or more Fixture Styles and also one or more Shelf Styles. The Fixture Style is used to ensure the shelf fits onto a compatible fixture. The Shelf Style only allows products with compatible styles to be placed.

### Product Styles

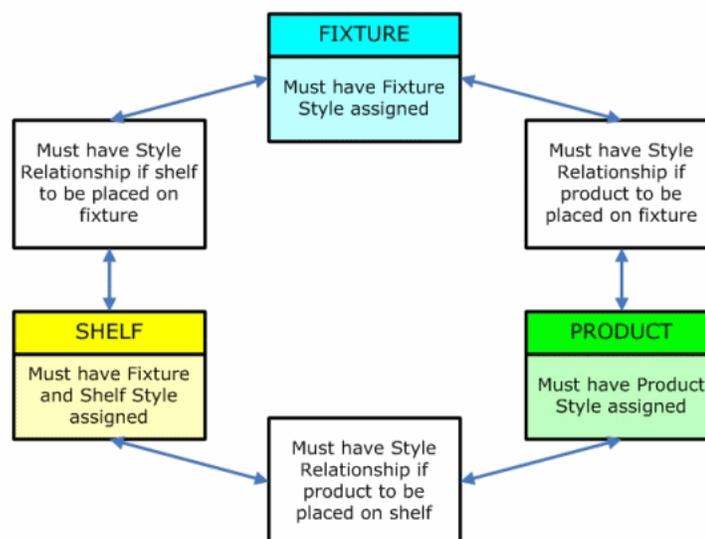
Each product must be associated with one or more product styles. These product styles will determine the compatible shelves the product can be placed on. For example shirts could be available in both Hung and Folded Product (Display) Styles.

If a product is dragged into a shelf at item level then it will automatically select the correct Product Style. For example if shirts are dragged into an open shelf, they will be placed as Folded Shirts. If shirts are dragged onto a peg or bar, then they will be placed as Hung Shirts.

If product is dragged onto a shelf at Display Level then it can only be placed on equipment compatible with that style. For example Folded shirts cannot be placed onto a bar.

### Summary of Style Requirements and Style Relationships

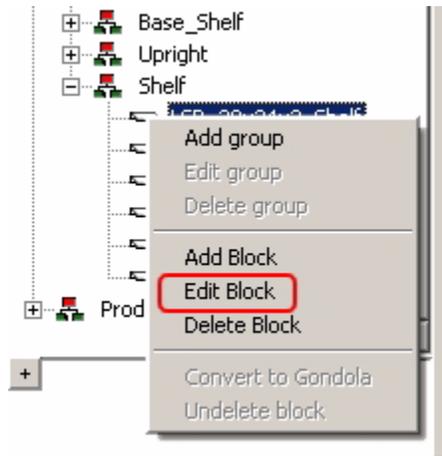
Style Requirements and Style Relationships may be summarized as follows:



Joints allow products to be placed on fixtures simultaneously with shelf objects.

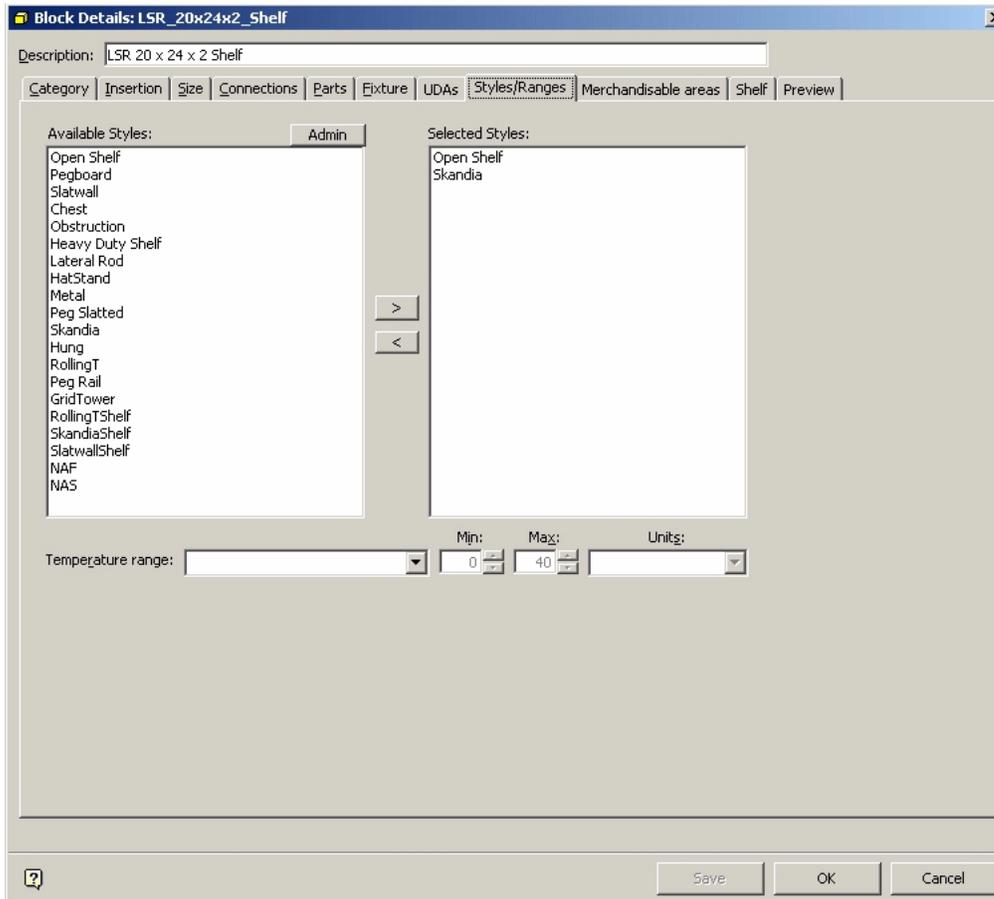
### Assigning Fixtures and Shelf Styles

Styles can be assigned to fixtures and shelves from Fixture Studio by highlighting them in the hierarchy and right clicking to bring up the pop up menu.



Click the Edit Block to bring up the Block Details dialog box. The Styles/Ranges tab can then be used to specify the available styles for a particular object.

**Figure 4–48 Block Details - Styles/Ranges**



Styles can then be assigned or removed using the < and > arrows.

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**Note:** A shelf object will require a fixture style to ensure it can be assigned to fixtures, and a shelf style to allow product to be assigned to it.

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### Assigning Product Styles

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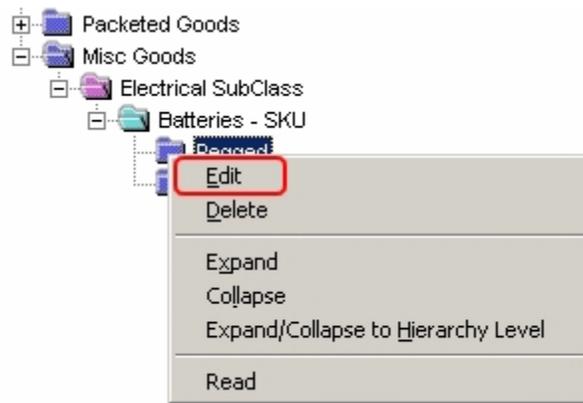
---

**Note:** Products can only be assigned styles at the Display Level. They cannot be assigned styles at SKU level and above.

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---

Styles can be assigned to Products from within Product Studio by highlighting them in the hierarchy and right clicking to bring up the pop up menu.



Click the Edit option to bring up the Product Display Style dialog box. The Styles tab can then be used to specify the available styles for a particular product.

**Figure 4–49 Product Display Style dialog box**

Styles can then be assigned or removed using the appropriate icons.

## Using Styles in Merchandiser

### Placing Fixtures

Primary Fixtures can be placed without reference to their assigned Styles. The only criteria for placing fixtures are that they have been assigned a primary object that places at floor level.

### Placing Shelf Objects

Shelf Objects can only be placed if they meet two criteria.

Connection Points	The connections points assigned to the shelf must be compatible with the connection points assigned to the fixture it is to be placed on.
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Styles	The Fixture Style assigned to the shelf must be compatible with the Fixture Style assigned to the fixture it is to be placed on.
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### Setting Preferred Styles

Some objects can be associated with multiple styles; specific instances of shelves within the drawing can be given preferred styles. For instance, a shelf could be associated with both a Stock shelf style as well as a Presentation shelf style; two display styles may then be defined for a particular product, a Display product style and a Boxed product style.

The Stock shelf style would be linked with the Boxed product style, and the Presentation shelf style would be linked with the Display product style. This would allow both the Boxed and Display version of the product to be placed on the shelf.

However, the user would be able to indicate the preferred style for a particular instance of a shelf as being Presentation, which would force the Display product to be placed for that particular shelf.

### Using Preferred Styles

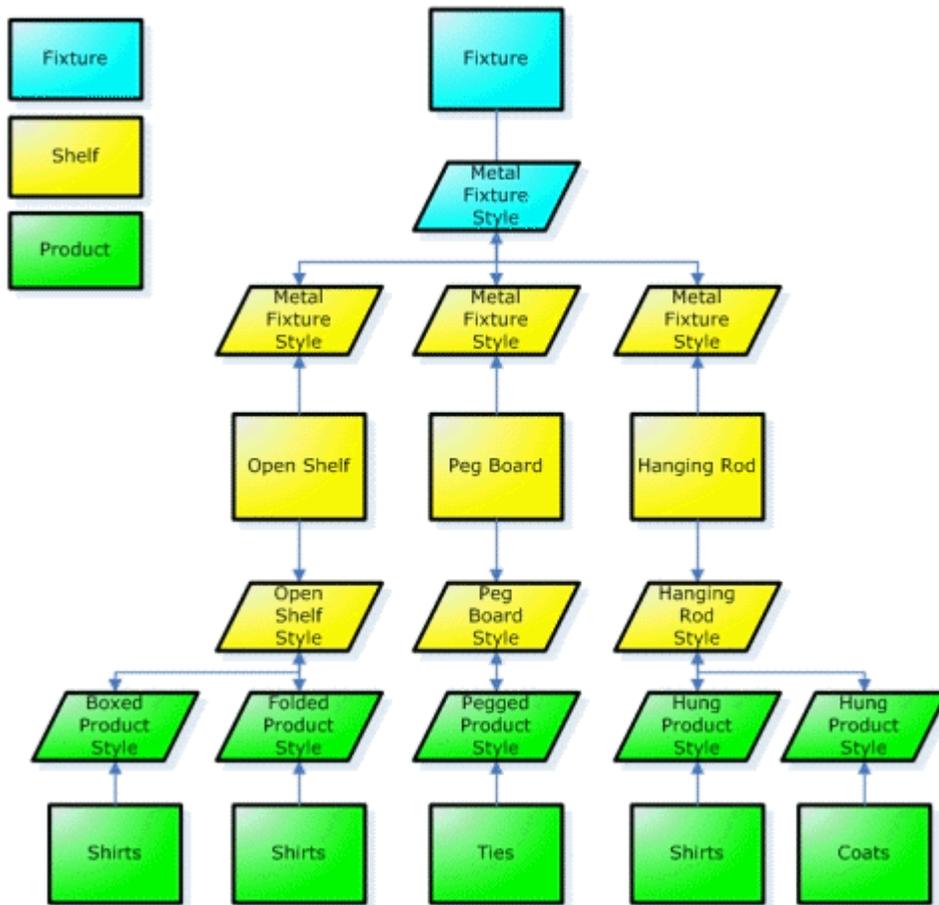
Preferred styles can be specified for a specific shelf or shelves by selecting those required. This is done by holding down the <Ctrl> key and left clicking on the desired shelves. The first instance of a selected shelf will be highlighted in Red, subsequent ones in blue.

Hold down the <Ctrl> key and right click to bring up the pop-up Menu. Click the Edit option to bring up the Edit Shelves dialog box.

This can be used to set the preferences for that specific shelf or shelves. If different types of shelves have been included in a multiple shelf selection, only preference types common to the different types will be shown. If there are no common preference types, then the field in the preferences box is blank.

### Using Styles

The diagram below indicates how styles interrelate.



The fixture has been assigned a Metal Fixture Style. The Open Shelf, Peg Board and Hanging Rod shelf objects have all been assigned Metal Fixture styles. This means any of these three types of shelf object can be placed on the fixture. If another type of shelf object (for example a slatted back panel) had been assigned the Lozier fixture style, it would not have a fixture style compatible with that assigned to the fixture itself, and could not be assigned to that fixture.

The Open Shelf, Peg Board and Hanging Rod shelf objects have also all been assigned appropriate shelf styles. The varying types of products have been assigned product styles. For example shirts have been assigned Boxed, Folded and Hung product styles. These styles determine what form of shelf object shift can be placed on. For example shirts with a Hung product style can only be placed on Hanging Rods. Conversely, the Open Shelf has been configured to accept both Boxed and Folded shirt styles. Ties only have Pegged product style and are restricted to the Peg Board.

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**Note:** Where an object has multiple styles they can set in order of preference using preferred styles.

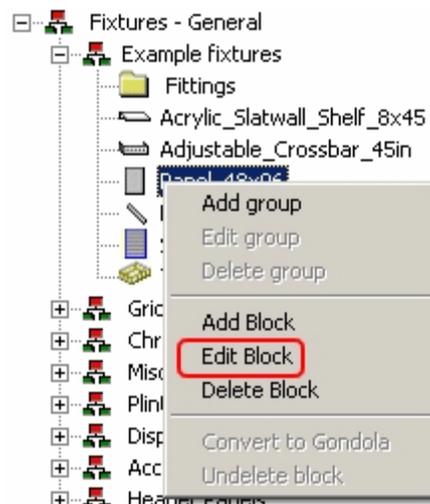
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## Practical Use of Styles

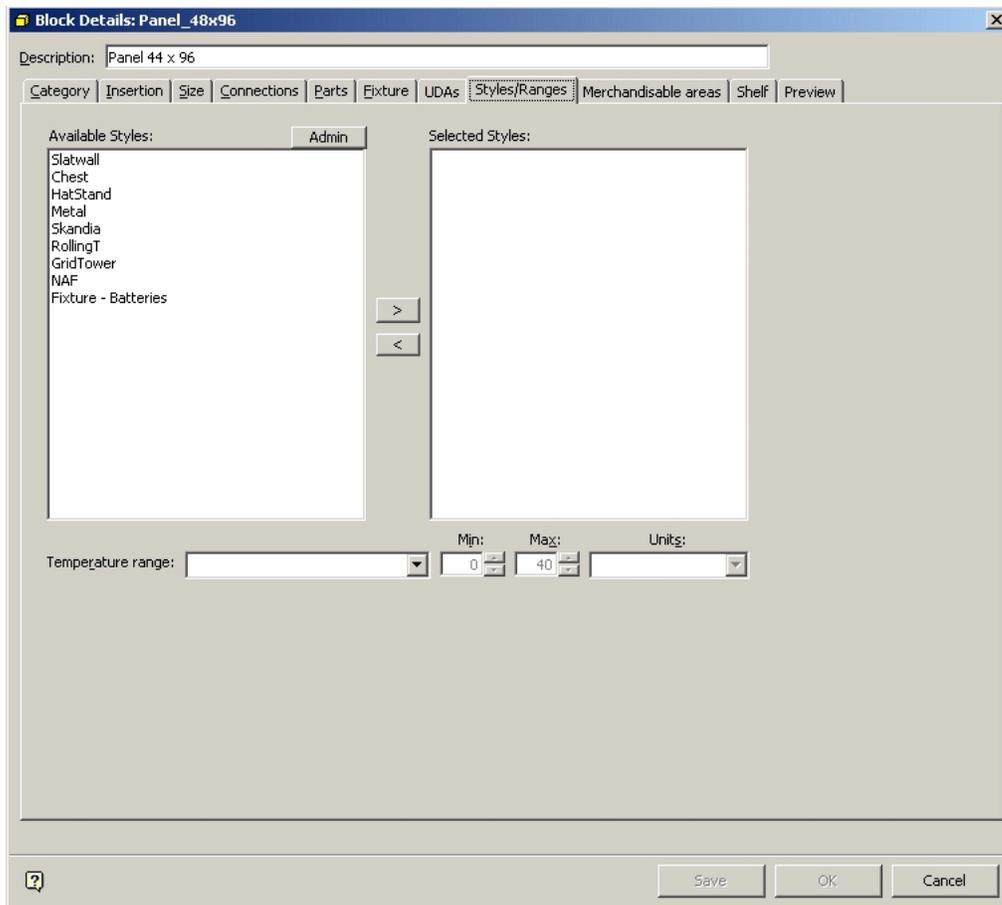
### Adding Style to Fixture in Fixture Studio Module

To add a Fixture Style to a fixture:

- Open the Fixture Studio module.
- Select the required fixture and right click to bring up the pop-up menu.

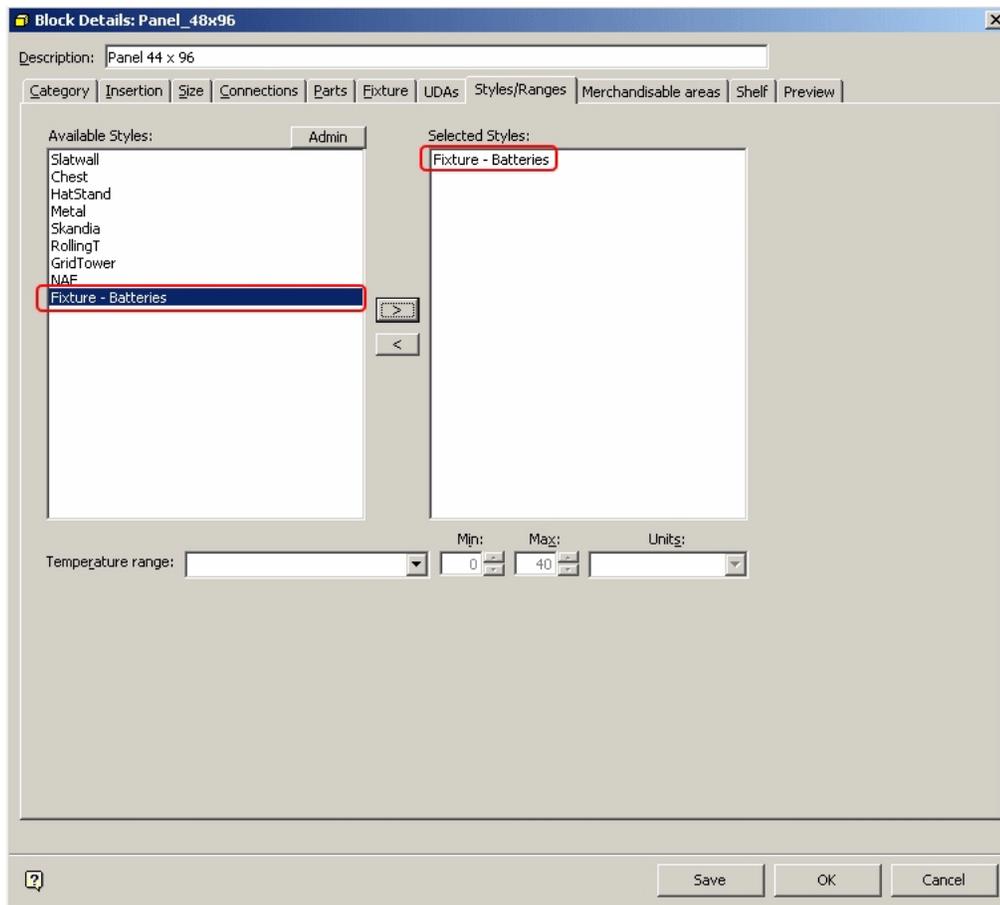


- Click the Edit Block option. The Block details dialog box opens.
- Select the Styles/Ranges Tab.

**Figure 4–50 Styles/Ranges Tab**

To add a Fixture Style (or styles) select the required style(s) from the list of available styles and click the right arrow > to move it over to the list of selected styles.

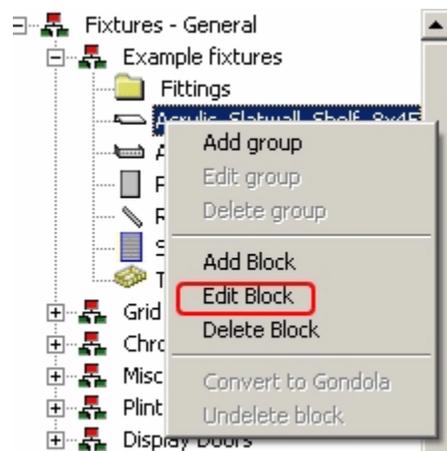
Figure 4-51 Add Fixture Style



In the example above, the fixture will now accept any shelves or products that have Style Relationships with the Fixture - Batteries Fixture Style.

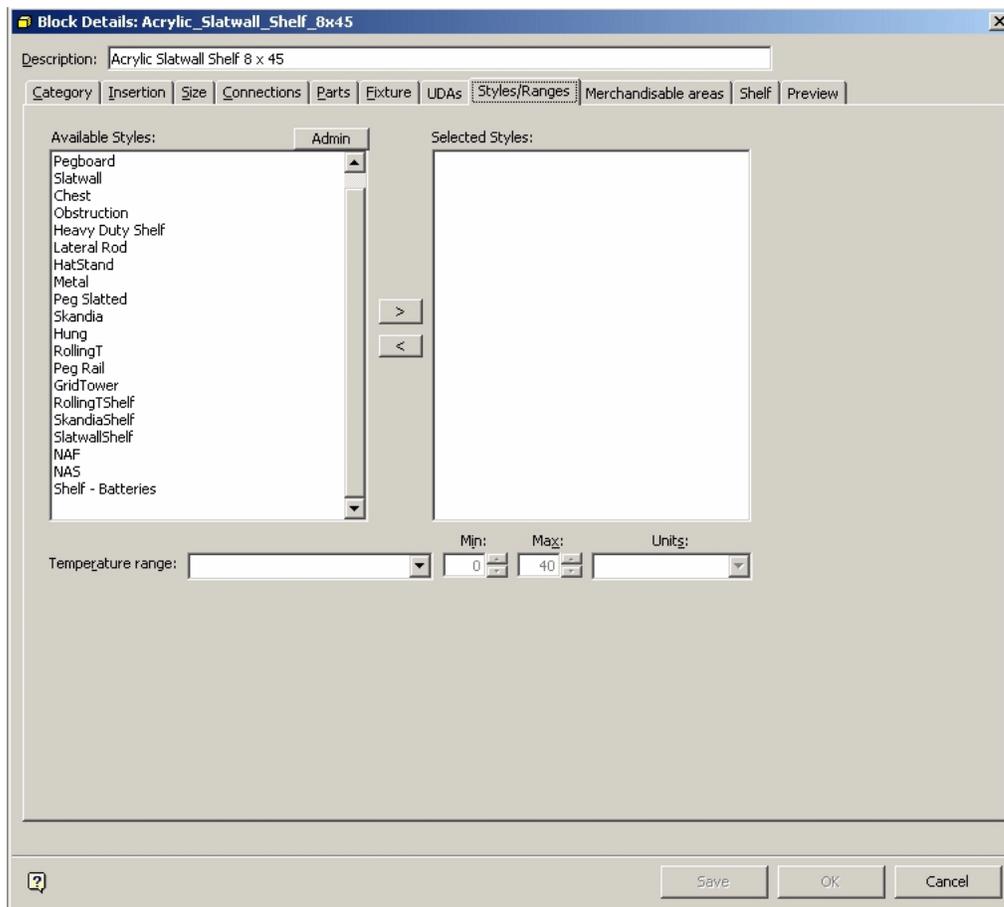
**Adding Styles to Shelf in Fixture Studio Module** To Add Fixture and Shelf Styles to a shelf:

- Open the Fixture Studio module.
- Select the required shelf and right click to bring up the pop-up menu.



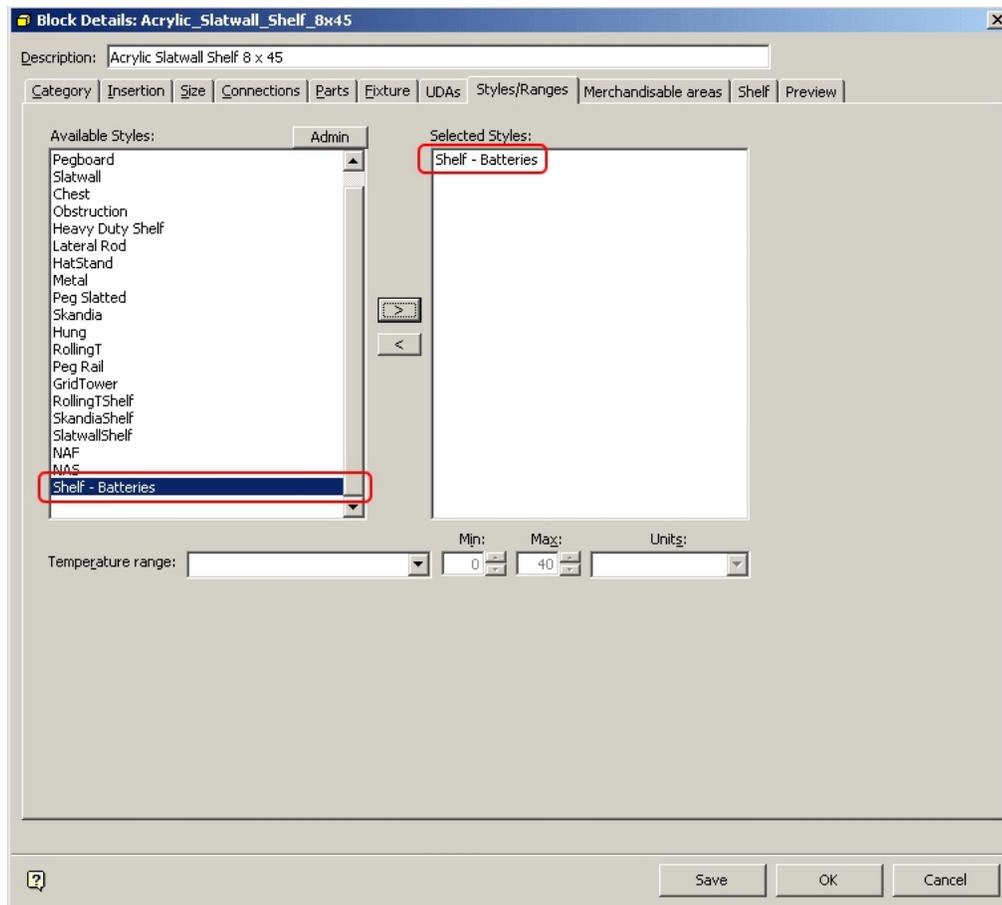
Click the Edit Block option to bring up the block details dialog box.

**Figure 4–52** Block details dialog box



- Select the Fixture/Styles Tab.
- To add a Fixture Style (or styles) and a Shelf Style (or styles) select the required style(s) from the list of available styles by using the right arrow > to move it over to the list of selected styles.

Figure 4–53 Add Styles to Shelf



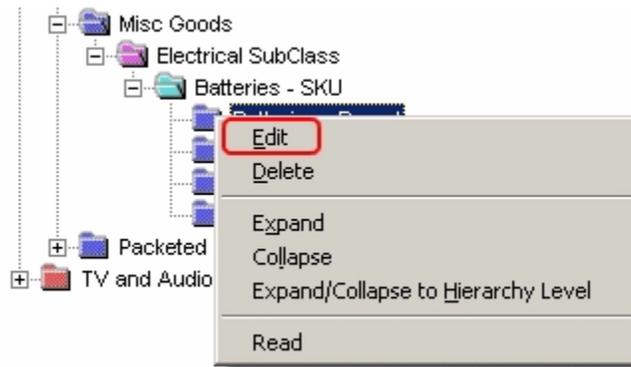
This shelf will now accept any fixtures or products that have style relationships with the Shelf - Batteries Shelf Style. Similarly, a Fixture style can be selected to determine what fixtures the shelf can be placed on.

#### Adding Style to Product in Product Studio

To add a Product Style to a product:

1. Open Product Studio. Select the required product and right click to bring up the pop-up menu.

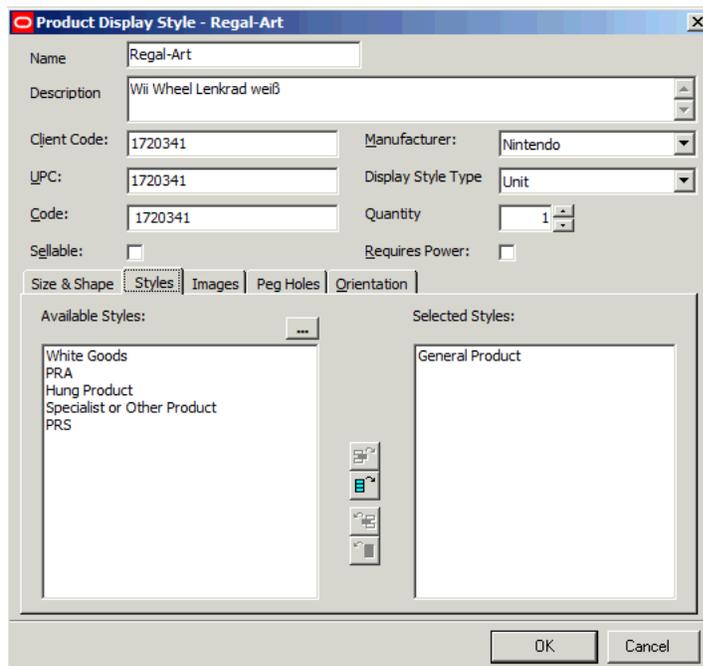
**Figure 4–54 Edit Product Dialog Box**



**Note:** Products can only be assigned styles at the Display Level. They cannot be assigned styles at SKU level and above.

2. Click Edit to bring up the Product Display Style dialog box. Select the Styles Tab.

**Figure 4–55 Product Display Style dialog box**



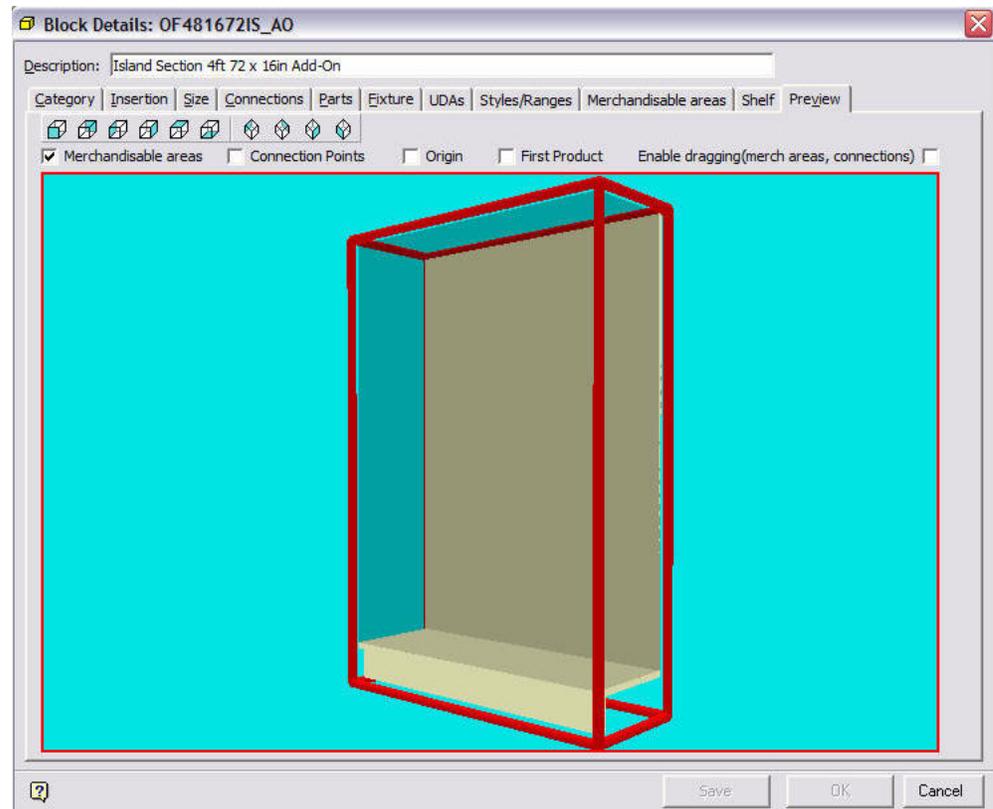
To add a Product Style (or styles) select the required style(s) from the list of available styles and move it over to the list of selected styles using the appropriate icon.

## Merchandisable Areas

The merchandisable area, that is configurable, is the total amount of area on a fixture that is available to merchandise. You can decide the position and the dimensions where to place the merchandise on the object. The grayed out dimensional area inside

the red line, in the image below, indicates the merchandisable area on a fixture. The Merchandisable Area tab in the Fixture Studio allows you to configure the position and dimensions of the area that can be filled with merchandise.

**Figure 4–56 Merchandisable Area**



To view the merchandisable area on a fixture:

1. Select the fixture by highlighting it in the Object Browser.
2. From the Fixturing toolbar, click Edit Fixture. Fixture Studio opens up.
3. On the Fixture Studio module, select the Preview tab. The Preview tab displays the graphical interpretation of the object with merchandisable area.
4. Select the checkbox against the field Merchandisable Area. The merchandisable area is displayed as the grayed out area within the red lines on the object.

### Editing Merchandisable Area

You can edit the merchandisable area on the object by accessing the Merchandisable Area tab in the Fixture Studio.

To edit the merchandisable area:

1. From the Fixture Studio module, select a fixture from the Object Browser for which you want to edit the merchandisable area.
2. From the toolbar, select Edit Block Definition. Alternatively, right click on the block and select Edit Block. The Block Details dialog box appears.
3. Select the Merchandisable Area tab.

4. On the Primary Area frame, enter the Offset 1 and Offset 2 X, Y, Z co-ordinates.
5. Click Save to save the changes made and click OK to exit.

For more information on the concepts and defining the Further Merchandisable Area, see the section Merchandisable Area Concepts and The Further Areas Frame.

## Zones

A Zone defines a section of floor that is used for a specific and clearly defined purpose, based on the floor layout specified by an architectural drawing. The Zone might define an area used for sales, it might define an area used for storing stock, or it might define areas used for non-sales purposes such as offices, corridors or toilets.

Zones can only be added, edited, and deleted in the Planner environment. Zones can be viewed but not edited in Merchandiser.

From a technical standpoint, a Zone is a Macro Space Management block that allows additional information to be put into a Store Plan. This subsequently allows more structured Macro Space Management reports to be produced on the associated layout of fixtures, fittings and Planograms within that drawing. A Zone is defined by a Planner Polyline enclosing a specific section of floor. Further Polylines within the Zone can be used to define pillars or other obstructions. The designation of pillars and other obstacles allows them to be taken into account when calculating sales areas. This results in a more accurate calculation of the area of usable floor, enabling sales performance analysis to take into account the effect of obstructions.

The Zone is used to assign a specified part of the total floor area to a specific function. Such functions include allocating to specific types of retail goods, (for example electrical goods), or designating the area as a non-sales area; for example a manager's office or a corridor. Zones thus allow the total floor area in the store to be split into sales and non-sales areas and then further sub-divided as to purpose. This sub-division of the store allows Planograms and fixtures to be filtered by Zone, allowing the store planner to rapidly establish which goods and which fixtures are in a specific part of the store.

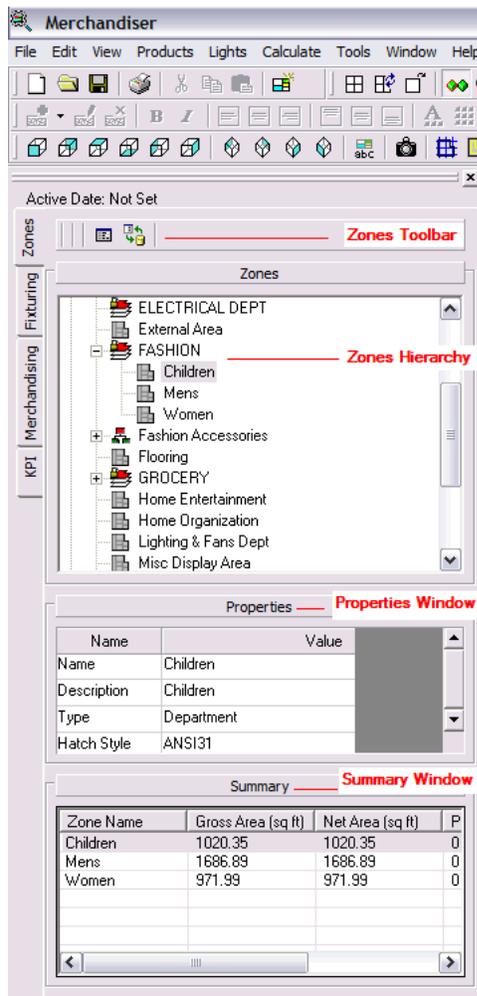
Zones can also be designated as being excluded from certain types of reports. This allows fixtures and Planograms that have been placed in a storage area to be excluded from any calculations or reports on the performance of that part of the store.

Many of the characteristics of Macro Space Management Zones can be configured within the Admin Module.

### Zone Toolbar and Display Windows on the Object Browser

Click the Zones Tab on the Object Browser to bring up the toolbar and information window for Zones.

Figure 4-57 Zones Tab



- The **Zones Toolbar** allows you to refresh and configure Zones.
- The **Zones Hierarchy** contains a list of all the zone types currently configured in the Administration Module.
- The **Zone Properties Window** contains information on the currently selected zone.
- The **Zones Summary Window** contains brief information on all zones currently present in the drawing.

## The Zones Toolbar

The **Zones Toolbar** is found on the Object Browser.

It contains two icons allowing operations to be carried relative to Zones.

**Configuration** button allows you to configure Zones. The Refresh button allows you to refresh the Zones Hierarchy information to reflect any changes made in the Admin Module since Merchandiser was opened for the current session.

## The Zones Hierarchy Window

The **Zones Hierarchy Window** is found below the toolbar.

It contains a Hierarchical Tree giving a list of all the available Zone types. A zone selected in the drawing is highlighted in the hierarchical tree.

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**Note:** Zone types and descriptions can be added, edited, or deleted using the Admin module.

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## The Properties Window

The **Properties Window** gives information on the selected Zone Definition.

The Zone Type and Area Properties are read only and cannot be edited.

## The Summary Window

The **Summary Window** contains details of Zones within the drawing.

The information typically includes Zone Name, Zone Description, and Gross and Net Areas. Zone Names and Zone Descriptions can be sorted by clicking the column headings.

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**Note:** Information displayed can be customized by Oracle - contact Technical Support if necessary.

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## Express Loading

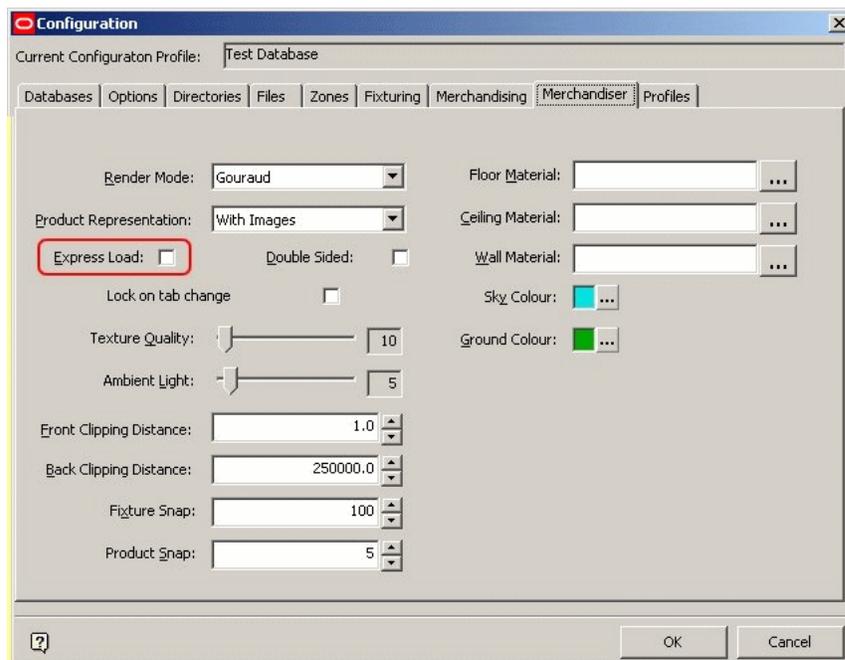
Express Loading is used to load only some of the zones available in the drawing. This allows Macro Space Management users to load just the sections of the store plan that are of interest to them. This reduces the amount of detail in the drawing that the user has to view.

Express Loading also helps the performance of the application as less data is being processed in the user's viewpoint moves.

Drawings that are express loaded with only some of the available Zones is displayed as checked out by the user, preventing anyone else from working on the Zones that have not been loaded.

### Activating Express Loading

Express Loading can be enabled in the Merchandiser tab of the Configuration Module.

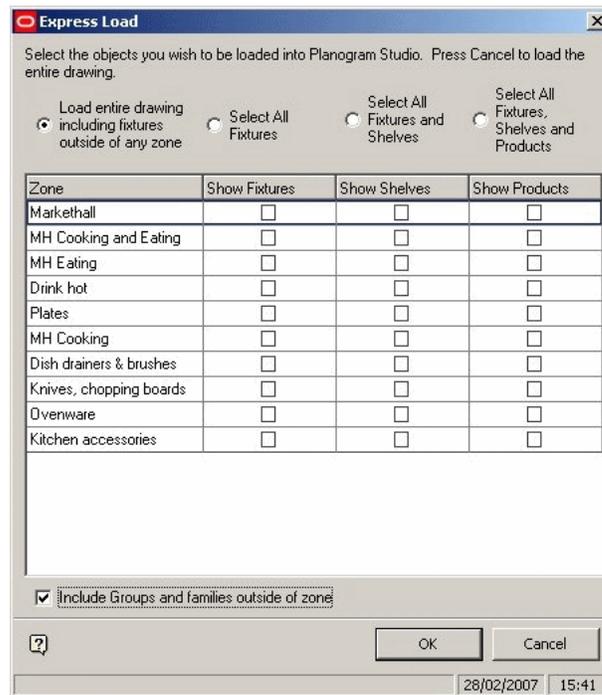
**Figure 4–58 Express Load**

On the Merchandiser tab, Express Load checkbox can be checked to enable Express Loading. If the check box is not ticked, all zones are loaded into the selected drawing.

### The Express Loading dialog box

The Express Load dialog box allows you to select which Zones, Fixtures, Shelves and Products are loaded.

Figure 4–59 Express Load dialog box



The four radio buttons at the top of the dialog box control what is loaded in the selected zones:

- **Load entire drawing** results in every zone in the drawing being loaded. This includes any fixtures not included within a zone.
- **Select all Fixtures** selects the fixtures in every zone in the drawing.
- **Select all Fixtures and Shelves** selects the fixtures and shelves in every zone in the drawing.
- **Select all Fixtures, Shelves and Products** selects the fixtures, shelves, and products in every zone in the drawing.

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**Note:** Using the **Select all Fixtures**, **Select all Fixtures and Shelves** and **Select all Fixtures, Shelves and Products** options, application will not select from Fixtures, Shelves or Products that are not in the zone.

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Alternatively, the requirements for Individual Zones can be set by checking or unchecking the respective boxes for Fixtures, shelves and Products for those zones. Objects that are not at floor level (for example banners) are still associated with the zone they are within and is displayed accordingly. The level of an object does not affect whether it is associated with a zone.

The **Include Groups and Families outside of the Zone** checkbox (if selected) will result in all fixtures (and their associated shelves and products) belonging to a group or family that extend outside the selected zones being displayed. If this option is not checked, then only fixtures (and their associated shelves and products) that cross the boundary of the selected zones is displayed.

### Objects crossing Zone Boundaries

If only some of the available zones are enabled, some fixtures and fittings from the non-enabled zones may overlap with the boundaries of the selected zones. You can see these overlapping fixtures and fittings, together with their associated shelves and products. These overlapping fixtures, fittings, shelves and products are not locked, and you can edit, move or modify these objects.

## Fixtures

Fixturing is the addition of equipment to a store plan. There are two ways that equipment can be added:

- As individual fixtures
- As Gondola Runs

The properties of fixtures and gondolas are defined in Fixture Studio.

### Individual Fixtures

Fixtures can be placed as one-off's (or as simple arrays). In the example below, a pallet has been placed using photo realistic quality.

### Gondola Runs

Gondola runs are predefined arrangements of fixtures that can be placed in variable sizes, variable parts and with variable numbers of bays determined at the moment of insertion.

### Composites

Composites are predetermined arrangements of fixtures that cannot be varied. Their main use is for placing standardized assemblies of fixtures.

Composites can only be placed in the Planner Module environment. Accordingly, although their parent fixture group may be visible in the Object Browser fixture hierarchy, any composites will be hidden from view.

## Adding Fixtures using the Object Browser

You can add fixtures in the drawing from the Fixturing tab of the Object Browser. The Fixturing tab has two buttons Blocks and Gondolas which you can select to view the available blocks or gondolas.

The available fixtures or gondolas are shown in the hierarchy. The properties of the currently highlighted fixture can be seen in the Properties window. Any available information on blocks or fixtures placed in the drawing can be seen in the Summary Window. (This information can be customized to user requirements). A preview of the currently highlighted fixture can be seen in the Preview Window.

There is a significant difference in the way fixtures are added in the Planner and the Merchandiser environment.

Planner Module Environment	Merchandiser Environment
Fixtures can be added by clicking on the Add icon or by dragging and dropping	Fixtures can be manipulated on addition by means of the Add Fixtures dialog box
Fixtures can only be added by dragging and dropping	Fixtures are placed immediately on being 'dropped' - the Add Fixtures dialog box does not appear.

To add fixtures:

Select the required fixture in the blocks hierarchy by highlighting it.

Holding down the left mouse button, then drag it to the drawing and drop it. The preview window in the object Browser contains an image of the selected fixture.

## Moving a Fixture

There are two ways to move a fixture:

- Cursor Keys
- Edit dialog box

### Moving using the Cursor Keys

To move a fixture, select it in the plan. It is highlighted.

It can then be moved left, right, forward, and back using the cursor keys. If multiple fixtures have been selected, they are simultaneously moved.

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**Note:** The direction the selected fixture moves in the field of view will depend on whether the viewpoint has been rotated.

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### Moving by means of the Edit Dialog Box

To move (or rotate a fixture) by means of the Edit dialog box, double click the fixture to bring up the Edit Fixture dialog box.

This allows the following changes to be made to the fixture:

- **Position:** Allows the position of the fixture to be changed to a specific point in the drawing.
- **Angle:** Allows the fixture to be rotated in the X, Y, or Z planes.
- **Size:** Allows the size of the fixture to be changed.
- **Material:** Allows the material (color) of the fixture to be changed.

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**Note:** It is recommended that the sizes be left unchanged. If they are changed, they can be restored to the original size by clicking on the default button.

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## Deleting a Fixture

Fixtures in the drawing can be deleted by highlighting them.

Pressing the delete key deletes the fixture from the drawing.

## Fixturing Toolbar

The Fixturing toolbar has the following options:

- Highlight
- Find
- Options
- Refresh
- Attributes
- Promotional Fixtures

## Highlighting Options

The **Highlight Selected Item in View** and **Highlight Item in Tree** option enables you to find items in the drawing and hierarchy. When the highlight option is selected in the toolbar, it is active.

**Figure 4–60** *Highlight Options*



## Find Option

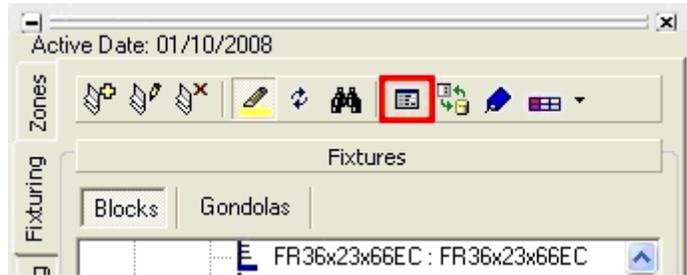
The Find function enables you to search blocks in the drawing.



On the Find Block dialog box, enter the required search string and click the Search icon. This brings up a list of any blocks matching the search string. Highlight any result and click OK to return to the Object Browser, where the selected block is highlighted in the hierarchical tree.

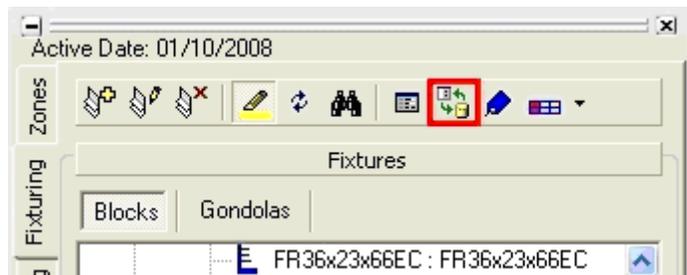
## Options

The Options function enables you to configure the fixturing options.



## Refresh

The Refresh icon refreshes both Fixture and Gondola information in the respective hierarchical trees.



Click the Refresh button tab to load the latest gondola information from the database into the Gondola hierarchy. At the same time, it loads the latest fixture information from the database into the Fixture Hierarchy. This means that adding a fixture or gondola from the appropriate hierarchy after the refresh button has been pressed uses the latest definition from Fixture Studio.

If a drawing is already open then fixtures or gondolas already placed in the drawing will not use any changes loaded during the refresh operation until the drawing is closed and reopened. However, new fixtures or gondolas added to the open drawing uses the new data.

## Attributes

The Attributes function enables you to view the user defined attributes of the selected block. Select the Attributes icon from the Blocks and Gondolas toolbar.



Some fixtures may not have any attributes assigned.

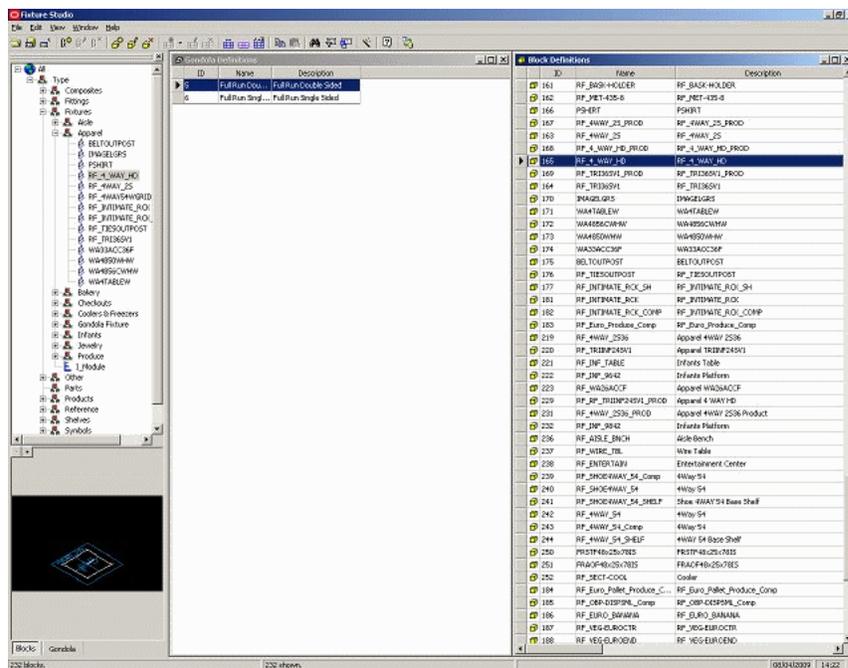
## Promotional Fixtures

Promotional Fixtures are fixtures that can be allocated for a specific purpose of rapidly changing offers.

## Fixture Studio

Fixture Studio is a module of Macro Space Management where you can configure fixtures and gondolas.

**Figure 4–61 Fixture Studio Module**

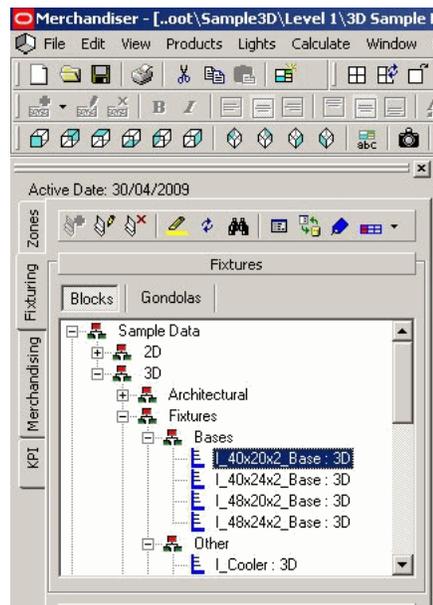


Activities in Fixture Studio have a significant influence on Merchandiser.

- The hierarchies of Fixtures and Gondolas that display in the Object Browser in Merchandiser are configured in Fixture studio.
- Fixture properties are configured in Fixture Studio.
- Gondolas are defined in Fixture Studio.

## Gondola and Fixture Hierarchies

Gondolas and Fixtures for use in Merchandiser are selected from a hierarchy in the Object Browser.

**Figure 4–62 Fixturing tab**

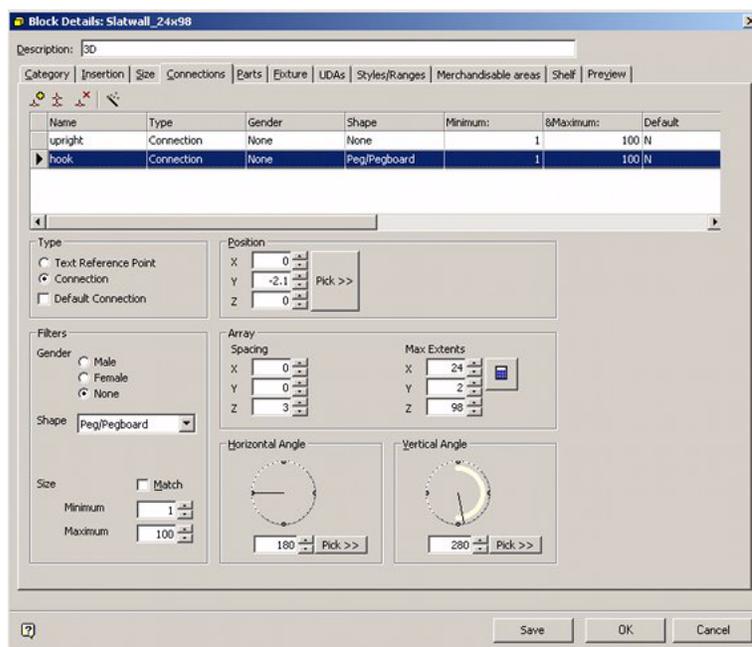
There is hierarchy for fixtures and gondolas. You can switch between the two by clicking on the Blocks or Gondolas button while in the Fixturing tab. They are made up of groups and fixtures (or gondolas). Groups are the equivalent of windows folders and serve to hold fixtures (or gondolas) of a specific type.

The fixture and gondola hierarchies cannot be altered in Merchandiser, you can modify the hierarchy only in Fixture Studio. In Fixture Studio groups, fixtures, and gondola definitions can be added, edited, and deleted. This allows the hierarchy to be customized to suit the user.

## Fixture Properties

Fixture Properties are defined in the Block Details definition box in Fixture Studio.

Figure 4–63 Block Details definition box



It contains a series of tabs that allow intelligent properties to be assigned to the graphic that appears in the drawing.

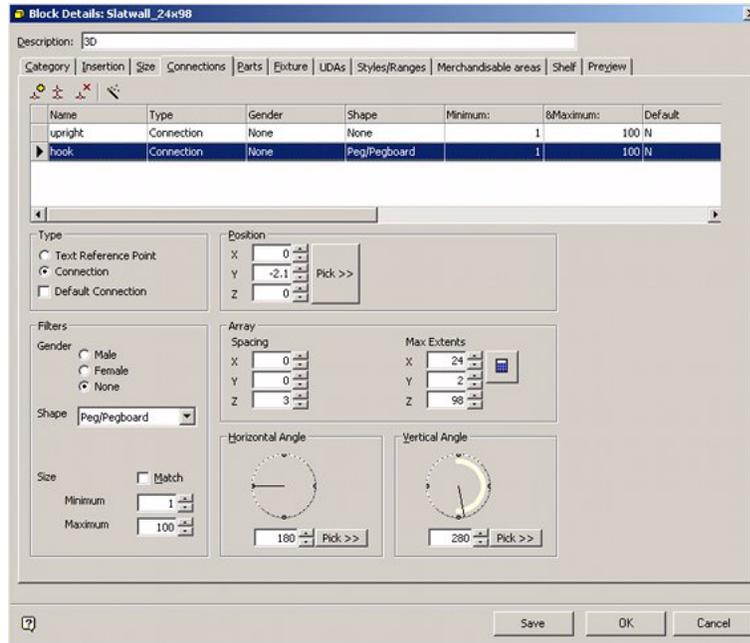
Table 4–8 Block Details Definition box

Tab	Function
Category tab	Basic parameters for the fixture including data on materials, manufacturer, how products fit onto the equipment, etc.
Insertion tab	How the fixture is inserted into the drawing including the height above floor level and what direction the front of the fixture faces.
Size tab	The dimensions of the fixture, including additional floor area assigned to allow for extra equipment to be placed on the fixture.
Connections tab	Specifies which equipment can be connected to what other equipment.
Parts tab	Specifies a list of parts for the equipment; for example bolts and castors required.
Fixture tab	Allows to set the shelf spacing and fixture setting for the selected block.
UDAs tab	Allows User Defined Attributes (text based information) to be assigned to the fixture. These UDAs can then be viewed in Merchandiser.
Styles/Ranges tab	Defines the styles and temperature range for the selected fixture.
Merchandisable Areas tab	Defines the volume that merchandise is allowed to occupy.
Shelf tab	Sets the default angle for any shelving to be attached to the equipment
Preview tab	For use within Fixture Studio - it allows users to visually check connection points, merchandisable areas, etc.

## Gondola definitions

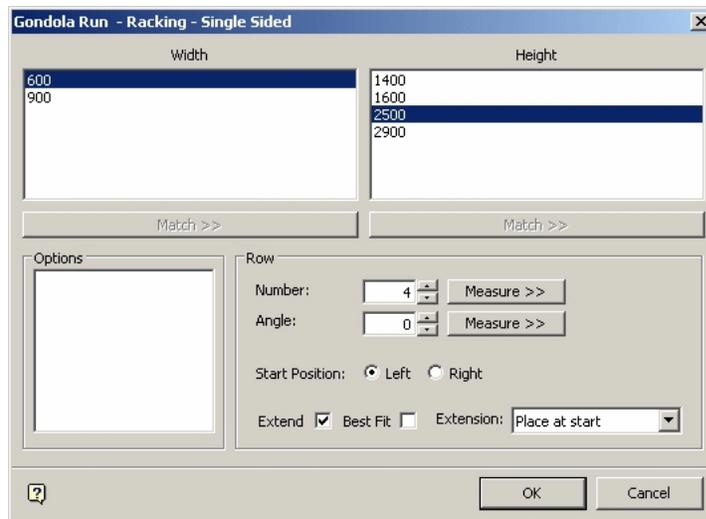
Gondola Definitions are managed in Fixture Studio.

**Figure 4–64 Gondola Definitions**



The settings assigned in the Gondola Definitions dialog box are reflected in the Gondola Run dialog box when a gondola is placed in Planner or Merchandiser.

**Figure 4–65 Gondola Definitions dialog box**



Settings affected by the Gondola Definitions dialog box include the available dimensions and whether any parts of the gondola are optional.

## Overview of Macro Space Management Equipment

A Store in the Merchandiser environment is populated by equipment. This can include fixtures, fittings, shelves and many other items of store furniture. The way these items behave is affected by the properties they have been assigned, how they are grouped together for collective manipulation and by what the System variables are set to.

### Object Properties

Each of these items of equipment has been initially created as a graphic (using for example AutoCAD). The graphic contains basic properties such as dimensions and an insertion point. The graphic has then been imported into Macro Space Management and turned into a Macro Space Management Block. During this process, the Macro Space Management Block is assigned additional properties that allow it to act in an 'intelligent' manner when in the Macro Space Management CAD and Virtual Reality Environments.

Knowledge of how these 'Intelligent Properties' affect the behavior of equipment within Macro Space Management is important in understanding the behavior of the software. Some of these properties are:

**Table 4–9 Intelligent Properties**

Property	Function
Insertion Points	Determine the locations at which equipment and merchandise is placed in Merchandiser
Child Insertion Points	Determine the justification which products are placed on fixtures and shelf objects
Connection options	Determines how one item of equipment connects to another.
Placement Options	Determines the alignment, etc., when product is placed onto open shelves, pegs and other shelf objects
Styles	Determines which items of equipment are compatible with another. Also determines which shelf objects products can be placed on.
Alignments	Determines how groups of products on shelf objects can be aligned (justified) relative to that shelf object.
Product Orientations	Individual product items can be placed in specified orientations, for example with the front, side or top of the packaging facing forward on the shelf object.

### Grouping of Objects

Multiple objects (collections of either equipment or products) can be selected for collective operation. This is done by:

- Selection sets: used for a single collective operation.
- Groups: sets of objects in horizontal alignment that can repeatedly manipulated
- Families: sets of objects in vertical alignment that can repeatedly manipulated

### System Variables

In addition there are a number of System Variables that affect Macro Space Management. These may be set to different values - each of which will cause a modification to the behavior of the Macro Space Management environment.

## Equipment Types and Connection Points

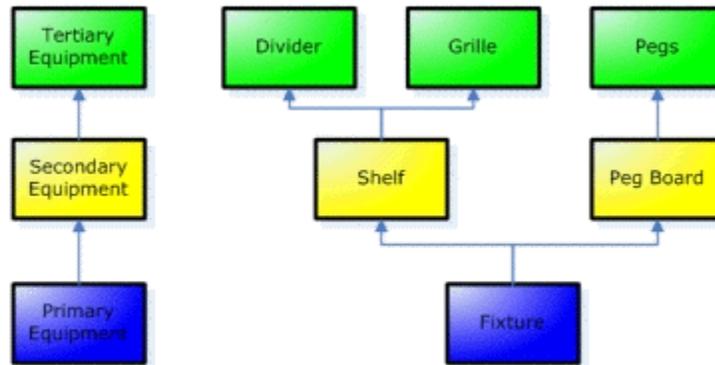
The equipment used in building a store layout falls into three categories: Primary, Secondary and Tertiary.

**Primary Equipment** indicates the most fundamental form of equipment. All Primary Equipment is capable of being placed directly on the floor. Some Primary Equipment is capable of accepting subsidiary equipment, (Secondary Equipment). Only Primary Equipment has an Insertion Point that is directly placed in the floor plan of a store.

**Secondary Equipment** indicates items of equipment that attach directly to Primary Equipment. Secondary equipment cannot be placed directly on the floor. Some Secondary Equipment is capable of accepting further subsidiary equipment, (Tertiary Equipment). Secondary Equipment has an insertion point relative to the insertion point of its parent Primary fixture.

**Tertiary Equipment** indicates equipment that is attached to Secondary Equipment. Equipment can therefore be arranged in a hierarchy, as in the example below.

**Figure 4–66** *Equipment Hierarchy*



Within the Merchandiser environment, store furniture can be assembled in standard or custom configurations by joining together items of equipment. For example, a back panel could be placed directly on the floor. This back panel could then have runs of shelving attached, and the shelves in turn have dividers placed on them.

Macro Space Management's internal rules determine exactly how items of equipment can connect together. Within the Merchandiser environment, connection points give visual indications as to how individual items of equipment can be assembled.

## Location and Coordinate Systems

The central Macro Space Management database holds information on the location (and dimensions) of all objects placed on the floor of the Virtual Reality store. These normally are a limited number of fixtures and fittings such as legs, pallets, etc. Each object will be inserted at a specific Insertion Location with coordinates expressed in terms of X, Y and Z coordinates.

Each object to be inserted has two Insertion Points; a Graphical Insertion Point and a Macro Space Management Insertion Point. The graphical insertion point is created when the graphic is drawn (in for example AutoCAD). When the graphic is imported into Macro Space Management, the coordinates of the graphical insertion point are manually entered into the object details held by Macro Space Management. This

manually entered data must match the original graphical insertion point, or misalignments will occur in the Virtual Reality environment.

All other objects, (equipment of merchandise) are connected to the fixtures and fittings that have been placed on the floor. These objects are known as children of their parent objects.

Children have their own insertion locations specified relative to the insertion location of their parent objects. They also have their own individual graphical and **Macro Space Management** insertion points. Again, these must match to prevent misalignments.

### **Connection and Placement Options**

Objects in Macro Space Management can be split into several broad categories. Two of these categories are Equipment and Products. They connect together in slightly different ways.

#### **Equipment**

Equipment connects together using Connections. These may be either points (which simply snap two items of equipment together), lines (which allow equipment to be connected at intervals defined along a line), or planes (which allow equipment to be connected at intervals defined in a 2 dimensional grid).

#### **Products**

Products connect together using Placement Options. These may be either Continuous Placement (where products can be placed anywhere within a specified boundary, for example an open shelf), or Point Placement (where products can be placed in clearly specified places, for example on an array of pegs).

#### **Styles**

Styles are used to specify which items of equipment are compatible with another, and which types of product can be placed on which shelf. Equipment has Fixture Styles. Only equipment with compatible styles can be connected together.

Shelves have both Fixture Styles and Shelf Styles. The Fixture style must be compatible with the equipment it is being placed on. The shelf style must be compatible with the product that can be placed on it.

Product has a Product Style. The Product Style must be compatible with the shelf on which it is being placed or placement will not be allowed.

#### **Alignments**

When objects are placed on shelf objects, they may not be in the best possible alignment to display them, or there may be gaps between products leading to inefficient use of shelf space.

Macro Space Management has a series of alignment options so that selected products on pre-determined shelves can be aligned (justified) to customer specified requirements such as the left of the shelf, the back of the shelf, etc.

#### **Product Orientations**

Products are normally placed with the front of the packaging facing the front of the shelf object. However, placing products in this orientation may not fill the shelf to its maximum capacity.

Macro Space Management thus allows products to be placed in other orientations, for example on their side, so that the number of products placed on a particular shelf object can be maximized.

Products placed in orientations other than the main one are known as caps.

## Equipment Details

### Equipment Types

Equipment is categorized under three types:

- **Fixtures:** Equipment that can be placed on the floor and can be populated with shelves and/or products.
- **Fittings:** Equipment that can be placed on the floor, but can't be populated.
- **Shelves:** Equipment that is placed on a fixture and can optionally hold product.
- In addition, there is a fourth class of objects, **Other**, any other item that is not equipment, for example an architectural column.

### Attachment Options

The equipment used in building a store layout falls into three categories: Primary, Secondary and Tertiary.

**Primary Equipment** indicates the most fundamental form of equipment. All Primary Equipment is capable of being placed directly on the floor. Examples of Primary Equipment include Metal Uprights, Back Panels, Pallets and Fittings, (such as legs). Some Primary Equipment is capable of accepting subsidiary equipment, (Secondary Equipment).

**Secondary Equipment** indicates items of equipment that attach directly to Primary Equipment. Secondary equipment cannot be placed directly on the floor. Examples of Secondary Equipment include shelves, peg boards and slatted back panels. Some Secondary Equipment is capable of accepting further subsidiary equipment, (Tertiary Equipment).

**Tertiary Equipment** indicates equipment that is attached to Secondary Equipment. Examples of Tertiary Equipment include pegs, rods and dividers.

Equipment can therefore be arranged in a hierarchy.

All Secondary Equipment must have an item of Primary Equipment as a parent. Similarly, every item of Tertiary Equipment must have an item of Secondary Equipment as its respective parent. Depending on the design, some items of Primary, Secondary and Tertiary Equipment can accept merchandise. Others cannot.

### Equipment Placement Options

The following table indicates how Macro Space Management fixtures and fittings can be inserted into the drawing and connected to each other.

**Table 4–10 Equipment Placement Options**

Shelf Style Name	Can be placed on floor	Attaches to Fixture	Attaches to Shelf	Accepts Equipment
Back Panel	X	X		
Basket Shelf	Basket	X	X	

**Table 4–10 (Cont.) Equipment Placement Options**

<b>Shelf Style Name</b>	<b>Can be placed on floor</b>	<b>Attaches to Fixture</b>	<b>Attaches to Shelf</b>	<b>Accepts Equipment</b>
Booster Shelf	X			
Crossbars, Lateral Rod	Crossbar	X	X	
Divider	Divider	X		
Fittings, i.e. legs	X			
Gravity Feed	X			
Grille/Riser	Grille	X		
Hanging Bar	Bar	X	X	
Metal Upright	X	X		
Obstruction, i.e. cross brace	Obstruction	X		
Pallet	Pallet	X		
Pegboards	Pegboard	X	X	
Pegs	Peg	X		
Products	X			
Rods	Rod	X		
Shelves	Open Shelf	X	X	
Slatted Back Panels	Slatted Back Panel	X	X	
Space Holder	Space	X	X	

**Can be placed on floor** indicates equipment that can be placed directly on the floor. All other equipment must be attached to and supported by these types of equipment. All equipment that places directly on the floor is Primary Equipment.

**Attaches to Fixture** indicates items of equipment that can be directly attached to a fixture. All equipment that cannot be placed directly on the floor and requires attaching to a fixture is Secondary Equipment.

**Attaches to shelf** indicate equipment that can only be placed on a shelf. All equipment that needs to be placed on a shelf is Tertiary Equipment.

**Accepts equipment** indicates that this item can have subsidiary items of equipment attached to it. For example, fixtures can accept shelves, shelves accept dividers and grilles and pegboards accept pegs.

#### **Equipment Merchandising Options**

Macro Space Management equipment can be merchandised as follows.

(Fittings cannot hold products - only fixtures and shelves can hold merchandise).

**Table 4–11 Equipment Merchandising Options**

<b>Shelf Style Name</b>	<b>Can Populate with Placeholder</b>	<b>Can Populate with SKU</b>
Back Panel	X	

**Table 4–11 (Cont.) Equipment Merchandising Options**

<b>Shelf Style Name</b>	<b>Can Populate with Placeholder</b>	<b>Can Populate with SKU</b>
Basket Shelf	Basket	X
Booster Shelf	X	X
Crossbars, Lateral Rod	Crossbar	
Divider	Divider	
Fittings, i.e. legs		
Gravity Feed	X	X
Grille/Riser	Grille	
Hanging Bar	Bar	
Metal Upright	X	X
Obstruction, i.e. cross brace	Obstruction	X
Pallet	Pallet	
Pegboards	Pegboard	
Pegs	Peg	X
Products		
Rods	Rod	X
Shelves	Open Shelf	X
Slatted Back Panels	Slatted Back Panel	
Space Holder	Space	

Both fixtures and shelves (Open Shelves, Hanging Bars, etc.) can be populated with products. Other fixtures, such as back panels, cannot be populated with products directly but can hold shelves - which in turn can hold product.

**Can Populate with Placeholder** indicates that a placeholder can be placed on the fixture. Placeholders allow the user to indicate the fixture can be used for a general class of merchandise (for example men's clothing) than a more specific SKU (for example blue men's shirts).

**Can Populate with SKU** indicates that individual items of merchandise (SKU's or Stock Units) can be placed on the fixture.

## Gondolas

A Gondola is a collection of fixtures and fittings placed in a predetermined arrangement. This enables long runs of fixtures to be placed very quickly.

When gondolas are placed, they do not contain shelves. The left hand two bays consist of a base unit, leg and back panel and that is how the gondola look on insertion. The right hand two bays have had shelves added.

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**Note:** Adding a gondola in Merchandiser is very similar to adding a gondola in Planner.

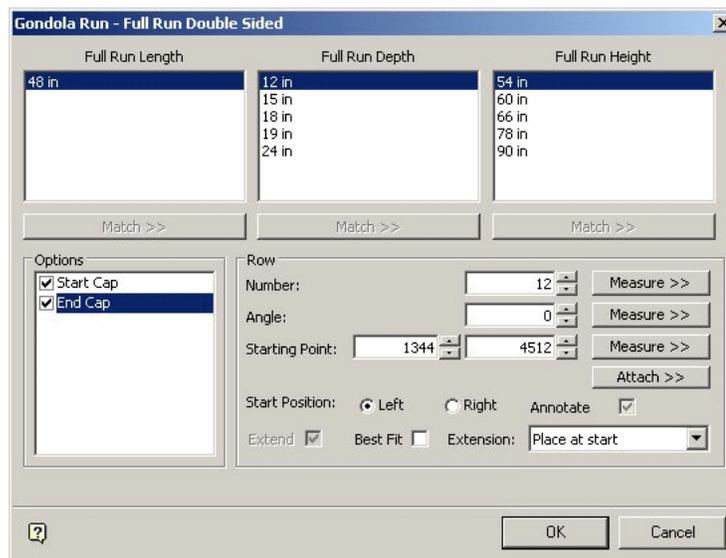
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## Adding a Gondola

To Add a Gondola:

From the Object Browser, highlight a gondola in the hierarchy and 'drag and drop' it onto the drawing. The Add Gondola dialog box appears.

**Figure 4–67 Add Gondola dialog box**



- Select the dimensions from the Options at the bottom left of the dialog box - depending on what is configured in Fixture Studio selections can be made from up to 6 options. In the above example, a variety of depths and heights can be selected. Options are used to select optional parts of the gondola - in this example the Start Cap and End Cap can be included or omitted depending on the user's choice.
- Set the Number and Angle of the gondola. Alternatively, clicking on the appropriate measure button enables dimensions to be selected in the drawing.

---

**Note:** The Angle is particularly important for single sided gondolas. When the angle is 0o, the front of the gondola is pointing south (down the drawing). It can be changed to east (90o) north (180o) or west (270o) simply by inputting in an alternative angle

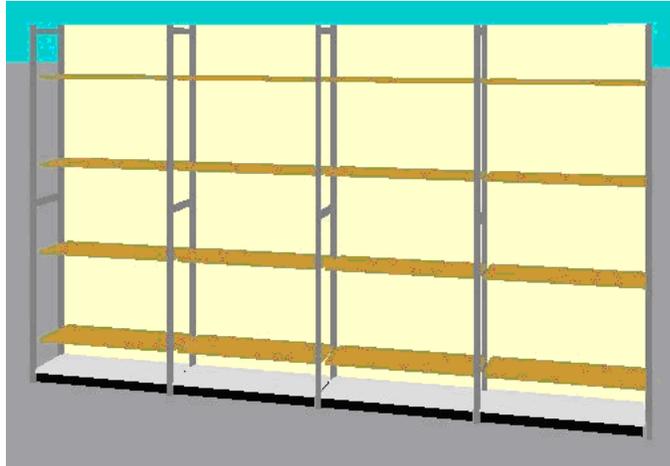
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- Set the Start Position (left or right), whether the first bay of the gondola is drawn starting from the left or the right. This is useful when drawing a gondola starting from a corner.
- When all the parameters have been set in the Add Gondola dialog box, click the **OK** button to draw the gondola.

## Adding Shelves to Gondolas

Shelves can only be added in Merchandiser. They can be seen and deleted in the Planner Module environment after the information has been synchronized.

Shelves are added by highlighting the required shelf in the Object Browser.



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**Note:** The shelf selected should be compatible with the equipment being placed. For example the shelves should be the same width as the back panels on which they are being placed.

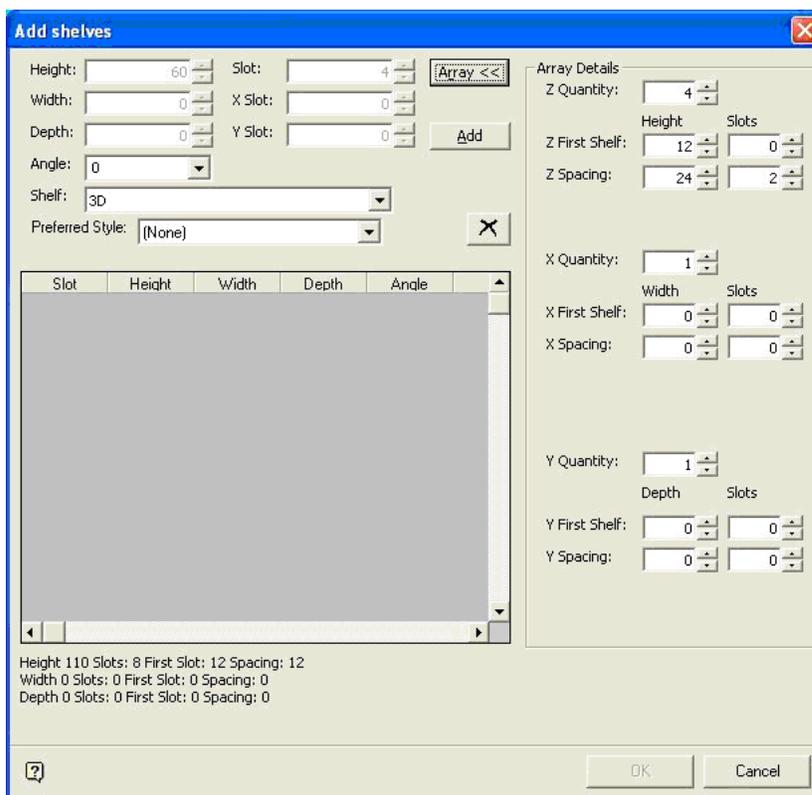
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Once the shelf has been highlighted it can be 'dragged and dropped' onto the required fixtures.

- If no fixtures are selected, the shelves are added to the fixture onto which they have been 'dropped'.
- If fixtures have been individually selected, shelves are added to the selected fixtures (even if the fixtures are not adjacent).
- If a group of fixtures has been selected, shelves are added to all the fixtures in the group.

Once the shelf has been 'dropped' onto the required fixtures, the Add Shelves dialog box appears. It appears in its condensed form; click the Array button to expand the dialog box.

**Figure 4–68 Add Shelves dialog box**

To add shelves set the quantity, height of the lowest shelf, spacing between shelves, and then click **Add**. The slots and heights can be edited if required. Click the **OK** button to add the shelves to the selected fixtures.

### Deleting Shelves

You can delete shelves in two ways:

- Using the <Delete> key.
- Using the Empty Shelves command.

#### Using the Delete Key

One way of deleting shelves is to select the required shelves, then click the <Delete> key.

If the selected shelves are not in a group, they will be highlighted in red or blue. If the shelves are in a group (and grouping is on) they will be highlighted in yellow and green.

#### Using the Empty Shelves Command

To empty shelves:

- Select the parent fixture. The highlight color for the fixtures depends on whether the fixtures are in a Group or not and whether Grouping is on or not.
- Select the Empty shelves command from the right click pop-up menu.

The shelves are removed from the selected fixtures.

## Insertion Points

There are two types of insertion points; **Insertion Points** and **Child Insertion Points**. Insertion Points are used to locate objects in the Planner or Merchandiser environments. Child Insertion Points are used to locate objects onto already placed objects. An example would be the location of merchandise onto a shelf.

Each fixture or fitting used in Macro Space Management has an insertion point. This is a single set of co-ordinates that specify the point on the block that Macro Space Management uses to locate it in the Planner or Merchandiser environments. The graphics for the block have an AutoCAD insertion point. These are fixed when the AutoCAD objects are designed and cannot be changed from within the Macro Space Management environment.

It is important to specify an insertion point that matches the existing AutoCAD insertion point, because the AutoCAD insertion point cannot be changed. Failure to do so can lead to misalignments in the drawing.

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**Note:** Insertion Positions are set in Fixture Studio.

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## Child Insertion Points

Child insertion points define how merchandise places onto that onto specific item of equipment. This is because products are not directly assigned an insertion point, but adopt those specified for the fixture they are being placed on.

If the fixture has an insertion point of Bottom Front Left any products will be placed with this point on the product used as a datum. Similarly, products with insertion points of Top Back Centre or Bottom back left will be placed using different datum points for those products.

If a shelf object (for example a open shelf) was intended to take boxed products, it might have its Child Insertion Position set to Bottom Back Left as the boxed products will sit on top of the shelf.

If a shelf object (for example a hanging rod) was intended to take products hanging from it, it might have its Child Insertion Position set to Top Back Centre so the products appear to hang from the rod when placed on it.

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**Note:** Child Insertion Positions are set in Fixture Studio.

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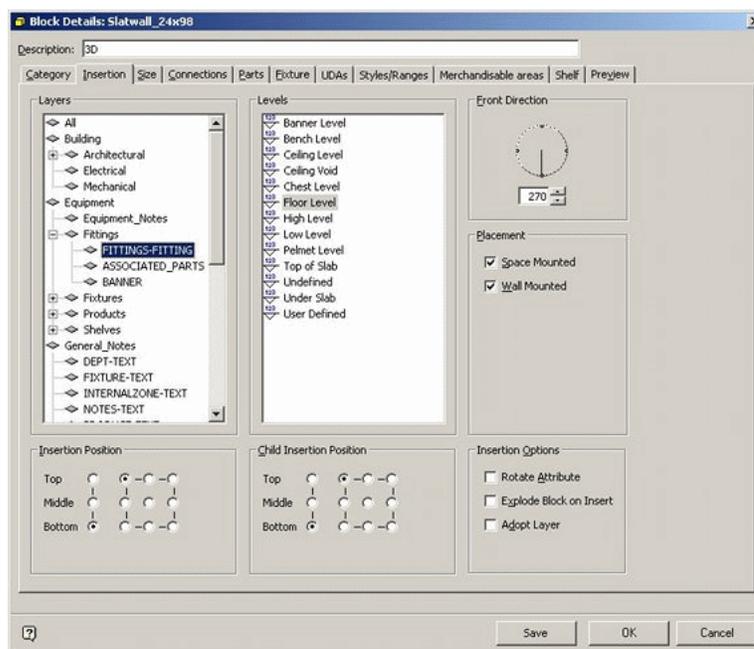
These points can be changed within Macro Space Management so it is important that a consistent convention is adopted for the position of Child Insertion Points.

## Specifying Insertion Points

Insertion points can be specified within Fixture Studio.

- Select the block to be modified.
- Select the Edit Block command. This opens the block Details dialog box. The Insertion Tab allows the Insertion Position and Child Insertion Position to be specified.

Figure 4–69 Block Details dialog box




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**Note:** The Insertion Position in this dialog box is a Macro Space Management insertion position. The original insertion position is an AutoCAD or 3D Studio graphics insertion position and the Macro Space Management Insertion Position is specified to match.

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If the Macro Space Management Insertion Position is changed, the AutoCAD or 3D Studio insertion position must also be modified by changing the graphic or vice versa.

Failure to do this results in differences between the AutoCAD/3D Studio insertion position and the Macro Space Management Insertion Position. This may result in misalignment when objects are placed in Macro Space Management. It results in errors when calculating adjacencies, etc.

### Matching Macro Space Management to Graphical Insertion Points

Macro Space Management holds the insertion location of every object in a Virtual Reality Store in its central database. It also holds block details of every object to be inserted. These block details hold information including where Macro Space Management has assigned the position of the insertion point for the graphic for the object.

This graphic (produced by a program such as AutoCAD) contains its own insertion point produced when the graphic was first created. The Insertion Point specified within Macro Space Management must match the insertion point created when the graphic was drawn, or the graphic will be mis-aligned in the Virtual Reality environment.

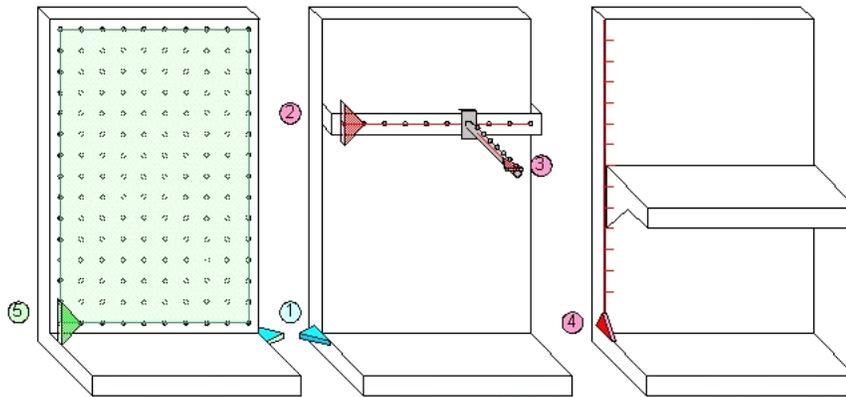
This applies both to objects placed directly on the floor of a store layout (primary equipment) and to secondary and tertiary equipment attached to primary equipment.

## Connection Points

**Connection Points** are used to attach items of equipment or fixtures together in a precise alignment. They can either be used singly, or aligned in lines, planes or boxes. They also act as filters to ensure that incompatible equipment cannot be connected together.

**Connection Lines** are used where items like crossbars have set positions along their length that can accommodate Tertiary Equipment such rods. The position of the arrow indicates the position of the connection point. The increments between set positions along a connection line are defined in Fixture Studio. The position of the connection arrow defines the left most position of the first point on the connection line.

**Connection Planes** are used where Secondary Equipment such as peg boards or slotted back panels have a 2 dimensional array of possible connection points for Tertiary Equipment such as pegs. The increments between set positions in a connection plane are defined in Fixture Studio. The position of the connection arrow defines the bottom left position of the first point on the connection plane.



In the above diagram, blue arrows (1) represent Connection Points; red arrows (2, 3, 4) represent Connection Lines and the green arrow (5) represents a Connection Plane. The arrow direction indicates the X axis and the arrow lies in the X, Y plane.

Slatted back panels use a connection plane with the X spacing set to 0 so that rods can be slip to any position along the slot. The Y spacing is set to the distance between slots.

It is also possible to use more than one connection line, as for example with racking.

The fixture could be defined as two uprights (front and back), plus the cross-bracing. This would allow beams (blue) to be added to either the front or the back. Macro Space Management will use the nearest connection arrow to the drop/pick point when deciding which to use.

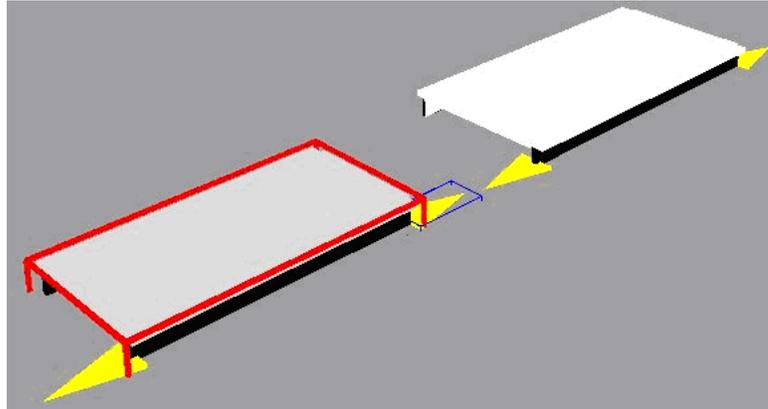
Connection points are used to define the exact point on the dropped object (shelf or peg or rod) that attaches to the notch position. The connection line/plane filters must match the connection point filters. If no connection point is defined for the dropped object, it will use the insertion point of the shelf/peg.

## Using Connecting Points

To use connection points, both items of equipment should be visible and the connection point display should be on. It is suggested that Edit Mode is selected so that the viewpoint in the drawing is fixed while connection points are used.

To connect points:

Click a Connection Point. The first connection point can be selected by simply clicking it. It is enclosed by a box suggesting it is selected.



Once the first connection point has been selected, a prompt appears in the status bar.

Now select a Second Connection Point. The second connection point can then be selected by clicking it.

If compatible, the two fixtures then snap together in a precise orientation. The Equipment will not connect with incompatible connection Points. If the equipment has incompatible connection points, a warning message appears in the status bar.

### **Connections Tab in Fixture Studio**

The Connections tab in the Block Details dialog box in Fixture Studio allows you to specify the connection options for Macro Space Management blocks.

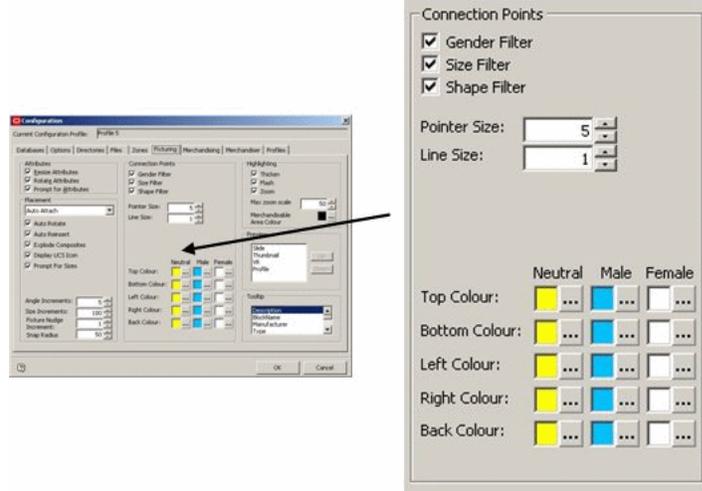
A small Toolbar at the top lets you add, copy, and delete connections, while the Wizard on the toolbar allows you to add basic connections.

The Connections List below the toolbar lists all current connections for the Macro Space Management Block. The defined connection points are the defaults for that fixture type and are applied for every instance placed in the drawing.

### **Connections Tab and the Configuration Module**

Settings in the Configuration Module can affect how connection points appear and behave. Settings are local and can be customized for any user. Access the Configuration Module by selecting the Configure Option in the File menu.

Within the Configuration module, select the Fixturing Tab. The Connection Points frame can then be used to change their appearance.



- **Pointer Size** and **Line Size** affect the appearance of the connection points as displayed.
- **Colors** for Neutral, Male and Female connection points can also be set.
- **Gender Filter** determines whether connection genders are taken into account when deciding if connections are compatible.
- **Size Filter** determines whether connection sizes are taken into account when deciding if connections are compatible.
- **Shape filter** options determine whether connection shapes are taken into account when deciding if connections are compatible.

These settings are local and do not affect other users of Macro Space Management.

### Connection Details

Each connection needs the following information to be specified for it in Fixture Studio.

- Name
- Type
- Layer
- Gender
- Shape
- Size
- Position, Array, and Angle settings

For one item of equipment to connect to another the following must be true.

**Table 4–12 Connection Details**

	Requirement	Optional or Mandatory
Gender	The connection points must have compatible genders	This requirement can be disabled in the Configuration Module

**Table 4–12 (Cont.) Connection Details**

	<b>Requirement</b>	<b>Optional or Mandatory</b>
Shape	The connection points must have the same shape	This requirement can be disabled in the Configuration Module
Size	The connection points must have compatible sizes	This requirement can be disabled in the Configuration Module

If any of these criteria are not true, then a connection cannot be made. In addition, if the details of the connections are not correctly specified relative to each other, equipment may connect together in unintended alignments.

### Connection Point Parameters

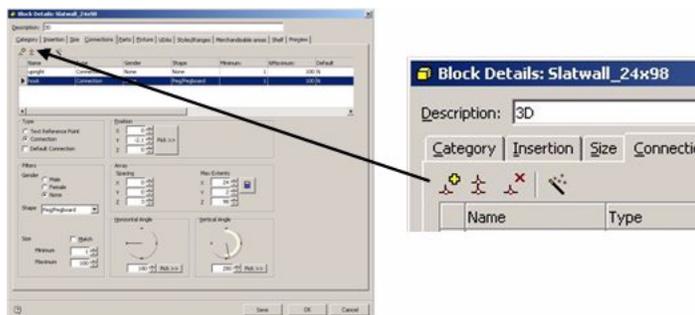
#### Setting Connection Point Parameters

The Connection Point parameters are set using the Block Details dialog box in Fixture Studio.

#### The Connections Toolbar

The Connections Toolbar is found to the upper left of the Connections tab in the Block Details dialog box in Fixture Studio. It allows you to add, copy and delete Connections. It also allows you to access the Connections Wizard.

**Figure 4–70 Connections Toolbar**

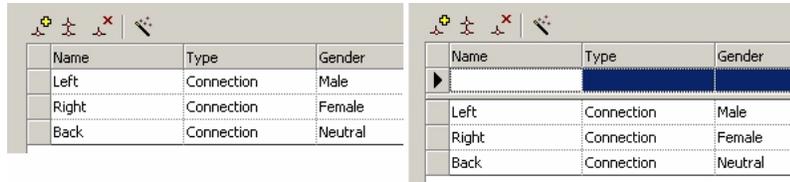


Icon	Function
	Add a Connection
	Copy a Connection
	Delete a Connection
	Connection Point Wizard

#### Add a Connection

Clicking the **Add a Connection** icon causes a line to be added to the Connections List ready for further details of the connection to be added.

**Figure 4–71 Add Connection**



**Copy a Connection**

Clicking the Copy a Connection icon causes a line to be copied again to the Connections List mirroring details of the connection to be added.

Before clicking the Copy icon, select the connection to be copied. Clicking on the icon brings up the connection naming dialog box.

Edit the name to one suitable for the new connection. In the example To be copied has been edited to Copied. On clicking OK, a duplicate connection is added, save for the changed name.

**Delete a Connection**

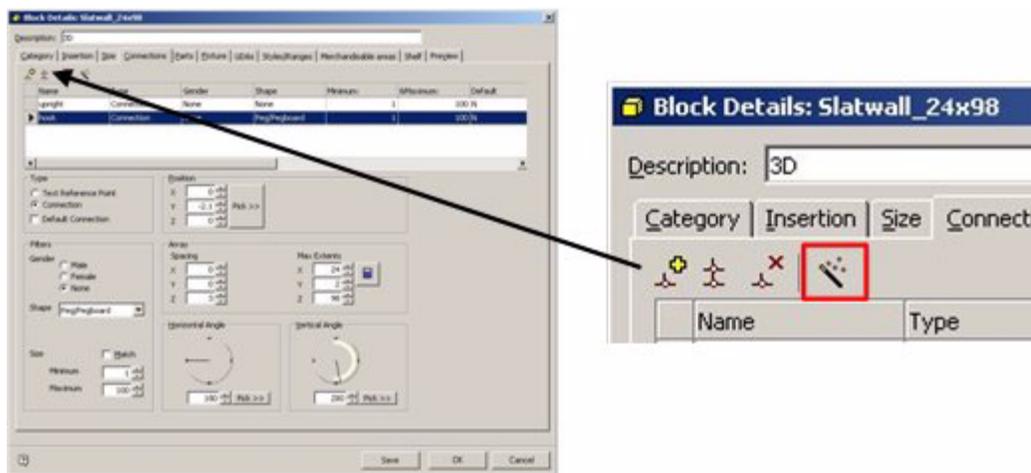
To delete a connection, highlight the connection to be deleted and click the Delete icon. You are asked to confirm deletion.

**Connection Wizard**

The Connections Wizard can be accessed from the Wizard icon in the toolbar in the Connections Tab in the Block Details dialog box in Fixture Studio.

This brings up the Connections Wizard dialog box.

**Figure 4–72 Connections Wizard dialog box**



- Checking the Add connection on Left checkbox will add a Connection on the left.
- Checking the Add connection on Right checkbox will add a Connection on the right.
- Checking the Add connection at Back checkbox will add a Connection at the back.

The left connection is male and the right female so that fixtures can only attach when they are facing the same way. The left connection is additionally set to be the default. The Back connection has no gender, so it attaches to any other connection.

Checking the Clear Existing Blocks checkbox removes any existing connections. On clicking OK on the Wizard, the selected default connections are added.

### Turning Connection Display On and Off

The Connection Display can be turned on and off for individual fixtures or a selection set of fixtures within the Merchandiser Module. Select one or more fixtures, then move the mouse pointer inside a fixture and use <Ctrl> plus right click to bring up the pop-up menu.

Clicking the Connection points option in the pop-up menu allows connection display to be turned on and off. Hide parent turns off the connection point displaying the parent fixture when (for example) a child object such as a shelf is selected.

Alternatively, connection point display can be toggled on or off on the status Bar.

### Connection Point Appearance

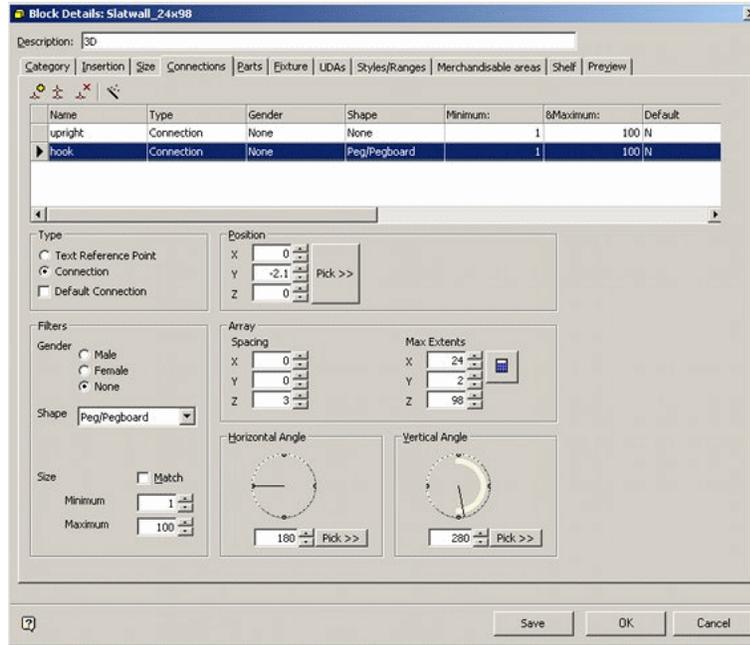
When visible, Connection Points are shown as triangles.

The color and size of the connection points can be specified in the Configuration Module. Their angle, gender, etc., for a specific fixture can be specified in Fixture Studio. Connection Points can appear in lines and arrays, as well as discrete points. The example below shows a Connection Line.

### Using Connection Points

**Connection points** can be used to attach one piece of equipment to another. For the equipment to connect, the connection points must be compatible. Some factors affecting compatibility are set in the Configuration Module.

Other fixture specific factors are set in the Configuration Tab of the Block Details dialog box in Fixture Studio.



The combination of both sets of parameters determines whether two connection points are compatible with each other.

**Checklist for Compatibility**

For one item of equipment to connect to another the following must be true.

**Table 4–13 Compatibility Checklist**

	<b>Requirement</b>	<b>Optional or Mandatory</b>
Gender	The connection points must have compatible genders	This requirement can be disabled in the Configuration Module
Shape	The connection points must have the same shape	This requirement can be disabled in the Configuration Module
Size	The connection points must have compatible sizes	This requirement can be disabled in the Configuration Module

**Gender**

The gender of a connection determines whether that connection is compatible with another. There are three genders; male, female and neutral. They connect as follows:

**Table 4–14 Gender**

	<b>Can connect with</b>		
Male	Female	Neutral	

**Table 4–14 (Cont.) Gender**

Can connect with		
Female	Male	Neutral
Neutral	Any other connection	

**Shape**

The shape of a point connection can be specified from a list provided by Oracle. They connect as follows:

**Table 4–15 Shape**

Can connect with		
None	Any other connection shape	
Rectangle	Rectangle	None
Circle	Circle	None
Oval	Oval	None
Triangle	Triangle	None
Hexagonal	None	None

The shape of a connection point is a theoretical concept used to make it easier to remember what connects to what - i.e. fixtures with 'Oval' connection points can only connect to other fixtures with 'Oval' connection points.

(When displayed in Merchandiser, all connection points will appear visually as triangles).

**Size**

A maximum and minimum size for the connection can be set in Fixture studio. A pair of connection points must have compatible sizes to connect together. If the Match check box is ticked, then the connections must have identical maximum and minimum sizes. If they are not identical, the connections will not mate.

If the Match check box is not ticked, then the connections must have overlapping size ranges. If they are not overlapping, the connections will not mate.

**Table 4–16 Size**

	Connection 1	Connection 2	
Size Range	0 - 50	25 - 75	Compatible
Size Range	0- 25	50 - 75	Incompatible

**Connecting two objects in Edit Mode****Swap to Edit Mode**

To connect two objects in edit mode, first ensure that edit mode has been selected by toggling from Walk Mode to edit mode on the status bar.

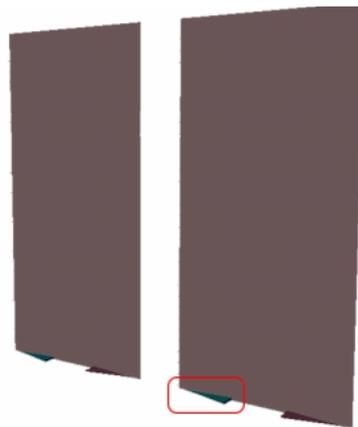


**Turn Connection Points On**

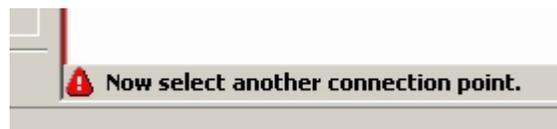
Next, ensure that the connection points have been toggled on by selecting a least two fixtures and use <Ctrl> plus right click to bring up the pop-up menu.

**Connection Points - On/Off**

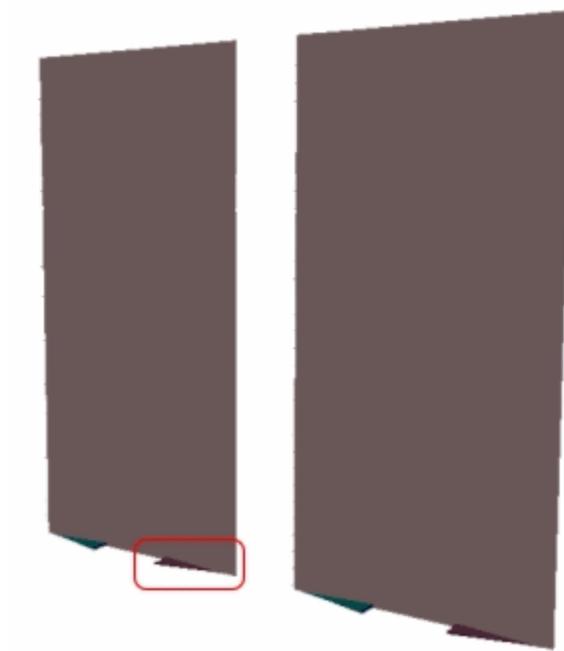
Turn connection points on and they appears as triangles in the drawing. Click First Connection Point and Follow Prompts. Click on the first connection point. (Circled in red in the image below).



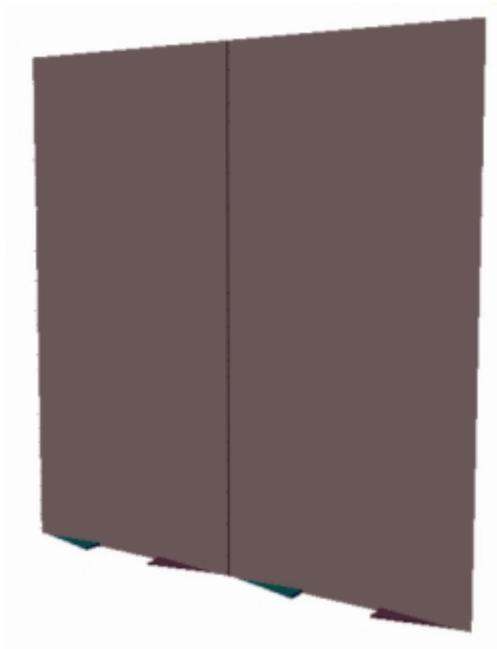
A prompt appears in the status bar asking to select another connection point.



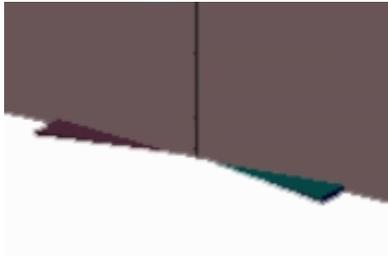
Select a connection point on the other fixture. (Circled in red in the image below).



As soon as the second connection point is clicked, the first object is connected to the second one.



Note how the two connection points now meet:



## Rotation

Rotations can be used to change the orientation of fixtures and fittings, shelf objects, and products.

Fixtures and fittings can be rotated about all three axes, but it would be more normal to just rotate about the Z axis. Fixtures and fittings can be rotated using the Edit option from the pop-up menu accessed by <Ctrl> and right clicking.

Changing the setting in the Angle section will result in the selected object(s) rotating.

Shelf objects can be rotated about all three axes, but it would be more normal to just rotate about the X axis. Shelf Objects can be rotated using the Edit option from the pop-up menu accessed by <Ctrl> and right clicking.

Changing the setting in the Angle section will result in the selected shelf object(s) rotating.

Products can generally be rotated in any axis. (This is known as product orientation). However, the possible rotations may be restricted by the working and stacking axes selected for the products' parent shelf object.

Products and Product Groups are best rotated using the Edit Group option from the pop-up menu accessed by <Ctrl> and right clicking.

The orientation can be changed to any of the nine options. (If size constraints prevent any rotations, the options will not be available).

## Working and Stacking Axes

Working and Stacking axis define how product is placed onto fixtures and shelf objects. Fixtures and shelf objects that do not have at least one working and one stacking axis defined cannot accept product.

### Working Axis

When products are placed onto a shelf object they have to be aligned with each other during placement. The working axis's of an item of shelf equipment are the axis's which product that is being sequentially placed is aligned along.

- The X working axis is from left to right.
- The Y working axis is from front to back.
- The Z working axis is used for vertical placement.

The working axis set should be appropriate for the type of fixture or shelf object. For example a shelf normally has only an X working axis as product is normally placed along the length of a shelf. A freezer cabinet might have an X and a Y working axis as product is placed both along the length of the cabinet and from back to front

The working axis set should be appropriate for the type of fixture or shelf object.

### Stacking Axis

The stacking axis (or axis's) is the direction(s) that products may be stacked on a fixture or shelf object.

- The X stacking axis is from left to right.
- The Y stacking axis is from front to back.
- The Z stacking axis is used for vertical stacking.

The stacking axis set should be appropriate for the type of fixture or shelf object. An open shelf has objects placed along the length of the shelf (X working axis). It can have objects stacked next to each other (X axis) behind each other (Y axis) and on top of each other (Z axis). Accordingly an open shelf should have all three stacking axes checked.

SHELF	X	Y	Z
Working	X		
Stacking	X	X	X

A peg on the other hand can only have products placed along its length (Y working axis). A peg can only have products slid along its length - they are constrained so they can only move in that direction. Accordingly, a peg should only have its Y stacking axis enabled.

PEG	X	Y	Z
Working	X		
Stacking	X		

### Setting Working and Stacking Axes

Working and Stacking Axes are set in Fixture Studio.

The rotation of products is theoretically allowed in any axis. In practice this is constrained by the Working/Stacking axes of the shelf objects.

### Child Insertion Points

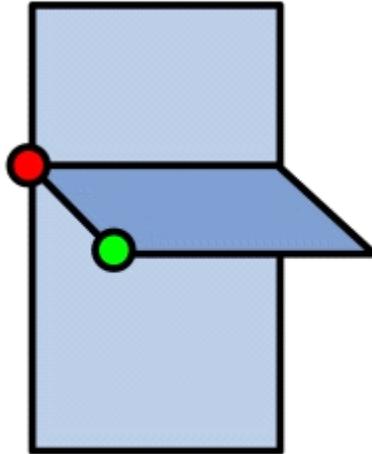
Child Insertion Points are used to provide a datum for product being inserted onto a fixture or shelf object. They are different from Insertion Points. Insertion points are used by Macro Space Management to specify the location of an object (fixture, shelf object, etc.) within a Virtual Reality store. Child Insertion Points are used by Macro Space Management to align product being placed on that fixture, shelf object, etc.

In the above diagram the shelf has an insertion point (red). This has been used to align the shelf relative to the back panel it has been placed on. Any moving or editing operations for the shelf will be carried out relative to this insertion point. The shelf also has a child insertion point (green). This will be used to align any product placed on the shelf. Any moving or editing operations for products placed will be carried out relative to this insertion point.

### Setting Child Insertion Points

Child Insertion Points are set in Fixture Studio.

**Figure 4–73 Child Insertion Points**



The Child Insertion Position can be set to any one of nine positions in a specific X - Y plane, and to any of three positions in the Z axis. This gives 27 options for the child insertion position.

**Important:** Wherever possible, child insertion positions should be standardized for particular classes of object. This will prevent misalignment problems.

**Product Orientations**

Product is normally placed on the shelves with the front of the packaging facing the customer. However, this orientation can be changed; either during placement or when a product is edited.

**Figure 4–74 Product Orientation**



Front is the default orientation. The other orientations are achieved by the following rotations from the default.

**Table 4–17 Product Orientation**

Orientation	Rotation in X Axis	Rotation in Y Axis	Rotation in Z Axis
Front	None	None	None
Front Side	None	270o	None
Back	None	None	180o
Left	None	None	90o
Right	None	None	270o
Left side	None	270o	90o
Top	90o	None	None
Top side	90o	270o	None
Bottom	270o	None	None

**Effect of Rotations**

Then the object is rotated to change its orientation, it occupies the same relative position on its parent object. This is done by means of child insertion points. In the example of the box on a shelf, the child insertion point (the datum for the boxes' position) is shown in blue. It is set at the front left of the shelf.

When the box is rotated, it is still aligned relative to the child insertion point, although the boxes' insertion point (shown in red) has moved. A similar effect can be seen in the example of a box being rotated relative to its parent peg.

The child insertion point (shown in blue) is at the front of the peg. When the box is rotated it remains in the same relative position to the child insertion point although its own insertion point has changed position.

**Products and Planograms**

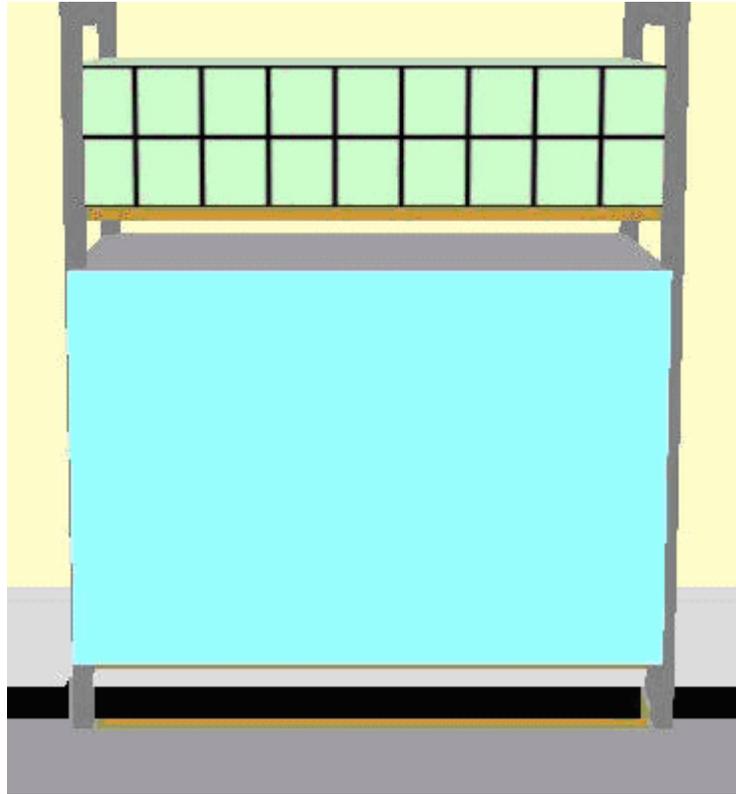
Merchandising is the addition of items for sale to a store plan. There are two ways of adding merchandise to a store plan:

- As individual products
- As preconfigured arrangements of shelves and products called Planograms

The properties of products can be defined or edited in Product Studio. The properties of planograms can be imported, or defined in Merchandiser.

**Products**

Products can be added at all levels in the product hierarchy. If added at any level down to SKU (Stock Keeping Unit), merchandise is added as a placeholder. In Merchandiser, you can add products with an additional level of detail called Display Styles.



In the above example, the lower shelf has been merchandised with a placeholder, and the upper shelf with a display style.

#### Placeholders

Placeholders are used to indicate that a particular class of merchandise is present on the shelf (for example paint) while display styles are used to indicate a very specific form of merchandise (for example 1 liter tins of paint).



In the above example, placeholders could be placed at a number of levels. There are also two display styles, 'Hanging Display' for going onto pegs or rails, and 'Shelf Display' for placing onto shelves. The Display Styles has different dimensions reflecting the different forms they are displayed in.

## Placing Products and Planograms

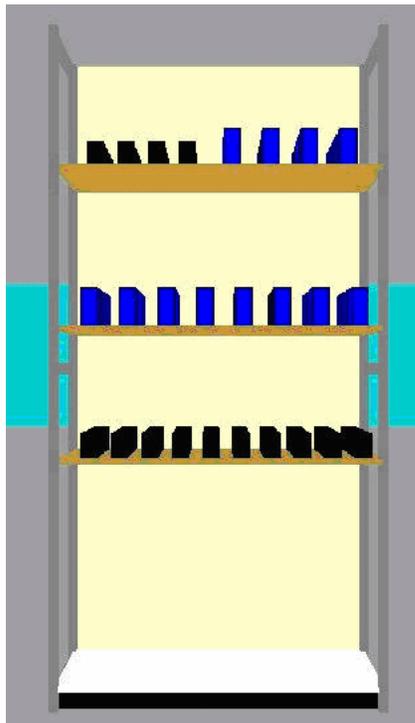
Products are placed by dragging and dropping from the Object Browser or Object Grid onto fixtures or shelves and their placement is controlled by a number of factors including:

- What styles are associated with the equipment and with the merchandise
- Whether the selected objects are in a group or not
- Whether the size rule is on
- Other options selected during the actual placement

Products can only be added to fixtures or shelf objects. Products cannot be added to fittings as fittings are not designed to accept products. Equipment only accepts merchandise at Display Style level if the style associated with the display style is compatible with the style associated with the merchandise.

A planogram, a pre-planned arrangement of shelves and fixtures, is designed to occupy multiple fixtures. Planograms provide a quick and effective way to rapidly place a standard arrangement of shelves and products. The example below displays a single bay planogram that occupies a single fixture with three shelves. Planograms can be either imported from third party software or they can be designed within Merchandiser.

**Figure 4–75** Planograms



Both Products and planograms can be placed either from the Object Browser or the Object Grid.

## Product Appearance and Annotation

There are number of settings and options affecting how products and planograms appear when placed in the drawing.

**Table 4–18 Settings**

Option	Effect
Walk and Edit mode	In walk mode, you can move your viewpoint around the store. If edit mode, your viewpoint is fixed.
Size Rule	This determines whether products will be confined to the extents of the fixture or shelf they are being placed on, or whether they can overhang
Clash Detection	If clash detection is on (recommended), products are not allowed to occupy the same space on a fixture or shelf.

**Note:** The Size Rule defaults to off each time Merchandiser is started. It is strongly recommended that it be reset to on before doing any merchandising.

**Table 4–19 Options**

Option	Effect
Shelf and Fixture Groups	These determine whether product will place on a single shelf or fixture.
Styles	The styles for the fixture (or shelf) must be compatible with the style assigned to the Display Style.

## Configuring Products and Planograms

A number of settings in the Merchandising tab of the Configuration Module affect how products and planograms are placed.

**Table 4–20 Configuring Products and Planograms**

Option	Effect
Sort Leftmost	Determines whether fixtures are populated in the sequence they were selected, or from the leftmost first
% over and under tolerances	Determines the amount of variation allowed if the length of a planogram does not match the selected fixtures
Check rules	The options in this frame determine what warnings are given when a planogram is placed.
Extend if fixture is longer	This (and it's child options) determine what to do if a planogram is placed on a longer fixture than it was designed for
Truncate	If selected, this will result in shelves being shortened if the selected fixture is shorter than the planogram was designed for.

## Walk and Edit Mode

Toggle between walk and edit mode using the options on either the Edit menu or the button on the status bar. Use walk mode to move the fixed viewpoint around the store. Use edit mode, to view the store with a fixed viewpoint.

It is recommended that you navigate in front of the fixtures or shelves you want to merchandise while in Walk Mode, then toggle to edit more. This fixes the viewpoint in the store and makes it easier to select fixtures or shelves to place products on.

## Size Rule

The Size Rule determines whether products are restricted to the confines of the fixture or shelf, or whether they can overlap their extents. It is recommended the Size Rule is turned on. If it is not, it is possible that products overlap fixtures or shelves to the left, right or above.

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**Note:** The Size Rule defaults to off each time Merchandiser is started. It is strongly recommended that it be reset to on before doing any merchandising.

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## Clash Detection

Clash Detection should be turned on when aligning or when products can overwrite each other.

- If Clash Detection is turned on, products move until they are in contact.
- If Clash Detection is turned off, products can be moved so they occupy the same physical space.

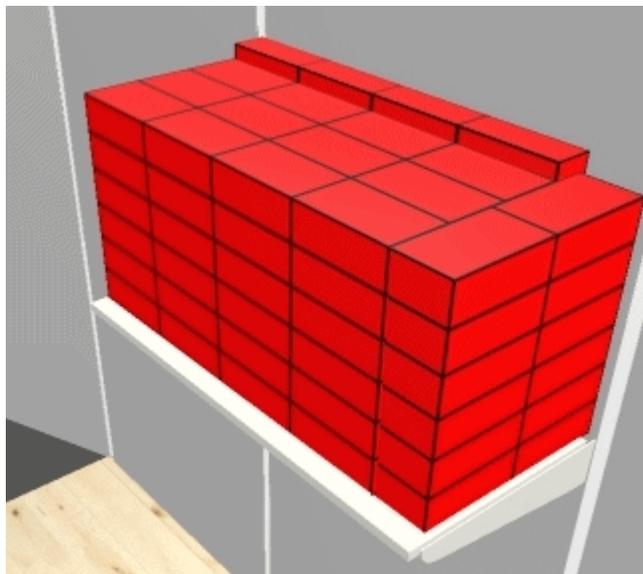
Clash detection is toggled On or Off by clicking on the clash Detection icon in the View toolbar.

## Adding Product Items

When Products are added, they are added as a Product Group. Product Group is a set of linked individual products that can be manipulated as a single entity. Products are added by dragging them from the window in the Merchandising tab on the Object Browser onto the fixture or shelf that they are intended to populate.

They can only be placed if the dimensions of the receiving fixture and fitting are of sufficient size and if the styles of the fixture or shelf are compatible with the product being placed on it. If the product can be placed then the Add Products Dialogue box appears.

This enables the Quantity, Alignment, Detail, Orientation and Properties to be specified. Product quantities and alignments can either be placed manually or calculated automatically. The latter option is particularly useful when using caps.



The above example has back and end caps. These could be placed manually, but this would be time consuming. They can be placed in a single operation when the quantity is calculated automatically.

## Adding Products

How products place depends on whether a product placeholder (SKU level of above) or a Display Style is chosen to place. A placeholder is placed as soon as it has been 'dragged and dropped'. If a Display Style is 'dragged and dropped', the Add Products dialog box appears.

To add a product:

- Use Walk Mode to move in front of the fixtures or shelves it is desired to merchandise. If multiple fixtures or shelves are to be merchandised check they have been formed into a Fixture Group and that Grouping is On.
- Select the product to be added by highlighting the product in the Merchandising tab of the Object Browser. Alternatively, go to the Object Grid and select the required product.
- 'Drag and drop' the product onto the required fixture or shelf.
- If a Display Style is being placed, set the required options in the Add Products dialog box.

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**Note:** It is recommended that the Size Rule (Edit Menu) be set to On. This will be defaulted to Off when Merchandiser is first started.

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## Adding a Product at SKU level from the Object Browser

To add Products from the Object Browser,

- From the Merchandise tab, select the Products sub-tab.
- Locate the required item in the hierarchy and highlight it.

- Now, hold down the left mouse key and 'drag and drop' the selected item from the hierarchy onto the required fixture or shelf.

A + sign by the cursor indicates that the shelf has been selected. As soon as the mouse key is released, the placeholder is added.

The placeholder takes up the entire merchandisable volume of the item of equipment it has been placed on.

### **Adding a Product at Display Style level from the Object Browser**

To add Products from the Object Browser,

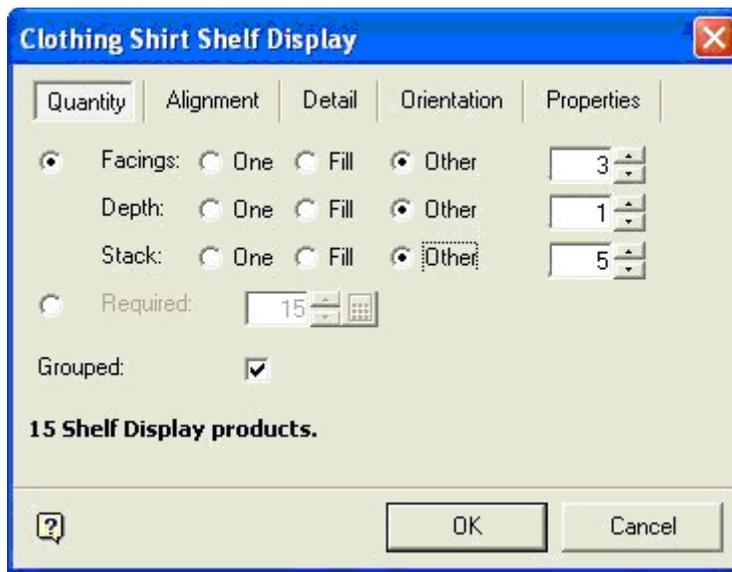
- On the Merchandise tab, select the Products sub-tab.
- Locate the required item in the hierarchy and highlight it.

Hold down the left mouse key and 'drag and drop' the selected item from the hierarchy onto the required fixture or shelf.

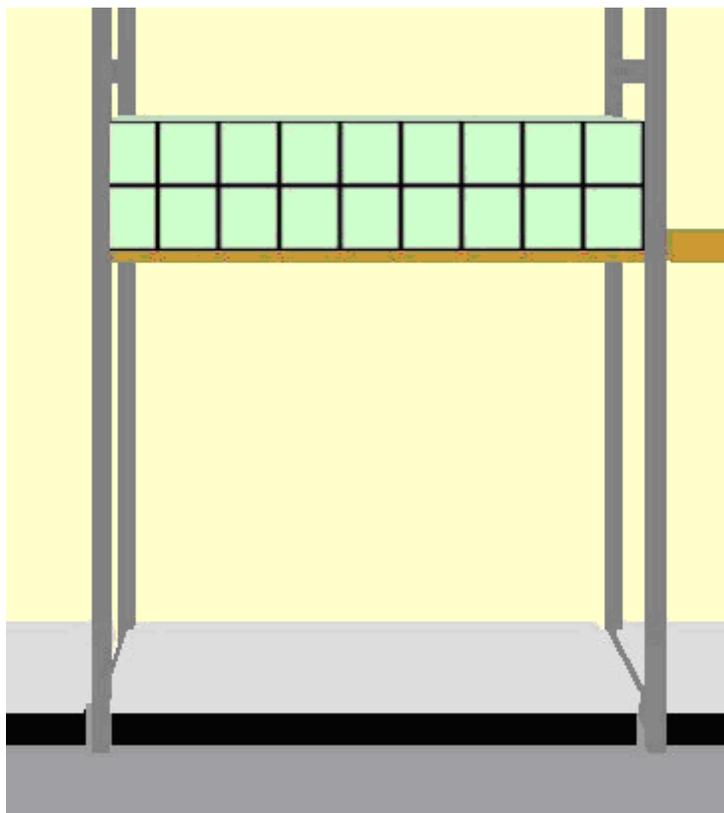


A + sign by the cursor indicates that the shelf has been selected. As soon as the mouse key is released, the Add Products dialog box appears.

Figure 4-76 Shelf Display



Select the appropriate settings, and click the OK button to place the merchandise.



Placeholders take up the entire merchandisable volume of the equipment they are placed on. Display Styles take up the space specified by the facing, depth and stacking parameters set on addition.

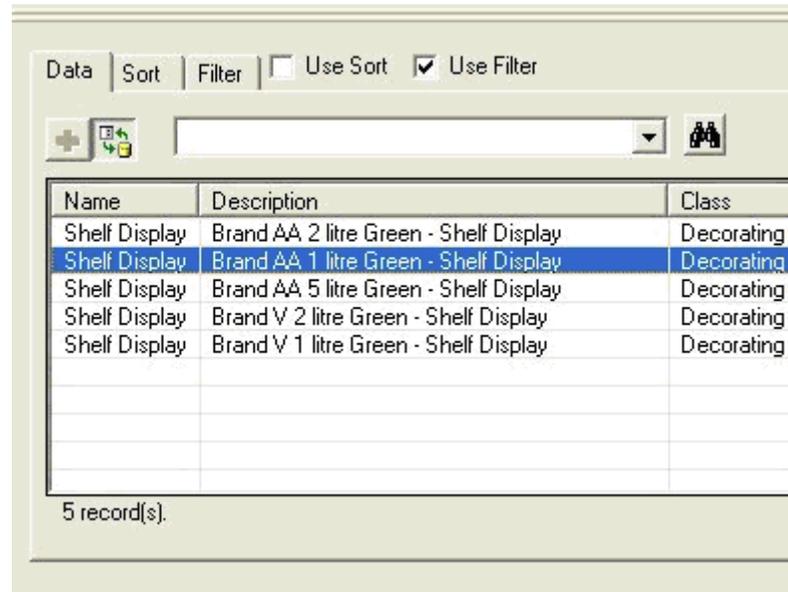
## Adding a Product at Display Style level from the Object Grid

Products can only be added at Display Style level from the Object Grid.

To add Products from the Object Grid:

1. Locate the required item in the list of data and highlight it.

**Figure 4–77 Object Grid**



In the above example, the 1 liter green display style has been selected.

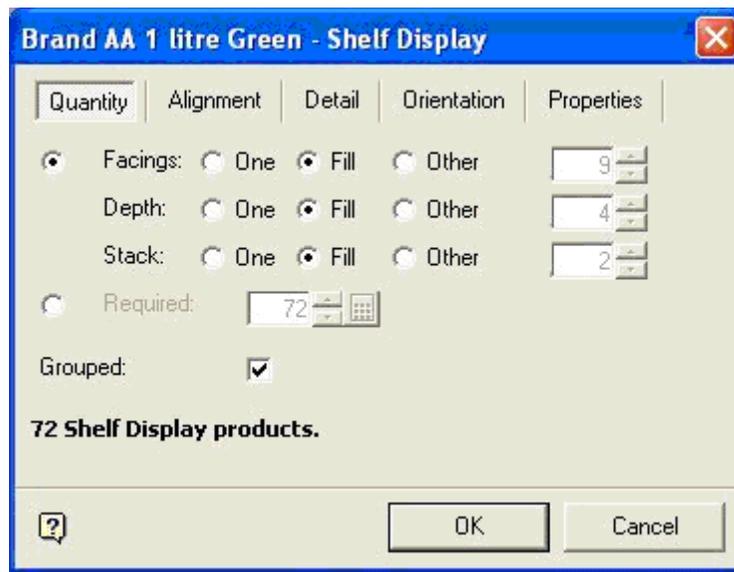
2. Next, hold down the left mouse key and 'drag and drop' the selected item from the hierarchy onto the required fixture or shelf.

**Figure 4–78 Adding Product at Display Style**



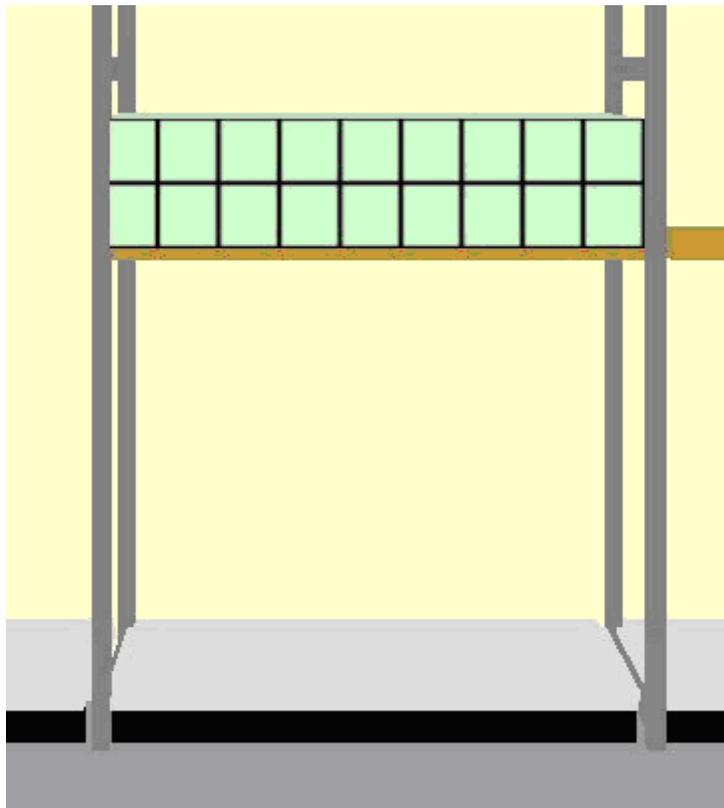
3. A + sign by the cursor indicates that the shelf has been selected. As soon as the mouse key is released, the Add Products dialog box appears.

Figure 4–79 Add Products dialog box



4. Select the appropriate settings and click the OK button to place the merchandise.

Figure 4–80 Adding Products on Shelf



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**Note:** Placeholders take up the entire merchandisable volume of the equipment they are placed on. Display Styles take up the space specified by the facing, depth and stacking parameters set on addition.

---

## The Quantity Tab

The **Quantity tab** allows you to specify the number of instances a product can be placed.

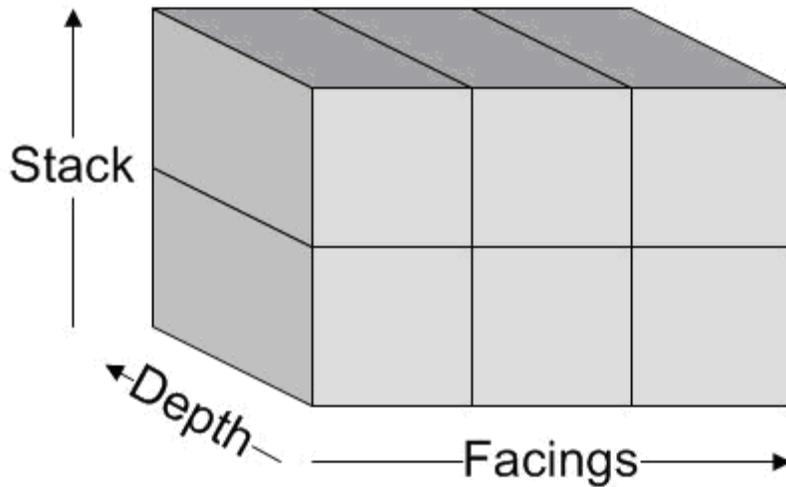
**Figure 4–81** *Quantity tab*



Two radio buttons allow you to specify whether quantities are set by the user (1) or calculated by the program (2).

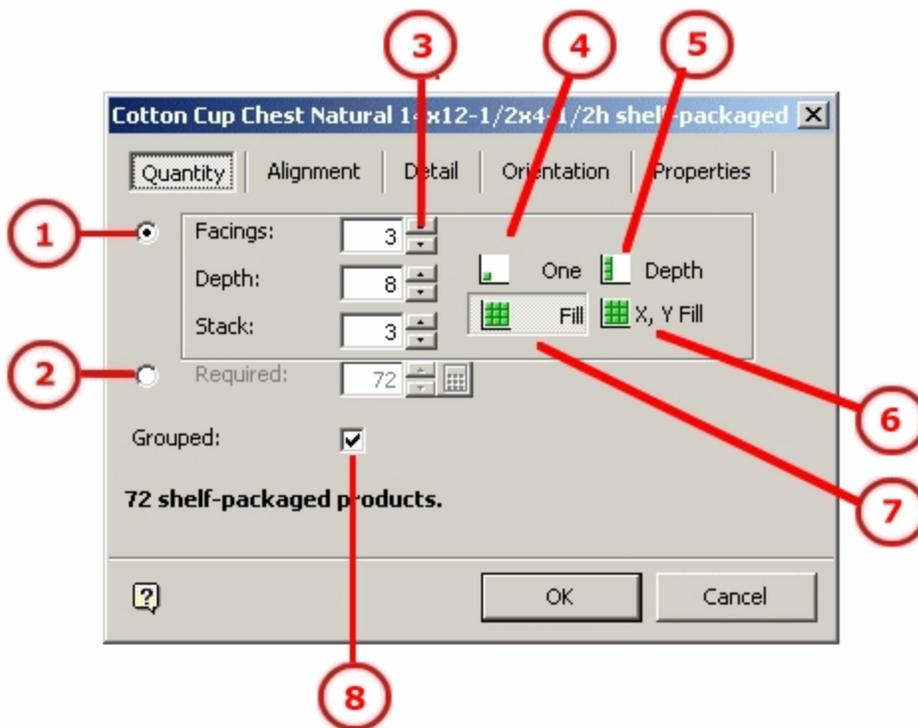
- Facings are the number of times the product can be placed along the shelf (X direction).
- Depth is the number of times the product can be placed relative to the depth of the shelf (Y direction).
- Stack is the number of times the product can be placed on top of itself (Z direction).

Figure 4–82 The Quantity Tab - Setting by User



The Quantity tab allows you to specify the number of instances a product can be placed. Any quantity can be specified up to the maximum capacity of the fixture or shelf.

Figure 4–83 Quantity tab - Setting by User



Two radio buttons allows you to specify whether quantities are set manually by the user (1) or set automatically by the program (2).

### Set Manually by the User

For Facing, Stack and Depth, use the radio button to select whether to place a single product in that orientation, whether to fill in that orientation or whether to manually set the number for that orientation.

---

**Note:** The Grouped checkbox should be checked.

---

Spin controls (3) allow you to set the required quantities for facings, depths and stack height.

**Table 4–21** *Placing Products - Settings*

Spin Control	Description
Facings	The number of times the product can be placed along the shelf (the X direction).
Depth	The number of times the product can be placed relative to the depth of the shelf (the Y direction).
Stack	The number of times product can be stacked on top of each other (the Z direction).

These quantities are constrained by the dimensions of the shelf or fixture. The minimum possible value in each direction is one, while the maximum number is determined by the dimensions of the product.

### Set Automatically by the Program

Four buttons automatically set the facings, stack and depth values to the maximums possible for that option relative to the dimensions of the shelf.

- The One button (4) sets facings, depth and stack values for a single instance of the product.
- The Depth button (5) sets facings, depth and stack values for a single row of product to the full depth and height available.
- The X,Y fill button (6) sets facings, depth and stack values for a single layer of product to the full length and depth of the shelf.
- The Fill button (7) sets facings, depth and stack values to get the maximum number of products on the shelf without using caps.

---

**Note:** Automatic setting by the program does not place caps, but only places the product in the primary orientation. If you want to place products with side, rear or top caps, it is recommended they select the Calculate option by clicking on the appropriate radio button - (2) in the annotated diagram above.

---

Grouped (8) determines whether products are placed as product groups, or as a stack of ungrouped items.

---

---

**Note:** It is recommended that products are placed as grouped items as they can then be manipulated as a single object. If they are placed as a stack of ungrouped items, then each item in the stack has to be manipulated individually.

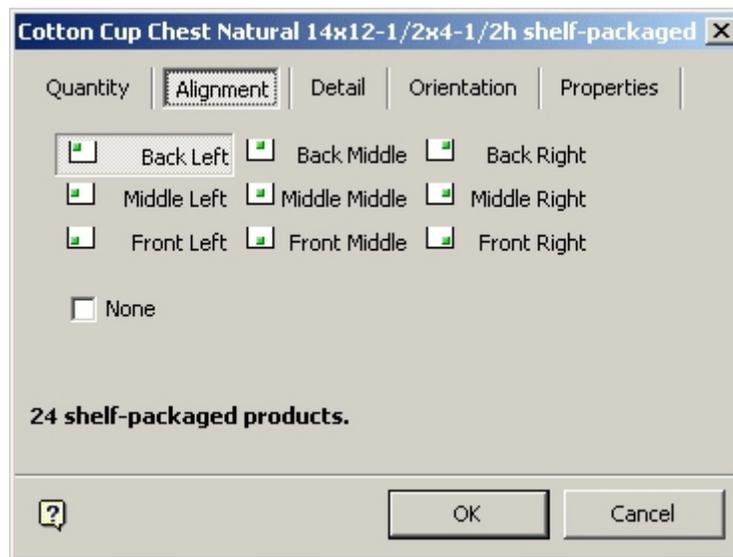
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## The Alignment Tab

The Alignment tab allows alignment to be adjusted horizontally in the X, Y plane.

**Figure 4–84 Alignment tab**

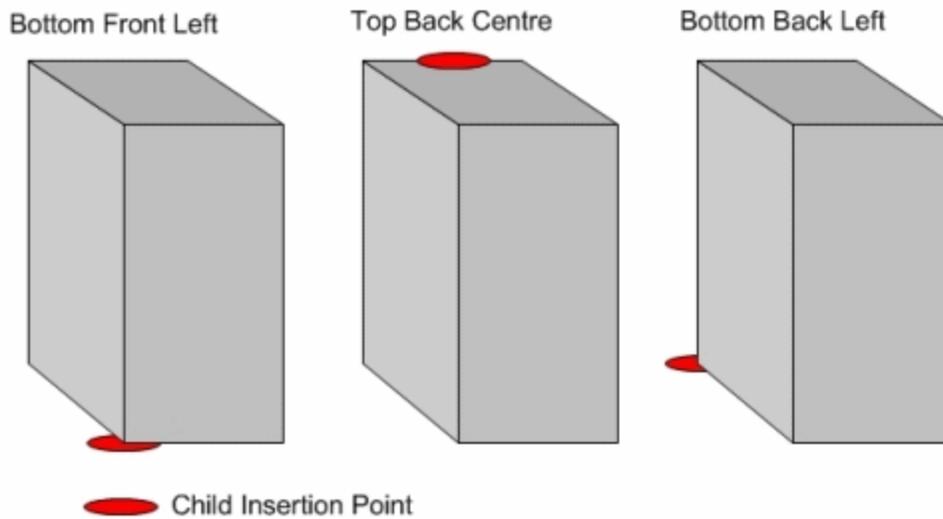


## The Alignment Tab and Child Insertion Positions

It is important to be aware of the different effects that the Child Insertion Position and the selection made in the Alignment tab have.

### Child Insertion Position

The child insertion position for a fixture determines the insertion point of the products that is placed on the fixture. This is because products are not directly assigned an insertion point, but adopt those specified for the fixture they are being placed on.

**Figure 4–85 Child Insertion Points**

If the fixture has an insertion point of Bottom Front Left any products are placed with this point on the product used as a datum. Similarly, products with insertion points of Top Back Centre or Bottom back left are placed using different datum points for those products.

If a shelf object (for example a open shelf) was intended to take boxed products, it might have its Child Insertion Position set to Bottom Back Left as the boxed products sit on top of the shelf.

If a shelf object (for example a hanging rod) was intended to take products hanging from it, it might have its Child Insertion Position set to Top Back Centre so the products appear to hang from the rod when placed on it.

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**Note:** Child Insertion Positions are set in Fixture Studio.

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### **Alignment Tab**

The setting made in the alignment tab determines the position of the product when placed on the object.

**Figure 4–86 Alignment Tab**

For example if Back Left is selected, product will be placed at the back left of the shelf. Similarly, if front middle is selected for a rod, product will be placed starting at the front of the rod.

### Summary

The Child Insertion Position determines how the product is placed relative to the object it is being placed on; above it, below it, centered on it, etc.

The Alignment Option determines which part of the object (for example a shelf) a product is placed starting from. For example if Front Right is selected, the first box of a product is placed at the front right of the shelf.

## The Detail Tab

The Detail tab gives information on dimensions and quantities.

Figure 4–87 Detail tab

	X	Y	Z
Size:	14	1	12
Gap:	0	0	0
Min Stack:	0	0	0
Max Stack:	3	8	3
Shelf capacity:	45.5	8.25	42.25

**24 shelf-packaged products.**

Buttons: ? (Help), OK, Cancel

- **Size** is the size of one instance of the Product.
- **Gap** is the gap between instances of the product. The gap is preset when the product is designed in Product Studio and may be necessary where merchandise like glass or crockery is concerned.
- **Min stack** is the minimum quantity that can be placed.
- **Max stack** is the calculated maximum quantity that can be placed.
- **Shelf Capacity** is the dimension of the shelf on which the products are being placed.

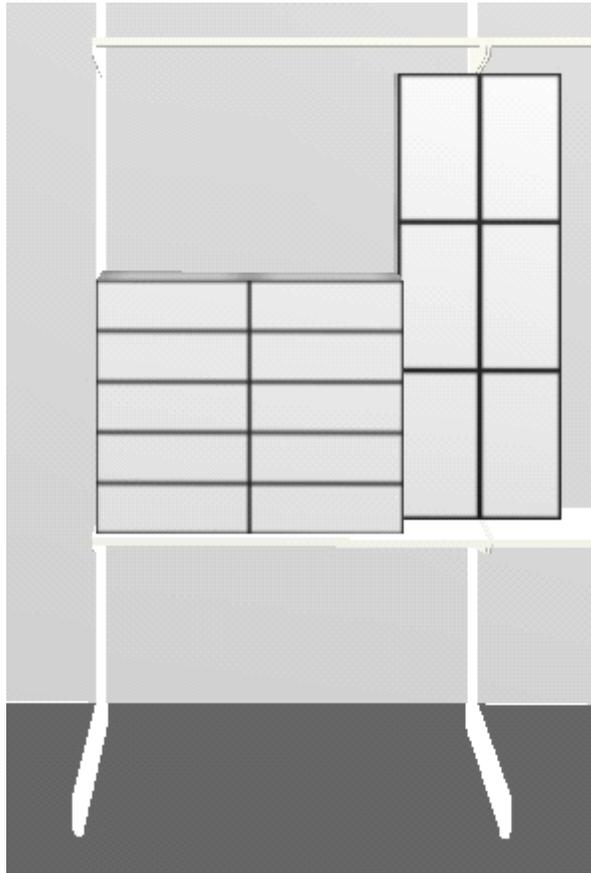
## The Orientation Tab

The Orientation tab allows the orientation of the product to be changed when it is placed on the shelf.

**Figure 4–88 Orientation tab**



The maximum amount placeable for each orientation is shown, while non available orientations are inactivated. By default, the product is placed with the front of the packaging showing. It can be placed in a whole series of other orientations with the top, bottom, left or right sides of the packaging showing.

**Figure 4–89 Product Orientation**

In the above example the product group on the left has been placed with the Front orientation. A second example of the same product group has then been placed to its right in the Top Side orientation.

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**Note:** Changing orientation will also change the quantity on the Quantities Tab to the maximum possible in that orientation. This is to allow you to see if changing the orientation increases the quantities that can be placed on the shelf.

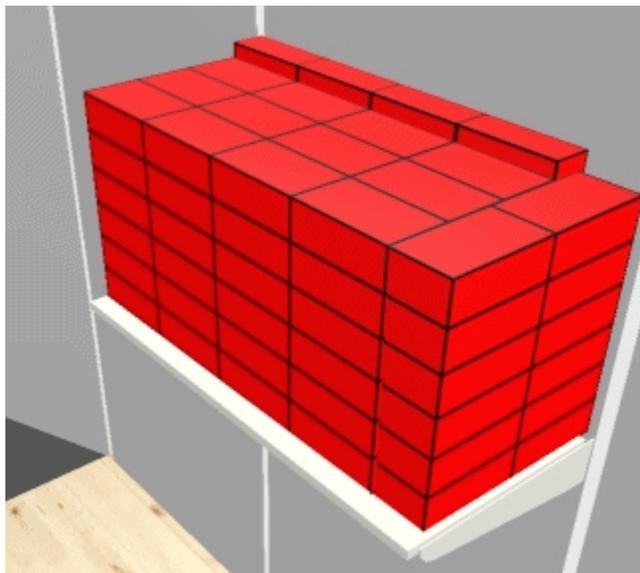
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## The Properties Tab

The Properties tab displays a customizable list of properties associated with the products being placed. The values for this customizable list can be input into Macro Space Management directly or imported from an external program.



**Figure 4–91 Product Placing with End Caps**

It is possible to achieve this manually by placing the main body of product, then placing the rear end cap and then the size end cap. This may require some time to achieve. It is also possible to achieve this in a single operation using the Calculate option. This can result in considerable savings in time when populating shelves.

#### Summary of Method

Within Merchandiser:

- Check the Size Rule is ON.
- If necessary make shelves a Group.
- Select the product to be placed from the product hierarchy.
- Drag the product onto the required shelf.
- Select the calculate option and use the spin controls to set the number of products required.
- Set the tolerance and orientation in the Calculation screen.
- Set priority for the working axes, specify if dimension is to be filled/ maximum number of products and specify if caps are allowed.
- If solution is satisfactory, click on OK to confirm.

#### Automatic Calculation Method

- Check the Size Rule is On. When placing product it is recommended the **Size Rule** is turned on, either from the edit menu or the icon on the toolbar. This restricts the number of products added to those permitted by the confines of the shelf. If this option is not enabled, it is possible that product overlaps shelves to the left, right or above.
- If necessary make shelves a Group. With the Size rule on, product is confined to a single shelf, unless two or more shelves have been made into a Group. Shelf Groups are groups of shelves that are at the same height, at the same angle and form a continuous run. Grouped shelves allow you to treat adjacent shelves as one long shelf. This enables you to place products that span more than one shelf.

To make a Shelf Group:

1. Select the shelves.
2. Right click to bring up the pop-up menu and select Group > Join. Ungrouped shelves can be distinguished by their red and blue outlines. Grouped shelves have yellow and green outlines.
3. Select the product to be placed from the product hierarchy by clicking it to highlight it.
4. Drag the product onto the required shelf. Hold down the left mouse key and drag the selected product onto the desired shelf. A + sign by the cursor indicates that the shelf has been selected. As the mouse key is released, the Add Products dialog box appears.

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**Note:** If styles are in use the Shelf Style and the Display (Product) style must be compatible or the product cannot be placed.

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Select the calculate option and use the spin controls to set the number of products required. The Add Products dialog box allows the user to control the quantity and orientation of the product being placed. The calculate option is selected by clicking on the appropriate radio button. The spin control can be used to set the required quantity of product to be placed. The Calculate button can then be used to open the calculation screen.

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**Note:** If it is desired to get the absolute maximum of products onto the shelf, the required quantity should be set significantly above what is required. This will ensure Macro Space Management calculates the maximum number of products that will fit on the shelf.

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Set the tolerance and orientation in the Calculation screen. After the calculate button is clicked, the Quantities Calculator screen appears.

Figure 4–92 Quantities Calculator screen

Quantities Calculator

Required Quantity: 120

Quantity Tolerance: 0

Main Orientation: Front

Direction	Priority	Fill	Allow Caps	Fixed Quantity
X - Width, Facings	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Y - Depth	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Z - Height, Stacking	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Proposed Solution:

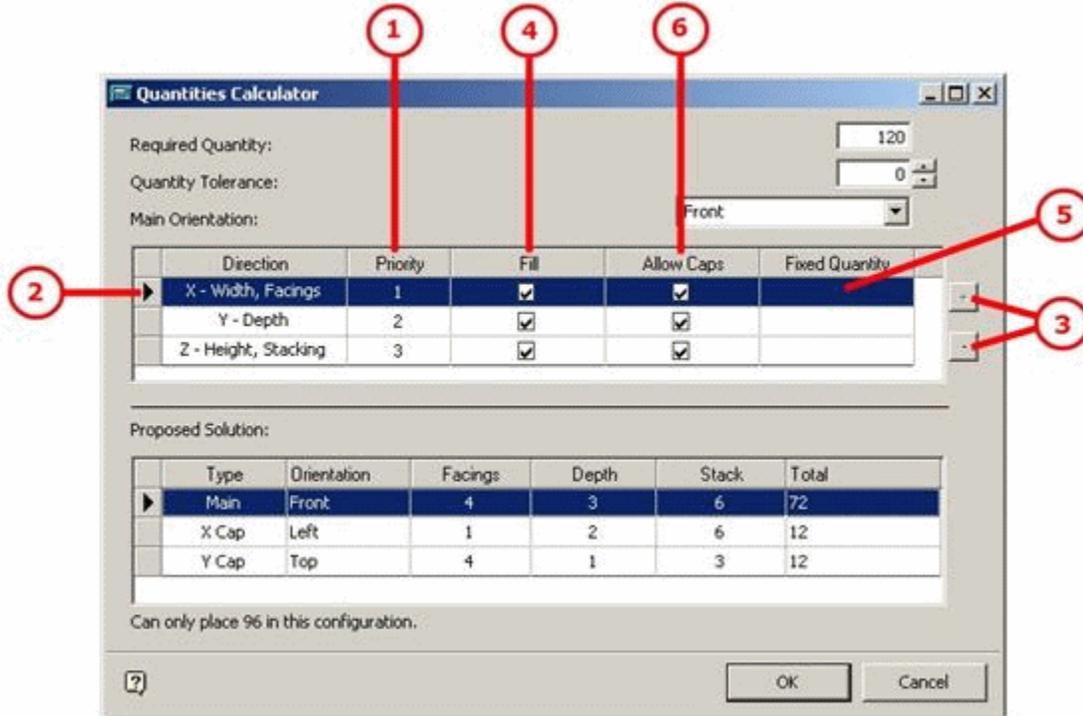
Type	Orientation	Facings	Depth	Stack
Main	Front	4	3	6
X Cap	Left	1	2	6
Y Cap	Top	4	1	3

Can only place 96 in this configuration.

OK Cancel

- The **Required Quantity (1)** is set in the preceding Add Products dialog box. If necessary this can be edited to a different value while in the screen.
- The **Quantity Tolerance(2)** allows you to set the permissible variation in quantity. If set to 0, Macro Space Management tries and calculates an exact solution. If set to >0 Macro Space Management accepts the first calculated solution that comes inside the permissible range. For example, if set to  $60 \pm 5$ , the first calculated solution that falls in the range 55 - 65 will be accepted.
- The **Main Orientation (3)** of the product can be set from the drop down list. This determines which part of the products' packaging faces the front of the shelf.
- Set priority for the working axes, specify if dimension is to be filled / maximum number of products and specify if caps are allowed.

Figure 4-93 Quantities Calculator screen



The **Priority (1)** for the working axes can be set by clicking on the appropriate axis to highlight it (2) then using the + and - buttons (3) to change the order of priority. Macro Space Management calculates the quantities in the order the axes have been selected. For example, if the X axis has been chosen, the software will stack the maximum number of products along that axis then take the dimensions of those placed products in account when calculating how many products can be placed along the second priority axis.

If the **Fill check box (4)** is selected, then Macro Space Management places the maximum number of products in that direction. If the Fill checkbox is not selected, then a **Fixed Quantity (5)** can be entered in the appropriate box. If a Fixed Quantity is entered, this will also disable the Allow Caps (6) option as the fixed quantity only applies to products placed in the Main Orientation. If a quantity greater than the maximum number that will fit is entered then the number will default to the largest value possible.

**Allow Caps (6)** can be allowed or prevented by selecting or un-selecting the check box as appropriate.

When done, click OK to confirm. The calculate screen will continually update to show the effect of any changes.

Figure 4–94 Quantities Calculator

Quantities Calculator

Required Quantity: 120

Quantity Tolerance: 0

Main Orientation: Front

Direction	Priority	Fill	Allow Caps	Fixed Quantity
X - Width, Facings	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Y - Depth	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Z - Height, Stacking	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Proposed Solution:

Type	Orientation	Facings	Depth	Stack	Total
Main	Front	4	3	6	72
X Cap	Left	1	2	6	12
Y Cap	Top	4	1	3	12

Can only place 96 in this configuration.

? OK Cancel

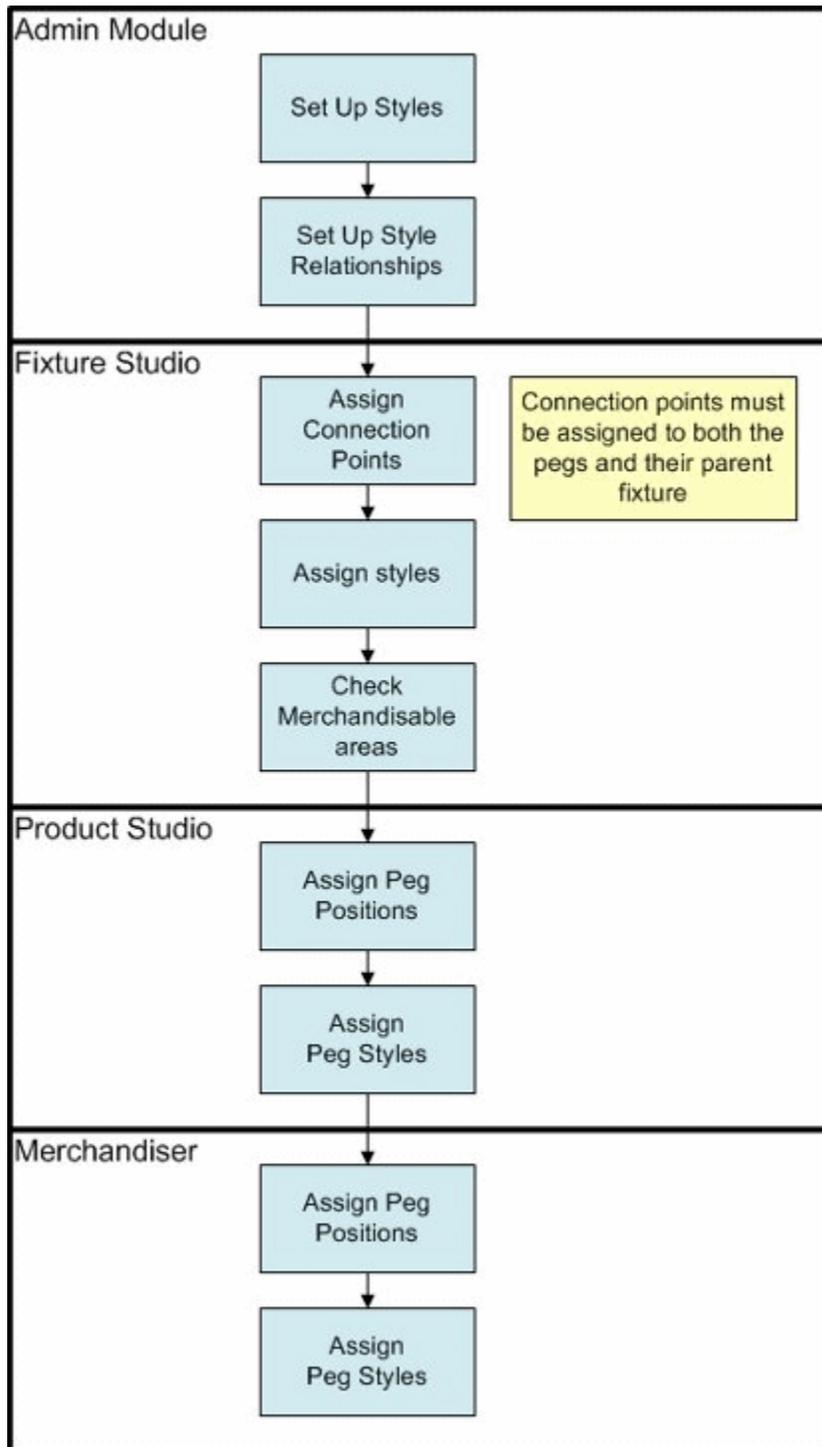
The results will show in the Proposed Solution frame (1). A warning (2) will appear if the number of products that can be placed is below that in the Required Number (3) setting. If the details are correct, click on the **OK** button (4) to place the products.

#### Adding Products using Pegs

To add products using pegs in Merchandiser, a series of preparatory parameters must be set in the Admin Module, Fixture Studio, and Product Studio. This then enables products to be added to pegs in Merchandiser. A pegboard might contain an array of 10 x 20 pegs, 200 pegs in all. Merchandising these pegs is a potentially time consuming operation as this might involve 5 sizes of battery (N, AAA, AA, C & D) from three or four manufacturers (Duracell, Exide, Eveready, Energiser).

It is therefore normal to produce a planogram involving a specific combination of battery sizes and manufacturers. Once available, this planogram can then be placed multiple times in multiple stores. An example would be a battery planogram designed for an end cap on a gondola run.

**Figure 4–95 Workflow of Adding Products using Pegs**



**Setting up Styles in the Admin Module**

Styles serve as filters to determine what can be attached to what.

- The parent fixture has a fixture and a shelf style.
- The peg has a shelf style.

- The product has a product style.

For the peg to go onto the parent fixture, there must be a style relationship between the Fixture and Shelf Styles. For the product to go onto the peg there must be a style relationship between the Shelf and the Product Styles.

### Settings Required in Fixture Studio

For products to be placed on pegs, some fundamental settings need to be correct on the equipment onto which the products will be placed.

### Connection Points

The pegs and their parent fixtures must have compatible connection points. This enables them to fit together.

### Styles

The pegs and their parent fixtures must have appropriate styles assigned, and a style relationship must exist between them.

### Merchandisable Areas

The merchandisable area for the peg must be compatible with the product being placed.

### Connection Points for Pegs and Parent Fixtures

Connection points are used to fit together one item of equipment to another in accurate alignment. For one item of equipment to connect to another the following must be true.

**Table 4–22 Connection Points for Pegs and Parent Fixtures**

	<b>Requirement</b>	<b>Optional or Mandatory</b>
Gender	The connection points must have compatible genders	This requirement can be disabled in the Configuration Module
Shape	The connection points must have the same shape	This requirement can be disabled in the Configuration Module
Size	The connection points must have compatible sizes	This requirement can be disabled in the Configuration Module

If any of these criteria are not true, then a connection cannot be made.

**Table 4–23 Gender**

<b>Permissible Values</b>	<b>Comment</b>
Male, Female, Neutral.	Male connects with female.
	Neutral connects with itself and both male and female.

Male can connect with female, and it would be conventional to give the connections on the parent fixture female gender, with the peg having male gender.

**Table 4–24 Shape**

Permissible Values	Comment
None, Rectangle, Circle, Oval, Triangle, Hexagonal.	Specific shapes will only connect with themselves and None.

Both peg and parent fixture should be assigned the same shape, or 'None'. This will allow them to connect.

**Table 4–25 Size**

Permissible Values	Comment
Minimum size 0, maximum size 1000.	Two items of equipment must have overlapping connection sizes to connect.

It is recommended that both the parent fixture and peg are given identical connection sizes.

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**Note:** The above comments only deal with the connection between parent fixture and peg. Other connections may exist (for example between pegboard and supporting legs). These would have different genders, shapes and sizes to the connections specified above.

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### Assigning Styles for Pegs and Parent Fixtures

Styles serve as filters to determine what can be attached to what.

- The parent fixture has a fixture and a shelf style.
- The peg has a shelf style.
- The product has a product style.

For the peg to go onto the parent fixture, there must be a style relationship between the Fixture and Shelf Styles.

For the product to go onto the peg there must be a style relationship between the Shelf and the Product Styles.

### Configuring Merchandisable Area for Pegs

The merchandisable area for the peg is the area that merchandise can take up on the peg. It is configured in the Merchandisable Areas tab of the Block Definitions dialog box for the peg. It is generally set to be unbounded in the X direction using the appropriate check boxes.

### Setting up the Peg Position in Product Studio

Peg Positions are set up using the Peg Holes Tab in Product Studio.

**Figure 4–96 Peg Holes Tab**

**Product Display Style - Hung Bulb**

Name: Hung Bulb  
 Description: 60 Watt Bayonet Hung bulbB  
 Client Code:  Manufacturer: Generic  
 UPC:  Display Style Type: Unit  
 Code: 12345 Quantity: 1

Size & Shape | Styles | Images | **Peg Holes**

	Width	Depth	Height	Style Filter
1	50	20	0	Fixture

Width Offset (X): 50  
 Depth Offset (Y): 20  
 Height Offset (Z): 0  
 Style Filter: Fixture

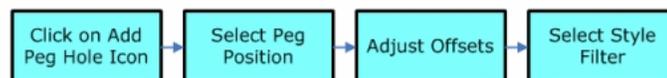
Top Down View:

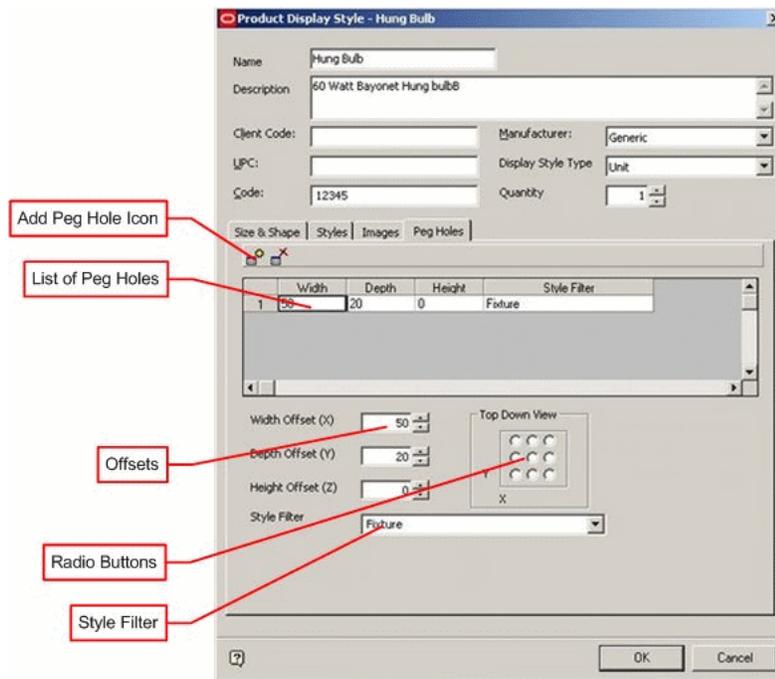
OK Cancel

Peg Hole positions can be added or deleted using the Add or Delete Peg Hole icons on the Toolbar:

### Setting Up Peg Hole Positions

To set up a Peg Hole Position requires the following stages.

**Figure 4–97 Peg Holes Tab - Setting**

**Figure 4–98 Add Peghole**

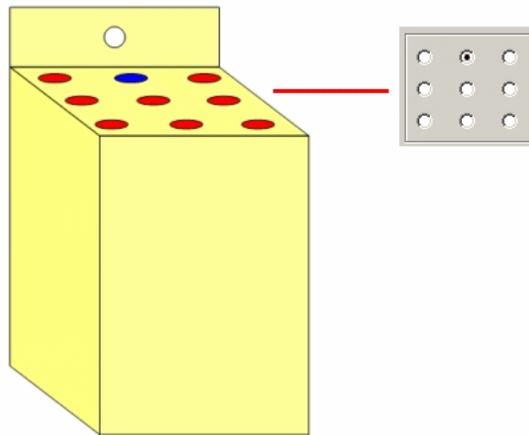
1. Click on the Add Peg Hole icon to add a Peg Hole to the List.
2. The X, Y coordinates of the peg hole can then be set by clicking on the radio buttons.

The selected X, Y coordinates can be seen in the list. These determine where on the top of the product the peg hole will be located.

3. The Style Filter allows you to select a Peg Style that the product can be placed on. If the product is to go onto two or more styles of peg, then multiple peg holes must be defined.
4. The Offsets can then be adjusted to allow for hole positions, etc.

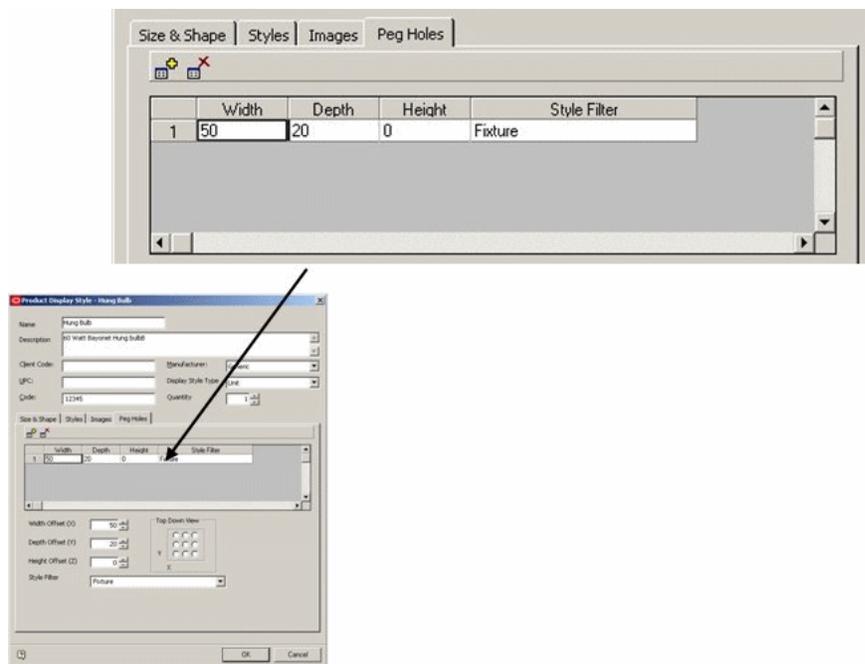
#### Selecting the Basic Offset using Radio Buttons

The nine radio buttons allow you to set an offset in the X, Y plane relative to the top back left position of the product.



In this case the selected radio button corresponds to the blue circle on the product. Offsets are calculated relative to the size of the object.

**Figure 4–99 Peg Holes Dialog Box**

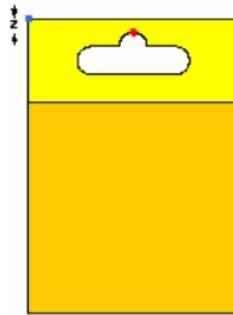


In the above example the Width (X) and Depth (Y) offsets are calculated based on the area of the object, which is 100 x 100 mm. All offsets are calculated from the top, back, left corner of the package.

**Changing Offsets to allow for Hole Positions**

Sometimes a small offset is required in the Z axis to allow for the position of the hole relative to the top of the product. The actual position should be the top of the hole, as indicated by the red dot in the diagram. This will then correspond with a connection line on the peg, which is defined on the top of the peg.

**Figure 4–100 Multiple Peg Holes**



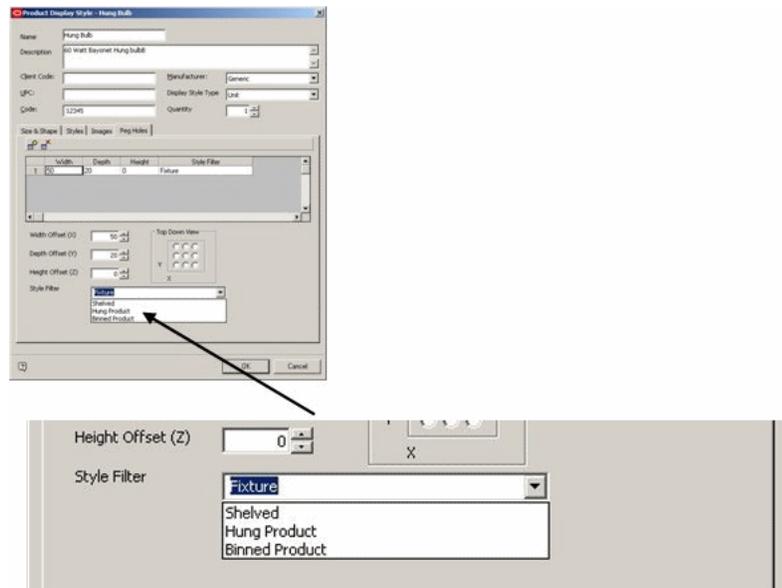
Multiple peg hole positions can be defined for a product. The first position is defined as the primary, which is the one used when positioning the product on a pegboard. The other hole positions determines where the extra pegs are placed.

To define a product with multiple peg holes, simply define two or more peg holes that have the same style.

**Multiple Peg Types**

It is possible to define different types of peg for different parent fixtures. This is done by specifying at least two peg holes for the product, and specifying different Styles for each from the Style Filter list.

**Figure 4–101 Pegs Tab - Style Filter**



The actual peg that is used is determined by the pegboard onto which the item is placed, as dictated by the style relationship rule. This ensures that the product is only placed onto certain types of peg.

**Placing Product on top of Product**

Macro Space Management allows products to be placed on top of other products. This is done by determining the height of the top face of the existing product and adjusting the elevation of the new product accordingly.

This is only enabled if the parent shelf/fixture of the product, on which it is being placed, allows stacking in the Z axis (working or stacking Z axis is enabled).

To place on product on top of another drag the required product from the options in the merchandising tab over to the product on top of which you wish to place it. Ensure the mouse cursor is just inside the object to be placed on top of, and release the mouse key. The desired products are placed on top.

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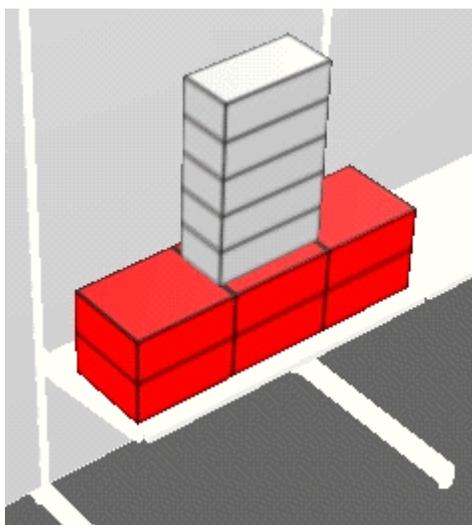
---

**Note:** If the mouse cursor is just above the object to be placed on top of when the key is released, then the object being placed is inserted to one side, rather than on top.

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**Figure 4–102** *Place Products on Other Products*

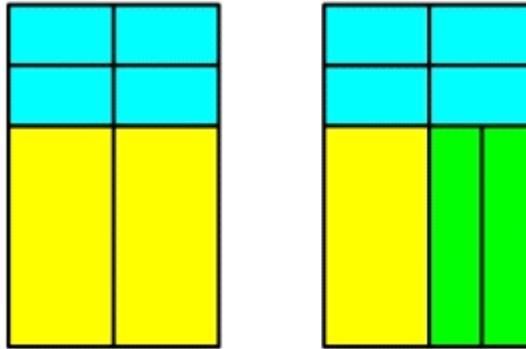


The depth and number of facings of the object being placed on top cannot exceed those determined by the length and depth of the object of which it has been placed on top.

### **Caps**

Caps are when the same product is placed over another product, using a different orientation, in order to fill space.

**Figure 4–103 Caps**



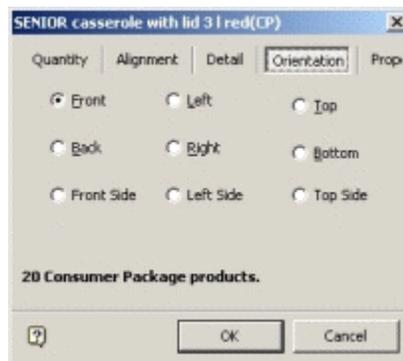
These can be achieved by placing a separate instance of the product on top of another product and changing its orientation/rotation. In the first example above, two arrayed products would be placed, the first with 2 front facings, the second (on top) with 2 facings with top orientation.

The second example above could be achieved with three sets of arrayed products: the first would be 1 facing with front orientation, then 2 facings with a left orientation and finally a 2 facings with top orientation.

---

**Note:** Orientations can be changed during insertion by choosing the orientation from the Orientations tab of the Add Products dialog box.

---



**Nesting**

Nesting is where the same products are arrayed, but the each additional instance partially fits within another, as in the example below.

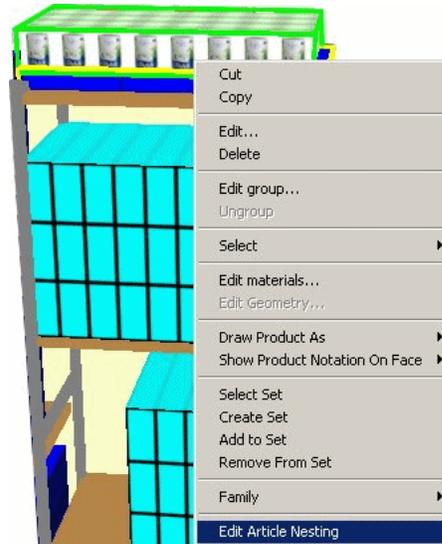
Currently only bottom nesting (as in the example of the cups) is available.

**Nesting Different Products**

On some occasions, you may want to place different products on top of other products, where nesting would apply, but the nesting value could not be determined in advance by a value in the database.

First the products have to be placed on top of each other. The nesting distance can then be manually adjusted by selecting the objects to be nested and right clicking to bring up the pop-up menu.

**Figure 4–104 Edit Article Nesting**



Click the Edit Article Nesting option to bring up the Edit Product Nesting dialog box.



The distance can be adjusted by means of the spin control. The units are automatically default to imperial or metric units depending on what was defined for the store in Store Manager.

### Alignment

Alignment defines the relative positions of product (and sometimes equipment) to each other. You can customize position using the various options available. Products can be aligned with each other, or with their parent fixture or shelf, depending on what is selected. The alignment works with equipment, as well as products.

Buttons for aligning along or across the shelf are enabled only if at least one object is selected and the drawing is not read-only.

Buttons for distributing across the shelf are enabled if at least 3 objects are selected and the drawing is not read-only.

### Clash Detection

Clash Detection should be turned on when aligning or products can overwrite each other.

- If Clash Detection is turned on, products move until they are in contact.
- If Clash Detection is turned off, products can be moved so they occupy the same physical space.

Clash detection is toggled On or Off by clicking on the clash Detection icon in the Views toolbar

**Figure 4–105 Views Toolbar - Detection Icon**



### Sequential Operations

Each alignment operation only works on one plane at a time; that is, it only works in the X, Y or Z plane for that particular operation. It is thus possible to use sequential alignment operations to achieve the desired effect. For example it is possible to use the Align to Left operation (X axis) followed by the Align to Back operation (Y axis). This will result in all selected products being aligned to the left and rear of the selected shelf.

### Align to Left

If one or more shelves/fixtures are selected before clicking the Align to Left button, then all child products will be aligned to the left. Alignment towards the front or back of the shelf will not be affected.

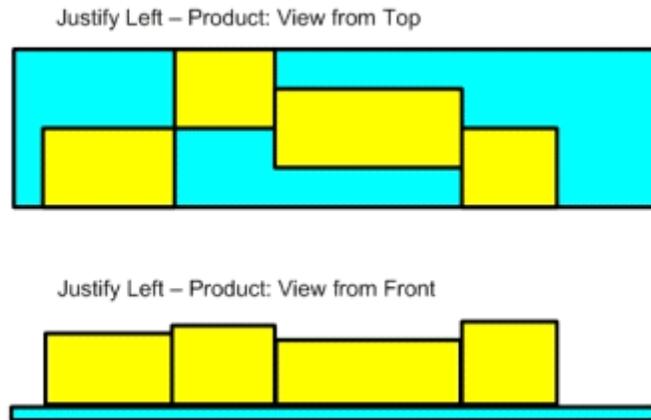
Products will first be sorted in order of position along the length of the shelf. The first product will then be placed at the left hand end of the shelf. The next product will be placed adjoining the first such that it is adjacent, but does not overlap. Successive products will be placed in a similar manner until all have been placed in a left justified alignment.

The manner of the alignment will depend on whether only products are selected, whether the shelf and some of its products are selected, or whether the shelf/fixture alone is selected.

### Products Selected

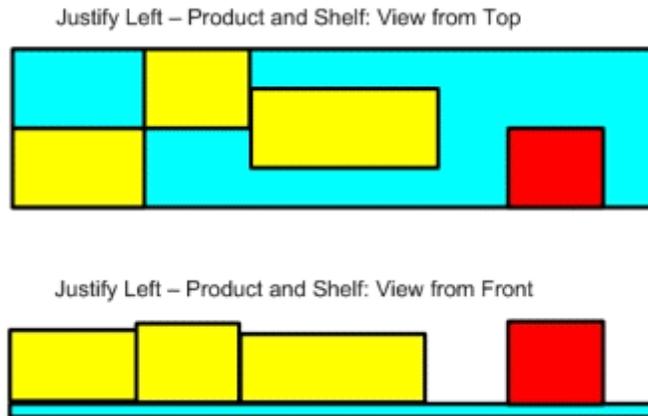
If only products are selected, then they will be aligned so that left-hand side of each product matches the right-hand side of the preceding product in the selection set.

**Figure 4–106 Shelf/Fixture and Products Selected**



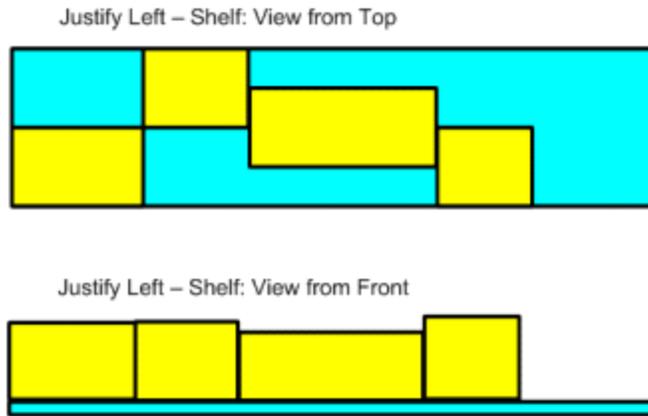
If the shelf/fixture, plus some of its child products are selected, then only those products will be aligned with the shelf, rather than all the products on the shelf.

**Figure 4–107 Shelf/Fixture Selected**



If the shelf is selected (and no products) and the alignment button is pressed, then it will assume all child objects are selected and align them to the shelf.

**Figure 4–108 Justify Left - Product Selection**



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**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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### **Align to Centre**

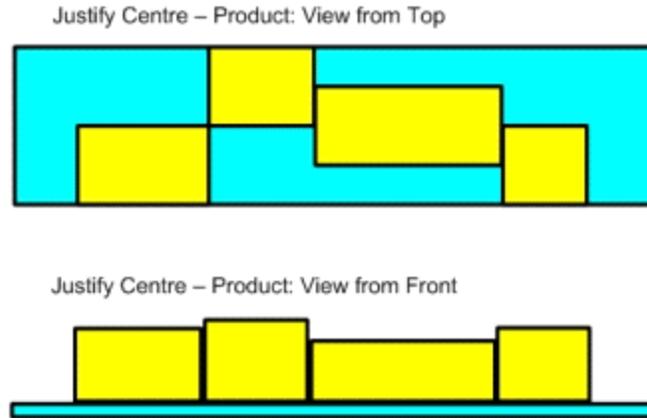
If one or more shelves/fixtures are selected before clicking the Align to Centre button, then all child products will be aligned to the centre. Alignment towards the front or back of the shelf will not be affected.

When all products have been aligned to centre, there will be an equal unoccupied space to either side.

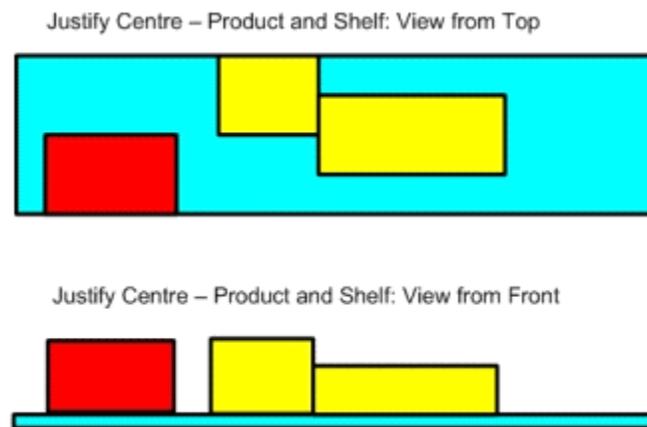
The manner of the alignment will depend on whether only products are selected, whether the shelf and some of its products are selected, or whether the shelf/fixture alone is selected.

### **Products Selected**

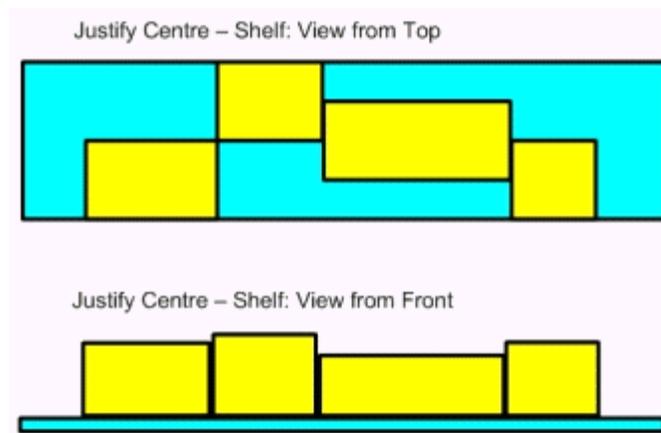
If only products are selected, then they will be aligned so that centre-hand side of each product matches the centre-hand side of the first product in the selection set.

**Figure 4–109 Shelf/Fixture and Products Selected**

If the shelf/fixture, plus some of its child products are selected, then only those products will be aligned with the shelf, rather than all the products on the shelf.

**Figure 4–110 Shelf/Fixture Selected**

If the shelf is selected (and no products) and the alignment button is pressed, then it will assume all child objects are selected and align them to the shelf.

**Figure 4–111 Justify Centre - Product Selection**


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**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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### **Align to Right**

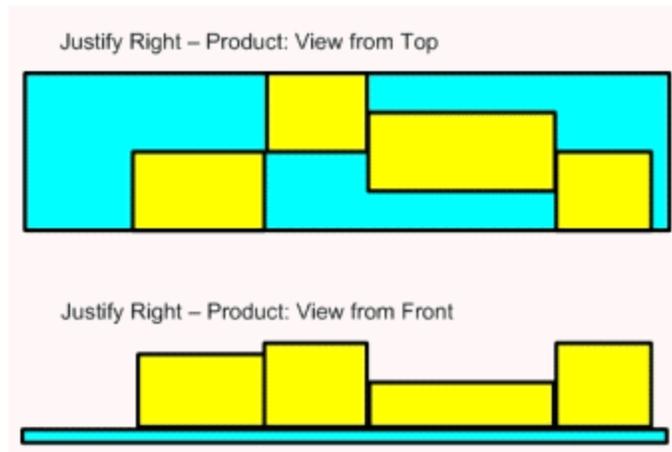
If one or more shelves/fixtures are selected before clicking the Align to Right button, then all child products will be aligned to the right. Alignment towards the front or back of the shelf will not be affected.

Products will first be sorted in order of position along the length of the shelf. The first product will then be placed at the right hand end of the shelf. The next product will be placed adjoining the first such that it is adjacent, but does not overlap. Successive products will be placed in a similar manner until all have been placed in a right justified alignment.

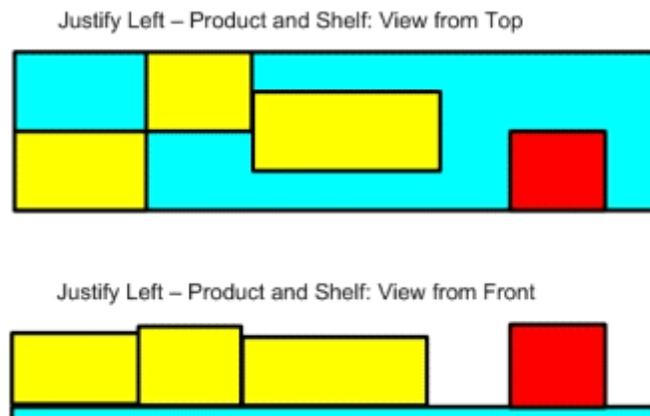
The manner of the alignment will depend on whether only products are selected, whether the shelf and some of its products are selected, or whether the shelf/fixture alone is selected.

### **Products Selected**

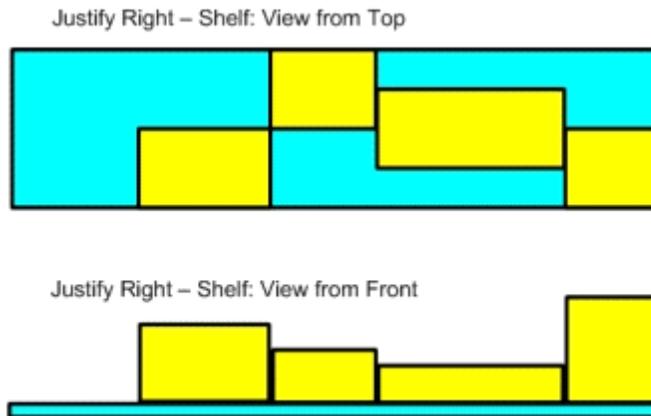
If only products are selected, then they will be aligned so that right-hand side of each product matches the right-hand side of the first product in the selection set.

**Figure 4–112 Shelf/Fixture and Products Selected**

If the shelf/fixture, plus some of its child products are selected, then only those products will be aligned with the shelf, rather than all the products on the shelf.

**Figure 4–113 Shelf/Fixture Selected**

If the shelf is selected (and no products) and the alignment button is pressed, then it will assume all child objects are selected and align them to the shelf.

**Figure 4–114 Justify Right - Product Selection**

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**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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### **Align to Front**

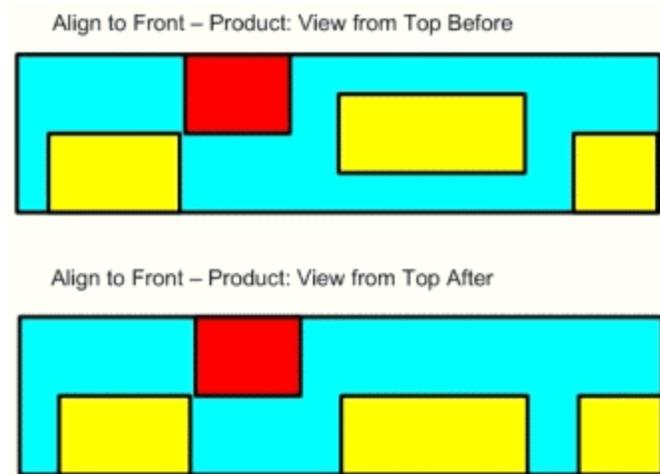
If one or more shelves/fixtures are selected before clicking the Align to Front button, then all child products will be aligned to the front. Alignment towards the left or right of the shelf will not be affected.

Products will first be sorted in order of position along the depth of the shelf. The first product will then be placed at the front edge of the shelf. The next product will be placed adjoining the first such that it is adjacent, but does not overlap. Successive products will be placed in a similar manner until all have been placed in a front justified alignment.

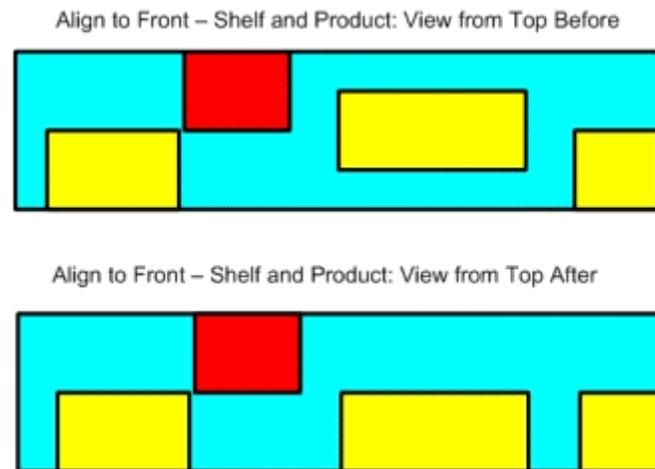
The manner of the alignment will depend on whether only products are selected, whether the shelf and some of its products are selected, or whether the shelf/fixture alone is selected.

### **Products Selected**

If only products are selected, then each selected product will be aligned so that front edge of each matches the front edge of the shelf.

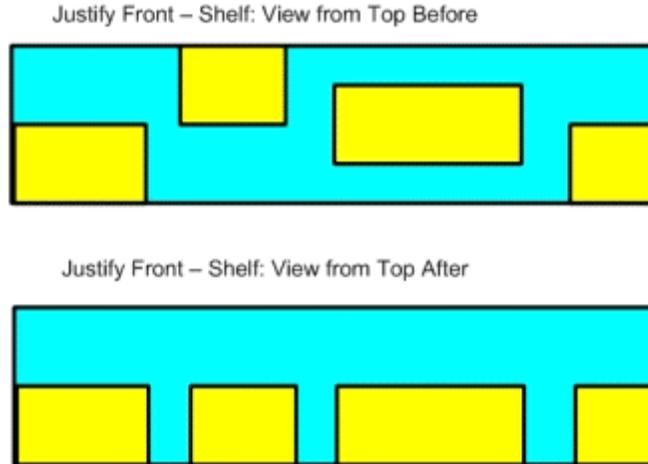
**Figure 4–115 Shelf/Fixture and Products Selected**

If the shelf/fixture, plus some of its child products are selected, then only those selected products will be aligned with the front of the shelf, rather than all the products on the shelf.

**Figure 4–116 Shelf/Fixture Selected**

If the shelf is selected (and no products) and the alignment button is pressed, then it will assume all child objects are selected and align them to the front of the shelf.

**Figure 4–117 Justify Front - Product Selection**



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**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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### **Align to Middle**

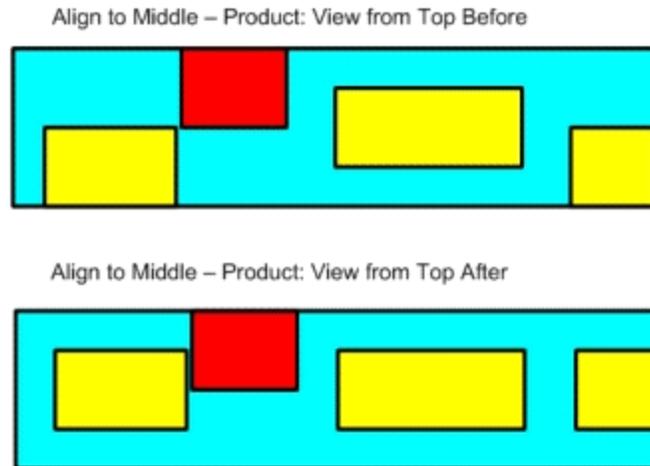
If one or more shelves/fixtures are selected before clicking the Align to Middle button, then all child products will be aligned to the middle. Alignment towards the left or right of the shelf will not be affected.

When all products have been aligned to the middle, there will be an equal unoccupied space to the front and rear.

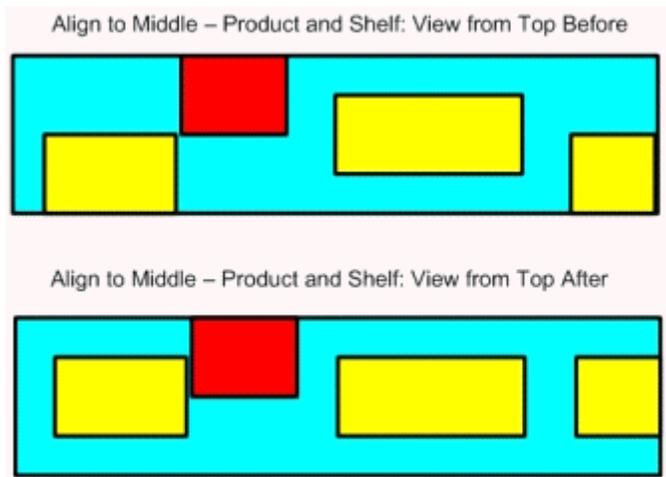
The manner of the alignment will depend on whether only products are selected, whether the shelf and some of its products are selected, or whether the shelf/fixture alone is selected.

### **Products Selected**

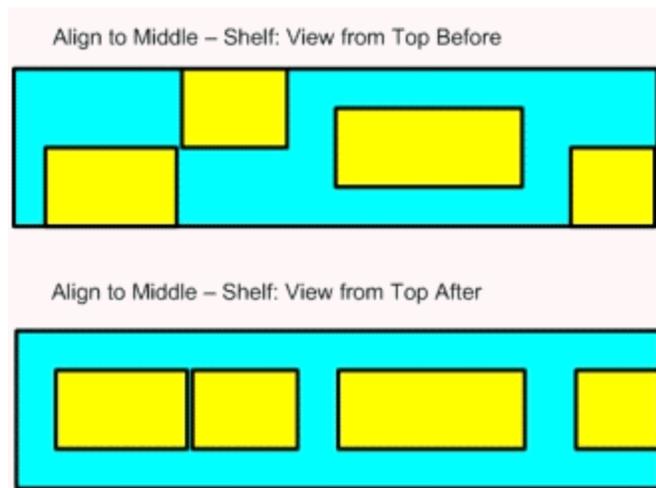
If only products are selected, then each selected product will be aligned so that middle of each matches the middle of the shelf.

**Figure 4–118 Shelf/Fixture and Products selected**

If the shelf/fixture, plus some of its child products are selected, then only those selected products will be aligned with the middle of the shelf, rather than all the products on the shelf.

**Figure 4–119 Shelf/Fixture selected**

If the shelf is selected (and no products) and the alignment button is pressed, then it will assume all child objects are selected and align them to the middle of the shelf.

**Figure 4–120 Justify to Middle - Product Selection**


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**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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**Align to Back**

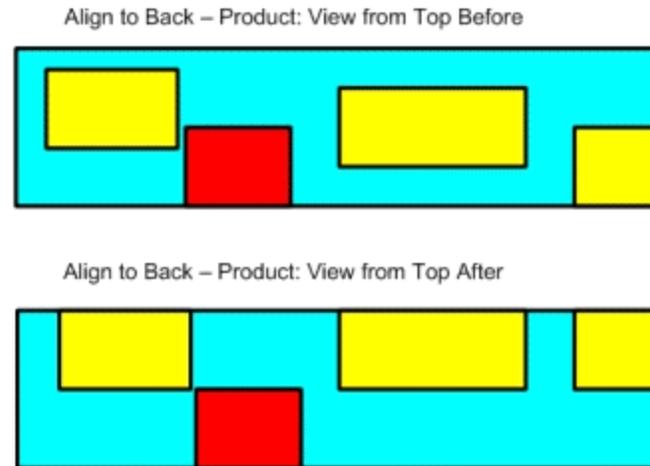
If one or more shelves/fixtures are selected before clicking the Align to Back button, then all child products will be aligned to the back. Alignment towards the left or right of the shelf will not be affected.

Products will first be sorted in order of position along the depth of the shelf. The first product will then be placed at the back edge of the shelf. The next product will be placed adjoining the first such that it is adjacent, but does not overlap. Successive products will be placed in a similar manner until all have been placed in a back justified alignment.

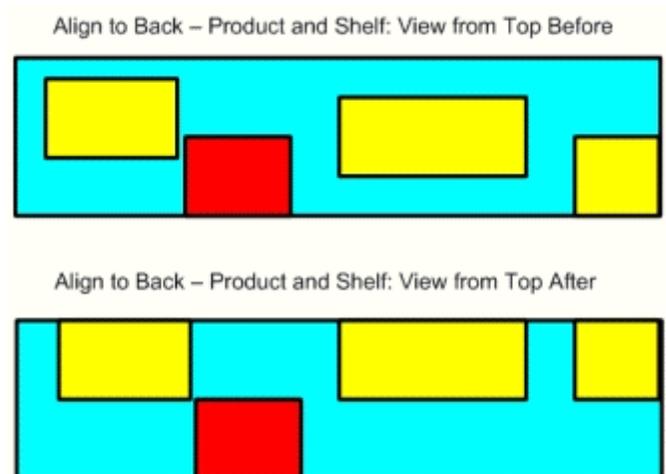
The manner of the alignment will depend on whether only products are selected, whether the shelf and some of its products are selected, or whether the shelf/fixture alone is selected.

**Products Selected**

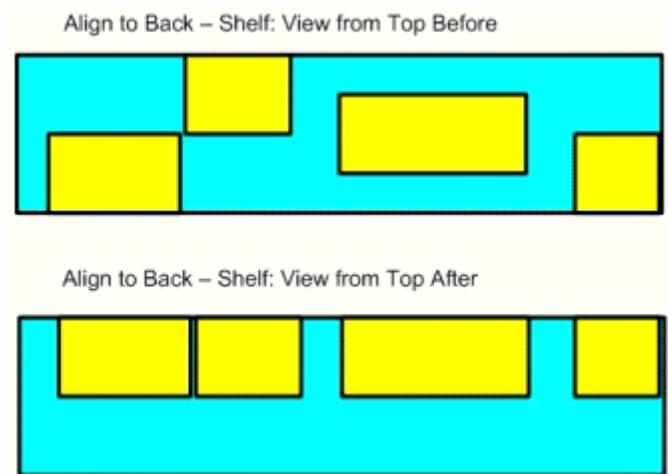
If only products are selected, then each selected product will be aligned so that back of each matches the back of the shelf.

**Figure 4–121 Shelf/Fixture and Products Selected**

If the shelf/fixture, plus some of its child products are selected, then only those selected products will be aligned with the back of the shelf, rather than all the products on the shelf.

**Figure 4–122 Shelf/Fixture Selected**

If the shelf is selected (and no products) and the alignment button is pressed, then it will assume all child objects are selected and align them to the back of the shelf.

**Figure 4–123 Justify to Back - Product Selection**


---

**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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### Distribute Left/Right

Distribution ensures that the spaces (or overlaps) between objects are equal.

#### Products

If only products are selected, then Distribute Left/Right will establish the total distance between the left edge of the left most product and the right edge of the right most product. It will then establish the combined length of all the products within that distance.

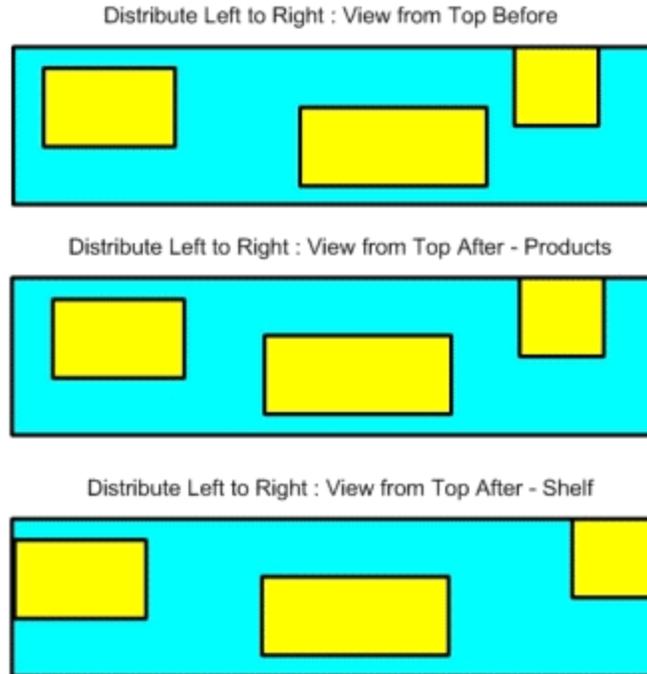
After comparing the total distance and the combined length, Distribute Left/Right will then move all selected products so that the gaps (or overlaps) between the selected products are equal.

If products are selected, the left hand and right hand products in the selection will not move, but all intermediate products may have their positions adjusted.

#### Parent Fixture/Shelf

If the parent fixture/shelf is also selected, then it will assume that all child products are selected; this will distribute products between the left hand edge and right hand edge of the merchandisable areas.

This means that unlike a Products selection, the left hand and right hand products in the selection will move to the respective left hand and right hand extents of the shelf respectively.

**Figure 4–124 Distribute - Product Selection**


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**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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### Distribute Front/Back

Distribution ensures that the spaces (or overlaps) between objects are equal.

### Products

If only products are selected, then Distribute Top/Bottom will establish the total distance between the top edge of the lowermost product and the maximum height available. It will then establish the combined heights of all the products within that distance.

After comparing the total distance and the combined heights, Distribute Top/Bottom will then move all selected products so that the gaps (or overlaps) between the selected products are equal.

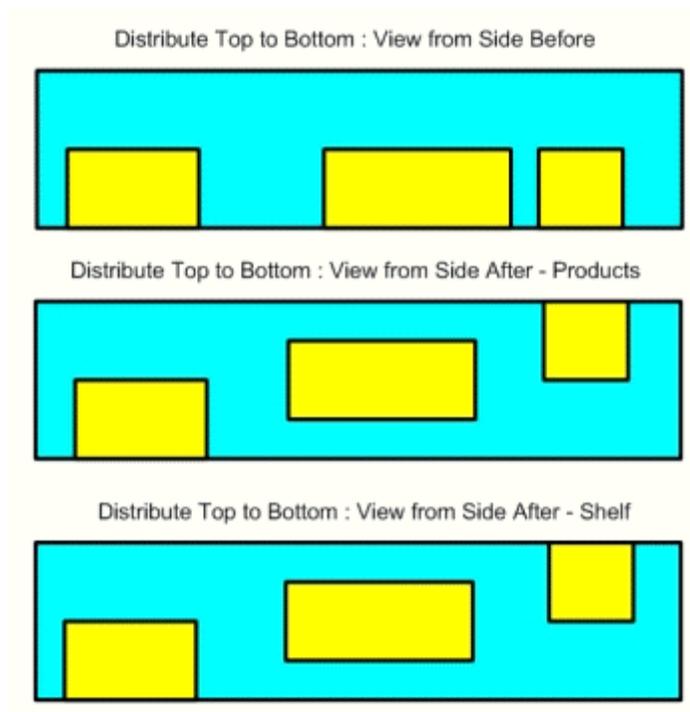
If products are selected, the top and bottom products in the selection will not move, but all intermediate products may have their positions adjusted.

### Parent Fixture/Shelf

If the parent fixture/shelf is also selected, then it will assume that all child products are selected; this will distribute products between the front edge and rear edge of the merchandisable areas.

This means that unlike a Products selection, the top and bottom products in the selection will move to the respective top and bottom extents of the shelf respectively.

**Figure 4–125 Distribute - Product Selection**




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**Note:** It is recommended that Clash Detection be turned on. This will avoid one product being placed on top of another if only some of the products on a shelf are selected for alignment.

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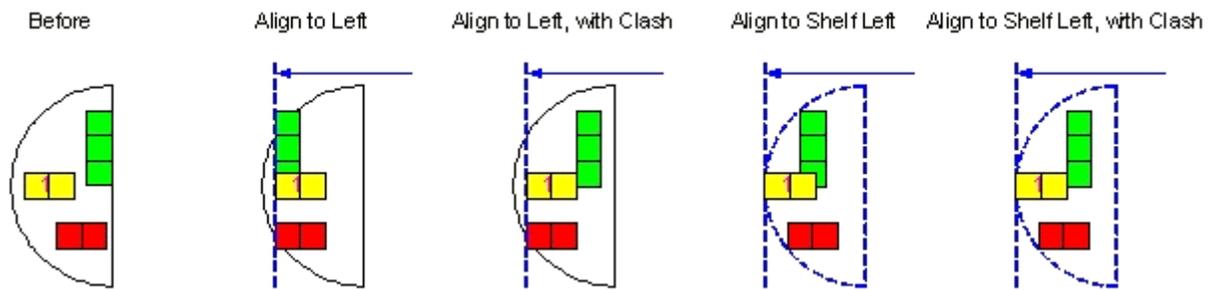
#### Other Aspects of Alignment Operations

##### Aligning to Non-Rectangular Objects

Macro Space Management allows alignment to non rectangular objects such as semi-circular fixtures or corner shelves. The shape of the non-rectangular shelf is defined in Fixture Studio, all products placed on the shelf are confined to the bounds of the non-rectangular area.

##### Shelves

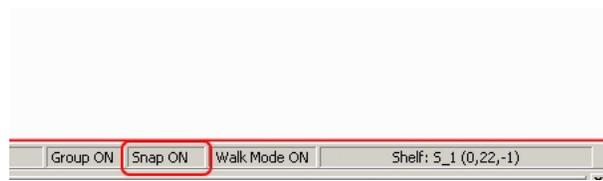
Alignment on non-rectangular objects should be carried out using the Shelf alignment options and with clash detection on.

**Figure 4–126 Products Alignment**

Non-rectangular products are treated as boxes for alignment purposes.

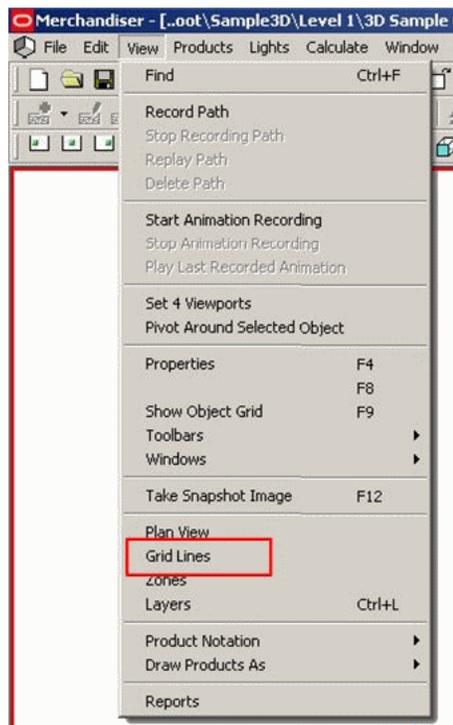
### Aligning to Snap Grid

It is possible to align objects to a regular grid. This can be toggled On or Off by clicking on the Snap option on the Status bar.

**Figure 4–127 Status Bar - Snap Option**

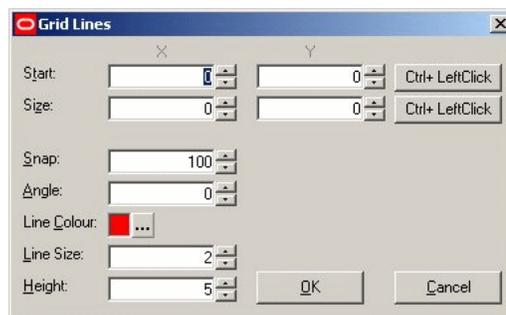
It is also possible to toggle it On or Off using the Edit menu. The grid itself can be set to be displayed using the Grid Lines Option in the View menu.

**Figure 4–128 Merchandiser View Menu**



This brings up the Grid Lines dialog box which can be used to set the parameters of the grid.

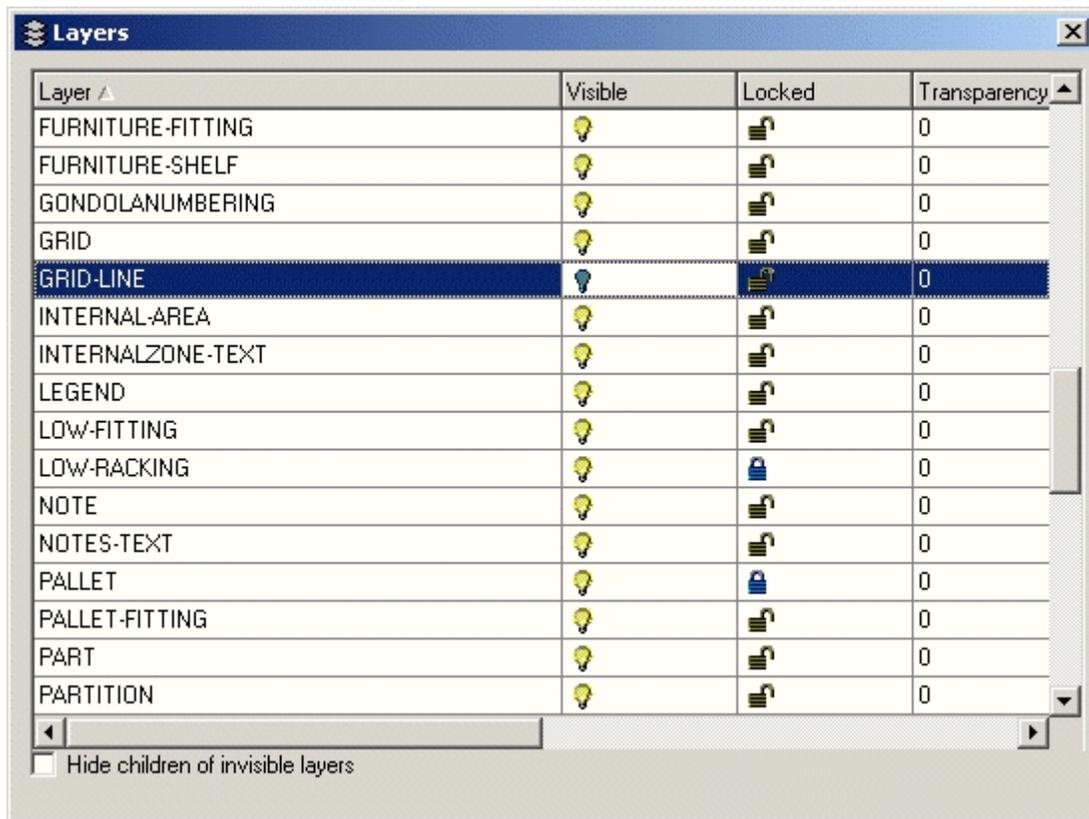
**Figure 4–129 Grid Lines Dialog Box**



The grid appears in the Virtual Reality Environment.

To turn a grid off, go to the Layers dialog box and turn off the grid lines layer.

Figure 4–130 Layers Dialog Box

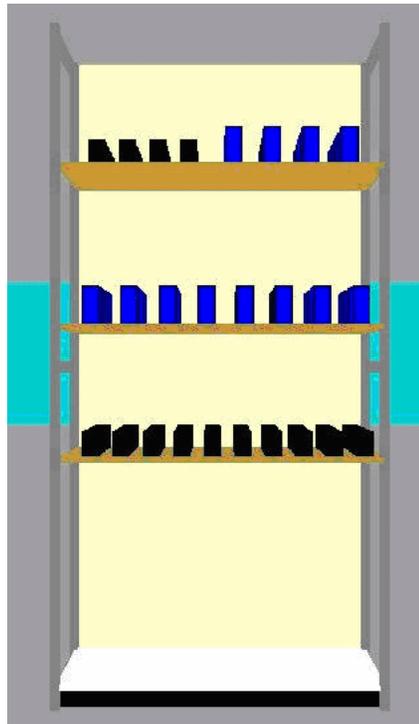


### Adding Planograms

A planogram, a pre-planned arrangement of shelves and fixtures, is designed to occupy multiple fixtures. Planograms provide a quick and effective way to rapidly place a standard arrangement of shelves and products. The example below displays a single bay planogram that occupies a single fixture with three shelves. Planograms can be either imported from third party software or they can be designed within Merchandiser.

Planograms are designed to go on fixtures of specific dimensions. These are selected in the store plan. The actual planogram that is then placed consists of shelves and merchandise placed on those fixtures.

**Figure 4–131 Adding Planograms**

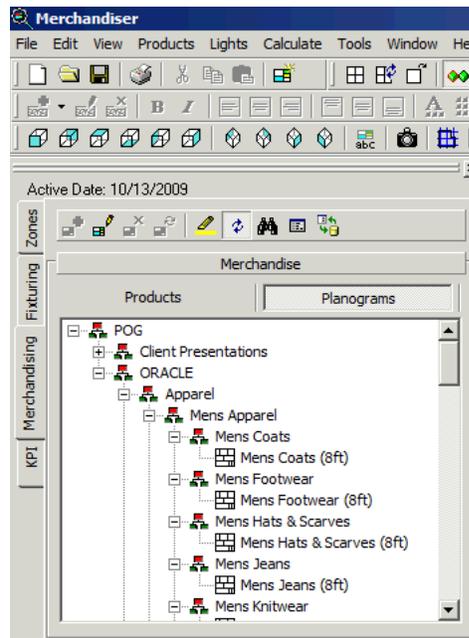


Both Products and planograms can be placed either from the Object Browser or the Object Grid.

**Planogram Hierarchy**

Planograms are organized in a Planogram Hierarchy. This can be found in the Object Browser.

Figure 4–132 Planogram Hierarchy



Planograms can be added to the hierarchy in Macro Space Management in one of three ways:

- Imported from third party software
- Designed from new in Macro Space Manager
- Created from existing equipment and merchandise in Macro Space Manager

The hierarchy can be modified in one of two ways: groups and planograms.

- **Groups:** Groups are similar to directories in Windows Explorer - they provide folders in which planograms can be stored in a logical arrangement. Groups can be set up in a hierarchical structure - for example Summer Promotion is a child of Promotional Items.
- **Planograms:** Planograms can only be assigned to groups.

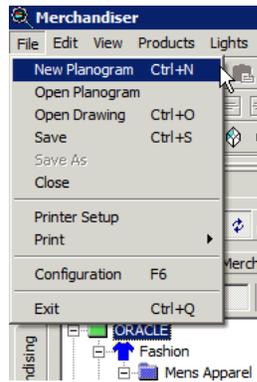
### Designing a Planogram

Planograms are designed from new by selecting a parent group and highlighting it. There are then two options: using the menu options or using the right click pop up menu.

To add anew planogram:

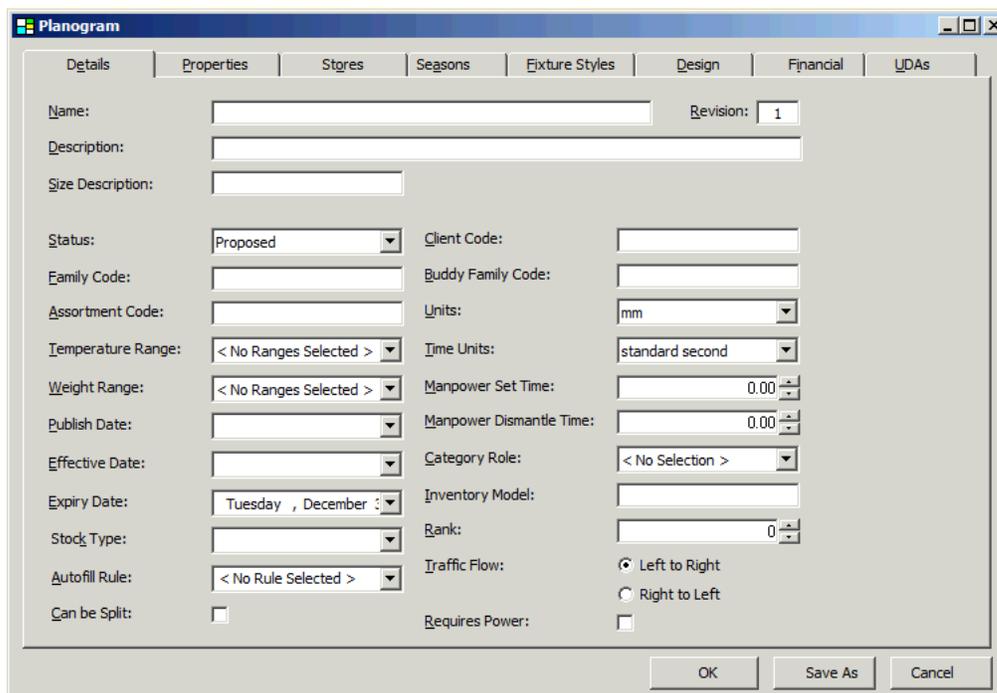
1. Select the **New Planogram** option from the File Menu. Alternatively, planograms can also be added by using Ctrl + Right Click to bring up the pop-up menu and selecting Add Planogram.

**Figure 4–133 Add Planogram**



2. Planogram dialogue box appears. The Planogram dialogue box allows you to specify complete details for the planogram.

**Figure 4–134 Add Planogram - Details**



- The Details tab allows the planogram name, effective date, to be specified.
- The Properties tab is not editable.
- The Stores tab allows you to select which stores the planogram is intended for.
- The Seasons tab allows you to select which time periods the planogram is intended for.
- The Fixture Styles tab allows you to specify which types of fixtures the planogram can be placed on.
- The Design tab allows the planogram design to be modified relative to the fixtures and merchandise selected in the store.

- The Financial tab allows you to provide financial information about the planogram.
  - The UDA tab allows User Designed Attributes to be set for the Planogram.
3. Click Save as option to save the planogram. On saving of the Planogram dialogue, the new planogram appears in the hierarchy.

### Adding Planograms

To add a planogram:

1. Use Walk Mode to move in front of the fixtures or shelves it is desired to merchandise
2. Select the fixtures the planogram is to be added to
3. Select the planogram to be added
4. Highlight the required planogram from the Merchandising tab of the Object Browser.
5. Alternatively, go to the Object Grid and select the required planogram.
6. 'Drag and drop' the planogram onto the required fixture or shelf.

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**Note:** It is recommended that the Size Rule (Edit Menu) be set to On. This will be defaulted to Off when Merchandiser is first started.

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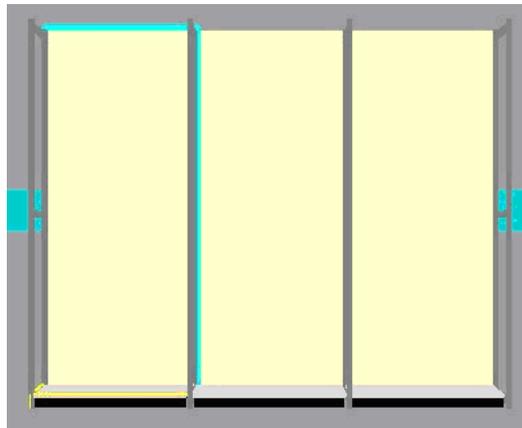
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### Adding a Planogram from Object Browser

To add Planograms from the Object Browser:

1. Select the required fixtures in the drawing.

**Figure 4–135 Placement of Planogram**




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**Note:** Turn Grouping off in the status bar. This will make it easier to select the required fixtures.

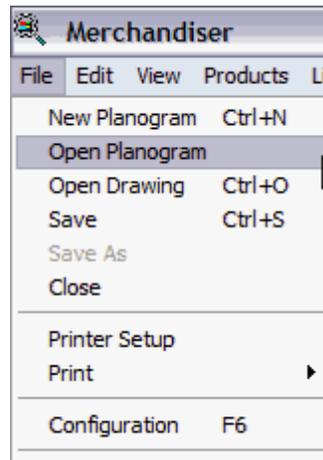
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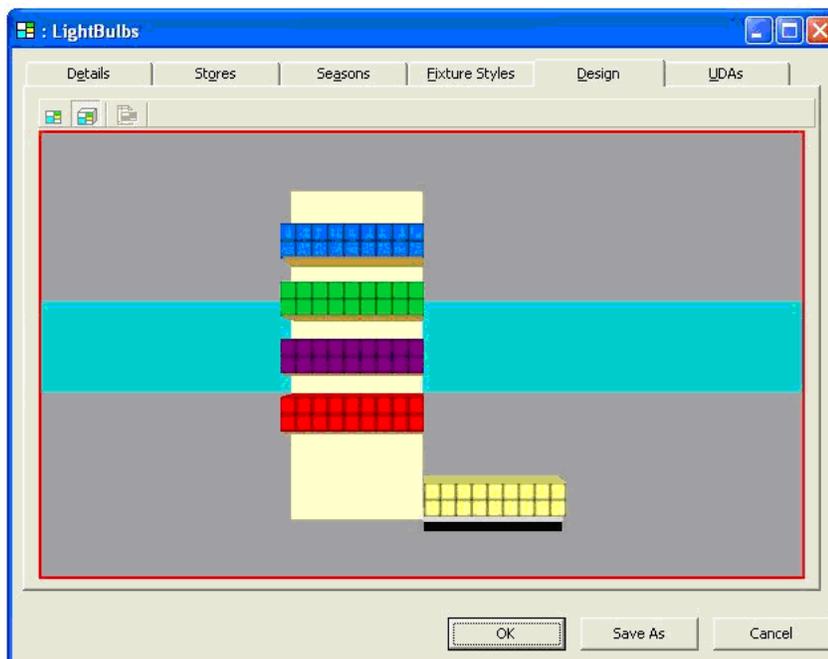
2. Identify which fixtures are required for the planogram by highlighting a planogram in the hierarchy and selecting **Open Planogram** from the file menu.

**Figure 4–136 Planogram Studio - Open**



This opens the Planogram Design Window.

**Figure 4–137 Planogram Studio - Lightbulbs**



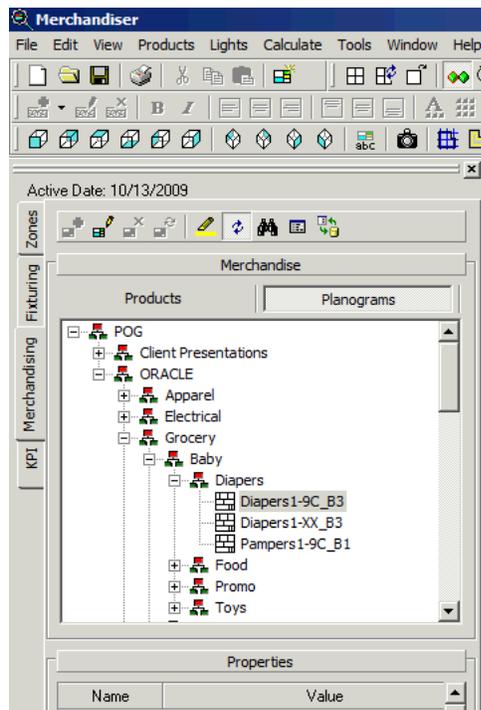
- Identifying the required fixtures can be done by holding the mouse pointer over them until the tooltip appears. Dimensions can be found by right clicking and choosing the edit option from the resulting pop-up menu.

---

**Note:** Fixtures required for the planogram appear in sequence from left to right and not in the positions they are in the drawing.

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- Once the fixture details are known, go to the Merchandise tab in the Object Browser and select the Planograms sub-tab. Locate the required item in the hierarchy and highlight it.

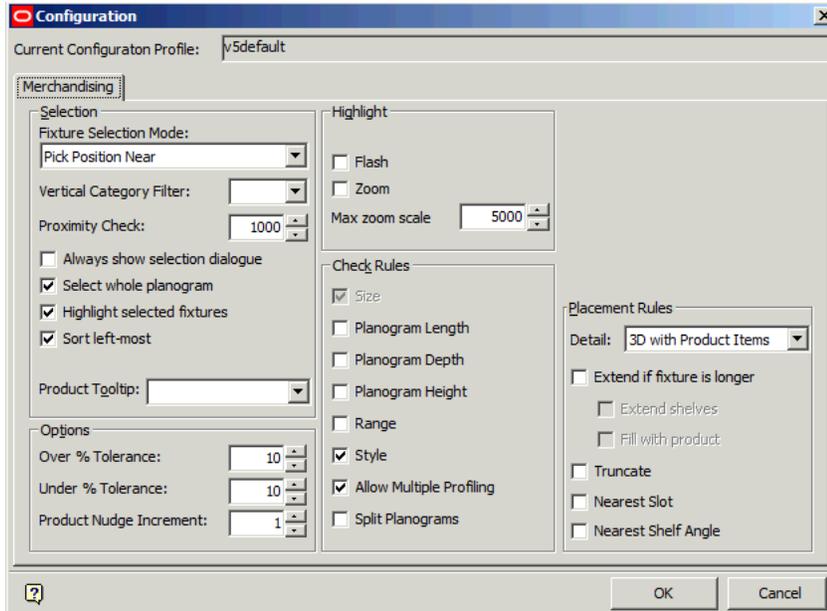
**Figure 4–138 Planogram Studio**

- Next, hold down the left mouse key and 'drag and drop' the selected item from the hierarchy onto the selected fixtures.

**Figure 4–139 Drop Item on Fixtures**

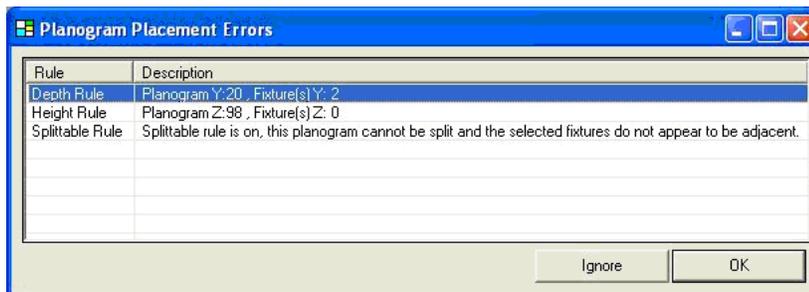
- A + sign by the cursor indicates that the shelf has been selected.
- Release the mouse key to add the planogram. How the planogram places depends on the settings in the Check Rules frame of the Configuration Module.

**Figure 4–140 Configuration Module - Merchandising**

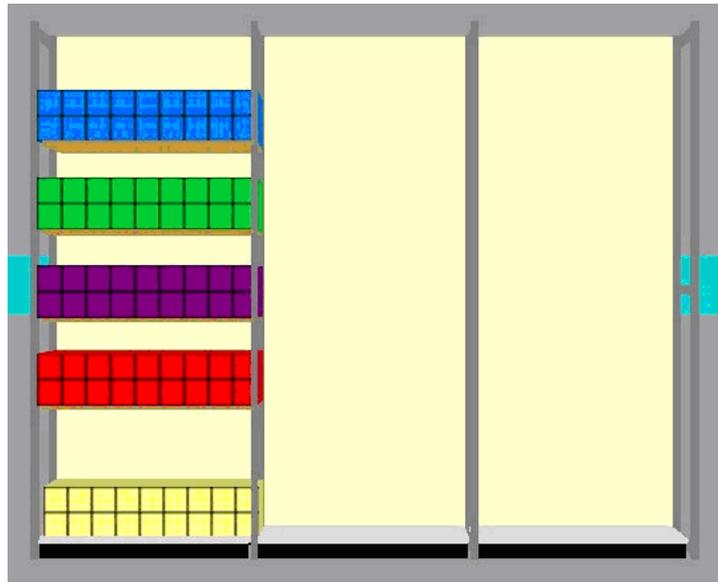


In the above example, the planogram length, depth, height, style and whether the planogram has been split have been set to give warnings. If some or all the check rules have been set to on, the warning dialog may appear.

**Figure 4–141 Planogram Placement Errors**

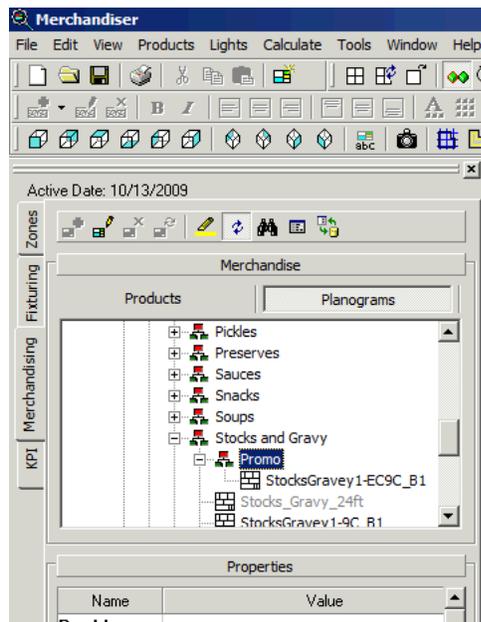


7. To stop placing the planogram click **OK**. To place the planogram click **Ignore**

**Figure 4–142 Placement of Planogram****Adding Planogram in a Object Grid**

To populate (or repopulate) the Object Grid with data:

1. Select a node in the Object Browser. Ensure the Refresh button is on in the Object Grid. The Object Grid will be populated with all child data below that node.

**Figure 4–143 Add Planogram**

2. To add planograms from the Object Grid, highlight the required planogram. (If necessary, use the Find, Sort and Filter options to simplify the list).

**Figure 4–144 Object Grid**

Name	Import Name	Group	Bays	Width (Ft)
LightBulbs	null	3DSamples	2	6.7
1LitreEmulsion	null	3DSamples	2	6.7

3. Drag and drop into the drawing. On 'dropping' the planogram it is placed in the drawing.

### Exploding and Imploding Planograms

It is possible to place planograms in both the Planner and Merchandiser modules. There is a difference in how they appear.

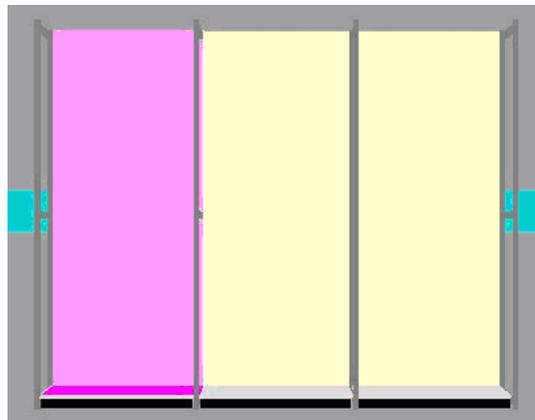
- In the Planner module they appear as placeholders - a single block without any detail.
- In the Merchandiser module they appear with considerable detail including Display Style information for products appearing on specific shelves.

When a planogram placed in the Planner module is first viewed in the Merchandiser module, it appears as a single product block with little detail. The Explode option shows it in full detail, while the Implode option allows the level of detail to be reduced.

Exploding or Imploding Planograms in Merchandiser does not affect the level of detail shown in the Planner module.

### Exploding a Planogram

When a planogram is placed in the Planner Module and subsequently viewed in the Merchandiser module it initially appears as a placeholder.



In the above example, the planogram appears as simple product blocks on the left hand base and back panel. There are two modes of exploding planograms:

- If no fixtures are selected, all 2D planograms in the drawing are exploded.
- If fixtures containing planograms are selected, only the planograms on those fixtures are exploded.

To explode planograms:

1. Select the option from the Directions and Product Text toolbar.

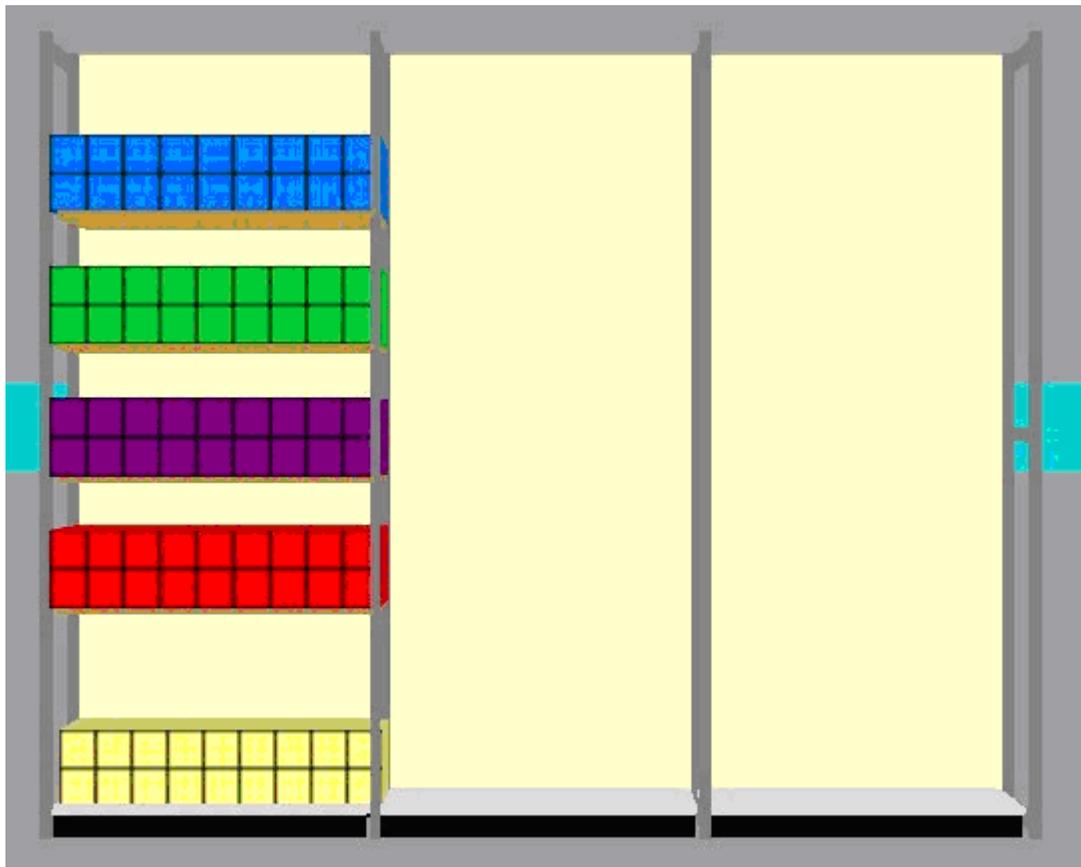
**Figure 4–145 Planogram Studio - Explode**



2. If no fixtures containing planograms are selected, a warning dialog box appears.
3. Click OK to explode all planograms in the drawing. If fixtures containing planograms are selected, those planograms are exploded (without the warning dialog box).

Exploded planograms can then be seen at their maximum level of detail.

**Figure 4–146 Planogram Explode**



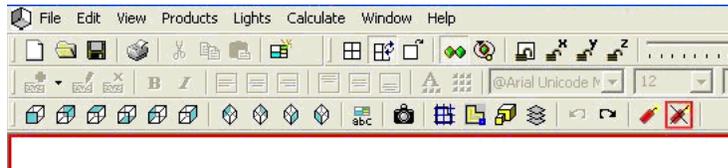
### Imploding a planogram

Imploding planograms reverses the exploded planogram. The planogram is displayed at a lower level of detail.

To implode specific planograms:

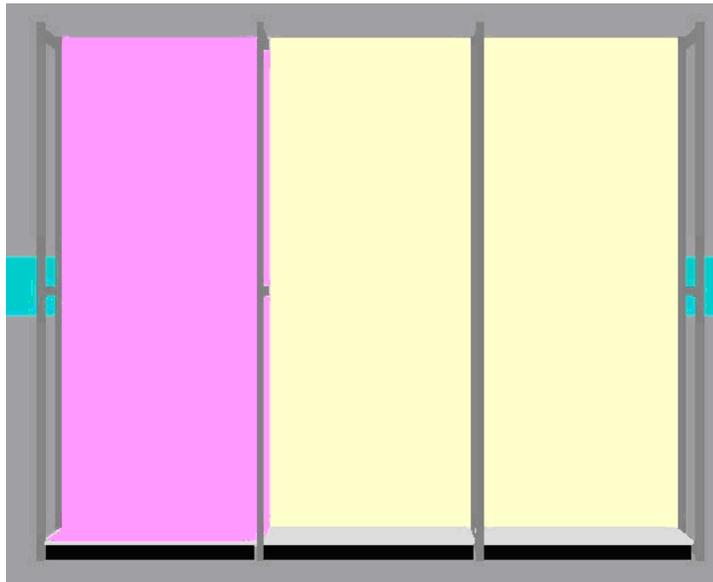
1. Select the parent fixtures. To implode all planograms, ensure no fixtures are selected.
2. Click the Implode icon in the Directions and Product Text toolbar.

**Figure 4–147 Planogram Studio - Implode**



3. A warning dialog box appears if no fixtures are selected. Click Yes to implode. The planogram is imploded.

**Figure 4–148 Updating Planogram Versions**

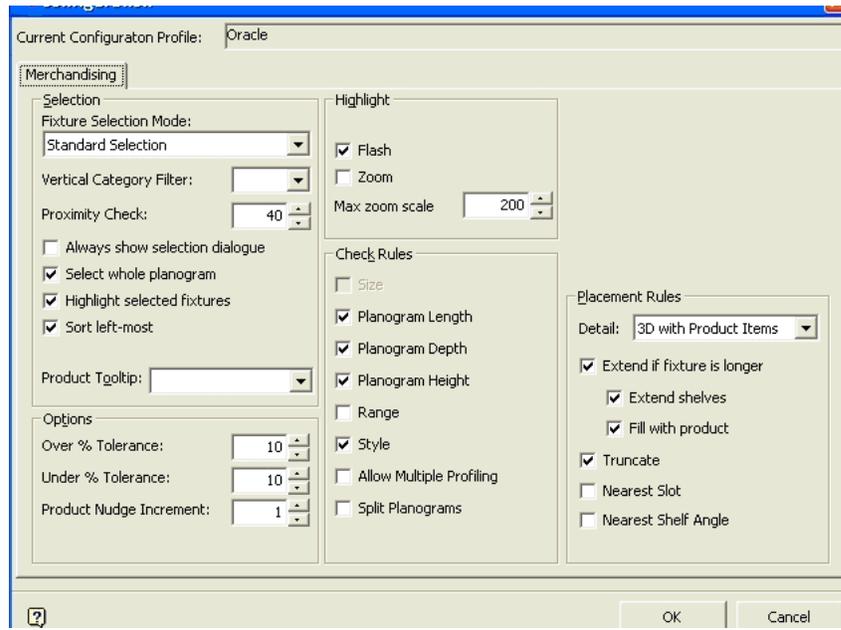


Imploding and exploding planograms has another use. Sometimes planogram designs are updated and a new version of the planogram is generated. This information is held in the Macro Space Management database. Imploding then Exploding all planograms in the drawing has the effect of replacing any outdated versions of planograms with the latest versions.

## Configuring Planograms

How planograms place is determined by settings in the Merchandising tab of the Configuration Module. This can be called from the File menu of Merchandiser or from the Properties icon on the Object Browser toolbar.

**Figure 4–149** *Configuring Planogram*



Planograms are designed for fixtures of specific dimension and type. If placed on other fixtures the behavior of the planogram (and any subsequent warnings) depends on what settings are selected in the Configuration Module.

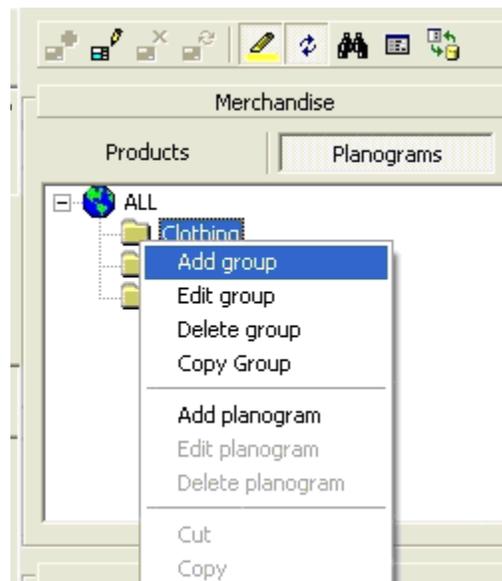
- Options Frame: Settings in the Options Frame determine the degree of variation allowed if the length of the selected fixtures differs from those in the planogram design.
- Check Rules Frame: Settings in the Check Rules frame determine what warnings are given if the planogram design does not match the selected fixtures.
- Placement Rules Frame: Settings in the Placement Rules frame determine what to do with products if the planogram dimensions do not match the fixture dimensions.

## Planogram Group Operations

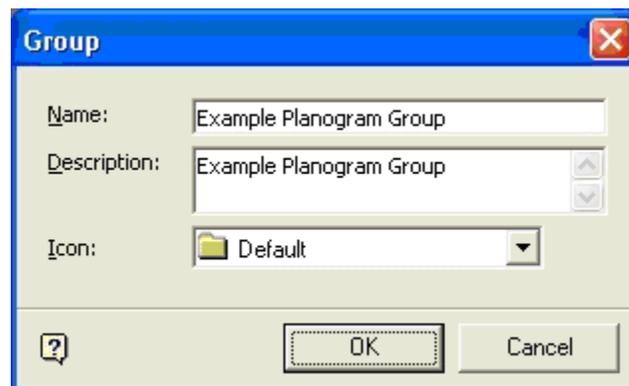
### Adding a Group

To add a group:

1. Highlight a node in the hierarchy to which the group will be child of.
2. Use Ctrl + Right Click to bring up the pop-up menu.

**Figure 4–150 Add Group**

- Next, select Add Group to bring up the Group dialogue box.

**Figure 4–151 Group dialogue box**

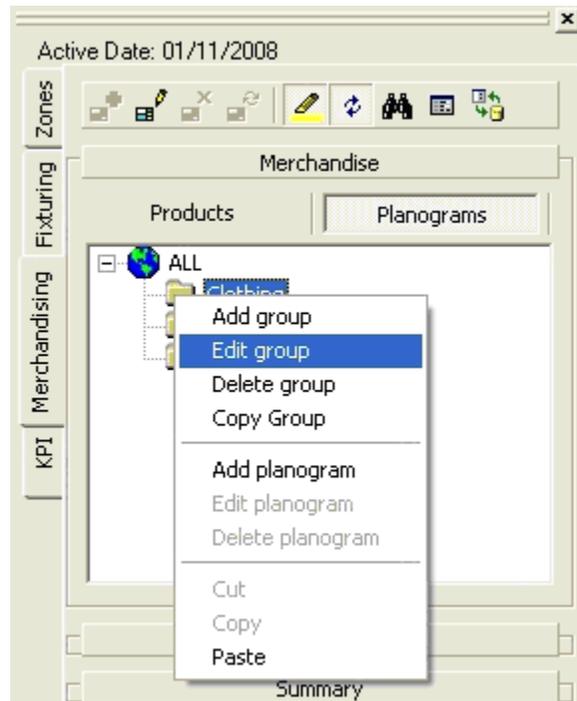
- The Name and description can be typed in, and the pertinent icon selected from a drop down list.
- On clicking OK, the group is added to the hierarchy.

### Editing a Group

Groups can be edited in one of two ways; their details can be modified, or their position in the hierarchy can be changed.

To edit details:

- Highlight the required group in the hierarchy and use Ctrl + Right Click to bring up the pop-up menu.

**Figure 4–152 Edit Group**

2. Select the Edit Group option. This brings up the Edit Group dialogue box. Modify it as required.

**Figure 4–153 Edit Group dialogue box**

3. Modify the information as required, click OK and the edited details are modified in the hierarchy.

### Deleting a Group

To delete a group from the hierarchy:

1. Highlight the group you want to delete and use Ctrl + Right Click to bring up the pop-up menu.
2. Click Delete Group, a confirmation to delete planogram appears.

3. Click **Yes** and the Group and any child objects are deleted.

## Editing Objects

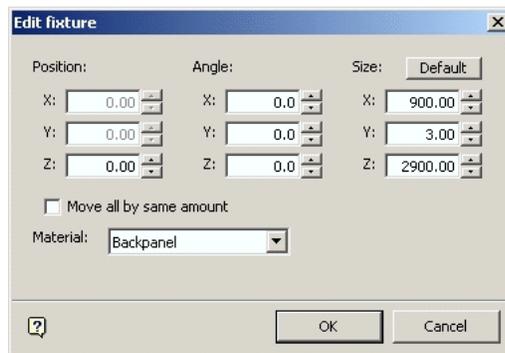
### Editing Fixtures

Fixtures can be edited on the Fixtures tab of the Object Browser.

To edit a fixture:

1. Select a fixture from the Fixturing tab of the Object Browser.
2. From the toolbar, select Edit fixture icon. The Edit Fixture dialog Box opens in the Fixture Studio.

**Figure 4–154** Edit Fixture



This allows the Position, Angle and Size of the fixtures to be edited.

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**Note:** If dissimilar fixtures have been selected as part of the Group, only options that are common to those fixtures will be available for editing.

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### Editing Shelves

Shelves can be edited from either the Fixtures or Merchandising tabs in the Object Browser.

1. Hold down <Ctrl> and right click to bring up the pop-up menu.
2. Click on the Edit option to bring up the Edit Shelves dialog Box.

**Figure 4–155 Edit Shelves dialog Box**

**Edit shelf**

Position: Slot: Angle: Size:

X:  Y:  Z:

X:  Y:  Z:

X:  Y:  Z:

Fixture - Height: 2900 Slots: 61 First Slot: 123 Spacing: 45  
Width 900 Slots: 900 First Slot: 0 Spacing: 0

Material:

Preferred Style:

This allows the Position, Slot Number, Angle and Size of the shelves to be edited.

---

**Note:** If dissimilar shelves have been selected as part of the Group, only options that are common to those shelves will be available for editing.

---

## Editing Products

You can edit single or grouped products by using Edit or Edit Group option.

To edit products:

1. Select the product by highlighting it.
2. With the cursor on the product, hold down the <Ctrl> and right click to bring up the pop-up menu.
3. Select Edit. The Edit Product dialog box appears.

**Figure 4–156 Edit Product dialog box**

**Edit product**

Position: Angle: Size:

X:  Y:  Z:

X:  Y:  Z:

X:  Y:  Z:

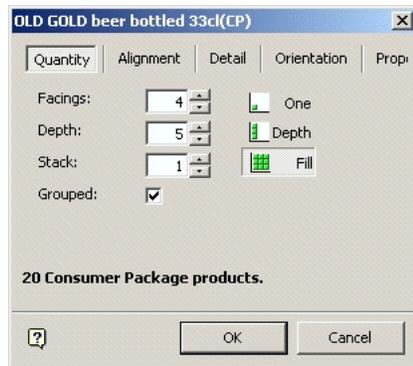
4. Modify the position and orientation of the product. Changes made will affect the single instance of the product.
5. Click **OK** when done.

## Edit Group

The Edit Group option enables you to edit the products in the group.

1. Select Edit Group from the pop up menu to bring up the Edit Group dialog box.

**Figure 4–157 Edit Groups Dialog Box**



2. The changes made affect the grouped products.

## Removing Products

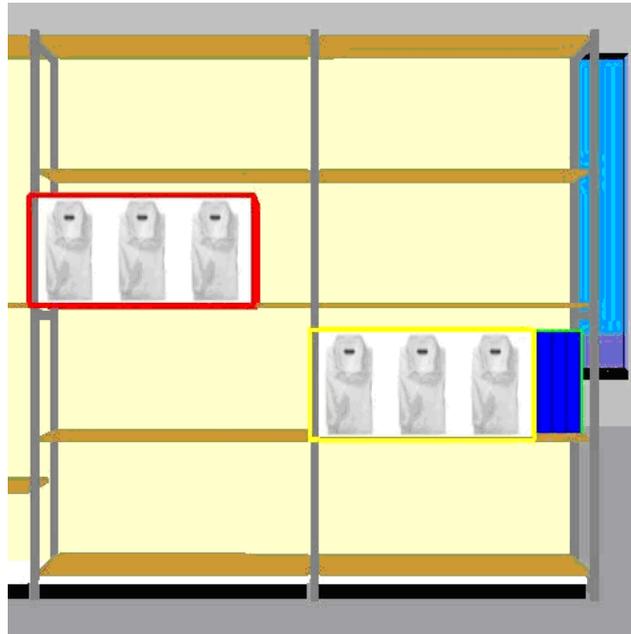
There are two ways of removing products from fixtures or shelves.

- Selecting the item of merchandise and using the <Delete> key.
- Selecting the item of equipment and using the Empty command.

Using the Delete Key

To use the delete key:

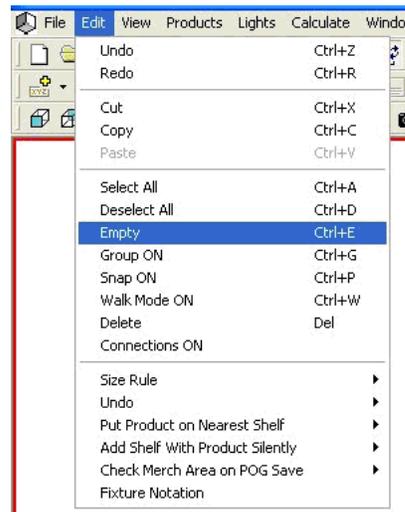
1. Select the required items of merchandise.

**Figure 4–158 Highlight Merchandise to Delete**

2. Once the required merchandise has been selected, click the Delete key to remove it.

Using the Empty command

The Empty command is found on the Edit menu.

**Figure 4–159 Empty Command**

To use it, select the required shelves or fixtures. Once the fixtures are selected, use the Empty command (or Ctrl+E) and the fixtures or shelves are emptied of merchandise.

## Time Dependent Data

Macro Space Management data can come from two main sources: the program itself and data imported from external software. This data is stored in the central Macro Space Management database. The data can be analyzed in two ways: using Reporting Tools and Key Performance Indicators (KPI).

KPIs present data visually in the form of color coded objects within the Virtual Reality store. This enables an overview of performance to be seen at a glance. Reporting Tools present data in the form of ordered lists. This enables data to be analyzed in detail. The two methods are complementary, enabling you to see information in two different ways.

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**Note:** Macro Space Management has an internal reporting tool called Report Studio. Alternatively, reporting tools from Oracle can be used - an example is BI Publisher.

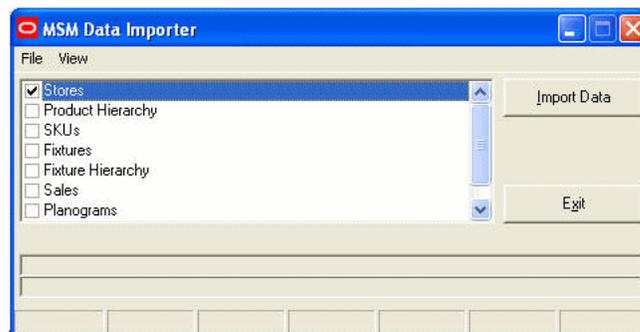
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As data changes with time, Macro Space Management allows data to be analyzed for specific periods of time. Such information is known as Time Dependent Data. It is possible to review Time Dependent Data for a specific day, week, month, quarter or year. It is also possible to review the data for seasons or any other specified criteria.

## Data Import

Data can be imported from external programs using Macro Space Management's Data Import module.

**Figure 4–160** MSM Data Importer



This data is then stored in tables within Macro Space Management's central database. Such data might include sales values, product volumes, etc. Imported data can then be analyzed using Report Studio or KPIs, (Key Performance Indicators).

## Store Manager

### Status and Effective Dates

Status

Each store within a retail organization is subdivided into floors. Each floor in turn can have a number of revisions, and each revision can contain a number of drawings. Only one drawing at a time can be current (active) for a store. The current position of a drawing is indicated by its status. Although there will be some variation from customer to customer, statuses tend to follow the same general sequence.

- Proposed drawings are tentative layouts for stores.
- Authorized drawings are layouts that have been accepted for future implementation.
- Current drawings are the layouts that are presently in use.
- Historical drawings are drawings of layouts that have been superseded.

A specific store may only have one current drawing (the layout presently in use) and one authorized drawing (the layout due to come into use) at any one time. Drawings can be viewed with any status, but the amount of information available for KPIs and reports may vary depending on the status of the drawing. For example, drawings with Proposed status may not have sales data associated with them, while drawings with Current status will have sales data associated with them.

### Publish and Effective Dates

When a drawing reaches Authorized status it may have Publish and Effective dates assigned to it. The Publish Date is the date at which an authorized drawing is sent to the affected stores so that they may begin preparations for implementing it. The Effective Date is the date at which the drawing becomes the active version of the layout within the affected stores.

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**Note:** Publish and Effective dates can only be set when a drawing has Authorized status.

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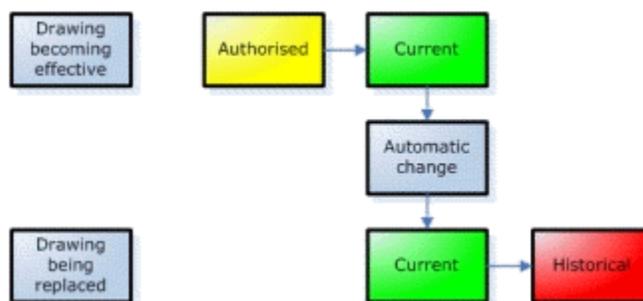


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### Effect of Effective Date on Status

When an Authorized drawing is given an Effective date, this indicates the date at which it is to come into use. At the date when the drawing becomes Effective, its status is changed from Authorized to Current. Simultaneously, the drawing it replaces has its status changed from Current to Historical.

**Figure 4–161 Status Flowchart**



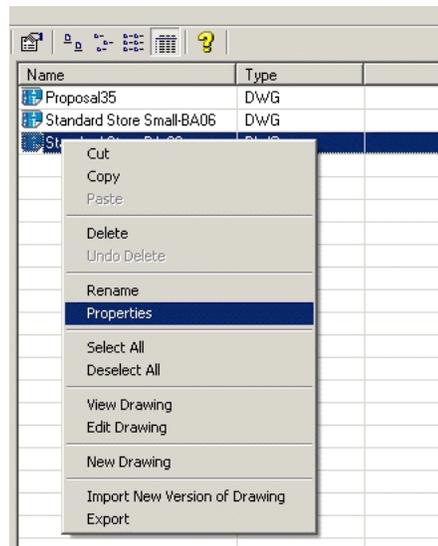
### Setting Effective Dates in Store Manager

You can set the Effective Date for a drawing within Store Manager by accessing the Properties file of the drawing.

To set the effective date:

1. Selecting the required drawing by highlighting it.
2. Right click on the drawing to bring up drop down menu options.

**Figure 4–162 Set Effective Dates**



3. Select **Properties** to bring up the Properties dialog box.
4. Set the **Publish Date** and **Effective Date** by selecting the dates from the calendar.
5. Click **OK**.

---

**Note:** Publish and Effective dates can only be set when a drawing has Authorized status.

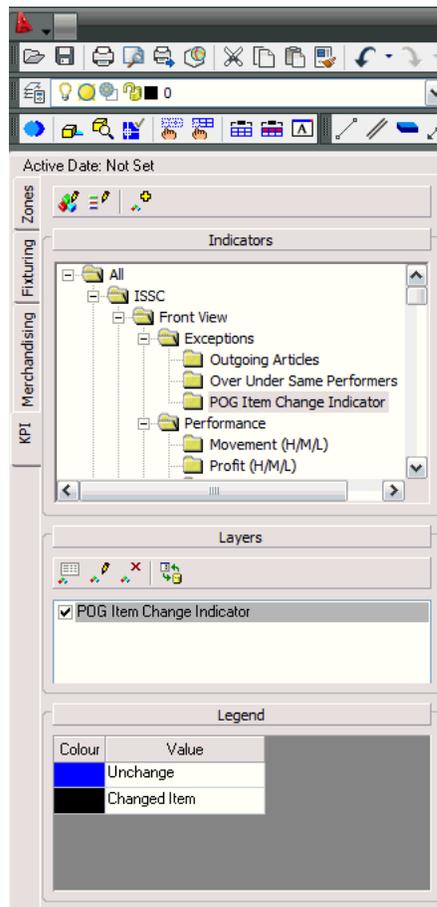
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## KPIs

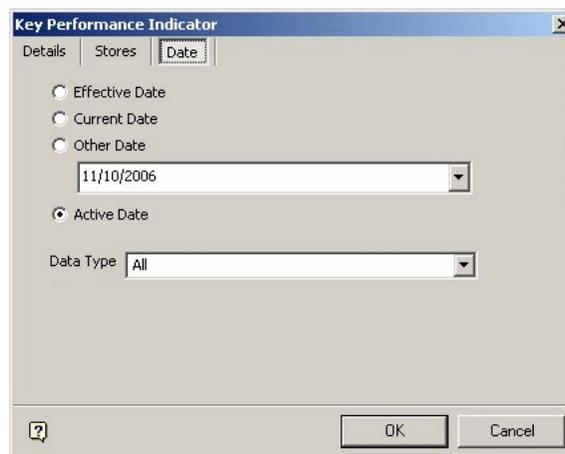
Key Performance Indicators (KPIs) allow fixtures to be color coded to show performance. They can be customized according to requirements and can use either Macro Space Management data or information from other databases.

Key Performance Indicators (KPIs) can be produced using data from the store associated with the current drawing, or from a user specified store. Macro Space Management enables you to select both the date and time period for the data to be displayed. This enables you to monitor performance with specified time periods.

KPIs can be selected from the Object Browser by clicking the KPI tab.

**Figure 4–163 Merchandiser - KPI**

Click on a particular KPI to bring up the Key Performance Indicator Dialogue Box.

**Figure 4–164 Key Performance Indicator Dialogue Box**

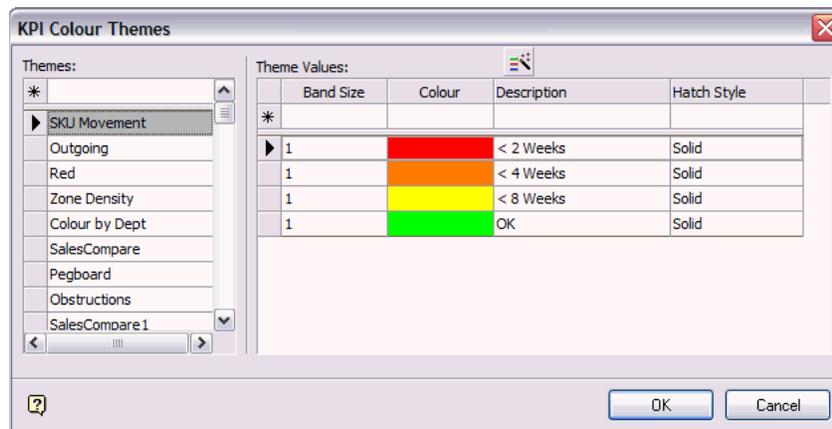
On this dialog box, you can specify the Details, Stores involved and Date Ranges required. You can specify which ViewPort(s) to use. When done click OK.

## Editing KPIs

KPIs are made up of three elements:

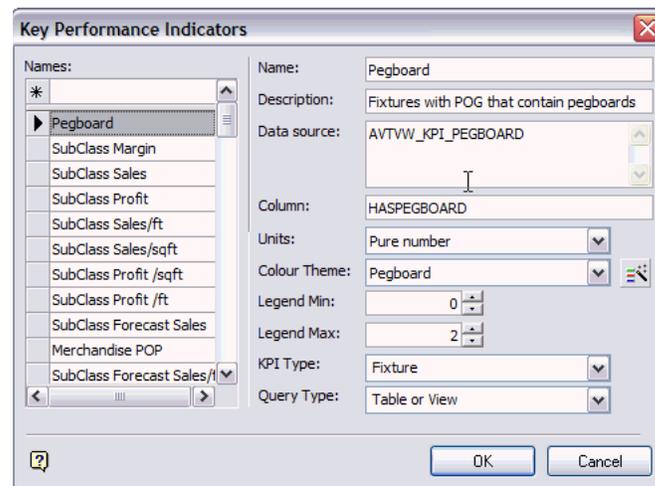
- **Data source:** The data source provides the information that is going to be color coded. It may be a column in a database table or view, a simple SQL select statement, or a stored procedure. Whichever data source is used determines the results that will be displayed.
- **Color theme:** The Color Theme defines the colors used to indicate the different results for the KPI. In the example below, colors have been assigned to bands of percentages.

**Figure 4–165 KPI Color Themes**



The colors and descriptions that are defined in the Color themes are displayed in the Legend pane of the KPI tab of the Object Browser.

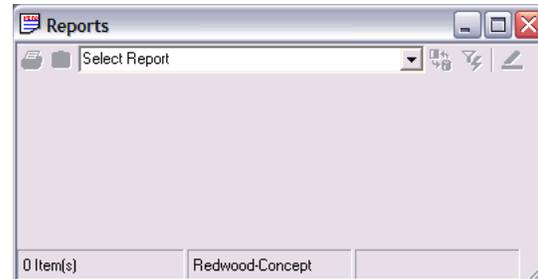
- **Definition:** The KPI definition combines the Color Theme and the data source. It defines what KPI type it will be, that is product, shelf, fixture or zone, which in turn determines which type of object will be colored in Planner. The definition also gives the KPI Name that is displayed in the Indicators section of the KPI tab of the Object Browser.

**Figure 4–166 KPI - Edit Indicators Dialog Box**

## Running Quick Reports

To run the reports:

1. From the View menu options, select Reports. The Reports dialog box comes up.

**Figure 4–167 Quick Reports Dialog Box**

2. Select the Report by selecting from the drop-down list. You can switch between reports by choosing the reports in the drop-down box.
3. On selecting the report, the data is populated in the tables.

**Figure 4–168 Quick Reports Results**

DEPARTMENT	DESCRIPTION	NET AREA	GROSS AREA	% OF STORE	# SECTIONS	LINEAR FEET	FIXTURE DENSITY (%)	FIXTURE AREA
301	Children	840.59	840.59	1.3	16	53	12	103.8
200	Do It Yourself	5908	5908	9.3	96	384	22	1280
300	Fashion	7948.39	7948.39	12.5	132	446	11	867.1
100	Grocery	26126.44	26126.44	41.2	404	1734	21	5560.2
302	Mens	1851.46	1851.46	2.9	45	148	16	291.8
2	NonSales Area	15559.77	15559.77	24.5	4	61	0	46.5
303	Women	5252.8	5252.8	8.3	68	237	9	449.4

7 Item(s) Redwood-Concept

**Filtering Data**

You can filter data by selecting a cell in the report and clicking the Filter button.

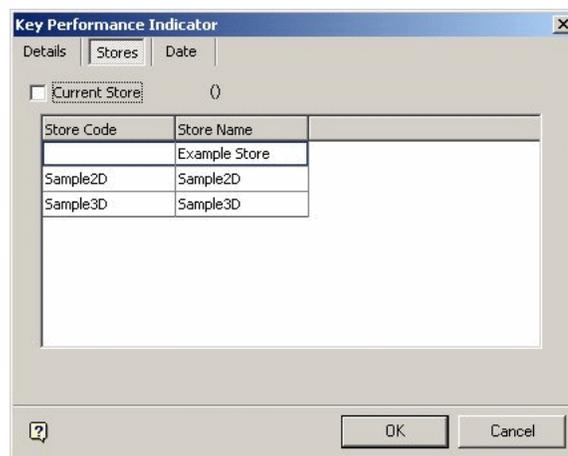
On clicking the Filter button, the report will be filtered to only match items that are the same as the selected cell.

Clear the filtered data by clicking the Refresh button. You can search for any item in the report by highlighting an appropriate cell and clicking the Find in Drawing icon.

**Selecting Stores**

To select stores:

1. On the KPI tab, select the required KPI by highlighting it. Ensure the store layout drawing is open.
2. Double click the KPI to display the Key Performance Indicator dialog box.
3. Select the Stores tab.

**Figure 4–169 KPI - Stores**

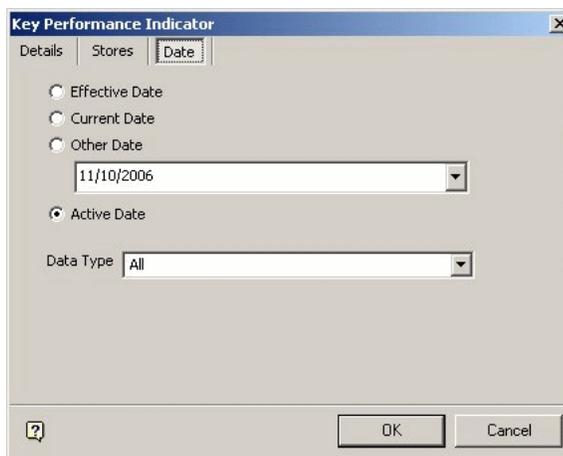
4. If the Current Store check box is selected, clear the Current Store checkbox to select any other store. When you clear the Current Store checkbox, available store names and codes are displayed in the box. You may sort the data by Store Code or Store Name by clicking the column header.

5. Select the store and click **OK**. The KPIs are displayed for the store associated with the active drawing.

## Selecting Dates Ranges

You can select the date range for the KPIs to be displayed by using the Date tab in the Key Performance Indicator dialog box.

**Figure 4–170 KPI - Date**



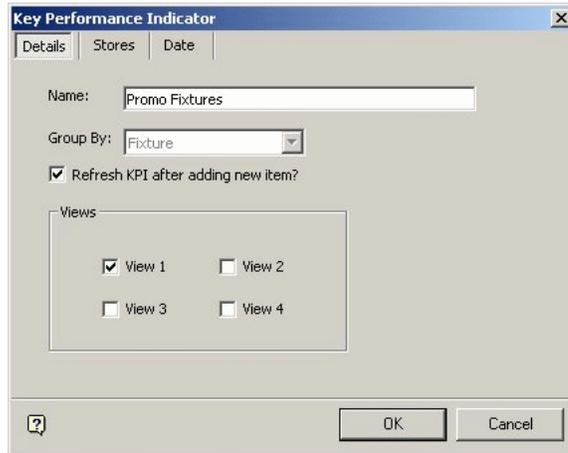
To select the dates:

1. On the KPI tab, select the required KPI by highlighting it. Ensure the store layout drawing is open.
2. Double click the KPI to display the Key Performance Indicator dialog box.
3. Select the Date tab.
4. You can select from the available options:
  5. Effective Date - date on which the drawing becomes current
  6. Current Date - system's current date
  7. Other Date - user specified date
  8. Active Date
9. Select appropriate data in the Data Type field from the drop down options. This specifies the time period relative to the selected date. All date ranges are after the selected date. For example, if the current date is 11/10/06 and a date range of a Month, then the application selects all data for October 2006

## KPIs and ViewPorts

Each KPI can be associated with one or more viewports. This is specified in the Details tab of the Key Performance Indicator dialog box when the KPI is first opened.

**Figure 4–171 KPI - Details**

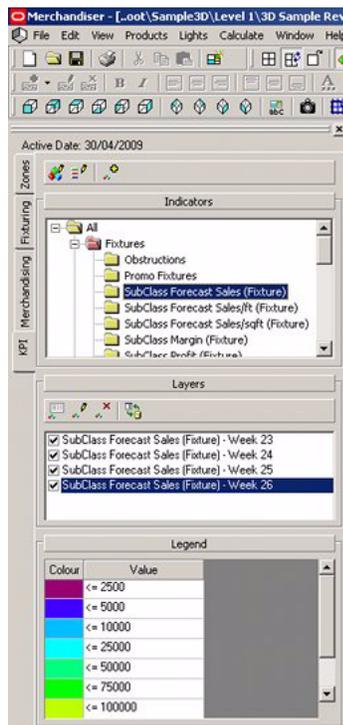


In the above example, the KPI has been selected to show in ViewPort 1.

## KPIs and using Multiple Viewports

You can use ViewPorts to display a single KPI reporting on data over different date ranges. You can also use ViewPorts to display performance data from different stores sharing the same layout. Each instance of the KPI can be set to show in a different ViewPort window, allowing the Macro Space Management user to compare how performance changes over time or how performance varies from store to store.

**Figure 4–172 Key Performance Indicator dialog box**

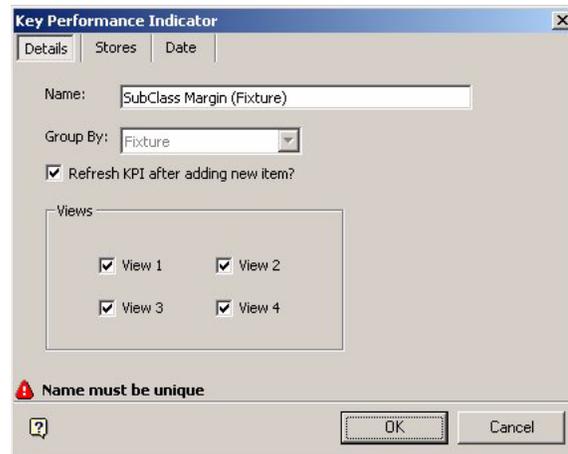


In the above example the Weekly Sales KPI has been set to show in four different ViewPorts, each showing a different weeks data.

## Renaming KPIs

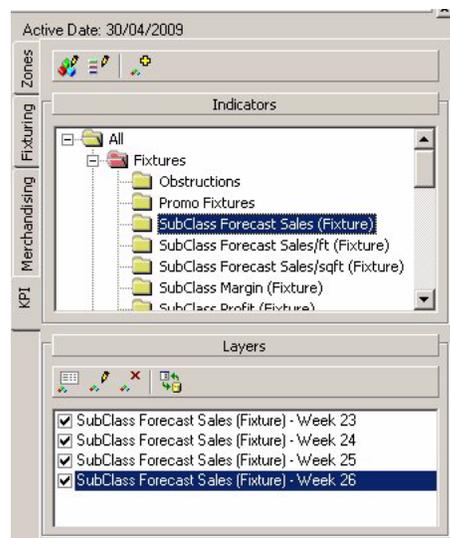
Each instance of similar KPIs open in multiple ViewPorts has to be renamed because each KPI must have a unique name. If duplicate names occur, Macro Space Management places a warning at the bottom of the Key Performance Indicator dialog box.

**Figure 4–173** Key Performance Indicator dialog box - Naming



In the example below the SubClass Forecast Sales (Fixture) KPI has been renamed to each instance has a unique name.

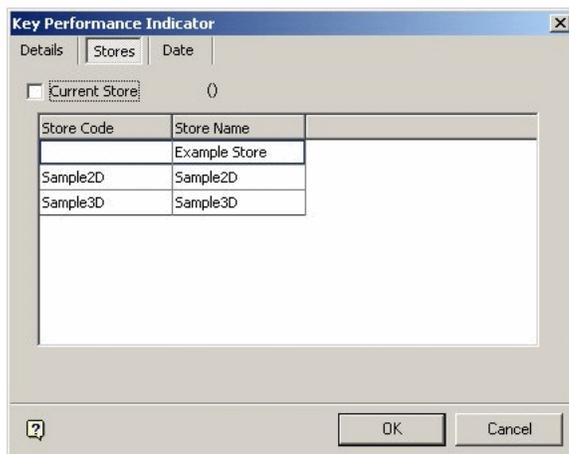
**Figure 4–174** Key Performance Indicator dialog box - Rename



## Selecting stores

Stores can be selected from the list on the Stores Tab of the Key Performance Indicator dialog box.

**Figure 4–175 Key Performance Indicator dialog box - Store Tab**



**Date Ranges**

Start dates and Date Ranges can be set from the Date Tab of the Key Performance Indicator dialog box.

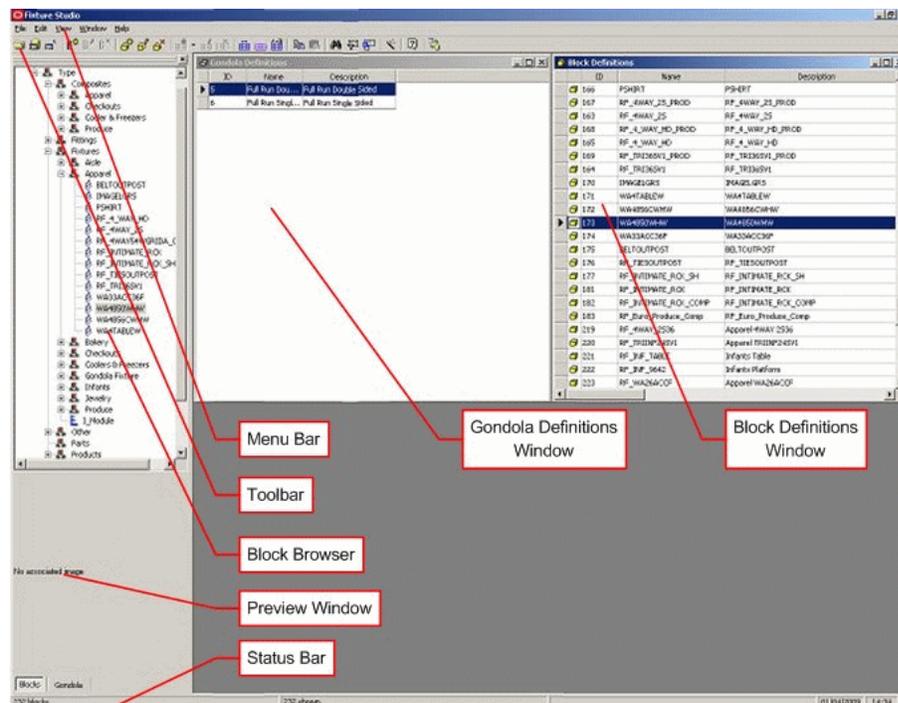
**Figure 4–176 Key Performance Indicator dialog box -Dates Tab**



## Fixture Studio

The Fixture Studio Window has a number of parts.

**Figure 5–1** Fixture Studio Window



- The **Menu Bar** gives access to a number of menus.
- The **Toolbar** allows the selection of a number of options relative to fixture and gondola creation.
- The **Block Browser** has a hierarchical tree of fixtures or gondolas depending on which tab is selected.
- The **Preview Window** in the Object Browser gives a simplified image of the selected object.
- The **Status Bar** at the bottom of the screen gives information on the number objects selected, status of current action, etc.
- The **Gondola Definitions Window** contains a list of all gondolas held in the central database.

- The **Block Definitions Window** contains a list of all blocks (fixtures, fittings, etc.) held in the central database.

## Menu Bar and Toolbar Options

### Fixture Studio Menu Bar

The **Menu Bar** contains five options.

*Figure 5–2 Menu Bar*

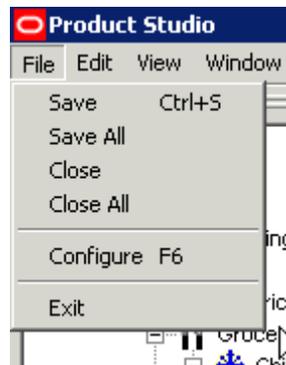


- The **File** menu allows blocks to be read and saved. It also allows blocks to be loaded to and saved from the drawing and allows the blocks to be subjected to operations such as normalizing or producing 3DS files.
- The **Edit** menu allows block definitions to added, edited, and deleted.
- The **View** menu allows the way block definitions display in Fixture Studio to be defined.
- The **Window** menu allows you to specify the way the various windows and dialog boxes display in Fixture Studio.
- The **Help** menu calls the Help module and allows you to see system information for the computer the software is running on.

### File Menu

The **File Menu** has varying options concerned with reading and saving blocks, AutoCAD operations and connection to AutoCAD.

*Figure 5–3 File Menu*



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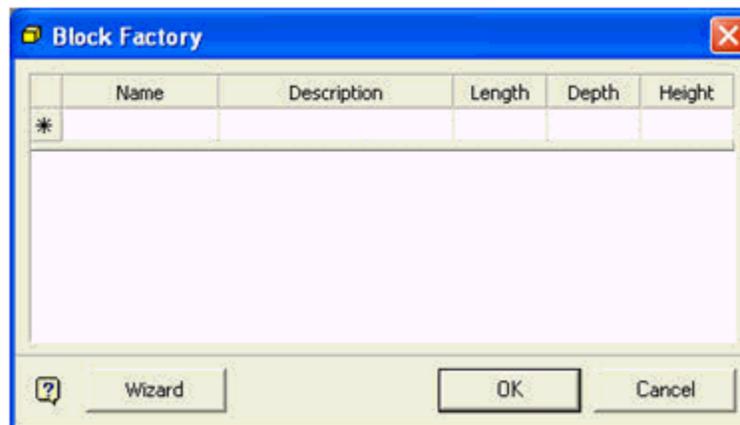
**Note:** The Load Blocks into Drawing, Load Blocks From Disk, Layout Blocks in Drawing, Normalize Blocks, Create 3DS Files and Redefine blocks from disk options are not enabled unless the Connect to AutoCAD option has been checked.

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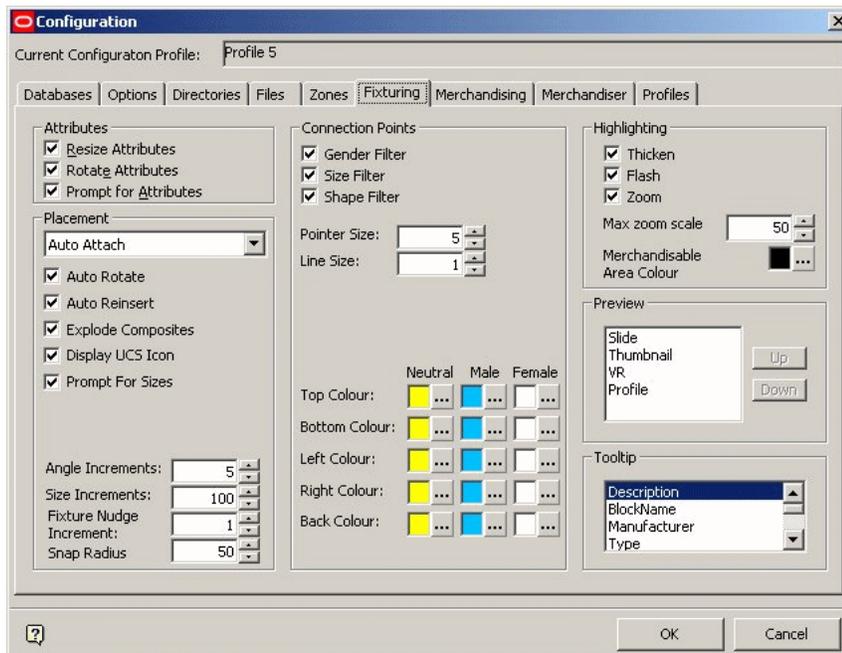
- **Read Blocks** reads the details of all blocks from the central Macro Space Management database or the drawing into Fixture studio.
- **Save Blocks** saves the details of all blocks back to the central Macro Space Management database from Fixture studio.
- **Save Gondolas** saves the details of any newly created gondolas back to the central Macro Space Management database from Fixture studio.
- **Load Blocks into Drawing, Load Blocks From Disc, Lay Out Blocks in Drawing, Normalize Blocks, Create 3DS Files and Redefine blocks from disk** are discussed in more detail here.
- **Block Factory** is a wizard intended to assist in block creation. Clicking on Block Factory will bring up the Block Factory dialog box.

**Figure 5–4** Block Factory



- **Configure** brings up the Configuration module. This can be used to change fundamental settings in Macro Space Management.

**Figure 5–5 Configuration module**

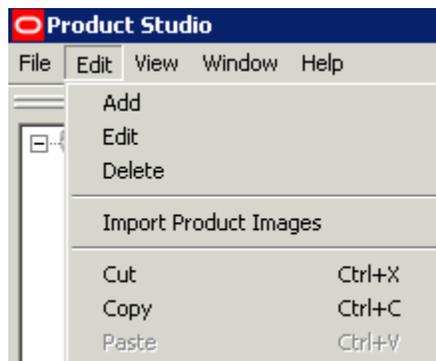


- **Connect to AutoCAD** opens the AutoCAD environment (if not already open) and enables a number of block editing commands that cannot otherwise be used.

**Edit Menu**

The **Edit Menu** has varying options concerned with editing block descriptions.

**Figure 5–6 Edit Menu**

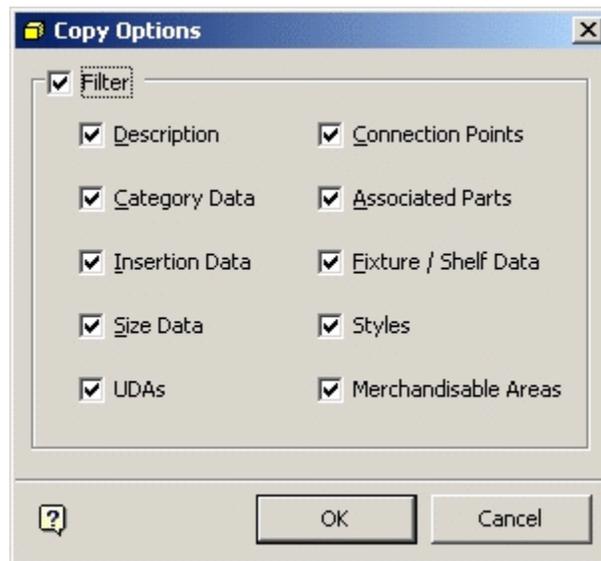


- **Add Block**, **Edit Block**, and **Delete Block** result in a block being added, or the selected block being either edited or deleted.
- **Copy Data** and **Paste Data** allow information to be copied from one block to another, or copied into a block being added. If data is going to be overwritten, a confirmatory warning appears.



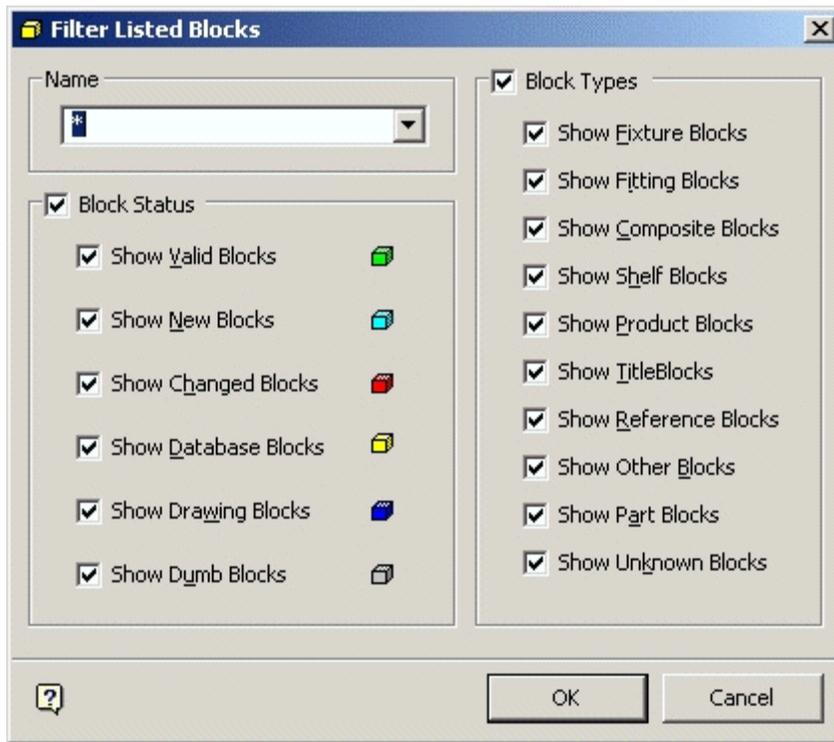
- **Copy Options** brings up a dialog box allowing the data being copied to be filtered.

*Figure 5-7 Copy Options*



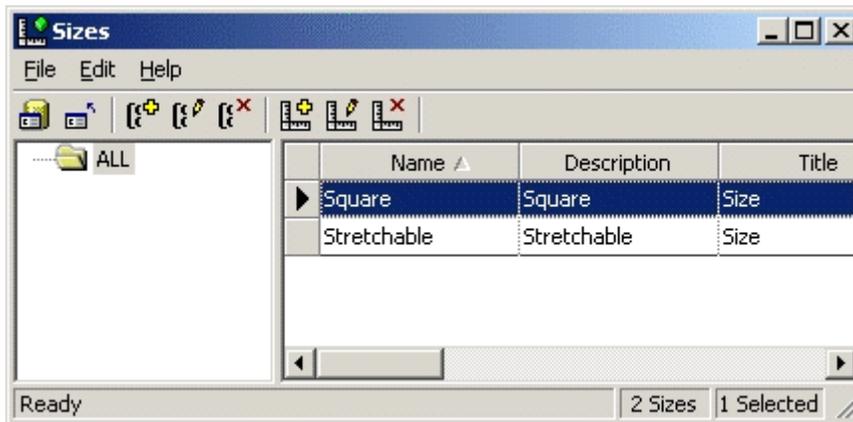
- **Clear all Blocks** removes all blocks from the list of blocks currently loaded into Fixture Studio.
- **Filter Data** brings up the Filter Listed blocks dialog box.

**Figure 5–8 Filter Listed Blocks**



- **Edit Sizes** brings up the Edit Sizes dialog box.

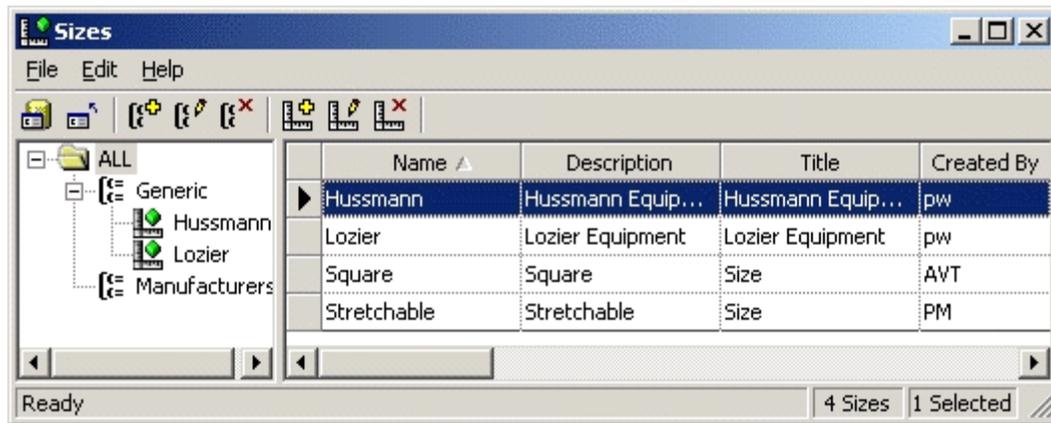
**Figure 5–9 Sizes Window**



**Editing Sizes**

Sizes are used to collect together a set of size rules. When a block is associated with a size, it is associated with all the size rules. This allows multiple sizes to be assigned to a block.

Figure 5–10 Editing Sizes




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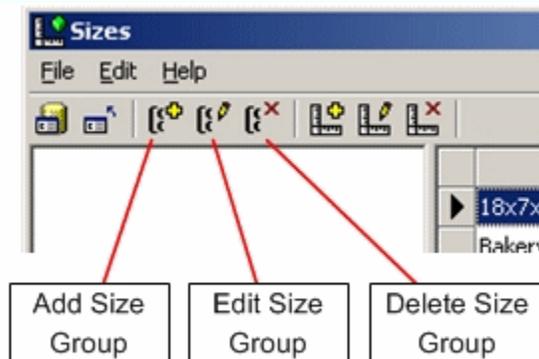
**Note:** If a Size is changed, all the blocks that reference that size will have their associated size rules changed.

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### Setting Up Size Groups

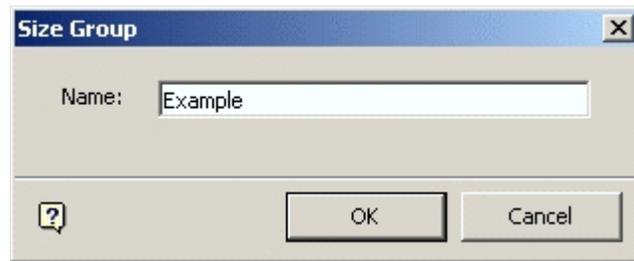
Size Group Classes are used to organize size groups into sub-divisions that make it easier to find the required Size Groups. Size Group Classes have an administrative function, but do not directly affect the data stored in Size Groups.

Figure 5–11 Setting Up Sizes



### Adding a Size Group

You can build a hierarchical tree using Adding a Size Group option. To add a Size Group, highlight the node in the hierarchical tree to which the new Size Group is to be added and click the **Add a Size Group** icon. The Size Group dialog box appears.

**Figure 5–12 Size Group**

Type in the name of the required Size Group and click **OK**. The Size Group is added to the hierarchical tree.

#### **Editing a Size Group**

Size Group names can be edited. To do this, highlight the required Size Group and click the **Edit a Size Group** icon. The Size Group dialog box appears.

**Figure 5–13 Renaming Size Group**

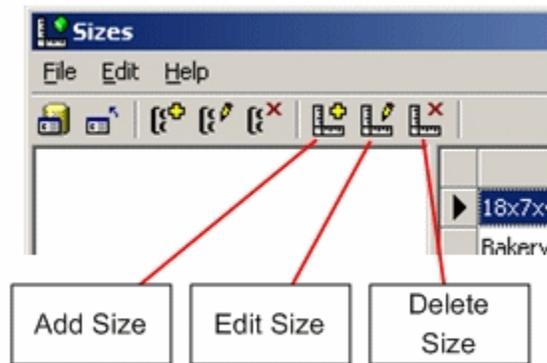
Change the name of the Size Group then click **OK**. The Size Group is amended in the hierarchical tree.

#### **Deleting a Size Group**

To delete a Size Group, highlight the group and click the **Delete a Size Group** icon on the toolbar.

#### **Adding a Size**

To add a size click the **Add a Size** icon in the section of the toolbar concerned with adding, editing, and deleting sizes.

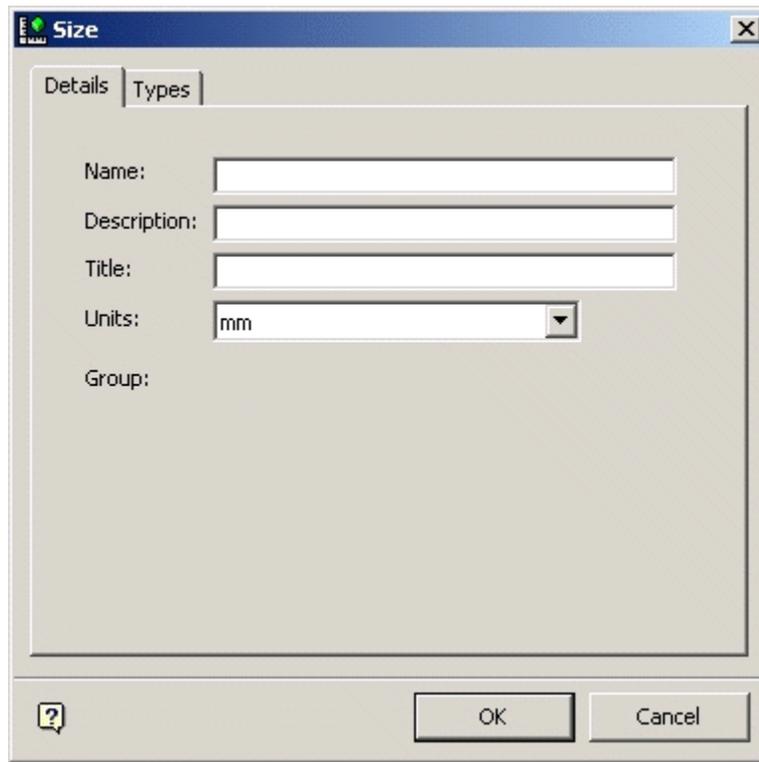
**Figure 5–14 Adding a Size**

When adding a size, first select the size group it is to be added to by clicking it. If this is not done, an error message appears.

**Figure 5–15 Size Group - Error**

If a Size Group has been selected, the Size dialog box appears.

**Figure 5–16 Size - Details tab**

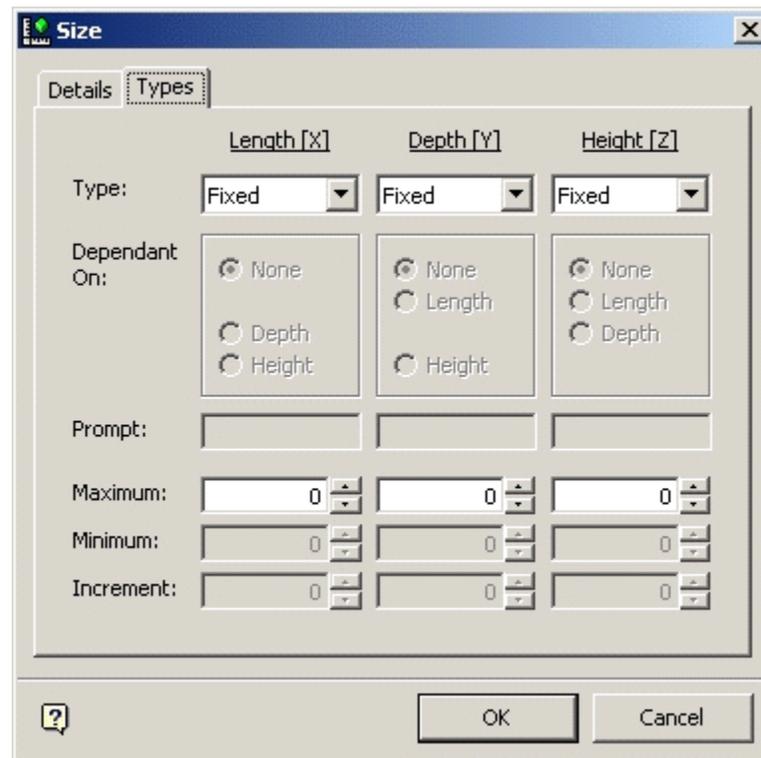


On the Details tab, enter a name, a description and a title for the size. Select the units from the drop down list. Click OK to confirm and the size group is added to the hierarchy.

### **Size Types**

There are a number of options for setting size rules. These are selected from the **Type** drop down list.

Figure 5-17 Size - Types tab



Options are:

- Fixed
- Variable
- Choice
- Match
- Delta
- Ratio
- Locked

#### Fixed Sizes

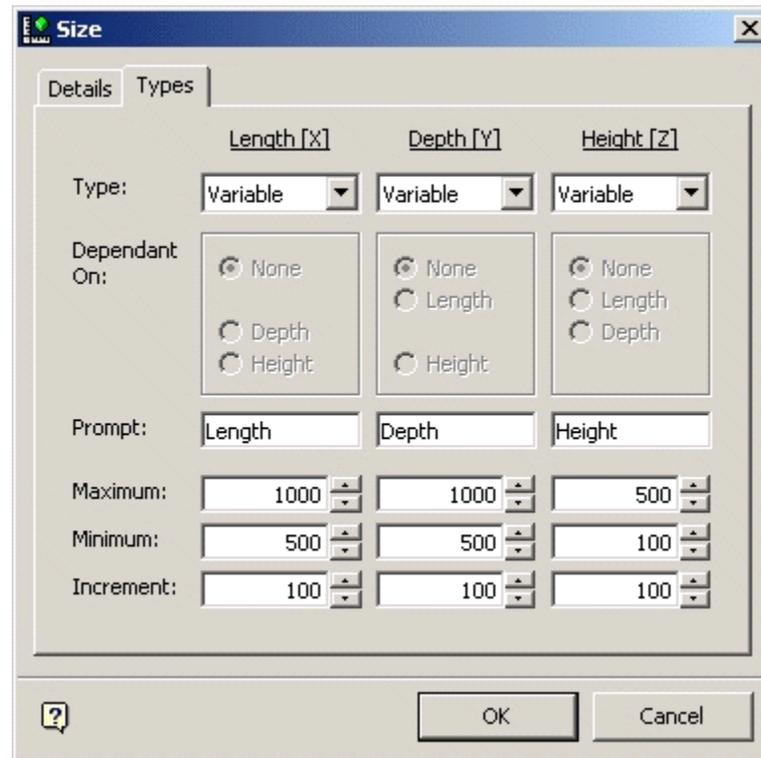
**Figure 5–18 Size - Fixed**

	Length [X]	Depth [Y]	Height [Z]
Type:	Fixed	Fixed	Fixed
Dependant On:	<input checked="" type="radio"/> None <input type="radio"/> Depth <input type="radio"/> Height	<input checked="" type="radio"/> None <input type="radio"/> Length <input type="radio"/> Height	<input checked="" type="radio"/> None <input type="radio"/> Length <input type="radio"/> Depth
Prompt:			
Maximum:	1000	1000	500
Minimum:	0	0	0
Increment:	0	0	0

When setting fixed sizes, only a single dimension can be input for length, depth, and height. All other options are unavailable.

## Variable Sizes

Figure 5-19 Size - Variable

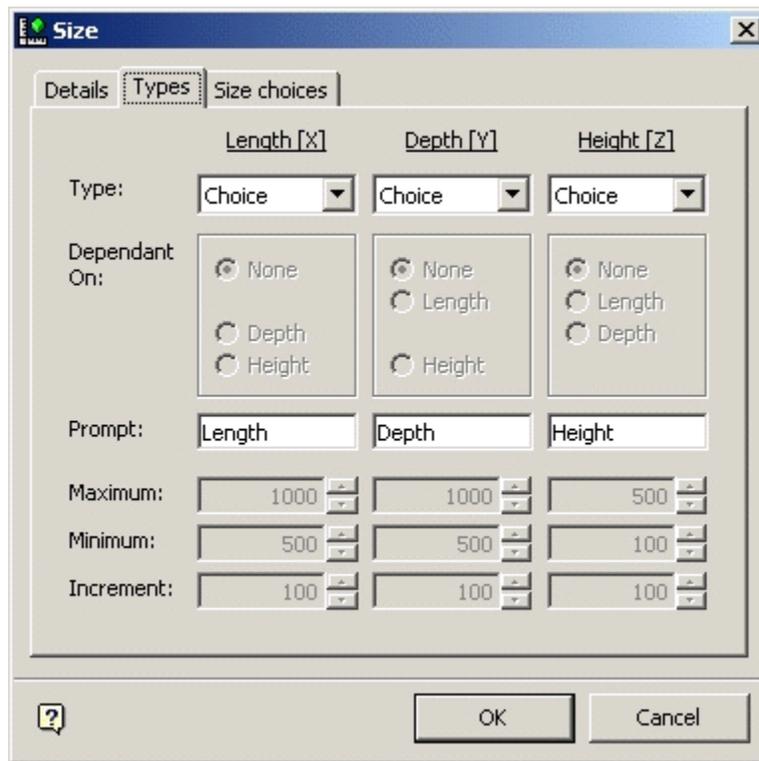


Variable Size allows you to set a number of discrete sizes that can be selected when the block is inserted into the AutoCAD or Virtual Reality environments. The application prompt enables you to type in a brief description of that dimension; for example length, Depth or Height. The Maximum and Minimum dimensions can then be set: in the above example, the length has been defined as having a minimum of 500 mm and a maximum of 1000 mm.

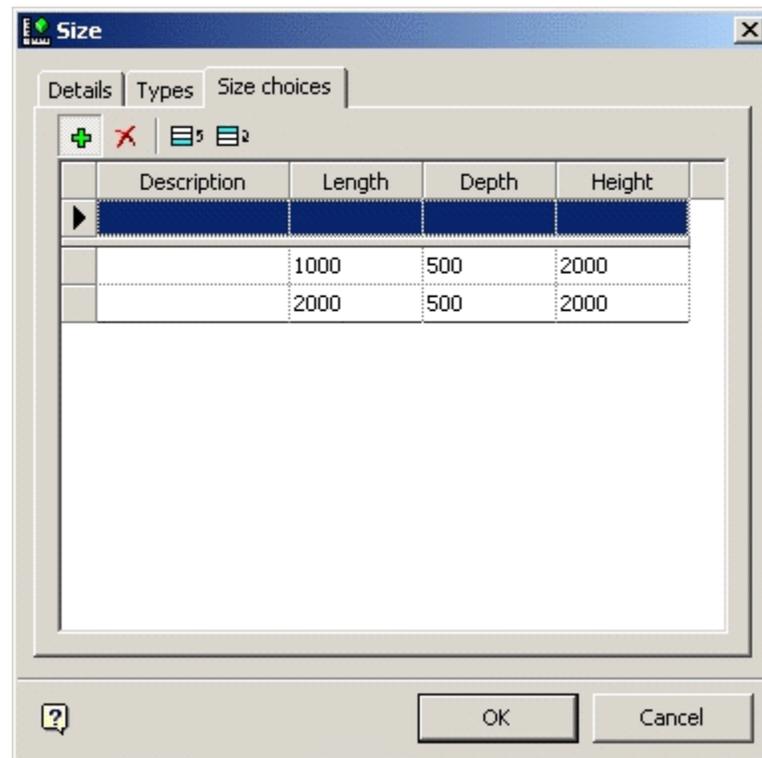
The Increment can be set to specify the change from one permissible dimension to another. For the above example, the length has a minimum value of 500 mm and a maximum value of 1000 mm. Because the increment has been set to 100 mm, you can set the length to 500, 600, 700, 800, 900 or 1000 mm when the block is inserted.

**Choice** allows you to set in a number of predefined size options.

Figure 5–20 Size - Choices



When this option is selected from the Type drop down menu an additional Size Choices tab appears. The names entered in the prompt fields in the Types tab appears in the Size Choices tab as the names of the dimensions.

**Figure 5-21 Size - Size Choices**

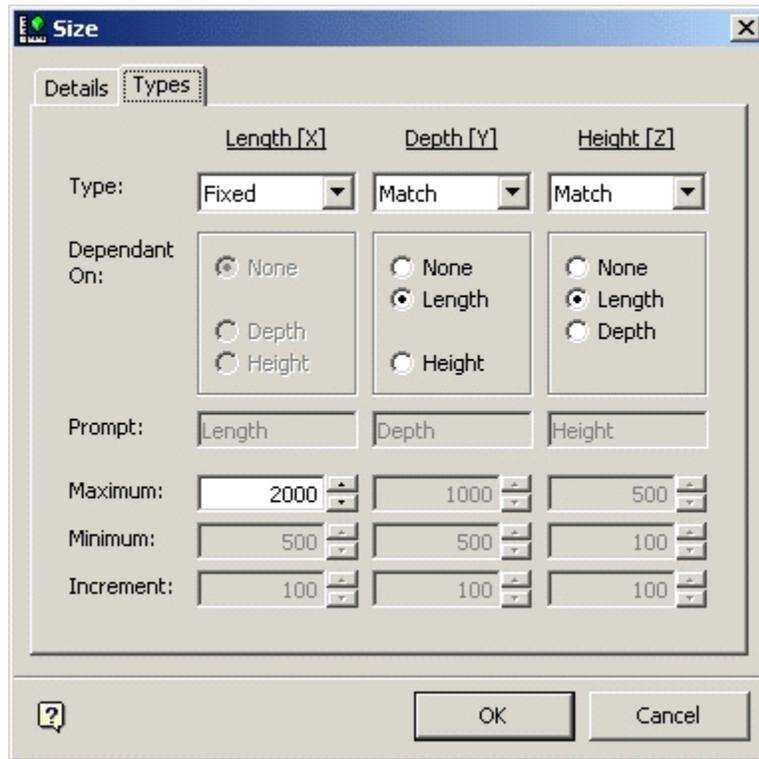
The actual dimensions can be added in the Size Choices tab.

The toolbar allows you to add, delete and re-order the list of dimensions.

### **Match Sizes**

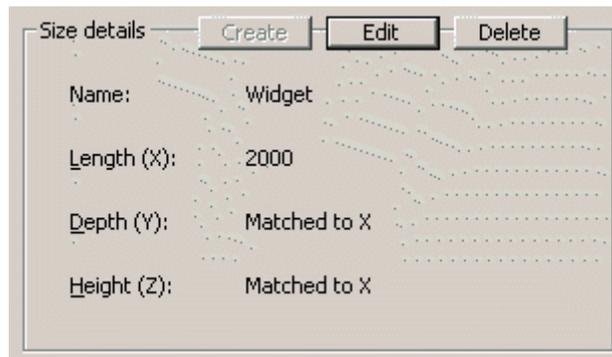
Match Sizes enables you to link one dimension to another.

**Figure 5–22 Size - Match Sizes**



At least one dimension must be defined using another size option, for example Fixed. The other dimension(s) can be saved to the specified dimension. For example if the length has been fixed at 2000 mm, then the depth and height can be specified as matching the length. This results in a block where the length, depth and height all match.

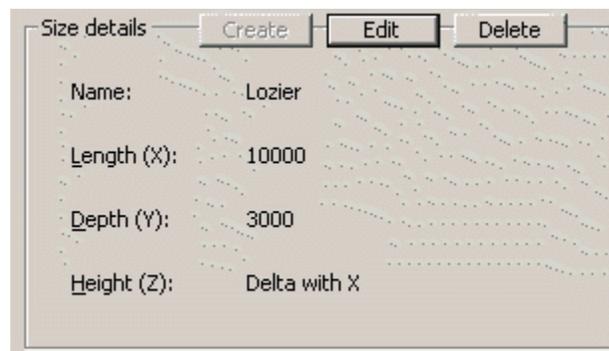
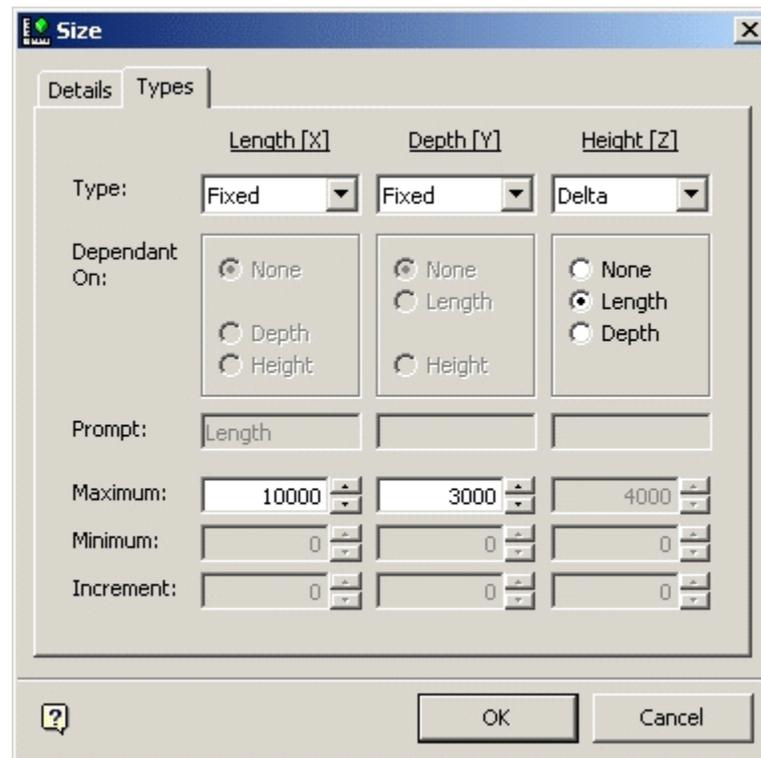
**Figure 5–23 Size Details**



**Delta**

Delta allows you to select another dimension and specify the current dimension to match that plus/minus a specified increment.

Figure 5-24 Size - Delta

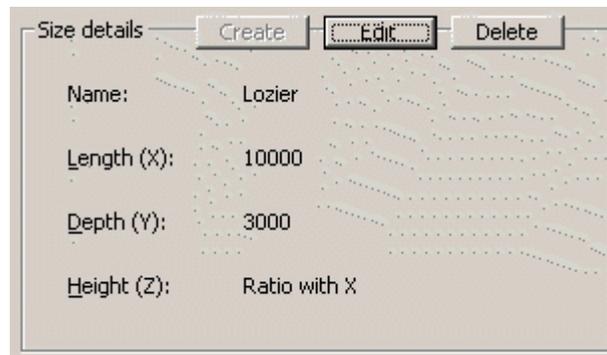
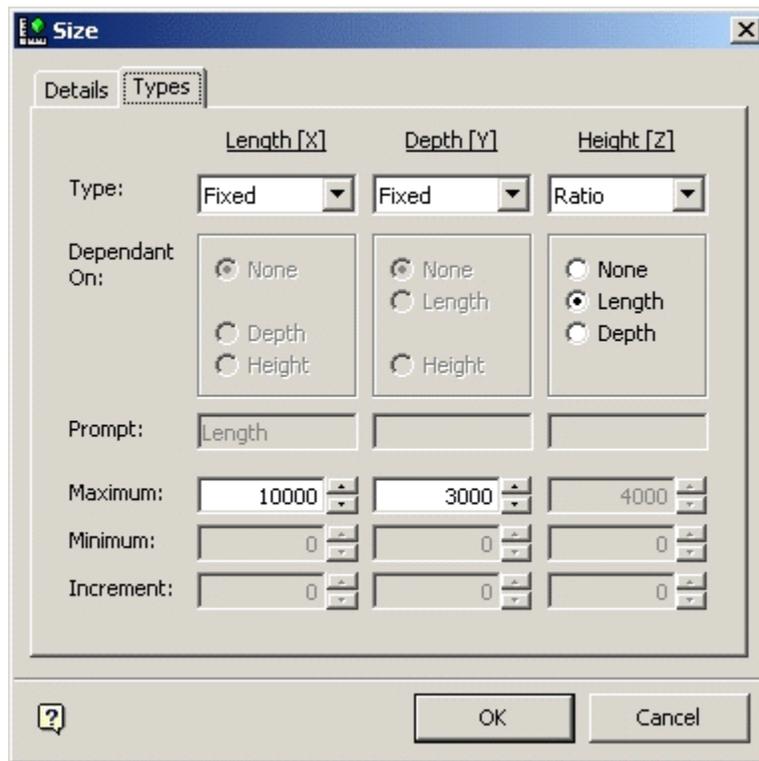


This functionality is not implemented in this release of Macro Space Management.

### Ratio

Ratio allows you to select another dimension and specify the current dimension to be multiplied by a specific ratio.

Figure 5–25 Size - Ratio

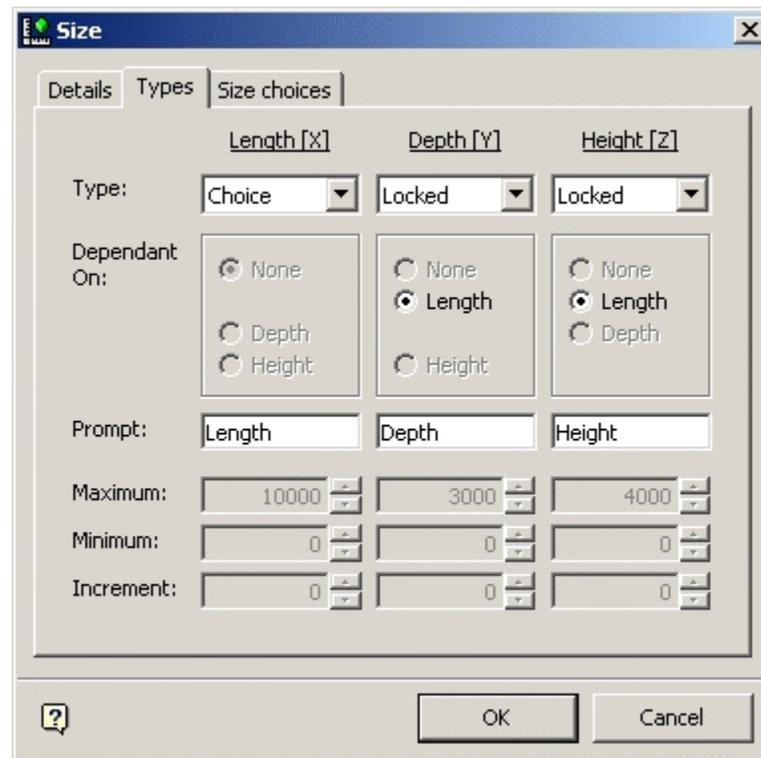


This functionality is not implemented in this release of Macro Space Management.

**Locked**

Locked sizes enable the choices visible to you to be restricted to only one or two dimensions when the dialog appears during insertion.

Figure 5–26 Size - Locked

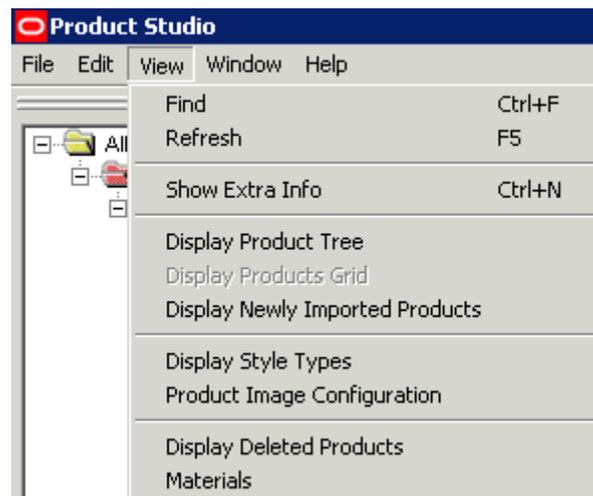


For this option to work, lists of dimensions must first have been input into the Size Choices tab.

### View Menu

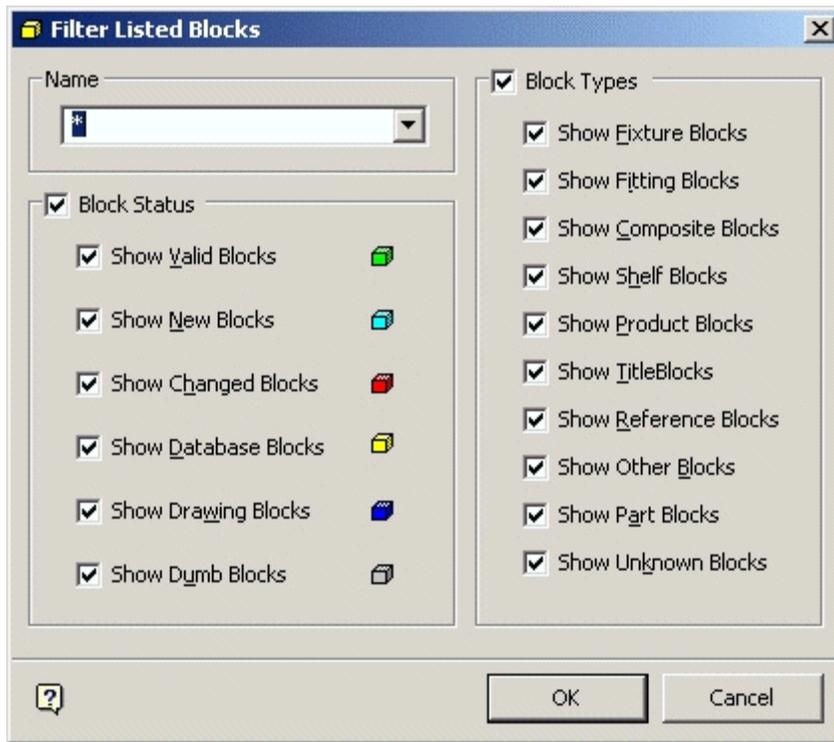
The **View Menu** has varying options concerned with filtering and viewing blocks.

Figure 5–27 View Menu



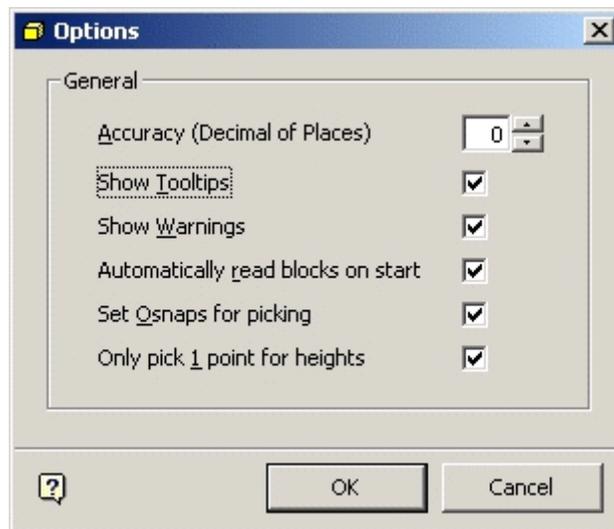
- Filter Listed Blocks** brings up the Block Filter. This can be used to select specific classes of blocks.

**Figure 5–28 Filter Listed Blocks**



- **Options** bring up the Options dialog box. This can be used to set some options determining how Fixture Studio Functions

**Figure 5–29 Filter Listed Blocks - Options**



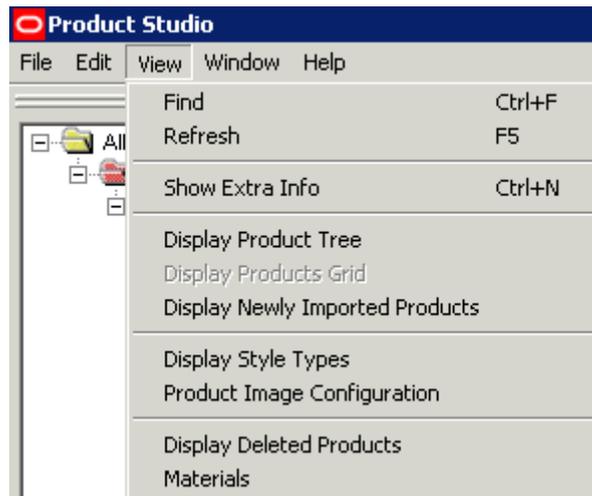
- **Block Browser** toggles the Block Browser (Object Browser) on and off.
- Checking or un-checking **Preview** toggles the preview window in the object browser on and off.

- **Show Group by, Expand All** and **Collapse All** are discussed in more detail here.

### Grouping Operations - Edit Menu

There are three options on the View menu that allow blocks with common criteria to be grouped together, the list expanded or collapsed.

**Figure 5–30 View Menu - Show Group By**



**Show Group By (<Ctrl> + G)** brings up a box above the table of blocks descriptions titled 'Drag a column header here to group by that column'.

**Figure 5–31 Block Definitions**

The screenshot shows the 'Block Definitions' dialog box. It has a header area with the text 'Drag a column header here to group by that column.' Below this is a table with the following data:

ID	Description	Name	Type	Size X	Size Y	Size Z
2101	Checkstand Area	13x13x9_pfieze...	Fixture	13	13	9
2102	Checkstand Area	14x13x9_pfieze...	Fixture	14	13	9
2103	Checkstand Area	16x13x9_pfieze...	Fixture	16	13	9

When this is done the list of blocks is sorted into groups specified by the header dragged into the box.

**Figure 5–32 Block Definitions - List**

ID	Description	Name	Type	Size X	Size Y	Size
1212	Hallmark Display Table	42x20x30_hall...	Fixture	42	20	30
- 43						
1767	14x43x54_RX_Kiosk_RH	14x43x54_RX_...	Fixture	43	14	54
1229	43X39_A_FRAME_FLORAL	43X39_A_FRAM...	Fixture	43	39	62
2462	Grocery Area	43x12x81_shad...	Fixture	43	12	81
1881	16x43x54_RX_Kiosk_LH	16x43x54_RX_...	Fixture	43	16	54
2463	Grocery Area	43x18x81_nat...	Fixture	43	18	81
1900	16x43x54_RX_Kiosk_RH	16x43x54_RX_...	Fixture	43	16	54
1872	16x43x54_RX_Kiosk_Left...	16x43x54_RX_...	Fixture	43	16	54
- 44						
1219	Refrigerated Service Coun...	44x39x33_ref_...	Fixture	44	39	33
1	ANSI_A TitleBlock	ANSI_E	TitleBlock	44	34	1

Clicking on the dragged column header changes the direction the data is sorted. The grouped data can be **expanded** or **collapsed** using the options on the View menu. A collapsed view is as below.

**Figure 5–33 Block Definitions - Collapsed View**

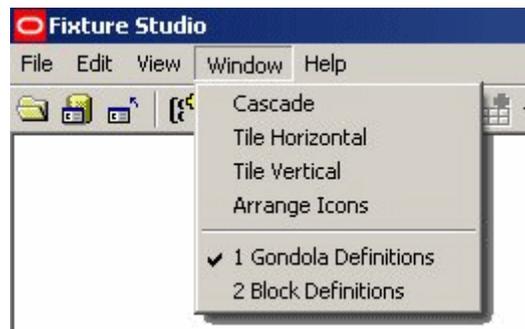
ID	Description	Name	Type	Size X	Size Y	Size
+ 44						
+ 46						
+ 47						
+ 48						
+ 49						
+ 50						

Any individual section of grouped blocks can be expanded or collapsed by clicking on the '+' or '-' signs to the left of the section.

**Window Menu**

The Window menu has two groups of options.

Figure 5–34 Window menu



The first set of options arranges the active windows within Fixture Studio. **Cascade** stacks the columns sequentially across the diagonal of the screen.

Figure 5–35 Gondola Definitions - Cascade View

Block Definitions			
ID	Name ▲	Description	
Gondola Definitions			
ID	Name	Description	
1	Wall Racking	Tall Wall Racking	
2	Wall Racking ...	Wall Racking - Double Si...	
3	Floor Racking	Floor Racking with ends	
4	4 Pallets	4 Pallets arranged in a s...	
5	4 Pallet Bins	4 Pallet Bins arranged in ...	

**Tile Horizontal** arranges them so they all share the available space horizontally.

Figure 5–36 Gondola and Block Definitions Window

Gondola Definitions			
ID	Name	Description	
1	Wall Racking	Tall Wall Racking	
2	Wall Racking ...	Wall Racking - Double Si...	
3	Floor Racking	Floor Racking with ends	
4	4 Pallets	4 Pallets arranged in a s...	

Block Definitions			
ID	Name ▲	Description	
471	Frame_Protector_F_End_Euro_Euro	Frame	
474	Frame_Protector_F_End_Euro_IKEA	Frame I	
476	Frame_Protector_F_End_IKEA	Frame I	
472	Frame_Protector_F_End_IKEA_Euro	Frame I	
473	Frame Protector F End IKEA IK...	Frame I	

**Tile Vertical** arranges them so they all share the available space vertically.

**Figure 5–37 Gondola and Block Definitions Window**

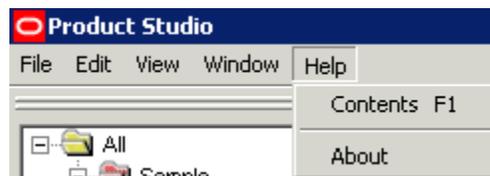


**Gondola Definitions** and **Block Definitions** allow switching between the two windows. Clicking on either **Gondola Definitions** or **Block Definitions** makes that window active within Fixture Studio.

### Help Menu

The Help menu has two options.

**Figure 5–38 Help menu**



Clicking on Fixture Studio Help (or pressing the F1 function key) calls the online help module.

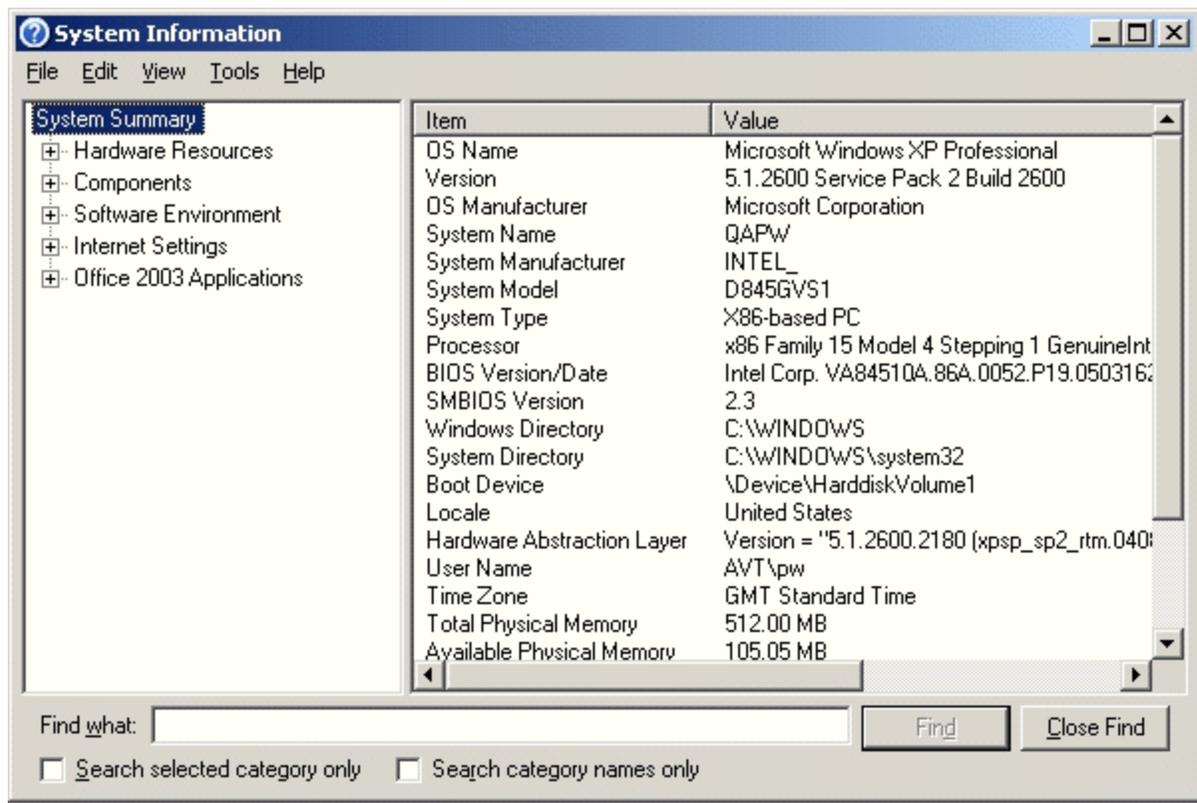
Clicking on About Fixture Studio displays information on the version of Fixture Studio.

**Figure 5–39 Fixture Studio Version**



The **System Info** tab brings up the Windows System Information dialog box.

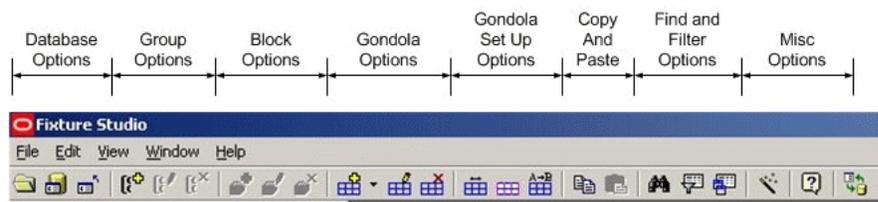
Figure 5–40 System Information



## Toolbar

The **Toolbar** gives access to a series of Fixture Studio options (some of which are also available from the menu bar).

Figure 5–41 Fixture Studio Toolbar

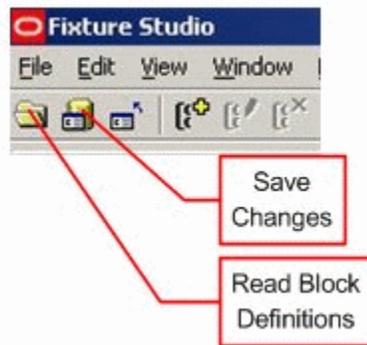


### Reading Block Definitions

There are three possible ways of reading Block Definitions into Fixture Studio:

- Reading from the database
- Reading from the drawing
- Merging data from the database and active drawing

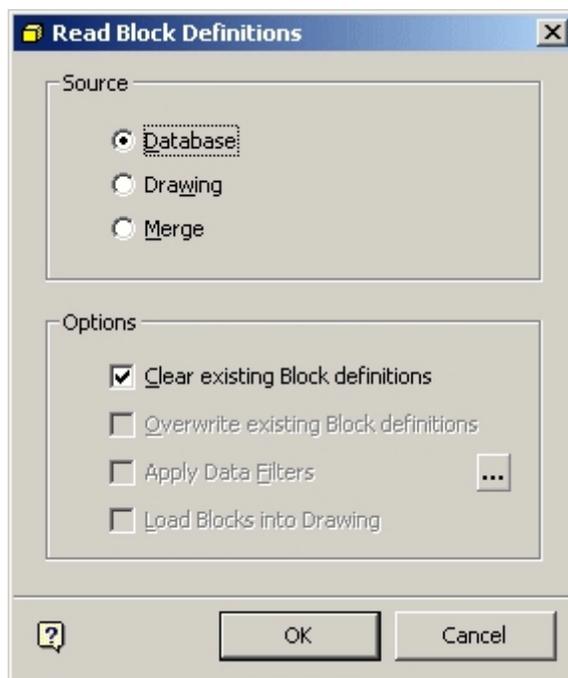
**Figure 5–42 Fixture Studio - Reading Block Definitions**



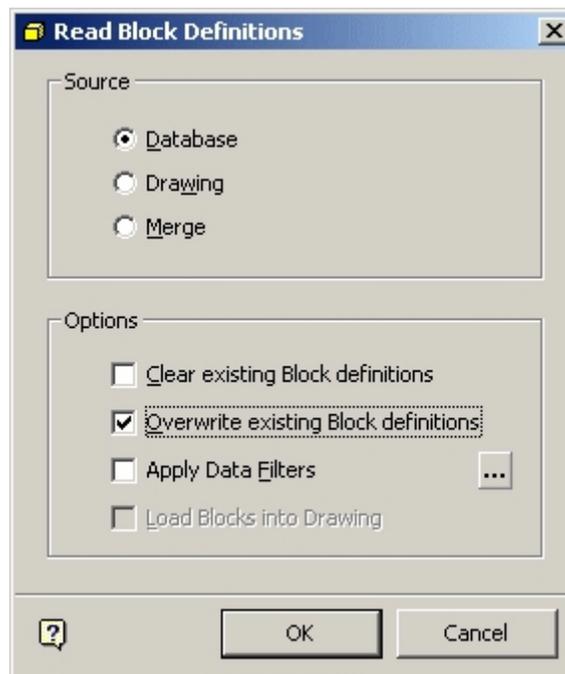
### Reading from the database

Reading from the database allows the user to clear existing block definitions, or to overwrite the definitions; with or without filtering data.

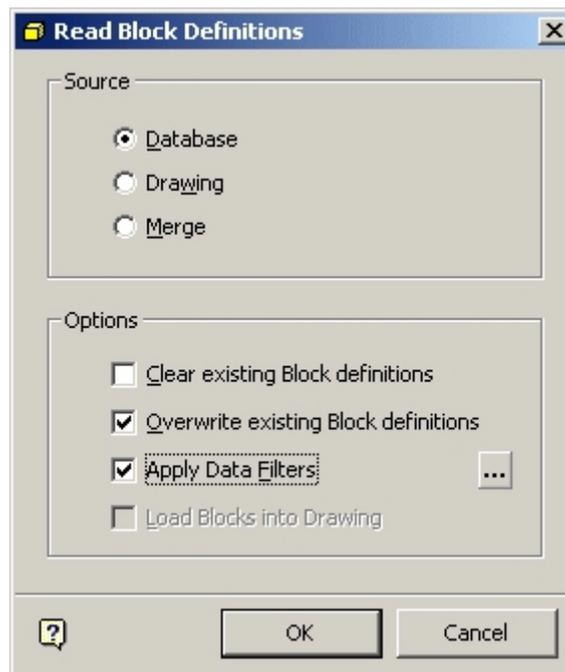
**Figure 5–43 Read Block Definition - Clear existing Block definitions**



If this option is selected, all existing Block Definitions in Fixture Studio are deleted and new definitions read in from the central database.

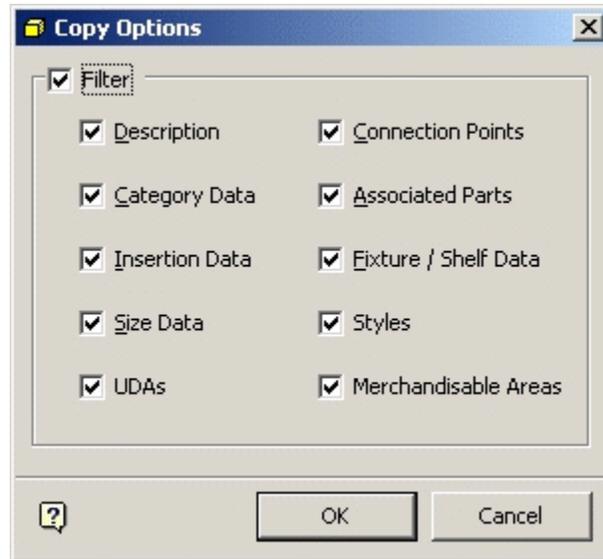
**Figure 5–44 Read Block Definition - Overwrite existing Block definitions**

If this option is selected, any block definitions imported from the central database will overwrite the corresponding data in the Block definitions with similar names in Fixture Studio.

**Figure 5–45 Read Block Definition - Apply Data Filters**

If this option is selected, the filtered data from any block definitions imported from the central database overwrites the corresponding data in the Block definitions with similar names in Fixture Studio.

**Figure 5–46 Copy Options**



All data options from the central database can be filtered (unlike Block definitions imported from a drawing, where options are more limited).

### Reading from the Drawing

Reading from the drawing is similar to reading from the database, in that existing Block definitions in Fixture Studio can be cleared or overwritten, with or without the use of filters. The difference in reading from the drawing is that only the AutoCAD based information is imported (and filtered).

**Figure 5–47 Read Block Definitions - Drawing**

The information that can be read from the drawing is the Block Description, Category Data, Insertion Data, Size Data and Connection Points.

UDAs, Associated Parts, Fixture/Shelf Data, Styles and Merchandisable Areas are all information assigned in Macro Space Management. Block definitions imported into Fixturo Studio from the drawing do not have this information.

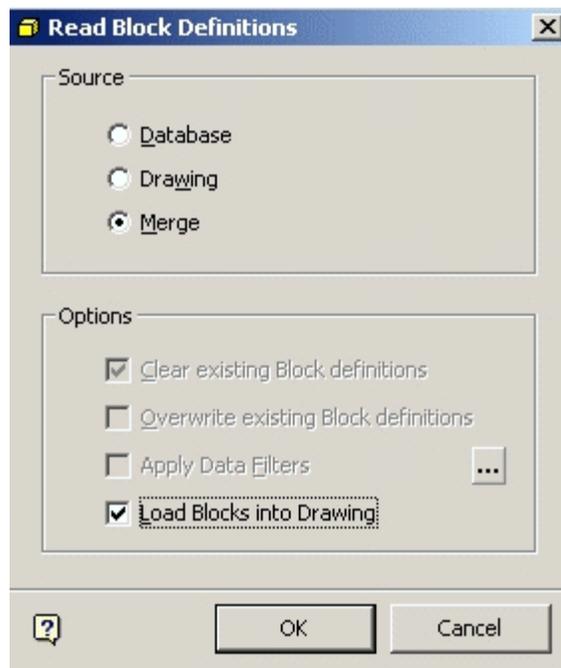
---

**Note:** If data has been imported from the drawing to overwrite existing data in Fixturo Studio, exercise caution in saving this to the central database. It is possible that information on Styles, Merchandisable areas, etc, could be lost.

---

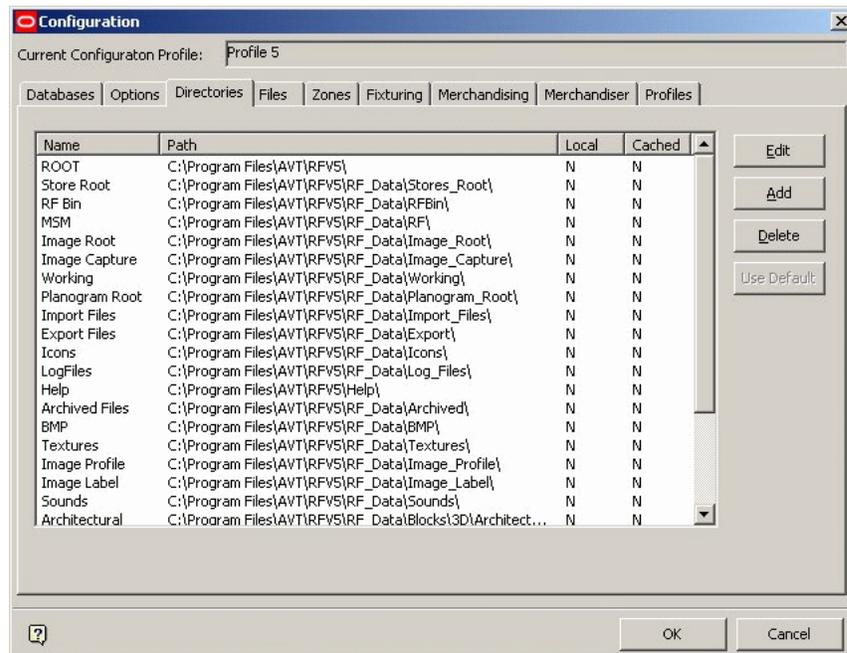
### Merging Information

If information is merged, data is imported into Fixturo Studio from both the active drawing and the central database.

**Figure 5–48 Merging Information**

If data is merged and the Block definition for a specific block differs between the central database and the active drawing, priority is given to information from the central database.

If the **Load Blocks into Drawing** option is checked, all Blocks held in the directory specified in the Configuration Module is loaded into the drawing. This is to ensure that the full complement of blocks is available from both the database and in the drawing.

**Figure 5–49 Configuration - Directories Tab**

### Saving Block Definitions

Clicking on the Save Changes icon brings up the Save Block Definitions dialog box.

**Figure 5–50 Saving Block Definitions**

- The **Destination** frame enables you to specify whether data is saved to the drawing or to the database.
- **Add New Definitions** adds all definitions to the specified destination. This command should be used with caution as any block (including badly defined ones) will be saved to either the drawing or database.
- **Enforce Save** saves all Block definitions currently loaded into Fixture Studio to the central database.
- **Save Dumb Blocks** saves blocks without full information (for example insertion points) to the specified destination.
- **Only Save Selected Blocks** saves only the Block definitions currently selected in Fixture Studio to the specified destination.
- **Write Block Files** is only available when Save to Drawing is selected.
- **Update Database with Drawing** is only available when the central database is selected as the destination.

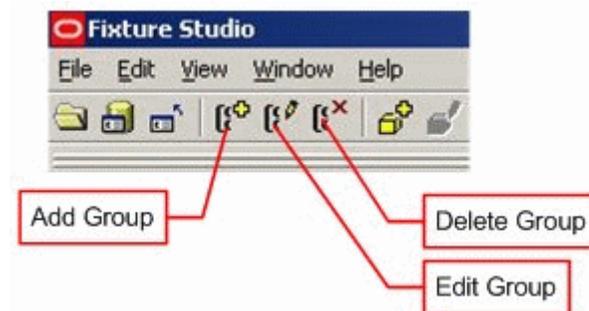
---

**Note:** DWG files are required for the Planner environment, 3DS files for Merchandiser. If 3DS files are not created, the graphics for fixtures, etc., will not display in Merchandiser.

---

### Adding, Editing, and Deleting Groups

Groups are used to arrange Block and Gondola definitions into logical collections with the hierarchical tree visible in the Object Browser. Groups can be added, edited and deleted.



### Adding a Group

To add a group, highlight the parent group to which it is going to be added. Click on the Add Group icon. The Group dialog box appears.

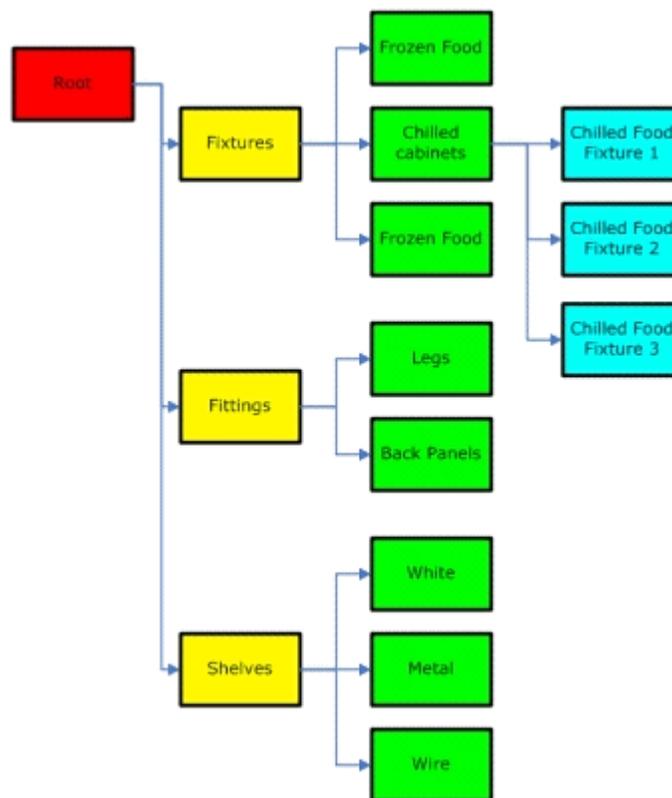
Figure 5-51 Add Group Dialog Box



Enter a description and select an icon from the drop down list. Click on OK to conform. The group to be added is a child of its selected parent group.

### Editing Groups

Groups are analogous to clusters in Store Manager - they are containers used to collect together Block definitions of similar characteristics.



Groups are arranged in a hierarchy emanating from a root. The hierarchy should be chosen such that it facilitates locating any desired Block Definition. In the above example Block Definitions have been split into three broad classes; Fixtures, Fitting and Shelves. Shelves then have been subdivided into White, Metal and Wire categories.

Block definitions can then be added to the appropriate Group - for example all the chilled food fixtures would be assigned to the Chilled Cabinets sub-group of the Fixtures Group.

### **Edit Group**

To add a group, highlight the group which is to be edited. Click on the Edit Group icon. The Group dialog box appears.

**Figure 5-52 Edit Group**



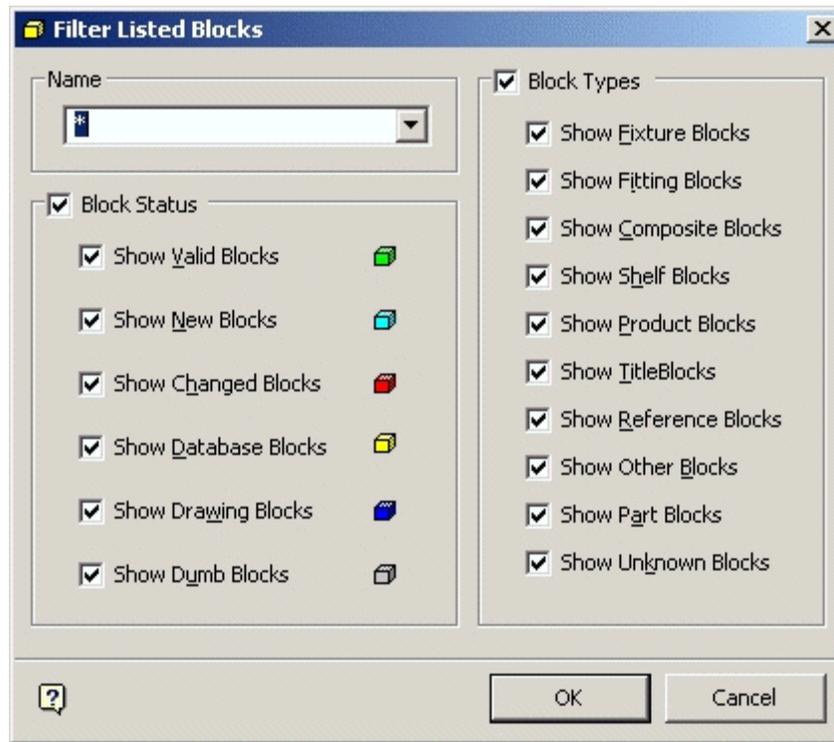
Edit the description if required. It is also possible to select an alternative icon from the drop down list. Click OK to conform. The Group details are now updated.

### **Deleting Group**

To delete a group, highlight the group to be deleted. Click on the Delete Group icon. If the Group to be deleted has child groups or block definitions, a warning dialog appears. If there are no child objects, the group is deleted without any requirement for confirmation.

### **Filtering Blocks**

The list of blocks showing in the Block Details dialog box may be filtered.

**Figure 5–53 Filter Listed Blocks**

### Filtering by Name

Filtering by name only works on exact matches, although wildcards (\* and ?) are allowed.

**Figure 5–54 Filtering Blocks by Name**

	ID ▲	Description
▶	191	Wire Shelf 900x200
	192	Wire Shelf 900x300
	193	Wire Shelf 900x400
	194	Wire Shelf 900x600
	195	Wire Shelf 900x800

**Table 5–1 Filtering Blocks by Name**

Search String	Result
Wire Shelf	Fail - no exact matches.
Wire Shelf*	All examples of blocks beginning Wire Shelf
Wire Shelf 900 x 200	Find that exact file name

**Table 5–1 (Cont.) Filtering Blocks by Name**

Search String	Result
Wire Shelf 900 x ???	Find all examples of blocks beginning Wire Shelf 900 x

**Filtering by Block Status**

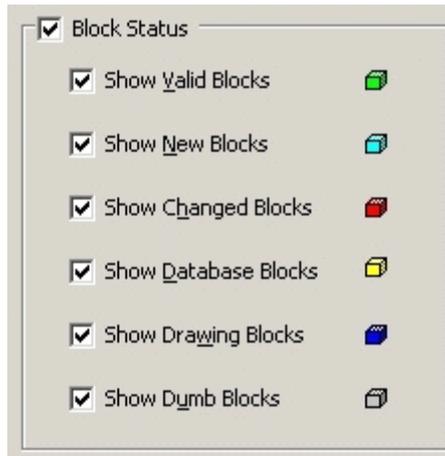
The Block Status can be seen to the left of the Block Definitions Window.

**Figure 5–55 Filter by Block Status**

	ID ▲	Description	Name	Type
	385	Wire Shelf Round High 600	Wire-Shelf-Round-High-600	Part
	386	Wire Shelf Round High 600 HD ...	Wire-Shelf-Round-High-600-HD	Part
	387	Wire Basket 600x200	Wire-Basket-600x200	Shelf
	388	Wire Basket 600x300	Wire-Basket-600x300	Shelf
	389	Wire Basket 600x400	Wire-Basket-600x400	Shelf
	390	Wire Basket 600x600	Wire-Basket-600x600	Shelf
	391	Wire Basket 600x800	Wire-Basket-600x800	Shelf

By using the Block Status frame it is possible to select blocks meeting specific criteria, such as new blocks, database blocks, drawing blocks, etc.

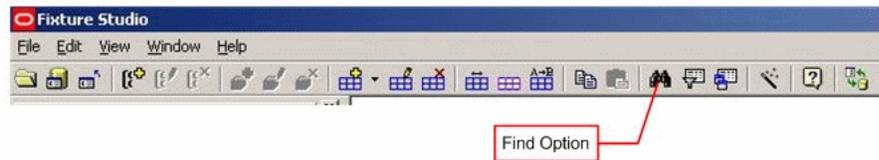
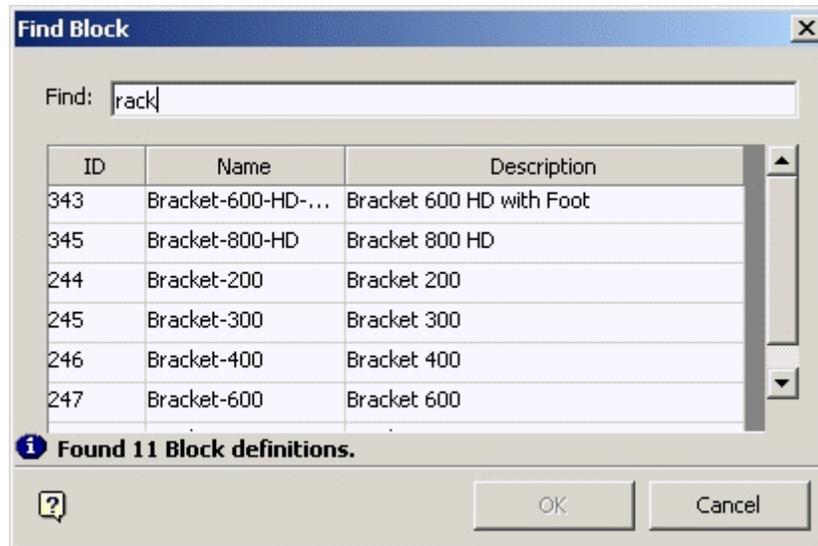
**Figure 5–56 Block Status frame**



The status of each block is indicated by a color code.

**Find Block Definitions**

Clicking the **Find** icon on the toolbar brings up the Find Block dialog box.

**Figure 5–57 Find Block Definitions****Figure 5–58 Find Block Definitions Dialog box**

To use the Find option, type in the required search string into the Find box and press Enter. A list of block definitions matching the search string appears in the box below.

To display a block definition in the hierarchical tree in the Object Browser, highlight it in the list of block definitions and click on the OK button. The block definition in the Object Browser is highlighted and the Find Block dialog box closes.

---

**Note:** The search string will not allow wild cards such as '?' and '\*'. The search string will match any block description with a comparable string in the ID, Name or Description fields. In the above example the search string rack has matched 11 instances of the name Bracket.

---

### Setting Columns

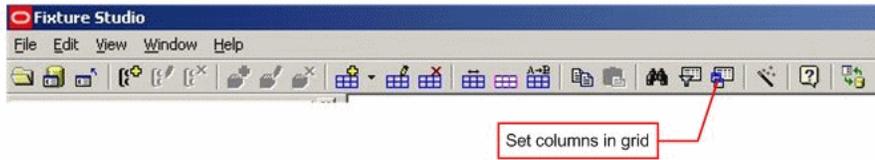
The columns that display in the Block Definitions window can be configured by clicking on the Set Columns in Grid icon in the toolbar.

---

**Note:** The columns displayed in the Gondola Definitions window cannot be configured.

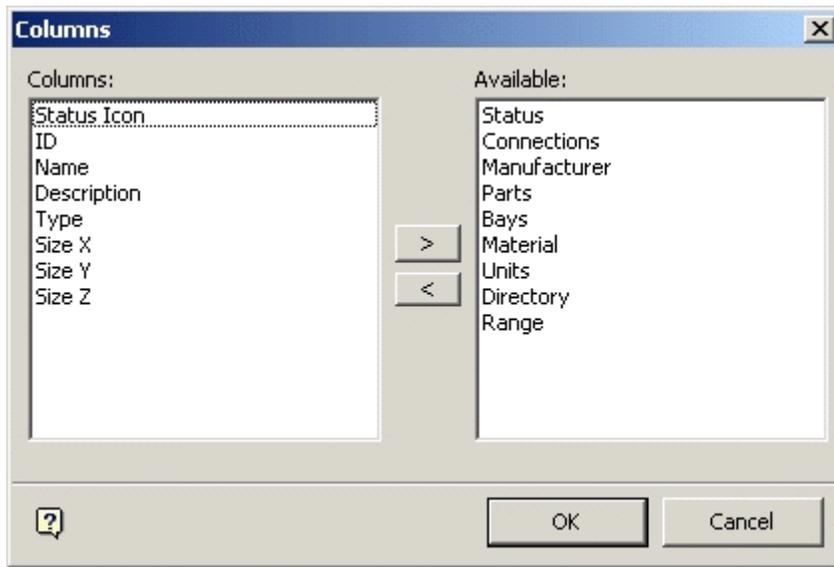
---

**Figure 5–59 Setting Columns**



This will bring up the Columns dialog box.

**Figure 5–60 Columns dialog box**



The Columns frame on the left contains a list of the columns that are currently displayed. The Available Frame on the right contains a list of columns that are not being currently displayed. The list of columns to be displayed can be modified by making use of the selection arrow in the middle of the dialog box.

When the selection has been made, clicking on OK results in the Block Definition table being rearranged accordingly.

**Figure 5–61 Block Definition table**

	ID ▲	Description	Name	Type	Size X	Size Y	Size Z
	238	Glass Shelf 900x200	Glass-Shelf-900...	Shelf	884	210	5
	239	Bar for Accessories 600	Bar-for-Acc-600	Shelf	600	50	100
	240	Bar for Accessories 900	Bar-for-Acc-900	Shelf	900	50	50
	241	Bar for Accessories for inside c...	Bar-for-Acc-Corner	Shelf	660	660	100
	242	Rod 3 Wire 300mm	Rod-3-Wire-300	Shelf	44	300	50

## AutoCAD Operations from Fixture Studio

This section gives more information on a number of commands that interact with AutoCAD.

- [Laying Out Blocks](#)
- [Load Blocks From Disc](#)
- [Load Blocks Into Drawing](#)
- [Normalize Blocks](#)
- [Redefine Blocks from Disc](#)

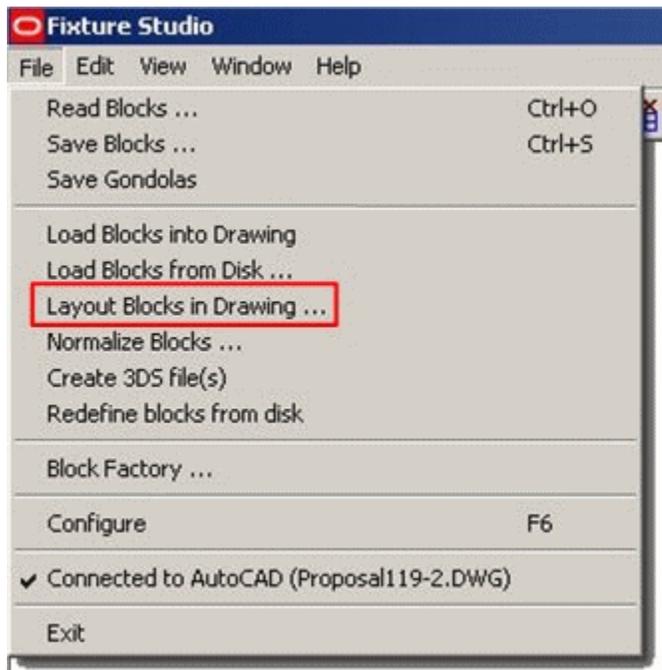
### Laying Out Blocks

The Laying Out Blocks option takes blocks selected from the list of blocks in Fixture studio and lays them out in a grid in the currently active drawing in the AutoCAD environment. To activate this option select the required blocks in the Block Definitions window.

	ID	Description	Name ▲	Type
	109	L Upright 50 H1150	L-Upright-50-1150	Fitting
	111	L Upright 50 H1500	L-Upright-50-1500	Fitting
	108	L Upright 50 H950	L-Upright-50-950	Fitting
	113	L Upright 70 H2500	L-Upright-70-2500	Fitting
	115	L Upright 70 H2900	L-Upright-70-2900	Fitting
	485	Mesh F Goods W930 D598 Flue	Mesh_F_Goods_W930_D598_Flue	Shelf
	486	Mesh F Goods W930 D748 B IKEA	Mesh_F_Goods_W930_D748_B_...	Shelf
	487	Mesh F Goods W930 D948 F IKEA	Mesh_F_Goods_W930_D948_F_...	Shelf

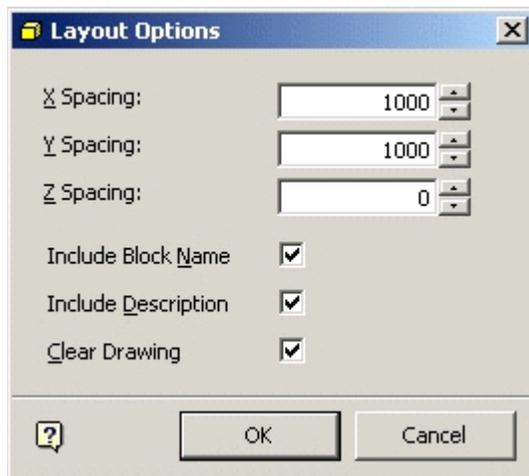
Click on the Laying out blocks option in the File menu. (The Connect to AutoCAD option on the File Menu must be selected).

**Figure 5–62 File menu**



This brings up the Layout Options dialog box.

**Figure 5–63 Layout Options dialog box**



The spacing between blocks can be specified by the X, Y and Z spacing. Tick the appropriate check boxes to add the block name and/or description to each block when it is being drawn. Ticking the Clear Drawing check box will clear all previous blocks from the drawing.

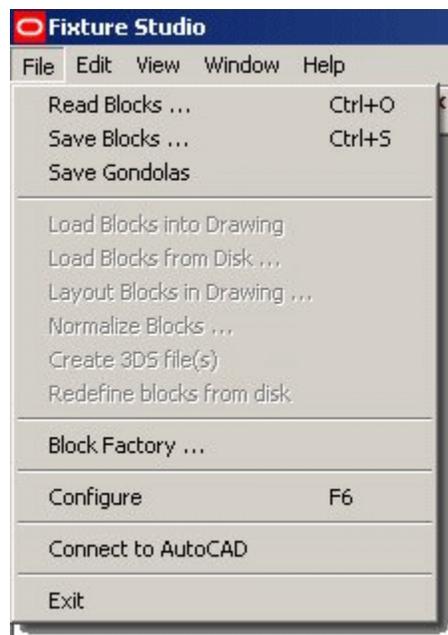
## Load Blocks From Disc

Load Blocks from Disc enables you to select blocks from a source outside of the Macro Space Management database and load them into the currently active AutoCAD drawing. This is done in three stages:

- Ensure that the Connect to AutoCAD option has been selected
- Select the Load Blocks from Disk option
- Select the Insert option in AutoCAD

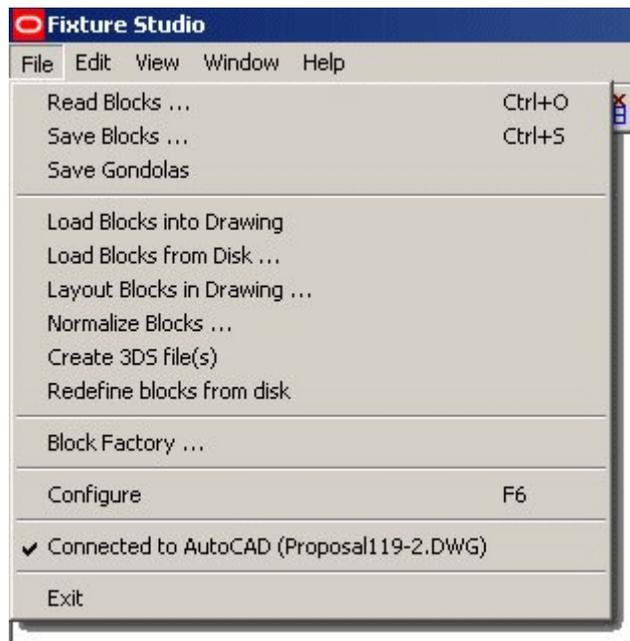
## Connecting to AutoCAD

*Figure 5–64 File Menu - Connect to AutoCAD*



The Connect to AutoCAD option on the File Menu must be selected. If the AutoCAD environment is not open, AutoCAD will be activated. If it is open, Fixture Studio will link to AutoCAD. When AutoCAD is selected, the AutoCAD based option will be available, and the Connect to AutoCAD option will be selected.

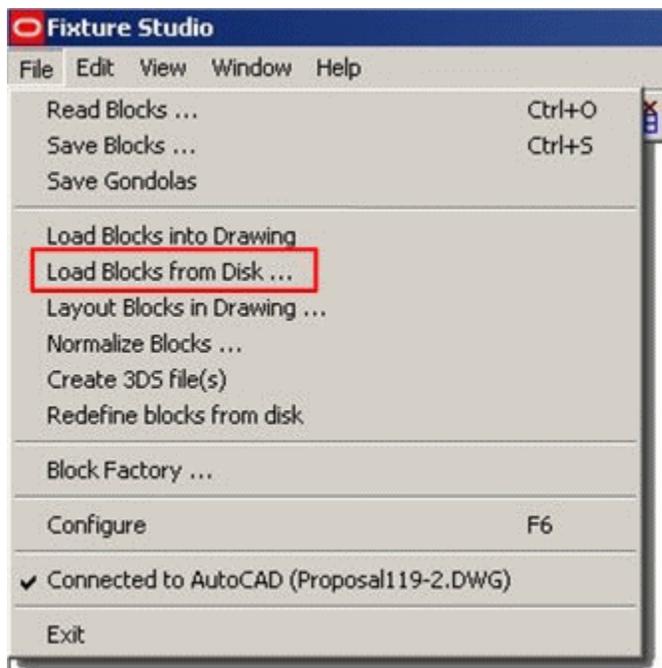
**Figure 5–65 File Menu - Connected to AutoCAD option**



**Using the Load Blocks From Disc option**

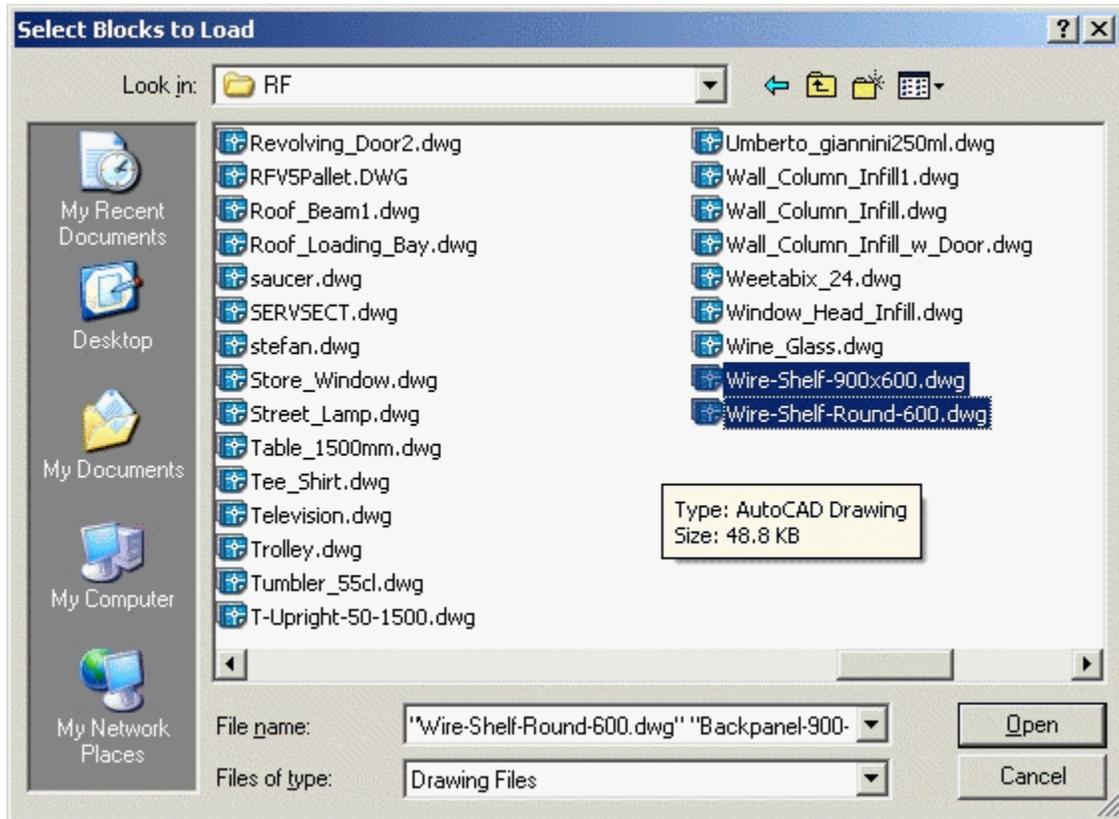
Using the Load Blocks from Disc option will transfer the block definitions into the AutoCAD drawing. They will not become visible until instances have been placed in the drawing.

**Figure 5–66 File Menu - Load Blocks from Disc option**



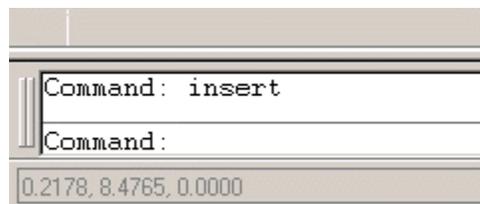
This will bring up Select blocks to Load dialog box. Navigate to the required directory and highlight the required blocks. Click on Open to transfer the block definitions to the active AutoCAD drawing.

**Figure 5–67** Select blocks to Load dialog box

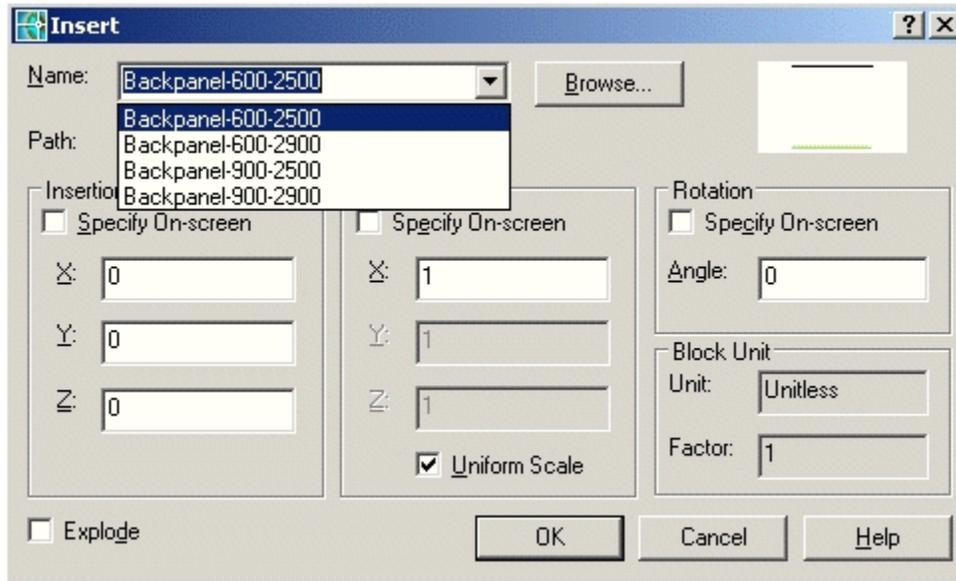


### Using the Insert option in AutoCAD

When the block definitions have been transferred into the drawing, instances of that definition can be inserted into the drawing by typing *Insert* into the command line.



This will bring up the Insert dialog box.

**Figure 5–68 Insert dialog box**

Block definitions can be selected using the Name drop down list. After specifying the Insertion Point, Scale, Rotation Angle and whether or not the components of the block are to be exploded, clicking on OK will place an instance of the block definition in the drawing.

## Load Blocks Into Drawing

The Load Blocks into Drawing command is used to take blocks from the list defined in Fixture Studio and transfer a copy to the currently active drawing in AutoCAD. This is done in four stages:

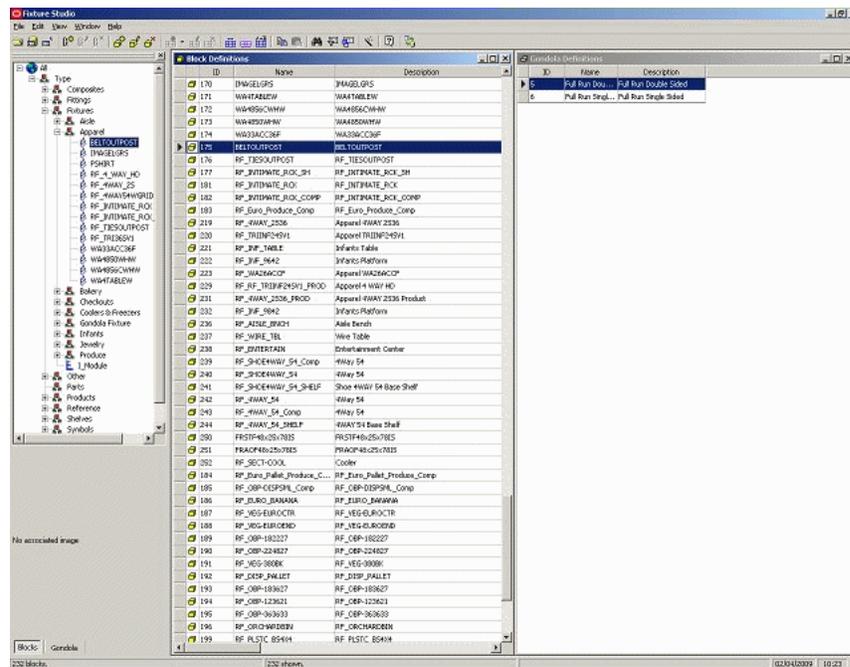
- Ensure that the Connect to AutoCAD option has been selected
- Select the required blocks in Fixture Studio
- Select the Load Blocks into Drawing option
- Select the Insert option in AutoCAD

### Connecting to AutoCAD

The Connect to AutoCAD option on the File Menu must be selected. If the AutoCAD environment is not open, AutoCAD will be activated. If it is open, Fixture Studio will link to AutoCAD. When AutoCAD is selected, the AutoCAD based option is available and the Connect to AutoCAD option will have a tick by it.

Selecting the required blocks can be done in two ways in Fixture Studio; from the hierarchical tree, or from the Block Definitions window.

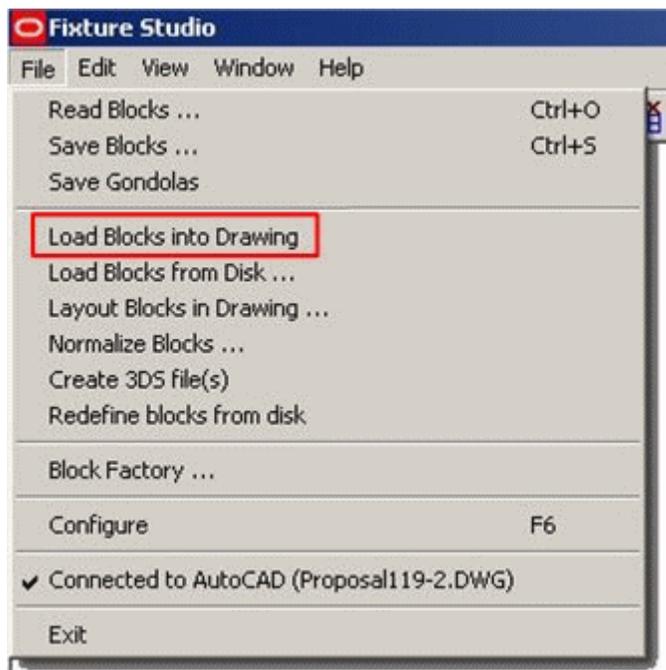
Figure 5–69 Block Definitions window



They can be selected from the hierarchical tree by left clicking on an individual block, or by holding down <Ctrl> and left clicking to make multiple selections. They can be selected from the Block Definitions window by left clicking on an individual block, or by holding down <Ctrl> or <Shift> and left clicking to make multiple selections.

### Using the Load Blocks into Drawing option

Using the Load Blocks into Drawing will transfer the block definitions into the AutoCAD drawing. They will not become visible until instances have been placed in the drawing.

**Figure 5–70 Load Blocks into Drawing**

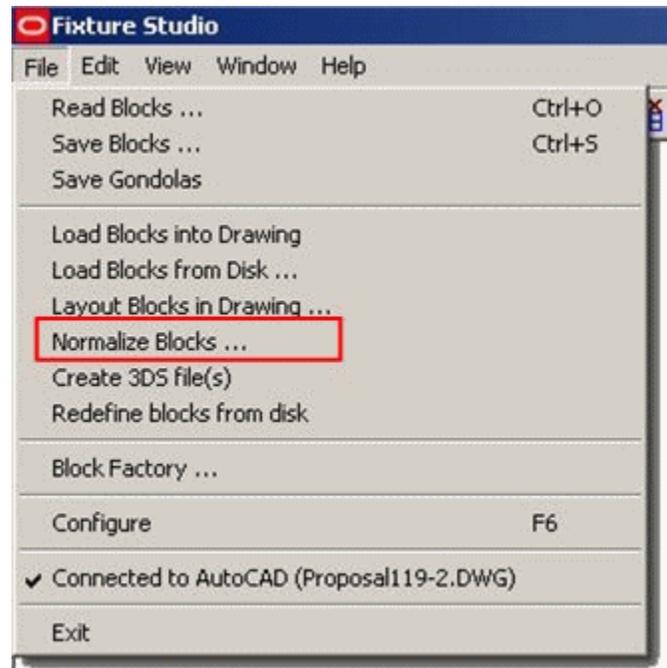
When the block definitions have been transferred into the drawing, instances of that definition can be inserted into the drawing by typing Insert into the command line.

This will bring up the Insert dialog box.

Block definitions can be selected using the Name drop down list. After specifying the Insertion Point, Scale, Rotation Angle and whether or not the components of the block are to be exploded, clicking on OK will place an instance of the block definition in the drawing.

## Normalize Blocks

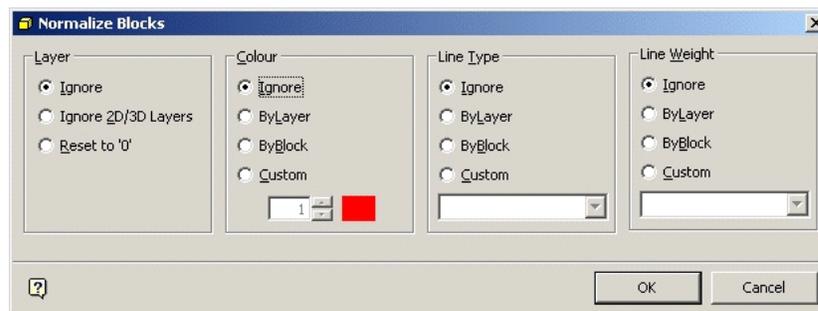
The Normalize Blocks command is used to modify the AutoCAD properties of selected blocks. It is the equivalent of the AutoCAD Object Properties toolbar. It is accessed from the File menu and is only active when Fixture Studio is connected to AutoCAD.



### Normalize Blocks

The Normalize Blocks dialog box enables any currently selected blocks to have their AutoCAD Layer, color, Line Type and Line Weight changed.

**Figure 5–71** *Normalize Blocks dialog box*



### Layer

If set to Ignore, layers will be unchanged.

If set to Ignore 2D/3D layers they will not be affected by any changes to other layers

If set to Reset to 0, all selected blocks will have their parent layer set to the default of 0.

### Color

If set to Ignore, line weights will be unchanged.

If set to By Layer, then the selected blocks will have their color set to the default color for the layer they are on.

If set to By Block, the selected blocks will have their settings changed to the default for the layer except when the blocks have previously had custom properties assigned.

If set to Custom, then the modified color for the selected blocks can be set by means of the spin control.

### Line type

If set to Ignore, line types will be unchanged.

If set by ByLayer, the selected blocks will have their line type set to the default or the layer they are on.

If set to Byblock the selected blocks will have their settings changed to the default for the layer except when the blocks have previously had custom properties assigned.

### Line Weight

If set to Ignore, line weights will be unchanged.

If set By Layer line weights will be set to the default for that layer.

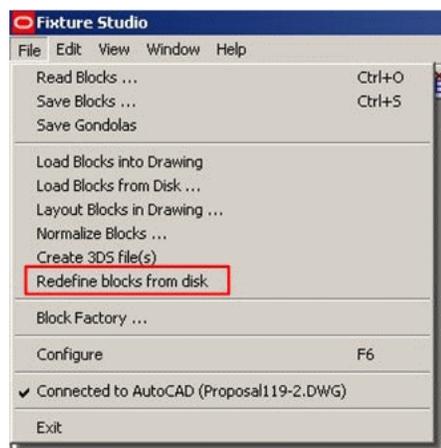
If set ByBlock, the selected blocks will have their settings changed to the default for the layer except when the blocks have previously had custom properties assigned.

If set to a Custom level all selected blocks will be set to the line weight selected from the drop down list.

## Redefine Blocks from Disc

Redefine Blocks from Disc allows you to overwrite any blocks currently active in the Drawing with information stored on disc. It is accessed from the File menu and is only active when Fixture Studio is connected to AutoCAD.

**Figure 5–72** *Redefine Blocks from Disc*





This command is useful when errors have been made in the drawing and it is desired to restore the blocks back to the state they were when last saved.

## Getting the Basics Right

Once Fixture Studio is set up, it is difficult to make changes to its configuration. Time spent considering the optimum way to set up Fixture Studio will be repaid many times over when fixtures and gondolas are used in the Planner and Merchandiser environments.

There are a number of things to consider before beginning to set up Fixture Studio. These are:

- **Use of Directory Structure**

Depending on the size of the retail organization there may be many fixtures. The graphics for these fixtures are stored in directories. Consider carefully the number of directories you need. With only a limited number of fixtures, one directory may be sufficient. With tens of thousands of fixtures, it may be more logical to create a number of directories. [More Info](#)

- **Use of Naming Conventions**

Naming conventions have two purposes. Firstly, it can make it easier to identify the required block from a long list of available blocks. Secondly, and more importantly, it will affect the ease of defining gondolas. Without a good naming convention, you may need to define hundreds of gondolas. With a good naming convention you may only need to define ten or twenty gondolas. [More Info](#)

- **Setting up Logical Hierarchies**

Fixtures and Gondolas are stored in hierarchies (a bit like the windows folders system). Setting up logical hierarchies will make it easier to maintain the Fixtures and Gondolas within Fixture Studio. It will also make it easier for users to select fixtures and gondolas in Planner and Merchandiser. [More Info](#)

- **Using Stretchable Fixtures**

Stretchable Fixtures are fixtures that can be placed in the drawing, then configured to a range of preset sizes. Using stretchable fixtures reduces the number of fixtures required. However, if stretchable fixtures are used, it will not be possible to produce accurate reports on what fixtures and fittings are present in stores. [More Info](#)

- **About Connections**

Connections determine which items of equipment can be connected to which other items of equipment. Having a simple and consistent scheme for connections will make it easier to define those connections. [More Info](#)

**Note:** Styles also influence what items of equipment can be attached to what.

■ **About Styles**

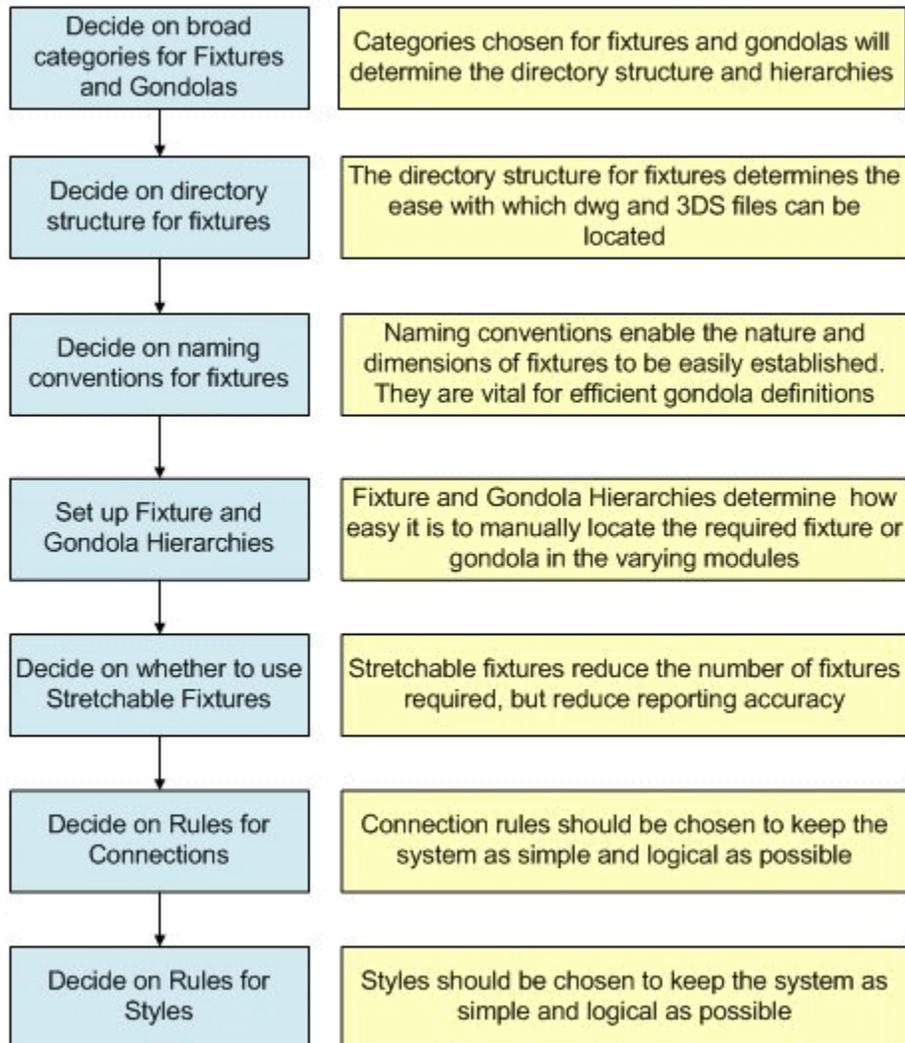
Styles determine which items of equipment can be placed on each other, and which styles of product can be placed on what items of equipment.

**Note:** Connections also influence what items of equipment can be attached to what.

Having a logical list of styles and style relationships aids placement.

### Summary of Fixture Studio Basics

The general flow for deciding on how Fixture Studio can be set up is as follows:



## About Categories for Fixtures

For a large retail organization, there may be many fixtures and fittings. These could be assembled into different types of gondola. Before setting up fixtures and gondolas within Fixture Studio, some thought must be given to how all this information is organized.

Unless it is arranged in a simple and logical manner, considerable time will be wasted later trying to find specific fixtures or gondolas, or trying to attach one pieces of equipment to another when the styles are incompatible.

It is recommended that a table on the lines of the following be produced as a basis for deciding how Fixture Studio is to be configured.

**Table 5–2 Categories of Fixtures**

<b>Equipment Category</b>	<b>Equipment Sub-Division</b>	<b>Connections to</b>	<b>Style Relationships with</b>	
Hussmann	Primary	<ul style="list-style-type: none"> <li>▪ Other Primary Hussmann Equipment</li> <li>▪ Secondary Hussmann Equipment</li> <li>▪ Some items of Primary Generic Equipment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Other Primary Hussmann Equipment</li> <li>▪ Secondary Hussmann Equipment</li> <li>▪ Product Display Styles</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Legs (6)</li> <li>▪ Backpanels (20)</li> <li>▪ Slatwalls (12)</li> </ul>			
	Secondary	<ul style="list-style-type: none"> <li>▪ Primary Hussmann Equipment</li> <li>▪ Other Secondary Hussmann Equipment</li> <li>▪ Tertiary Hussmann Equipment</li> </ul>	<ul style="list-style-type: none"> <li>▪ Primary Hussmann Equipment</li> <li>▪ Other Secondary Hussmann Equipment</li> <li>▪ Product Display Styles</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Open Shelves (30)</li> <li>▪ Wire Shelves (16)</li> <li>▪ Hanging Bars (6)</li> <li>▪ Lateral Rods (4)</li> </ul>			
	Tertiary	<ul style="list-style-type: none"> <li>▪ Secondary Hussmann Equipment</li> </ul>		
	<ul style="list-style-type: none"> <li>▪ Dividers (2)</li> <li>▪ Grilles (4)</li> </ul>			
	Lozier	Primary etc.		
		Secondary etc.		
		Tertiary etc.		
	Generic	Primary etc.		
	Secondary etc.			
	Tertiary etc.			

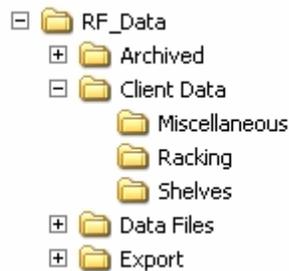
## Directory Structures

Directories will mainly be used by people within Fixture Studio to store graphics and to select the graphics for editing or deletion. Too few directories will result in each directory containing hundreds of graphics files. Too many directories will make it difficult to remember which directories the graphics are in. It is recommended that users list out the total number of graphics that are expected to be used within Macro Space Management, together with suggested classes they fall into. The number of

fixtures that fall into each suggested class can then be estimated. This can be seen as the bracketed figures in the suggested table. When classes have been selected that contain a sensible number of fixtures, the directory structure can then be set up accordingly.

Depending on the size of the retail organization there may be thousands of fixtures. The graphics for these fixtures are stored in directories. Consider carefully the number of directories you need. With only a limited number of fixtures, one directory may be sufficient. With tens of thousands of fixtures, it may be more logical to create a number of directories.

In this example some sub directories have been set up in the folder where the Macro Space Management directories are stored.



Client data serves as a parent directory, then three sub-directories called Miscellaneous, Racking and Shelves serve to hold the graphics for those classes of fixtures.

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**Note:** Each fixture will normally have two classes of graphics associated: *dwf* files for display in the Planner environment and *3DS* files for display in Merchandiser.

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The directories that the graphics have been assigned to need to have their paths specified in the Directories tab in the Configuration module.

## Setting up Directory Structures

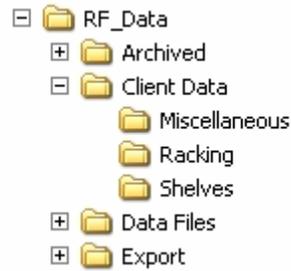
Directory Structures need to be set up before fixtures can be imported into them.

This is done in two stages:

- Create the required directories using Windows Explorer.
- Set up the required links in the Configuration Module.

### Create the required directories using Windows Explorer

Using Windows Explorer, navigate to where the Macro Space Management data files are held. Create the required directories.



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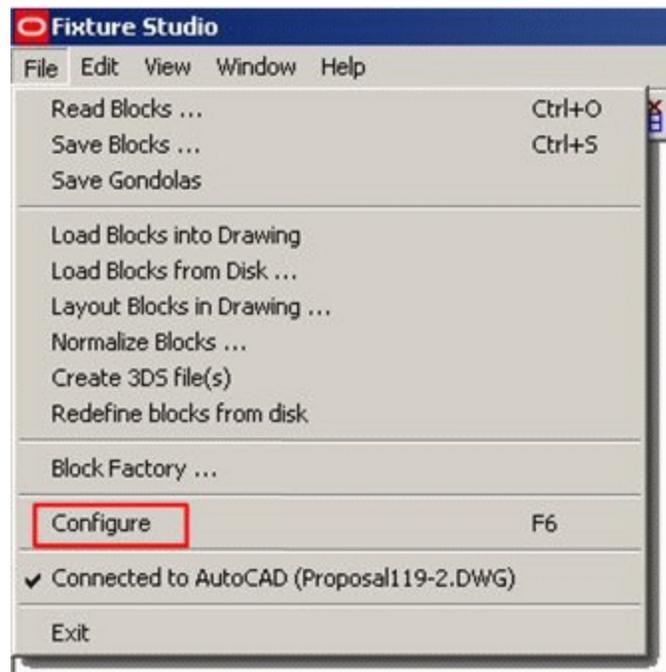
**Note:** You may require the appropriate permissions from your Systems Administrator to carry this out.

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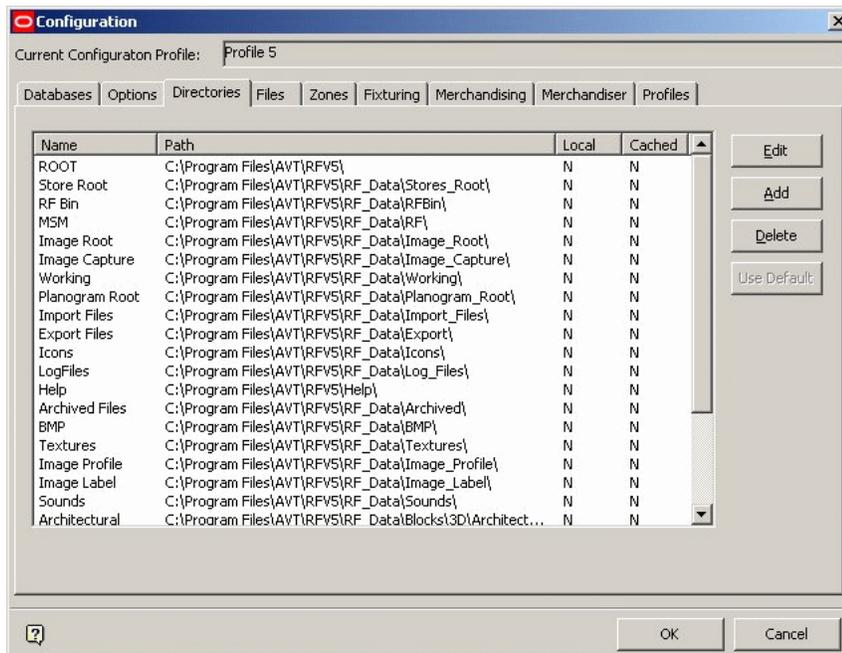
### Set up the required links in the Configuration Module

Open the Configuration Module by selecting the Configure option from the File menu.

*Figure 5-73 Fixture Studio - Configure*



Select the Directories Tab.

**Figure 5–74 Fixture Studio - Directories Tab**

Use the **Add** button to allow paths to be added to the directories made using Windows Explorer.

## Naming Conventions

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**Note:** Naming conventions are vital to the efficient operation of Macro Space Management. They must be decided upon before any blocks are imported into Fixture Studio. Lack of a naming convention will make it more difficult to locate the require fixture blocks. Lack of a naming convention will result in users spending large amounts of time creating dozens (if not hundreds) of gondolas that could have been defined far more efficiently using a naming convention.

---

A naming convention is a pre-thought out and logical way of assigning block names. If you give blocks names like Widget-187567 and Gizmo-ADRTYN, it is not obvious what the blocks are or their dimensions are.

With a well thought out naming convention, adding and recognizing fixtures is simpler.

In the above example, you can see that there are three types of block; Back Panels, L shaped uprights and T shaped uprights. You can also see that the back panels have widths of 600 and 900 mm, and that they have heights of 1400, 1600, 2500 and 2900 mm. Similarly you can see that both the L and T shaped uprights come in four heights; 1400, 1600, 2500 and 2900 mm. Widget-187567 might well be a back panel of width 600 mm and height 2500 mm, but you cannot tell this from the block name.

Naming conventions are of the general form:

Prefix-parameter-parameter-parameter-suffix

These can be any combination of numbers and letters, together with several separating characters. The separating characters can be either a '-', '\_' or an 'x', so each of the naming conventions below are equally valid:

- Prefix-Parameter-Parameter-Parameter-Suffix
- Prefix-ParameterxParameterxParameter-Suffix
- Prefix\_ParameterxParameterxParameterxSuffix

However, the use of naming conventions must be consistent. Naming blocks with a mixture of '-', '\_' or 'x' may lead to errors. For example you may have problems if you name blocks as in the example below:

- Backpanel-600-1400
- Backpanel-600x1600

This is because Macro Space Management expects to find the same separating character for blocks within a naming convention. When the program draws a gondola, if it expects to see: Prefix-Width-Height, and some of the blocks are named: Prefix-WidthxHeight, it will find blocks with name like Backpanel-600-1400 because these are in the expected form. It may fail to find blocks with names like Prefix-widthxheight because there is an 'x' present where Retail FOCUS expected to find a '-'.

Similarly you must avoid misspellings. If you call a block Backpanal-600-1400 rather than Backpanel-600-1400, Retail FOCUS may fail to find the block because of the wrongly spelt Backpanel.

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**Note:** Always check naming conventions for errors. If you have made an error when naming the block, Macro Space Management will not find it when drawing the gondola.

---



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## Examples of Naming Conventions

The examples below are all valid examples of naming conventions:

### **Example 5-1 Prefix-Size**

Leg-1500  
Leg-2000  
Leg-2500

### **Example 5-2 Prefix-WidthxHeight**

Backpanel-600x1500  
Backpanel-900x1500  
Backpanel-1200x1500

### **Example 5-3 Prefix-Width-Depth-Height**

FreezerUnit-600-800-300  
FreezerUnit-600-800-400  
FreezerUnit-600-1000-500

### **Example 5-4 Prefix-Width-Depth-Height-Suffix**

FreezerUnit-600-800-300-Lozier  
FreezerUnit-600-800-400-Lozier  
FreezerUnit-600-1000-500-Lozier

FreezerUnit-600-800-300-Hoffmann  
 FreezerUnit-600-800-500-Hoffmann  
 FreezerUnit-600-1000-500-Hoffman

**Example 5-5 Prefix-Size**

Podium-Small  
 Podium-Medium  
 Podium-Large

In general, naming conventions should be specified such that the block name provides all the information required.

Prefix-Width-Depth-Height-Suffix

Block names of the form allows defining gondolas so that at the time of addition into the Planner or Merchandiser environments you can choose the:

- Specific type - for example Freezer Units
- Specific width - for example 600, 800 and 1000 mm
- Specific depth - for example 800, 1000 and 1200 mm
- Specific height - for example 400, 500 and 600 mm
- Manufacturer - for example Lozier

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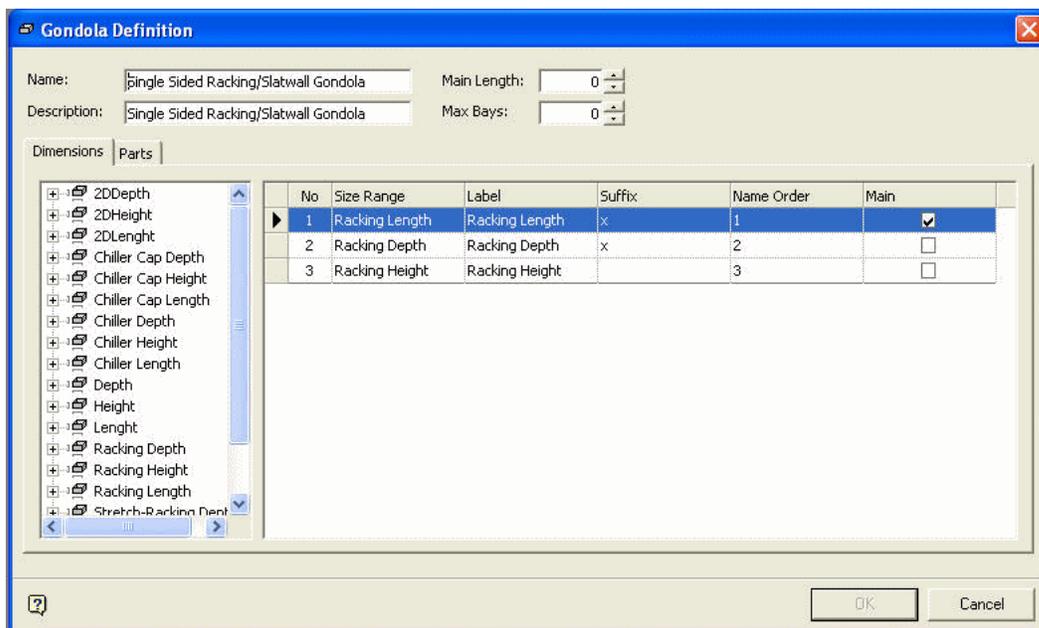
**Note:** One well thought out gondola definition allows placing dozens of different variants of that gondola in Planner or Merchandiser.

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## Gondolas and Naming Conventions

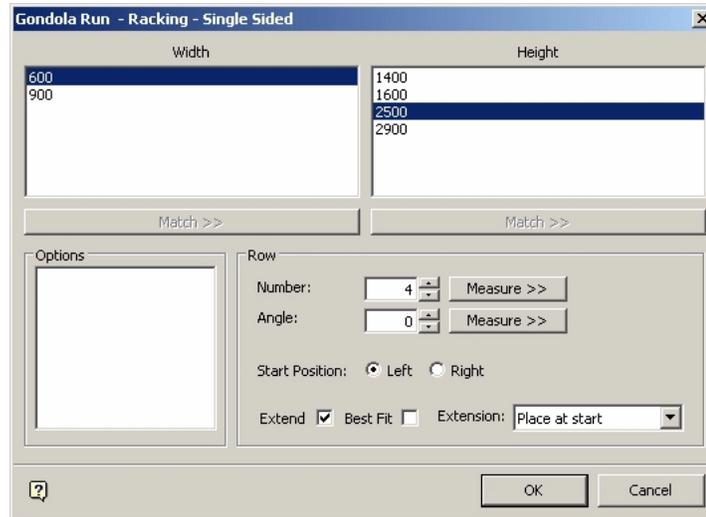
If naming conventions are assigned to Fixture blocks, then these blocks can be automatically selected by including the correct options during Gondola definition.

**Figure 5-75 Gondola Definitions**



When the gondola is placed in Planner or Merchandiser, a list of dimensions and options are available in the Add Gondola dialog box.

**Figure 5–76 Add Gondola dialog box**



In the above example a gondola can be placed with any combination of two widths and four heights (eight combinations in all).

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**Note:** In the above example, a width of 600 mm and a height of 2500 mm have been selected. When the gondola is created in the drawing, it is done using by reconstructing the required block name based on information in the gondola definition. For example, the software would use a backpanel with a name of Backpanel-600-2500. If you had chosen dimensions of 900 mm and 1400 mm, the software would use a backpanel with a name of Backpanel-900-1400.

---

If naming conventions were not used when defining this gondola, eight separate gondolas would have to have been designed in Fixture Studio.

---

**Note:** Using gondola definitions in this way only works if a consistent naming convention has been used for the blocks that will be used to draw the gondolas. This means that blocks must be imported into Fixture Studio using a good naming convention from the start. If a good naming convention is not used, then users will end up with an inefficient way of defining gondolas, and consequent loss of time when planning gondolas in store plans

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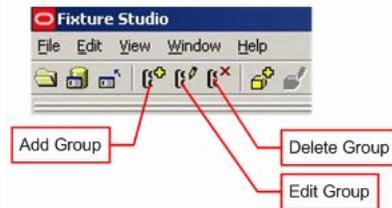
## Fixture and Gondola Hierarchies

Well designed hierarchies make it easier to find fixtures and gondolas, both in Fixture Studio and in Planner and Merchandiser. It also makes it easier to see which items of equipment have compatible connections and styles. Consider how your users will want Groups of objects organized, then design an appropriate hierarchy.

## Groups

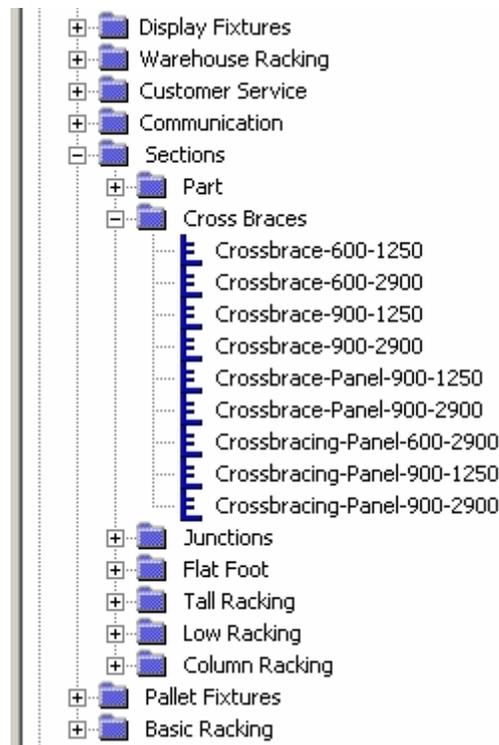
**Groups** are a way of arranging collections of fixture or gondola definitions into a logical arrangement. Each group holds a logical class of objects. For example, one group could be created to hold all gondola descriptions for freezer units, another for chilled goods units and another for food and vegetable units. This facilitates finding the required gondola when it is desired to edit it, or to place it in a store layout in both Planner and Merchandiser.

Groups can be added, edited, or deleted using the Grouping icons on the Toolbar.



If you are in the Blocks tab, Fixture Groups can be added, edited, or deleted from the Fixture hierarchy. If you are in the Gondola tab, Gondola Groups can be added, edited, or deleted from the Gondola hierarchy. Individual fixtures and gondolas can then be associated with the appropriate group. The resultant hierarchical tree appears in the object browser in Fixture Studio. Note how you can readily find the required object.

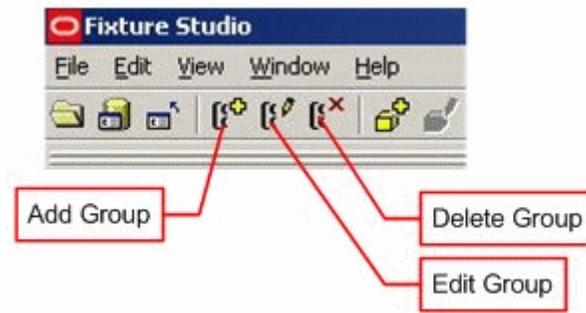
**Figure 5–77 Hierarchical tree**



(The same hierarchy also appears in the Object Browser in Planner and in Merchandiser).

## Adding, Editing and Deleting Groups

Groups are used to arrange Block and Gondola definitions into logical collections with the hierarchical tree visible in the Object Browser. Groups can be added, edited, and deleted.



### Adding a Group

To add a group, highlight the parent group to which it is going to be added. Click on the **Add Group** icon. The Group dialog box appears.

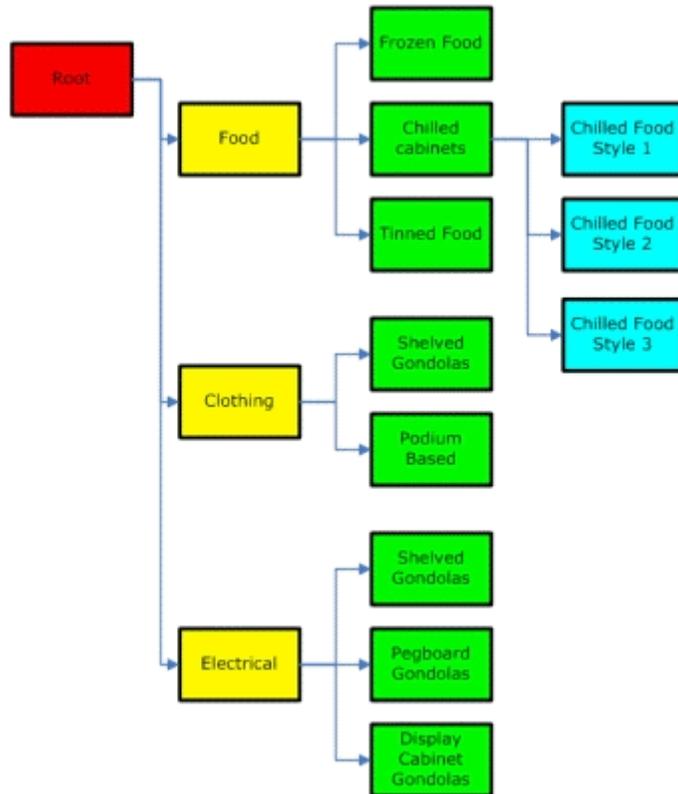
*Figure 5-78 Add Group*



Enter a description and select an icon from the drop down list. Click **OK** to conform. The group to be added is a child of its selected parent group.

### Editing Groups

Groups are analogous to clusters in Store Manager - they are containers used to collect together Fixture or Gondola definitions of similar characteristics.



Groups are arranged in a hierarchy emanating from a root. The hierarchy should be chosen such that it facilitates locating any desired Fixture or Gondola. In the above example Gondolas have been split into three broad classes; Food, Clothing and Electrical. Each of the Groups has then been further subdivided.

Gondola definitions can then be added to the appropriate Group - for example all the chilled cabinet gondolas would be assigned to the Chilled Cabinets sub-group of the Food Group.

**Edit Group**

To add a group, highlight the group which is to be edited. Click the **Edit Group** icon. The Group dialog box appears.

**Figure 5-79 Edit Group**



Edit the description if required. You may select an alternative icon from the drop down list. Click **OK** to conform. The Group details will now be updated.

### Delete Group

To delete a group, highlight the group to be deleted. Click on the **Delete Group** icon. If the Group to be deleted has child groups or block definitions, a warning dialog appears.

**Figure 5–80 Delete Group**

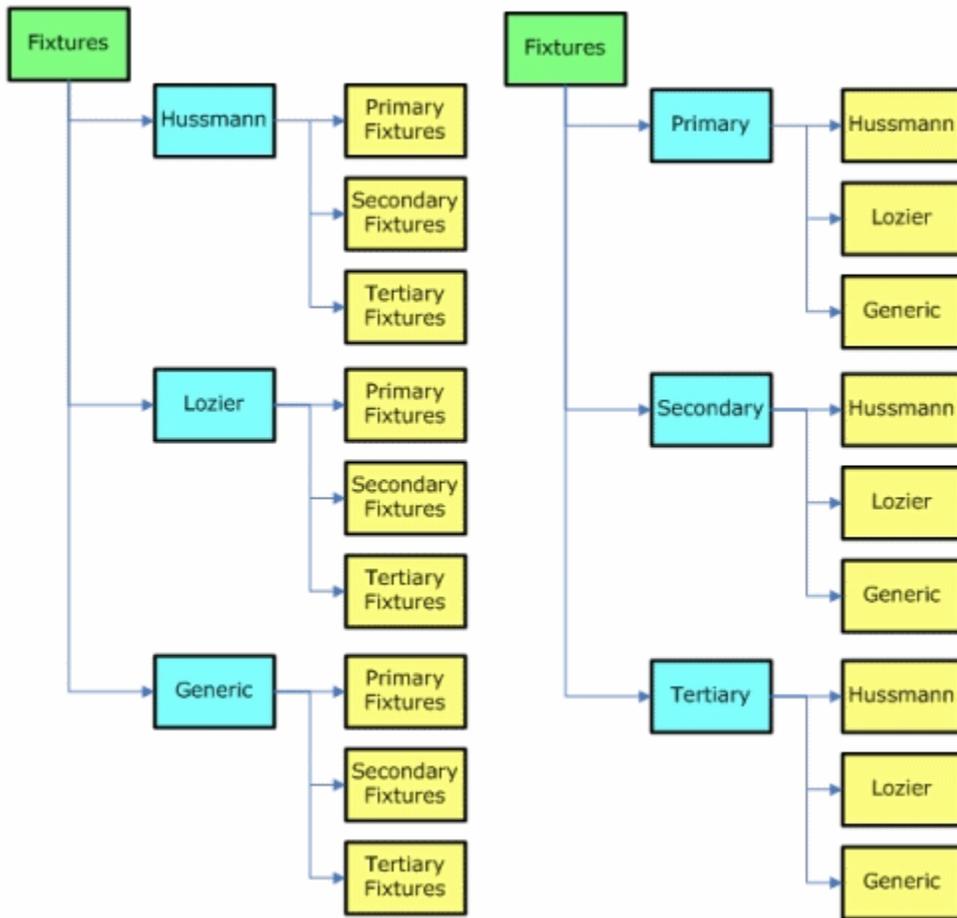


If there are no child objects, the group is deleted without any requirement for confirmation.

### Examples of Hierarchies

Hierarchies can be set up in several ways. One of the examples is manufacturer based and another is based on equipment. Examples of both are shown below.

Figure 5–81 Examples of Hierarchies



When setting up hierarchies, you must not only consider the logical groupings of fixtures and gondolas, but also how connections and styles are assigned. Laying out the equipment in a store layout in either Planner or Merchandiser is much facilitated if all items in a group have similar connections and styles assigned and those connections and styles are compatible with other groups.

For example the Hussman Primary Fixtures Group would be expected to have connections and styles compatible with the Hussmann Secondary Fixtures Group.

**Overview of Stretchable Fixtures**

Stretchable fixtures are a special feature of Macro Space Management that allows those fixtures to take up a range of permitted sizes.

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**Note:** Do not use stretchable fixtures if you want accurate reports on equipment present in stores.

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Placing stretchable fixtures reduces the number of fixtures required as the same fixture could be placed in (for example) 600 mm, 700 mm and 800 mm widths.

**Reporting**

It is possible to generate reports on what equipment is present in one or more stores. If a stretchable backpanel has been used in 600, 700 and 800 mm widths, the report only shows the present of the stretchable backpanel.

If 600 mm, 700 mm and 800 mm wide backpanels have been individually placed, it is possible to generate an accurate report on how many of each width of backpanel is present in a store.

## Connections

Connections are used to determine what items of equipment can connect to what items of equipment.

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**Note:** Connection set-ups should be kept as simple as possible with regard to connecting together equipment in the correct alignment and ensuring non compatible equipment cannot be connected. Connections should also be used in conjunction with styles.

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For one item of equipment to connect to another the following must be true.

**Table 5–3 Connections**

	<b>Requirement</b>	<b>Optional or Mandatory</b>
Gender	The connection points must have compatible genders	This requirement can be disabled in the Configuration Module
Shape	The connection points must have the same shape	This requirement can be disabled in the Configuration Module
Size	The connection points must have compatible sizes	This requirement can be disabled in the Configuration Module

If any of these criteria are not true, then a connection cannot be made. In addition, if the details of the connections are not correctly specified relative to each other, equipment may connect together in unintended alignments. It is suggested the use of connection parameters is planned beforehand.

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**Note:** Connections can be made easier to use by means of well planned hierarchies. For example, all equipment in the Lozier group would be expected to have connections designed to be compatible.

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### Planning the use of Connections

The following guidelines are recommended for planning the systematic use of connections.

#### Connection Names

Connections should be assigned logical names such as Peg or Slatwall. This enables their purpose to be seen at a glance.

### Gender

Permissible Values	Comment
Male, Female, Neutral.	Male connects with female.  Neutral connects with itself and both male and female.

Specify conventions such as male and female connections always point in opposite directions when defined. This means when two items of equipment are inserted in Merchandiser next to each other and facing the same way, the male and female connections will always mate when selected for joining. Also use logical conventions such as pegs, hanging rods, etc., always have male connection gender, and the holes or slots they fit into have female gender.

### Shape

Permissible Values	Comment
None, Rectangle, Circle, Oval, Triangle, Hexagonal.	Specific shapes will only connect with themselves and None.

Assign the shapes to equipment by function - for example assign connections of shape Rectangle to Legs, Slatwalls and Back Panels and connections of shape Circle to Pegs, Hanging Rods, etc. This means that Slatwalls and Back Panels can only connect to Legs and not (say) Pallets. Similarly, it means that Pegs can only connect to the appropriate connections on the Back Panel. Equipment that has to connect to multiple types of equipment can be assigned shape None.

### Size

Permissible Values	Comment
Minimum size 0, maximum size 1000.	Two items of equipment must have overlapping connection sizes to connect.

Connection sizes can be assigned according to purpose. An example of such a scheme is:

Size	Purpose
11 - 15	Floor mounted (primary) equipment
6 - 10	Shelves and other secondary equipment
0 - 5	Dividers, grilles and other tertiary equipment

This means that connection types intended to let floor mounted equipment only join to each other can be assigned one size range. Shelves can be assigned another size range of connection types that only lets them connect to the equivalently sized connections on primary fixtures such as backpanels and slatwalls. Dividers and grilles can be assigned another size range of connection types that only lets them connect to the equivalently sized connections on secondary fixtures such as shelves. If the size ranges are correctly assigned then although the gender and shape of a connection might be compatible, equipment will be prevented from joining inappropriately - for example a divider will only place on a shelf.

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**Note:** These connection requirements can always be overridden by turning off the filters in the Fixtures Tab of the Configuration Module.

As well as Connections, Styles can be used to determine what item of equipment can be connected to what. If it is intended to join one item of equipment to another, both the Styles and the Connections must be compatible with that aim.

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## Styles

Styles are used to determine what is compatible with what. For example, the assigned fixture and shelf styles determine whether a shelf object can be placed on a specific item of equipment or not. Similarly the assigned product style determines whether the product can be placed on for example a shelf.

Styles and Style relationships should be kept as simple as possible with regard to making sure equipment connects together in a compatible manner and ensuring the correct display style goes onto shelves, pegs, etc. Styles should also be used in conjunction with connections.

Product of Pegged style can be constrained to only place on pegs, while products of Boxed Style can be constrained to only place on wire, open and heavy duty shelves.

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**Note:** Styles can be made easier to use by means of well planned hierarchies. For example, all equipment in the Lozier group would be expected to have styles designed to be compatible.

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### Planning the use of Styles

In planning the use of Fixture and Shelf Styles, an effort must be made to keep the number of styles to the minimum possible because for Style Relationships:

- Each shelf object that goes onto a fixture has to have a compatible style relationship with that fixture.
- Each product that goes onto a fixture has to have a compatible style relationship with that fixture.
- Each product that goes onto a shelf object has to have a compatible style relationship with that shelf object.

If there are large numbers of Fixture, Shelf, and Product Styles, it will be difficult to set up and maintain the list of style relationships. For example, it is best to avoid manufacturer specific shelf styles unless there are actual reasons for doing so. Thus it is better to have a 'General Shelf' style rather than 'Hussman Shelf', 'Lozier Shelf' and 'Franklin Shelf' as having three separate shelf styles means three times as many style relationships need to be set up.

**Note:** As well as Styles, Connections can be used to determine what item of equipment can be connected to what. If it is intended to join one item of equipment to another, both the Styles and the Connections must be compatible with that aim.

## About Blocks

Gondola creation relies on a convention for block naming. Accordingly blocks should be named in a systematic manner.

**Figure 5–82 Blocks Naming Conventions**

	ID	Description ▲	Name	Type
	125	Backpanel 600 H1150	Backpanel-600-1150	Fixture
	127	Backpanel 600 H1500	Backpanel-600-1500	Fixture
	128	Backpanel 600 H1600	Backpanel-600-1600	Fixture
	129	Backpanel 600 H2500	Backpanel-600-2500	Fixture
	130	Backpanel 600 H2900	Backpanel-600-2900	Fixture
	124	Backpanel 600 H950	Backpanel-600-950	Fixture
	132	Backpanel 900 H1150	Backpanel-900-1150	Fixture
	133	Backpanel 900 H1400	Backpanel-900-1400	Fixture
	134	Backpanel 900 H1500	Backpanel-900-1500	Fixture
	135	Backpanel 900 H1600	Backpanel-900-1600	Fixture
	136	Backpanel 900 H2500	Backpanel-900-2500	Fixture
	137	Backpanel 900 H2900	Backpanel-900-2900	Fixture

Naming conventions are often of the general form Block Type-dimension-dimension-dimension. In the above example, the convention is Backpanel-width-height.

Backpanel-600-1150 is a back panel 600 mm wide x 1150 mm high.

Backpanel-600-1500 is a back panel 600 mm wide x 1500 mm high.

**Note:** Components for gondolas will be selected using these name conventions, so it is important that a consistent scheme is used when creating blocks. If this scheme is not consistent, it may not be possible to select the required blocks for creating gondolas. Block names can also include suffixes, for example -HD and -HD-Foot.

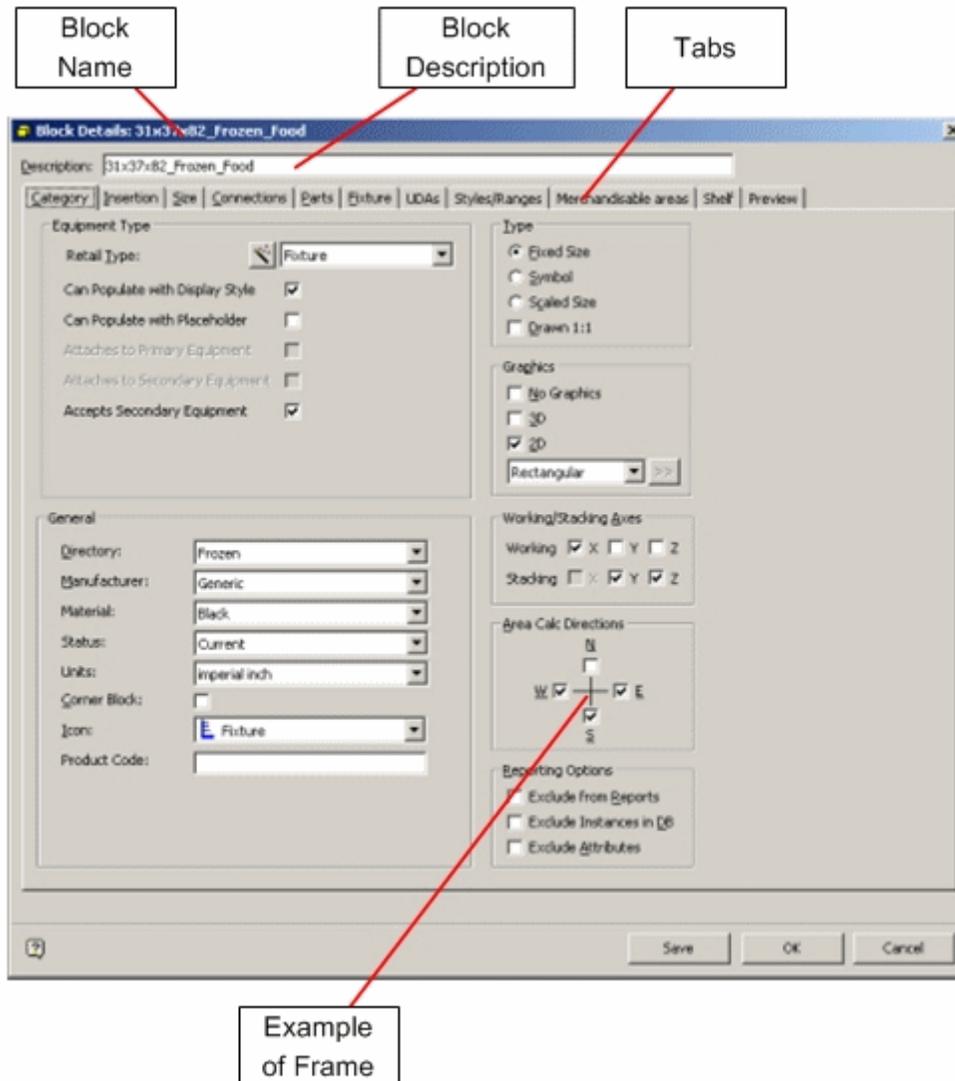
Suffixes can be used to further restrict the list of available blocks for a specific gondola.

### Block Details Dialogue Box

The Block Details dialog box allows additional information to be added to an AutoCAD Wblock (World Block). This additional information gives 'Intelligent Properties' to the resulting Macro Space Management block. These intelligent properties can then be used by the block to interact with other blocks within the AutoCAD and Virtual Reality Environments and carry out the range of its fixturing, merchandising, and reporting functions.

Data added to Block Details is stored in the central Macro Space Management database.

**Figure 5–83 Block Details dialog box**



The Block Name at the top of the dialog box must correspond to that of the AutoCAD Wblock it is associated with. If they do not correspond, the Macro Space Management block cannot be placed in the CAD or Virtual Reality environments. The Block Description allows the user to enter a more comprehensive description of the block.

### Tabs

The tabs allow you to switch between various categories of Macro Space Management Block information. The tabs include:

- Category
- Insertion
- Size

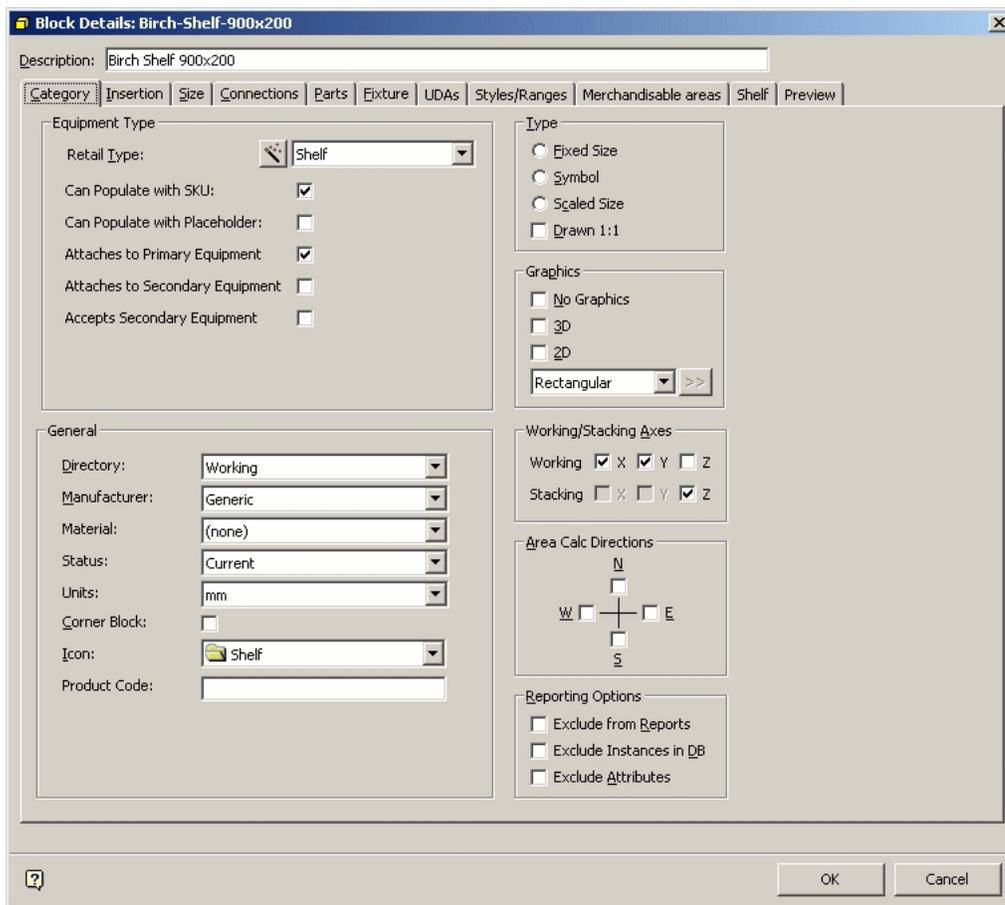
- Connections
- Parts
- Fixture
- UDAs (User Defined Attributes)
- Styles/Ranges
- Merchandisable Areas
- Shelves
- Preview

Each tab is split into a series of frames. Each frame deals with one aspect of the information on that tab.

**Category Tab**

The **Category** tab is used to set general parameters for the block being defined.

**Figure 5–84 Category tab**



**The Equipment Type Frame**

The **Equipment Type** frame is used to specify basic parameters for the object.

**Figure 5–85 Equipment Type frame**

- **Retail Type** can be set from a drop down list.
- **Can Populate with Display Style** determines whether products can be placed at the display level on this object.
- **Can Populate with Placeholder** determines whether placeholders (representing a class of product) can be placed on this object.
- **Attaches to Primary Equipment** allows the object to attach to primary equipment (equipment that stands on the floor).
- **Attaches to Secondary Equipment** allows the object to attach to secondary equipment (for example shelves).
- **Accepts Secondary Equipment** allows the object to accept secondary equipment (for example shelves and rods).
- **Corner Block** determines if the block can be placed in the corner of the plan.

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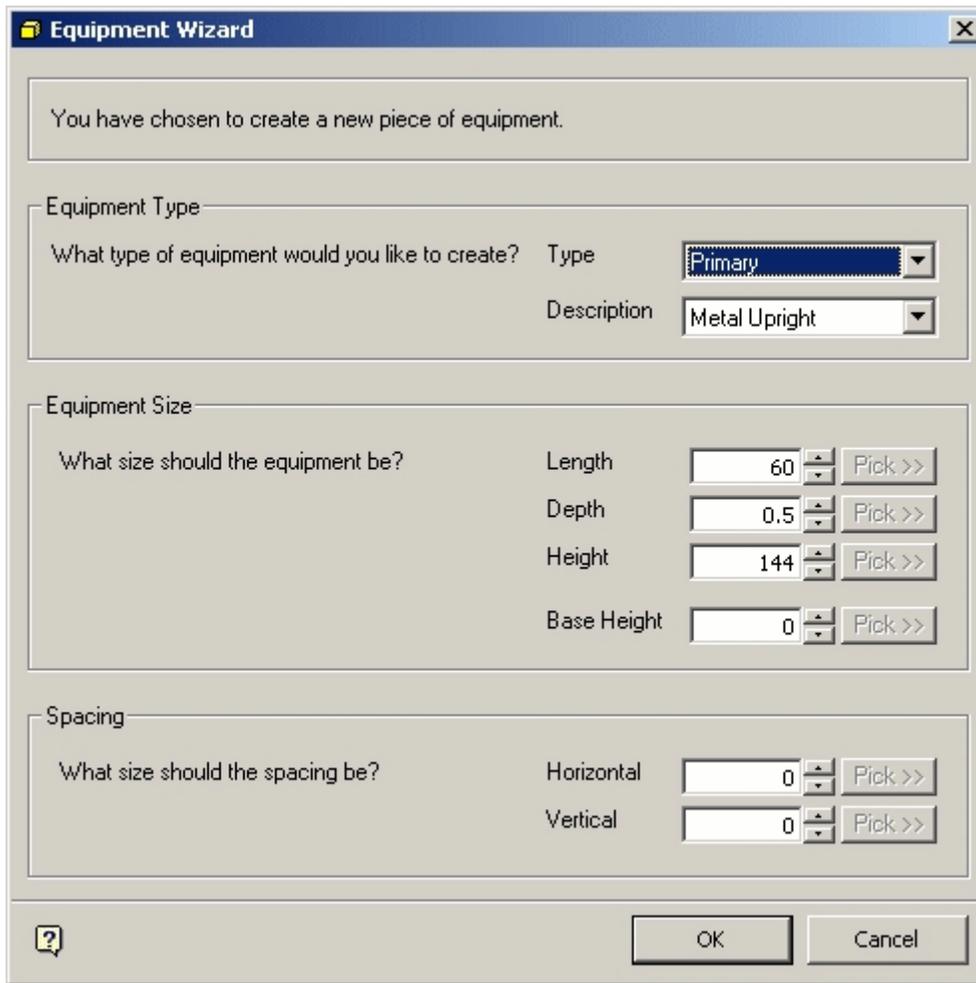
**Note:** Some of this data can also be set with the Wizard.

---

### The Equipment Wizard

The **Equipment Wizard** allows you to define certain basic parameters from the available menu options.

**Figure 5–86 Equipment Wizard**



- **Equipment Type** and **Description** can be selected from drop down lists.
- **Equipment Size**, **Depth**, **Height**, and **Base Height** can be set using the spin controls.
- **Spacing** is used for equipment like slatwalls and pegboards. It is used to set the spacing of slats or pegs.

**The General Frame**

The **General** frame enables you to set a series of options concerning the general properties of the block.

**Figure 5–87 General frame**

The screenshot shows a 'General' frame with the following fields and values:

- Directory: MSM
- Manufacturer: Generic
- Category: (empty)
- Units: mm
- Material: Black
- Print Material: Black
- Status: Current
- Effective Date: Tuesday , March 11, 2008
- Expiry Date: Saturday , December 30, 1899
- Product Code: (empty)
- Icon: Default
- Cost: 0

**Directory**

The Directory specifies the sub-directory in which the block details are stored. This can be selected from a drop down list.

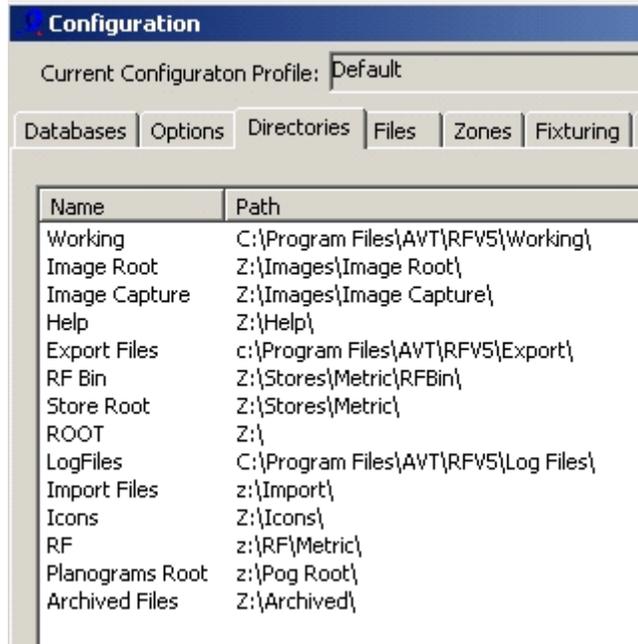
**Figure 5–88 Directory List**

The screenshot shows a dropdown list for the 'Directory' field. The selected item is 'IKEA'. Other visible items include:

- IDEALISK STRAINER 20 STAI
- IDEALISK STRAINER 20 STAI
- IDEALISK STRAINER 20 STAI
- IKEA
- IKEA 365+ BOWL 16 PATTERN
- IKEA 365+ BOWL 16 PATTERN
- IKEA 365+ BOWL 16 WHITE
- IKEA 365+ BOWL 8 WHITE

The directory name should be the same as specified in the Directories tab of the Configuration Module.

**Figure 5–89 Configuration Module - Directories tab**



**Note:** Each implementation of Macro Space Management will vary slightly in directory structure.

**Manufacturer**

Select the Manufacturer from the drop down list.

This list is configured in the Admin Module (Edit > Manufacturers).

**Category**

Select the block category such as Freezer Unit, Furniture, Racking, or Miscellaneous Unit, from the drop down list.

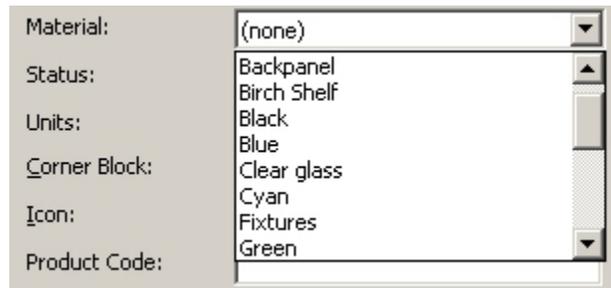
**Units**

Select the units of measurement for the block from the drop down list. Care should be taken to select a consistent system of units for equipment. Selecting Inches for some types of equipment and Millimeters for other types could result in strange effects when they are inserted into the same drawing or Virtual Reality environment. This list is configured in the Admin Module (Edit > Units).

**Material**

Select the material from the drop down list.

**Figure 5–90 Material Drop Down List**



This is particularly significant in the Virtual Reality environment as the material affects the visual appearance of the block. This list is configured in Product Studio (View > Materials).

**Status**

The Status can be selected from a drop down list.

**Figure 5–91 Status Drop Down List**



This list is configured in the Administration module (Edit > status). Depending on implementation, the status may affect the way the blocks display in the various hierarchical trees they appear in.

**Code**

**Figure 5–92 Code field**

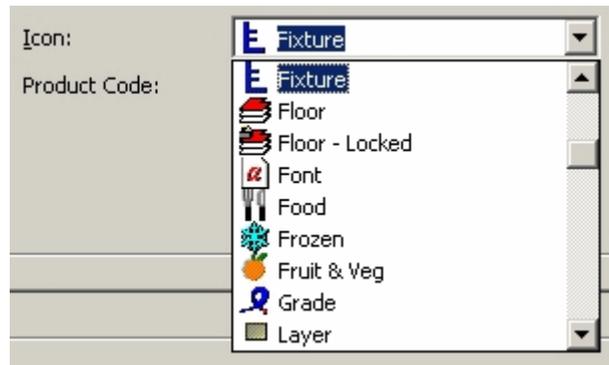


The code is entered by the user. An example would be a manufacturer's product code. It is used for reporting purposes. It is used for reporting purposes.

**Icon**

You can select the icon for the block from a drop down list.

**Figure 5–93 Icon Drop down list**

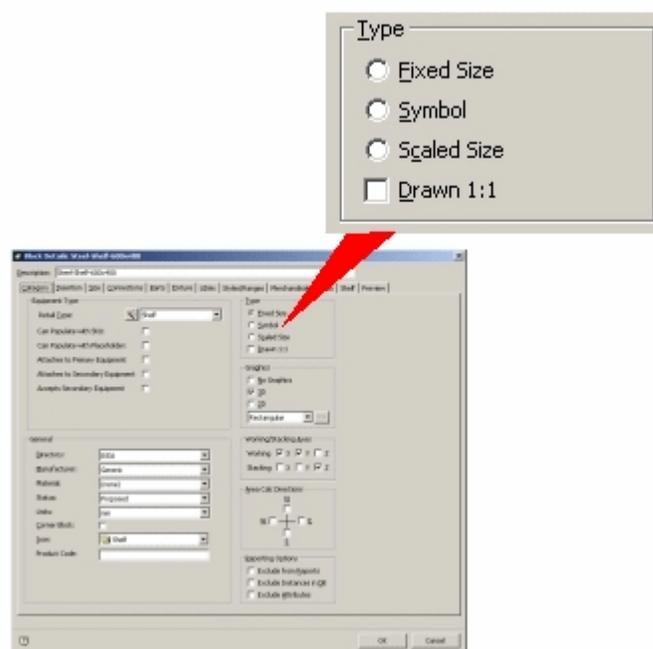


This list can only be customized by Oracle. The selected icon appears against the Block Definition in the various hierarchical trees.

**The Type Frame**

The **Type Frame** specifies how the block is to be drawn in the AutoCAD drawing or Virtual Reality environment.

**Figure 5–94 Type Frame**



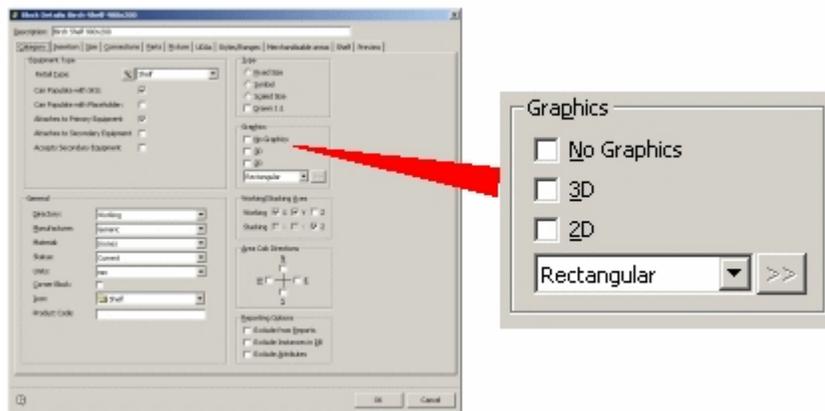
- **Fixed Size** blocks are always drawn at a constant scale. This is how most blocks will be designated as it means they change in scale as the drawing scale is changed.
- **Symbol** is used to indicate blocks that indicate information on the drawing. An example might be a directional arrow. Symbols remain a standard size, irrespective of the scale of the drawing. Because symbols need to be visible, they are generally drawn at a 50:1 scale and appear at this size in the drawing.

- **Scaled size** is a feature from earlier versions of Macro Space Management and has been included for compatibility with older versions. It is not now generally used. Fixed Size, Symbol and Scaled Size are mutually exclusive. Only one can be selected at a time via the associated radio buttons.
- **Drawn 1:1** is only applicable to blocks designated as symbol blocks. If they have been drawn to anything other than a 50:1 scale, they will be drawn at 50:1 in the drawing, unless Drawn 1:1 is checked. If this option is enabled, the symbol block will be drawn at its original scaled size (for example 100:1).

### The Graphics Frame

The **Graphics** frame specifies what sort of graphics is drawn in the AutoCAD environment.

**Figure 5–95 Graphics frame**



- **No Graphics** is an option that can be used for blocks that are not visually displayed. An example would be an associated block (such as a bolt or castor) which doesn't need to have graphics, but can still be included in reports.
- The **3D** and **2D** checkboxes determine which AutoCAD layer the object is to be drawn on. A 2D block will be placed on a different layer to a 3D block.

---

**Note:** If an object has only been drawn in 2D, it will still be drawn on the 3D layer if this checkbox is ticked. However, it will still only be viewable in 2 dimensions.

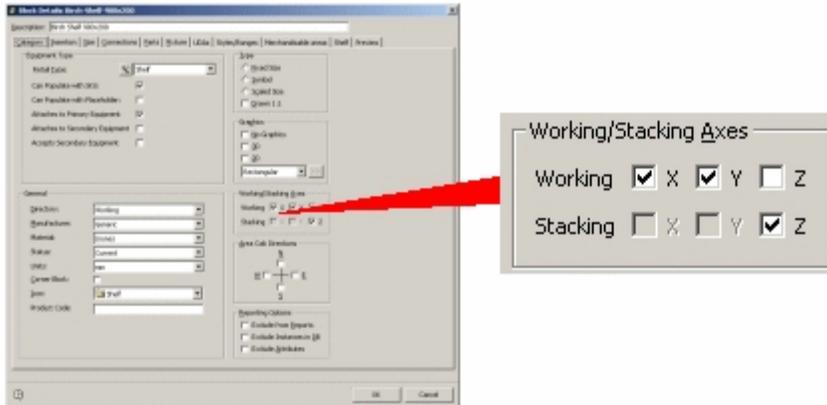
---

Furthermore, if the block is to be created using Block Factory, then the 2D or 3D settings will determine the actual graphics that are created.

### The Working/Stacking Axes Frame

The **Working and Stacking Axes** determine how products align and stack respectively on shelves in the Virtual Reality environment. They do not affect product placement in the Planner environment as products are represented by placeholders.

**Figure 5–96 Working and Stacking Axes**



**Working Axis**

The Working Axis defines the directions products can be aligned on. If a Working Axis is checked, it also allows stacking in that axis.

- If the X axis is checked, products may be aligned along the length of the block.
- If the Y axis is checked, products may be aligned over the depth of the block.
- If the Z axis is checked, products may be aligned relative to the height above the block.

The working axes selected have to be appropriate to the equipment. For pegs the Y working axis has to be enabled, as product has to be aligned along the length of the peg. For peg boards the X and Z working axes have to be enabled as products have to be aligned in a vertical place. For chest freezers the X and Y working axes have to be enabled as product has to be aligned over the bed of the unit.

---

**Note:** If only some of the working axes are checked, then not all the alignment commands will be enabled in Merchandiser.

---

In the example shelf below, only the X Working Axis has been enabled. Product can therefore be aligned along the length of the shelf, but not relative to its depth and height.

The Stacking Axis determines the directions products can be stacked in. If only some of the Working Axes have been checked, the Stacking Axes can be used to allow product to be stacked in more directions than they can be aligned.

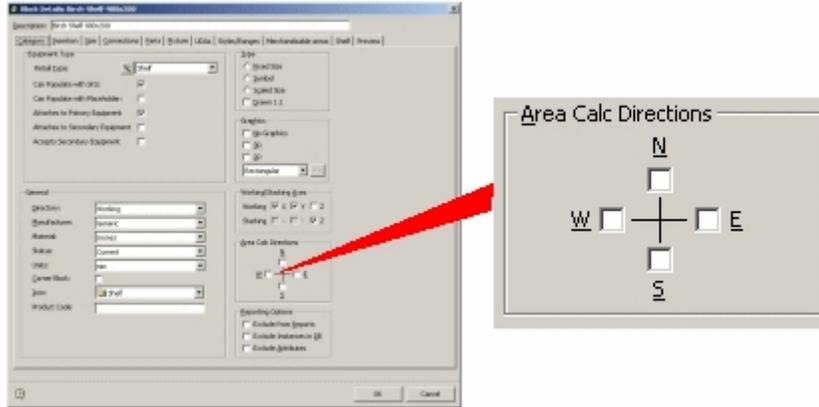
- If the X axis is checked, products may be stacked along the length of the block.
- If the Y axis is checked, products may be stacked down the depth of the block.
- If the Z axis is checked, products may be stacked vertically.

In the example shelf below, stacking has been enabled in the X, Y and Z planes, allowing product to be stacked in both horizontal and the vertical directions.

**The Area Calculation Directions Frame**

The **Area Calculations Direction** frame is used to set the directions that the area calculation function uses when establishing the area apportioned to the object.

**Figure 5–97 Area Calculations Direction frame**



Area calculation works by "feeling" out from the object in the specified directions. The check boxes that are ticked should be appropriate to the function of the object. For instance, there would be no point in testing for other fixtures behind a wall bay, so only the front and two sides would be selected. Conversely, a table or pallet would probably be placed away from other fixtures, so it would be appropriate to feel out in all directions.

---

**Note:** The direction of the Front of the fixture is set in the Insertion tab. The check boxes ticked should take this into account.

---

### The Reporting Options Frame

The **Reporting Options** frame allows you to specify whether the Block Definition should be excluded from reports or the central database.

**Figure 5–98 Reporting Options frame**



Not all blocks need be included in a report, for example Title Blocks and some symbols such as directional arrows. It may also be that is no need to store instances of a certain type of block in a database, for example Reference blocks, so there will not a record in the Fixtures table to represent the block.

- **Exclude from Reports** allows the Block Definition to be excluded from Macro Space Management's reports.
- **Exclude Instances in DB** allows you to exclude information from the drawing being stored in the database during a save.

---

**Note:** If you exclude instances of a block from the database, then it will also be ignored when rebuilding the drawing from the database.

---

- **Exclude Attributes** allows certain attributes of the Block Definition to be excluded from being stored in the central database.

---

**Note:** This option is not enabled in this implementation of Macro Space Management.

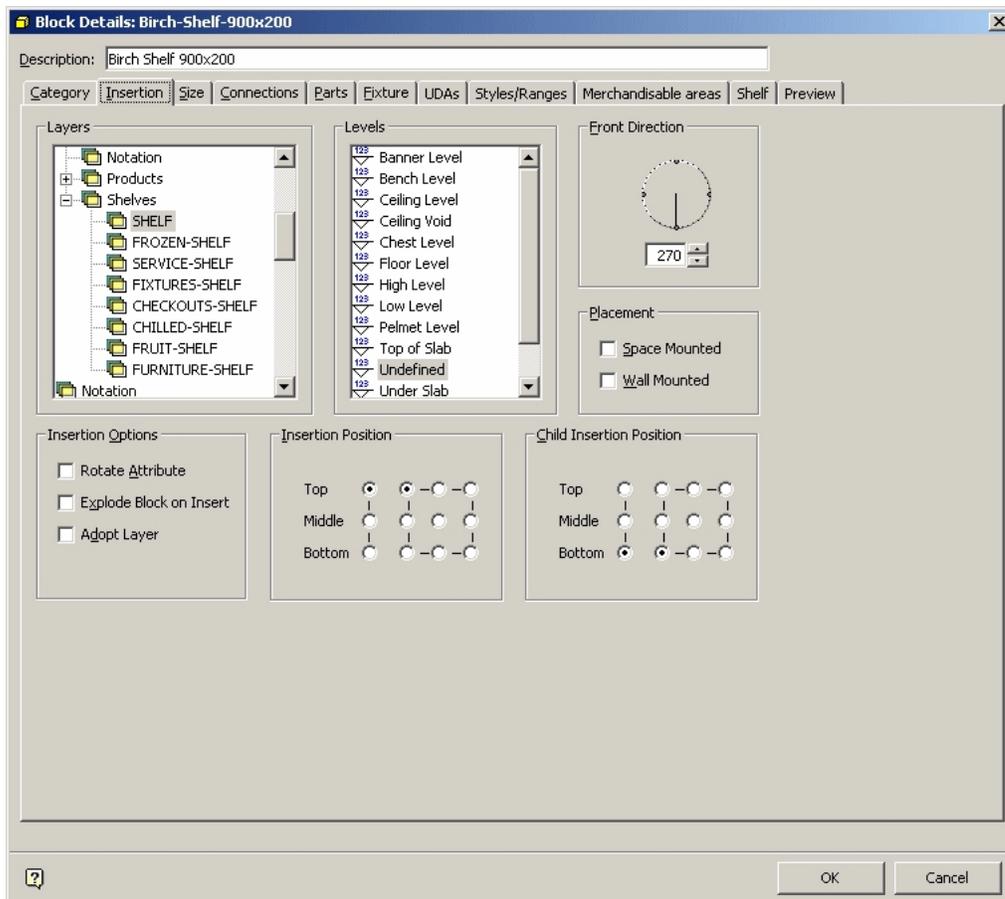
---

- **Include in Fixture Annotation** allows you to include the block definition in fixture annotations.

### Insertion Tab

The **Insertion** tab is used to specify a number of details affecting how the block is inserted into the drawing.

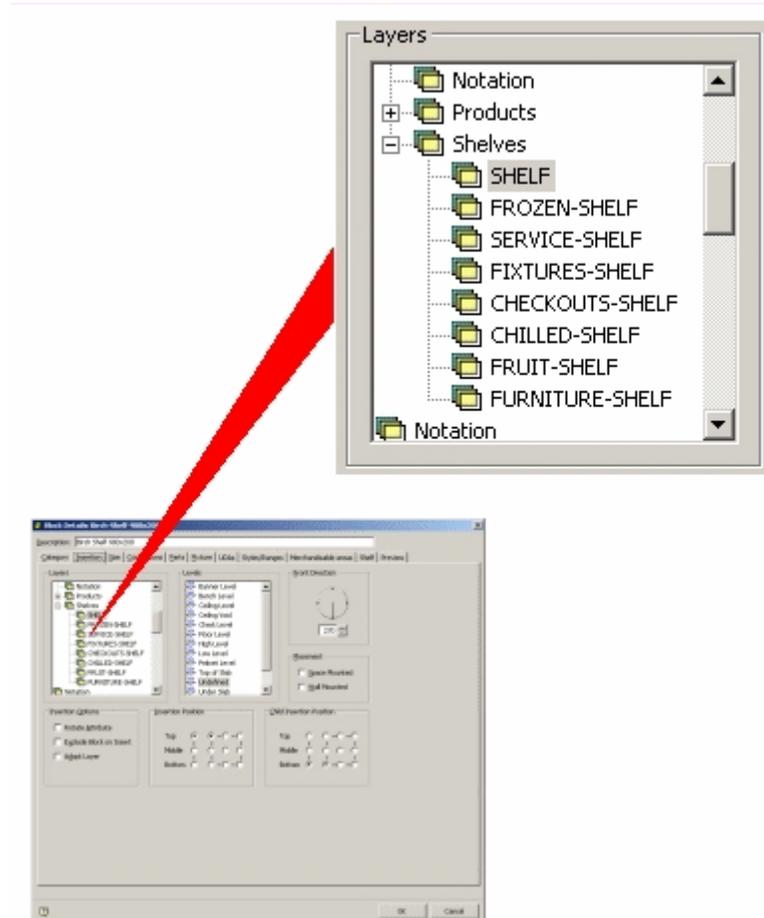
**Figure 5–99 Insertion tab**



### The Layers Frame

The **Layers** frame specifies the layer on which the Block Definition will be inserted when placed in the drawing or Virtual Reality environment.

**Figure 5-100** Layers frame



Selecting the correct layer is important as it will affect how the equipment behaves within the Planner and Merchandiser environments.

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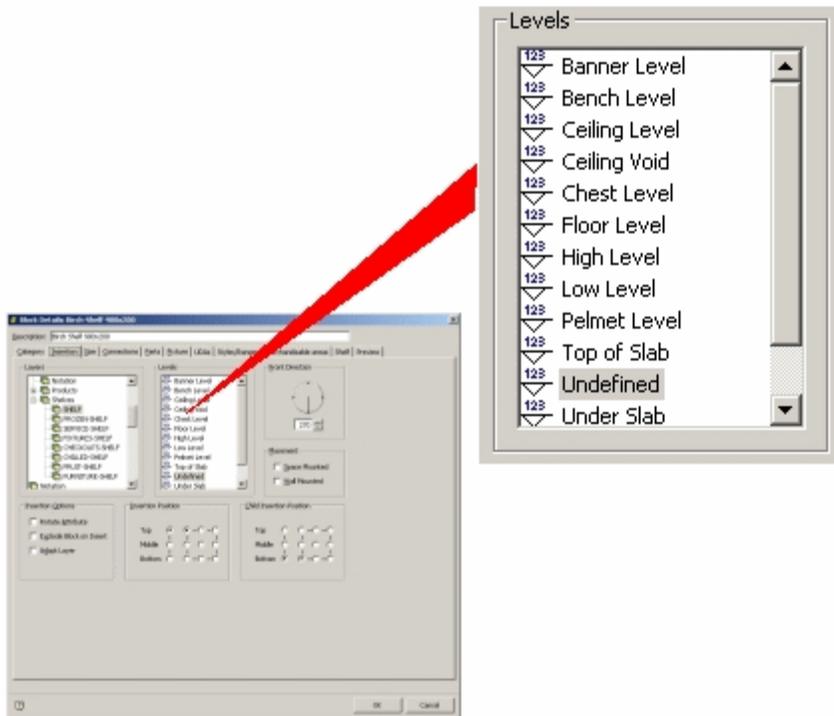
**Note:** Selecting a layer controls how objects display in Merchandiser via the Layers dialog box. Layers selected should be consistent with the purpose of the block.

---

### The Levels Frame

The **Levels** frame determines what level the Block is inserted in the drawing.

**Figure 5–101 Levels frame**



Each level represents a physical height at which equipment can be inserted in the drawing. The level chosen should be compatible with the purpose of the equipment. Equipment would normally be inserted at Floor level, while Lights would normally be inserted at High Level which is 100 mm below Ceiling Level. An example of current settings is given below.

**Table 5–4 Levels Frame**

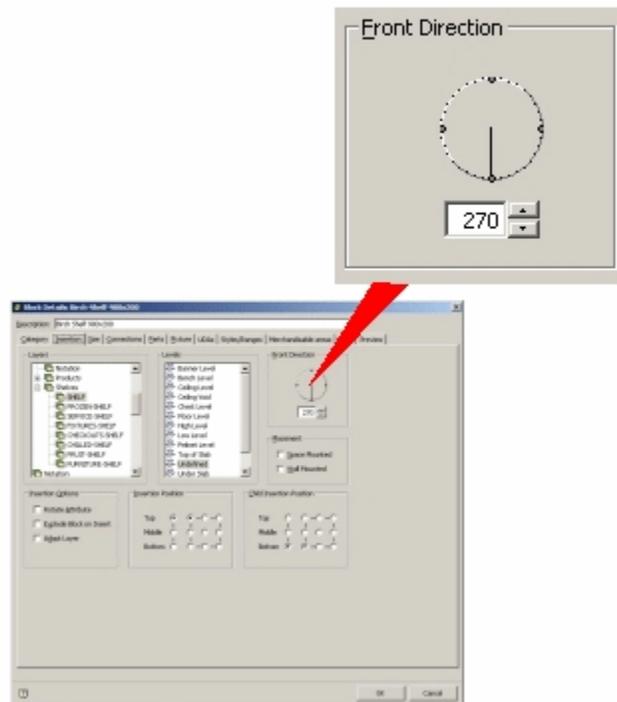
Level ID	Level Description	Default Elevation	Relative to Level
0	Undefined	0	Floor
1	Top of Slab	0	Floor
3	Floor Level	0	Floor
4	Ceiling Level	13000	Floor
5	Under Slab	0	Floor
6	Low Level	75	Floor
8	Bench Level	1200	Floor
9	Chest Level	1500	Floor
10	High Level	-100	Ceiling Level
12	Ceiling Void	200	Ceiling Level
13	Pelmet Level	1750	Floor
14	Banner Level	-1500	Ceiling Level
99	User Defined	0	Undefined

**Note:** Levels are not currently directly configurable by the user. They can however be imported via the Data Import module. Contact Oracle for further information.

### The Front Direction Frame

The **Front Direction** frame represents the direction which the front of the fixture (the side the customer views) is first orientated when the item of equipment is first placed in the drawing.

**Figure 5–102 Front Direction frame**



The orientation of the Front Direction of the equipment can then be changed by rotating the equipment when it has been inserted.

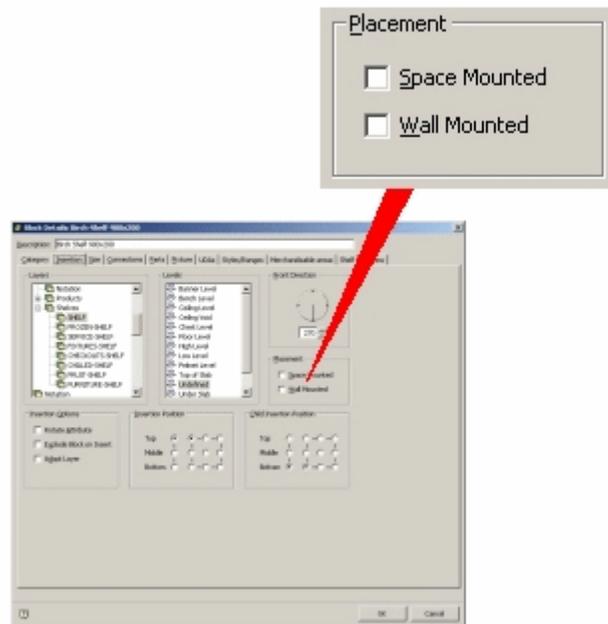
**Note:** When assigning block details it is strongly recommended that all blocks be initially defined with the same Front Direction. If front directions vary from block to block, this will lead to confusion when blocks are inserted in the drawing or formed into gondolas.

The front direction is normally set at 270 degrees relative to the Planner coordinate system - this defines 0 degrees as 'west'.

### The Placement Frame

The **Placement** frame enables two forms of mounting options to be specified.

**Figure 5–103 Placement frame**



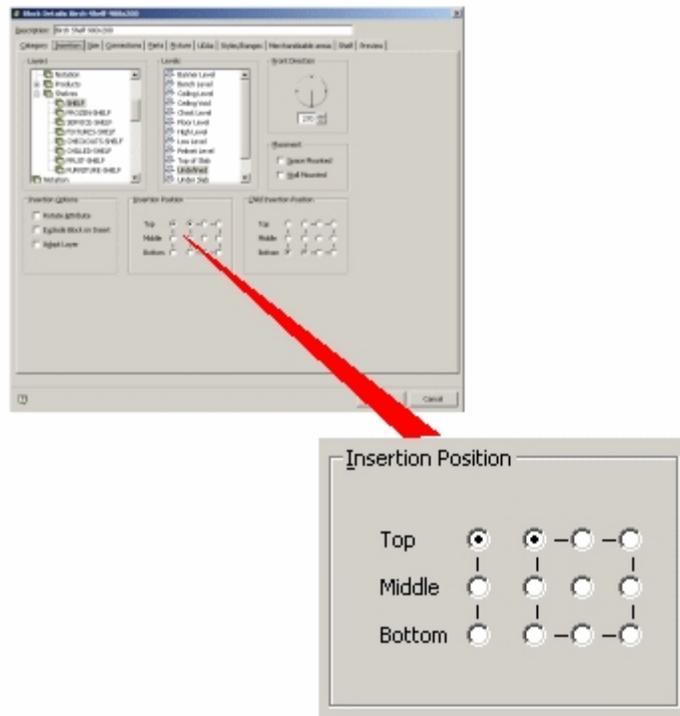
**Space Mounted** indicates this block can be inserted into any floor space.

**Wall Mounted** indicates this block can be attached to a wall on insertion.

**The Insertion Position Frame**

The **Insertion Position** is a position specified within Macro Space Management that matches the insertion position created when the associated graphic for the block was drawing in AutoCAD (or some other graphics program).

**Figure 5–104 Insertion Position Frame**




---

**Note:** The Insertion Position specified within Macro Space Management is passive - changing the Insertion Position does not change the position of the graphical insertion position created when the graphic was drawn.

---

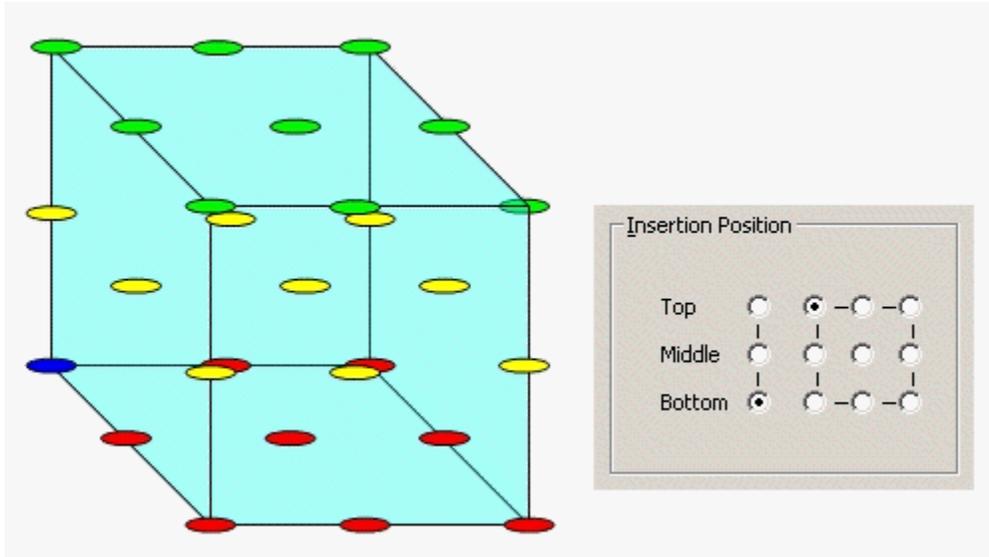
It is important that the Macro Space Management insertion point matches the insertion point already defined in the graphic. If they do not match, then the graphic will be inserted into the AutoCAD and Merchandiser environments at an incorrect position. This in turn will result in problems with adjacency calculations, placing of associated equipment and products, etc.

There are twenty seven possible insertion positions, aligned in three layers: top, (green circles), middle (yellow circles) and bottom (red circles). The layer can be selected by clicking on the appropriate radio button. Each layer contains nine possible insertion points ranging from left rear to front right. The required option can be selected by clicking on the appropriate radio button.

---

**Note:** A consistent convention should be adopted for the position of the insertion point. If all blocks are drawn using this convention, then the potential for misalignment is sharply reduced.

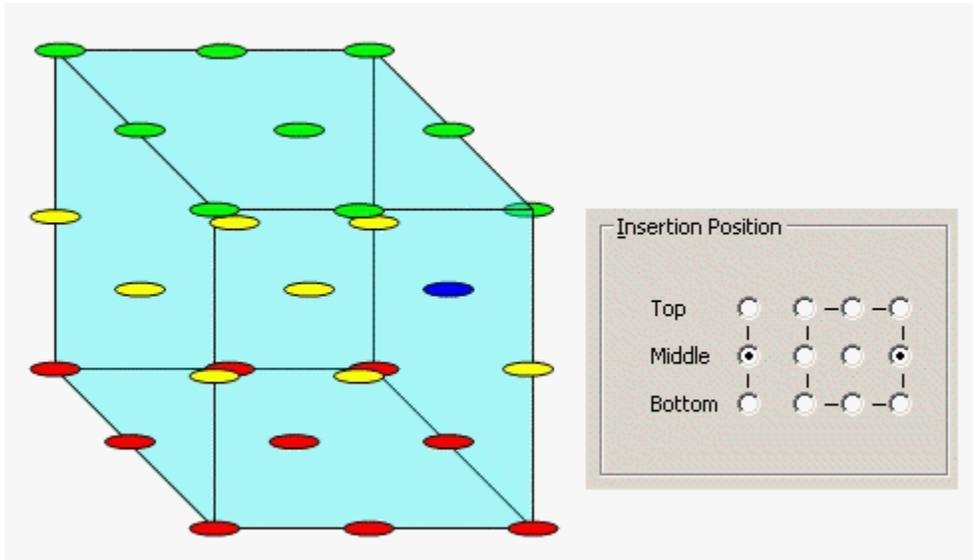
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**Note:** In the above example, the insertion position (blue circle) is bottom, left, rear.

---




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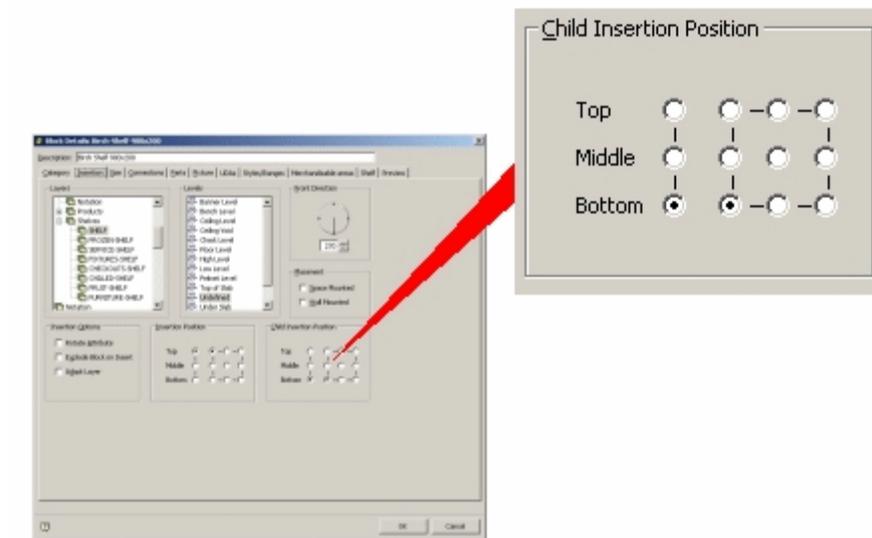
**Note:** In the above example, the insertion position (blue circle) is middle, right, centre.

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**The Child Insertion Position Frame**

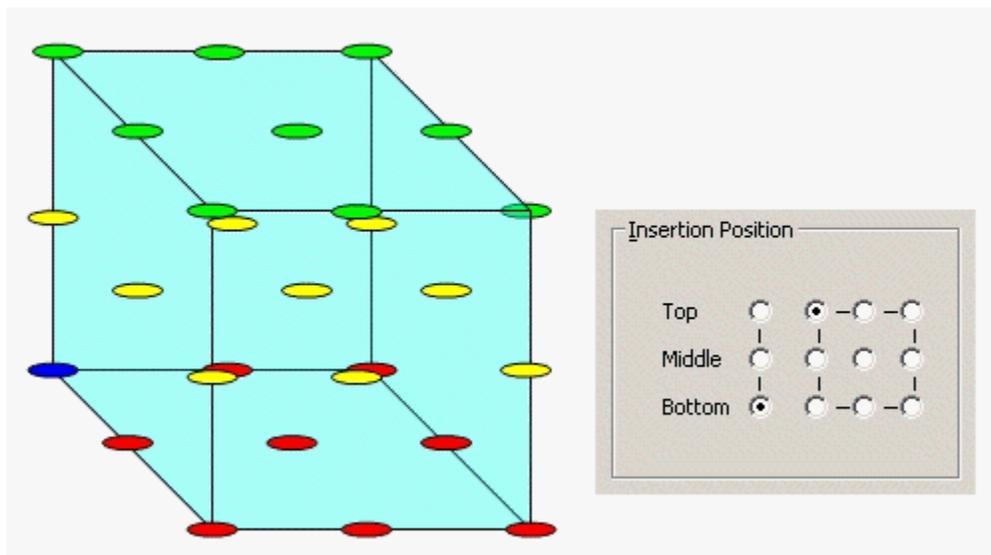
The **Child Insertion Position** frame enables the child insertion position to be specified.

Figure 5-105 Child Insertion Position frame

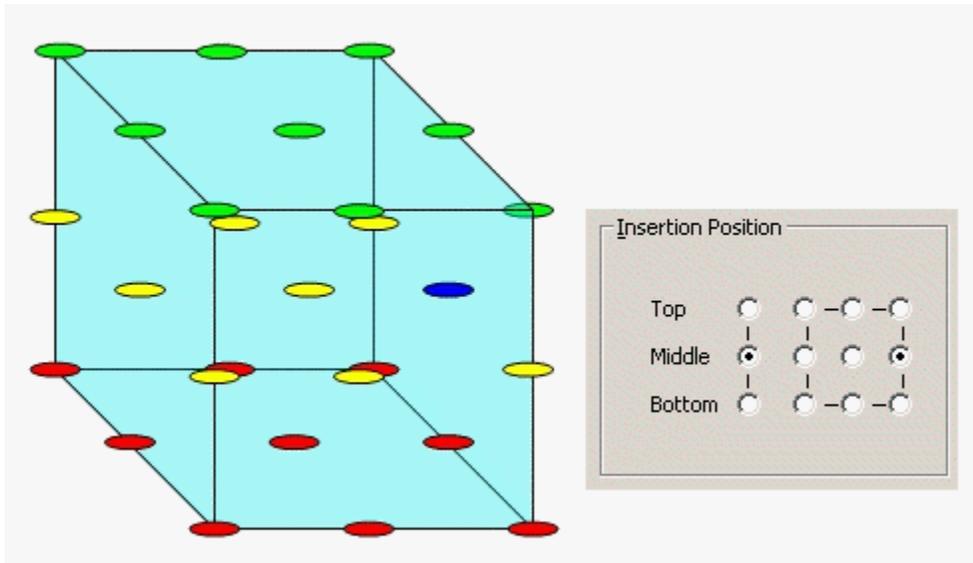


The Child Insertion Position is the datum point from which merchandise is inserted onto the object.

There are twenty seven possible insertion positions, aligned in three layers: top, (green circles), middle (yellow circles) and bottom (red circles). The layer can be selected by clicking on the appropriate radio button. Each layer contains nine possible insertion points ranging from left rear to front right. The required option can be selected by clicking on the appropriate radio button.



In the above example, the insertion position (blue circle) is bottom, left, rear.



In the above example, the insertion position (blue circle) is middle, right, centre.

#### The Insertion Options Frame

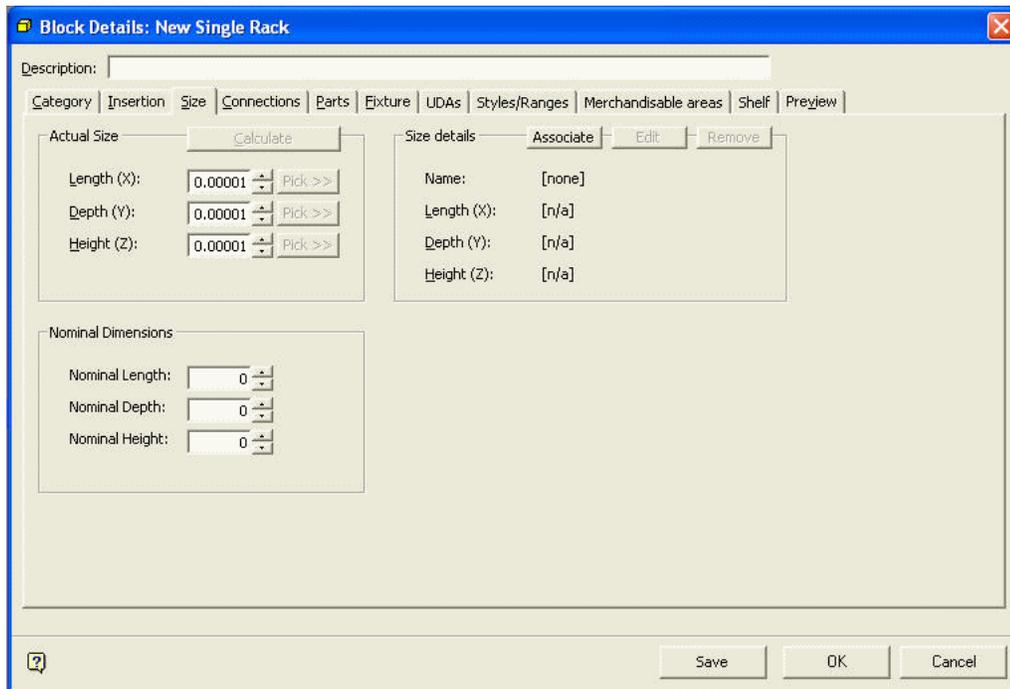
The Insertion Options frame specifies how the block will behave on being inserted into the AutoCAD environment.

- **Rotate Attribute**, when enabled, ensures any non-constant attributes on the block will be rotated so they are upright and readable. For example, a text tag associated with a block. If the block is inserted in an orientation where the text would otherwise not be readable, the text will be rotated so it becomes visible.
- The **Explode Block on Insert** option, when enabled, results in the block exploding into its constituent parts on insertion, so they can be manipulated separately.
- **Adopt Layer** is no longer in use and has been included so as to be compatible with earlier versions of Macro Space Management.

#### Size Tab

The **Size** tab is used to specify the maximum length, width, and height of a fixture.

Figure 5–106 Size tab



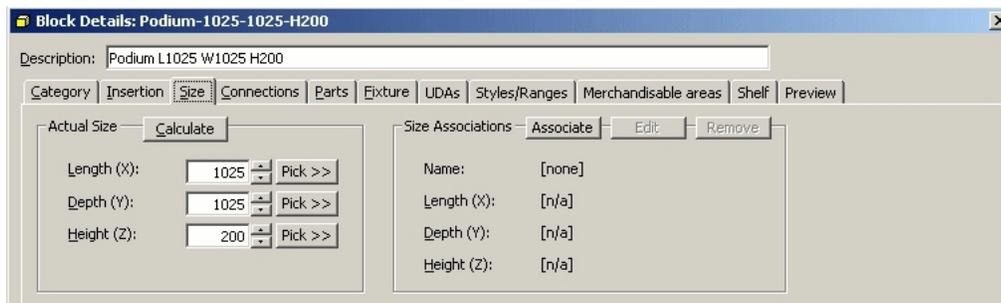
It contains three frames.

- **Actual size** is the maximum dimensions of the block
- **Size Details** contains information on the ranges of permissible sizes.
- **Nominal Dimensions** are the volume the fixture occupies once all equipments have been added to it.

**Overview of Block Sizes**

Blocks are of two main types. Some blocks have a single, fixed set of dimensions assigned, and can only be placed into drawings with a single length, width, and height. Other blocks belong to a size type and have size rules applied, which means that when they are placed into a drawing, the required length, width, and height can be selected from a predefined list.

Figure 5–107 Block Sizes



Blocks with a single fixed set of dimensions have dimensions specified in the Actual Size frame. Most blocks are currently of this type. Blocks where size rules (and

corresponding multiple dimensions) apply, have additional information assigned in the Size Details frame.

### Overview of Size Groups and Size Rules

#### Size

A Size contains definitions of all permissible dimensions that can be assigned to a block.

#### Size Group

A Size Group allows sizes to be collected into similar within a hierarchical tree of sizes.

#### Size Rules

Size rules are the settings or combinations of settings that determine the definitions of dimensions permitted when assigned to a block.

#### Overview

Blocks that are assigned multiple possible dimensions conform to size rules.

A Size is a set of definitions (size rules) as to what sets of dimensions are allowed for a block that has been assigned to that size group. When any Block is assigned to a size, it inherits the set of size rules associated with that size group. When the Block is inserted into the drawing, a dialog appears showing the dimensions permitted by the size rules. A specific set of dimensions can be selected from those available, and the block is inserted into the drawing (or Virtual Reality environment) with those dimensions.

#### Size Operations

- Sizes can be created. This means that a set of size rules is defined and stored within a named size group.
- Sizes can be edited. The existing set of size rules is changed to a newly defined set. In the process, any blocks that reference the Size Group being edited will have their size rules changed to the edited version.
- Sizes can be deleted. When a Size is deleted all blocks that reference that Size will have their associated size rules removed and will require assigning to an alternative size group so that their size rules can be redefined.

#### Block Operations

Various operations can be carried out to assign blocks to Sizes. Create Size results in a block being associated with a Size. The block may either be associated with an existing size group, or a new size group can be defined. Edit Size results in the Size associated with that block being edited.

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**Note:** It is the Size that is being edited, and not the Block Definition. Changes made to the Size will affect all blocks that reference that Size, and not just the block that is having its definitions set.

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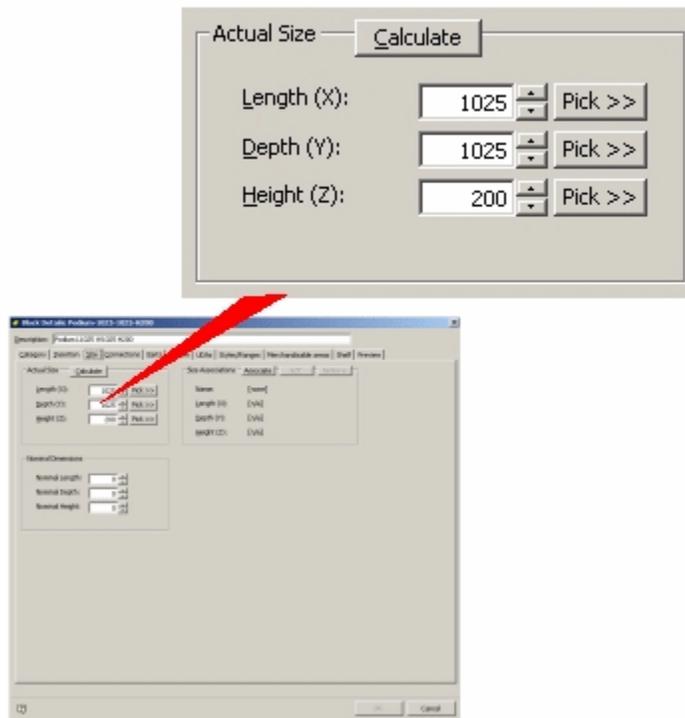
Delete Size removes the Block Definition currently referenced. It does not delete the Size itself, but just removes the link between Size and Block definition.

**Note:** Use of Sizes in this manner is implemented in In-Store Space Collaboration, but is not yet fully implemented in Macro Space Management.

### The Actual Size Frame

The **Actual Size** frame specifies the default size for the block. If no details are entered in the associated Size Details Frame, the Actual Size Frame specifies the only permissible set of dimensions that can be used.

**Figure 5–108 Actual Size Frame**



For the Calculate and Pick options to work, the drawing must be loaded into the active AutoCAD drawing using the Load Blocks into Drawing command from the File menu. Clicking on the **Calculate** button results in the maximum dimensions being returned to Fixture Studio.

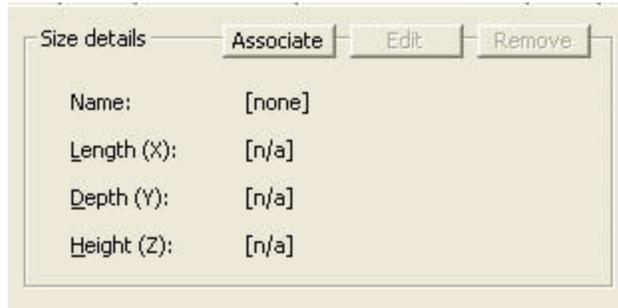
Alternatively, with the object open in the active AutoCAD drawing, click on the **Pick** button. Switch to the AutoCAD drawing and click on the required offset point. The selected coordinates will be transferred to Fixture Studio.

**Tip:** The Calculate and Pick buttons will only be active if Fixture Studio is connected to Planner and the block being edited is inserted into the currently active drawing.

### The Size Details Frame

The **Size Details** frame is used to allocate blocks to specific Size Groups.

**Figure 5–109 Size Details Frame**

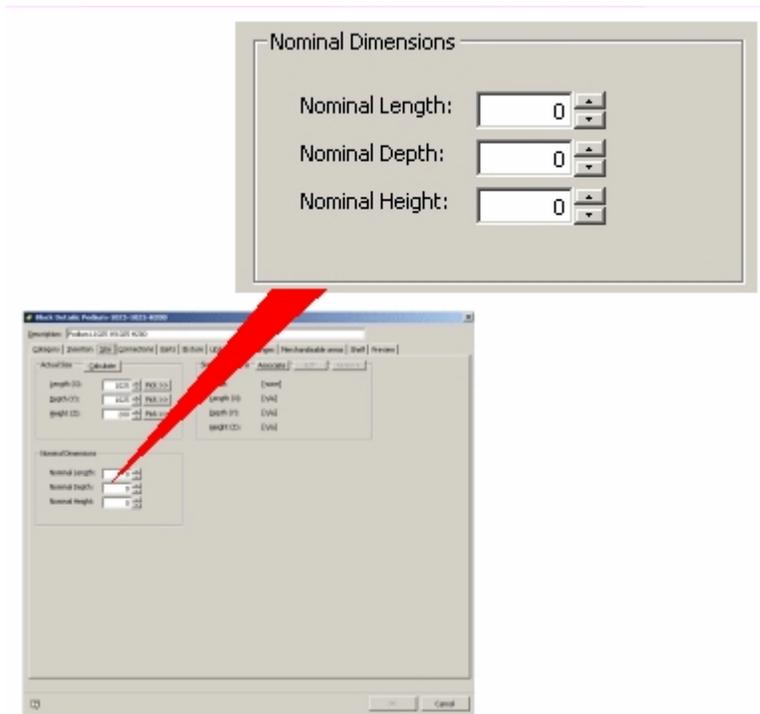


A Size Group contains details of the size rules that govern the dimensions for a Block Definition. Size Groups can be configured in a number of ways.

**The Nominal Dimensions Frame**

The **Nominal Dimensions** frame is used to associate a set of nominal dimensions to a fixture.

**Figure 5–110 The Nominal Dimensions Frame**



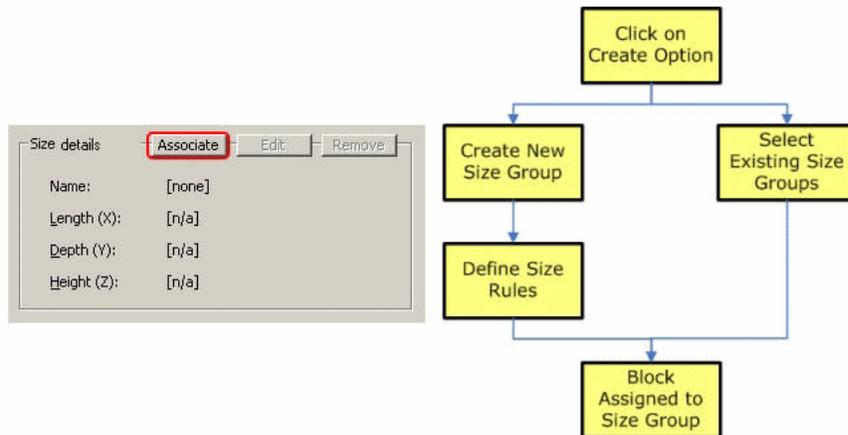
Nominal dimensions are primarily used for primary fixtures, where attached secondary equipment will substantially increase the volume. For example, consider a backpanel 600 mm long, 1900 mm high and 5 mm deep. If this backpanel has shelves attached, it will eventually occupy a significantly larger space. It could therefore be assigned nominal dimensions of 600 mm long, 1900 mm wide and 300 mm deep to allow for the eventual shelves.

**Tip:** Any product or placeholders put onto a fixture with nominal dimensions will occupy a volume that corresponds to the larger of the Actual and Nominal Sizes.

**Size Details Frame**

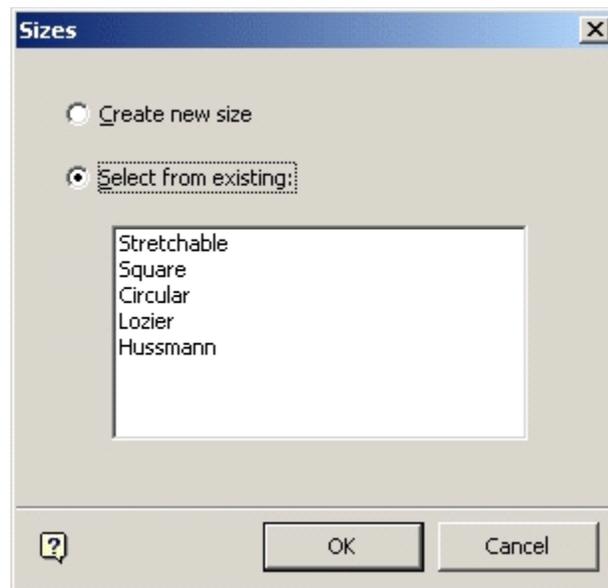
**Creating Association to Size Group**

When a block can be assigned multiple dimensions, it needs to be associated with a Size Group. The block will then adopt the size rules associated with that Size Group and hence will have a range of permissible dimensions assigned to it.



The process is started by clicking on the Create Option. This brings up the Sizes dialog box.

**Figure 5–111** Sizes dialog box



This gives two options:

- Create new size or

- Select from existing.

These are selected by using the appropriate radio button.

---

**Note:** Size Groups can have varying purposes: Stretchable could describe the size rules for fixtures that are to be made stretchable and Square or Circular could describe fixtures that must preserve that class of dimensions.

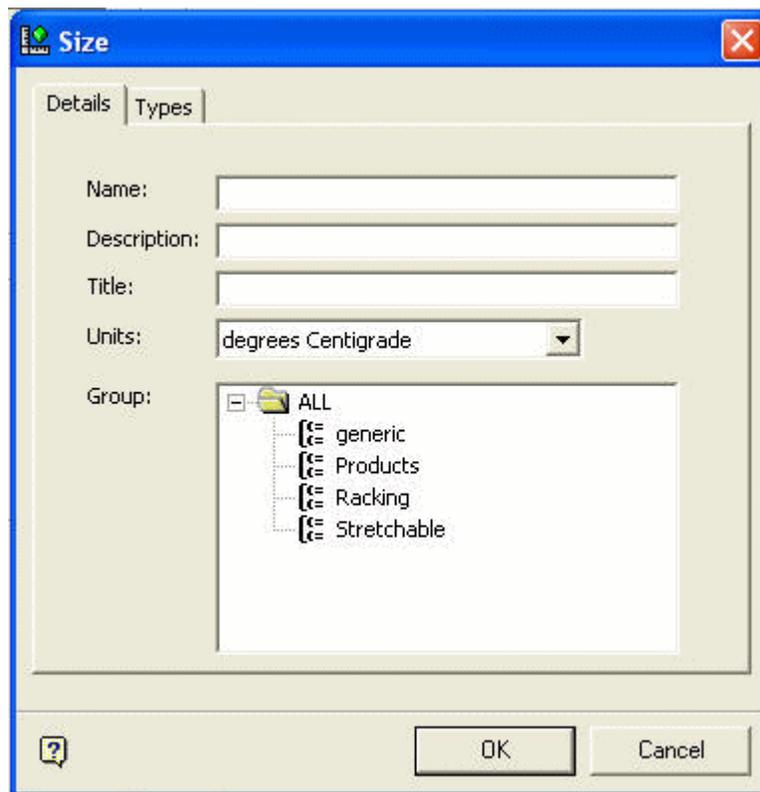
---

Similarly Lozier or Hussmann could describe sets of dimensions specific to those manufacturers.

**Create New Size**

Selecting this option brings up the Sizes dialog box.

*Figure 5–112 Configure Sizes*

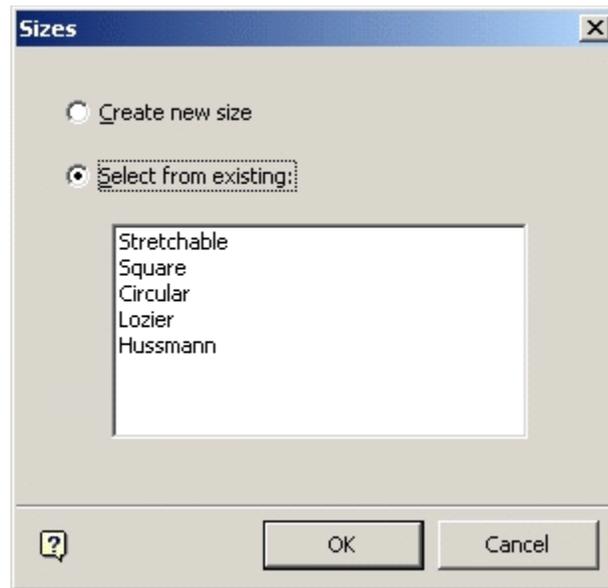


This can be configured to set the size rules.

**Select from Existing**

Select from Existing associates the block being defined with an existing set of size rules.

**Figure 5–113 Size - Select from Existing**



When the required Size Group has either been Created or Selected and the OK button clicked, the associated size rules will be assigned to the block definition and will appear in the Size Associations frame.

**Figure 5–114 Edit Size Rule Option**



**Editing Size Group**

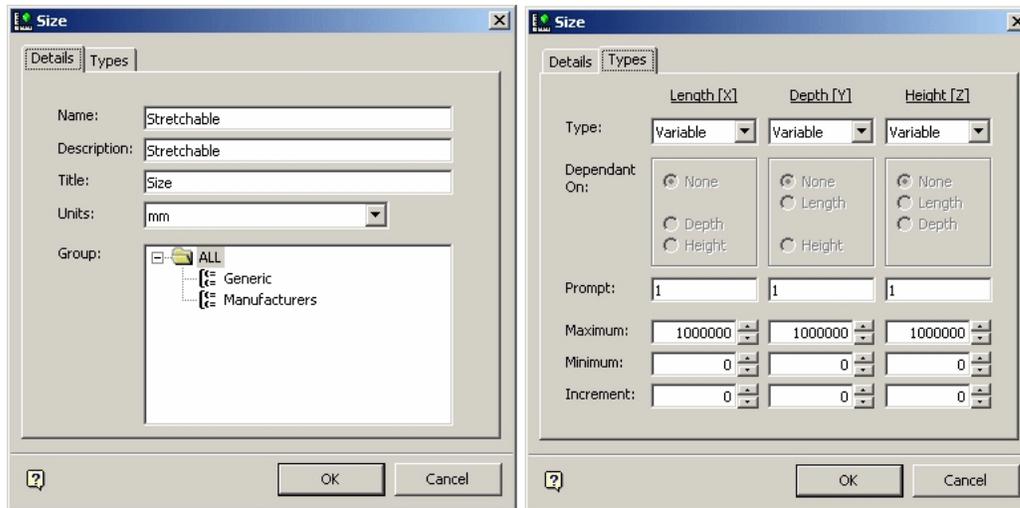
Clicking on the **Edit** button enables you to edit the Size Group details.

**Figure 5–115 Size Group details - Edit**



This brings up the Size dialog box so that the size rules can be changed.

**Figure 5–116 Size Dialog Box**



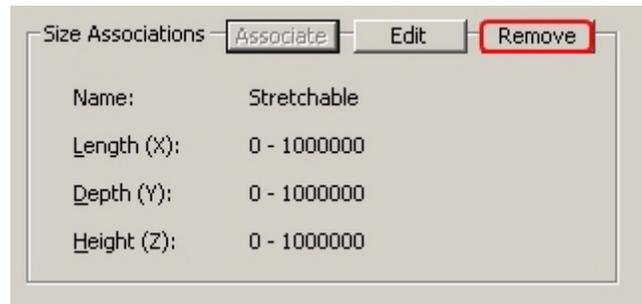
**Note:** This operation edits the size rules, not the dimensions for the block being defined.

Editing the size rules will affect all blocks currently associated with that set of size rules.

**Removing Size Group Association**

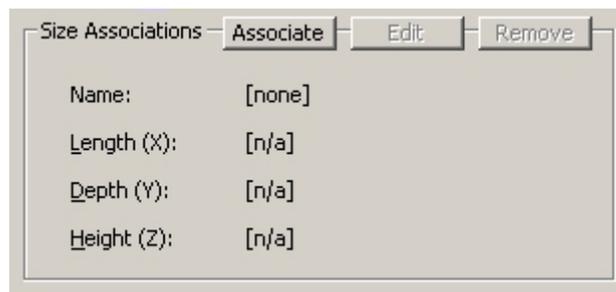
Removing a Size Group association can be achieved by clicking on the Remove button.

**Figure 5–117 Size Associations - Remove**



This removes the link to the size group (and its associated size rules) but it does not delete the Size Group itself. The Size details frame will then show that no Size Group has been associated with this particular block.

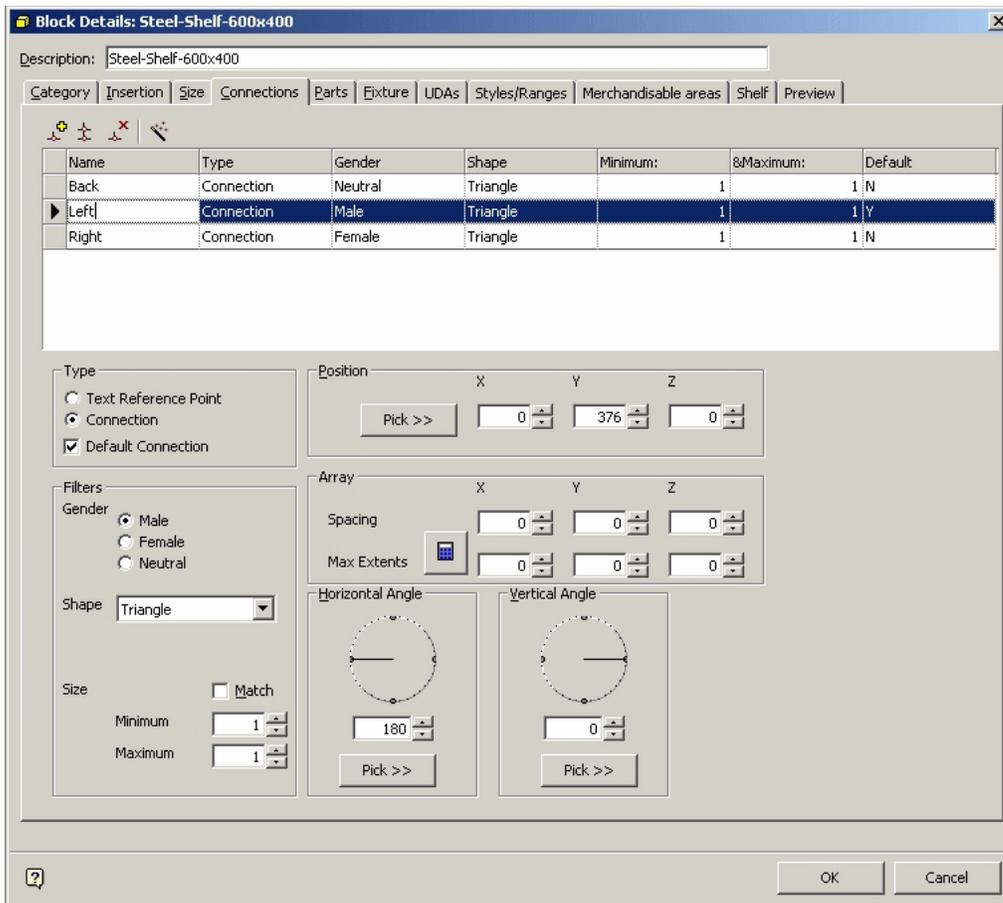
**Figure 5–118 Size Associations - Associate**



**Connection Tab**

The **Connections** tab allows you to specify the connection options for Macro Space Management blocks.

**Figure 5–119 Connections tab**

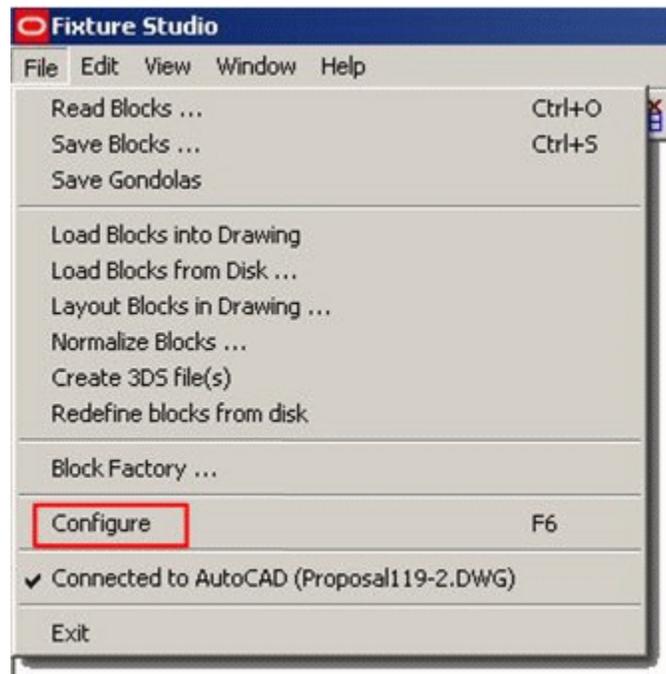


A small toolbar at the top allows you to add, copy, and delete connections, while the wizard on the toolbar allows you to add three basic connections. The Connections List enlists all current connections for the Macro Space Management Block.

**The Connections Tab and the Configuration Module**

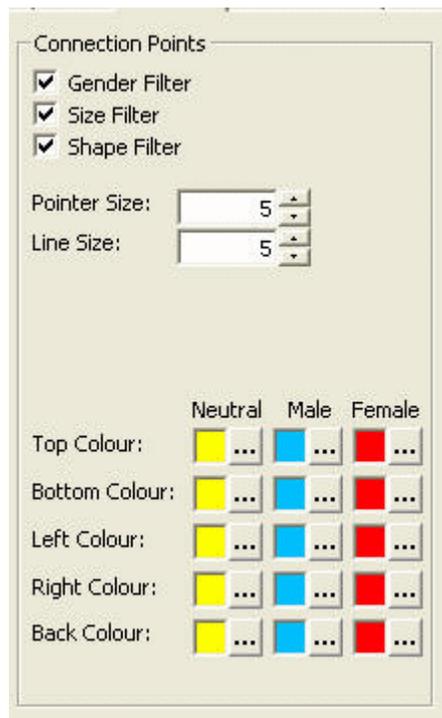
Settings in the Configuration module can affect how connection points appear in Fixture Studio. Access the Configuration module by selecting the Configure Option in the File menu.

**Figure 5–120 Fixture Studio - Configure**



Within the Configuration module, select the Fixturing tab. The Connection Points frame can then be used to change their appearance.

**Figure 5–121 Connection Points**



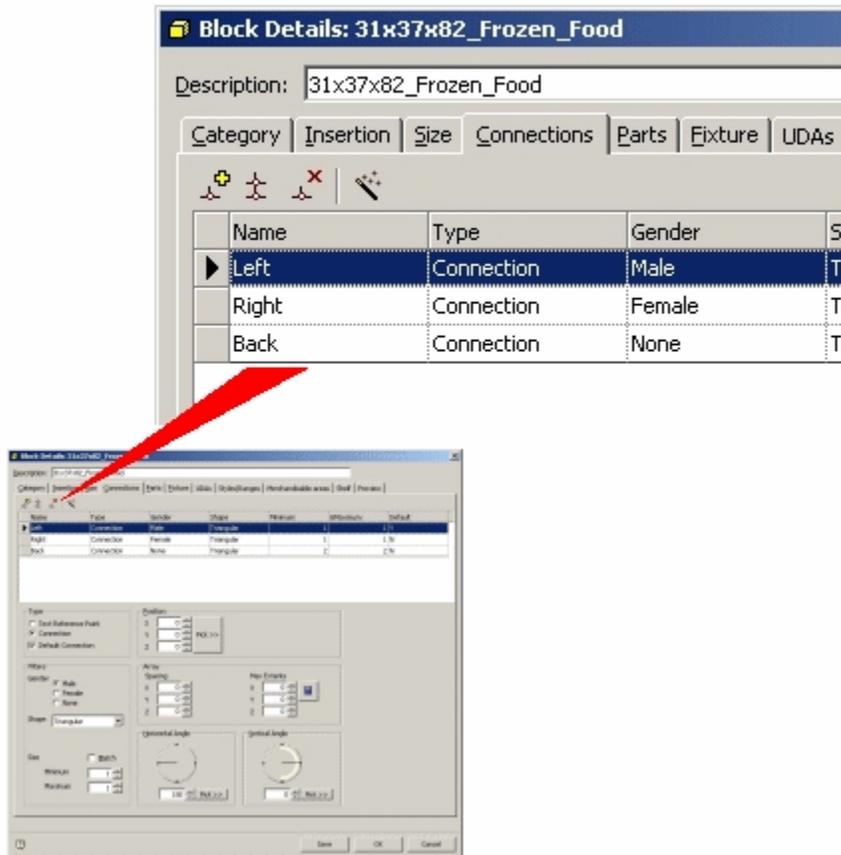
A series of check boxes allow you to configure how connection points operate. These settings are local and do not affect other users of Macro Space Management.

- **Pointer Size** and **Line Size** affect the appearance of the connection points as displayed.
- **Colors** for Neutral, Male, and Female connection points can also be set.
- **Gender Filter** determines whether connection genders are taken into account when deciding if connections are compatible.
- **Size Filter** determines whether connection sizes are taken into account when deciding if connections are compatible.
- **Shape Filter** options determine whether connection shapes are taken into account when deciding if connections are compatible.

**The Connections Toolbar**

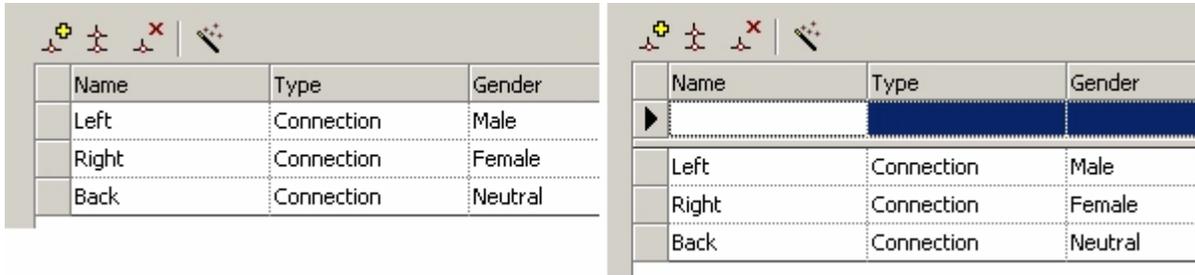
The Connections toolbar on the upper left of the Connections tab allows you to add, copy and delete connections. It also allows you to invoke the Connections Wizard.

**Figure 5–122 Connections toolbar**



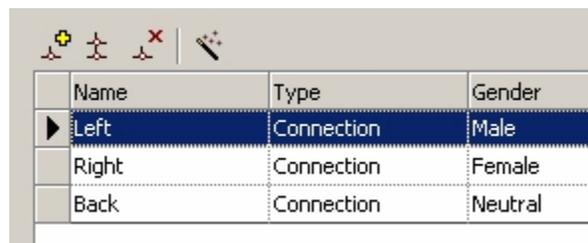
**Add a Connection**

Clicking on the **Add a Connection** icon causes a line to be added to the Connections List ready for further details of the connection to be added.



### Copy a Connection

Clicking on the **Copy a Connection** icon causes a line to be copied again to the Connections List mirroring details of the connection to be added.

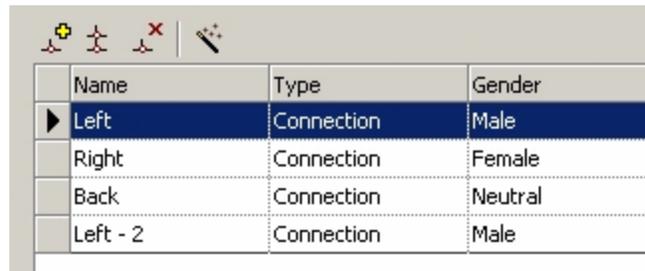


Before clicking the **Copy** icon, select the connection to be copied. Clicking on the icon will bring up the connection naming dialog box.

**Figure 5–123 Copy Connection Point**



Edit the name to one suitable for the new connection. On clicking **OK**, a duplicate connection will be added, save with the changed name.



### Delete a Connection

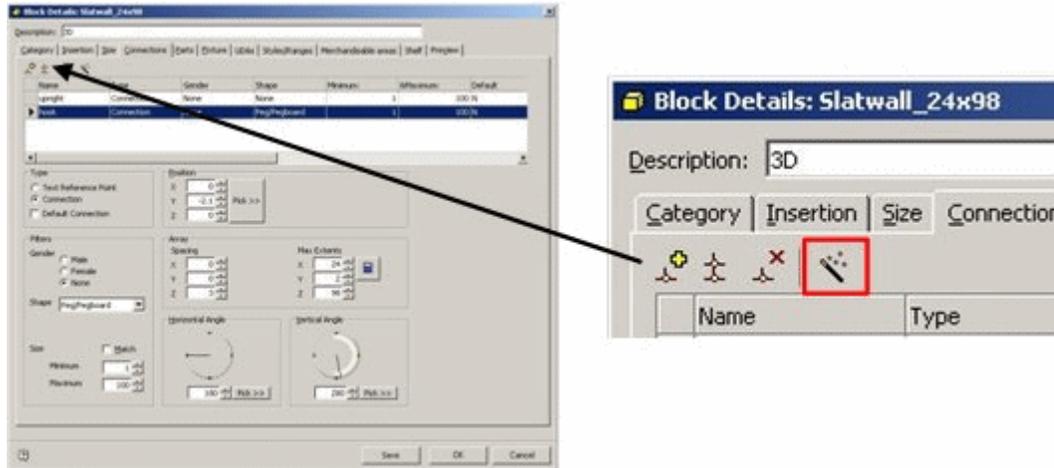
To delete a connection, highlight the connection to be deleted and click the Delete icon. When asked for confirmation, click **Yes** to delete a connection.



### The Connections Wizard

The Connections Wizard can be invoked from the Wizard icon in the toolbar in the Connections tab.

Figure 5–124 Connections Wizard



This will bring up the Connections Wizard dialog box.

Figure 5–125 Connections Wizard dialog box



- Checking the Add connection on Left checkbox will add a Connection on the left.
- Checking the Add connection on Right checkbox will add a Connection on the right.
- Checking the Add connection at Back checkbox will add a Connection at the back.

The left connection is male and the right female so that fixtures can only attach when they are facing the same way. The left connection is additionally set to be the default.

The **Back connection** has no gender, so it will attach to any other connection.

Checking the **Clear Existing Blocks** checkbox will remove any existing connections.

On clicking **OK** on the Wizard, the selected default connections will be added.

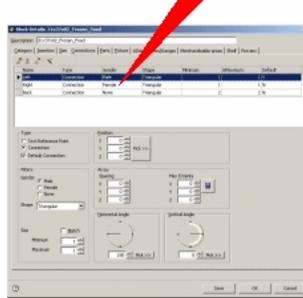
	Name	Type	Gender	Shape	Default	Justifica
▶	Left	Connection Point	Male	Triangular	True	Offset
	Right	Connection Point	Female	Triangular	False	Offset
	Back	Connection Point	None	Triangular	False	Offset

### The Connections List

The Connections List is a list of all defined connections for the selected Macro Space Management block. In addition, many of the characteristics of the connection can be configured by means of selecting a connection, then changing the appropriate options within the Connections tab.

**Figure 5–126 Connections List**

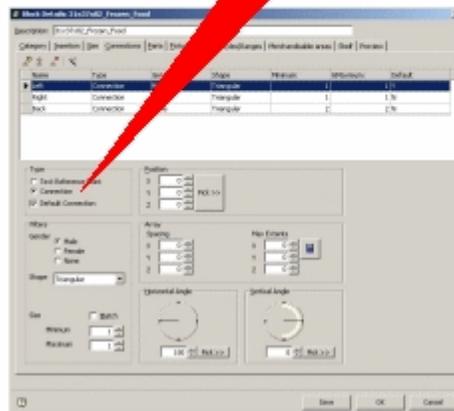
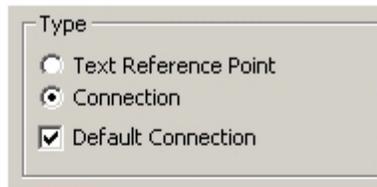
Name	Type	Gender	Shape	Minimum:	&Maximum:	Default
Left	Connection	Male	Triangular	1	1	Y
Right	Connection	Female	Triangular	1	1	N
Back	Connection	None	Triangular	2	2	N



Name: The Connection Name is user editable and can be changed just by typing in the new name.

Type: The Connection Type is changed by means of the buttons in the Type frame

**Figure 5–127 Connection Type**



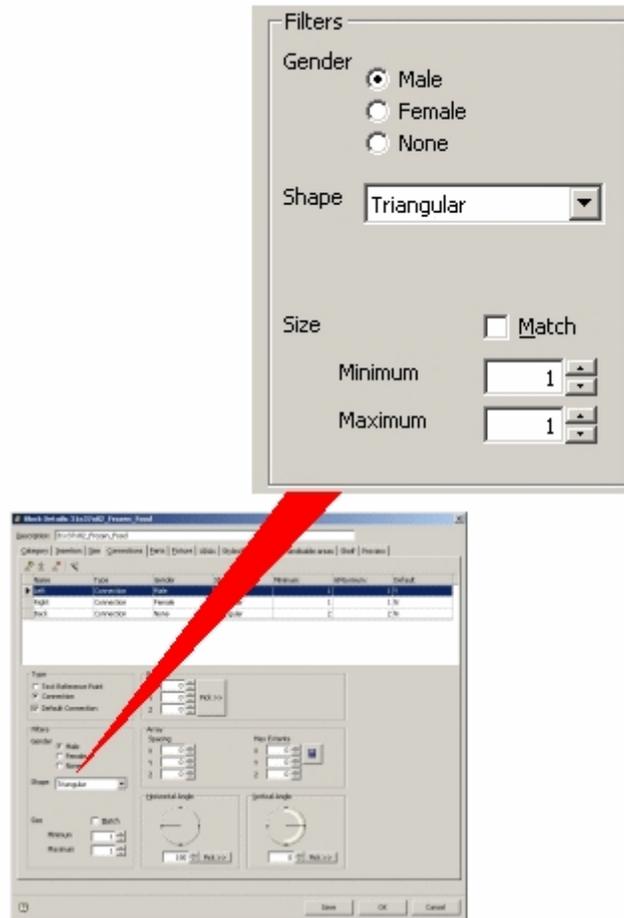
A Text Reference Point is used to specify the location for annotation to justify to.

A Connection is used to indicate how fixtures join.

Gender, Shape and Size

Gender, shape and size are set using the Filters frame.

Figure 5–128 Filters frame



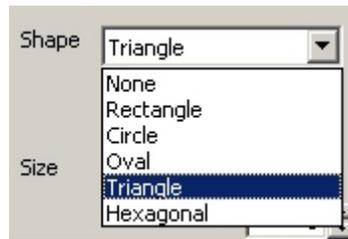
The gender of a connection determines whether that connection is compatible with another. There are three genders; male, female and neutral.

Can connect with		
Male	Female	Neutral
Female	Male	Neutral
Neutral	Any other connection	

### Shape

The shape of a point connection can be specified from a drop down list.

**Figure 5–129 Filters frame - Shape Drop down list**



They connect as follows:

**Table 5–5 Filters frame - Shape Drop down list**

	Can connect with	
None	Any other connection shape	
Rectangle	Rectangle	None
Circle	Circle	None
Oval	Oval	None
Triangle	Triangle	None
Hexagonal	None	None

**Tip:** The shape of a connection point is a theoretical concept used to make it easier to remember what connection point connects to what connection, that is, fixtures with 'Oval' connection points can only connect to other fixtures with 'Oval' connection points. When displayed in the preview tab, all connection points will appear visually as triangles.

The list of shapes available can only be defined by Oracle. They are stored in the directory and cannot be displayed if not present in that directory.

**Tip:** Use this feature to ensure that equipment specific to one manufacturer can only connect to other equipment from that manufacturer. For example assign Rectangular shapes to Lozier equipment and Oval shapes to Hussmann equipment. The two types of equipment will not then be able to connect to each other.

**Size**

A maximum and minimum size for the connection can be set using the spin controls. A pair of connection points must have compatible sizes to connect together. If the Match checkbox is ticked, then the connections must have identical maximum and minimum sizes. If they are not identical, the connections will not mate. If the Match check box is not ticked, then the connections must have overlapping size ranges. If they are not overlapping, the connections will not mate.

**Table 5–6 Size Ranges**

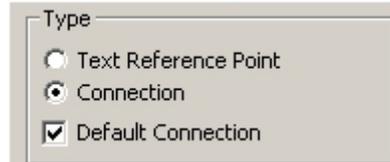
	Connection 1	Connection 2	
Size Range	0 - 50	25 - 75	Compatible
Size Range	0- 25	50 - 75	Incompatible

### Default

The Default Connection is the connection selected when an object with multiple connection points is offered up to be attached to a piece of equipment. It is specified from a drop down list.

It is set from the Type frame.

**Figure 5–130 Filters frame - Type drop down list**



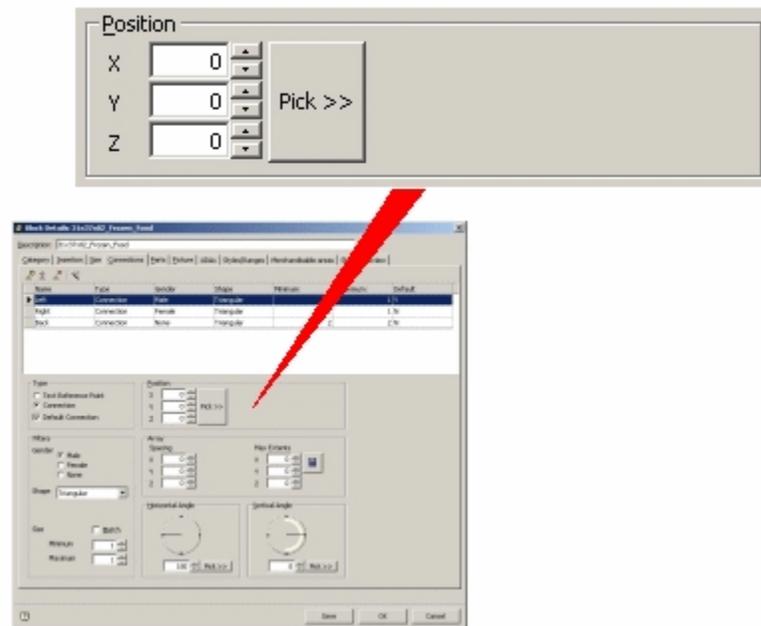
For example, if the left (male) connection point is set to be the default, the object will only connect to other connection points of female and no gender.

**Note:** Exercise caution when using connection lines and planes as the default.

### The Position Frame

The Position frame is used to set the origin of the connection point.

**Figure 5–131 The Position Frame**



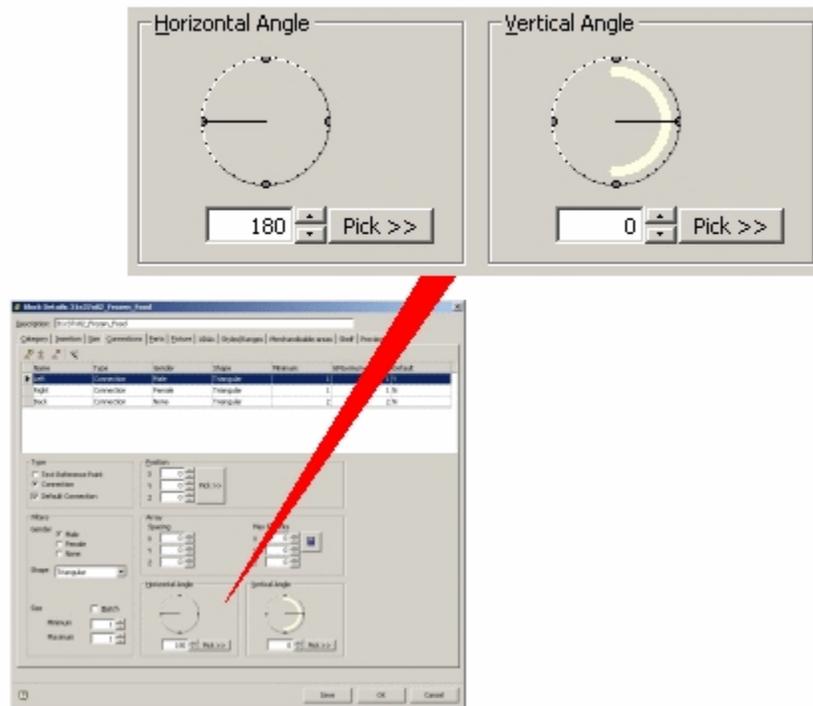
Pick can be used if Fixture Studio is connected to Planner and the block has been loaded into the active drawing. (See Options on File menu). Alternatively, the position of the connection point can be entered as a series of X, Y and Z coordinates relative to the insertion point of the fixture.

**Tip:** The position of the connection points can be checked by using the Preview tab.

### The Horizontal and Vertical Angle Frames

The **Horizontal and Vertical Angles** are used to control the direction of connection points, irrespective of whether they are assigned as a point, as a line or as a plane.

**Figure 5–132 The Horizontal and Vertical Angle Frames**



- Changing the Horizontal Angle changes the direction the designated connection point faces over the floor.
- Setting it to 0 degrees will make them face east; setting to 180 degrees will make them face west.
- Setting the Vertical Angle affects whether the connection points are horizontal or face up or down.
- Setting to 0 degrees will result in the connections being horizontal, 90 degrees pointing vertically up and 270 degrees vertically down.

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**Note:** Setting to 180 degrees will result in the connection point turning upside down and facing in the opposite direction. Please use caution when using this option.

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### Summary of Connection Requirements

For one item of equipment to connect to another the following must be true.

**Table 5–7 Connection Requirements**

	<b>Requirement</b>	<b>Optional or Mandatory</b>
Gender	The connection points must have compatible genders	This requirement can be disabled in the Configuration Module
Shape	The connection points must have the same shape	This requirement can be disabled in the Configuration Module
Size	The connection points must have compatible sizes	This requirement can be disabled in the Configuration Module

If any of these criteria are not true, then a connection cannot be made. In addition, if the planes of the connections or the angles of the connections are not correctly specified relative to each other, equipment may connect together in unintended alignments.

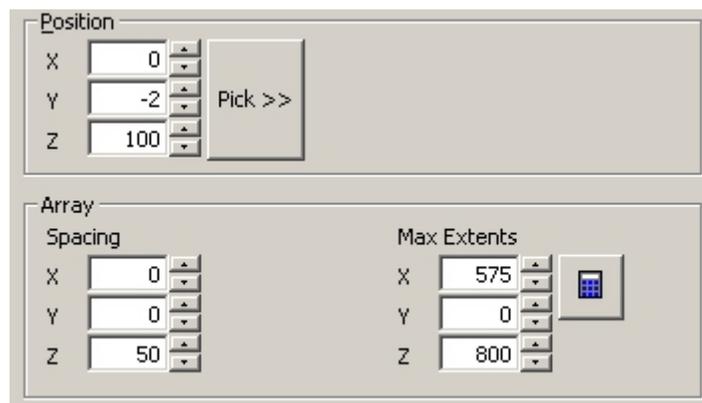
### Connection Examples

#### Connection Lines for a Slatwall

Connection lines for a slatwall have to go in the X, Z plane.

The following settings were used for a 575 x 900 mm backpanel.

**Figure 5–133 Connection Lines for a Slatwall - Settings**



#### Position

The position was set with a -2 Y co-ordinate to put the connection line on the surface of the backpanel.

It was also given a +100 Z co-ordinate to move the lowest connection line above floor level.

#### Spacing

The X spacing was set to 0 to give a continuous line.

The X extents were set to 575 to get the line running across the full width of the backpanel.

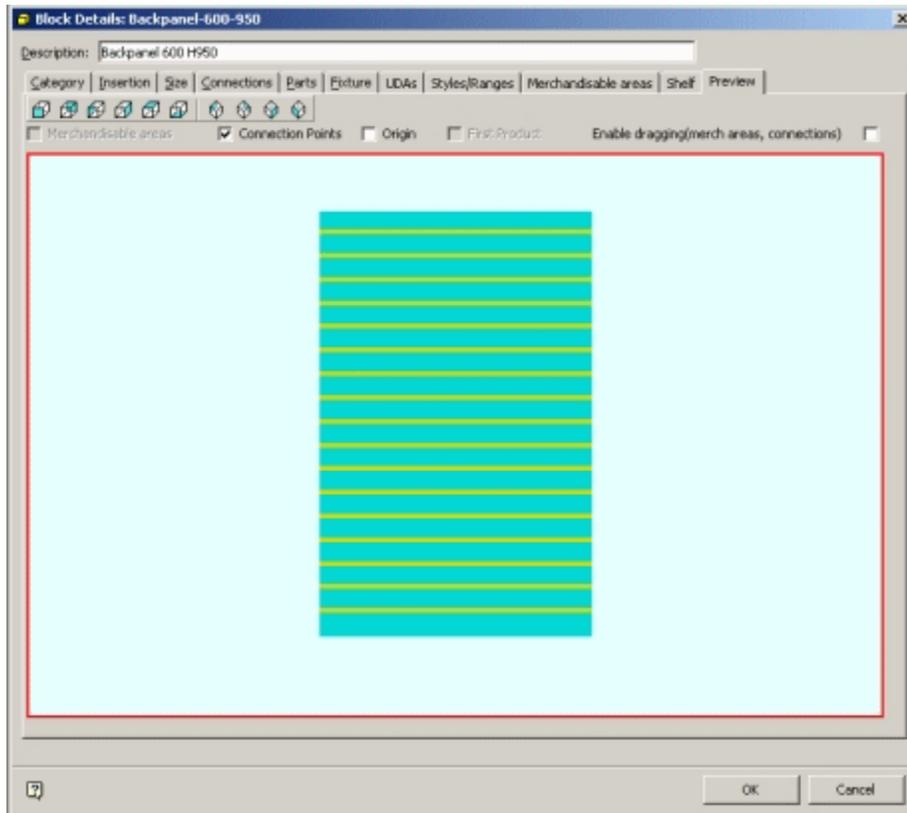
The Z spacing was set to 50 mm to put the connection lines 50 mm apart.

The Z extents were set to 800 mm to keep the top connection line below the top of the backpanel.

**Result**

The result looks as follows:

**Figure 5–134 Connection Lines for a Slatwall - Results**



**Connection Points for a Pegboard**

Connection lines for a pegboard have to go in the X, Z plane.

The following settings were used for a 575 x 900 mm backpanel.

**Figure 5–135 Connection Points for a Pegboard - Settings**

The image shows a software settings dialog for creating connection points on a pegboard. It is organized into four distinct sections:

- Position:** Contains three input fields for X (37.5), Y (-2), and Z (100), each with up/down arrows. A 'Pick >>' button is to the right.
- Array:** Divided into 'Spacing' and 'Max Extents'. Spacing has X (50), Y (0), and Z (50) fields. Max Extents has X (500), Y (0), and Z (800) fields. A 'Pick >>' button is to the right of the Max Extents fields.
- Horizontal Angle:** Features a circular dial with a vertical line pointing to 270 degrees. A 'Pick >>' button is below the dial.
- Vertical Angle:** Features a circular dial with a yellow arc pointing to 90 degrees. A 'Pick >>' button is below the dial.

**Position**

The position was set with a +37.5 X co-ordinate to move the first column of points inside the edge of the backpanel

It was given a -2 Y co-ordinate to put the connection point tip on the surface of the backpanel.

It was also given a +100 Z co-ordinate to move the lowest connection point above floor level.

**Spacing**

The X spacing was set to 50 to give the horizontal spacing

The X extents were set to 500 to keep the last column of points inside the edge of the backpanel

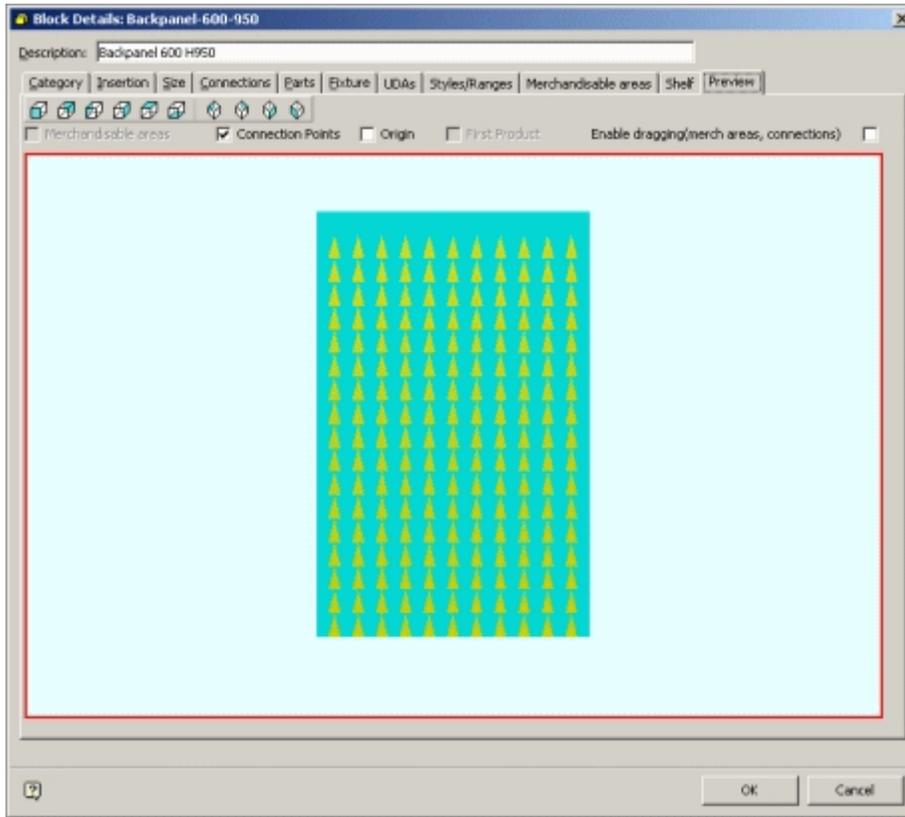
The Z spacing was set to 50 mm to put the connection lines 50 mm apart.

The Z extents were set to 800 mm to keep the top line of connection points below the top of the backpanel.

**Result**

The result looks as follows:

**Figure 5–136 Connection Points for a Pegboard - Results**



**Tip:** Anything connecting to this array of connection points will connect to the tips of each point.

**Connection Box**

A connection box allows objects to be placed anywhere within a defined 3 dimensional box.

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**Note:** If a connection box is given minimal thickness, it becomes a connection plane - i.e. two dimensional

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Connections for a connection box have to go in the X, Y and Z planes.

The following settings were used for a 575 x 900 mm backpanel.

**Figure 5–137 Connection Box - Settings**

The image shows a software dialog box titled "Connection Box - Settings". It is divided into two main sections: "Position" and "Array".

**Position Section:**

- X: 37.5
- Y: -2
- Z: 100
- A "Pick >>" button is located to the right of the Y and Z input fields.

**Array Section:**

- Spacing:** X: 0, Y: 0, Z: 0
- Max Extents:** X: 500, Y: -50, Z: 800
- A small grid icon is located to the right of the Max Extents input fields.

**Position**

The position was set with a +37.5 X co-ordinate to move first edge inside the edge of the backpanel

It was given a -2 Y co-ordinate to put the back of the box on the surface of the backpanel.

It was also given a +100 Z co-ordinate to move the lowest edge of the box above floor level.

**Spacing**

The X spacing was set to 0 to give a continuous box.

The X extents were set to 500 to keep the other edge inside the edge of the backpanel

The Y spacing was set to 0 to give a continuous box.

The Y extents were set to -50 to give the box a depth.

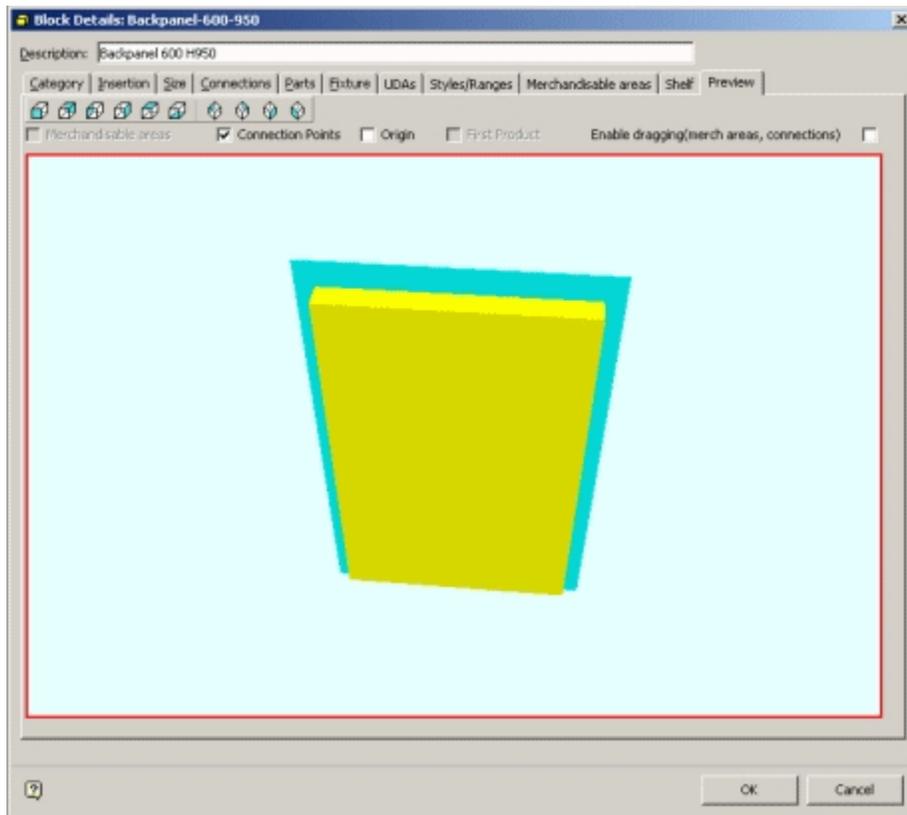
The Z spacing was set to 0 to give a continuous box.

The Z extents were set to 800 mm to keep the top line of connection points below the top of the backpanel.

**Result**

The result looks as follows:

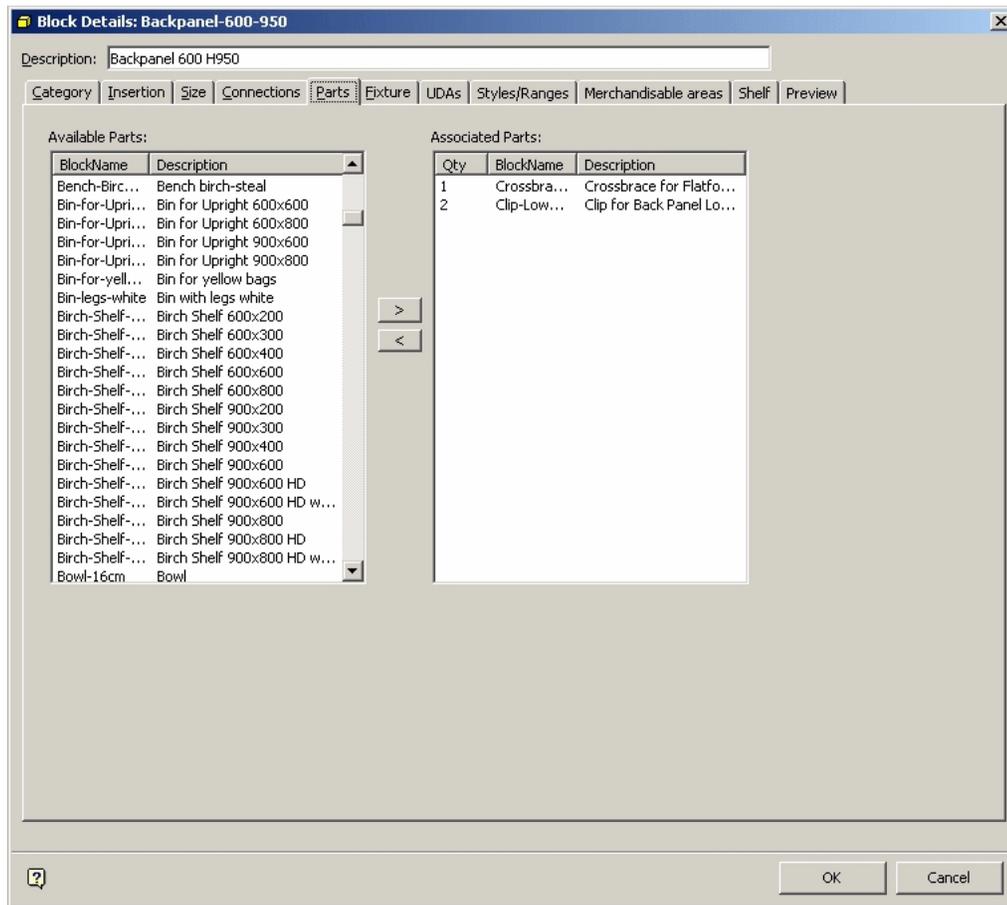
**Figure 5–138 Connection Box - Results**



**Parts Tab**

The **Parts** tab enables a list of associated parts to be built up for a block. This list is used for reporting purposes and does not affect the Planner or Merchandiser environments.

**Figure 5–139 Parts Tab**



The Available Parts frame contains a list of all available parts. The Associated Parts frame contains a list of all parts associated with that particular block.

### Part Blocks

Part Blocks are specialized type of block that have no graphics and exist only within the Macro Space Management database. It is only used for reporting purposes.

---

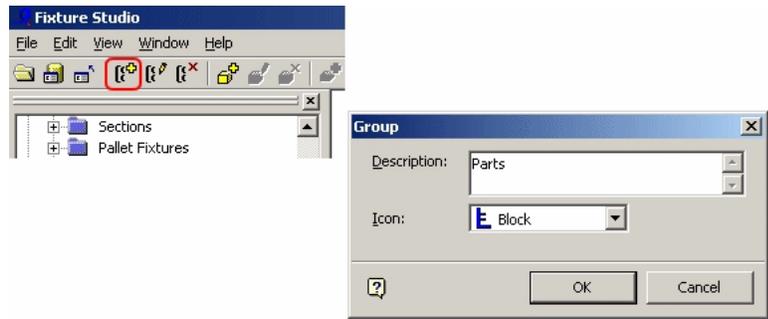
**Note:** It is recommended that Part Blocks are kept in specific and separate Groups within the Fixture Studio Hierarchy.

---

### Creating Groups for Part Blocks

To create a Group for a Part Block, click on the **Add Group** icon on the Fixture Studio toolbar. This will bring up the Add Group dialog box.

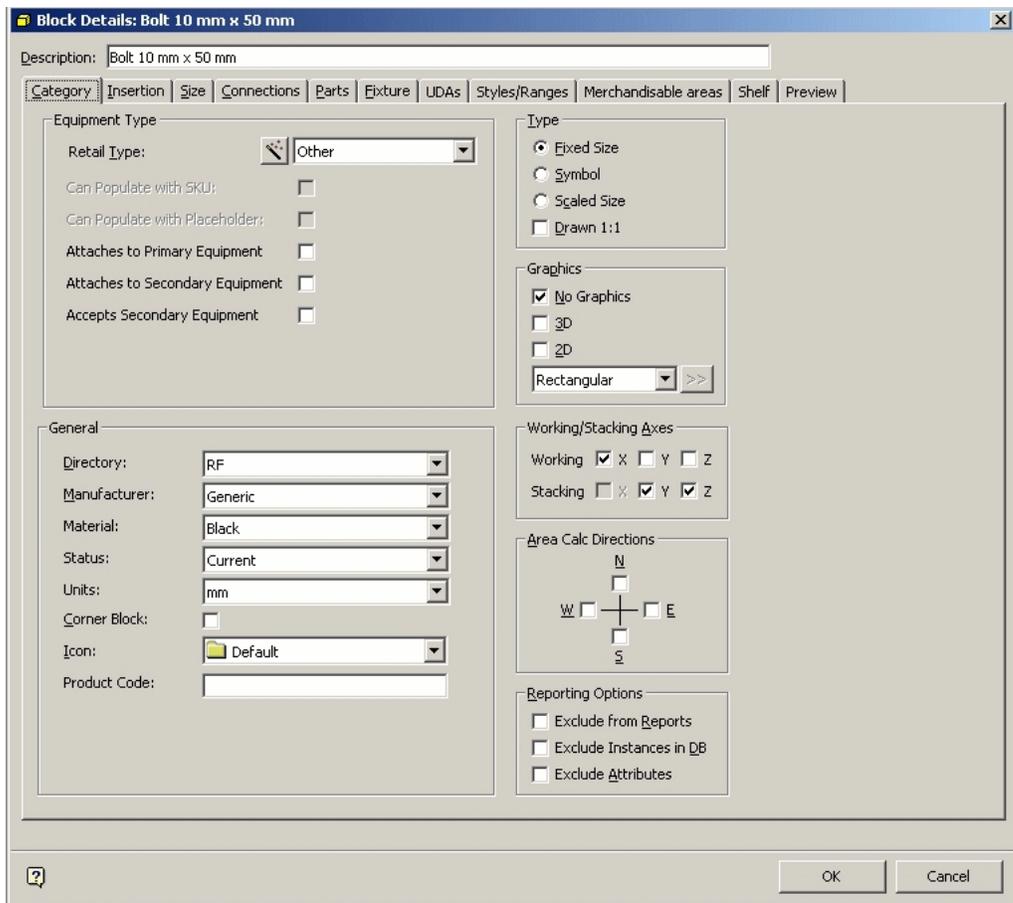
**Figure 5–140 Add Group**



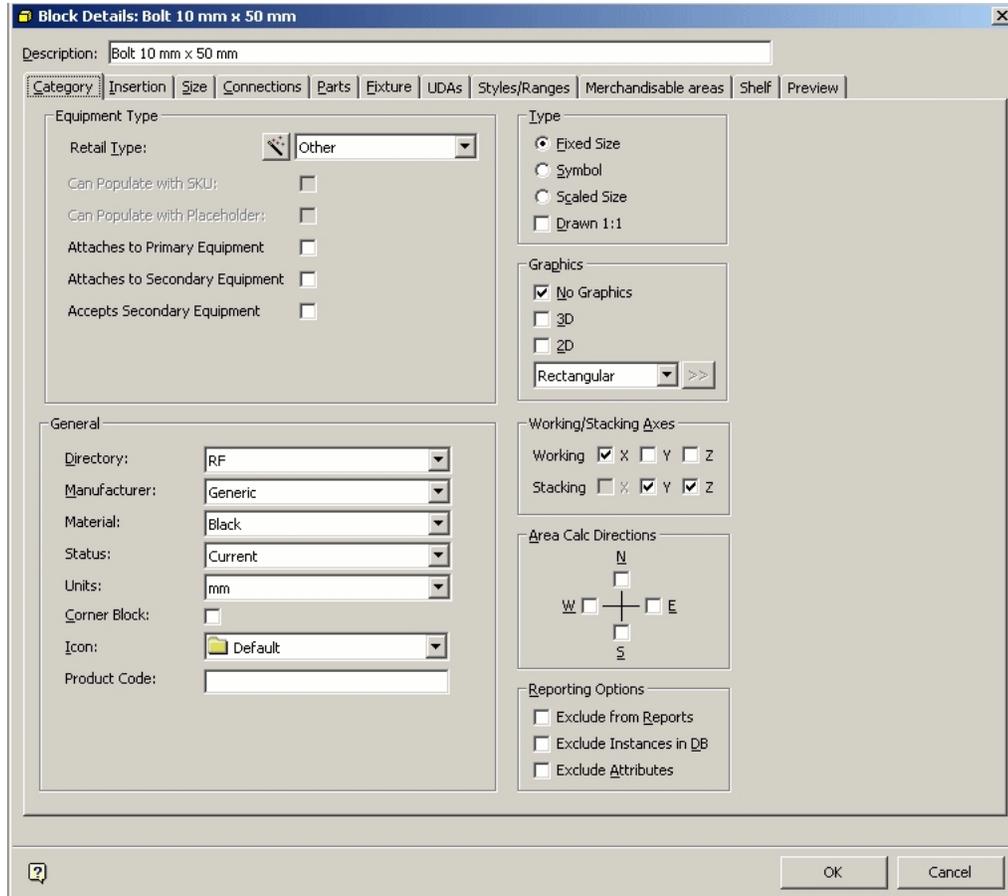
Type in a suitable name and select a suitable icon. Click **OK** and the group will be created in the Fixture Hierarchy visible in the Object Browser.

**Creating Part Blocks**

Select an appropriately named Group in the Fixture Hierarchy visible in the Object Browser. Click on the Add Block icon or right click on the selected group to bring up the Block Definitions dialog box.

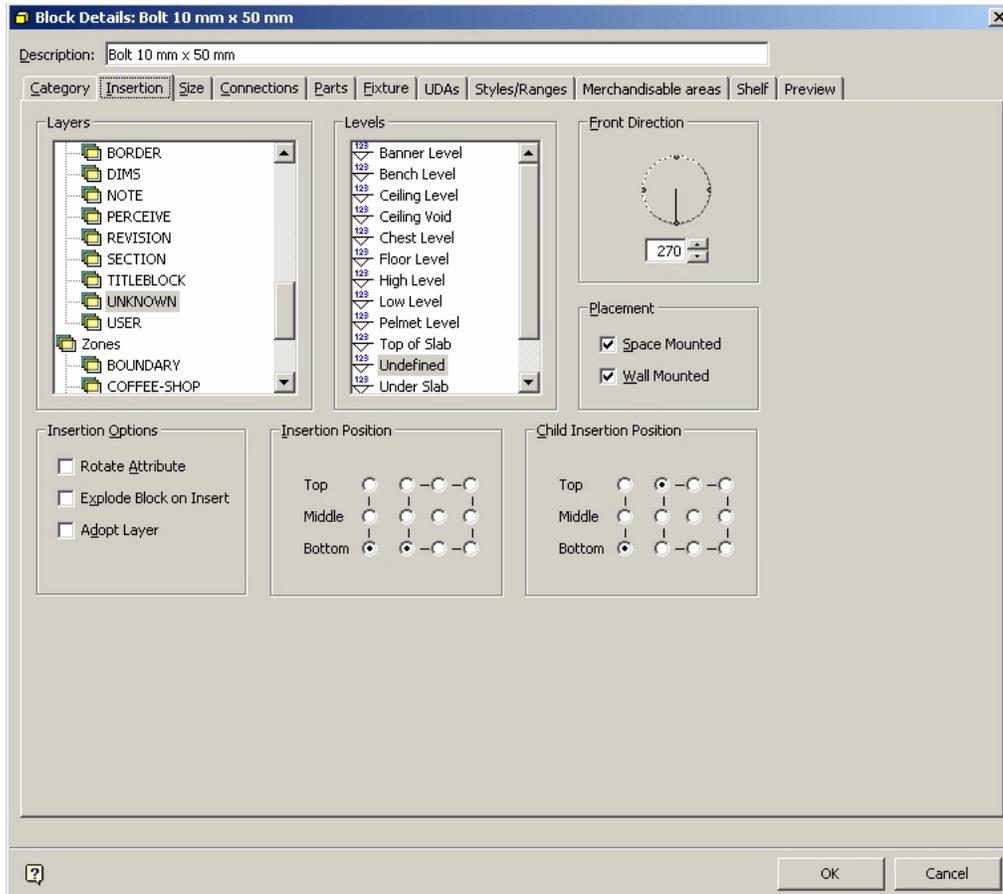


Only a few parameters need to be defined.



After entering an appropriate block name and description for the Category Tab, set the following:

- Set Equipment type to Other
- Set Manufacturer to an appropriate name
- Set Material to an appropriate material
- Set Status to Current
- Set Units to an appropriate measurement
- Ensure that No graphics is selected in the Graphics frame
- Select an appropriate icon



For the Insertion Tab, select a nominal layer.

---



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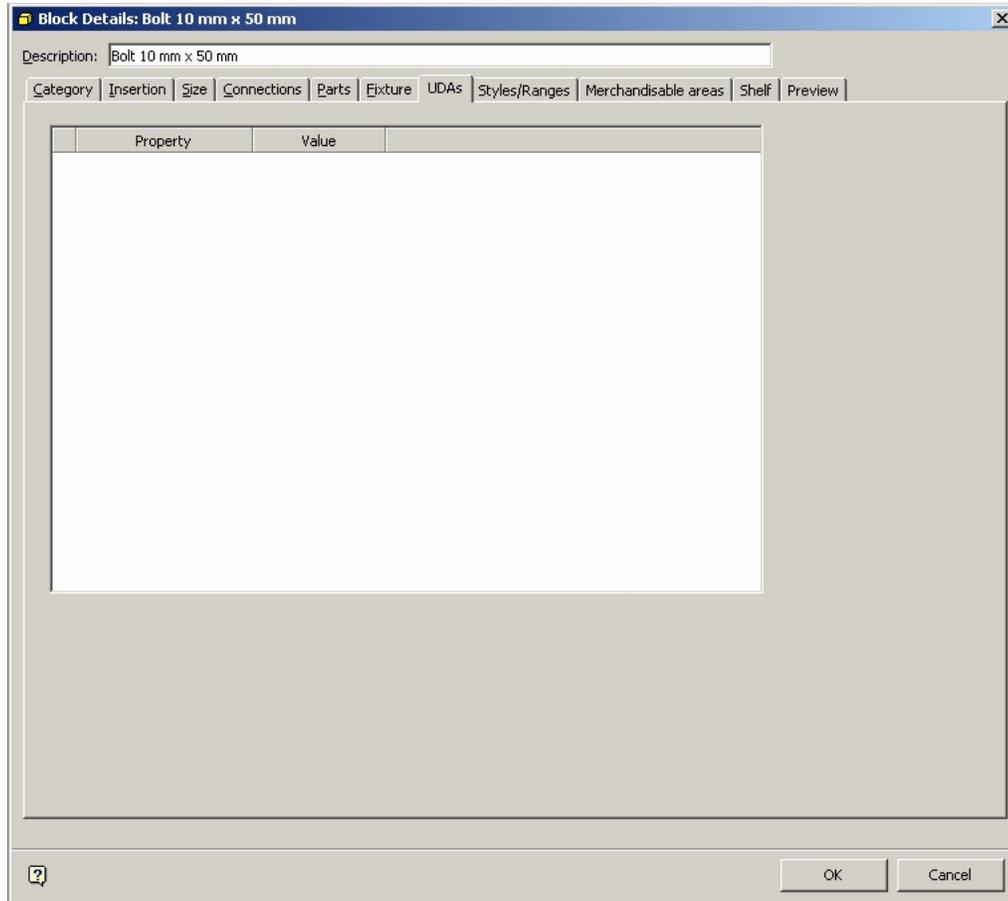
**Note:** A layer is not necessary for a block that is to be used purely for reporting purposes, but Macro Space Management will not allow the block to be saved until one has been set.

---



---

If any User Defined Attributes need to be set (for example cost) these can be set in the UDA tab.

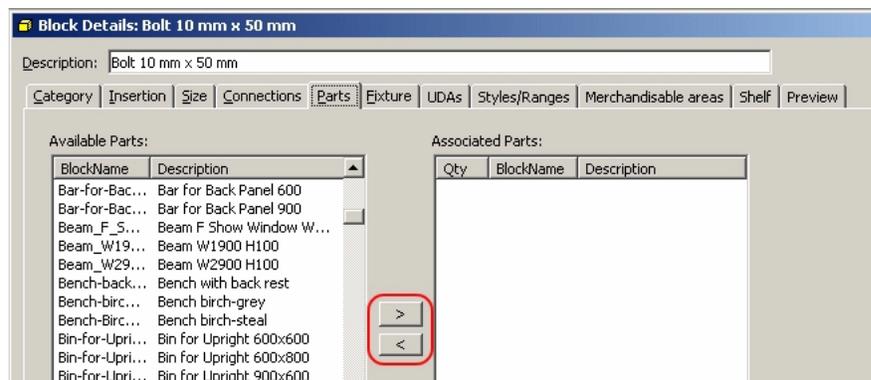


**Note:** The list of User Defined Attributes is customizable and will vary from implementation to implementation. The list is configured in the Admin Module.

Once the parameters have been input into the Categories, Insertion and UDA tabs, the part block is ready for insertion into a list of parts.

### Building up a Parts List

The Parts List can be added to and edited using the arrows in the centre of the Parts tab.



### Building Parts List

- Available Parts: The Available Parts frame contains a list of all available parts. BlockNames, and Description can be sorted in ascending or descending order by clicking on the column header.
- Associated Parts: The Associated Parts frame contains a list of all parts associated with that particular block. In the above example, the Podium is made up of a Top and Frame. Quantities, BlockNames, and Description can be sorted in ascending or descending order by clicking on the column header.

### Building and Editing a Parts List

To add a part to the Associated Parts list, highlight the part in the Available Parts frame and use the Add arrow.

Alternatively highlight and double click on the part in the Available Parts frame.

To remove a part from the Associated Parts list, highlight the part in the Associated Parts frame and use the Add arrow.

Alternatively highlight and double click on the part in the Associated Parts frame.

### Changing the number of a specific part

To change the number of a specific part in the associated parts list, highlight the required part then left click on the number in the Qty column.

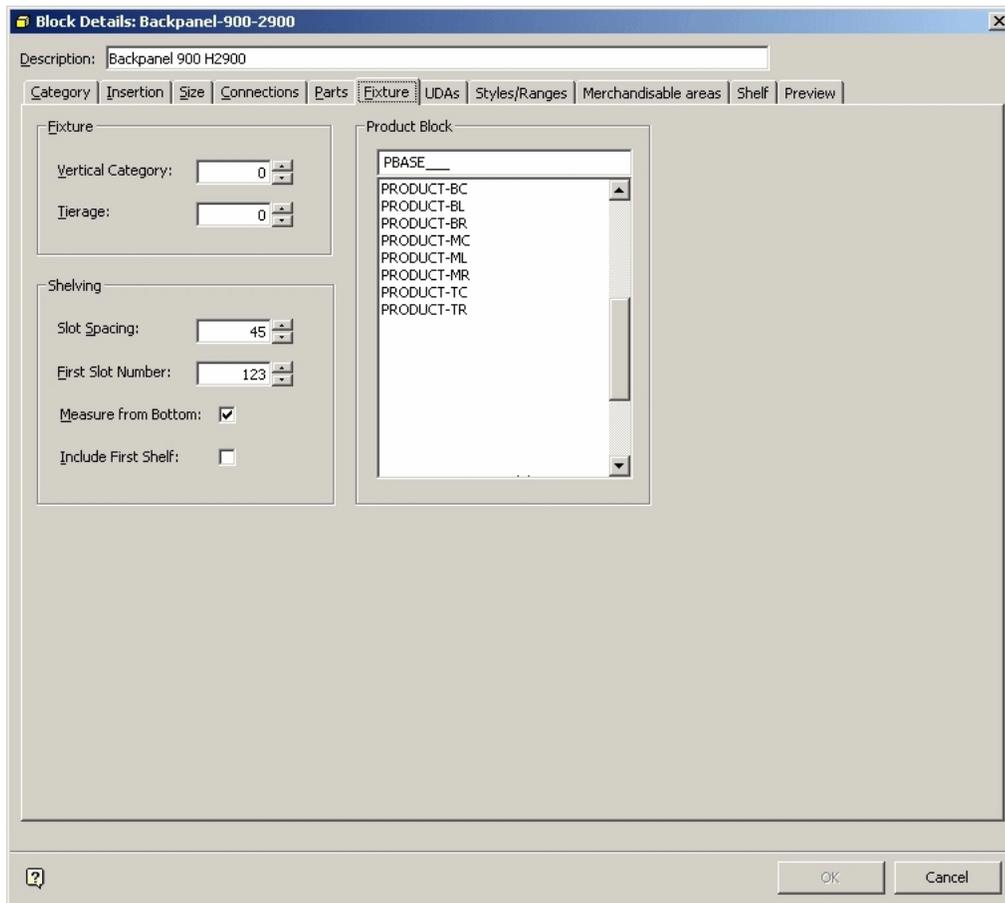
Associated Parts:		
Qty	BlockName	Description
1	Bar-for-Back-...	Bar for Back Panel 6i

The number can then be edited. Press Enter to confirm.

### Fixture Tab

The **Fixture** tab is used to specify the behavior of shelving and the product block for a fixture.

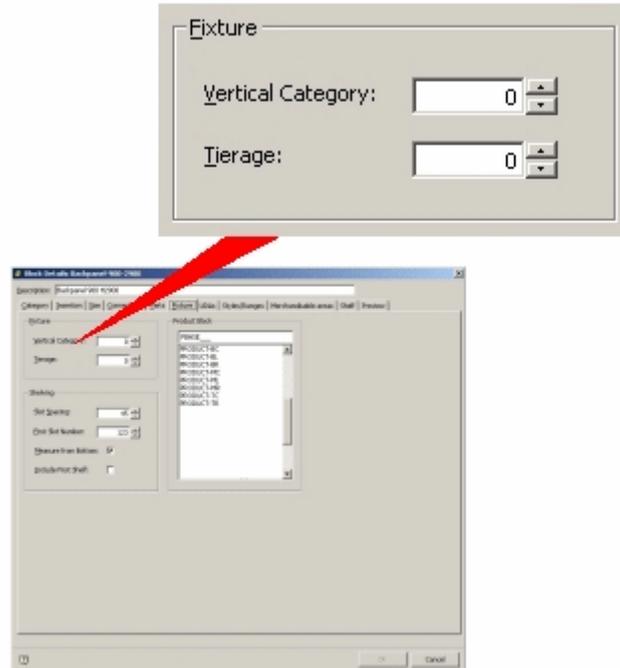
**Figure 5–141 Fixture Tab**



**The Fixture Frame**

The **Fixture** frame allows some details of how the fixture is to be merchandised to be specified.

**Figure 5–142 Fixture frame**




---

**Note:** Vertical Category and Tierage have been largely superseded by Styles in Macro Space Management.

---

Vertical Category allows the aliased layer to be occupied by the fixture to be further sub-divided. The default is 0, but fixtures can be assigned to further vertical categories within the aliased layer. For example TV's could be assigned to Vertical Category 1, CD Players to Vertical Category 2.

Setting the Vertical Category affects Adjacency calculations and annotation. Fixtures in different Vertical Categories are not shown as adjacent and if Vertical Categories are set, each category will receive its own separate annotation. Setting Vertical Categories affects the reporting options; material in different categories can be reported separately.

Tierage is used when the fixture has distinct merchandisable levels rather than shelves.

Examples of fixtures that have tiers are those used to display magazines or perfumes. If the Fixture has shelves, the Tierage value should be left set to 0. If the fixture has tiers rather than shelves, then the number of tiers should be specified.

---

**Note:** There are two ways of assigning a Product Base to a tiered fixture.

---

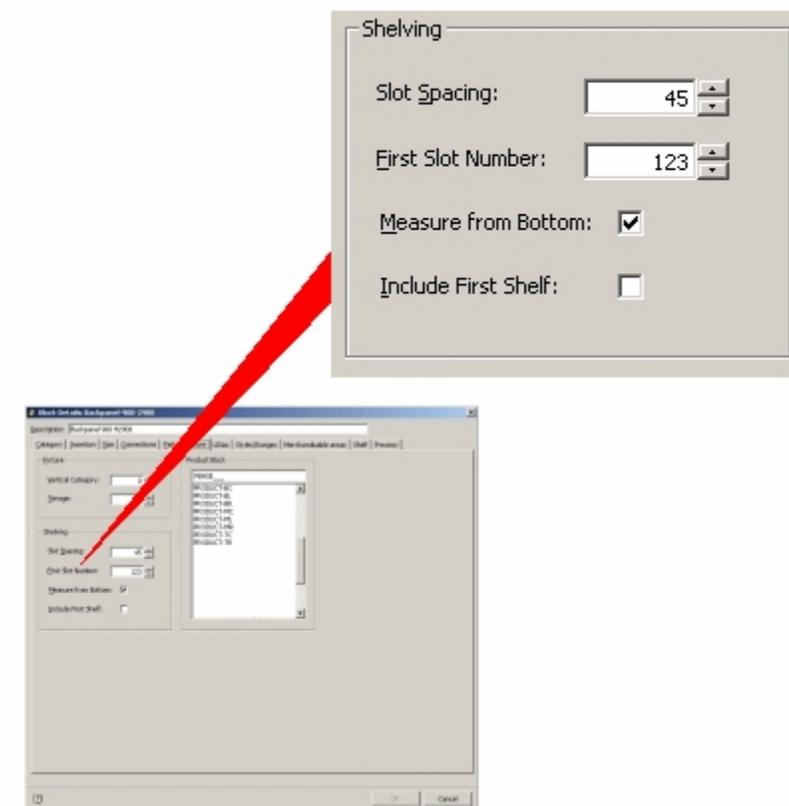
The product base can be designed such that a single product base fits the tier structure. In this case the entire fixture can be merchandised, but only with a placeholder indicating a class of product, for example cards or lipsticks.

Alternatively, each tier can be defined as a Merchandisable Area in the Merchandisable Areas tab. Each tier can then have a product base assigned to it. This would allow more specific placeholders to be used. For example CD's with artist's names beginning with A & B would be placed on the upper tier.

### The Shelving Frame

The **Shelving** Frame is used to set parameters affecting the behavior of shelves on a fixture.

**Figure 5–143 Shelving Frame**




---

**Note:** This functionality has now been largely superseded by connections. If specified, connection lines will overwrite this spacing.

---

**Slot Spacing** gives the distance between successive shelves.

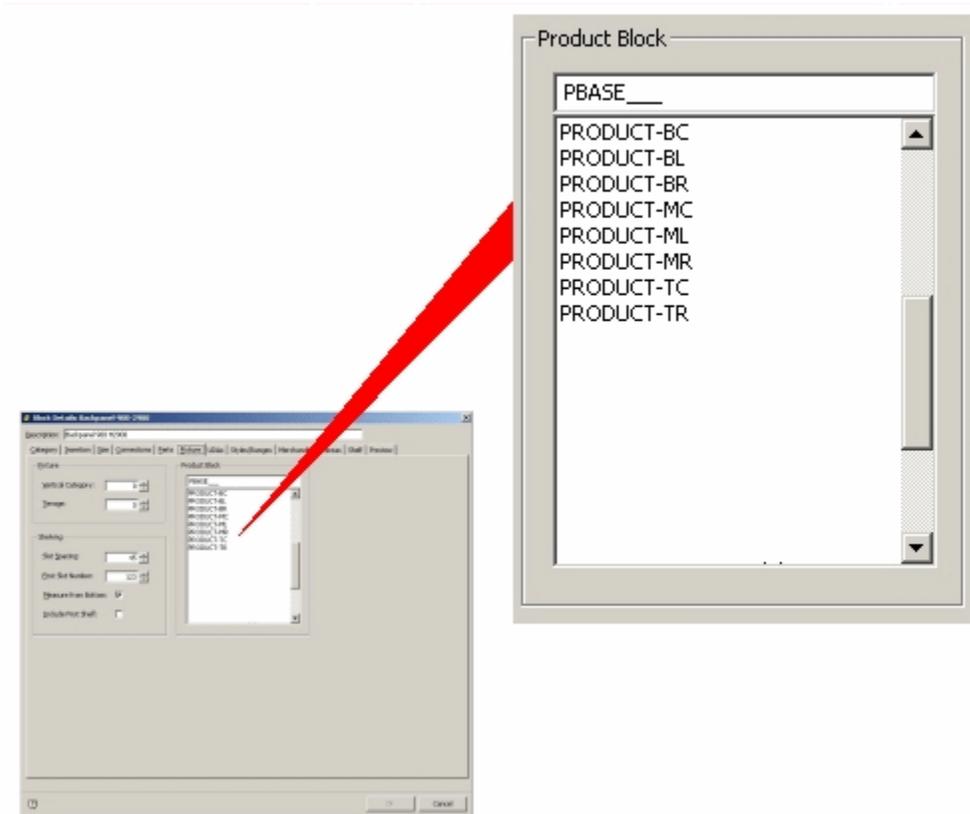
**First Slot Number** gives the height of the initial shelves.

**Measure from Bottom** and **Include First Shelf** are not active in this implementation of Macro Space Management.

### The Product Block Frame

The **Product Block** Frame allows the details of the Product Block to be assigned to the Fixture.

**Figure 5–144 Product Block Frame**




---

**Note:** If a product block has not been specified for a fixture or shelf, it will not be possible to merchandise that item of equipment with a placeholder.

---

Product Blocks assigned in this frame are used to act as indications of the dimensions that can be merchandised when placeholders for a general class of product (for example shoes or canned goods) are assigned to the fixture.

The default Product Block is PBASE\_\_, which is a simple rectangular block but other product blocks can be assigned. For example a round product block would be assigned to a table top, and a stepped product base would be assigned to a display cabinet with tiers.

About Merchandisable Areas, Product Blocks and Display Styles

**Merchandisable Areas**

A merchandisable area is an irregular cube shaped space associated with a specific fixture or shelf object. It delineates the volume relative to the dimensions of that object that can be filled with product.

---

**Note:** Merchandisable areas are defined within the Merchandisable Areas Tab in the Block Definitions box.

---

The merchandisable area is defined by specifying the two points that represent opposing corners of the cuboid. Accordingly, the geometry is simple and inflexible.

### **Placeholders and display Styles**

In the AutoCAD environment, all merchandise is displayed using placeholders. In the Virtual Reality environment, there are two forms in which merchandise can be displayed.

At Article (SKU) level and above, they are displayed in the form of placeholders, which indicate that a particular form of merchandise has been used to populate that section of the store.

Placeholders are simple geometrical shapes (such as cubes and cylinders) and have no surface detail. At Display Level, a product block containing a more detailed physical representation of the product is placed, the amount of detail depending on local settings.

### **Place holder**

In the above example, the lower shelf is populated with a placeholder; while the upper shelf has products displayed using three types of display style product blocks.

(The plates are shown as graphical style product blocks, the boxes on the left as simple boxes and the boxes on the right as textured boxes.

Because the merchandisable area is of simple geometry, fixtures and shelf objects need to have default product blocks associated with them in their block definitions.

These default product blocks can be of more complex shapes, for example cylinders, hemispheres, hexagons, etc. Only a single design of each class of product block is required as their dimensions are scaleable.

When placed on a fixture or shelf object product blocks expand to the maximum dimensions permitted by the merchandisable area. Thus a single cylindrical product block can be used for wide range of fixtures and shelf objects.

The Product Block will subsequently be used to define the volume occupied by a placeholder. For example, a circular table must still have a cubic merchandisable area defined, as all merchandisable areas have to be simple cuboids.

In the above diagram, the merchandisable area is represented by the cuboid with the heavy black outline. However, if this cuboid was merchandised directly with a placeholder, it would result in product being shown beyond the actual surface of the fixture. Accordingly, a cylindrical Product Block is associated with the fixture. This expands to the limits set by the merchandisable area and represents the limits that will be shown as occupied by a placeholder.

### **Merchandising with Placeholders and Display Style Product Blocks**

If a fixture or shelf object is merchandised with a placeholder, it will occupy the extents defined by the Merchandisable Area defined in block definitions.

In the example below, the fixture on the left has a default Product Block assigned (green cylinder). It will not be required unless the fixture is merchandised by a placeholder.

Because the default Product Block is scaleable, it will take up the size determined by the merchandisable area of the fixture. When the placeholder is then shown (yellow cylinder), it takes up the volume defined by the product block, which has itself expanded to the extents determined by the merchandisable area.

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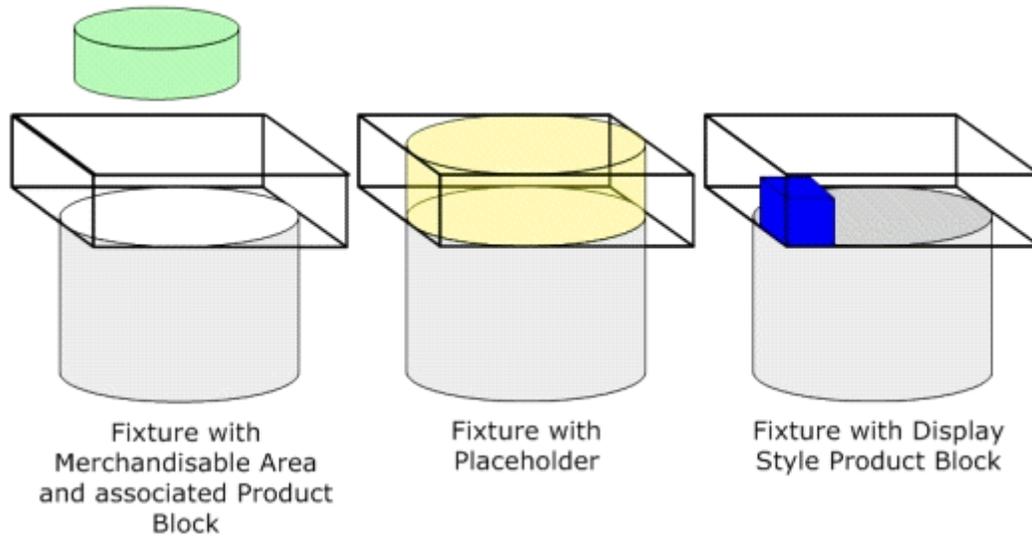
**Note:** If the specified Product Block had been hexagonal, then the placeholder would have been shown as a hexagonal shape, scales to the extents of the merchandisable area.

---



---

A similar logic applies to other shapes of Product Block - they allow placeholders to be displayed in a number of geometries.



### Display Style Product Blocks

If the same fixture is merchandised with a Display Style Product Block (the blue box in the right hand diagram) the display style product block will be placed within the limits set by the merchandisable area (the cuboid outlined in black).

The display style product block then has to be moved within the limits of the actual merchandisable surface of the fixture using the alignment options available within Merchandiser.

---



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**Note:** The display style product block represents the actual dimensions of an instance of the merchandise being placed on a fixture. This means multiple instances of display style product blocks can be placed until the available volume defined by the merchandisable area is filled.

---



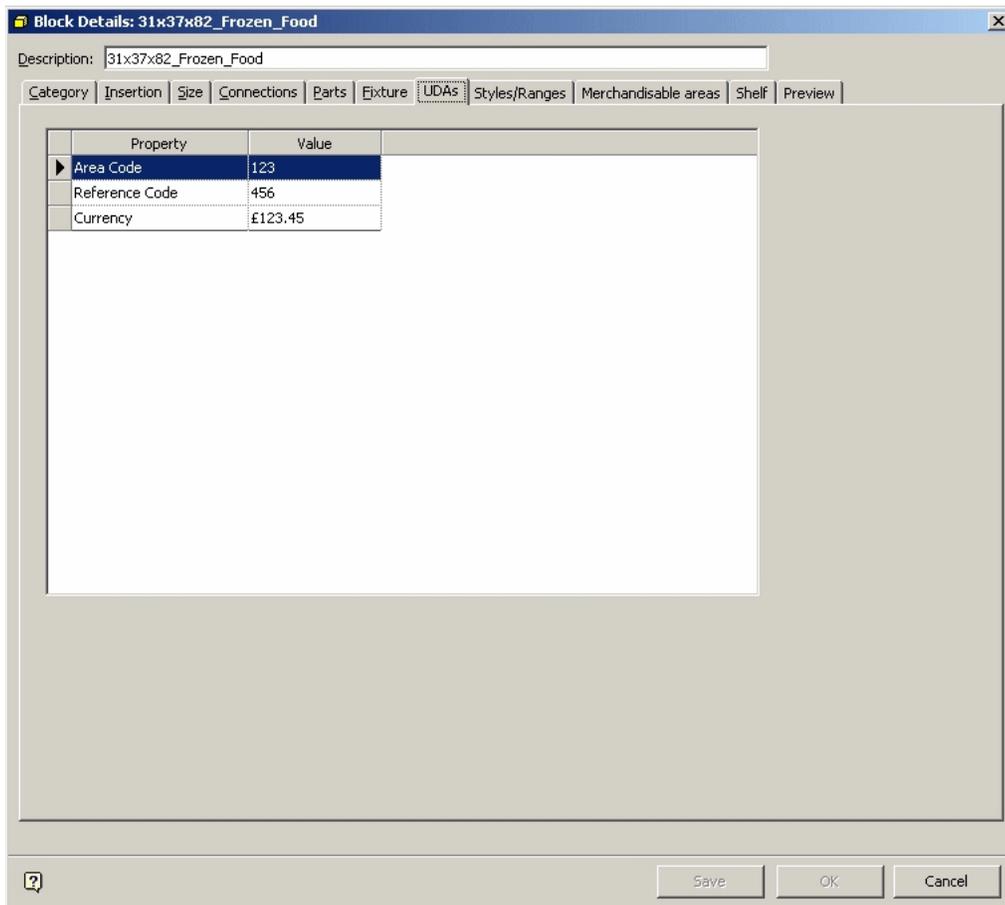
---

If a placeholder is used to represent merchandise, only a single instance is required, as this represents the volume occupied by a class of product, not individual items.

### UDA (User Defined Attributes) Tab

The **User Defined Attributes** tab is used to specify customized information for a block.

**Figure 5–145 User Defined Attributes Tab**



UDA details are configured in the Admin Module, allowing UDA information to be added for each block.

### Entering UDAs

When the **UDA tab** is selected, a list of UDAs will come up. These will be blank if the fixture is being added, or if no UDAs have been previously added.

**Figure 5–146 List of UDAs**



Data can be typed in as require, pressing [Enter] to enter each item of data.

**Figure 5–147 Validation**



UDA Data has a data type (assigned in the Admin module). If data does not match the specified type, it will not be accepted.

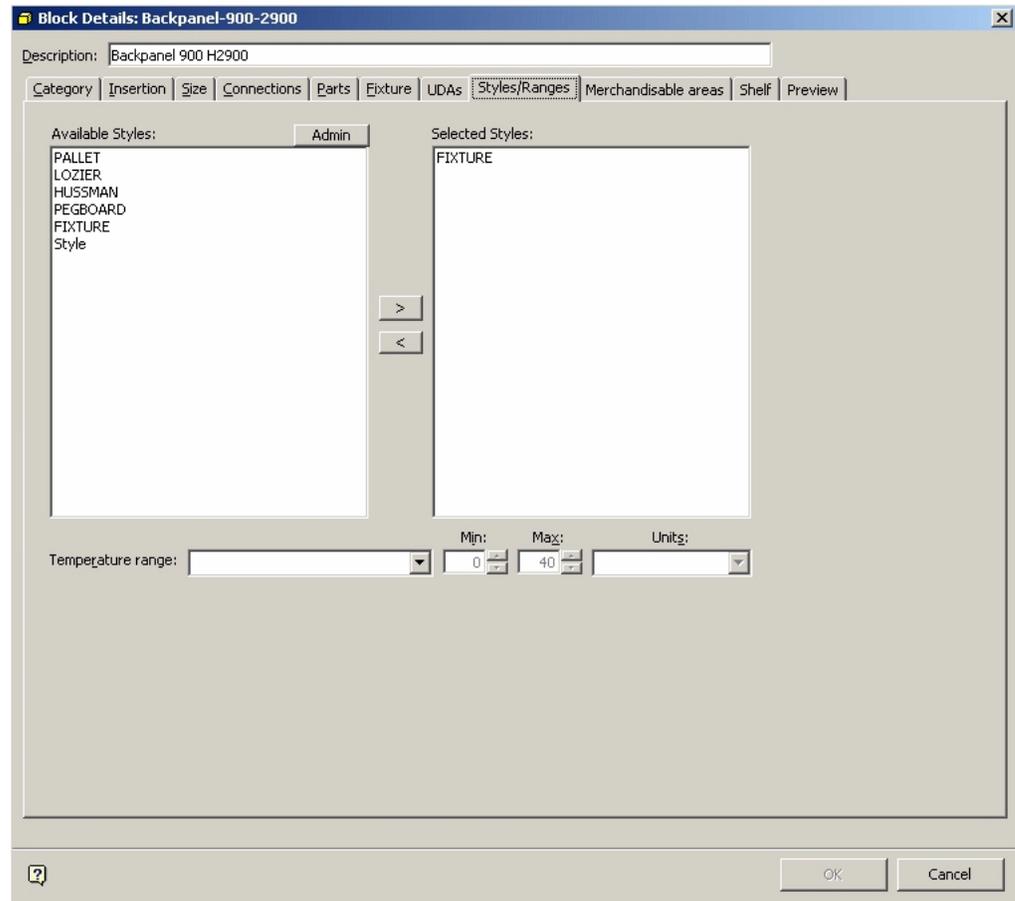
**Mandatory UDAs**

Some UDAs are mandatory and must be entered before the block definition can be saved. Failure to enter these mandatory UDAs will result in an error message being displayed.

**Styles/Ranges Tab**

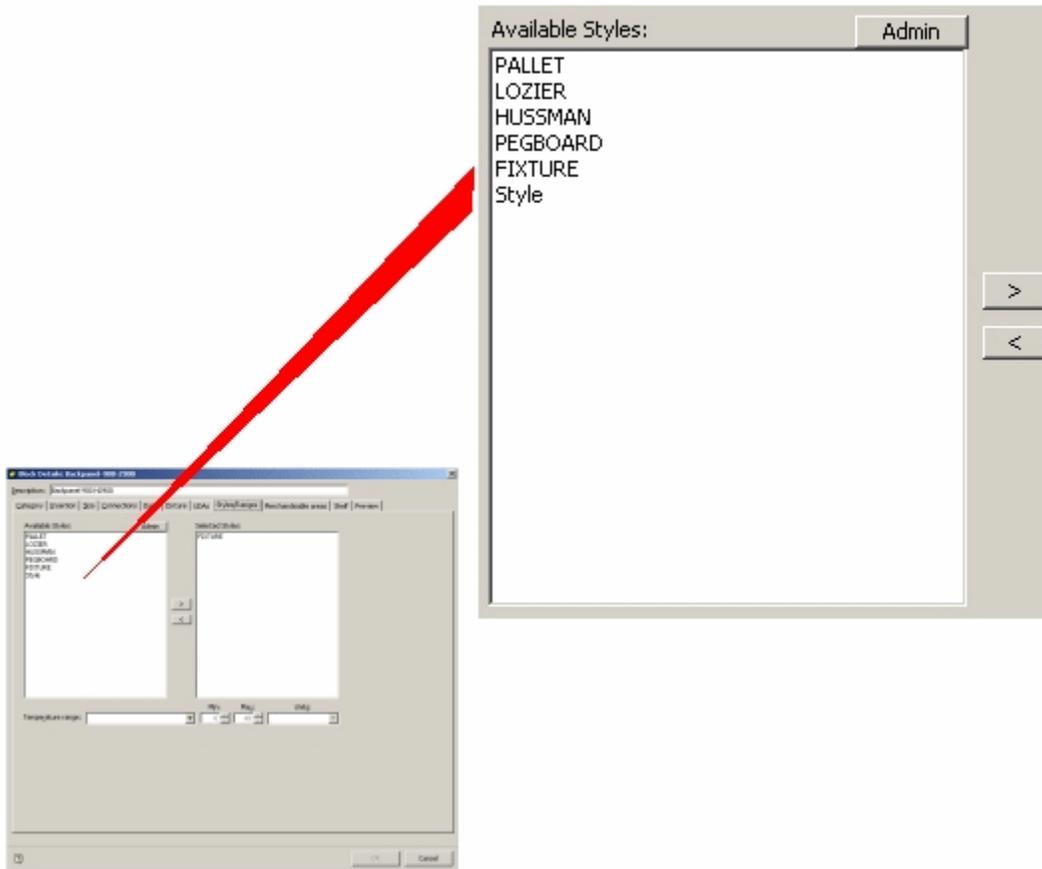
The **Styles/Ranges** tab has two purposes: to set the styles for items of equipment, and to specify any ranges for physical parameters limiting the products than can be placed on that equipment.

Figure 5-148 Styles/Ranges tab



Available Styles frame contains a list of styles that have been defined in the Admin Module.

**Figure 5–149 Available Styles Tab**



They can be used to build up a list of available styles for a block. Depending on the block, the styles will define the type of equipment it can connect with, and (if a shelf or fixture) the type of merchandise it can accept.

**Building a Styles List**

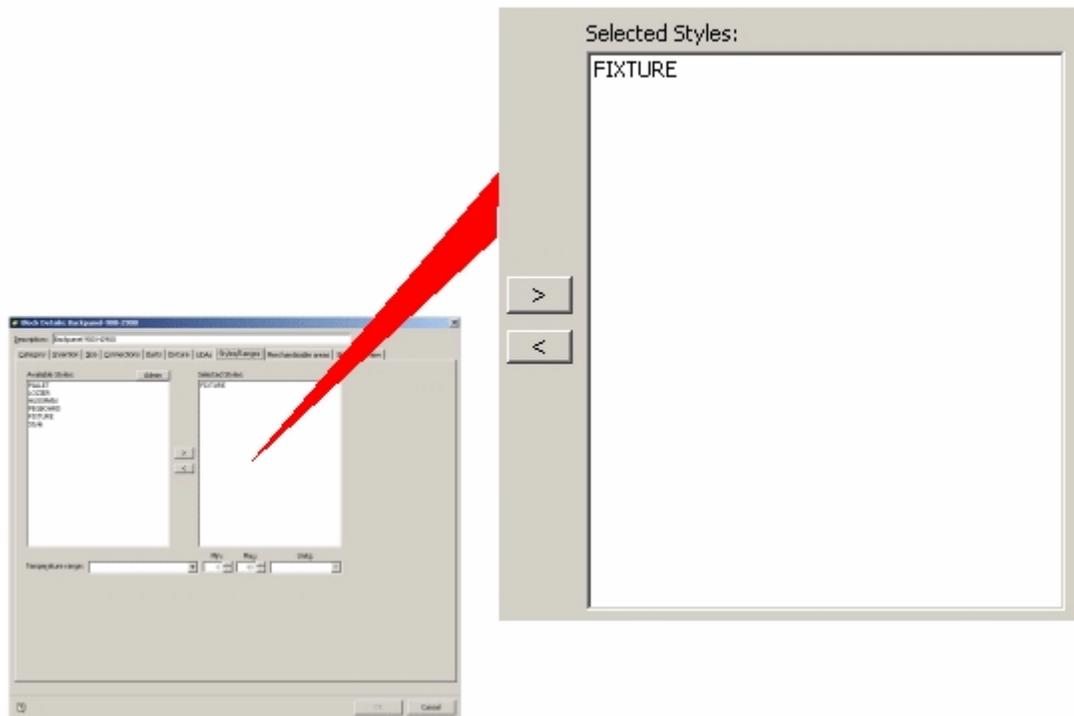
To add a style to the Selected Styles list, highlight the part in the Available Styles frame and use the Add arrow.

Alternatively highlight and double click on the part in the Available Styles frame.

**The Selected Styles Tab**

The **Selected Styles** tab contains a list of styles that have been chosen from the Available Styles frame.

**Figure 5–150 Selected Styles Tab**



Depending on the block, the styles will define the type of equipment it can connect with, and (if a shelf or fixture) the type of merchandise it can accept.

#### Removing from the Selected Styles List

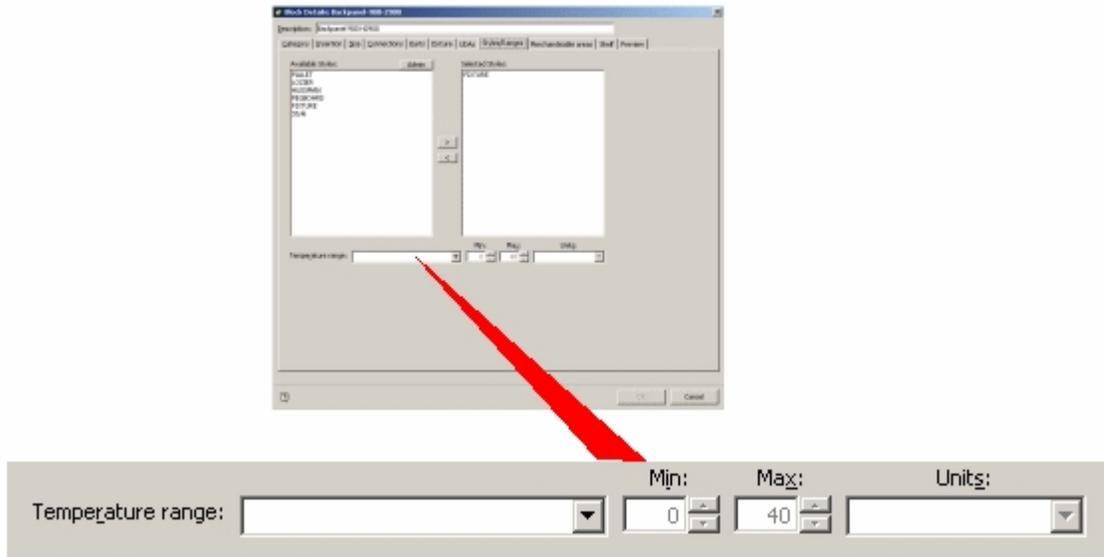
To remove a part from the Selected Styles list, highlight the part in the Selected Styles frame and use the Remove arrow.

Alternatively highlight and double click on the part in the Selected Styles frame.

#### Range Options

The **Range Options** frame allows the user to set a permissible temperature range for the merchandise the block will accept.

**Figure 5–151 Range Options frame**



This would most usefully be used for Freezer and Chilled Food units.

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**Note:** This functionality is not enabled for this implementation of Macro Space Management.

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## Styles

Styles are used to define whether different types of objects fit together. They can be used to specify (for example) whether a shelf will fit on a fixture, or whether a product will fit on a shelf.

There are three broad classes of style (although others can be defined).

- Fixture styles
- Shelf styles
- Product styles

Fixtures must have one or more fixture styles. The fixture style specifies what form of shelving and other equipment can be attached to it. If product is to be placed directly on any fixture, it also requires a shelf style.

Shelves must have one or more fixture styles and also one or more shelf styles. The fixture style specifies what sort of fixture the shelf may be attached to. The shelf style specifies what form of product can be placed on the shelf.

Products must have one or more product styles. The product style specifies what form of shelving the product is compatible with.

Style Relationships can be configured using the Styles option in the Admin Module.

Assigning Styles can be done via the Block Details option in Fixture Studio.

Ranking Multiple Styles assigned to a type of object in order of priority can be done via the System Variables option in the Admin Module.

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Preferred Styles can be assigned to individual shelves using the Edit option from the pop-up menu in the Merchandiser.

## Types of Styles

### Fixture Styles

Each fixture should be associated with one or more Fixture Styles. An example of a fixture style might be 'Metal'. This style might also be associated with fitting and shelves and can be used to indicate that particular items of equipment can be fitted together.

If product is to be placed directly on any fixture, it also requires a shelf style.

### Shelf Styles

Each shelf must be associated with one or more Fixture Styles and also one or more Shelf Styles. The Fixture Style is used to ensure the shelf fits onto a compatible fixture. The Shelf Style only allows products with compatible styles to be placed.

### Product Styles

Each product must be associated with one or more product styles. These product styles will determine the compatible shelves the product can be placed on.

For example shirts could be available in both Hung and Folded Product (Display) Styles. If a product is dragged into a shelf at item level then it will automatically select the correct Product Style. For example if shirts are dragged into an open shelf, they will be placed as Folded Shirts. If shirts are dragged onto a peg or bar, then they will be placed as Hung Shirts.

If product is dragged onto a shelf at Display Level then it can only be placed on equipment compatible with that style. For example Folded shirts cannot be placed onto a bar.

## Using Styles

The diagram below indicates how styles interrelate.

The fixture has been assigned a Metal Fixture fixture style.

The Open Shelf, Peg Board and Hanging Rod shelf objects have all been assigned Metal Fixture fixture styles. This means any of these three types of shelf object can be placed on the fixture.

If another type of shelf object (for example a slatted back panel) had been assigned the *Lozier* fixture style, it would not have a fixture style compatible with that assigned to the fixture itself, and could not be assigned to that fixture.

The Open Shelf, Peg Board and Hanging Rod shelf objects have also all been assigned appropriate shelf styles.

The varying types of products have been assigned product styles. For example shirts have been assigned Boxed, Folded and Hung product styles. These styles determine what form of shelf object shift can be placed on.

For example shirts with a Hung product style can only be placed on Hanging Rods. Conversely, the Open Shelf has been configured to accept both Boxed and Folded shirt styles.

Ties only have Pegged product style and are restricted to the Peg Board.

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**Note:** Where an object has multiple styles they can be ranked in order of preference using the appropriate system variables, or set in order of preference using preferred styles.

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## Preferred Styles

Some objects can be associated with multiple styles; specific instances of shelves within the drawing can be given preferred styles.

These preferred styles override the ranking set in the SPL\_RANKING System variable for that specific shelf.

For instance, a shelf could be associated with both a Stock shelf style as well as a Presentation shelf style; two display styles may then be defined for a particular product, a Display product style and a Boxed product style.

The Stock shelf style would be linked with the Boxed product style, and the Presentation shelf style would be linked with the Display product style. This would allow both the Boxed and Display version of the product to be placed on the shelf.

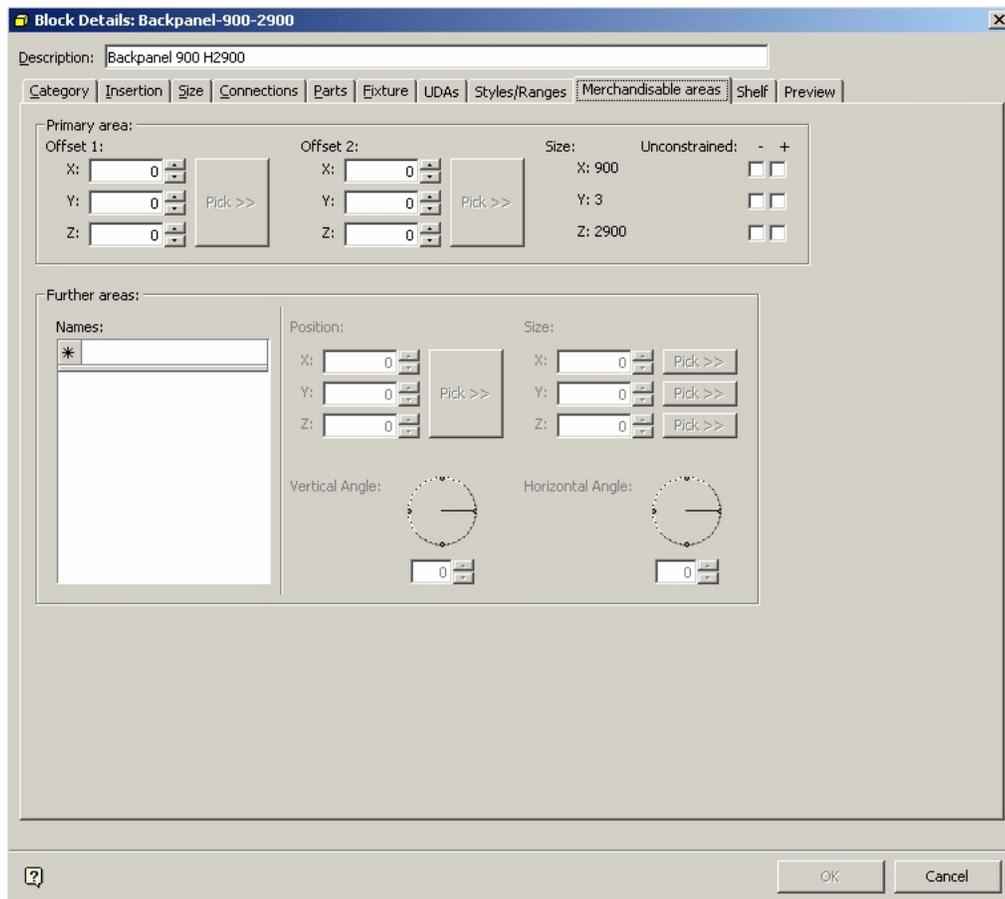
However, the user would be able to indicate the preferred style for a particular instance of a shelf as being Presentation, which would force the Display product to be placed for that particular shelf.

## Merchandisable Areas Tab

The **Merchandisable Areas** tab is used to indicate the location of merchandisable areas for an object.

- The Primary Area Frame allows specifying the first merchandisable area.

Figure 5–152 Merchandisable Areas Tab



- The Further Areas Frame allows specifying the second and subsequent merchandisable areas.

### Merchandisable Area Concepts

Merchandisable areas are used to specify which volumes of a fixture can accept merchandise.

In the example above an idealized fixture consists of a base, back panel and ledge (left hand diagram). It is desired to create two merchandisable areas on the fixture. The Primary Merchandisable Area is to be created on the base (colored yellow) and a Further Merchandisable Area is to be created on the ledge (colored green).

For each area a cube is defined (right hand diagram). This cube sets the maximum limits which merchandise can occupy.

#### First Merchandisable Area

The First Merchandisable Area is designed to be compatible with fixtures that can be defined as stretchable. It is based on specifying two points relative to the bottom, back, left and top, front, right coordinates of a fixture.

**Figure 5–153 First Merchandisable Area**



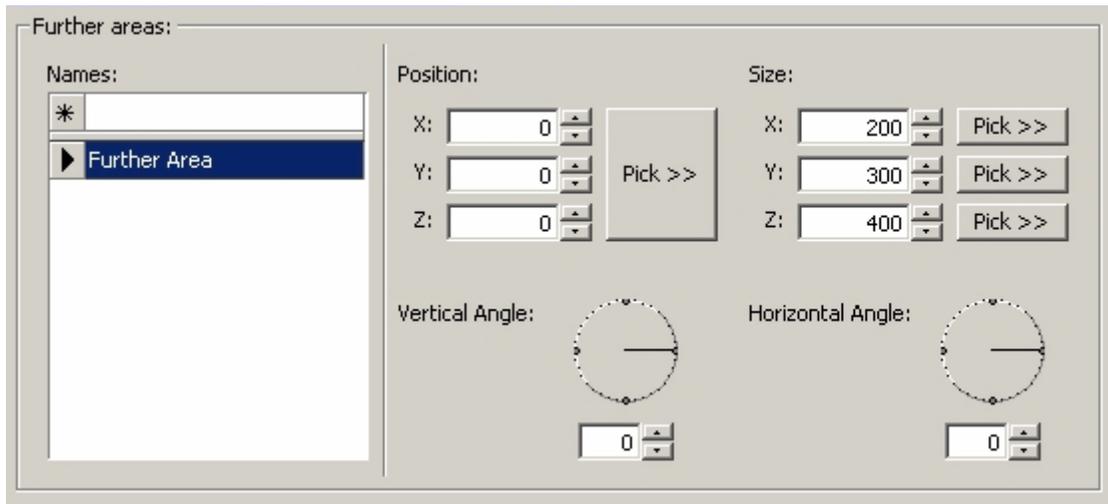
When specified, Offset 1 and Offset 2 specify opposing corners of a cube. Because these offsets are specified relative to the dimensions of the fixture, if the fixture dimensions change, then the dimensions of the cube change relative to it.

**Example of First Merchandisable Area and Stretchable Fixture:** Take a fixture of length 1200 mm, depth 400 mm and height 600 mm. This will have Offset 1 relative to the bottom, left, back of the fixture (coordinates 0, 0, 0) and Offset 2 relative to the top, front, right of the fixture (coordinates 1200, 400, 600). If the fixture is now stretched to length 1600 mm, the top, front, right of the fixture will have coordinates 1600, 400, 600. Offset 2 will now be relative to these modified coordinates and the merchandisable area will have been increased in size to match the new length.

**Further Merchandisable Area**

Further merchandisable areas are of fixed size and will not change relative to the dimensions of the fixture if the fixture is stretched. They are based on specifying a position relative to the bottom, left, back of the fixture. This set of coordinate's details one corner of a cube. A size is then specified relative to the position. This specifies the second corner of a cube.

**Figure 5–154 Further Merchandisable Area**

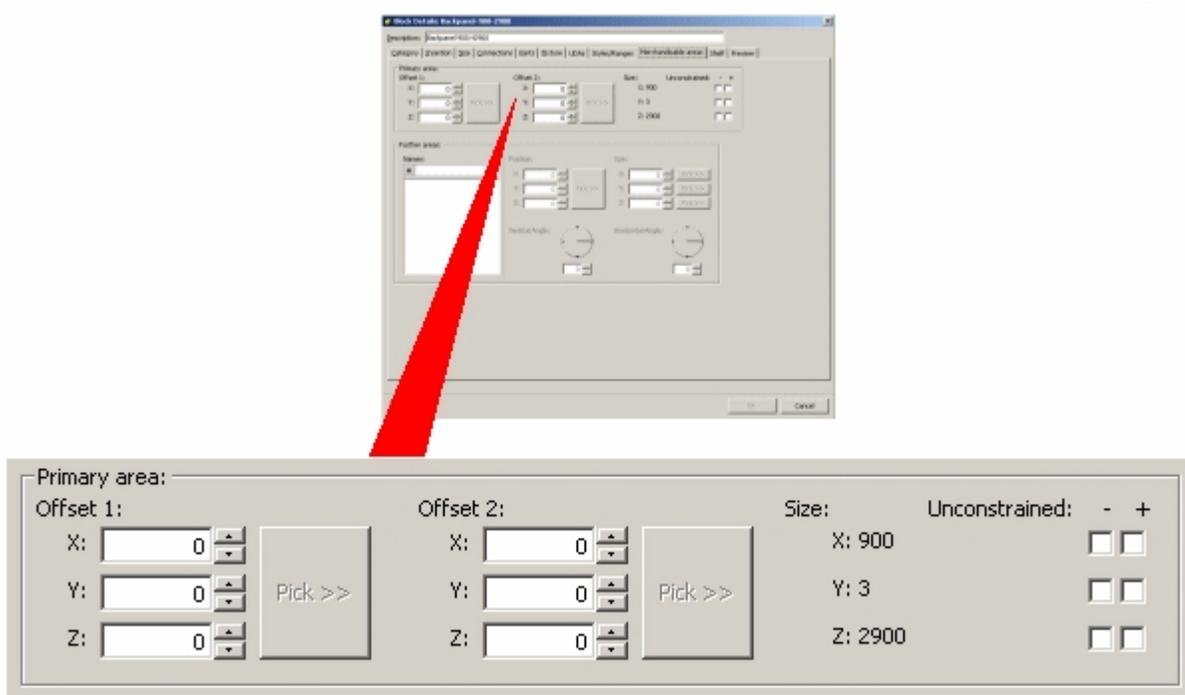


**Example of Further Merchandisable Area:** First the starting Position of the Further Merchandisable Area is specified relative to the bottom, back, left of the fixture. This might have coordinates 0, 50, 400. (Aligned with side of fixture, moved forward 50 mm to allow for thickness of back panel, raised 400 mm to correspond to top of shelf). Next, the Size of the Further Merchandisable Area is specified. This is done by specifying coordinates for the opposing corners of a cube. These might be 600, 200, 300. (Area is 600 mm long, 200 mm deep and 300 mm high).

### The Primary Areas Frame

The **Primary Area Frame** allows the user to specify the Primary Merchandisable Area. Primary Merchandisable Areas can be used in conjunction with stretchable fixtures.

**Figure 5–155 Primary Areas Frame**



The datum points from which Offset 1 and Offset 2 are set together define the extents of the object. The datum point for Offset 1 is the back, bottom, left corner of the object, and the datum point for Offset 2 is the front, top, right corner of the object. The effect of putting in the offset coordinates can be seen from the diagram below.

Putting in positive coordinates moves the offset point inside the extents of the drawing (in the directions shown by the heavy black arrows). Putting in negative coordinates moves the offset point outside the extents of the drawing.

**Offset 1** is specified relative to the bottom, back, left coordinates of the fixture.

Positive X coordinate	Decrease length of merchandisable area	Negative X coordinate	Increase length of merchandisable area
Positive Y coordinate	Decrease depth of merchandisable area	Negative Y coordinate	Increase depth of merchandisable area
Positive Z coordinate	Decrease height of merchandisable area	Negative Z coordinate	Increase height of merchandisable area

**Offset 2** is specified relative to the front, top, right coordinates of the fixture.

Positive X coordinate	Decrease length of merchandisable area	Negative X coordinate	Increase length of merchandisable area
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Positive Y coordinate	Decrease depth of merchandisable area	Negative Y coordinate	Increase depth of merchandisable area
Positive Z coordinate	Decrease height of merchandisable area	Negative Z coordinate	Increase height of merchandisable area

The effect in two dimensions can be seen by considering the following example. (The base of the fixture is shown in yellow and the merchandisable area is shown in blue).

- Offset 1 has been given X and Y coordinates of 50, 50. This moves the offset position inside the extents of the fixture. The effect is that the first corner of the merchandisable area has been moved inside the fixture.
- Offset 2 has been given X and Y coordinates of -50, -50. This moves the offset position outside the extents of the fixture. The effect is that the opposing corner of the merchandisable area has been moved outside the fixture.

**Setting the Offsets**

**Figure 5–156 Offset Setting**



**Manual Settings**

The Offsets can be set manually, but before they are, knowledge of the dimensions of the object is required. The basic length, depth and height can be obtained from the size tab. If more detailed dimensions are required, the drawing can be loaded into the active AutoCAD drawing using the Load Blocks into Drawing command from the File menu. The AutoCAD Dist (Distance) command can then be used to measure the dimensions. X, Y and Z dimensions can then be set by manually entering or by using the spin controls.

**Using the Pick Command**

With the object open in the active AutoCAD drawing, click on the Pick button. Switch to the AutoCAD drawing and click on the required offset point. The selected coordinates will be transferred to fixture Studio.

**Example of Primary Merchandised Area settings:** In the above example both Offset 1 and Offset 2 have had their X coordinates set to -50 mm. This has the effect of moving the offset points outside the pallet in the X axis. This in turn increases the length of the merchandisable area by a total of 100 mm relative to the length of the pallet.

In the above example both Offset 1 and Offset 2 have had their Y coordinates set to -50 mm. This has the effect of moving the offset points outside the pallet in the Y axis. This in turn increases the depth of the merchandisable area by a total of 100 mm relative to the depth of the pallet.

The effects in the Z axis are more subtle.

Offset 1 (with its datum at the base of the pallet) has had its Z coordinate set to 180 mm. This has the effect of moving the offset point inside the extents of the drawing. As it is moved inside by 180 mm and 180 mm is the height of the pallet, this sets the offset to the top of the pallet.

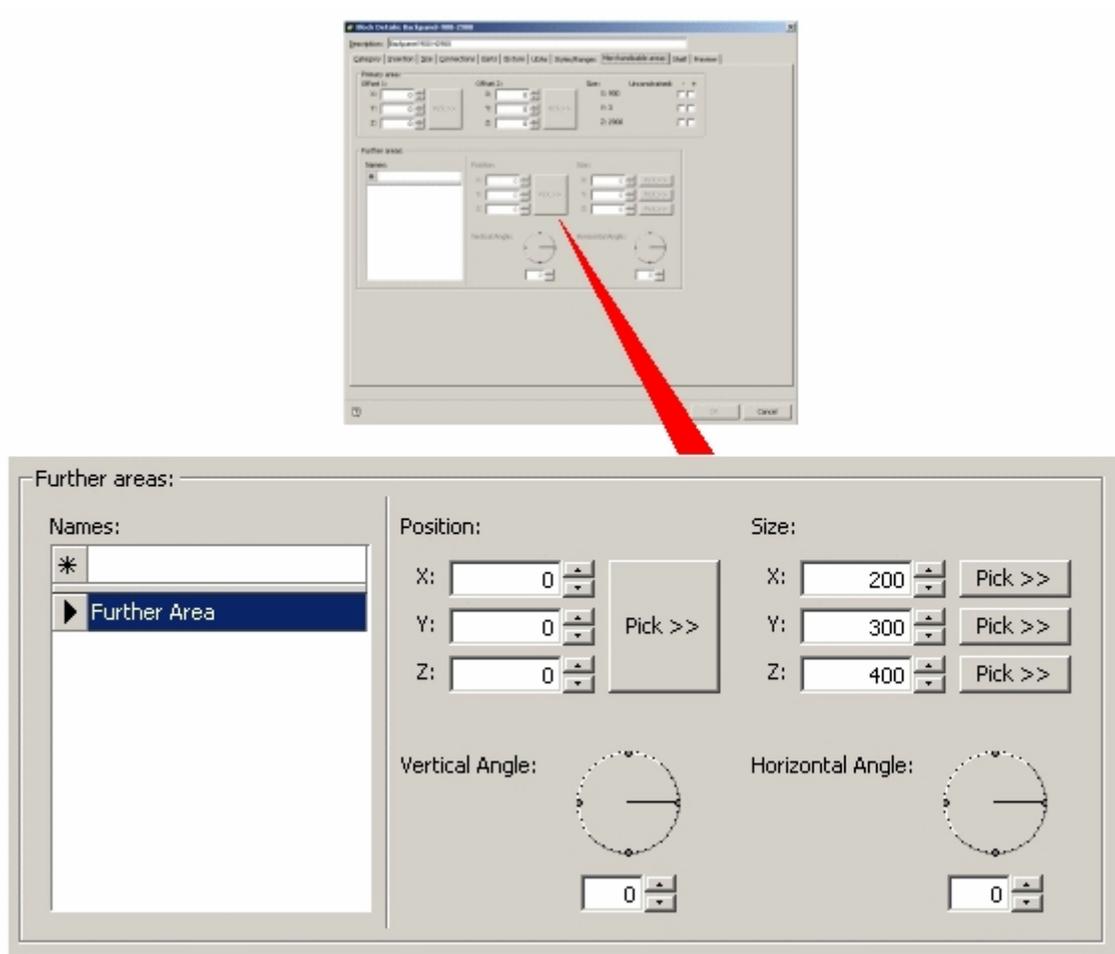
This has the effect of setting the base of the merchandisable area to the top face of the pallet.

Offset 2 (with its datum at the top of the pallet) has had its Z coordinate set to -1300 mm. This has the effect of moving the offset point outside the extents of the drawing. The practical effect is to set the top of the merchandisable area to 1300 mm above the top face of the pallet.

### The Further Areas Frame

The further areas frame allows other merchandisable areas to be specified.

**Figure 5–157 Further Areas Frame**



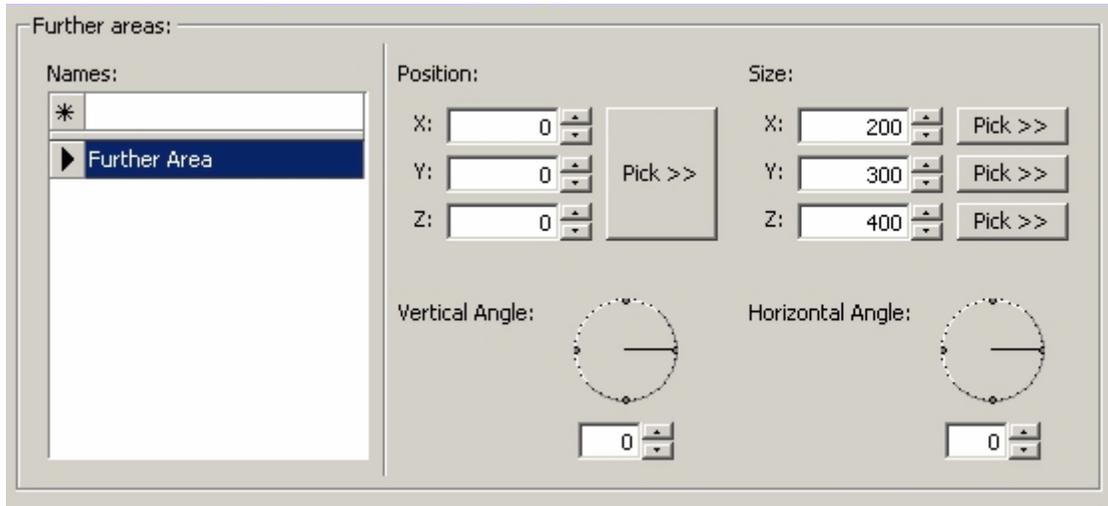
It requires two sets of coordinates:

- The first is a position specified position relative to the bottom, left, back of the fixture. This set of coordinate's details one corner of a cube.

- A size is then specified relative to the position. This specifies the second corner of a cube.

### Setting the Offsets

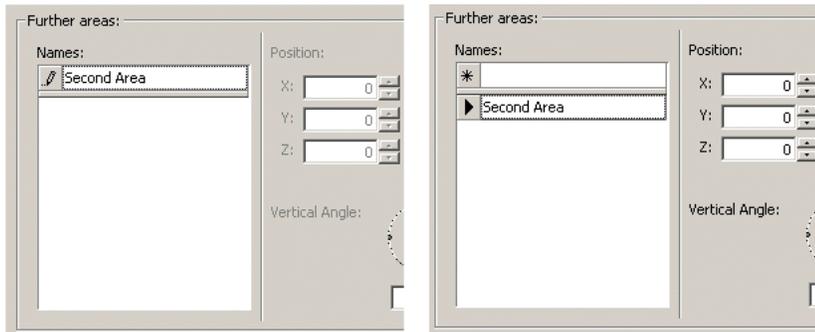
**Figure 5–158** *Setting the Offsets*



### Naming the merchandisable area

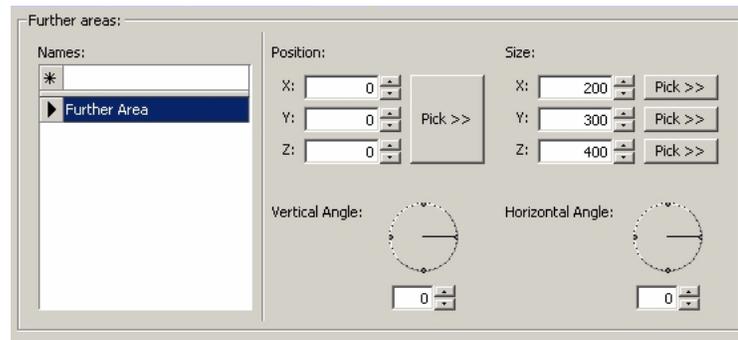
To name the Further Merchandisable Area type in the name and press <Enter>. The name will be entered in the list of Further Areas.

**Figure 5–159** *Further Merchandisable Area type*



You may not edit the Further Area until they click on the name in the list of further areas.

### Manual Settings

**Figure 5–160 Manual Settings**

The Offsets can be set manually, but before they are, knowledge of the dimensions of the object is required. The basic length, depth and height can be obtained from the size tab. If more detailed dimensions are required, the drawing can be loaded into the active AutoCAD drawing using the **Load Blocks into Drawing** command from the File menu. The AutoCAD Dist (Distance) command can then be used to measure the dimensions.

X, Y and Z dimensions can then be set by manually typing or by using the spin controls.

#### Using the Pick Command

With the object open in the active AutoCAD drawing, click on the Pick button. Switch to the AutoCAD drawing and click on the required offset point. The selected coordinates will be transferred to fixture Studio.

#### Setting the Datum Points - Position

The datum point for position is specified relative to the bottom, left, rear corner of the object.

- Positive X values move the position to the right on the object.
- Positive Y values move the position forward on the object.
- Positive Z values move the position up on the object.

#### Setting the Size of the merchandisable area

The Size is set by defining a second datum point relative to the Position datum point.

- Positive X values define the length of the merchandisable area to the right of the position datum.
- Negative X values define the length of the merchandisable area to the left of the position datum.
- Positive Y values define the depth of the merchandisable area forward of the position datum.
- Negative Y values define the depth of the merchandisable area behind the position datum.
- Positive Z values define the height of the merchandisable area above of the position datum.
- Negative Z values define the height of the merchandisable area below of the position datum.

**Setting the Angles of the merchandisable area**

Both the vertical and horizontal angles can get for further merchandisable areas. An example of where this would be used would be if merchandisable areas were set up on shelving intended to display newspapers at an angle for sale.

**Constrained and Unconstrained Merchandisable Areas**

Primary Merchandisable Areas can either be **constrained or unconstrained**.

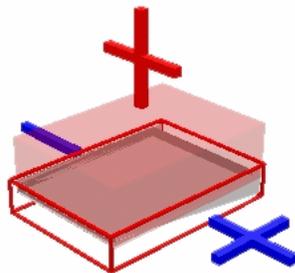
- Constrained Areas are areas that stay within the specified co-ordinates.
- Unconstrained Areas may take up any volume in the specified direction.

These options are set by checking the check boxes in the Primary areas frame.



**Primary Area Frame**

Unconstrained axes are shown visually in the Preview tab.

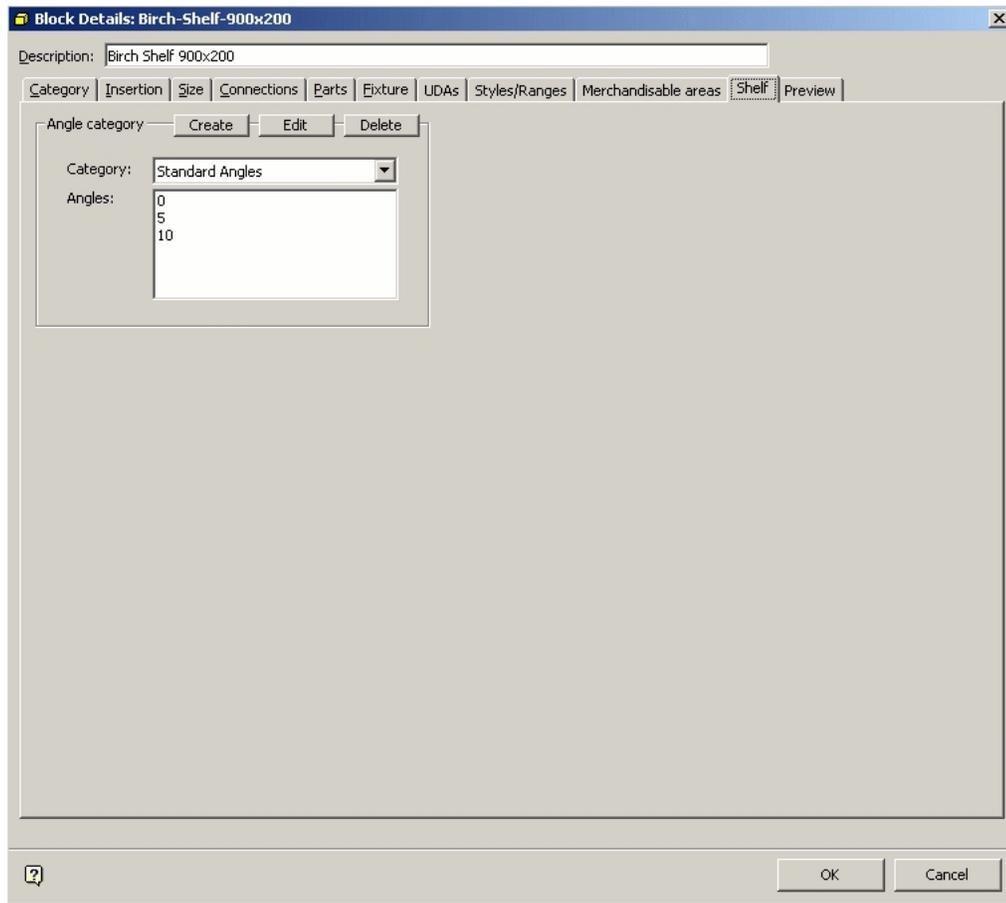


Any unconstrained axis will have a '+' or a '-' sign by it.

**Shelf Tab**

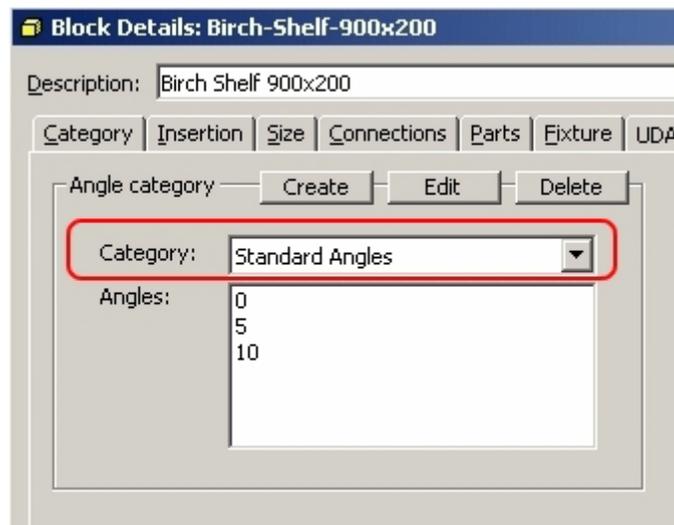
The Shelf tab can be used to define the permissible angles for shelves to be set at when placed on a fixture.

**Figure 5–161 Shelf Tab**



Currently defined Angle Categories can be seen from the drop down list.

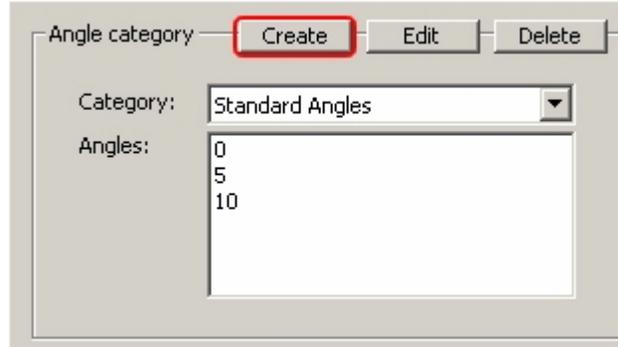
**Figure 5–162 Angle Categories**



### Specifying Permissible Shelf Angles

Angle categories may be created, edited or deleted. To create an Angle Category, click on the Create button.

**Figure 5–163 Create Angle Categories**

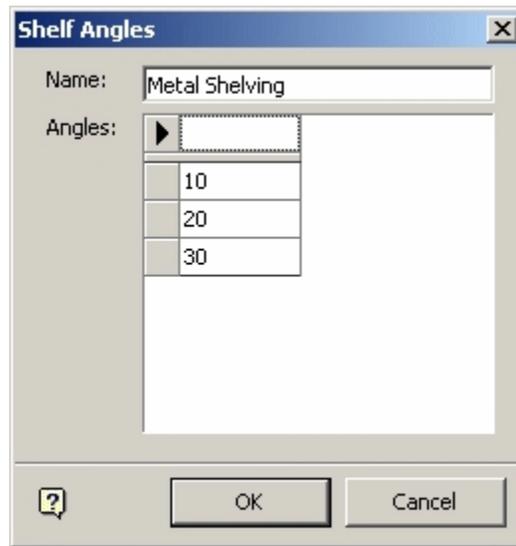


This will bring up the Shelf Angles dialog box.

**Figure 5–164 Shelf Angles dialog box**



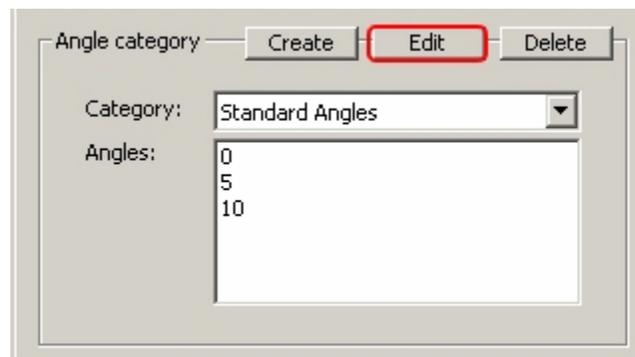
Type in the required Angle Category name then left click into the Angles box. (Do not press <Enter> at this stage or it will close the dialog box). Type the required angle in and press <Enter>. Continue to type in the required angles and pressing return until the desired list of angles has been built up.

**Figure 5–165 Shelf Angles**

When the required Angles have been entered, click on OK to save the information to the database and close the dialog box.

### **Editing an Angle Category**

To Edit an Angle Category, click on the Edit button.

**Figure 5–166 Edit an Angle Category**

This will bring up the Shelf Angles dialog box.

**Figure 5–167 Shelf Angles dialog box**

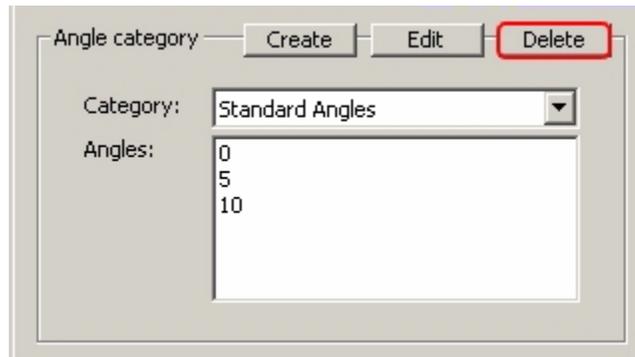


The Shelf Group Name cannot be edited. The Angles can be edited by typing in the required angle and pressing return. When the required changes have been made, click on OK to save the information to the database and close the dialog box.

**Deleting an Angle Category**

To delete an Angle Category, click on the Delete button.

**Figure 5–168 Delete Angle Category**

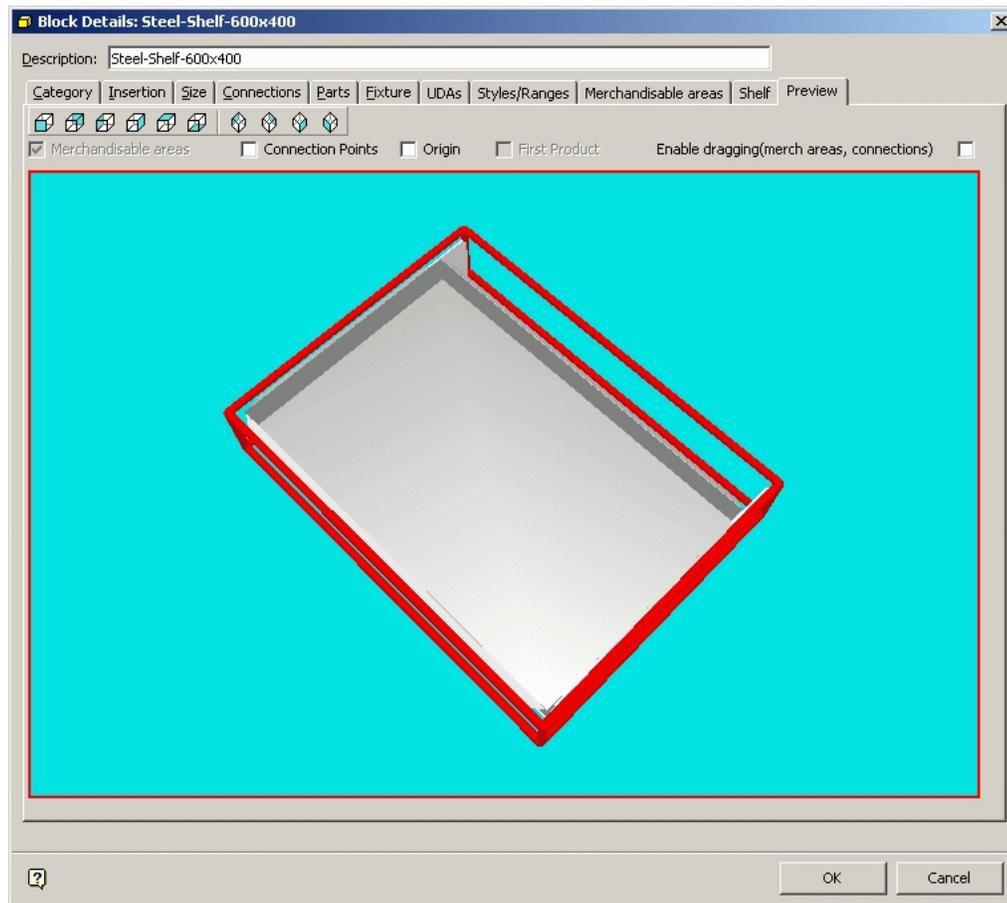


The selected category will be deleted without further confirmation.

**Preview Tab**

The **Preview Tab** allows users to visually see merchandisable areas, connection points, the origin (insertion point) and the position of the first product placed on a fixture.

Figure 5–169 Preview Tab



In the above image, the shelf is enclosed by a red selection frame. While the selection frame is present the fixture can be rotated by holding down the left mouse key and moving the mouse cursor around the fixture.

The selection frame can be removed by holding down the <Ctrl> key and left clicking with the mouse on the fixture. Alternatively you can use the <Escape Key>. While the selection frame is removed, the fixture can be moved on zoomed in and out on by holding down either the left or right mouse buttons and moving the mouse cursor around the fixture.

The selection frame can be restored by holding down the <Ctrl> key and left clicking with the mouse on the fixture.

### Preview Tab Toolbar

The **Preview Tab Toolbar** allows users to select the point of view for the displayed preview.

**Figure 5–170 Preview Tab Toolbar**



**Merchandisable Areas Option**

The Merchandisable Areas option allows you to see the assigned merchandisable areas for a fixture. Activate it by selecting the checkbox.

**Figure 5–171 Merchandisable Areas option**



In the example below, the podium has two merchandisable areas.

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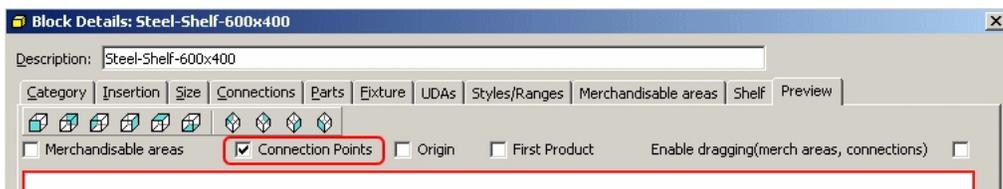
**Note:** The preview will be more responsive to movement if only one option is checked at a time.

---

**Connection Points Option**

The **Connection Points** option allows users to see the position of the connection points. Select it by checking the Connection Points box.

**Figure 5–172 Connection Points option**



This will bring up the connection point display. Each type of connection point is color coded.

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**Note:** The color coding of the connection points can be changed in the fixturing tab of the Configuration Module.

---

The preview will be more responsive to movement if only one option is checked at a time.

---

### Origin Option

The **Origin Option** allows users to see where the insertion point of the fixture is. Select it by ticking the origin check box.

**Figure 5–173 Origin Option**



In the example below, the origin can be seen as a set of red, green and blue lines set at 90 degrees to each other.

**Table 5–8 Origin Option**

Color	Direction
Blue Line	Direction of X Axis
Green Line	Direction of Y Axis
Red Line	Direction of Z Axis

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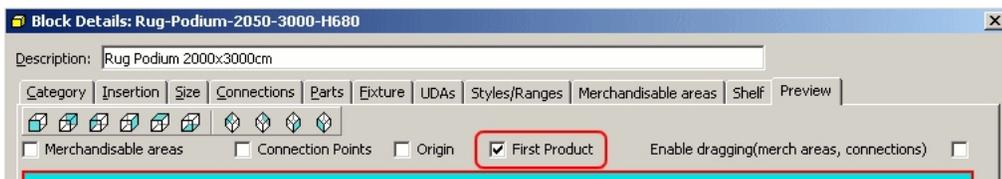
**Note:** The preview will be more responsive to movement if only one option is checked at a time.

---

### First Product Option

Checking the **First Product** option will result in the position of the first product to be placed on the fixture being shown.

**Figure 5–174 First Product option**



In the example below, the fixture has two merchandisable areas. Accordingly, the position of the first product in both merchandisable areas has been shown.

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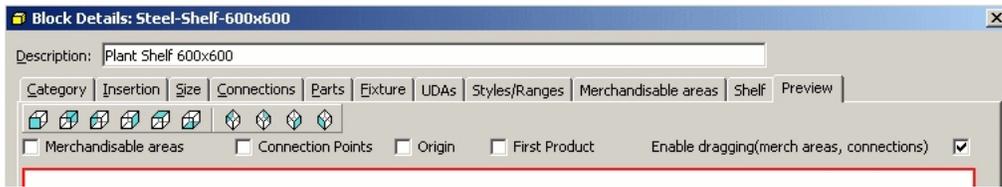
**Note:** The preview will be more responsive to movement if only one option is checked at a time.

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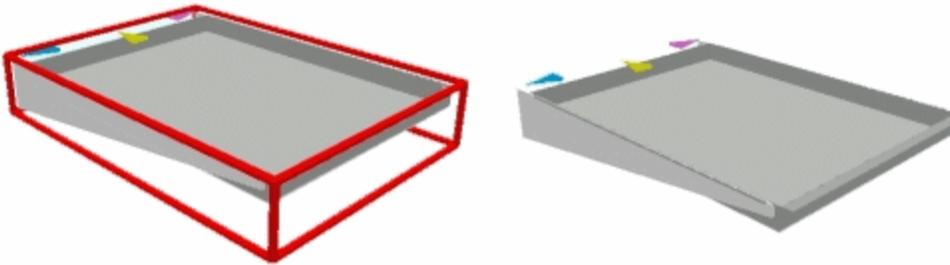
### Overview of Dragging Option

The **dragging option** allows users to manually change the positions of connection points or change the size and position of the merchandisable areas. The option is selected by ticking the Enable Dragging check box.

**Figure 5–175 Enable Dragging option**



Before any dragging operations can be carried out, the fixture must first be removed from its selection box by left clicking on it.



In the above example, the fixture on the left has a selection box, and the one on the right has it removed.

Once the selection box has been removed from the fixture, either merchandisable areas or connection points can be selected by left clicking on them.

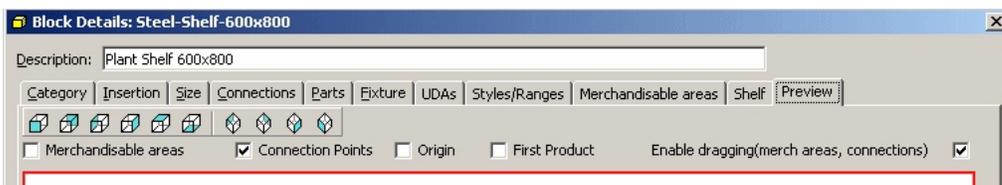


In the example above, the left hand connection point has been selected by left clicking on it and is now enclosed by a red selection box.

**Dragging or Rotating Connection Points**

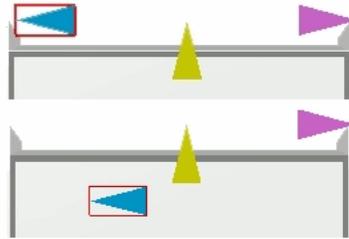
To drag a connection point, select a fixture that has had connection points assigned. Check the Connection Points and Enable Dragging check boxes.

**Figure 5–176 Drag Connection Points**



Ensure the fixture selection box is de-selected by left clicking on it (as per the fixture on the right).

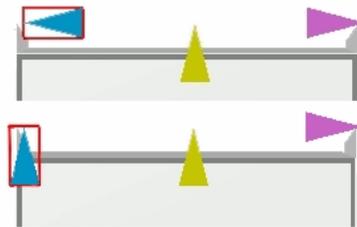
Select a connection point by left clicking on it. It will be enclosed in a red selection box. Move the mouse pointer over the selected connection point and hold down the left mouse key. The connection point can now be dragged to its new position.



**Rotating a connection point**

Select a connection point by left clicking on it. It will be enclosed in a red selection box. Move the mouse pointer over the selected connection point and hold down the right mouse key. The connection point can now be rotated to its new position.

**Figure 5–177 Connections Tab**

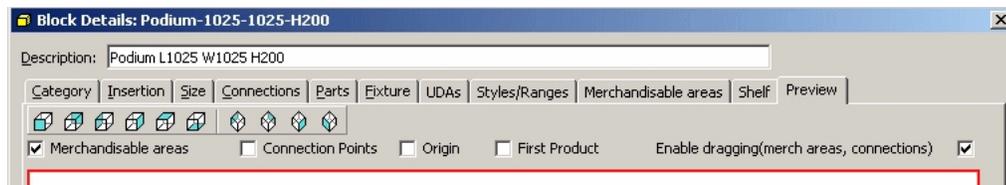


Changes made to connection points by dragging or rotating will be reflected in the Connections tab. Similarly, small changes in position can be made by changing the co-ordinates in the Connections tab, then confirming in the preview tab.

**Dragging Merchandisable Areas**

To drag a Merchandisable Area, select a fixture that has had one or more merchandisable areas assigned. Check the Merchandisable Areas and Enable Dragging check boxes.

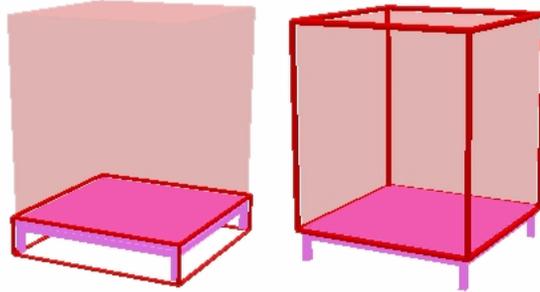
**Figure 5–178 Merchandising Areas - Drag**



Next ensure that the fixture is de-selected and the merchandisable area selected. This can be done by holding down the <Ctrl> key, then left clicking on the fixture to

de-select it. The merchandisable area can then be selected by holding down the <Ctrl> key, then left clicking on the merchandisable area to select it.

**Figure 5–179 Merchandising area - Select**

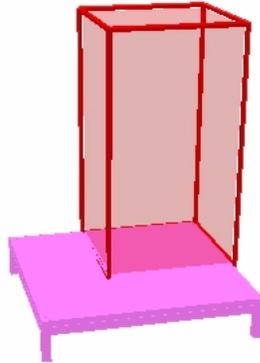


In the example above, the fixture is shown as selected on the left, while the merchandisable area is shown as selected on the right.

The merchandisable area can then be dragged by the mouse.

Move the mouse pointer over the merchandisable area and hold down the left mouse key. The merchandisable area can now be dragged to its new size.

**Figure 5–180 Merchandisable Areas Tab**

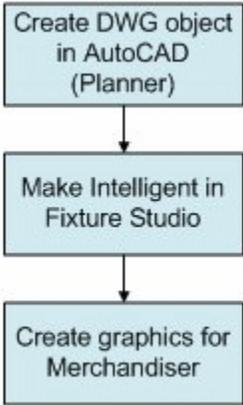


Changes made to merchandisable areas by dragging will be reflected in the Merchandisable Areas tab. Similarly, small changes in position can be made by changing the co-ordinates in the Merchandisable Areas tab, then confirming in the preview tab.

## Fixture Creation

### Basics of Block Creation

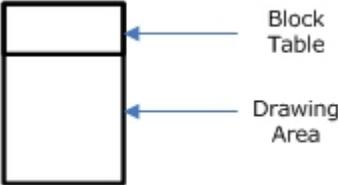
Blocks are created in three basic stages.



1. Firstly, a drawing of a fixture or fitting is created in Planner and turned into a block. This block is then saved to a specific directory within Macro Space Management.
2. The block is then imported into Fixture Studio and given properties beyond those that can be assigned to the basic block. These make the block 'intelligent' for retailing purposes.
3. Finally, additional graphics are produced that allow the block to be used in Merchandiser as well as the Planner environment.

**Creating a block in Planner**

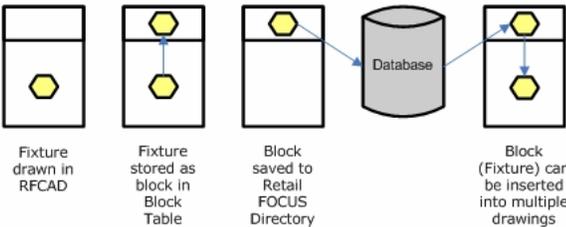
In order to create a block within Planner, the user must understand some basic concepts associated with block creation.



The drawing can be considered as being in two parts - a drawing area where you work and a block table where you store objects you have drawn. The drawing area is visible and the block table is not.

Creating a block in Planner goes through the following general stages:

**Figure 5-181 Creating Fixture in Planner**



The fixture is created within a Planner drawing. This may well be a complex set of polylines aligned together using the Move command. At this stage the fixture only exists locally in the drawing area.

**Store Fixture as Block in Block Table**

The collection of polylines making up the fixture is turned into a block stored in the block table. This operation turns the polylines into a single object. It also stores additional properties such as the insertion point.

This operation is carried out using the Planner 'Block' command. At this stage the block is still local in the drawing.

**Block Saved to a Directory in the Macro Space Management File Structure**

This operation converts the block from one that is only available locally in a single drawing, to one that can potentially be made available in all drawings within Macro Space Management.

This is done by means of the Planner 'Wblock' command and will result in the block (fixture) being stored in a directory within the Macro Space Management directory structure.

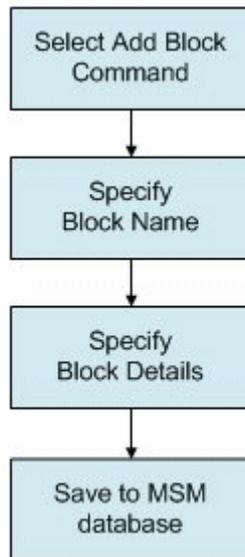
**Inserting the Block into Multiple Drawings**

Once the block is in the Macro Space Management directory structure it can be imported into Fixture Studio. After intelligent properties have been assigned to it, the block will appear in hierarchy within also object browser both Planner and Merchandiser environments.

This will make the block/fixture available in any drawing within the Macro Space Management environment.

**Importing a Block into Fixture Studio**

Importing a Block into Fixture Studio takes place in four broad stages.



- An appropriate Group in the fixture hierarchy is highlighted and the Add Block command selected.

- The block name is specified.
- The block details are specified using the block details dialog box.
- The block details are saved to the central Macro Space Management database, ensuring the block has 'intelligent' properties when used in the Planner or Merchandiser environments.

#### **Select Add Block Command**

This can be selected from either the menu bar, toolbar or right click pop-up menu. The block will be added to whichever fixture group is highlighted.

#### **Specify Block Name**

This has to be typed into the dialog box that will appear as a result of the add block command. It must be exactly the same as the block name that has been previously saved into the Macro Space Management directory structure by means of a Wblock command.

#### **Specify Block Details**

Once the block name has been entered, the block Details dialog box will appear. This contains a series of tabs that allow the varying types of 'intelligent' properties to be assigned. One tab for example allows Connection Points to be assigned, another the Merchandisable Areas.

#### **Save to Central Macro Space Management Database**

This results in all the assigned details being saved to the central Macro Space Management database.

#### **Producing Graphics for Merchandiser**

The *dwg* file imported into Fixture Studio serves as the graphic for the Planner environment. However, the Merchandiser environment requires a different form of graphic such as the 3DS files and Lightwave files.

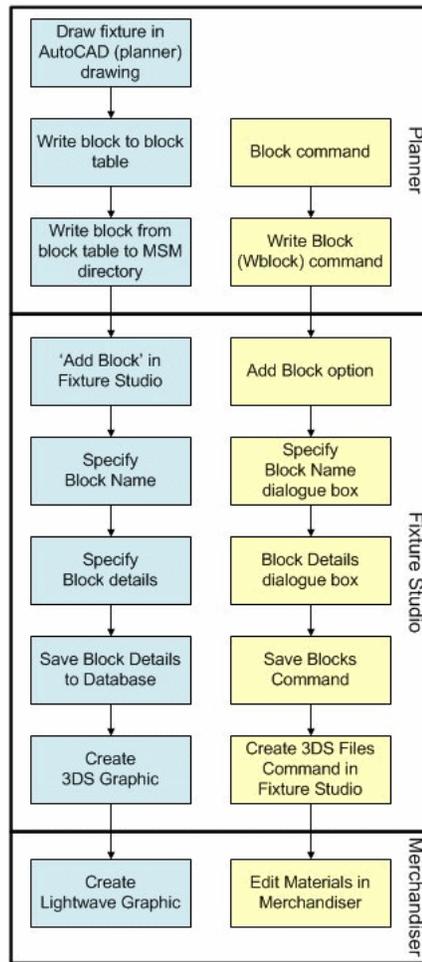
##### **3DS files**

These are files that can be generated from *dwg* files using a built in function in Planner. 3DS files provide basic 3 dimensional graphics.

##### **Lightwave Files (.lwo)**

These files can either be generated by a built in function in Merchandiser or via third party software capable of generating lightwave files. Lightwave files provide more realistic 3D graphics, but require more computer processing capacity.

## Creating a Fixture



The fixture is drawn in a Planner drawing. The block (fixture) is written to the block definitions table of the Planner drawing. The block is written from the block definitions table to a folder within the Planner directory structure. (This folder must be specified in the Configuration Module).

The Add Block command in Fixture Studio is invoked to start the process of adding the block to Macro Space Management and adding 'intelligent' detail. The name of the block is specified. The block details (intelligent properties) are specified in the Block Details dialog box.

The block details are saved to the central Macro Space Management database. A 3DS file is created for the graphics in the Merchandiser environment. If necessary a Lightwave Graphic is also created for the Merchandiser environment.

### Drawing in the Planner Environment

The beginning point for creating a fixture is to create a drawing within the AutoCAD environment.

The drawing should be dimensionally accurate and showing the level of detail required for display in the Macro Space Management Planner and Merchandiser environments.

### Turning the Drawing into a Block

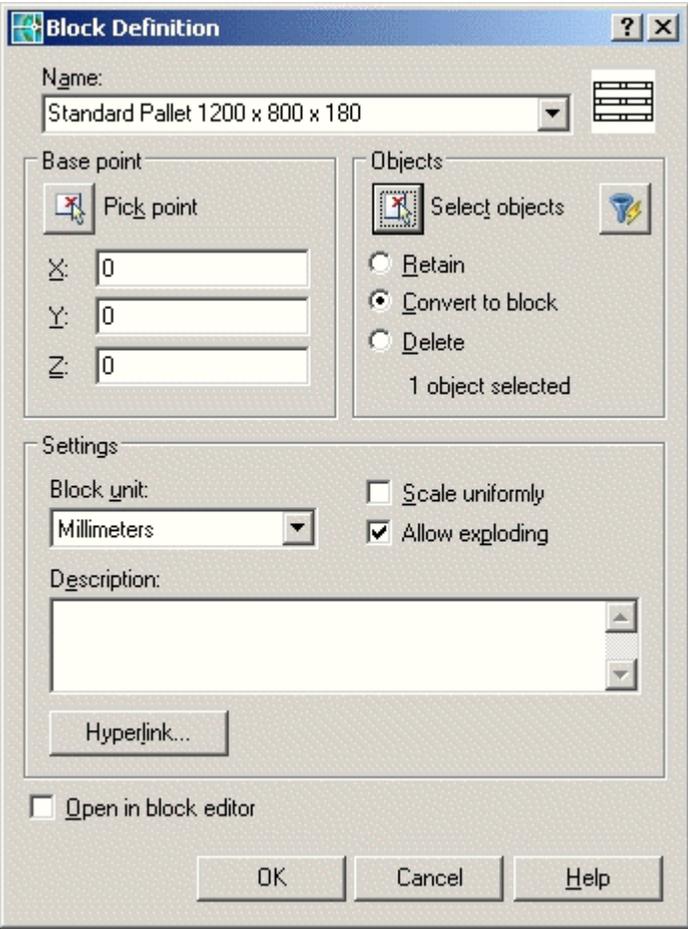
The Block command is used to turn a selected object in the drawing into a Planner Block by using the command line or the toolbar.

Figure 5-182 Block command



This brings up the Block Definition dialog box.

Figure 5-183 Block Definition dialog box



- 1. Type in a name for the block.

---

**Note:** Naming conventions should be used for blocks, for example [Purpose of block] - [Length] - [Width] - [Height]. This will make it easier to select the required fixture from the hierarchical trees in Fixture Studio and Merchandiser. It will also make it possible to define gondolas with multiple sizes.

---

2. Select the object in the drawing to turn into a block by clicking the Select Objects button in the Objects frame. The object can then be selected by left clicking twice to set a selection box and right clicking to complete the selection. The radio button should be set to **Convert to Block**.
3. Specify the Base Point by clicking the Pick Point button in the Base Point frame. This will take you to the drawing where the Base point can be specified by clicking on a point in the drawing of the object. It is recommended that the base point be the origin of the drawing (co-ordinates 0,0,0)

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**Note:** The insertion point defined in Macro Space Management will reference this Base Point. It is strongly recommended that users pick a consistent Base Point - for example left, bottom, rear. If inconsistent base points are selected, it is probable that there will be alignment and adjacency calculation problems when the blocks are inserted into the various Macro Space Management environments.

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The base point should also be specified with X, Y, Z coordinates of 0, 0, 0. If coordinates other than these are specified, the object will be inserted into the various Macro Space Management environments using these coordinates as an offset from the insertion point.

4. Set other parameters such as the block units to an appropriate unit, for example inches or millimeters. This unit should be kept consistent for blocks intended for a specific database. The Allow Exploding option should be checked for all drawings that have been made by combining two or more parts together into a composite drawing.

### **Making the Block Universally Available**

The WBLOCK command (used on the command line) is used to save blocks local to a drawing to a specified file location so they can be used in any drawing. Until this is done the block can only be used in the drawing in which it was created.

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**Note:** The directory the block is saved to must be specified in the Configuration module

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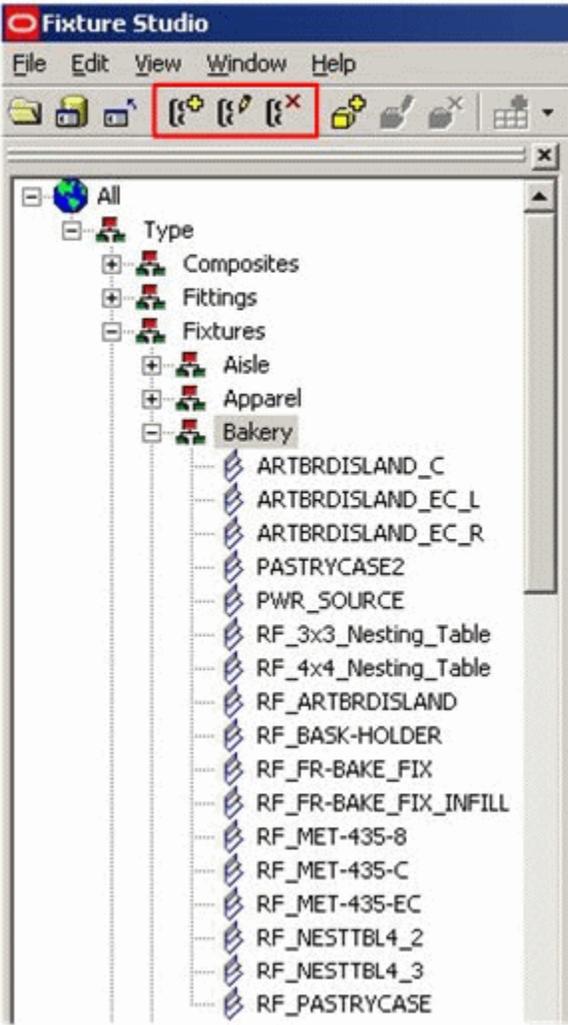


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## **Using Groups within Fixture Studio**

It is possible to create a hierarchy within Fixture Studio to organize and store the various blocks. This hierarchical tree also appears in the Object Browser in the Planner and Merchandiser modules.

Figure 5-184 Fixture Studio - Create Hierarchy

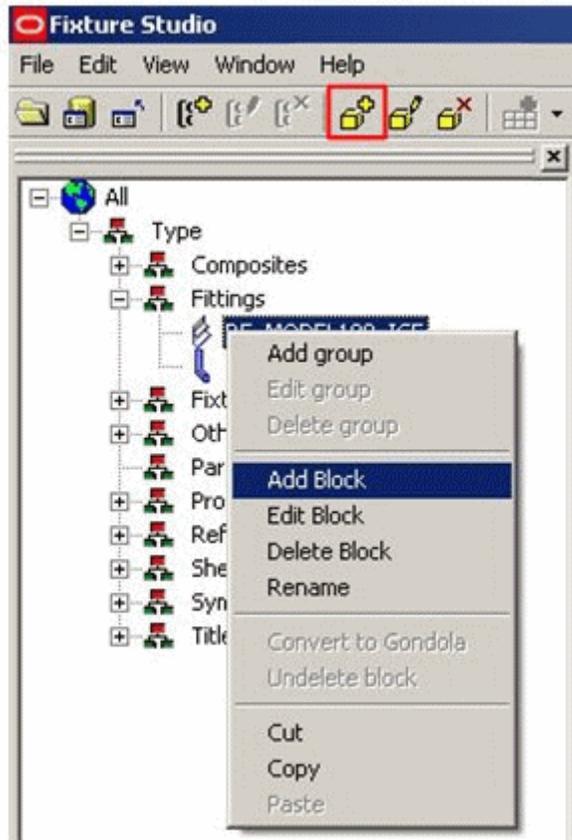


It is recommended that a logical hierarchy is created and maintained to minimize the time it takes to identify and select equipment.

**Adding a block to Fixture Studio**

To add a block to Fixture Studio, click on the required Group to highlight it. Right click to bring up the pop-up menu and select Add Block. Alternatively, click the **Add Block** icon on the toolbar.

Figure 5–185 Fixture Studio - Add Block



This will bring up the Add Block Name dialog box.

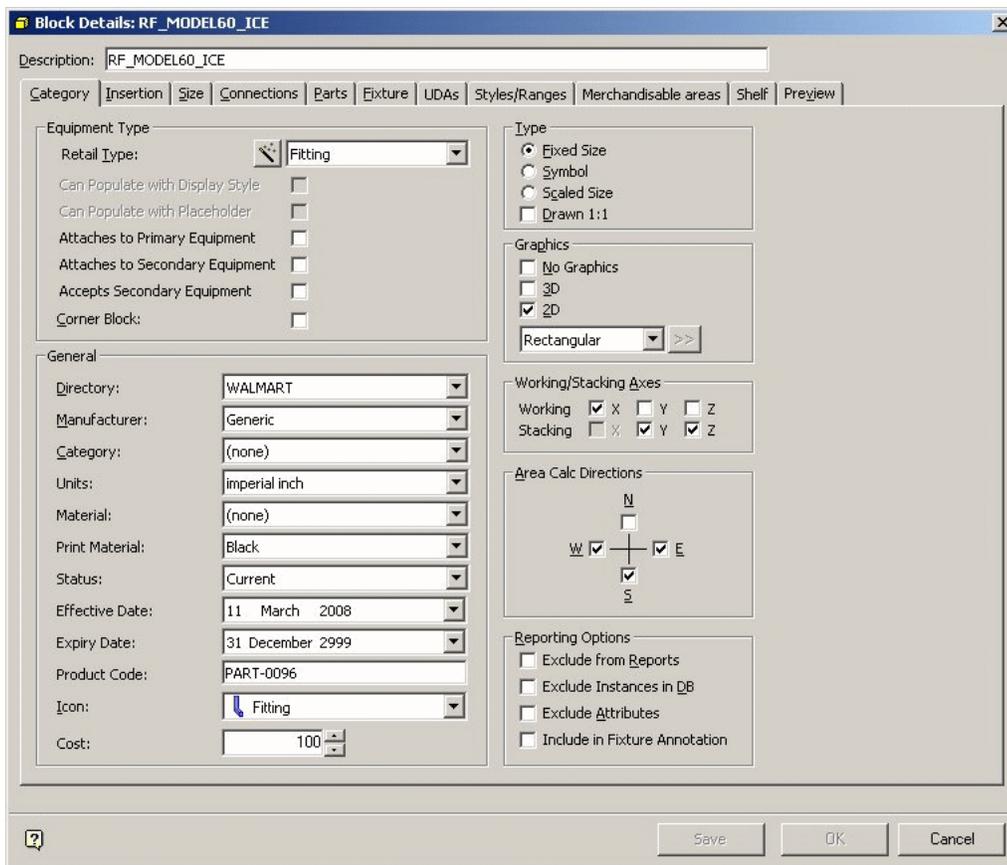



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**Note:** This name must be exactly the same name as the corresponding AutoCAD block. The block must also be in the currently active AutoCAD drawing.

---

On clicking OK, the Block Details dialog box will become active.



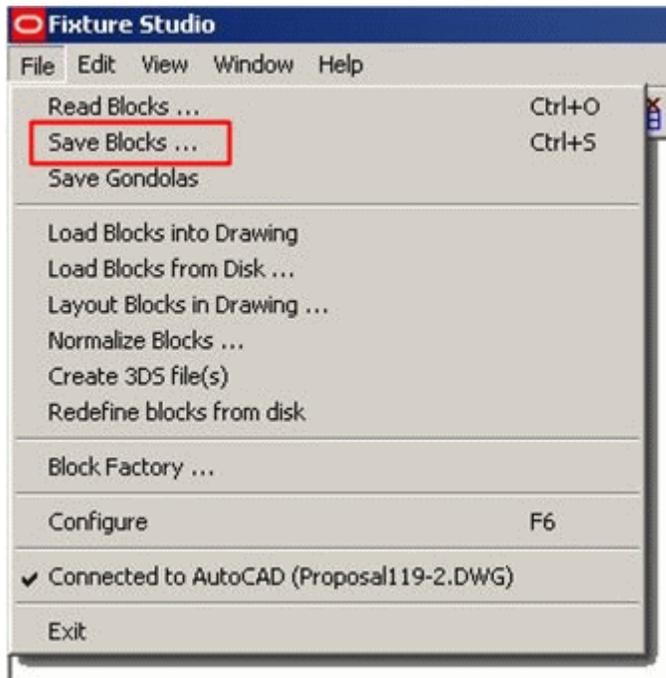
The dialog box contains a number of tabs. Each of these tabs allows you to configure intelligent properties on the block. Set the parameters within the tabs are required and click **OK**. The block details are now stored within Fixture Studio, but need to be saved back to the central Macro Space Management database.

### Saving Block Details back to the Central Database

Blocks that have not been saved back to the central database have an ID that has a negative value.

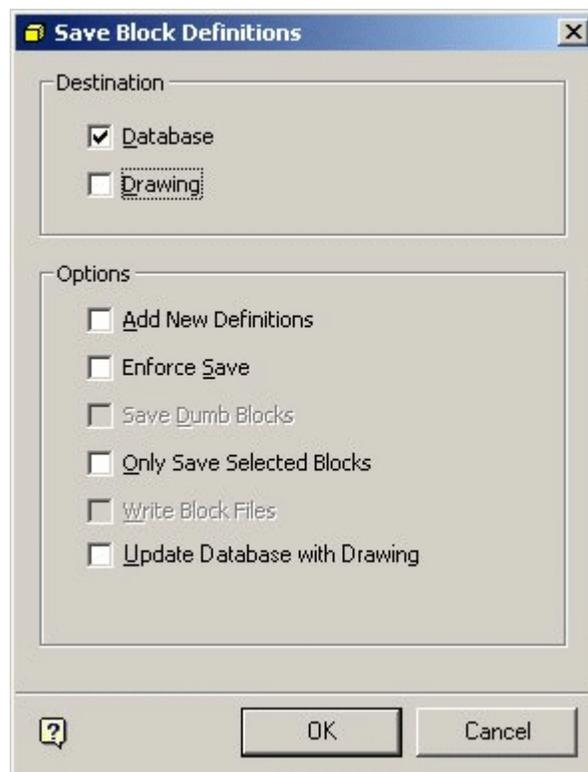
In the example above, the Standard Wooden Pallet has an ID of -1. Other blocks requiring saving would have other negative IDs. To save the block(s) to the central database select the **Save Blocks** option from the File menu. Alternatively use <Ctrl> + S.

**Figure 5–186 Fixture Studio - Save Blocks**



This brings up the Save Block Definitions Dialogue Box

**Figure 5–187 Save Block Definitions Dialogue Box**



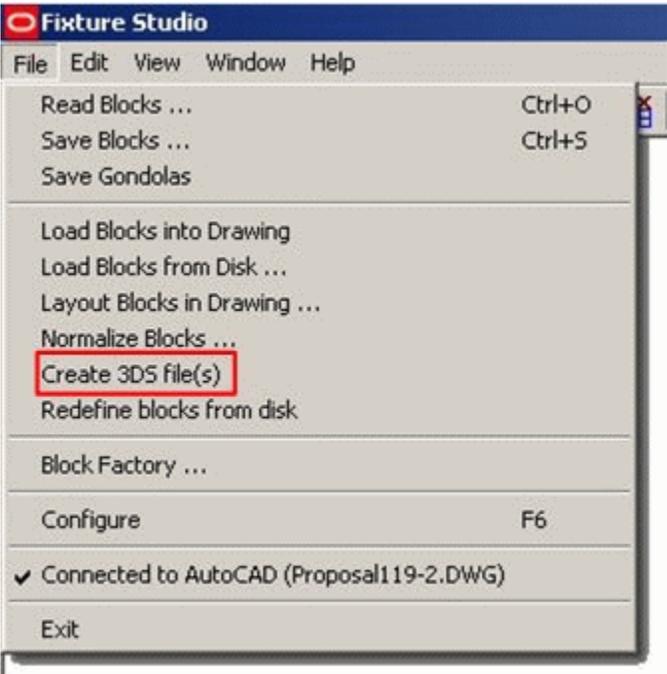
Check the **Database**, **Add New Definitions** and **Enforce Save** options. All blocks are then saved back to the database.

The newly created block is assigned an ID number and the yellow cube in the first column indicates it has been successfully saved.

**Creating a 3DS Object**

3D Studio Object (.3DS Object) is an alternative graphics file type to the DWG file used in the Macro Space Management CAD environment. 3DS Files are used in the Merchandiser environment. Highlight the fixtures for which 3DS objects are required. To create a 3DS object select the **Create 3DS File(s)** option from the File menu.

**Figure 5-188** Fixture Studio - Create 3DS File



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**Note:** Fixture studio must be connected to AutoCAD for this option to be available.

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A confirmatory dialog box appears confirming the 3DS Files have been created.

**Figure 5–189 Create 3DS file - Confirm**

### Creating Lightwave Graphics

Lightwave Graphics can be created in Merchandiser. Lightwave graphics can display higher levels of detail than 3DS graphics, but will consequently slow processing of information when moving around the Virtual Reality Store.

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**Note:** Lightwave graphics are beyond the scope of this Help File and will not be discussed further here.

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## Gondolas

Gondolas are assemblies of similar fixtures and fittings that are aligned to each other in a precise spatial relationship. Their building blocks are the fixtures and fittings that have been defined in Fixture Studio. Gondolas are made up of repeating units called bays.

A gondola consists of one or more bays. Each bay contains a specific arrangement of fixtures and fittings. A bay could be as simple as a simple fixture, for example a Freezer unit. Equally, a bay could be made up of a back panel, base, and upright.

Bays can be repeated any number of times specified by the user. If the user specifies 6 bays when the gondola is added to a drawing, then six examples of that bay will be placed, each at a specific distance from the previous instance. This assembly of fixtures and fittings can be added to, edited in and deleted from the Macro Space Management Planner or Merchandiser environments in a single operation; thus saving time over the alternative option of manipulating individual components.

### Basic Steps in Gondola Creation

There are a number of basic steps to gondola creation. Some of these steps must be taken at the time the database is first created; for example deciding on a naming convention.

To create a gondola, follow the below mentioned steps:

1. Decide on and implement a naming convention.
2. Import the blocks into Fixture studio. Ensure Insertion points are consistently located.
3. Assign Gondola Part Types.
4. Assign Gondola Sizes.

5. Define Gondola:
  - a. Define name, main length and maximum bays.
  - b. Select and assign dimensions.
  - c. Specify the list of parts.
  - d. Define the part details.
  - e. Define the part size position and rotation.

### Naming Conventions

Naming conventions are vital to the efficient operation of Macro Space Management. They must be decided upon before any blocks are imported into Fixture Studio.

Lack of a naming convention will result in users spending large amounts of time creating dozens (if not hundreds) of gondolas that could have been defined far more efficiently using a naming convention. A naming convention is a pre-thought out and logical way of assigning block names.

If you give blocks names like Widget-187567 and Gizmo-ADRTYN, it is not obvious what the blocks are, or what their dimensions are. With a well thought out naming convention, identifying gondolas is simpler.

In the above example, there are three types of block; Back Panels, L shaped uprights and T shaped uprights. The back panels have widths of 600 and 900 mm, and that they have heights of 1400, 1600, 2500 and 2900 mm. Similarly both the L and T shaped uprights come in four heights; 1400, 1600, 2500 and 2900 mm.

Widget-187567 might well be a back panel of width 600 mm and height 2500 mm, but it may not be clear from the block name. Naming conventions are of the general form:

Prefix-parameter-parameter-parameter-suffix

These can be any combination of numbers and letters, together with several separating characters. The separating characters can be either a '-', '\_' or an 'x', so each of the naming conventions below are equally valid:

Prefix-Parameter-Parameter-Parameter-Suffix

Prefix-ParameterxParameterxParameter-Suffix

Prefix\_ParameterxParameterxParameterxSuffix

However, the use of naming conventions must be consistent. Naming blocks with a mixture of '-', '\_' or 'x' will lead to errors. For example you will have problems if you name blocks as in the example below:

Backpanel-600-1400

Backpanel-600x1600

This is because Macro Space Management expects to find the same separating character for blocks within a naming convention. When the program draws a gondola, if it expects to see:

Prefix-Width-Height

And some of the blocks are named:

Prefix-WidthxHeight

It will find blocks with name like Backpanel-600-1400 because these are in the expected form. It will fail to find blocks with names like Prefix-widthxheight because there is an 'x' present where Macro Space Management expected to find a '-'.

Similarly you must avoid wrong spellings. If you name a block Backpanal-600-1400 rather than Backpanel-600-1400, Macro Space Management will fail to find the block because of the wrong spelling.

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**Note:** Always check naming conventions for errors. If you have made an error when naming the block, Macro Space Management will not find it when drawing the gondola.

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### Examples of Naming Conventions

The examples below are all valid examples of naming conventions:

#### **Example 5-6 Prefix-Size**

Leg-1500  
Leg-2000  
Leg-2500

#### **Example 5-7 Prefix-WidthxHeight**

Backpanel-600x1500  
Backpanel-900x1500  
Backpanel-1200x1500

#### **Example 5-8 Prefix-Width-Depth-Height**

FreezerUnit-600-800-300  
FreezerUnit-600-800-400  
FreezerUnit-600-1000-500

#### **Example 5-9 Prefix-Width-Depth-Height-Suffix**

FreezerUnit-600-800-300-Lozier  
FreezerUnit-600-800-400-Lozier  
FreezerUnit-600-1000-500-Lozier  
FreezerUnit-600-800-300-Hoffmann  
FreezerUnit-600-800-500-Hoffmann  
FreezerUnit-600-1000-500-Hoffman

#### **Example 5-10 Prefix-Size**

Podium-Small  
Podium-Medium  
Podium-Large

In general naming conventions should be specified such that the block name provides all the information required.

#### **Prefix-Width-Depth-Height-Suffix**

Block names of the form allows defining gondolas so that at the time of addition into the Planner or Merchandiser environments you can choose the:

- Specific type - for example Freezer Units
- Specific width - for example 600, 800 and 1000 mm
- Specific depth - for example 800, 1000 and 1200 mm
- Specific height - for example 400, 500 and 600 mm
- Manufacturer - for example Lozier

**Tip:** One well thought out gondola definition could allow you to place dozens of different variants of that gondola in Planner or Merchandiser.

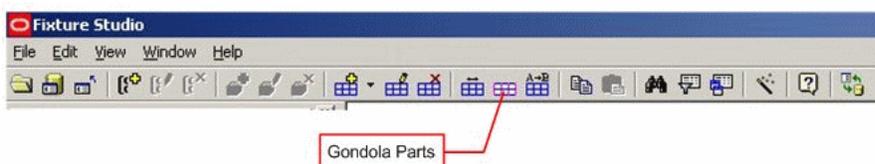
### Gondola Parts

Gondolas can be considered to be made up from a number of components. Looked at from above the gondola might have Side Bays, Back Bays, a Start Cap and an End Cap.

Looked at from the side, the bay might have two levels.

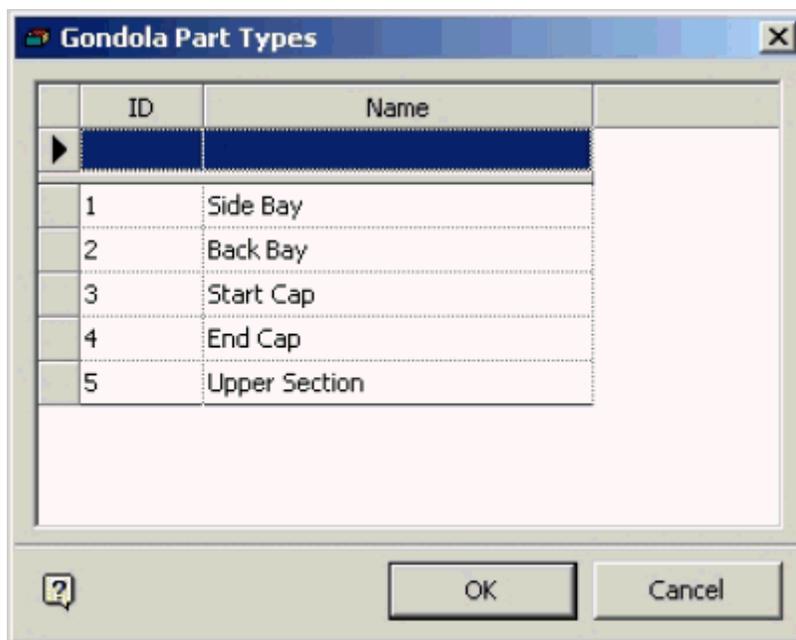
The base section might be a freezer unit, while the upper section might be shelving holding condiments. These sections can be defined as generic types in the Gondola Parts dialog box. This is accessed from the Gondola Parts icon on the toolbar.

**Figure 5–190** Fixture Studio - Gondola Parts



This brings up the Gondola Parts dialog box.

**Figure 5–191** Gondola Parts dialog box

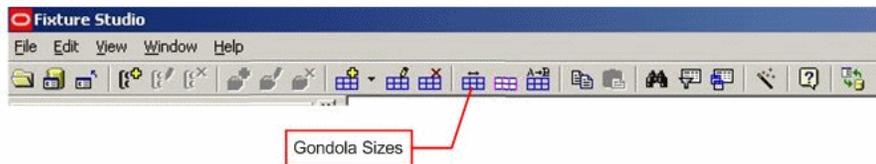


Individual components of a gondola are assigned to a Gondola part. For instance a Side Bay might contain a Base Unit, Upright and Back Panel. If you then decide to manipulate that bay (for example moving or deleting it) the application applies that operation to all the components of the bay.

## Assigning Gondola Sizes

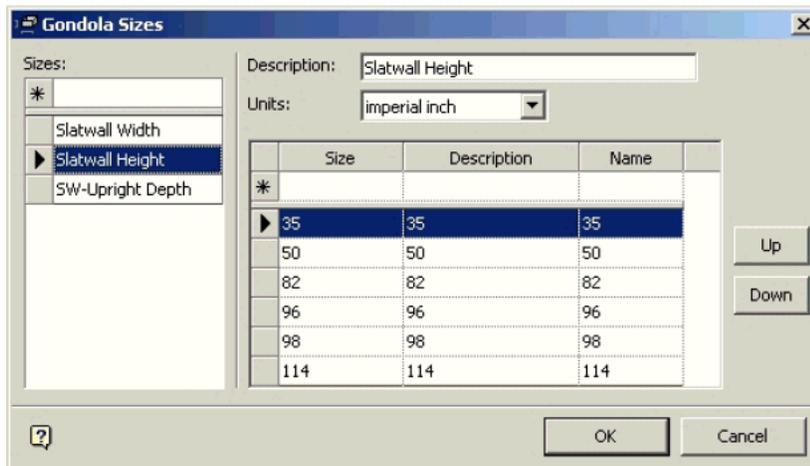
When placing a gondola, you can only place it in permitted sizes. For example, a manufacturer might only make freezer units in widths of 600, 800 and 1000 mm, depths of 500, 600 and 700 mm and heights of 600 and 750 mm. These sizes are assigned in the Gondola Sizes dialog box. This is accessed by clicking on the Gondola Sizes icon on the toolbar.

**Figure 5–192 Fixture Studio - Gondola Sizes**



This brings up the Gondola Sizes dialog box.

**Figure 5–193 Gondola Sizes dialog box**



Here, names can be assigned to specific sizes within the gondola, and then a specific list of dimensions assigned to that size. In the above example the Size 'Slatwall Height' has been assigned the dimensions 35, 50, 82, 96, 98 and 114 inches. Only these sizes will be available in the Add Gondola dialog box if a gondola containing this component is placed in a drawing.

Ensure to:

1. Select Size names that will be unique to the dimensions being referenced

Backpanel Height has been used rather than Height. This is because we only want dimensions pertinent to the Back Panels; 1400, 1600, 2500 and 2900 mm

If we had a more general Heights size it might also contain heights of 1800, 2000, 2100, 2300 and 3500 mm. As these sizes will not be used for this specific gondola, but would be available in the Add Gondola dialog box, they would only lead to errors when the gondola is placed in a drawing. (The software will search for non-existent block names).

These may be appropriate to other fixtures, but they are not related to the Back Panel heights. This would lead to serious problems when adding a gondola to a drawing.

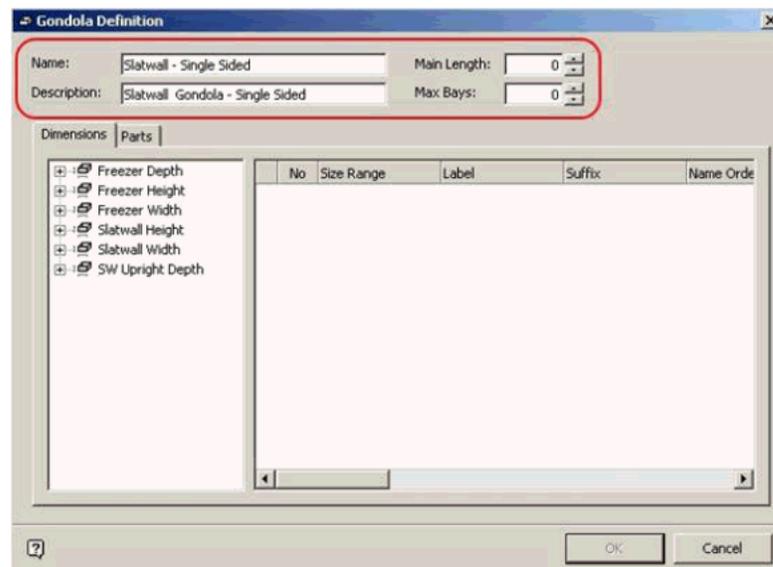
## 2. Specify only the dimensions required.

The Backpanels have heights of 1400, 1600, 2500 and 2900 mm. These are the only dimensions that should be entered as Backpanel dimensions. If we enter a Backpanel height of 2000 mm, the user will be presented with this as a size option when adding a gondola to the drawing. Because there is not a Backpanel 2000 mm high, drawing the gondola will fail.

## Defining the Name, Main Length and Max Bays

The gondola name can be defined in the Gondola Definitions dialog box.

**Figure 5–194** Gondola Definitions dialog box



The **Name** must be unique so that it can be identified in the central Macro Space Management database. For example, if you were adding sizes appropriate to Lozier equipment you may add: Lozier Height, Lozier Width, Lozier Depth

The **Description** can be used to give more information as to the gondola definition if desired. The **Description** appears in the Add Gondola dialog box when gondolas are added to the drawing. For example, you can change the descriptions to 1400 mm, 1600 mm, etc., if this would make it easier for the person placing gondolas.

**Main Length:** If set to 0 then the main length is set automatically based on the naming conventions selected. If only a single size of block is to be specified, then the dimension can be entered manually in the Main Length text box.

**MaxBays:** If set to 0, then any number of bays can be specified. If set to a positive number, this will limit the number of bays that can be placed when the gondola is added to a drawing.

## Specifying and Assigning Dimensions

When placing a gondola, you can specify dimensions that are applicable to that gondola. You can specify the permissible sizes in the Gondola Sizes dialog box.

These sizes are available in the Gondola definitions dialog box when the gondola is added to a drawing. With the Sizes defined you can select the required sizes from the options on the left of the Dimensions tab (outlined in red).

Each dimension specified has to have a series of other parameters set including:

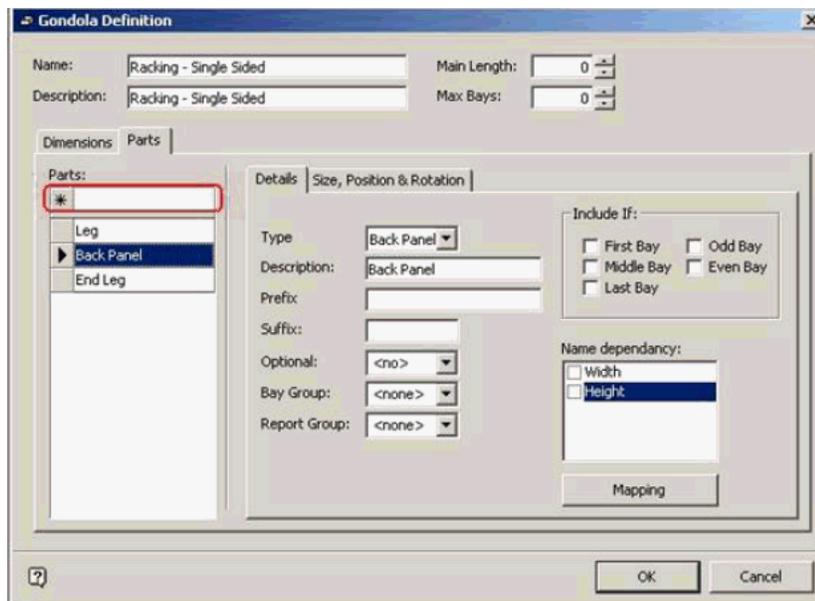
- Label
- Suffix
- Name Order
- Main Dimension

These are in the section outlined in blue.

### Defining the Part Details

The gondola is made up of a series of parts. These are defined generically (for example Freezer Units or Back Panels). The parts are first named on the left hand side of the parts tab (outlined in red) then details are entered on the right hand side of the parts tab (outlined in blue).

**Figure 5–195 Gondola Definition - Parts Tab**



### Entering Part Names

Part names are entered by typing them into the text box marked with an asterisk then pressing return. Part names are for the convenience of the user, so should be selected for ease of use.

### Entering Part Details

The part details serve three main purposes:

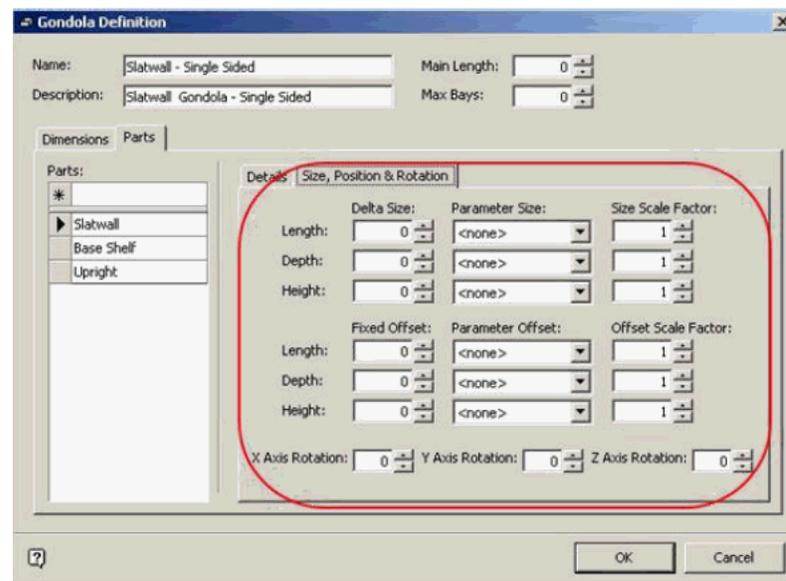
- They allow Macro Space Management to select the correct block when the gondola is drawn using name dependencies.

- Setting the type allows you to group together the individual components of a bay. For example a side bay might contain an Upright, Base Unit and Back Panel.
- They allow you to specify which part of the gondola the part belongs to. For example a Start Cap would only belong to the First Bay and an End Cap would only belong to the Last Bay.

### Specifying Size, Position, and Rotation

A gondola can contain a wide variety of parts. These have to be orientated as to size relative to the length of the bay, position relative to base point of the bay, and rotation relative to the initial insertion position of the block. This information is entered in the Size, Position and Rotation tab.

**Figure 5–196** *Gondola Definition - Size, Position, and Rotation tab*



#### Size

Size might be required if the part to be added is some fraction of the dimensions of the bay. For example, if the bay is to contain two parts alongside each other, they could be specified as being half the width of the bay.

#### Position

A part might be offset relative to its insertion point in the bay. For example, if the gondola contains parts on two levels, parts on the upper level might be inserted at floor level, then require an offset in the vertical plane to put them in the correct position. Note that all offsets are relative to the un-rotated orientation of the block.

- Offsets in the X axis are relative to length
- Offsets in the Y axis are relative to depth
- Offsets in the Z axis are relative to height

#### Rotation

Blocks are inserted into the drawing with the front of the part facing down the drawing. However, some parts of the gondola (Start Caps, Back and End Caps) require

the front direction of the block to be changed so that it faces in the correct direction for that section of the gondola. Note that rotations are normally in the Z (Vertical) plane. It is unusual to rotate on the X or Y planes.

### Calculating the Block Sizes, Positions and Rotations

To understand how to calculate Sizes, Positions and Rotations, it is necessary to understand how gondolas are drawn when they are added to the drawing.

- When a gondola is specified in the Add Gondola dialog box, an imaginary base line is created in the drawing.
- This baseline has a series of equi-spaced base points drawn along it. Each base point serves as the datum point for a bay.
- The components of that bay are drawn relative to the base point in terms of size, position and rotation.

### Baselines and Base Points

When a gondola is added to a drawing, the number of bays required is specified. Each bay emanates from a specific base point. Each successive bay is offset by a specific distance from the previous base point. This results in Macro Space Management using an imaginary baseline to construct the gondola along.



### Insertion Points

Each block has an insertion point, shown as a blue square.

This is set in Fixture Studio and must be consistent for all blocks of the same type. For example all back panels must have their insertion point in one position, for example bottom, back, left. Similarly, all T uprights must have their insertion point in a consistent position. This might be bottom, middle, centre.

Note that the insertion point position has been selected to suit the geometry of the block.

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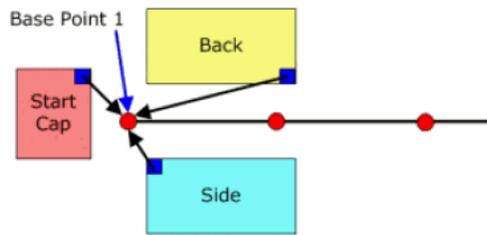
**Note:** The Insertion Point for any block can be seen in the Planner environment. Click on the block to select it, and the insertion point will appear as a blue square.

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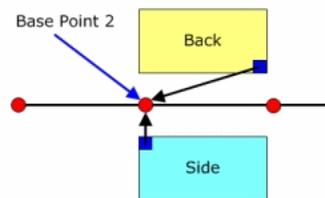
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### Alignment of Bays to Base Points

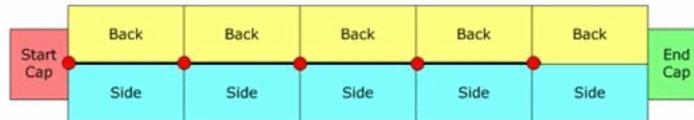
Gondolas are made up of bays and each bay is positioned relative to a specific base point.



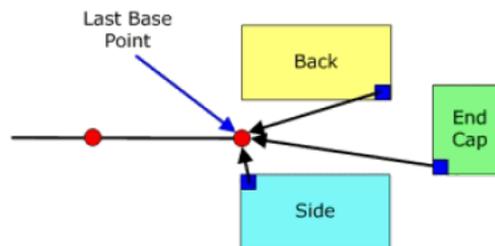
In the above example the Start Cap, the first Side Bay and the first Back Bay are all positioned relative to the first base point. Similarly, the second Side Bay and the second Back Bay are positioned relative to the second base point.



As successive bays are added, the full gondola is created.



Note how the End cap is still positioned relative to the last base point, although it is some distance from it.

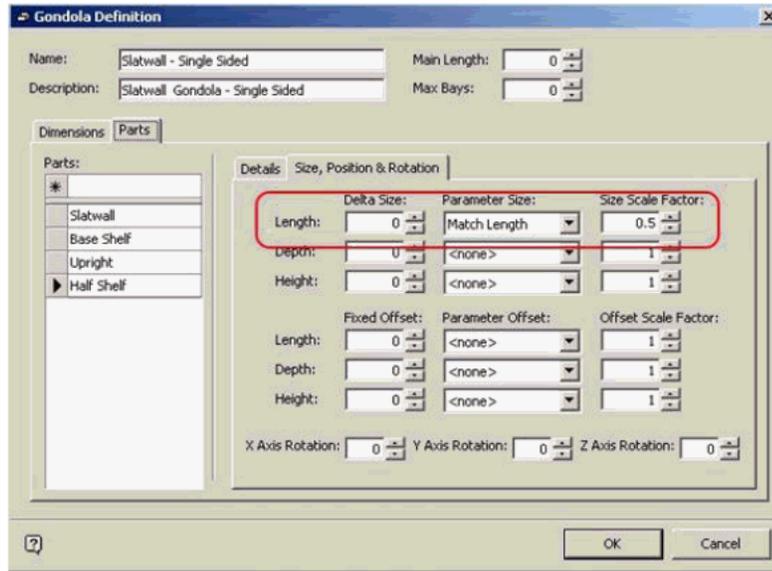


### Sizes of Gondola Parts

The distance between base points is determined by the main dimension of the gondola.

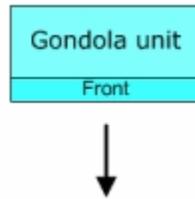
If a part to be used in the gondola is a fraction of the distance between base points, this can be specified in the Gondola Definition dialog box. For example, if you want to place a shelf half the length of the bay, you could specify the main dimension and use a size of half of it.

Figure 5-197 Gondola Definition dialog box

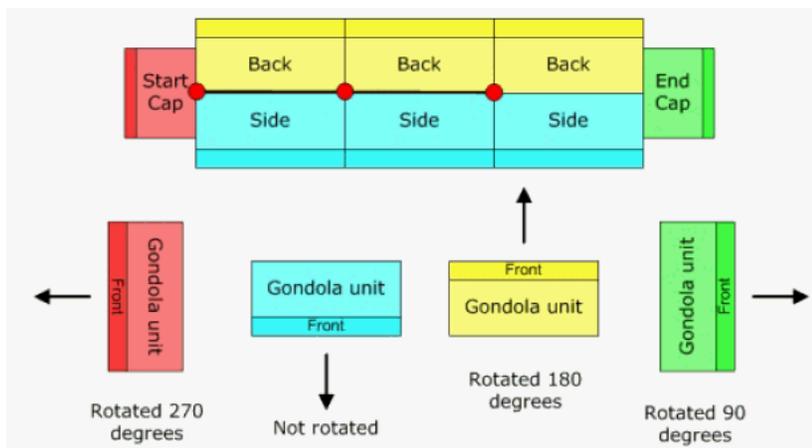


### Rotations Of Gondola Parts

All fixtures and fittings have a designated front direction. This is normally set to point down the drawing when they are inserted.



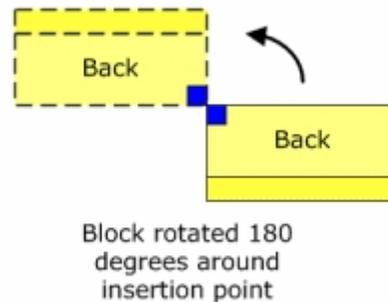
When a gondola is created, some of the parts (Start Cap, Back, and End Cap) need to have their components rotated so that the front of those parts is facing in the right direction when the gondola is drawn.



If you want to add a part to the End cap you can specify a 90 degree rotation in the Gondola Definition dialog box.

### Rotation and Offsetting of Gondola Parts

When a gondola component is rotated to get it into the correct orientation, it is rotated around its insertion point.



In the case of a component to be used for the back of the gondola, it is rotated through 180 degrees. Because it rotates around the insertion point its position changes. In the above example, you can see that the component to be used for the back of the gondola has been displaced to the left during the rotation.

You have to apply an offset to get it back into its intended position. These offsets will vary depending on which part of the gondola is being defined.

Note that all offsets are relative to the un-rotated orientation of the block.

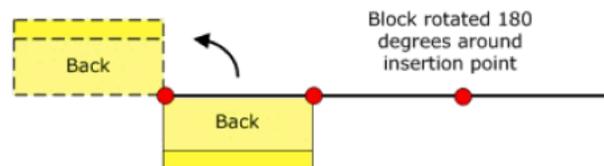
- Offsets in the X axis are relative to length
- Offsets in the Y axis are relative to depth
- Offsets in the Z axis are relative to height

#### Side

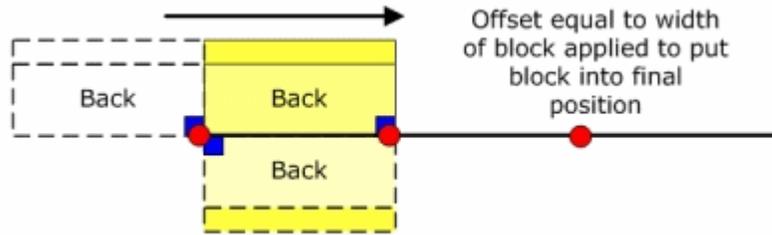
The sides of a gondola do not require any rotations or systematic offsets.

#### Back

The back of the gondola is rotated through 180 degrees to get the front facing in the correct direction.

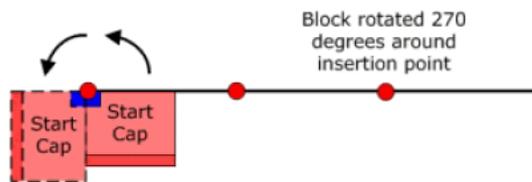


It then needs a positive offset equal to the width of the block.

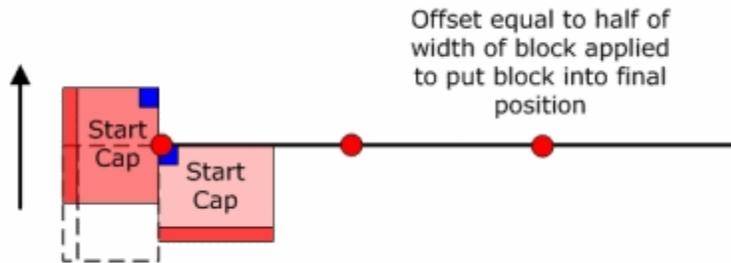


**Start Cap**

The Start Cap is rotated through 270 degrees to get the front facing in the correct direction.

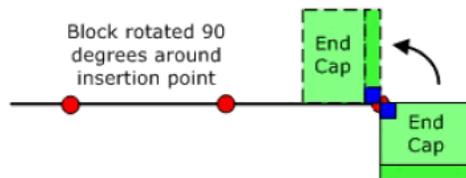


It then needs a positive offset equal to half of the width of the block.

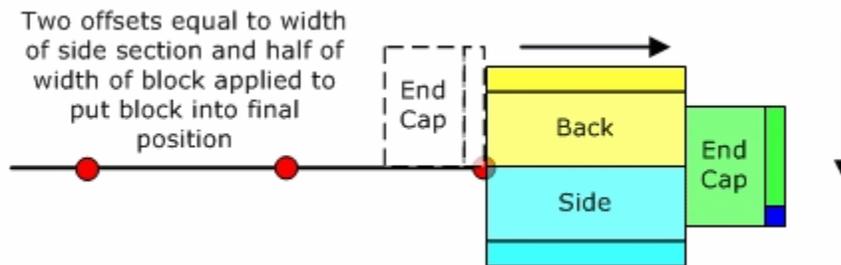


**End Cap**

The End Cap is rotated through 90 degrees to get the front facing in the correct direction.



It then requires two offsets to get it into the correct final position.



Firstly, it requires a positive offset equal to the width of the Side component of the gondola to move it to the right. Then it requires a negative offset of half its width to move it the correct distance down. (The negative offset is to move the block down, as opposed to up).

### Offsetting of Gondola Parts

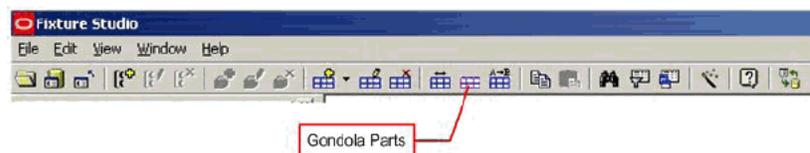
There are two reasons for offsetting gondola parts.

- § To correct the relative position once a part has been rotated. An example of this might be a freezer unit that has been rotated to form the back of a gondola.
- § To 'mate' parts within a bay. An example might be to get a Back Panel into correct alignment with its parent leg.

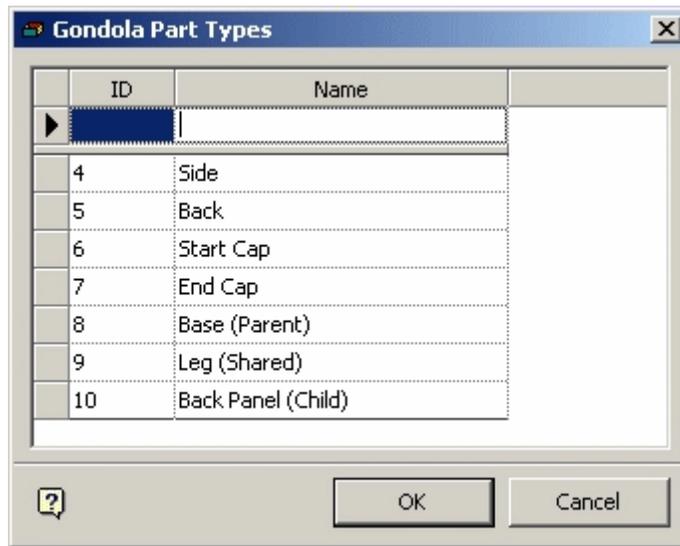
### Specifying Gondola Parts

The range of possible parts for a gondola is specified using the Gondola Parts Dialogue Box. This is accessed by clicking on the icon in the toolbar.

**Figure 5–198** *Gondola Parts*



This brings up the Gondola Parts dialog box.

**Figure 5–199 Gondola Parts dialog box**

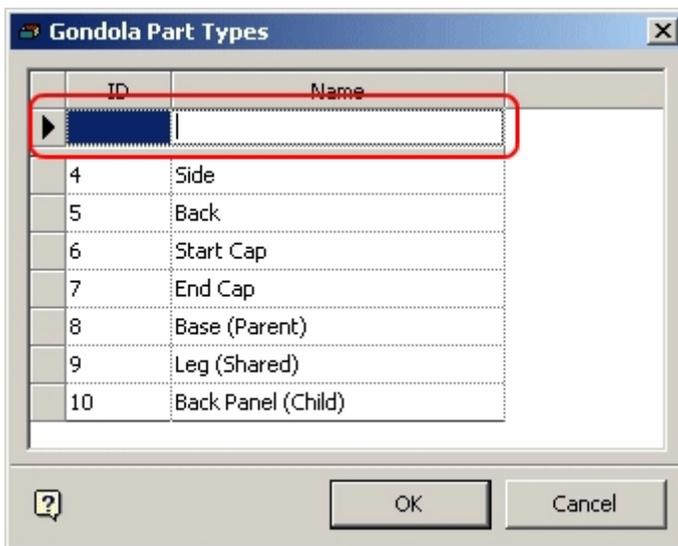
Parts assigned to a Part Type are deleted from a placed gondola when one of the parts in that section of the gondola is deleted. The List contains two classes of part types:

- Side, Back, Start Cap, and End Cap are part types where it is intended deleting one part should delete all the associated parts.
- Base, Leg, and Back Panel are part types where it is not desirable to delete all parts in the bay.

It is often helpful to put information in brackets after the part name. Base (Parent) indicates that any associated parts are deleted along with the base. Leg (Shared) indicated that the leg might be shared with 2 or 4 bays, and thus only the leg and not all components of the associated bays should be deleted.

### Entering Part Names

To enter a part name type it into the Name text box then press return.

**Figure 5–200 Gondola Parts Types dialog box**

The name appears in the list. Any data not yet stored to the central database will have a negative ID; for example -4.

### Defining the Gondola

Gondola definition is a slow, methodical process. It is recommended users use a checklist to make sure they carry out all the required actions.

An example of a checklist is as follows:

#### **Example 5–11 Block Preparation**

Is the naming convention used for the blocks correct?  
 Are the positions of the Insertion points understood?  
 Are the dimensions of the blocks known?

#### **Example 5–12 Size and Part Preparation**

Has a specific list of sizes for the Gondola been defined in the Gondola Size dialog?  
 Are all the required parts in the Gondola Parts dialog?

#### **Example 5–13 Basic Parameters**

Have the Gondola Name and Definition been defined?  
 Has the main dimension been defined if required?  
 Has the maximum number of bays been defined if required?

#### **Example 5–14 Dimensions**

Have the required dimensions been selected from the list?  
 Has the main dimension been set to True?

#### **Example 5–15 For each dimension:**

Has the Label been set?  
 Has the Suffix been set?  
 Has the Name Order been set?

**Example 5–16 Parts**

For each part of the gondola have the following details been set?

- Type
- Description
- Prefix
- Suffix (if required)
- Optional (end caps, etc.)
- Bay Group
- Report Group
- Include If (Bays required)
- Name Dependency

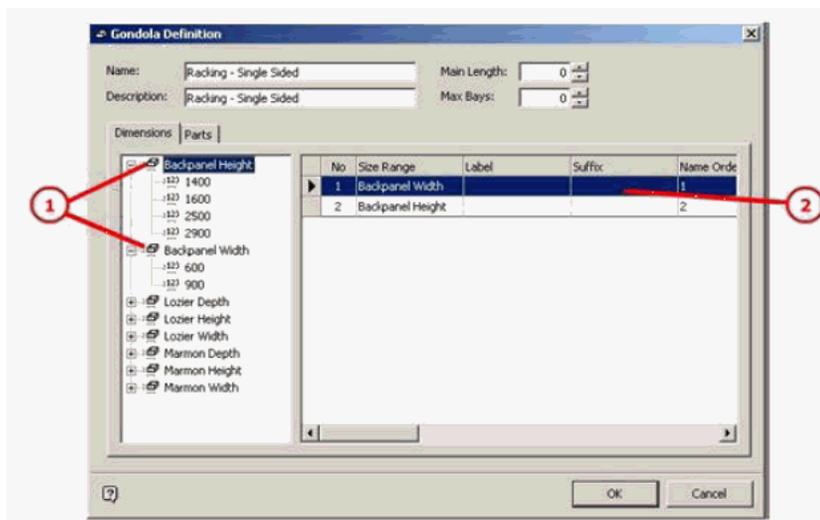
For each part of the gondola have the following positional parameters been set?

- Size (Delta size, Parameter Size, Size Scale Factor if required)
- Offset (Fixed Offset, Parameter Offset, Offset Scale Factor if required)
- Rotations (normally in Z axis)

**Overview of Defining Dimensions**

The dimensions are set in the dimensions tab of the Gondola Definitions dialog box.

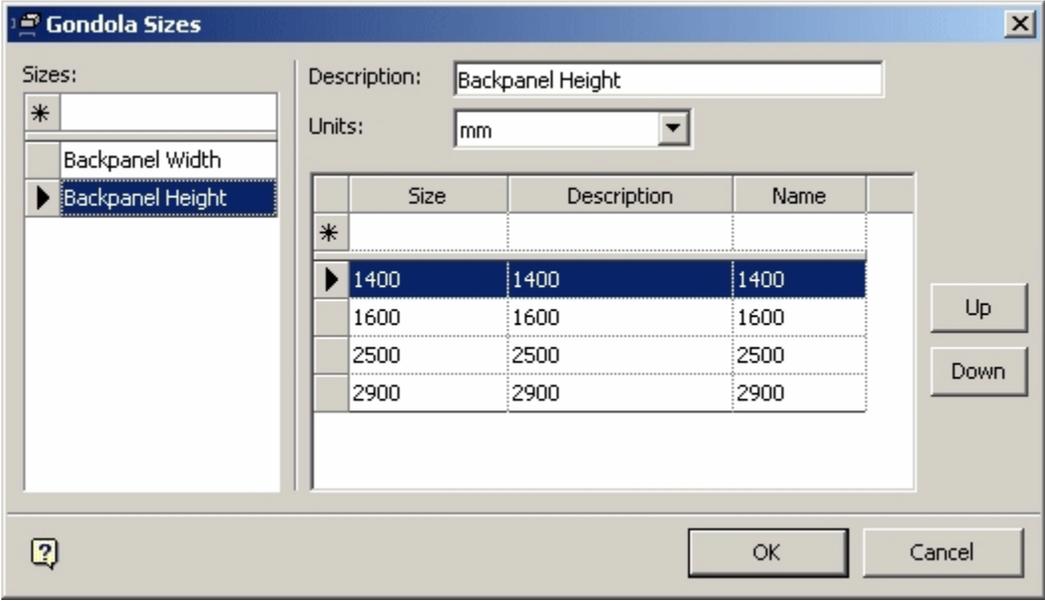
**Figure 5–201 Defining Dimensions**



The required dimensions (1) are selected from the list of available dimensions. This is done by double clicking on them so they appear in the list of selected dimensions (2) on the right.

**Note:** Only Backpanel Height and Backpanel Width were selected from the available options. These two options contain all the dimensions required for this gondola. Note that you have to fill in information in the list of Selected Dimensions (2) on the right.

Figure 5-202 Gondola Sizes



**Note:** The sizes are defined in the Gondola sizes dialog box.

Once the dimensions have been selected, they have to be customized. This is done on the right hand side of the dimensions tab.

	1	2	3	4	5	6
	No	Size Range ▾	Label	Suffix	Name Order	Main
▶	1	Backpanel Width	Width	-	1	True
	2	Backpanel Height	Height		2	False

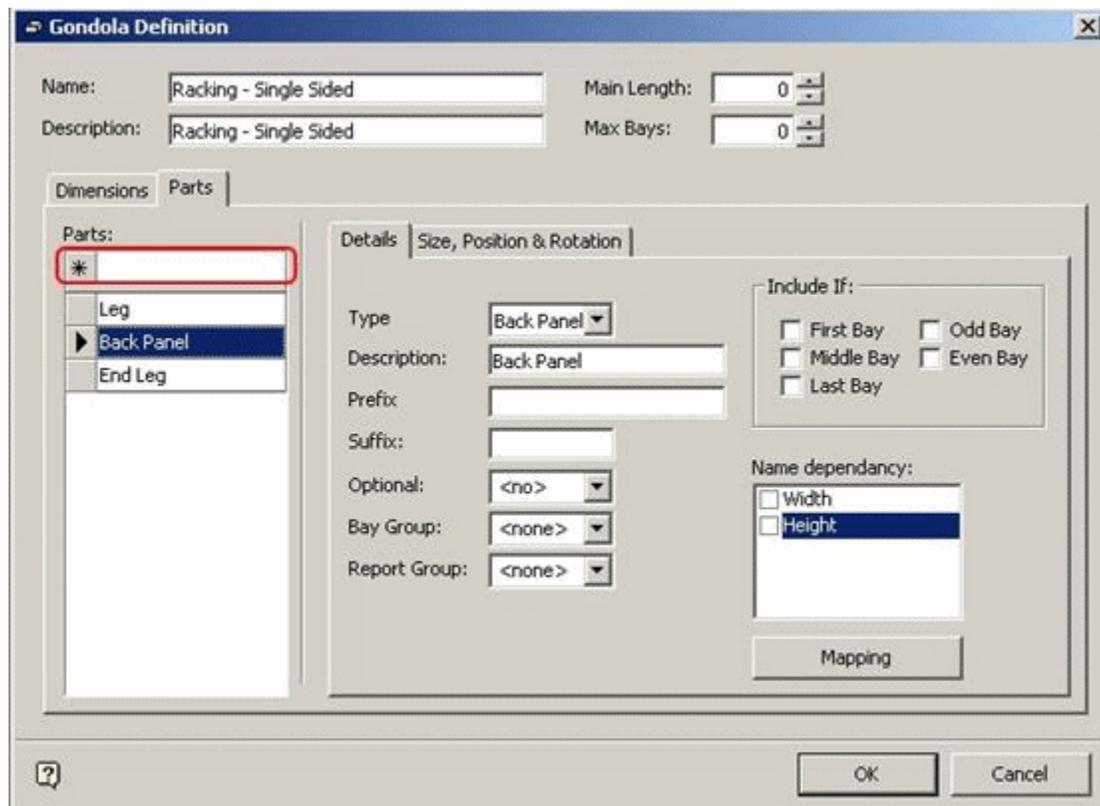


- **Number (1)** is a parameter set by the software when the dimension is selected from the pane on the left.
- **SizeRange(2)** is the name of the dimension; this is selected by double clicking on the available dimensions in the left hand pane.
- **Label (3)** is the name that is given to that dimension in the Add Gondola dialog box. This can be entered by typing it in and pressing <Enter>.
- **Suffix (4)** is associated with the naming convention. It indicates the separating character between the different parts of the naming convention. If the parts to be used have the naming convention Prefix-Width-Height then the width will require a suffix of - to match that present in the naming convention. The height will not require a suffix as it does not have one in the naming convention. Suffixes are entered by typing it in and pressing <Enter>.
- **Name Order (5)** represents the sequence the dimensions appear in the naming convention. If you are using a naming convention of Prefix-Width-Depth-Height then width would be given name order 1, depth name order 2 and height name order 3. Name Orders are entered by typing it in and pressing <Enter>.
- **Main(6)** indicates the dimension to be used to set the basic measurements of the bays in the gondola. One of the dimensions must be set to True by typing it in and pressing <Enter>.

### Defining the Gondola - Basic Parts

The next stage is to define the list of parts that will make up the gondola. This is done in the Parts tab.

Figure 5-203 Gondola Definition - Parts tab



Type the required name in the Parts text box and press return. For this gondola you will require:

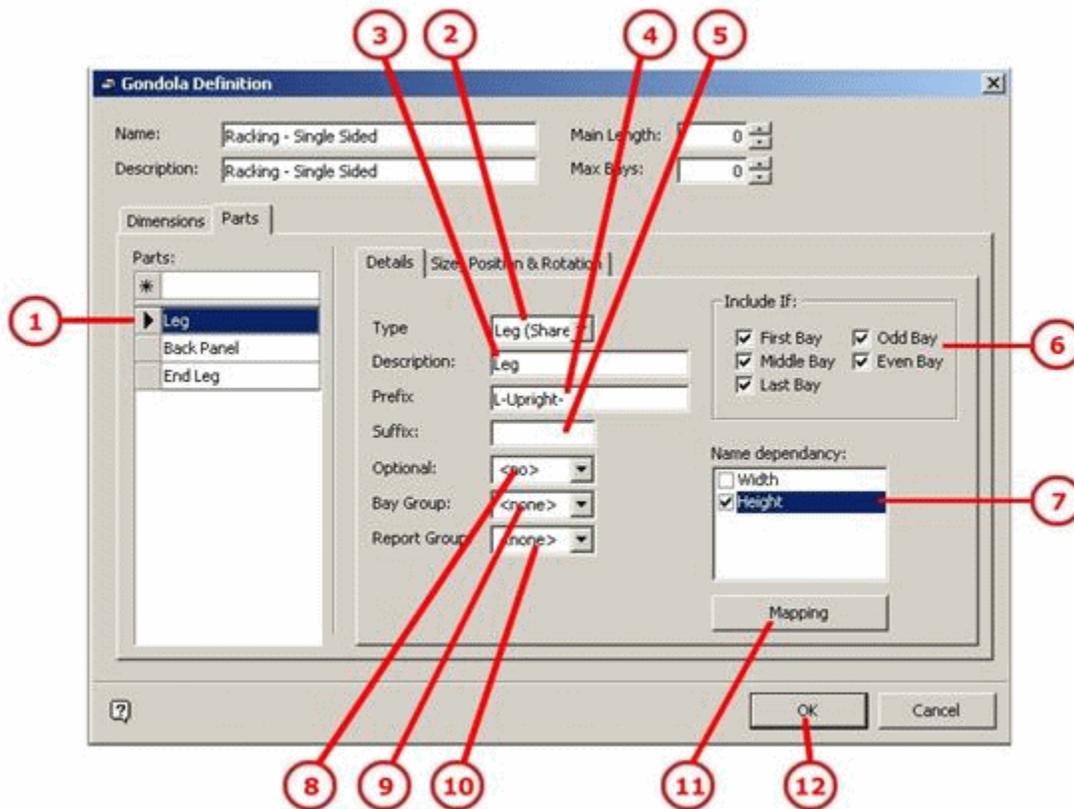
- Leg
- Back Panel
- End Leg

The first two parts go into every bay, the End Leg only into the last bay.

### Defining the Gondola - Leg Details

Leg details are defined by clicking on Leg in the list of parts (1).

Figure 5–204 Gondola Definition - Leg Details



**Type (2)** can be set using the drop down list.

**Description (3)** will default to that selected from the list of parts.

**Prefix (4)** defines the first part of the naming convention. Note that there are two types of legs in the list of available parts.

┌	L-Upright-1400
┌	L-Upright-1600
┌	L-Upright-2500
┌	L-Upright-2900
┌	T-Upright-1400
┌	T-Upright-1600
┌	T-Upright-2500
┌	T-Upright-2900

The L-uprights are suitable for the single sided racking you are setting up. Accordingly, you can set a prefix of L-Upright- to select these legs.

You do not need a **Suffix (5)** in this instance.

Select the required gondola sections in the **Include If (6)** check boxes. Check all the options if you want a leg in every section.

Only one of the **Name Dependency boxes (7)** is checked for height. This means in conjunction with the L-Upright- Prefix and the sizes defined in the gondola sizes dialog box, you can select the following blocks when the gondola is drawn.

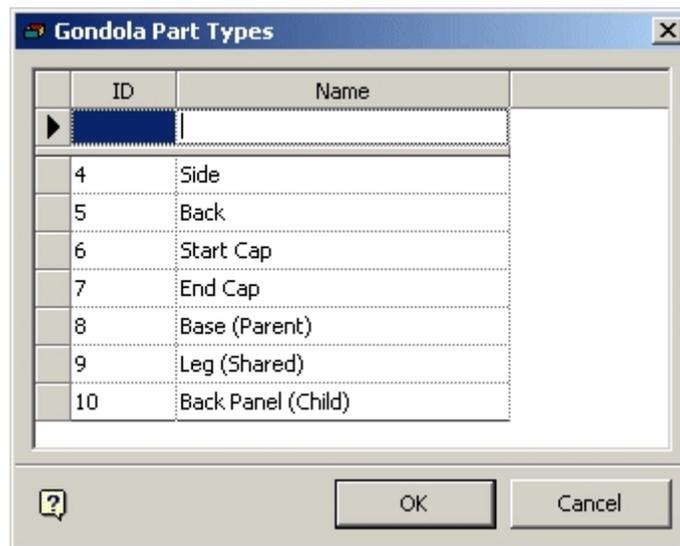


You may leave the fields **Optional (8)**, **Bay Groups (9)** or **Report Group (10)** options blank at this stage.

If necessary, click the **Gondola Mapping (11)** option to define the block naming convention options set.

Do not at this stage click on the **OK (12)** button.

**Figure 5–205** Gondola Part Types

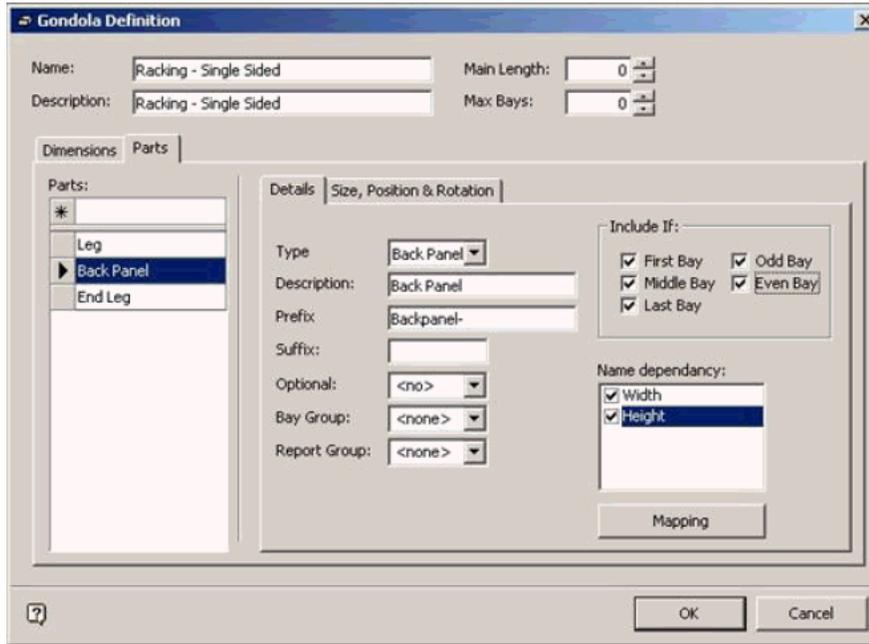


**Note:** The parts available in the drop down list are set up using the Gondola Parts dialog box.

### Defining Gondola - Back Panel Details

Defining the back panel proceeds in similar manner to the leg, the completed dialog box looking as follows:

**Figure 5–206 Gondola Definition - Backpanel Details**



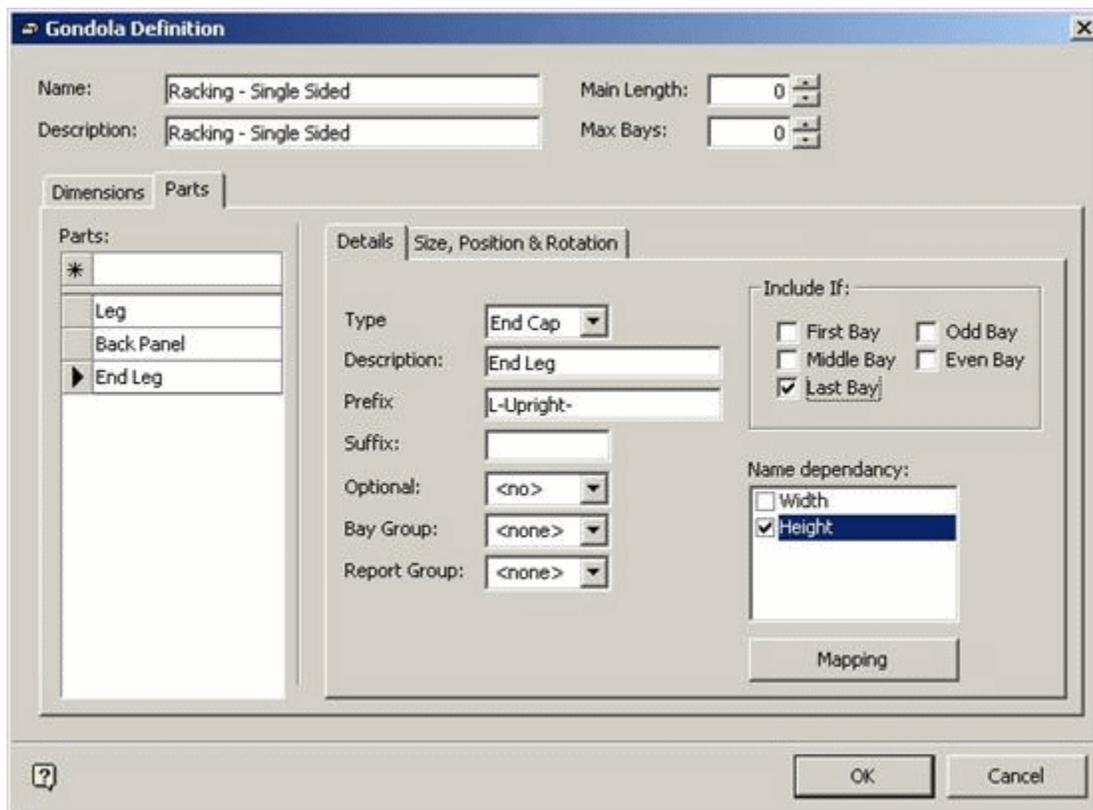
Note that the Prefix has been entered as Backpanel- and that both name dependencies have been checked. This will allow selecting blocks from the following list.

- Racking
  - Backpanel-600-1400
  - Backpanel-600-1600
  - Backpanel-600-2500
  - Backpanel-600-2900
  - Backpanel-900-1400
  - Backpanel-900-1600
  - Backpanel-900-2500
  - Backpanel-900-2900

**Defining Gondola - End Leg Details**

The end leg is different from the other gondola parts that have been defined. It is only present in the last bay of the gondola and serves to finish the run of racking.

Figure 5–207 Gondola Definition - End Leg Details



The Type has been set to End Cap and only the Last Bay in the Include If section. The other settings are as for the Leg.

## Overview of Leg Size, Position, and Rotation

### Defining Sizes

There are three parts to the gondola, Leg, Back Panel and End Leg. For the purposes of this gondola, there is no need to define the size as you will be using the defaults specified in the block definition.

### Defining Offsets

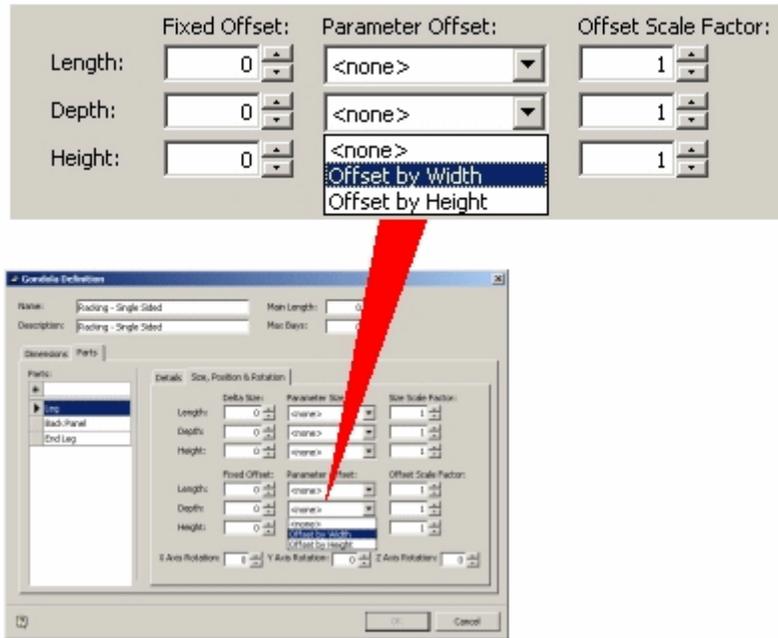
The Size, Position and Rotation have to be defined for each part. This is to ensure that it is inserted in the correct position and orientation relative to its base point.

### The $y = mx + c$ Equation

The offset for the part (if one is required) can be set using a  $y = c + mx$  equation. This can be written as  $\text{Result} = \text{Constant} + (\text{Size} \times \text{Factor})$

This is not as difficult to understand as it seems. The Offset options can be found on the Size, Position and Rotation tab.

**Figure 5–208 Delta Size/Fixed Offset**

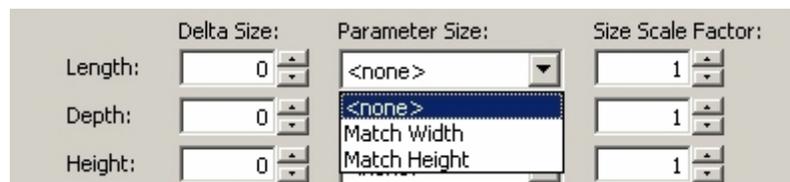
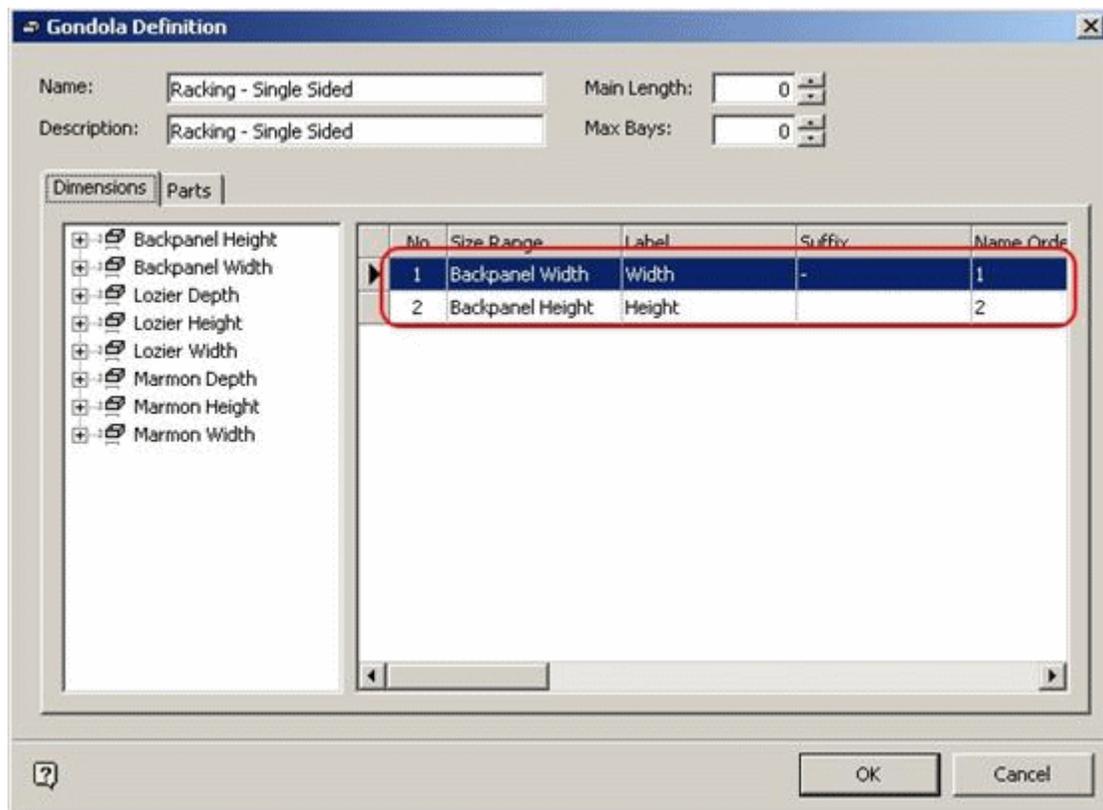


The Delta Size corresponds to the constant  $c$  in the  $y = mx + c$  equation. If set to 50 mm, this value will always be used when it comes to calculating the size of the offset.

**Parameter Size**

This is the 'x' part of the equation. It can be selected from a drop down list that corresponds to the dimensions selected in the Dimensions Tab

Figure 5–209 Dimensions Tab



As you have only selected two dimensions in the Dimensions tab, the drop down list only contains two options; Match Width and Match Height.

- If you select Match Width (Length) then the final offset will depend on the width of the block chosen as a result of the name dependencies.
- If you chose a width of 600 mm in the Add Gondola dialog, the calculated offset would be relative to the 600 mm width of that block.
- If you chose a width of 900 mm in the add gondola dialog box, the calculated offset would be relative to the 900 mm width of that block.

### Scale Factor

A scale factor is a number that the Parameter Size is multiplied by.

- If the scale factor is set to 0 then the offset will be set to the dimension set in the Delta size.
- If the Scale Factor is set to 0.5, the calculated offset will be half that of the Parameter Size.

- If the Scale Factor is set to 2, the calculated offset will be twice that of the Parameter Size.

Examples

Delta Size	Parameter Size	Scale Factor	Result
50 mm	None	1	Block size + 50 mm

Size (y) = 50 mm + (1 x block size)

Delta Size	Parameter Size	Scale Factor	Result
50 mm	None	0	50 mm

y = 50 mm + (0 x block size)

Delta Size	Parameter Size	Scale Factor	Result
0 mm	Width (600 mm)	0.5	300 mm

y = 50 mm + (0.5 x block size of 600 mm)

Delta Size	Parameter Size	Scale Factor	Result
50 mm	Width (600 mm)	1	650 mm

y = 50 mm + (1 x block size of 600 mm)

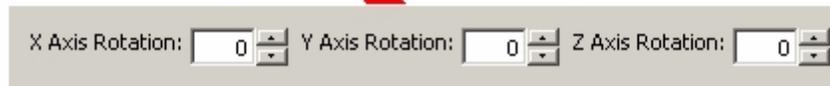
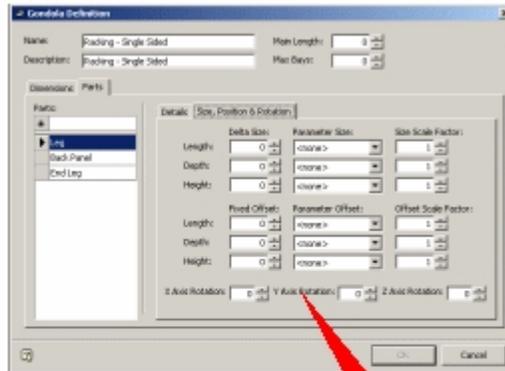
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**Note:** Offsets can be used in conjunction with rotations - the final position of the part will be a combination of the offset and the rotation.

---

## Rotations

Rotations can be set in the X, Y or Z planes.



For normal purposes you only have to be concerned about rotations about the Z axis - in the vertical plane. Typically use rotations of 90 or 270 degrees to bring parts into position at the start or end of a gondola.

---

**Note:** Rotations can be used in conjunction with rotations - the final position of the part will be a combination of the offset and the rotation.

---

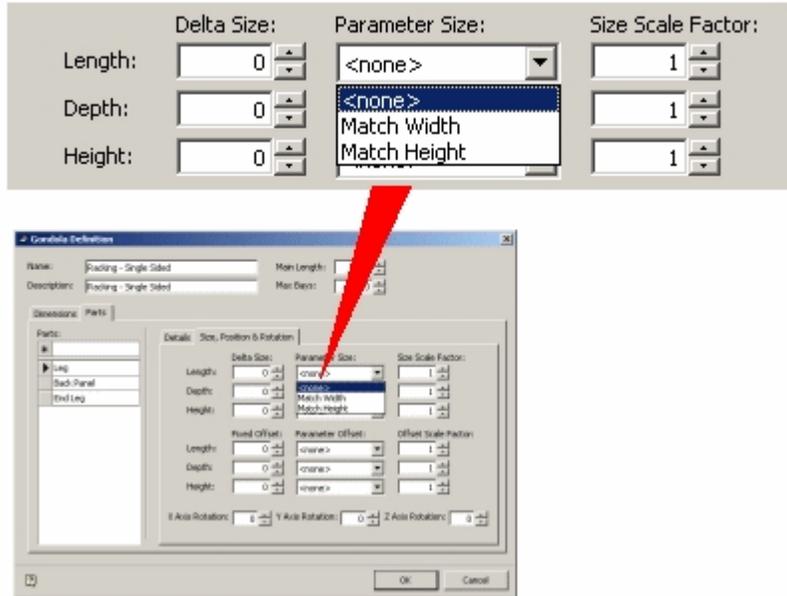
### Defining Sizes

The size, position, and rotation have to be defined for each part. This is to ensure that it is inserted in the correct position and orientation relative to its base point.

### The $y = mx + c$ Equation

The Size of the part can be set using a  $y = c + mx$  equation. This can be written as Result = Constant + (Size x Factor). The size options can be found on the size, position and rotation tab.

**Figure 5–210 Gondola Definition - Define Sizes**



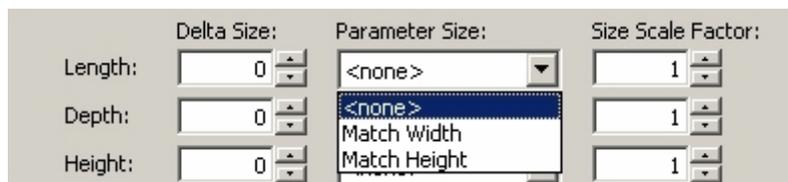
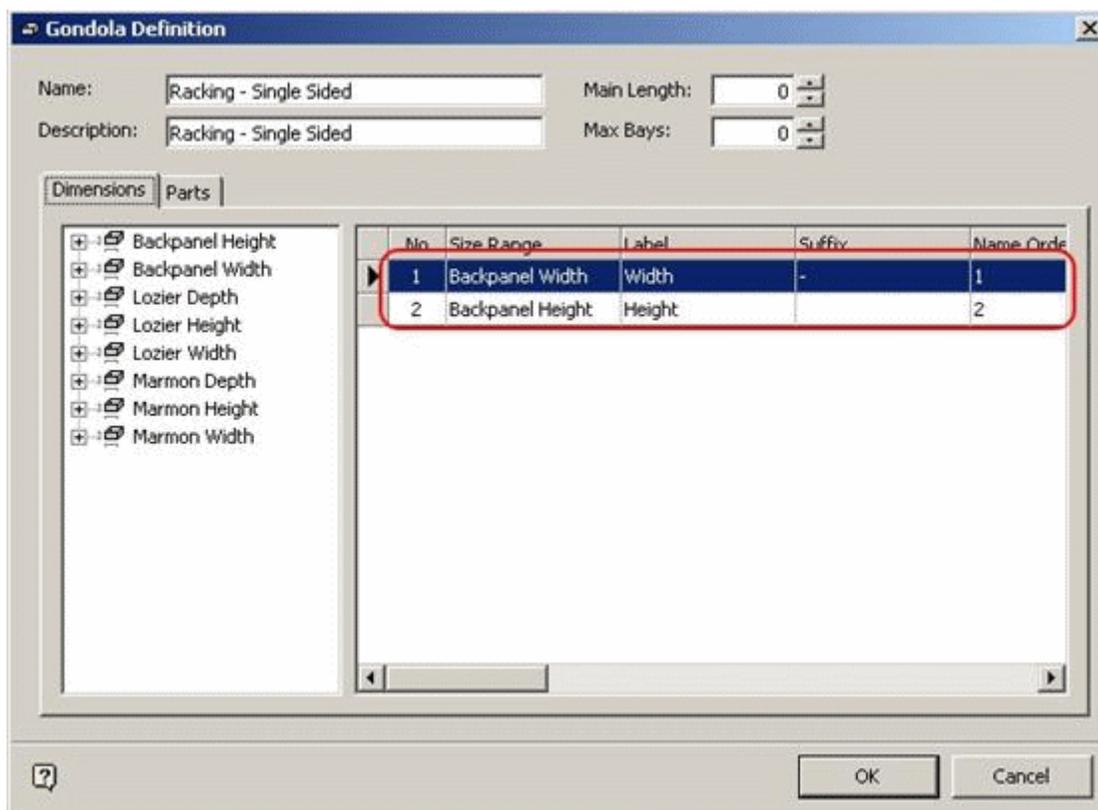
**Delta Size/Fixed Offset**

The Delta Size corresponds to the constant  $c$  in the  $y = mx + c$  equation. If it's set to 50 mm, then this value will always be used when it comes to calculating the size of the part.

**Parameter Size**

This is the 'x' part of the equation. It can be selected from a drop down list that corresponds to the dimensions selected in the Dimensions tab.

Figure 5–211 Gondola Definition - Dimensions tab



As you have only selected two dimensions in the Dimensions tab, the drop down list only contains two options; Match Width and Match Height.

- If you select Match Width (Length) then the final size will depend on the width of the block chosen as a result of the name dependencies.
- If you chose a width of 600 mm in the Add Gondola dialog, the calculated size would be relative to the 600 mm width of that block.
- If you chose a width of 900 mm in the add gondola dialog box, the calculated size would be relative to the 900 mm width of that block.

### Scale Factor

A scale factor is a number that the Parameter Size is multiplied by.

- If the scale factor is set to 0 then the block will be set to the dimension set in the Delta size.
- If the Scale Factor is set to 0.5, the calculated value will be half that of the Parameter Size.

- If the Scale Factor is set to 2, the calculated value will be twice that of the Parameter Size.

Examples

Delta Size	Parameter Size	Scale Factor	Result
50 mm	None	1	Block size + 50 mm

$$\text{Size (y)} = 50 \text{ mm} + (1 \times \text{block size})$$

Delta Size	Parameter Size	Scale Factor	Result
50 mm	None	0	50 mm

$$y = 50 \text{ mm} + (0 \times \text{block size})$$

Delta Size	Parameter Size	Scale Factor	Result
0 mm	Width (600 mm)	0.5	300 mm

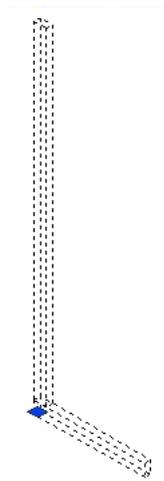
$$y = 50 \text{ mm} + (0.5 \times \text{block size of } 600 \text{ mm})$$

Delta Size	Parameter Size	Scale Factor	Result
50 mm	Width (600 mm)	1	650 mm

$$y = 50 \text{ mm} + (1 \times \text{block size of } 600 \text{ mm})$$

### Defining Offsets and Rotations

Offsets and Rotations are required to put the parts in the correct position relative to the base point. Each part will generally require a different offset and/or rotation. Before Offsets and Rotations can be specified, the user must ascertain the position of the insertion point of each block as the blocks will be placed relative to this insertion point.

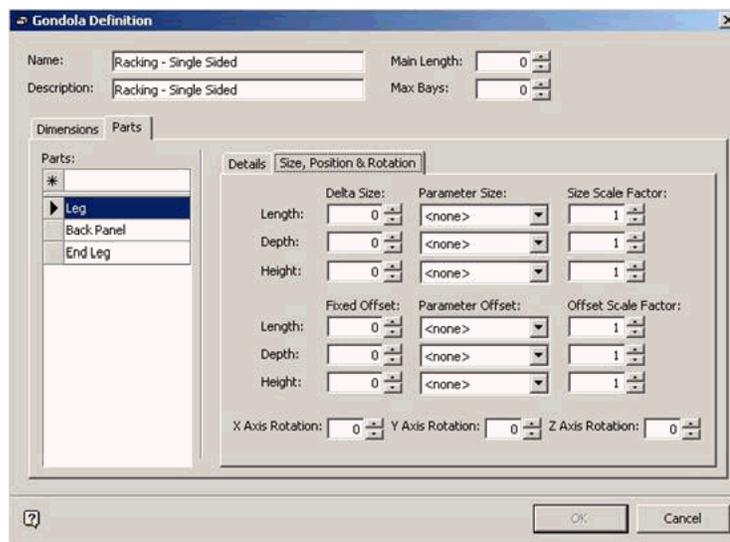


For example, this L-upright has its insertion point specified at the bottom, centre, rear. It is also necessary to know any dimensions that might affect offsets. For example, the horizontal arm of the L Upright is 50 mm high.

### Leg - Defining Offset and Rotation

The leg has its insertion point at the bottom, centre, rear. It does not require any offset to put it at over the Base Point of the bay. It does not require a rotation.

**Figure 5–212 Leg - Defining Offset and Rotation**

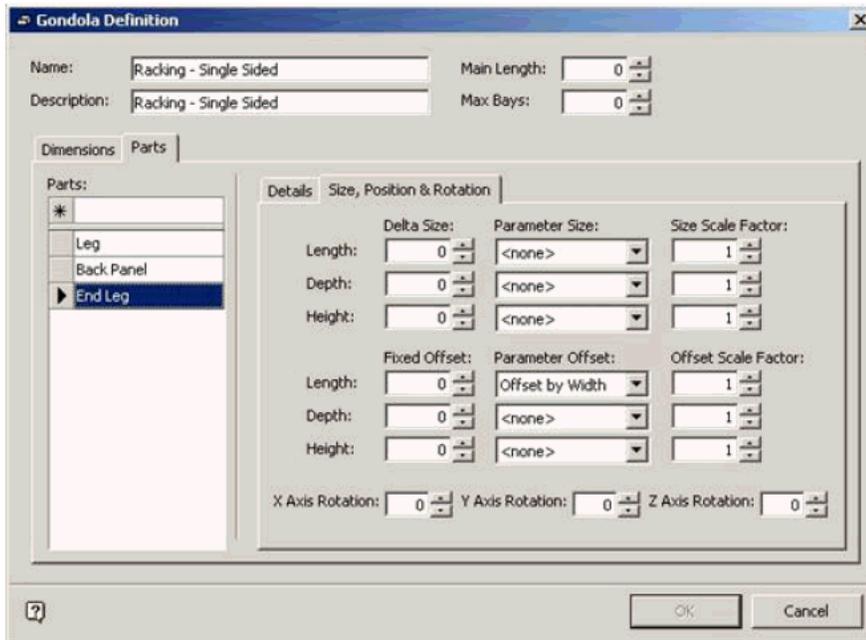


### Backpanel - Defining Offset and Rotation

The Back Panel has an insertion point at the bottom, left, rear. The insertion point was specified as being 50 mm below the bottom of the Back Panel. The Back Panel requires a -Y offset of 50 mm to bring it in front of the vertical arm of the L upright.

It would have required a Z offset of 50 mm to bring it on top of the horizontal arm of the L Upright. However, this offset was built into the block definition when it was created. A Z offset is therefore not required. It does not require a rotation.

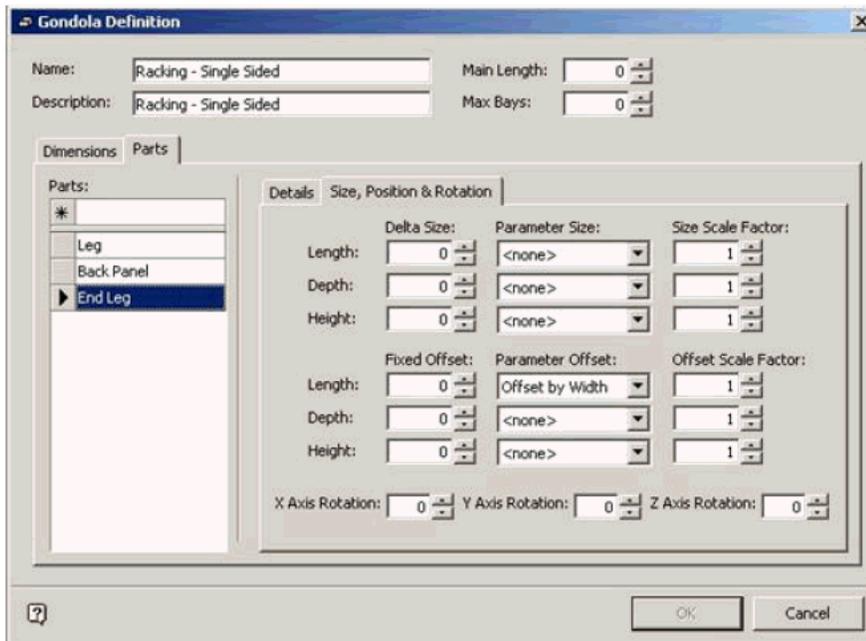
**Figure 5–213 Gondola Definition Dialog Box**



**End Leg - Defining Offset and Rotation**

The end leg has its insertion point at the bottom, centre, rear. It requires an offset to put it on the opposite side of the final Back Panel to the Standard leg. This will be an offset by Width. It does not require a rotation.

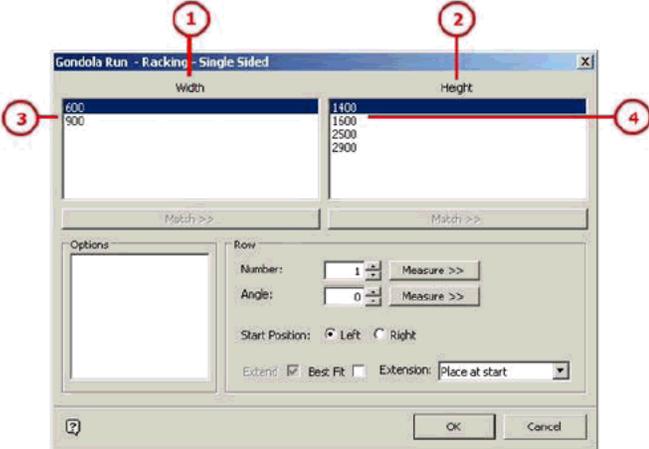
**Figure 5–214 Gondola Definition Dialog Box**



### Add Gondola Dialogue Box

Once the gondola has been defined and saved, it can be placed into a drawing by means of the Add Gondola dialog box.

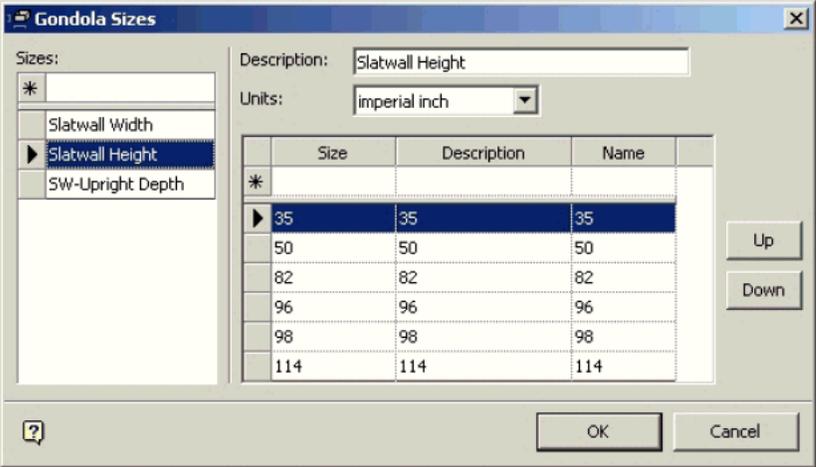
Figure 5–215 Add Gondola dialog box



### Dimension Labels

The Width (1) and Height (2) captions correspond to the Labels in the Dimensions tab.

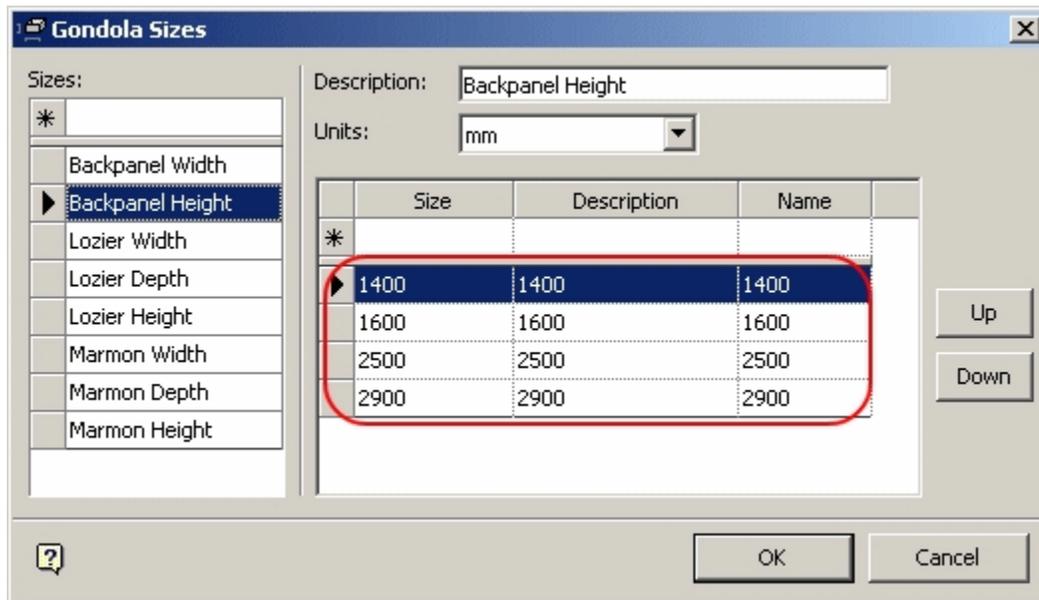
Figure 5–216 Dimensions tab



### Dimension Sizes

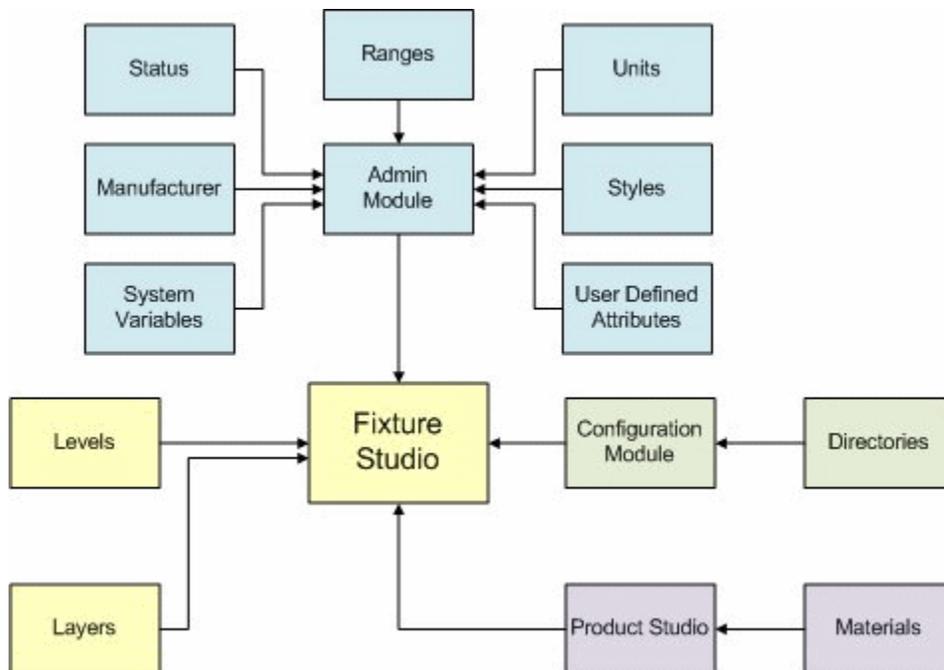
The Dimensions (3) and (4) correspond to the sizes in the Gondola Sizes dialog box.

Figure 5-217 Gondola Sizes dialog box



## Relationships between Fixture Studio and other Modules

The settings made within Fixture Studio are affected by and interact with settings made within other modules within Macro Space Management.



### Administration Module

The following can be configured within the Administration module:

- List of Manufacturers

- List of Ranges
- Available statuses
- List of possible Styles
- List of default units
- User Defined Attributes

## **Configuration Module**

Directory for graphics (dwg and 3DS) files can be configured within the Configuration Module.

## **Layers**

List of aliased layers a block can be inserted on, and which connections are valid on. These can only be configured within Planner.

## **Levels**

List of available levels to insert an block on - only configurable within database

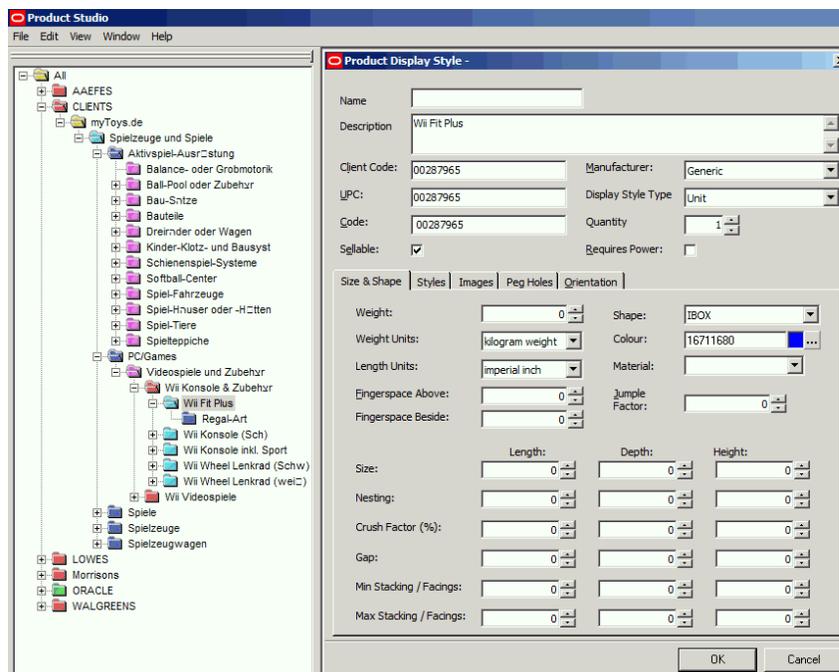
## **Product Studio**

List of available materials - this affects the appearance of the graphics.

## Product Studio

Product Studio allows you to maintain a hierarchy of products. This hierarchy can be used for a variety of purposes including supplying placeholders for Planner and Merchandiser. It can also supply 3D Virtual Reality images for Merchandiser. Data can be imported from third party software, data can be manually entered, or some combination of the two can be used.

**Figure 6–1 Product Studio**



### Placeholders, SKUs and Display Styles

A Placeholder is used as an indication of what form of product occupies a section of shelving or equipment. Placeholders can be used in Planner and can occupy the following levels in the hierarchy:

- Company
- Group
- Division

- Department
- Class
- Sub-class
- Style
- Item

For example a placeholder could be placed at department level to indicate that a specific section of equipment has been allocated for the sale of men's clothing. Alternatively, a placeholder could be placed at class level to indicate a specific section of equipment has been allocated for the sale of men's shirts.

A **SKU** (Stock Keeping Unit) is a description of a specific item of merchandise - for example Men's shirts, white.

A **Display Style** indicates a specific way of displaying a SKU. Example of display styles for shirts includes Boxed, Folded, and Hung.

Placeholders can be used in both Planner and Merchandiser. Display styles can only be used in Merchandiser.

---

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**Note:** If Display Style level products are placed in Merchandiser, they will not appear in Planner.

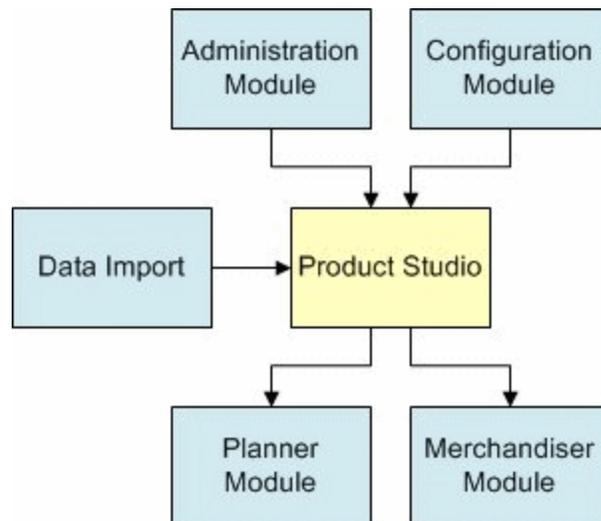
---

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## Product Studio and Other Modules

Product Studio interacts with other modules.

**Figure 6-2 Administration Module**



A number of lists used in Product Studio are configured in the Administration Module. Products marked for deletion can only be permanently purged using the Purge option in the Administration Module.

## Configuration Module

The locations of the directories for Image Capture and Image Root are specified in the Directories tab in the Configuration Module.

## Data Import

Data can be imported from third party software. It can then be configured with additional information required by Macro Space Management.

## Planner

The Product Hierarchy appears in the Object Browser and can be searched/selected from using the Object Grid. Products can be placed down to the SKU level as placeholders.

## Merchandiser

The Product Hierarchy appears in the Object Browser and can be searched/selected from using the Object Grid. Products can be placed down to the SKU level as placeholders or as Display styles.

## Administration Module

A number of lists used in Product Studio are configured in the Administration Module. In addition, Products marked for deletion can only be permanently purged using the Purge option in the Administration Module.

**Table 6–1 Administration Module**

Option	Comment
Manufacturers	Allows the user to configure the list of manufacturers (and suppliers) used to specify products.
Product Code Types	Allows the user to specify the masks for UPCs.
Ranges	Allows the user to configure the ranges for temperature scales and weights that can be allocated to a product.
Tax Codes	Allows the user to configure the list of available Tax Codes that can be allocated to a product.
Styles	Allows the user to add, edit or delete styles for products.
Units	Allows users to configure the units used for defining products.

**Table 6–1 (Cont.) Administration Module**

Option	Comment
User Defined Attributes	Allows users to specify the User Defined Attributes required for products.

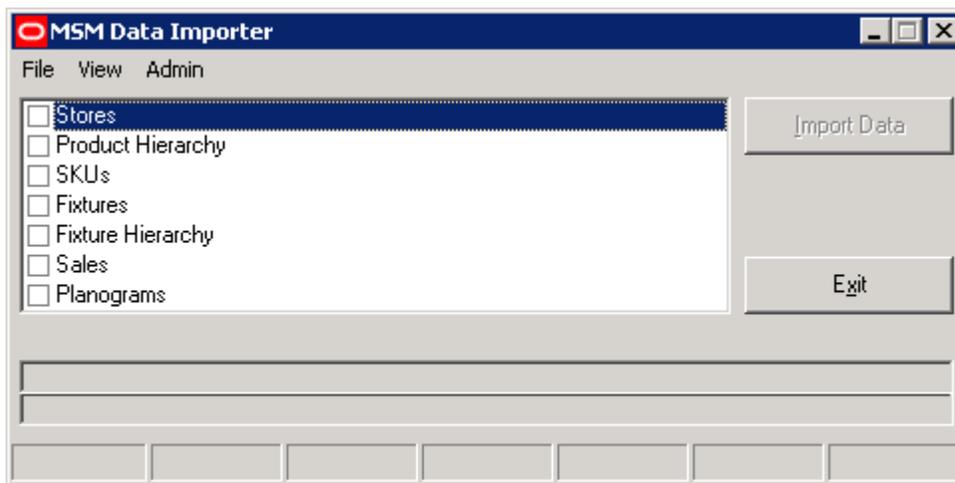
## Configuration Module

The locations of the directories for Image Capture and Image Root are specified in the Directories tab in the Configuration Module.

- **Image Capture** is where imaged are stores after being captured by a camera.
- **Image Root** is the starting point for storage of images after they have been assigned to a product.

## Data Import

Macro Space Management provides a specialized Data Import module. This allows product details to be imported from third party software.

**Figure 6–3 Data Import module**

Macro Space Management users may have to add other information to the imported data. This could include information such as dimensions, style relationships or images for 3D Virtual Reality representation in Merchandiser.

---

**Note:** It is not generally possible to import Display Style information from third party databases, as this represents an additional level of information to that normally present in those databases.

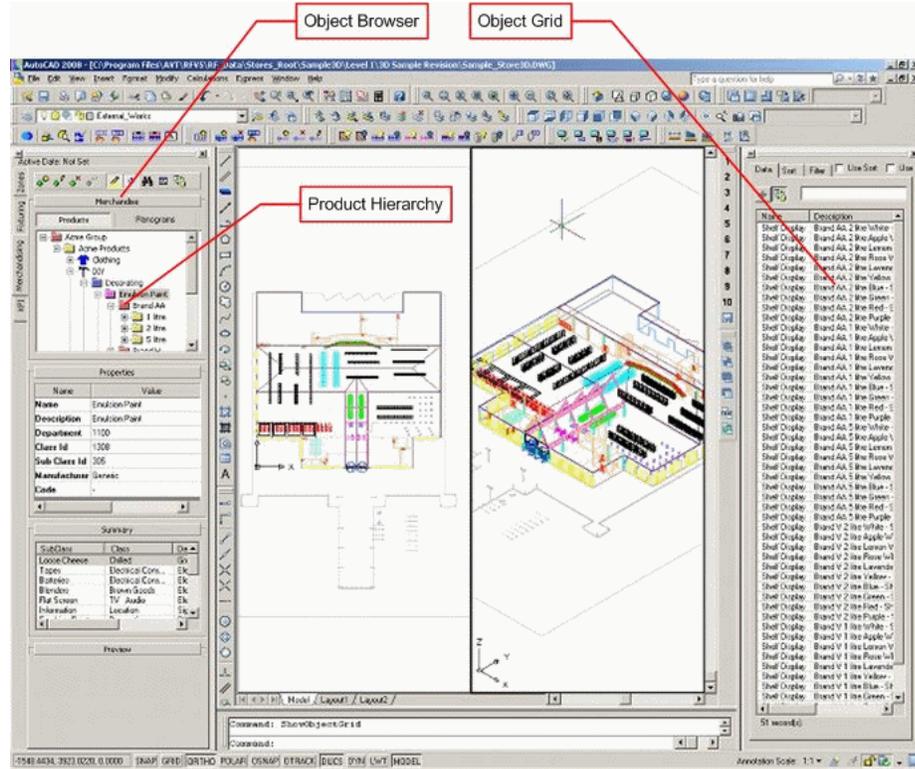
---

## Planner and Merchandiser

## Planner

The Product hierarchy appears in the Object Browser in Planner. It can also be searched using the Object Grid.

**Figure 6-4 Planner Module**

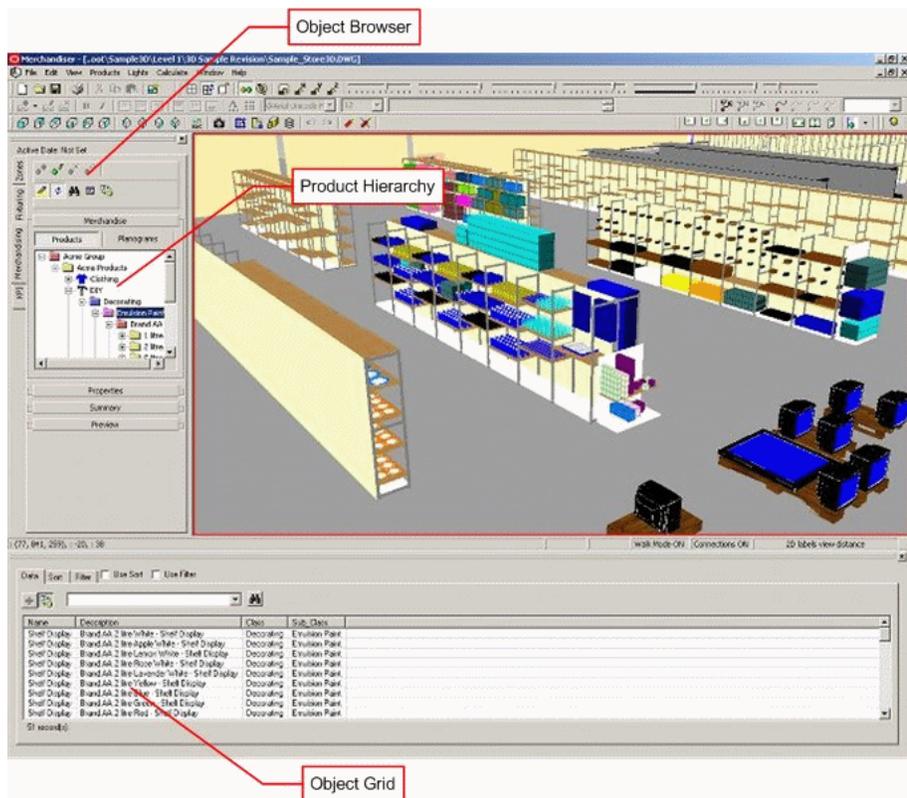


Products can then be placed down to SKU level as placeholders.

## Merchandiser

Like Planner, the Product hierarchy appears in the Object Browser in Merchandiser. It can also be searched using the Object Grid.

**Figure 6–5 Merchandiser Module**



The Product hierarchy can either be placed as placeholders, or as 3D Virtual Reality objects at the Display Style level.

## Setting up Product Studio

### Identify the Product

Before the hierarchy is set up in Product studio, it must first be planned. Failure to plan the hierarchy properly may result in inefficient use of Macro Space Management.

When setting up the Product hierarchy, it is important to have a single, unique way of identifying the product. This is generally determined by how the product is indexed in other software used by a retailer. For example, their stock control and/or re-ordering systems might refer to the product by its UPC or by its SKU Code.

It is important that Macro Space Management use the same method of identification. If date is imported into the product hierarchy, this information will be included automatically. For manual entry, this is set by the UPC Type drop down list in the SKU dialog box. The mask for these is set in the Administration Module.

**Figure 6–6 Product SKU Dialog Box**

### Product Identification and EPOS data

It is important to use a unique method of identification as in other software used by a retailer. For example, some retailers use UPCs and others use SKU codes. Macro Space Management can use the Data Import module to import other forms of data (for example EPOS data). This EPOS data can then be used to color code the Macro Space Management drawings so that sales performance can be seen at a glance.

This color coding (Key Performance Indicators or KPIs) relies on the EPOS data having the same method of identification (UPCs or SKU codes) as the data in the Product hierarchy.

### Structure of the hierarchy

The generic hierarchy can have up to 10 levels, 5 of them mandatory:

**Table 6–2 Structure of the hierarchy**

Level	Comment
Company	
Group	
Division	
Department	Mandatory
Class	Mandatory
Sub-Class	Mandatory
Style	
Item	

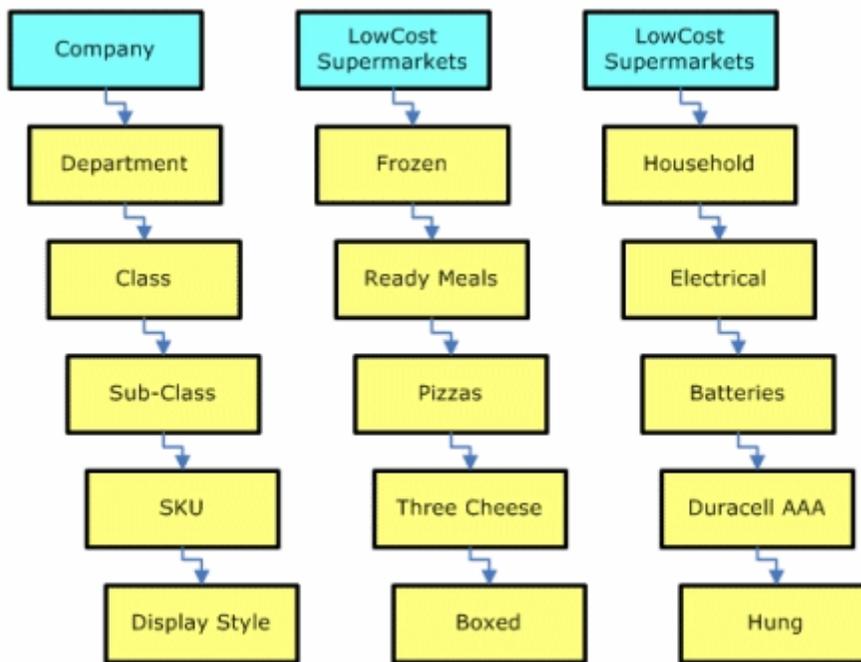
**Table 6–2 (Cont.) Structure of the hierarchy**

Level	Comment
SKU	Mandatory
Display style	Mandatory

As product data will be generally imported from third party software, the required Macro Space Management hierarchy should be planned before the first import so that data is imported into a standardized hierarchy.

**Making the Hierarchy User Friendly**

The Product Hierarchy consists of a series of levels which should be laid out in a way convenient for and familiar to store planners.



Configuring the hierarchy in the optimum manner can save considerable time and effort when products are being placed in Macro Space Management store plans.

---

**Note:** Any level in the hierarchy can be renamed to customer requirements by Oracle.

---

**Using Data Importer**

Macro Space Management contains a Data Import module. This allows importing information from third party databases. Once the data import routine is set up, it is possible to repeatedly import data into the Product Studio hierarchy. However, before this import routine is set up, it is first necessary to decide whether to use UPCs or SKUs as the basis for indexing products. It is also necessary to determine the number of levels in the hierarchy as this cannot be readily varied once data import has started.

Data import from third party software works as follows:

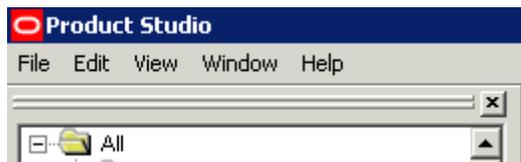
- Data is exported from the third party software into a spreadsheet saved in a CSV format. This data is structured in a standardized format with specific columns holding specific items of information.
- Macro Space Management Data Importer is configured to accept data from this structured CSV format spreadsheet.
- Data Importer then inserts the data in the structured CSV format spreadsheet into the central Macro Space Management database.
- Data Importer can import a variety of data including:
  - Alphanumeric Information on objects at all levels in the hierarchy including Names, descriptions, UPC's, financial, physical and other data.
  - Product Images (providing they have been named in accordance with Macro Space Management conventions beforehand).

## Menu Options

### Menu Bar

The **Menu** bar has the following options.

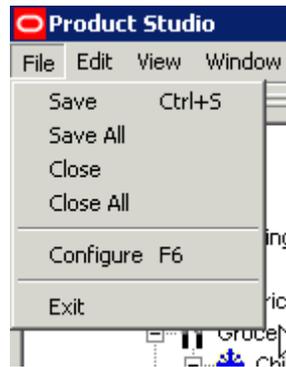
*Figure 6–7 Product Studio - Menu bar*



- File menu allows you to save or close files or configure Product Studio.
- Edit menu gives you access to add or edit products or import products.
- View menu allows you to display the product information and search products.
- Window allows you to configure the display of open Product dialog Boxes
- About gives access to Help and the version of the software.

### File Menu

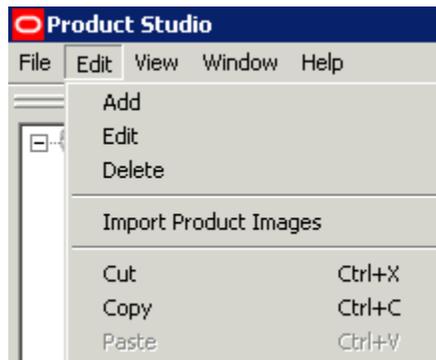
The **File** menu gives you access to various saving and exit options.

**Figure 6–8 Product Studio - File Menu**

- Save - saves the currently active product definition.
- Save All - saves all currently open product definitions.
- Close - closes the currently active product definition.
- Close All - closes all currently open product definitions.
- Configure (F6) - opens the Configuration Module
- Exit - closes Product Studio.

## Edit Menu

The **Edit** menu allows you to modify the hierarchy.

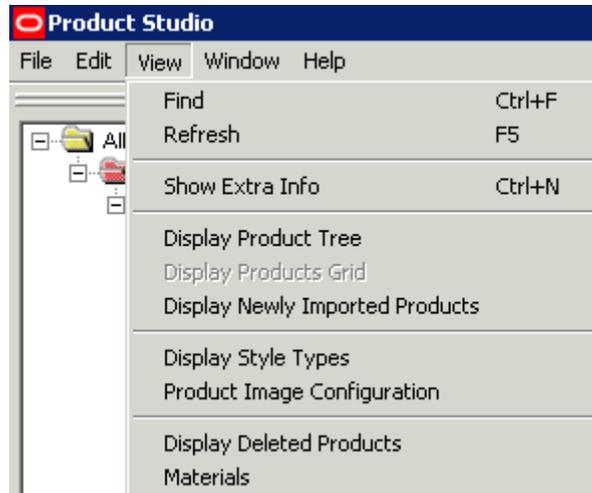
**Figure 6–9 Product Studio - Edit Menu**

- Add - adds another level to the hierarchy, adding a child object to the currently selected node.
- Edit - opens the currently selected node in the hierarchy for editing.
- Delete - deletes the currently selected note in the hierarchy.
- Cut (<Ctrl + X>) - removes the selected item from the hierarchy and puts it on the clipboard.
- Copy (<Ctrl + C>) - copies the selected item in the hierarchy and puts it on the clipboard.
- Paste (<Ctrl + V>) - takes the current item on the clipboard and pastes it as a child object to the currently selected node.

## View Menu

The **View** menu gives you access to varying information.

**Figure 6–10 Product Studio - View Menu**

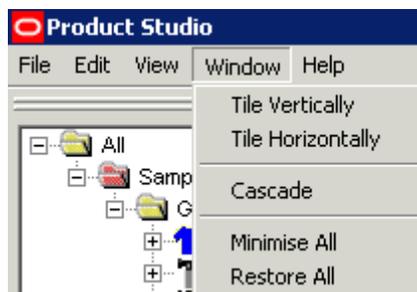


- Find - calls the Find dialog box. [More Info](#)
- Refresh - refreshes the hierarchy with the latest information from the database.
- Show Extra Info - toggles the Product Description into view as well as the Product Name.
- Display Product Tree - toggles the Product Tree on or off.
- Display Newly Imported Products - display a list of recently imported products. [More Info](#)
- Display Deleted Products - displays a list of products that have been deleted from the Product Tree. [More Info](#)
- Materials - allows users to configure the way products display in Box or Textured Box form in Merchandiser. [More Info](#)

## Window Menu

The Window menu allows you to arrange any dialog boxes open in Product Studio.

**Figure 6–11 Product Studio - Window Menu**



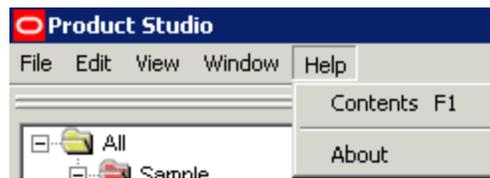
- Tile Vertically - aligns all open product dialog boxes vertically.

- Tile Horizontally - aligns all open product dialog boxes horizontally.
- Cascade - aligns all open product dialog boxes diagonally.
- Minimize All - minimizes all open product dialog boxes.
- Restore All - maximizes all open product dialog boxes.

## About Menu

The **About** menu calls the help files and allows you to verify the version of the software in use.

**Figure 6–12 Product Studio - About Menu**



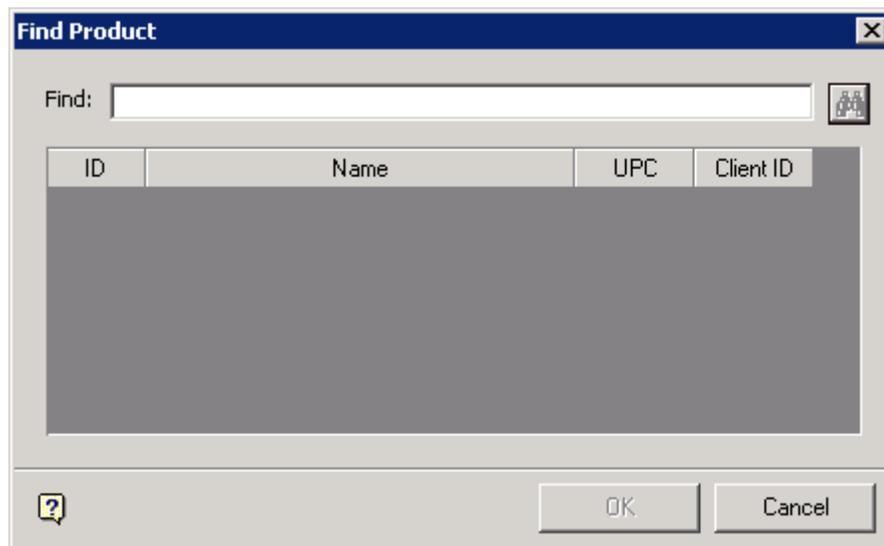
## Options for Menus

### Find Option

The **Find** option can be accessed from the View menu or by pressing <Ctrl + F>. To use the Find option, complete the following steps:

- In the **Find** field, enter a value (wild cards such as ? are allowed).
- Click the Search icon to bring up a list of products matching the search string.
- Highlight the required item in the result list, and click **OK** to open the relative dialog box.

**Figure 6–13 Find Product**

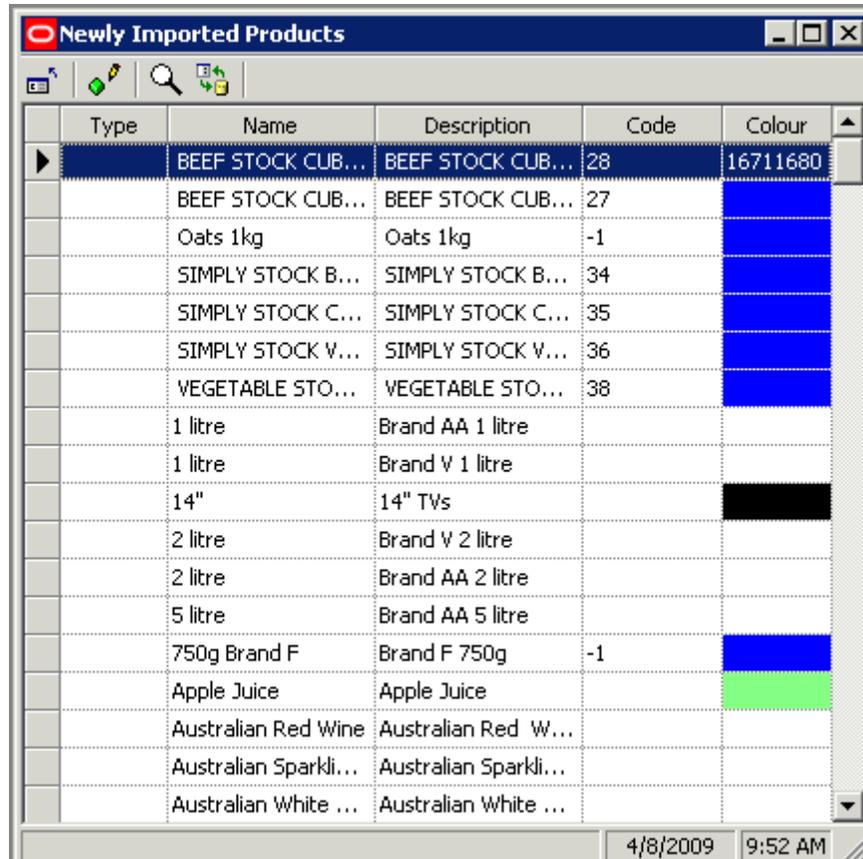


## Newly Imported Products

The Newly Imported Products dialog box allows you to find recently imported products. These often require editing if imported from an external database. This is because products defined in an external system may lack information required by Macro Space Management such as dimensions or images.

It can be accessed from the View menu and will populate upon being selected with all products that have not been modified since the last import date.

**Figure 6–14** Imported Products

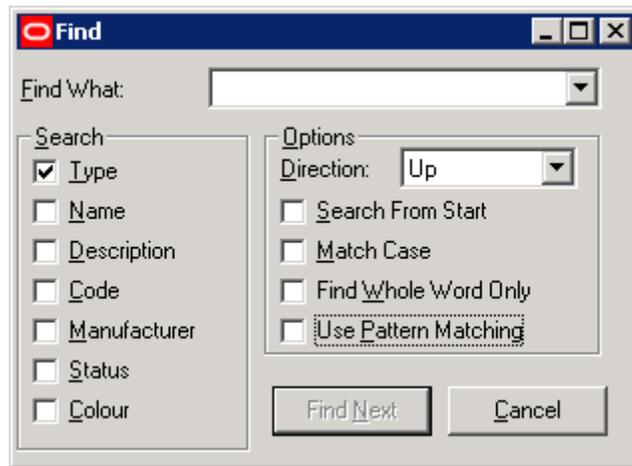


Type	Name	Description	Code	Colour
	BEEF STOCK CUB...	BEEF STOCK CUB...	28	16711680
	BEEF STOCK CUB...	BEEF STOCK CUB...	27	
	Oats 1kg	Oats 1kg	-1	
	SIMPLY STOCK B...	SIMPLY STOCK B...	34	
	SIMPLY STOCK C...	SIMPLY STOCK C...	35	
	SIMPLY STOCK V...	SIMPLY STOCK V...	36	
	VEGETABLE STO...	VEGETABLE STO...	38	
	1 litre	Brand AA 1 litre		
	1 litre	Brand V 1 litre		
	14"	14" TVs		
	2 litre	Brand V 2 litre		
	2 litre	Brand AA 2 litre		
	5 litre	Brand AA 5 litre		
	750g Brand F	Brand F 750g	-1	
	Apple Juice	Apple Juice		
	Australian Red Wine	Australian Red W...		
	Australian Sparkli...	Australian Sparkli...		
	Australian White ...	Australian White ...		

4/8/2009 9:52 AM

The toolbar allows you to close the dialog, edit a selected item, find an item or refresh the list with the latest information from the database.

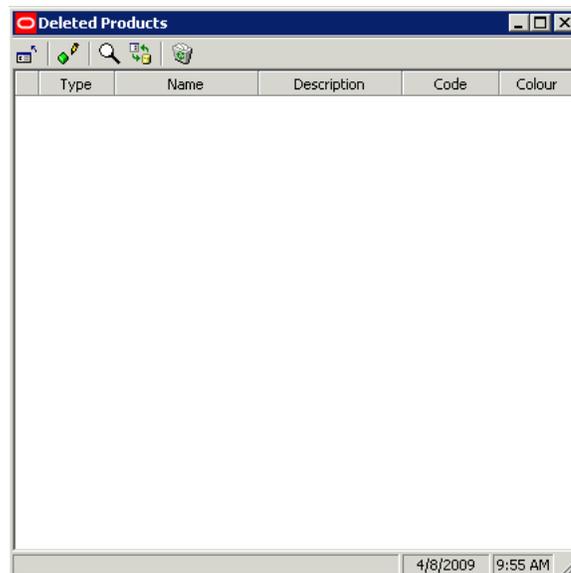
The Find dialog box is called from the toolbar.

**Figure 6–15 Find dialog box**

It allows you to find items in the list of newly imported products.

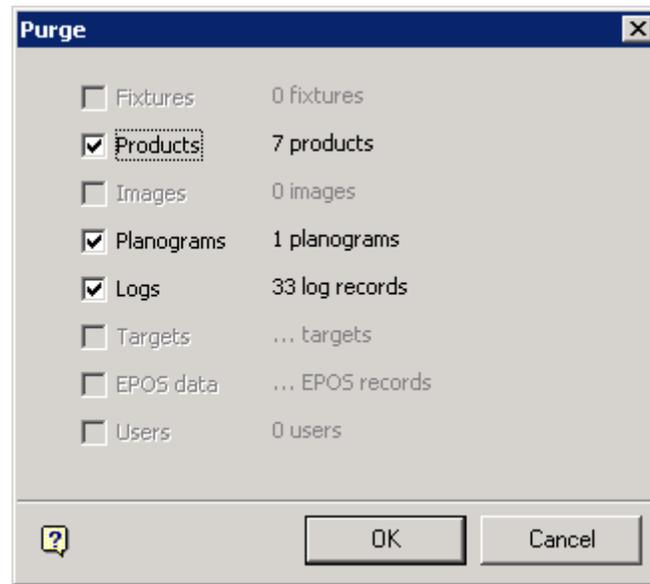
### Deleted Products

The Deleted Products dialog box contains the list of all products marked for deletion. The toolbar allows you to close the dialog box, edit a selected product, find a product, refresh the list of deleted products with the latest information from the database or restore a deleted product to the product hierarchy.

**Figure 6–16 Deleted Products**

### Purging Deleted Products

Deleted products can only be permanently removed from the database in the Administration Module. From the Administration Module, select Tools > Purge. This will bring up the Purge dialog as follows:

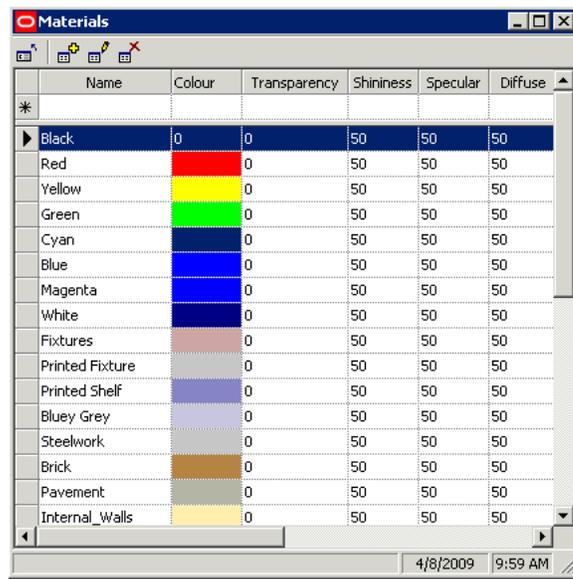
**Figure 6–17 Purge Deleted Products**

Checking the Products option will result in products in the deleted items list being permanently removed from the central Macro Space Management database.

### Materials

The **Materials** option allows you to configure the Materials using color products. It is accessed from the View menu.

- Material colors can be added, edited or deleted using the toolbar.
- Transparency can range between 0 (opaque) to 100 (fully transparent).
- Shininess can range between 0 (matt) to 100 (shiny).
- Specular values can range between 0 (light only reflects in one direction) to 100 (light reflects in all directions).
- Diffuse values can range between 0 (light is not diffused) to 100 (light is diffused in all directions).

**Figure 6–18 Materials Dialog box**

The screenshot shows a window titled "Materials" with a table of material properties. The table has columns for Name, Colour, Transparency, Shininess, Specular, and Diffuse. The rows list various materials with their corresponding color swatches and numerical values for the other properties.

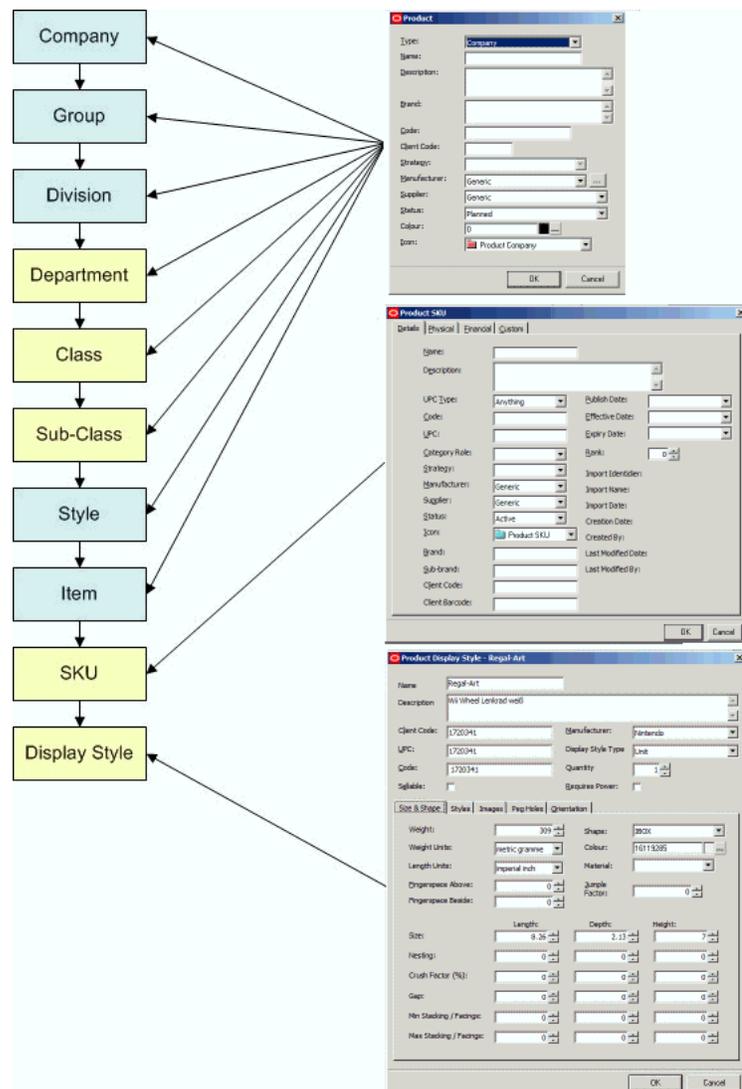
Name	Colour	Transparency	Shininess	Specular	Diffuse
*					
Black	0	0	50	50	50
Red	0	0	50	50	50
Yellow	0	0	50	50	50
Green	0	0	50	50	50
Cyan	0	0	50	50	50
Blue	0	0	50	50	50
Magenta	0	0	50	50	50
White	0	0	50	50	50
Fixtures	0	0	50	50	50
Printed Fixture	0	0	50	50	50
Printed Shelf	0	0	50	50	50
Bluey Grey	0	0	50	50	50
Steelwork	0	0	50	50	50
Brick	0	0	50	50	50
Pavement	0	0	50	50	50
Internal_Walls	0	0	50	50	50

The dialog box also includes a status bar at the bottom right showing the date "4/8/2009" and time "9:59 AM".

## Hierarchy

The Product hierarchy can be built up using a series of levels. Some levels are mandatory (yellow) and some are optional (blue).

Figure 6–19 Product hierarchy



When constructing the hierarchy, there are three dialog boxes involved.

Dialog box	Associated levels
Product	Company, Group, Division, Department, Class, Sub-Class, Style and Item
SKU	SKU
Display Style	Display Style

The hierarchy is set up relative to the Product Root. It is set up in stages:

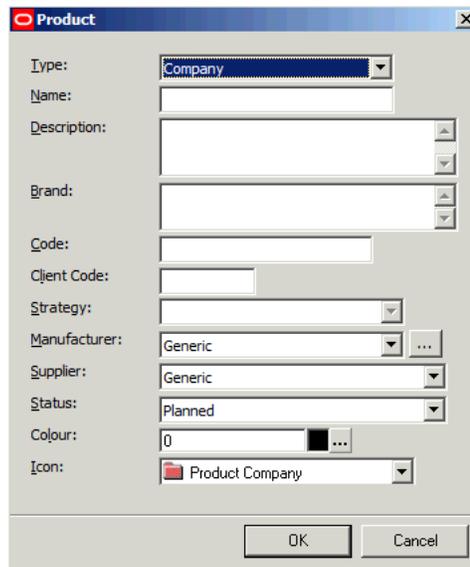
Stage	Action
1	Set up Company, Group, Division and Department Levels
2	Set up Class
3	Set up Sub-Class
4	Set up Style, Item and SKU Levels
5	Set up Display Styles

Each child is added by clicking on the parent level and selecting 'Add Product' from the right click menu.

### Setting up Company, Group, Division, and Department Levels

Company, Group, Division and Department levels are set up based on the Product Root and set up using the Product dialog box. (Use right click menu to add).

**Figure 6–20 Product dialog box**



The Hierarchy Level Type can be set using the Type drop down list. The options are in the following sequence:

- Company (Optional)
- Group (Optional)
- Division (Optional)
- Department (Mandatory)

Once a level has been added, its child will only be available from those levels below it in the hierarchy.

Only when a Department is added that the Class option be available in the drop down list of Hierarchy Level Types.

## Setting up Class and Sub-Class Levels

A class level in the products hierarchy can only be set up as a child of a Department and a **Sub-class** level in the products hierarchy can only be set up as a child of a class. Both levels are mandatory in the hierarchy, and both are configured by means of the Products dialog box.

**Figure 6–21** Product dialog box

The screenshot shows a dialog box titled "Product" with the following fields and values:

- Type: Sub Class (dropdown)
- Name: (empty text box)
- Description: (empty text box with scrollbars)
- Brand: (empty text box with scrollbars)
- Code: (empty text box)
- Client Code: (empty text box)
- Strategy: (empty dropdown)
- Manufacturer: Budweiser (dropdown with a browse button "...")
- Supplier: myToys (dropdown)
- Status: Planned (dropdown)
- Colour: 7737309 (text box with a color picker icon and a browse button "...")
- Icon: Product SubClass (dropdown)

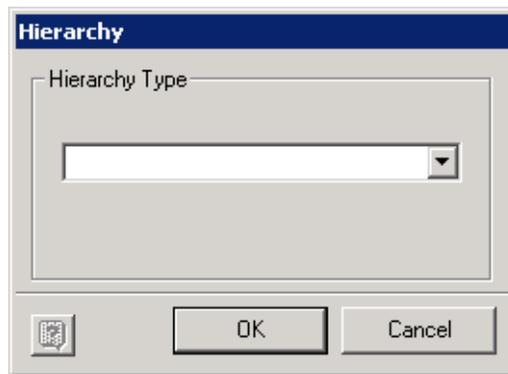
At the bottom of the dialog box are "OK" and "Cancel" buttons.

Only when a Sub-class id added, the next three options will be available in the drop down list of Hierarchy Level Types.

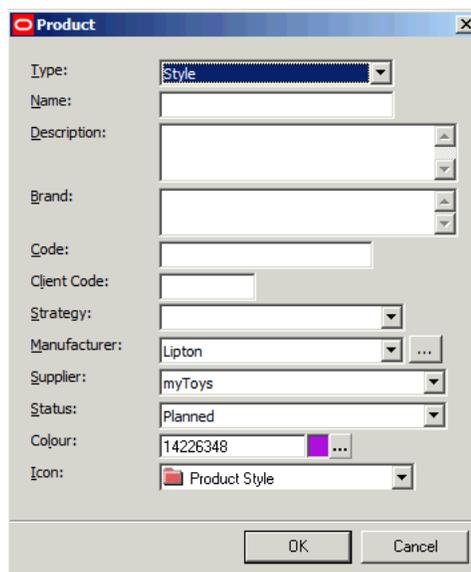
## Setting up Style, Item, and SKU Levels

Style, Item, and SKU levels are set up based on the sub-class level in the hierarchy. To add a hierarchy level, complete the following steps:

- Right-click and select **Add**. The Hierarchy Level dialog box opens.
- Using the drop down list, select one of the following Hierarchy Level Types:
  - Style (Optional)
  - Item (Optional)
  - SKU (Mandatory)

**Figure 6–22 Hierarchy Types**

- Once a level has been added, its child will only be available from those levels below it in the hierarchy. Only when a SKU has been added, the Display Style option will be available in the drop down list of Hierarchy Level Types.
- If the style or item levels are added in the hierarchy, the Product dialog box appears.

**Figure 6–23 Product dialog box**

If a SKU level item is added, the SKU Dialog box appears.

**Figure 6–24 SKU Dialog box**

The screenshot shows a dialog box titled "Product SKU" with a tabbed interface. The "Details" tab is selected. The dialog contains the following fields and controls:

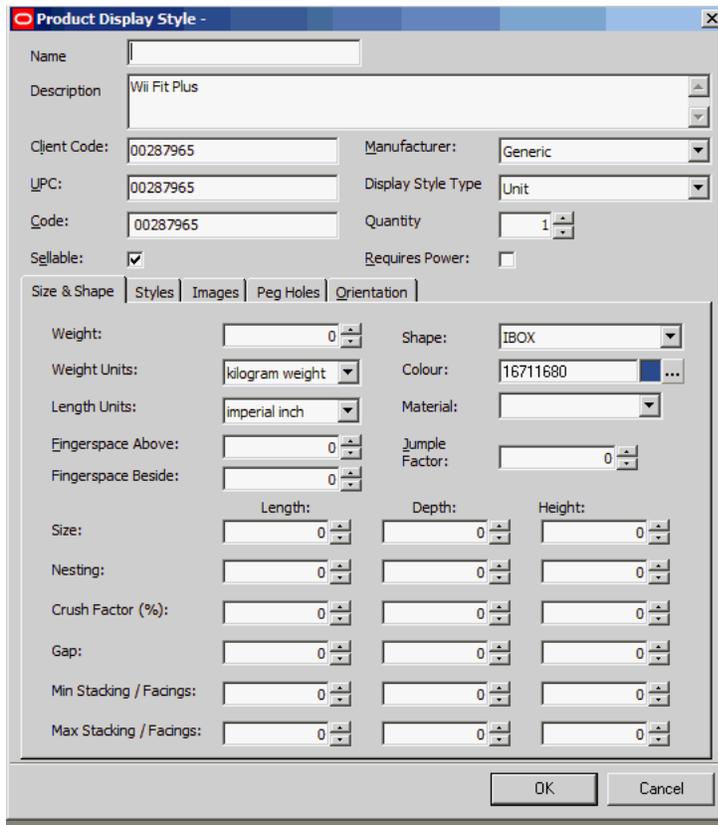
- Name: Text input field
- Description: Text input field with scrollbars
- UPC Type: Dropdown menu (selected: Anything)
- Code: Text input field
- UPC: Text input field
- Category Role: Dropdown menu
- Strategy: Dropdown menu
- Manufacturer: Dropdown menu (selected: Generic)
- Supplier: Dropdown menu (selected: Generic)
- Status: Dropdown menu (selected: Active)
- Icon: Dropdown menu (selected: Product SKU)
- Brand: Text input field
- Sub-brand: Text input field
- Client Code: Text input field
- Client Barcode: Text input field
- Publish Date: Date picker
- Effective Date: Date picker
- Expiry Date: Date picker
- Rank: Spin box (value: 0)
- Import Identifier: Text input field
- Import Name: Text input field
- Import Date: Date picker
- Creation Date: Date picker
- Created By: Text input field
- Last Modified Date: Date picker
- Last Modified By: Text input field

At the bottom right, there are "OK" and "Cancel" buttons.

### Setting up Display Styles

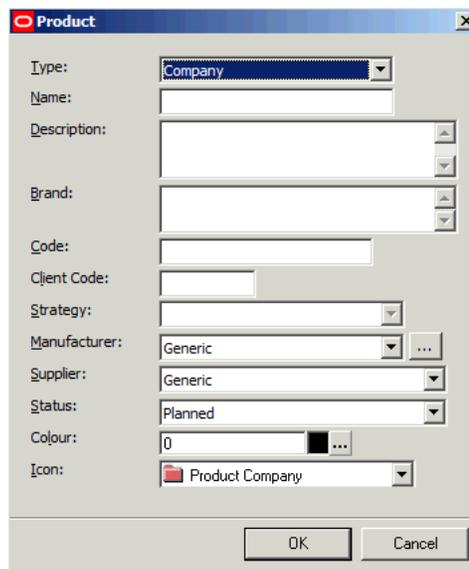
Display Styles are set up based on the SKU level in the hierarchy. Right click and select **Add** to set up a display style. The Display Style dialog box opens.

**Figure 6–25 Display Style dialog box**



### Hierarchy Information

Hierarchy Information can be added at the Company, Group, Division, Department, Class, Sub-Class, Style, and Item levels.



**Table 6–3 Products window**

Parameter	Comment
Type	Can select Company, Group, Division, Department, Class, Sub-Class, Style and Item levels.
Name	Enterable by user.
Description	Enterable by user.
Brand	Enterable by user.
Code	Enterable by user.
Client code	Enterable by user.
Strategy	Select from the drop down list. The list displays product strategies that were set up in the Administration module.
Manufacturer	Selectable from a drop down list. The list can be configured using the Manufacturers option in the Administration Module.
Supplier	Selectable from a drop down list. The list can be configured using the Manufacturers option in the Administration Module.
Status	Selectable from a drop down list. The available statuses are configured using the Status option in the Administration Module.
Color	Selectable from a standard color pallet.
Icon	Selectable from a drop down list. The icon will default to a color specific to each level, but can be manually overridden.

## SKU Information

The SKU Information is used to configure the information for a specific unit of sale.

**Figure 6–26 Product SKU Dialog Box**

The screenshot shows the 'Product SKU' dialog box with the 'Details' tab selected. The dialog contains the following fields and controls:

- Name:** Text input field.
- Description:** Text area with scrollbars.
- UPC Type:** Dropdown menu (set to 'Anything').
- Code:** Text input field.
- UPC:** Text input field.
- Category Role:** Dropdown menu.
- Strategy:** Dropdown menu.
- Manufacturer:** Dropdown menu (set to 'Generic').
- Supplier:** Dropdown menu (set to 'Generic').
- Status:** Dropdown menu (set to 'Active').
- Icon:** Dropdown menu (set to 'Product SKU').
- Brand:** Text input field.
- Sub-brand:** Text input field.
- Client Code:** Text input field.
- Client Barcode:** Text input field.
- Publish Date:** Date picker.
- Effective Date:** Date picker.
- Expiry Date:** Date picker.
- Rank:** Spin box (set to 0).
- Import Identifier:** Text input field.
- Import Name:** Text input field.
- Import Date:** Date picker.
- Creation Date:** Date picker.
- Created By:** Text input field.
- Last Modified Date:** Date picker.
- Last Modified By:** Text input field.

At the bottom right, there are 'OK' and 'Cancel' buttons.

### Details Tab

The **Details** tab is used to configure the details for the product.

**Table 6–4 Products SKU - Details Tab**

Parameter	Comment
Name	The SKU name
Description	A description of the SKU
UPC Type	UPC type can be set from a drop down list. The list can be configured using the Product Code Type option in the Administration Module.
Code	The Code for the product.
UPC	The UPC for the product - it must conform to the mask set in UPC type option.
Category Role	The category role allows to select a role from the drop down list of roles that were set-up in the Administration module.
Strategy	Select from the drop down list. The list displays product strategies that were set up in the Administration module.
Manufacturer	Selected from the drop down list - the list can be configured using the Manufacturers option in the Administration module.
Supplier	Selected from the drop down list - the list can be configured using the Manufacturers option in the Administration module.
Status	Selected from the drop down list - the list can be configured using the Status option in the Administration module.
Icon	Selected from the drop down list.
Brand	The Brand for the product.
Sub-brand	The sub brand for the product.
Client Code	The Client Code for the product.
Client Barcode	The Client Barcode for the product.

### Physical Tab

The **Physical** tab is used to specify details concerning the physical aspects of the SKU.

**Figure 6–27 Products SKU - Physical Tab**
**Table 6–5 Products SKU - Physical Tab**

Parameter	Comment
Pack size	The pack size is the number of items in a pack of the product - it can be set to any positive numerical value.
Pack Units	Set from a drop down list - the list can be configured using the Units option in the Admin Module.
Color	The display color in the drawing - set from a color pallet.
Nominal color	For information purposes only.
Nominal Size	For information purposes only.
Hatch Style	Select from the drop down list of hatch patterns set in the Administration module. You may leave this field blank.
Flavor	Optional
Gender	Optional
Temperature Range	This feature is not implemented yet.
Max, Min and Units	This feature is not implemented yet.

### Financial Tab

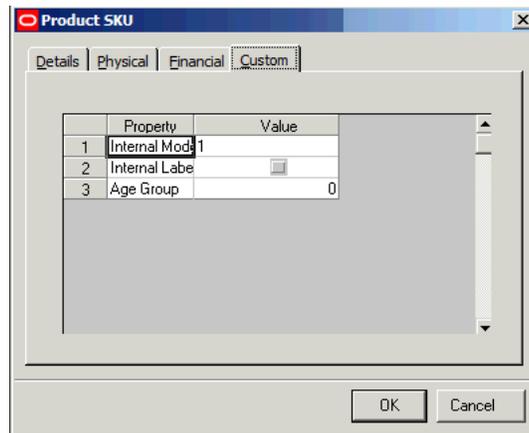
The **Financial** tab is used to record financial information on the SKU.

**Figure 6–28 Products SKU - Financial Tab**
**Table 6–6 Products SKU - Financial Tab**

Parameter	Comment
Currency	The currency associated with the products.
Price	The sales price of the item
Cost	The purchase cost of the item.
Profit	The profit in the selected currency. Set the profit by using the up/down arrow or enter the digit.
Calendar	Represents a period of time that the financial fields cover, for example a week, month or year.
Sales	Sales numbers in the selected currency.
Unit Movement	The rate at which the item is consumed.
Lead Time	The lead time between placing an order and receiving it.
Days of Supply	The number of days of supply the system should hold.
Cost Basis	Cost Basis can be selected from a drop down list.
Tax Code	Tax code can be selected from a drop down list. The options are configured using the Tax Code option in the Administration Module.

### Custom Tab

The **Custom** tab can be configured to hold customer specific items of information. The list of items displayed can be configured using the User Defined Attributes option in the Administration Module. A maximum of 15 items can be assigned.

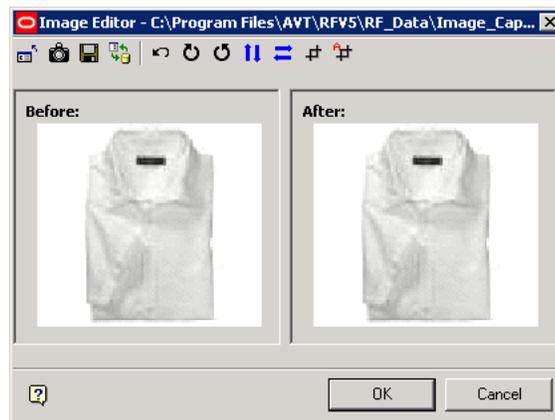
**Figure 6–29 Products SKU - Custom Tab**

### Display Styles

Display Styles can only be used in the Merchandiser module. They allow products to be represented on equipment or shelves with differing degrees of accuracy ranging from a simple box to a virtual reality image.

### Editing an Image

Images can be edited by right clicking on an assigned image in the **Images** tab. This brings up a pop-up menu. Selecting **Edit** brings up the Image editor.

**Figure 6–30 Image Editor**

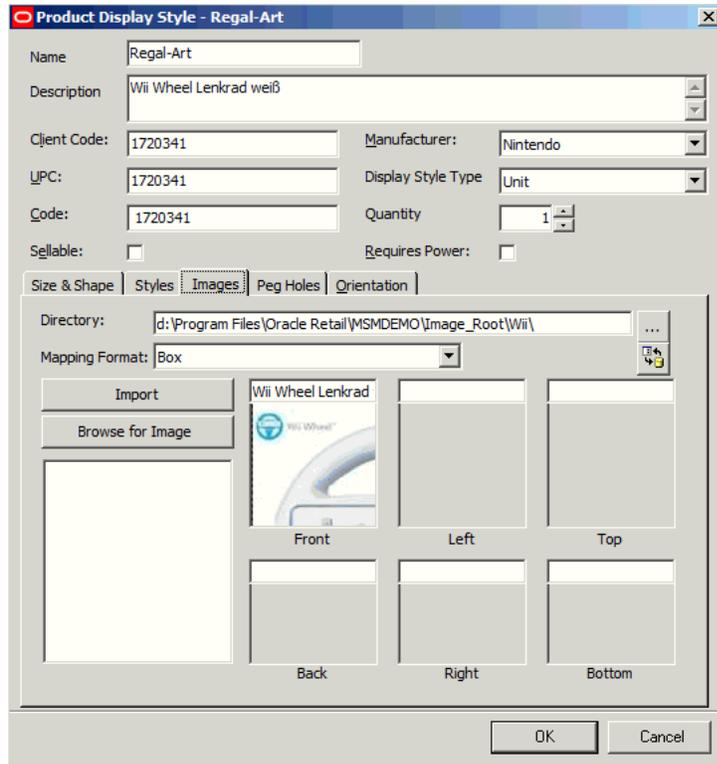
The toolbar at the top allows basic editing operations including rotating, flipping vertically and horizontally and cropping. The edited image can be saved back to the Image Root.

### Images Tab

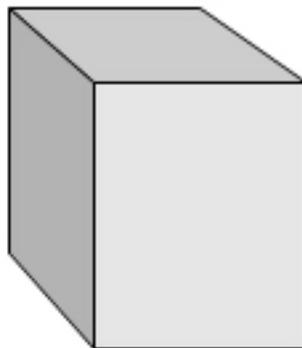
The **Images** tab allows you to specify the Images associated with the product. These will display when the product is placed in Macro Space Management Merchandiser if the Draw Products as Graphical option is selected to display the product.

Images can be imported into Macro Space Management (via Data Importer) or manually selected from the Image Capture directory specified in the Configuration Module.

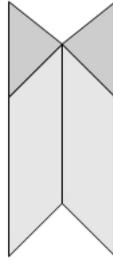
**Figure 6–31 Display Style Dialog Box**



The Directory is the directory that the image is held in. The Mapping format specifies whether the images are to be shown using a box or a cross format.



In a Box format, the images are placed on each of the six sides of a cuboid, so the left, right, front back, top and bottom images can be seen depending on which direction the product is being viewed from.

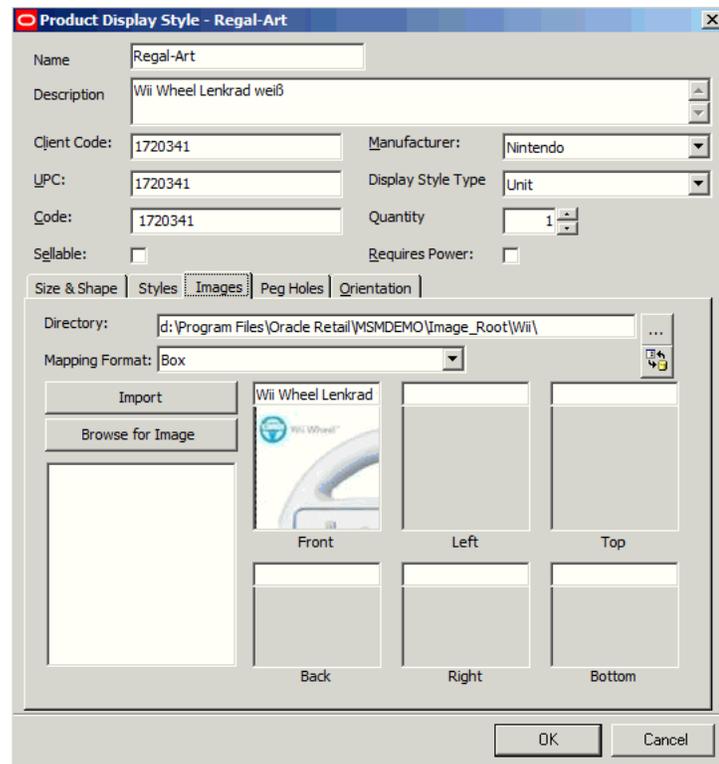


In a Cross format, the images are placed on the sides of a vertically aligned cross. This allows you to see images when rotating around it in the horizontal axis, but not when viewing it from above or below. Images that can be associated with a product are found in the Image Capture directory (specified in the Configuration Module). When assigned, they are stored in the Image Root and its associated sub-directories.

### Locating and Storing Images

For an image to be added manually to the product, it must be located in the Image Capture directory specified in the Configuration Module.

**Figure 6–32** Display Style Dialog Box



Clicking on the Browse button will take you to this directory, where an image can be selected and placed in the list of available images in the dialog box. The image can be dragged and dropped so it shows on the front, back, left, right, etc. of the product.

On clicking **OK**, a copy of the image will be saved in the image root. This will preserve all images allocated to the varying positions on the product, but images selected from

the Image capture directory and not allocated to a position on the product will not be saved when the dialog box is closed.

Images allocated to the product can be edited or deleted by right clicking and selecting the appropriate option.

## Peg Holes

The **Peg Holes** tab allows you to specify the Peg Holes associated with the product.

**Figure 6–33** *Display Style Dialog Box - Peg Holes*

The screenshot shows the 'Product Display Style - Regal-Art' dialog box with the 'Peg Holes' tab selected. The 'Peg Holes' section contains a table with the following data:

	A	B	C	D
1	0.13	2	4	
2	4.13	0	0	
3	4.13	0	0	

Below the table are controls for 'Width Offset (X)' (0.13), 'Depth Offset (Y)' (2), and 'Height Offset (Z)' (4). A 'Top Down View' diagram shows a grid of 12 positions with the top-left and top-right positions highlighted. A 'Style Filter' field is also present.

The Peg Hole Toolbar allows you to add a new peg hole to the product, or to delete an existing, highlighted one. The Peg Hole Settings allow you to define the position of the peg hole. This may be done either using the radio buttons, or by using the spin controls to set the X, Y or Z offsets.

The Defined Pegs Holes show the settings defined for each peg hole. In this example, two peg holes have been defined; one at the left top of the product and one at the right top.

## Size and Shape Tab

The **Size and Shape** tab allows you to specify the Size and Shape of the product.

**Figure 6–34 Display Style Dialog Box - Size and Shape**
**Table 6–7 Display Style Dialog Box - Size and Shape**

Parameter	Comment
Weight	Can be set to any positive numerical value - the units are specified in 'Weight Units' below.
Weight Units	Units are selected from a drop down menu and can be set to metric or imperial units.
Length Units	Units are selected from a drop down menu and can be set to metric or imperial units.
Fingerspace Above	Indicates space required above the product array when placed. Fingerspace Above values greater than 0 indicate that the product requires that amount of additional space above the product array when the product is placed.
Fingerspace Beside	Indicates space required to the right and left of the product array when placed. Fingerspace beside values greater than 0 indicate that the product requires that amount of additional space to the left and right of the product array when placed.
Shape	Shape is selected from a drop down list. It specifies the Product Block used for the product, and hence the general type of shape that will be displayed - box, cylinder, etc.
Color	This is the color used for simple representations of the product. It can be selected from a standard pallet.

**Table 6–7 (Cont.) Display Style Dialog Box - Size and Shape**

Parameter	Comment
Material	This is the coloring form used when products are represented when shown as textured boxes. It is selected from a drop down list. (Materials are configured via the view menu)
Jumble Factor	Indicates amount of additional space required in percentage. Jumble factor values greater than 0 indicate that the product requires that percentage of additional space when placed in a jumble bin.
Size	Length, depth can be set to any positive numerical value - the units being specified in 'Length Units' above
Nesting	This specifies the degree to which one unit can be stacked inside each other. It is entered as a positive numerical value. (For example, 5 vases of height 300 mm and a nesting height of 50 mm would have a total height of 500 mm).
Crush Factor %	This specifies how much the dimensions of soft items (such as cushions) can be compressed when stacked. Crush factor does not apply to the top item in the stack as it is not being compressed. (Three items of 100 mm height with a crush factor of 25% would have a combined height of 250 mm: 75 mm + 75 mm + 100 mm).
Gap	This is the gap between multiple instances of a product. It can be set to any positive numerical value - the units being specified in 'Length Units' above.  Half the gap is normally applied to each side of the product. Items stacked on top of each other will not normally have a height gap.
Min Stacking/Facings	This is the minimum number of products that can be placed in the facing, depth and height orientations.
Max Stacking/Facings	This is the maximum number of products that can be placed in the facing, depth and height orientations.

### Styles Tab

The **Styles** tab allows you to specify the Style(s) associated with the product. These in turn determine which fixtures and shelves the product can be placed on. A product must have at least one style assigned before it can be placed - and that style must be compatible with the style on the object on which it is being placed.

**Table 6–8 Styles Tab**

Parameter	Comment
Available Styles	This is the list of styles that can be assigned to the product
Selected Units	This is the list of styles that have been assigned to the product.

Styles are selected or de-selected using the Selection Option buttons. Styles can be configured in the Administration Module. The Style Configuration button allows you to access this option.

**Figure 6–35 Display Style Dialog Box - Styles**

The screenshot shows the 'Product Display Style - Regal-Art' dialog box with the 'Styles' tab selected. The dialog contains the following fields and options:

- Name: Regal-Art
- Description: Wii Wheel Lenkrad weiß
- Client Code: 1720341
- Manufacturer: Nintendo
- UPC: 1720341
- Display Style Type: Unit
- Code: 1720341
- Quantity: 1
- Sellable:
- Requires Power:

The 'Styles' tab is active, showing two lists:

- Available Styles:** White Goods, PRA, Hung Product, Specialist or Other Product, PRS
- Selected Styles:** General Product

Navigation buttons (OK, Cancel) are at the bottom right.

### Orientation Tab

The Orientation tab allows you to set the orientation of product display.

**Figure 6–36 Display Style Dialog Box - Orientation**

The screenshot shows the 'Product Display Style - Regal-Art' dialog box with the 'Orientation' tab selected. The dialog contains the following fields and options:

- Name: Regal-Art
- Description: Wii Wheel Lenkrad weiß
- Client Code: 1720341
- Manufacturer: Nintendo
- UPC: 1720341
- Display Style Type: Unit
- Code: 1720341
- Quantity: 1
- Sellable:
- Requires Power:

The 'Orientation' tab is active, showing two sections:

- Preferred Orientation:**
  - Front
  - Back
  - Front Side
  - Left
  - Right
  - Left Side
  - Top
  - Bottom
  - Top Side
- Legal Orientations:**
  - Front
  - Back
  - Front Side
  - Left
  - Right
  - Left Side
  - Top
  - Bottom
  - Top Side

Navigation buttons (OK, Cancel) are at the bottom right.

- Preferred Orientation: You may select only one preferred orientation.
- Legal Orientation: You may select multiple legal orientation.

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## Batch Tools

This section provides a brief overview of Batch Tools for non-Admin users:

- [Overview](#)
- [Automated Calculations](#)
- [Data Importer Batch](#)
- [Planogram Importer](#)
- [Planogram Substitution](#)
- [Update Status](#)

### Overview

Macro Space Planning provides Batch Tools for processing of bulk data. These tools are generally used by Administrators to carry out data processing operations when the application is not in normal use, that is, at night or over the weekends.

Each of these batch tools can be configured by an Administrator to carry out the required changes to the database. They can then be called on a regular schedule by a scheduling batch tool to run overnight or at the weekends.

For example, Automated Calculations might be run overnight Monday to Friday to ensure data for each file (floor plan) is up to date for reporting purposes. Products and Planograms might be imported each weekend to ensure that store planners have an up to date list of merchandise for placement.

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**Note:** The exact schedule for batch operations will differ from organization to organization; consult your administrator for information on the schedule batch operations carried out.

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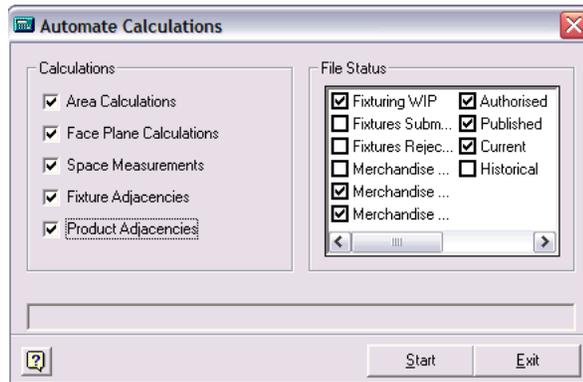
**Important:** Each time a batch tool executes a scheduled task, changes are made in the database. Users must be aware of the consequences of these changes to the database.

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### Automated Calculations

Automated Calculations is used to carry out different types of calculations such as the Area Calculations, Face Plane Calculations, Space Measurements, Fixture Adjacency, and Product Adjacency Calculations on files of selected statuses.

**Figure 7–1 Automated Calculations Batch**

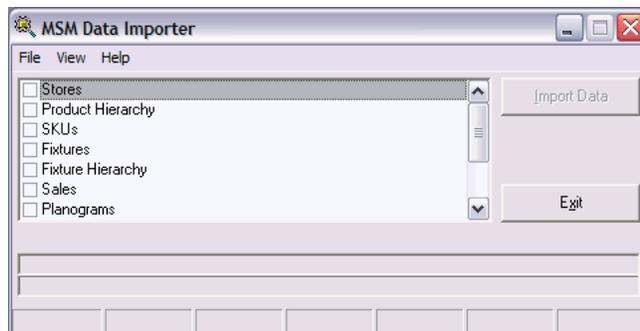
When the batch tool is run, the selected calculations are carried out and updates are done to the Area, Face Plane, Space Measurements, Fixture Adjacency, and Product Adjacency Calculations in the database. This gives maximum reporting accuracy.

It does not normally need any action from a standard user.

Only users with Administrator's role have access to this batch tool. If a user has logged in as a common user, s/he may not be able to view this option. For more information on Automated Calculations, refer the *Oracle Retail Macro Space Management Administrations Guide*.

## Data Importer Batch

The Data Importer batch allows users to import data from third party software into the MSM/ISSC database. The data is imported by a user with Administrator's role. This section briefly explains the type of data that can be imported using the Data Importer.

**Figure 7–2 MSM Data Importer**

Some of the data that can be imported into any database table (or combination of tables):

- Users and their User Groups
- Stores and their hierarchy
- Fixtures and their hierarchy
- Product hierarchy
- Product information at Stock Keeping Unit (SKU) and Display Style Level

- EPOS (Electronic Point of Sale) information

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**Note:** Users should be aware of the schedule that data imports are run on. This will primarily affect the products available for placement. New products will be brought in, and some older products expired and made no longer available for use.

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For more information on Data Importer, refer the section on Data Importer.

## Planogram Importer

Planogram can be imported using Oracle data Integrator (ODI). Planogram Designs are often imported as part of a batch process. The batch process is run to import new planogram designs, updated versions of existing planograms, and updated financial information for planograms.

When the batch is run, the users should be aware of the schedule that planogram imports are run on. This will affect the planogram available for placement. New planograms will be brought in, and some older planograms removed from the database.

## Planogram Substitution

A planogram substitution is the automated way of replacing one or more planogram designs with the existing planograms. These substitutions can be universal for the selected floor, store or group of stores. It can be run manually for a single drawing, or for multiple stores by a user with Administrators rights or automatically as a batch process for multiple stores in the database.

Planogram need to be substituted when an existing planogram design version has changed and an updated version of the design is available. This results in older version of a planogram in one or more store plans being changed for the more recent version. For example, a planogram containing different brands of baked beans might be adjusted so that curried beans take up fractionally more space than in the earlier version of the planograms. When version change is carried out in a store plan, information in the database is changed to show that the planogram design has been changed from the old to the new.

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**Note:** Planogram Substitution and Version Change cause change to be made in the database. If users open drawings in the Merchandiser module or in In-Store Space Collaboration, the drawing will automatically be updated with the changed planograms. If users open a drawing in the Planner module, the changes made in the database will not be reflected in the DWG file. Accordingly, the DWG file will require Synchronizing to Database to ensure that the database and DWG file contain the same information.

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**Note:** Certain settings within Planogram Substitution can result in additional Authorized files being created if planogram substitution is being carried out on files of Current status. These additional files will be found in the same Store Manager Revision as the current file. The newly created Authorized files will also have had Publish and Effective Dates set, so can have their status changed by Update Status.

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## Examples of Planogram Substitution

Planogram Substitution can be done in many ways. This provides users the complete flexibility in selecting planograms to be substituted and defining the planograms that are to be inserted as their replacements. Some of the examples of substitution of planograms are:

- **One to One**  
The simplest form of planogram substitution is a 'one to one' substitution. One planogram of a specified length is replaced by another planogram of equal length.
- **One to Many**  
Another form of planogram substitution is a 'one to many' substitution. One planogram of a specified length is replaced by two or more planograms whose combined length is the same as that of the planogram being replaced.
- **Many to One**  
In Many to One planogram substitutions, several planograms are selected and replaced by a single planogram equal in length to the sum of the lengths of the planograms being replaced.
- **Many to Many**  
A 'Many to Many' planogram substitution occurs when multiple planograms are selected for replacement and are substituted by multiple planograms occupying the same length as the planograms being replaced.
- **One to None**  
In One to None Substitution, you can remove a planogram without specifying a replacement. This might be called for when a planogram has to be removed for legal reasons, etc., but no replacement has been decided on.
- **One to None with Fixture Removal**  
In One to None substitution, it is also possible to remove the parent fixture. This might be because parts of a store are being assigned to a different purpose and the fixturing is changing as well as the planograms.

### Revision Change

Revision change occurs when a planogram design has been updated with minor changes and the name of the planogram design has remained the same. If planogram substitution is being carried out on a drawing, any planograms in the drawing that are of an earlier version than those in the database will automatically be updated to those of the later version.

## Accessing the Planogram Substitution

There are three broad levels of access to the Planogram Substitution functionality:

- **Administrator Level**  
Users with Administrator's access can control all aspects of planogram substitution functionality. They can configure the access to the planogram

substitution. This involves setting up user groups and assigning users to the appropriate ones. Administrators can define and run planogram substitutions and can also set up and control batch processes.

- Merchandise Manager Level

Users with Merchandise Manager privileges have access to the planogram substitution module, but not to the Administration module. This enables them to define and bulk run planogram substitutions but not to control access to planogram substitution, or to control batch processes.

- Common users

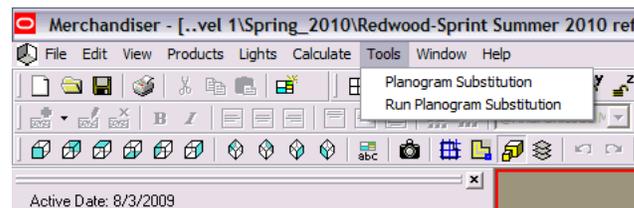
Users with normal privileges have the ability to run substitutions on individual active store plans in the Planner and Merchandiser modules. They do not have the privileges to define planogram substitutions or run them in bulk.

### Planogram Substitution in Merchandiser

This section explains running the Planogram Substitution as a common user. Planogram Substitution can be run by a common user, only if the Administrator user has defined any substitutions for the active drawing.

As a common user, you can run the Planogram Substitution from the **Tools** menu of the Merchandiser module.

**Figure 7-3** Planogram Substitution in Merchandiser



The **Run Planogram Substitution** option allows common users to manually run planogram substitutions. When the **Run Planogram Substitution** is selected, the batch is initiated in the background and no confirmatory message is displayed in the graphic user interface.

Planogram Substitutions are carried out if the following conditions are met:

- The drawing must be checked in and not in use.
- The planogram must be in 2D (imploded) mode. (Planograms in 2.5D or 3D mode will not be substituted).

### Planogram Substitution in Planner

This section explains running the Planogram Substitution as a common user. Planogram Substitution can be run by a common user, only if the Administrator user has defined any substitutions for the active drawing.

As a common user, you can run the Planogram Substitution from the **Tools** menu of the Planner module.

The **Run Planogram Substitution** option allows common users to manually run planogram substitutions. When the **Run Planogram Substitution** is selected, the batch is initiated in the background and no confirmatory message is displayed in the graphic user interface.

Planogram substitutions are carried out by making changes directly in the database. For example if the database tables show a fixture containing Planogram A before the substitution, the tables will show the fixture containing planogram B after the substitution. The Merchandiser module and In-Store Space Collaboration read data directly from the database, so will show the changes directly the drawing is next opened.

The Planner module stores information in an AutoCAD *DWG* drawing. If a drawing is opened in the Planner module after Planogram Substitution or Version Change, the changes will have been made in the database, but not in the *DWG* file. After planogram substitutions have been made and the information in the database changed, the information in the *DWG* drawing has to be synced with the drawing in the database by means of Synchronization.

For information on how to synchronize the drawings, refer the section on Synchronization.

## Update Status

Update Status allows the automatic updating of the statuses for stores and files under specific circumstances:

- Proposed stores will be changed to Open status, if the Opened Date is exceeded.
- Open Stores will be changed to Closed status, if the Closed Date is exceeded.
- Floor Plans (files) at Authorized Status will be changed to Published Status, if the Published Date is exceeded.
- Floor Plans (files) at Authorized or Published Status will be changed to Current Status, if the Effective Date is exceeded.

When the Update Status batch is run, the status of the files are updated from Authorized file status to Published status and Published status to Current status. Files for which status has changed recently can be identified in a report.

Based on this report:

- Files that have reached Published status can be sent to the pertinent stores so that they can prepare for implementation. Equipment and Product takeoffs can also be sent to the purchasing department so that any additional equipment and products can be placed on order.
- Stores can be notified of files that have reached Current status so that they can implement the plan.

Only users with Administrator's role have access to this batch tool. For more information, refer the *Oracle Retail Macro Space Management Administrations Guide*.

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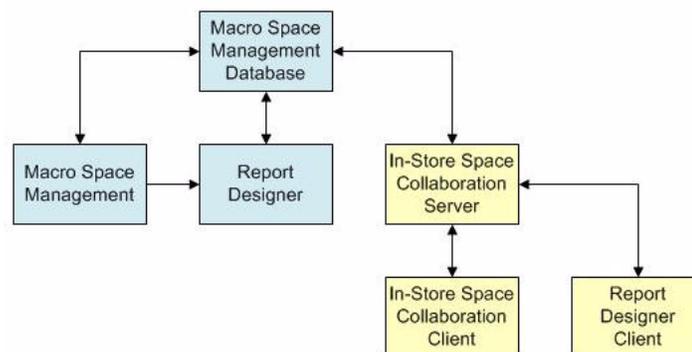
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## Report Designer

The Report Designer tool is used to create customized planogram report templates for Macro Space Management. The report template is used to view (for example) multiple planograms. Each planogram is selected during the print operation and the printed output displays specific details of that planogram.

These reports can also be initiated (but not edited) in In-Store Space Collaboration. Report designer can be supplied as a stand-alone *exe* that can be used separately or integrated with the application and accessed from within the Merchandiser module.

**Figure 8–1 Report Designer Relationship**



This chapter explains the Report Designer tool. It contains the following topics:

- Overview
- Creating a New Report
- Menu Bar and ToolBar Commands
- Designing the Report
- Other Design Options
- Accessing Existing Templates
- Printing

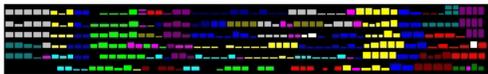
### Report Templates

The report template can be customized to user requirements with user specified titles, tables, planogram views, and other formatting.

In the example below, the report template will result in a report output with following columns:

- Planogram Name
- Front view of planogram
- Table of merchandise contained in the planogram.

**Figure 8–2 Example of a report**

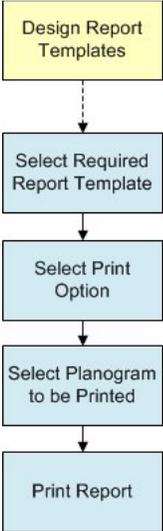
15 DR FROZEN ENTREE/PREPARED				
				
Bay	Name	Description	Manufactur	Qty
0	BANQUET	BANQUET SEL DNR CH	Generic Pro	216
0	BANQUET	BANQUET SEL DNR CH	Generic Pro	144
0	BANQUET	BANQUET SELECT ME	Generic Pro	216
0	BANQUET	BANQUET SELECT ME	Generic Pro	144
0	BANQUET	BANQUET DNR SEL YA	Generic Pro	216
0	BANQUET	BANQUET DNR SEL YA	Generic Pro	144
0	BANQUET	BANQUET CHICKEN FI	Generic Pro	216
0	BANQUET	BANQUET CHICKEN FI	Generic Pro	144
0	BANQUET	BANQUET ORIGINAL F	Generic Pro	132
0	BANQUET	BANQUET ORIGINAL F	Generic Pro	72
0	MICHELINA	MICHELINAS RAVIOLI A	Generic Pro	132
0	MICHELINA	MICHELINAS RAVIOLI A	Generic Pro	108
0	MICHELINA	MICHELINAS PENNE P	Generic Pro	132
0	MICHELINA	MICHELINAS PENNE P	Generic Pro	108
0	MICHELINA	MICHELINAS STUFFED	Generic Pro	132
0	MICHELINA	MICHELINAS STUFFED	Generic Pro	72
0	MICHELINA	MICHELINAS LEAN GO	Generic Pro	132
0	MICHELINA	MICHELINAS LEAN GO	Generic Pro	72
0	MICHELINA	MICHELINAS LEAN GO	Generic Pro	132
0	MICHELINA	MICHELINAS LEAN GO	Generic Pro	72
0	HLTHY CH	HLTHY CHC DU SALISB	Generic Pro	156
0	HLTHY CH	HLTHY CHC DU SALISB	Generic Pro	108
0	HLTHY CH	HLTHY CHC FRZ DNR B	Generic Pro	192

## Using Report Designer

Report Designer is used in two phases:

1. The necessary Report Templates are designed.
2. A Report is printed using a selected template and data.

**Figure 8-3 Designing Report Templates**



Various report templates can be designed and stored in Report Designer. Each report template provides one way of outputting data on (for example) a planogram. One report template might provide a list of equipment required for the fixtures on which a planogram is to be placed. Another report template might provide a list of the merchandise in the planogram.

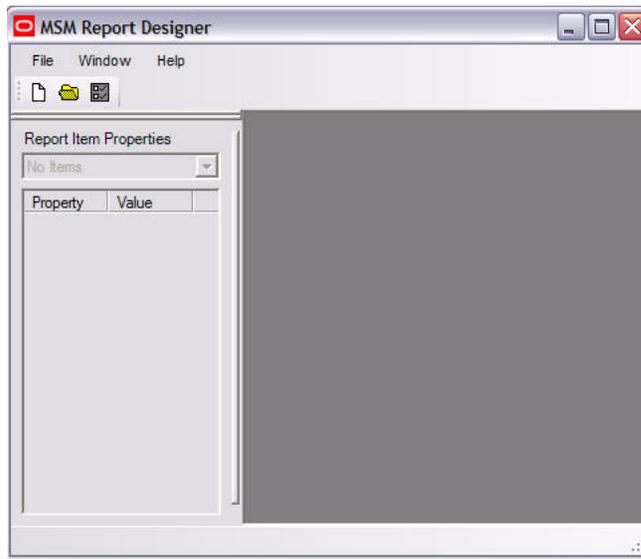
**Generating Reports**

To generate a report, first select the required template. Next select the print option. After the print dialog appears, the planogram section dialog will also appear. After the required planogram has been selected, a report containing the specified information on that planogram will be printed.

**Accessing the Report Designer**

Report Designer opens in a blank screen.

**Figure 8–4 Report Designer Opening Window**

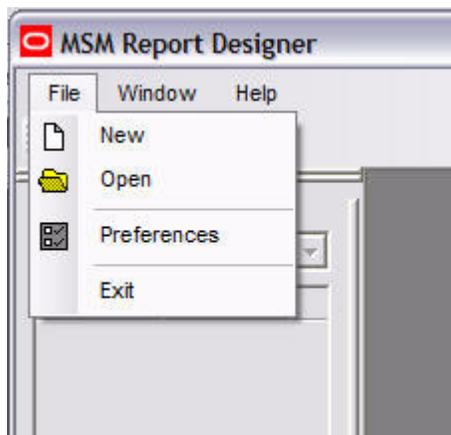


The Menu Bar (1) gives access to some basic options. The Toolbar (2) gives access to similar options. The Report Item Properties (3) Object Browser is not active at this stage.

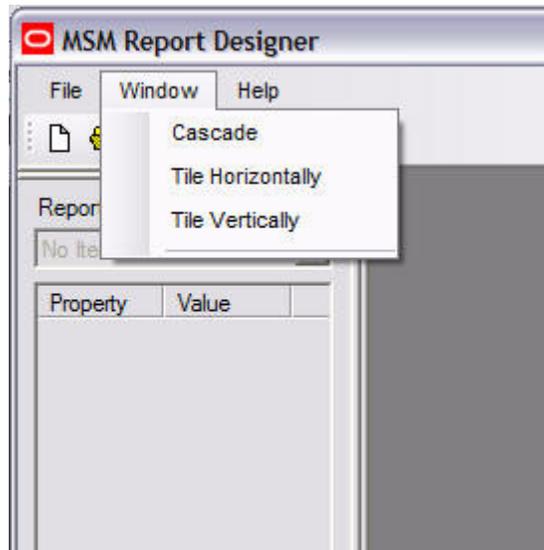
## Menu and Toolbar Options

The **File** menu allows you to create new reports, open an existing one, set some basic preferences or exit the program.

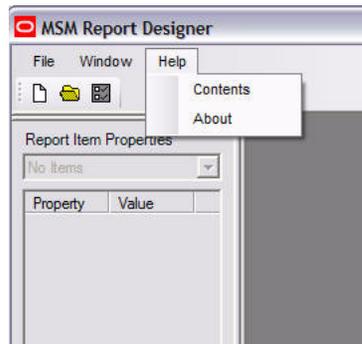
**Figure 8–5 Report Designer File Menu**



The **Window** menu allows you to tile multiple reports, either horizontally, vertically or in a cascade.

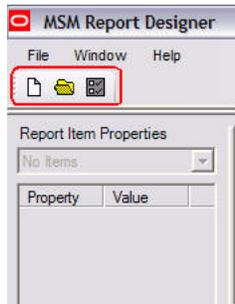
**Figure 8–6 Report Designer Window Menu**

The **Help** menu provides access to the help files, or to get information on the version of the software.

**Figure 8–7 Report Designer Help Menu**

The **Toolbar** allows you to create a new report, open an existing one or set preferences.

**Figure 8–8 Report Designer Toolbar**

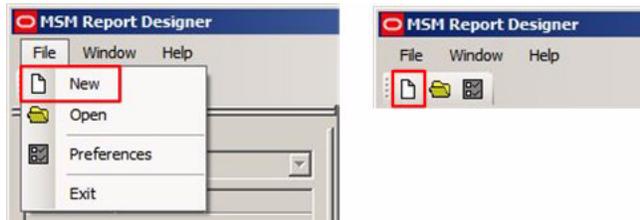


## Creating a New Report Template

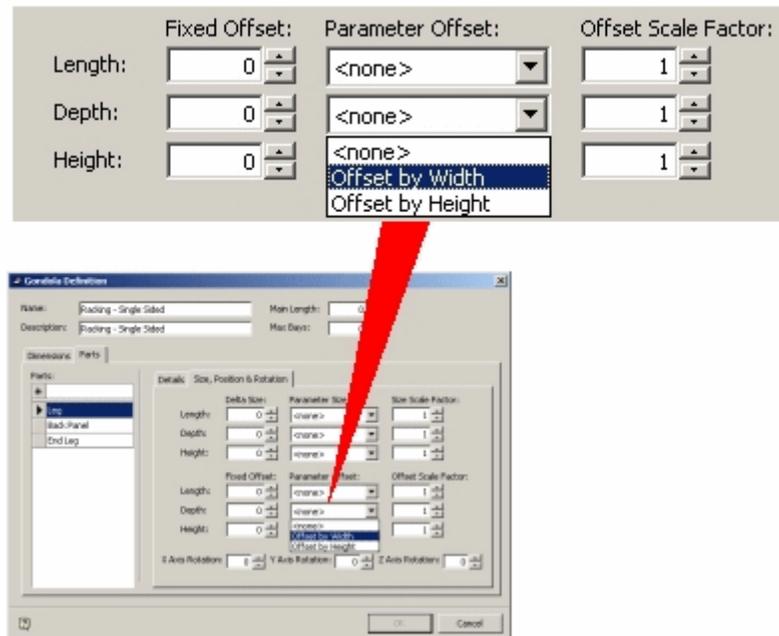
To create a new Report:

1. Select the **New** option from the File menu or select **New** from the toolbar.

**Figure 8–9 Report Designer - Create a New Report**



This will bring up the New report dialog box.

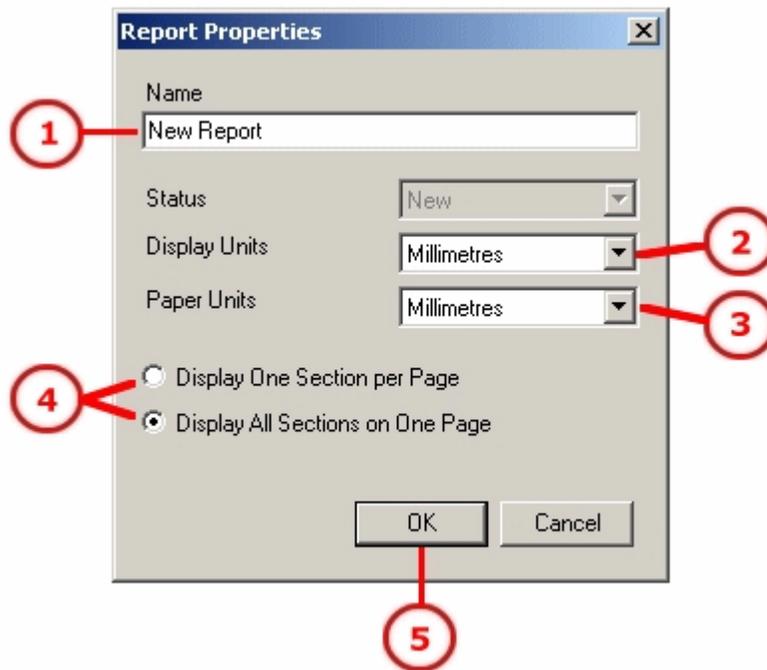
**Figure 8–10 Report Designer - New Report Dialog Box**

2. Enter the following details in the dialog box:
  - **Name:** Provide a valid name for this Report Layout. This name must be unique. A maximum of 40 characters can be entered.
  - **Display Units:** Select from the drop-down list. It determines the units that are shown in the view objects to indicate the height of shelves, etc. This displays a choice of inches or mm.
  - **Paper Units:** Select from the drop-down list. It determines the units for defining the size of the paper and the positions of objects on the paper. This displays a choice of inches or mm.
  - **Display One Section per Page:** Select the option if you want to generate a separate page for each section/profile in the planogram, or whether all sections will be shown on a single page.
3. When done, click on the **OK** button to complete the initial creation process. This will cause a Report Design dialog box to appear.

## Report Design Dialog Box

The **Report Design dialog box** appears within the main Report Designer screen.

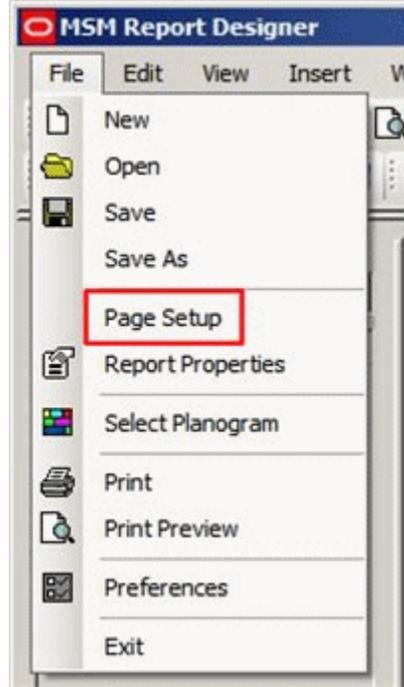
**Figure 8–11 Report Designer - Report Design Dialog Box**



- **Rulers** show the dimensions in the selected units. The units for the rulers is determined by the Paper Units for the current user. The origin for the rulers is the top left corner of the page. The rulers are updated as the page is panned or zoomed.
- **External Margins** are areas outside the area that is printed. They can be used to hold data not intended for the printed output.
- The **Printable Area** is the area inside the thick grey border. Only information inside of this area is printed.

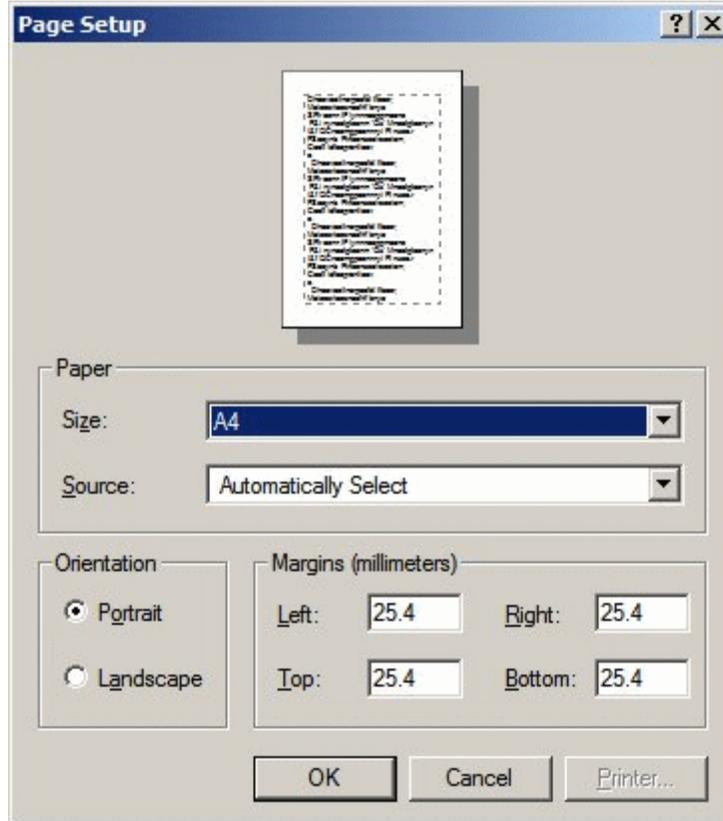
## Page Set Up Options

The **Page Set Up** for printing can be activated from the File menu.

**Figure 8-12 Page Set Up**

This will bring up the Page Set up dialog box which allows the page set up to be configured before printing.

Figure 8–13 Page Set up dialog box



All page setup values will be stored with the report layout, except the *Source* (e.g. Tray). The default values will where possible be derived from the settings for the default printer.

Click OK once all details have been configured.

## Commands

### General Commands

The majority of the commands that can be activated by the user are accessible from both the standard menus and from the toolbar. In all cases the operation of the command is identical regardless of how the user activates it.

For all commands, if the current state of the editing environment prevents the operation of that command, it will be disabled. For example, if no items are selected, the Cut or Copy commands will be disabled.

Some commands will also change display state to indicate if they are currently in effect or to indicate a item in an operational state.

In all cases, selecting a command before a previous command has completed will cancel the prior command.

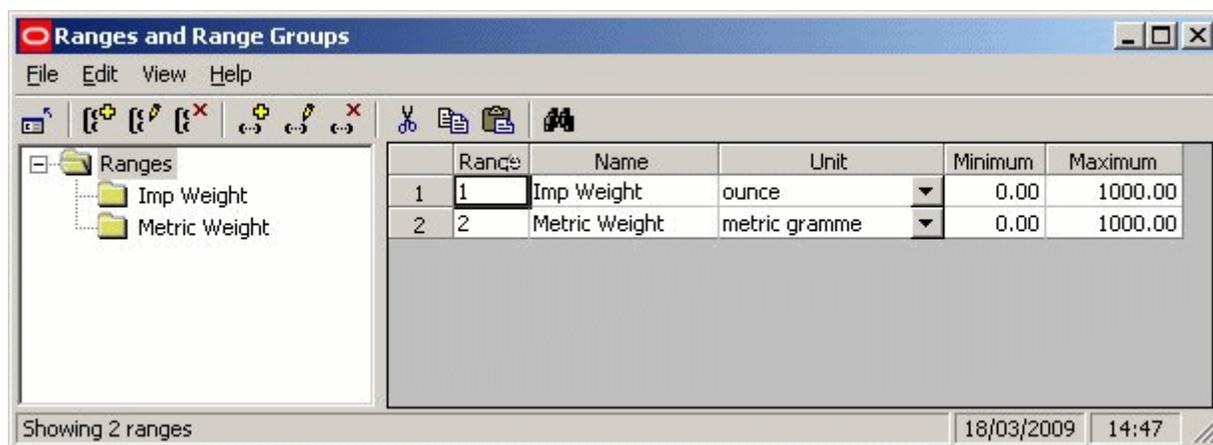
### Toolbar Only Commands

These commands are only available from the main toolbar and provide quick access to several of the properties for the reporting items. All of these commands will also indicate the current state of the property by displaying the relevant button in a pressed state. The commands only available on the toolbar include:

- Views
- Text Justification
- Text Style

### Menus and Toolbars

The full menus and toolbars will appear when a report has been created, or is opened for editing.



- The **Menu Bar** gives access to the varying drop down menus.
- The **Report Options** allow users to create, edit and save reports.
- The **Select Planogram Option** allows users to select a planogram for the report.
- The **Print Options** allow users to print the report.
- **Preferences** allows users to set some personal preferences.
- The **Edit Toolbar** gives access to editing options.
- The **Grouping, Locking and Behavior Toolbar** allows users to group, lock and move objects in front of or behind others.
- The **View Options Toolbar** allows users to change the screen scale and focal point.
- The **Insert Options Toolbar** allows users to insert various types of object in the report.
- The **View Directions Options Toolbar** allows users to select which direction a planogram is viewed from.
- The **Text Options Toolbar** allows text to be justified or changed to bold/italic.

## Commands common to Menu Bar and Toolbar

**Table 8–1 Common Commands to Menu Bar and Toolbar**

Menu	Toolbar	Description
File		The File commands allow the user to manipulate report layout documents. Also provided are commands to adjust user preferences and to exit the designer.
	New	This will create a new empty layout document and display the <i>Report Properties</i> dialog where initial parameters can be defined.
	Open	This will display the <i>Report Layouts</i> dialog allowing a layout to be opened for viewing or editing. If a layout is opened that has a read-only status, then all editing functionality will be disabled.  Multiple Report Layouts can be open at any one time and each will be contained in a separate document window.
	Save	This will save the layout, either updating the existing definition or adding a new one if this is a new layout.
	Save As	This will display the <i>Report Properties</i> dialog, where the user can enter a new name, it will then be saved as a new layout.
	Page Setup	This will display the <i>Page Setup</i> dialog. This will allow the report page dimensions and related options to be defined.
	Report Properties	This will display the <i>Report Properties</i> dialog which allows report specific information to be viewed or edited.
	Select Planogram	This will display the <i>Select Planogram</i> dialog, this will allow the designer to test the report using real data. If a planogram is loaded like this, it will be used by the editor to represent an example of the planogram during editing.  An option will also be provided to load a test planogram, this will be the default planogram when a layout is loaded and will contain generic test data.  The <i>Print</i> command will also allow planograms to be loaded.
	Print	This will display the <i>Print</i> dialog to allow the current layout to be printed. The <i>Select Planogram</i> dialog will also be displayed allowing the user to select what to print.
	Print Preview	This will display the <i>Print Preview</i> dialog, this shows an example of the printed report. The report will preview using the currently loaded planogram (see <i>Select Planogram</i> ).
	User Preferences	Displays the <i>Options</i> dialog, this allows the user to configure certain aspects of the design environment to their own personal preference.
	Exit	This will close the application. It will prompt the user to save any pending changes.

**Table 8–1 (Cont.) Common Commands to Menu Bar and Toolbar**

Menu	Toolbar	Description
Edit		The <b>Edit commands</b> allow the user to manipulate the individual items on a report layout.
	Cut	Copies the selected items to the clipboard and removes them from the layout. Any items already on the clipboard will be lost.
	Copy	Copies the selected items to the clipboard. Any items already on the clipboard will be lost.
	Paste	Copies all items on the clipboard to the current layout. The items will be retained on the clipboard for further use.  When items are pasted, they will be placed on the layout at the nearest point to the top left corner of the editing area but will retain their positions relative to each other. All the pasted items will be selected so that they can easily be relocated to the correct position on the layout. Any currently selected items will be automatically de-selected.  Note that the clipboard is shared by all open layouts.
	Delete	Deletes the selected items from the current document, the items will not be placed on the clipboard.
	Undo	Undoes the last change in the current layout document.  The undo stack is held per document but can only contain a limited number of undoes. The stack is lost when that layout is closed and is cleared when the layout is saved.
	Group	This will group selected objects, giving them a common group.  If items are grouped then, provided GROUP option is enabled in the status bar, all items will be selected if just one item in the group is picked.  This will enable users to move sections of the report around more easily, by treating them as a single object.  Turning the GROUP function off in the status bar will then allow objects to be manipulated singly.
	Ungroup	This will ungroup selected objects, reverting them back to independent items.
	Lock	This will lock the selected items to prevent them from being edited or deleted. Locked items can still be selected, have their properties inspected and can still be copied to the clipboard.  Note that locked items placed on the clipboard will not retain their locked status.
	Unlock	This will unlock the selected items, allowing them to be once again moved or deleted
	Bring To Front	This will change the display order of the selected items and bring them to the front so that they are not obscured. The selected items will retain their relative display order.
	Send to Back	This will change the display order of the selected items and place them behind all other objects. The selected items will retain their relative display order.

**Table 8–1 (Cont.) Common Commands to Menu Bar and Toolbar**

Menu	Toolbar	Description
View		The <b>View commands</b> are used to affect the view of the layout document.
	Pan	This will switch to pan mode. In this mode, clicking and dragging over the editing area will cause the view to scroll with the mouse.  Note that this mode will stay active until it is manually de-activated.
	Zoom Window	This will prompt the user to zoom into an area of the document defined by a rectangle drawn with the mouse. The area within the rectangle will be magnified to fill the editing area.
	Zoom In	This will increase the magnification of the design view by a factor when the mouse is clicked in the design area. The magnification will be centred at the position of the mouse.  Note that this mode will stay active until it is manually de-activated.
	Zoom Out	This will decrease the magnification of the design view by a factor when the mouse is clicked in the design area. The magnification will be centred at the position of the mouse.  Note that this mode will stay active until it is manually de-activated.
	Zoom Extents	This will make the entire layout document page fit into the design area. If any parts of the layout are off the actual page area, these will be included. An extra padding margin will also be included to aid visual clarity.
Insert		The <b>Insert commands</b> are used to add the reporting items to the layout.
	Label	This will add a text label object to the current document, the cursor will be changed and the user prompted to mark out the bounds of the label.  The label when added will contain a default text string that is the same as the control name.
	Field	This will add a field object to the current document, the cursor will be changed and the user prompted to mark out the bounds of the field.  A dialog will then be displayed allowing the user to select the data source (held in the database) for the field.
	Image	This will add an image object to the current document, the cursor will be changed and the user prompted to mark out the bounds of the image.  A dialog will then be displayed allowing the user to select the source for the image. The image can be any of the following formats: BMP, GIF, PNG, JPEG.  The image will be scaled to fit the bounds but will not maintain its aspect ratio.  Note that the image must reside on a network accessible path that can be resolved by the server for the client versions.

**Table 8–1 (Cont.) Common Commands to Menu Bar and Toolbar**

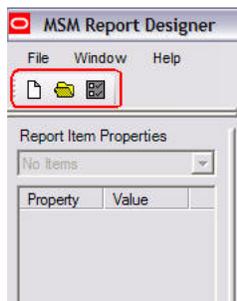
Menu	Toolbar	Description
	Line	This will add a line object to the current document, the cursor will be changed and the user prompted to mark out the line.
	Rectangle	This will add a rectangle object to the current document, the cursor will be changed and the user prompted to mark out the bounds of the rectangle.
	View	<p>This will add a planogram view diagram to the document, the cursor will be changed and the user prompted to mark out the bounds of the view.</p> <p>The diagram will default to a front view, but the user can change the view direction by pressing the appropriate button on the toolbar, or selecting the required option from the dropdown list in the Properties panel.</p> <p>By default a new view item will not include any extra information, to configure the view, use <i>the Planogram View Properties</i>.</p>
	Table	<p>This will add a data table item to the current document, the cursor will be changed and the user prompted to mark out the bounds of the table.</p> <p>Once the table bounds have been defined, the table data dialog will be displayed where the user can define the source for the data and how it is represented.</p>
Window		The <b>Window menu</b> is used to alter the way in which the document windows are arranged in the main editing area.
	Tile Horizontally	This will tile the open document windows vertically down the editing area. Each window will be stretched to fill the full width of the area.
	Tile Vertically	This will tile the open document windows horizontally across the editing area. Each window will be stretched to fill the full height of the area.
	Cascade	This will cascade the open document windows within the editing area. Each window will be positioned slightly down and to the right of the top-left corner of the previous one.
	Document 1	A menu item will be included in the Window menu for each open document. This actual menu item text will be the name of the document contained in that window, this will also be used for the title of the window. Selecting the menu option will select that document, this will make it the currently active one and display it on top of other document windows. The main designer window will also include the title of the active document within its title bar.
Help		The <b>Help menu</b> provides information about the software.
	Contents	This will display the help contents page for the report designer.
	About	This will display the <i>About</i> dialog. This contains the software version as well as some other items of information.

## Designing the Report Template

There are seven types of objects that can be added to the report being designed. These are selected from the Insert menu or from the Insert toolbar.

Both sets of options work in an identical manner.

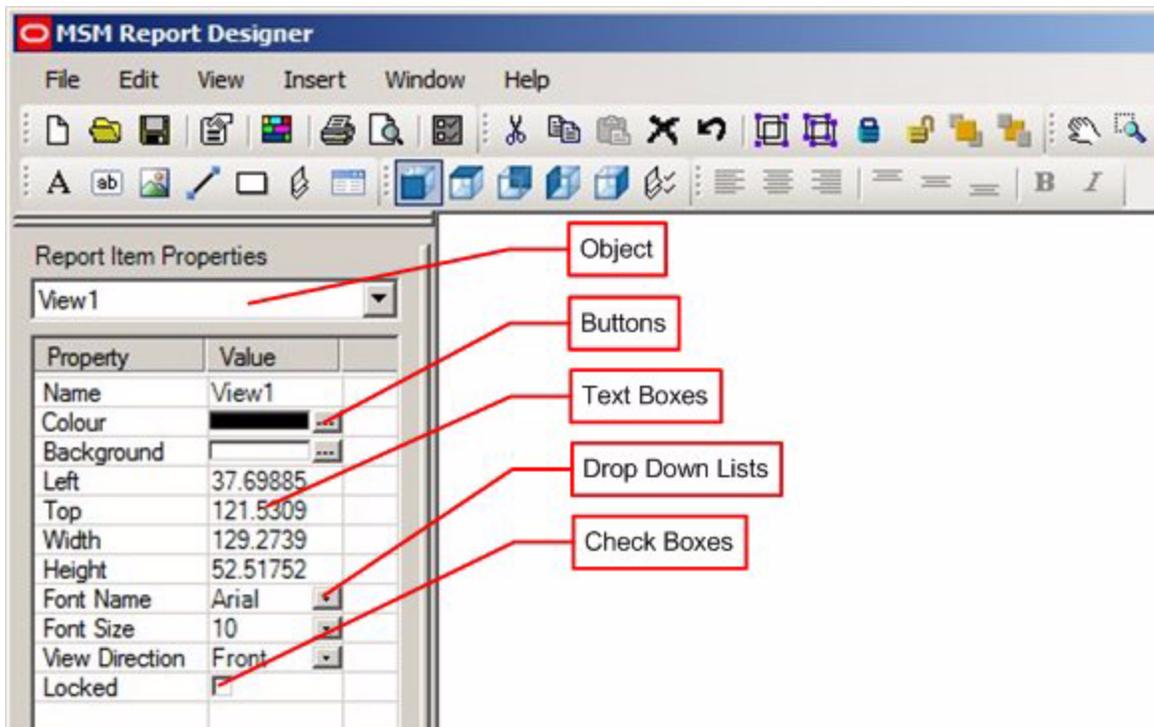
**Figure 8–14 Report Designer Toolbar**



## Overview of Report Item Properties

Report Item Properties will be found on the left of the screen. It allows any of the seven types of object that can be placed in the report to be customized.

**Figure 8–15 Report Item Properties**



- The Object to be edited can be selected from a drop down list
- Buttons give access to some editing options

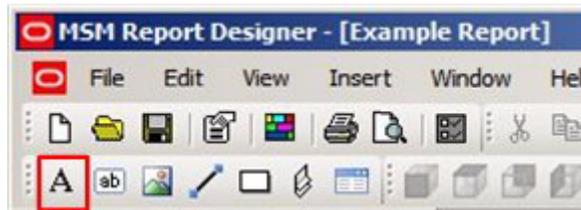
- Typing into Text Boxes allows other options to be customized.
- Drop down lists allow other options to be customized.
- Check boxes allow options to be turned on or off.

## Adding a Label

To add a Label to the report:

1. Click on the Label icon on the insert toolbar.

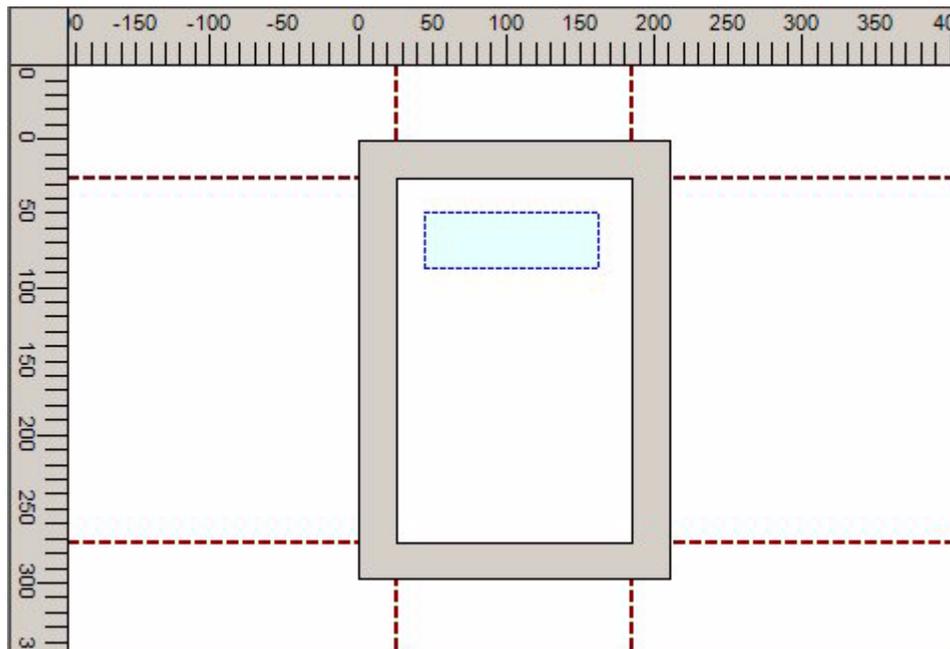
**Figure 8–16 Label Icon**



Alternatively, select the Label option from the Insert menu.

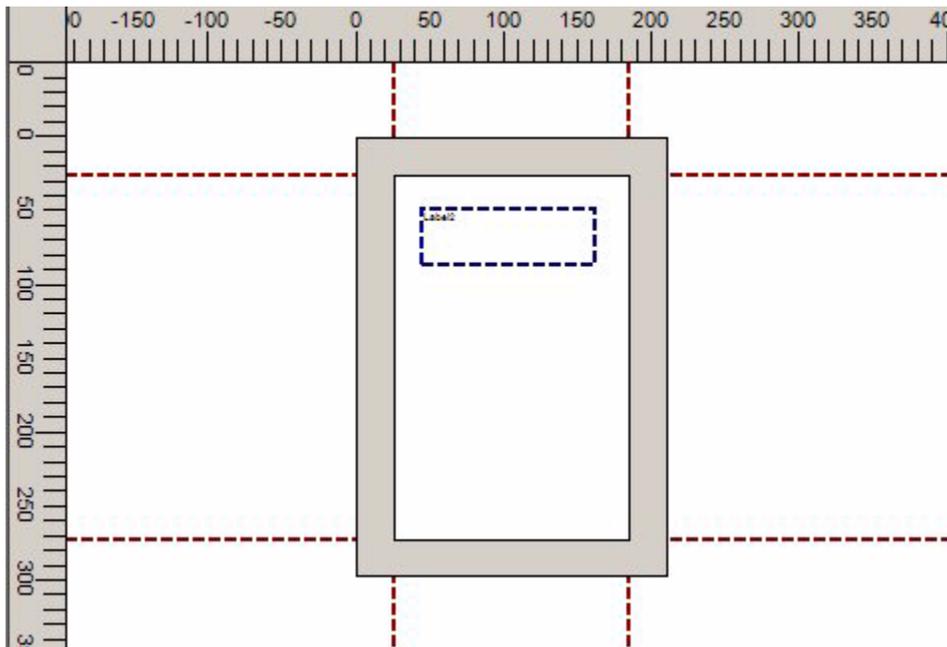
2. To add a label, move the cursor to the required start position in the Report Layout Designer.
3. Hold down the left mouse button and drag to form a rectangle.

**Figure 8–17 Add Label**



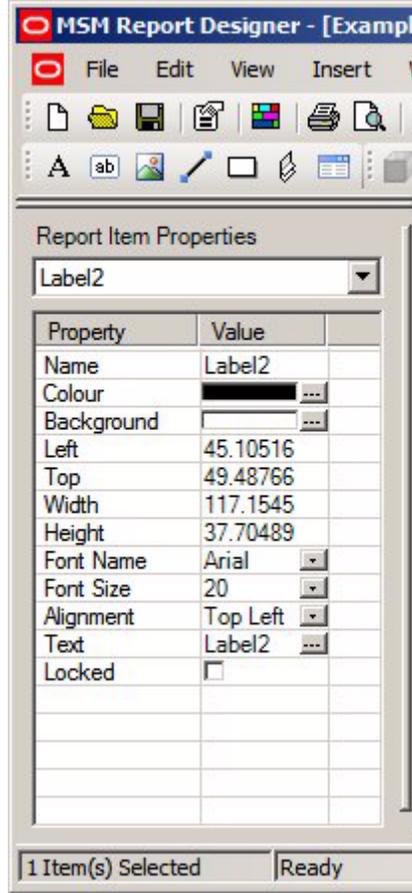
4. Release the left hand mouse button to complete drawing a rectangle containing the initial name of the label.

**Figure 8–18 Add label - Draw Rectangle**



5. Edit the varying properties of the Label in the Report Item Properties Object Browser.

Figure 8–19 Add Label - Example



- **Name** is what the label is called in the drop down list. It can be edited by typing in a different value, or the default value can be used.
- **color** is the color of the border of the label. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Background** is the color of the background of the label. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Left, Top, Width** and **Height** allow the position and size of the rectangle containing the label to be changed. They can be edited by typing in different values.
- **Font Name** and **Font Size** can be changed by selecting new values from the drop down list.
- **Alignment** can be changed from the drop down list. Alternatively, it can be changed using the alignment options on the toolbar.
- **Text** is the text that will be displayed in the printed report. This must be set at design time.
- Checking **Locked** means this item cannot be deleted.

## Adding a Field

To add a Field to the report:

1. Click on the Label icon on the insert toolbar.

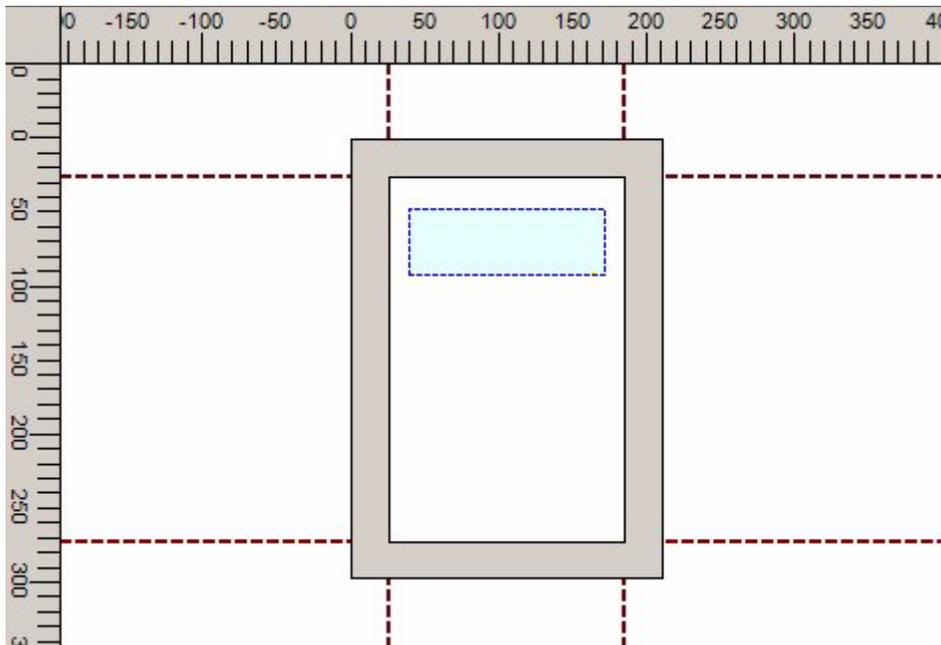
**Figure 8–20 Add Field**



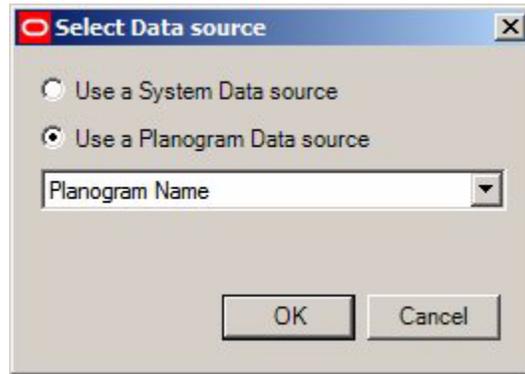
Alternatively, select the Field option from the Insert menu.

2. To add a field, move the cursor to the required start position in the Report Layout Designer. Hold down the left mouse button and drag to form a rectangle.

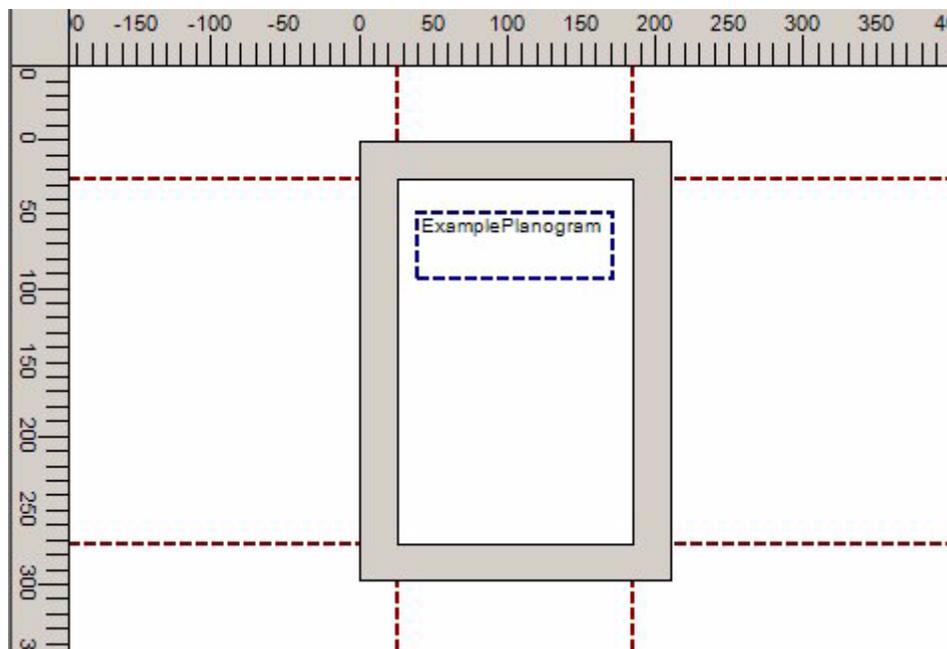
**Figure 8–21 Add Field - Draw Rectangle**



3. Release the left hand mouse button to complete the selection. After the selection, the Select Data Source dialog box appears.

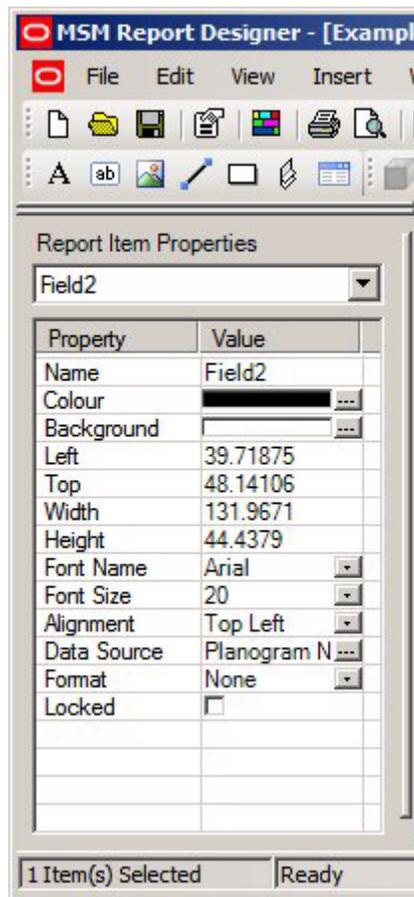
**Figure 8–22 Data Source dialog box**

4. Select the name of the required field by means of the radio button and drop down lists.

**Figure 8–23 Add Field**

5. Edit the varying properties of the Field in the Report Item Properties Object Browser.

Figure 8–24 Add Field - Example



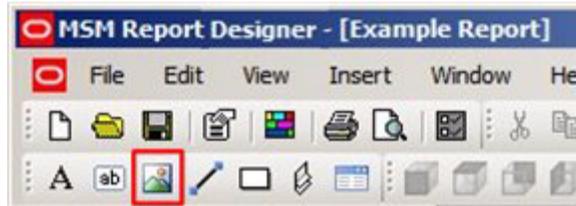
- **Name** is what the label is called in the drop down list. It can be edited by typing in a different value.
- **color** is the color of the border of the label. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Background** is the color of the background of the label. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Left, Top, Width** and **Height** allow the position and size of the rectangle containing the label to be changed. They can be edited by typing in different values.
- **Font Name** and **Font Size** can be changed by selecting new values from the drop down list.
- **Alignment** can be changed from the drop down list. Alternatively, it can be changed using the alignment options on the toolbar.
- **Data Source** can be changed by clicking on the button. It allows the label selected in the Select Data Source dialog box to be changed.
- **Format** allows the form of the selected field to be changed. For example, Planogram Names could be changed from capitalized to uppercase.
- Checking **Locked** means this item cannot be deleted.

## Adding an Image

To add an image to the report:

1. Click on the Image icon on the insert toolbar.

**Figure 8–25** Add Image Icon



Alternatively, select the Image option from the Insert menu.

2. To add an image, move the cursor to the required start position in the Report Layout Designer. Hold down the left mouse button and drag to form a rectangle.
3. Release the left hand mouse button to complete the drawing. The Select Data Source dialog box appears.
4. Select the name of the required image by means of the radio button and drop down lists.

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**Note:** The image must reside on a network accessible path that can be resolved by the server for the client versions.

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The selected image then appears in the report. It is scaled to fit the bounds but does not maintain its aspect ratio.

5. Edit the varying properties of the image in the Report Item Properties Object Browser.

**Figure 8–26 Image Options**

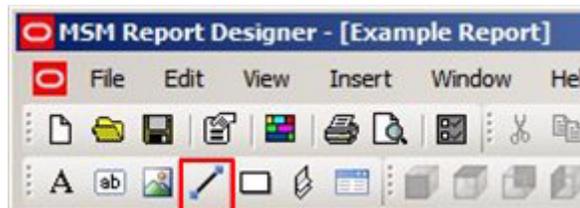


- **Name** is what the label is called in the drop down list. It can be edited by typing in a different value.
- **Left, Top, Width** and **Height** allow the position and size of the rectangle containing the label to be changed. They can be edited by typing in different values.
- **Font Name** and **Font Size** can be changed by selecting new values from the drop down list.
- **Image Filename** allows a different image to be selected.
- Checking **Locked** means this item cannot be deleted.

## Adding a Line

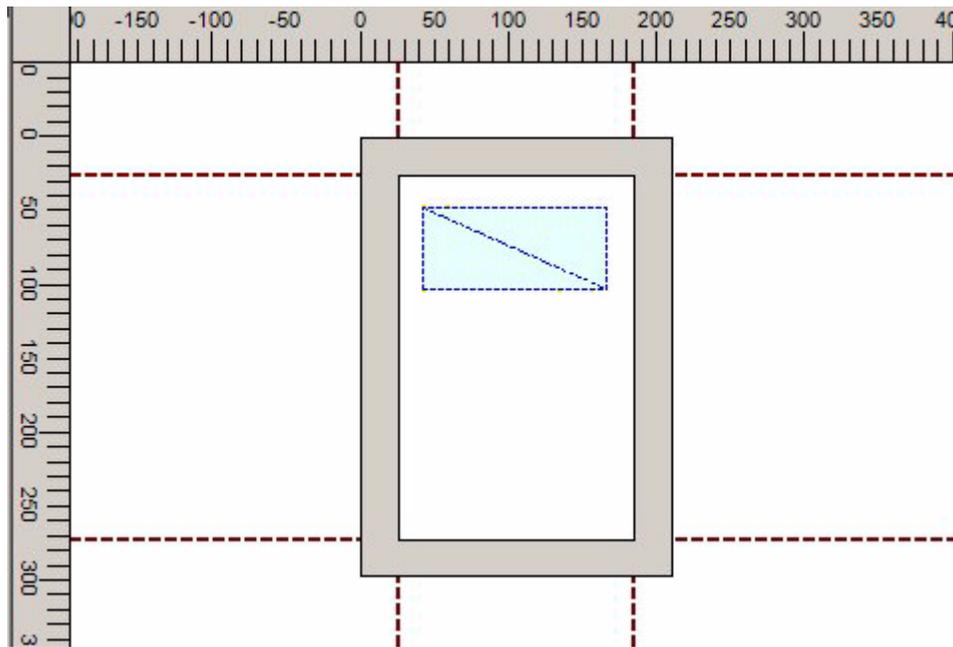
To Add a Line to the report, click on the Line icon on the insert toolbar.

**Figure 8–27 Add a Line Icon**



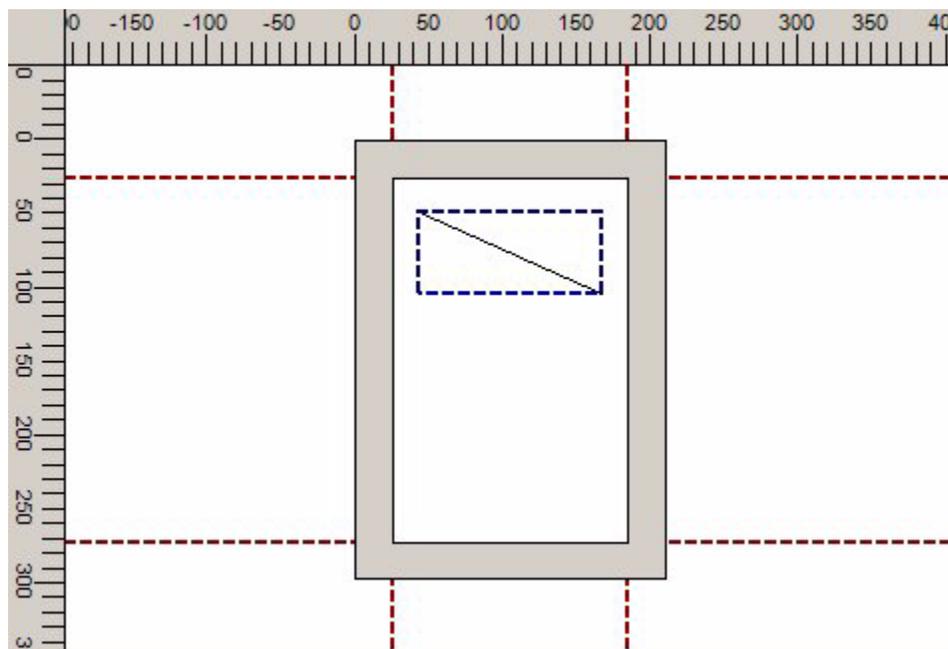
Alternatively, select the Line option from the Insert menu.

To add a Line, move the cursor to the required start position in the Report Layout Designer. Hold down the left mouse button and drag to form a rectangle.

**Figure 8–28 Add a Line**

When the left hand mouse button is released, a line will be drawn from the first corner to the opposite corner of the rectangle.

(If a horizontal or vertical line is drawn, no rectangle will appear).

**Figure 8–29 Add a Line - Example**

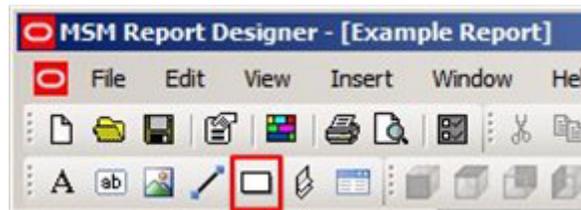
The varying properties of the Line can then be edited in the Report Item Properties Object Browser.

- **Name** is what the Line is called in the drop down list. It can be edited by typing in a different value.
- **color** is the color of the Line. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Left, Top, Width** and **Height** allow the position and size of the Line to be changed. They can be edited by typing in different values.
- **Thickness** is the thickness of the line as drawn. It can be changed by selecting from the drop down list.
- Checking **Locked** means this item cannot be deleted.

## Adding a Rectangle

To Add a Rectangle to the report, click on the Rectangle icon on the insert toolbar.

*Figure 8–30 Add a Rectangle Icon*

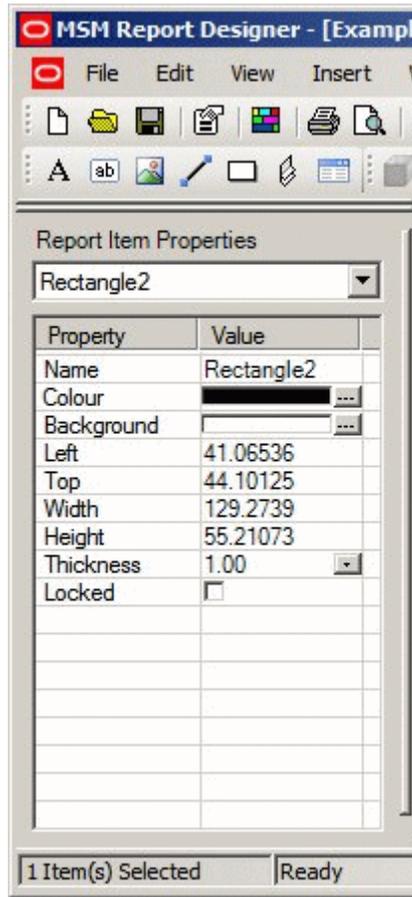


(Alternatively, select the Rectangle option from the Insert menu).

To add a Rectangle, move the cursor to the required start position in the Report Layout Designer. Hold down the left mouse button and drag to form a rectangle.

When the left hand mouse button is released, a rectangle will be drawn.

Figure 8–31 Add Rectangle - Example



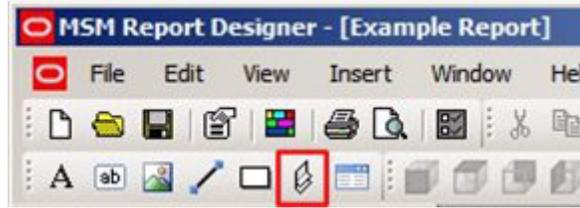
The varying properties of the Rectangle can then be edited in the Report Item Properties Object Browser.

- **Name** is what the Rectangle is called in the drop down list. It can be edited by typing in a different value.
- **color** is the color of the border of the Rectangle. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Background** is the color of the background of the Rectangle. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Left, Top, Width** and **Height** allow the position and size of the rectangle containing the Rectangle to be changed. They can be edited by typing in different values.
- **Thickness** is the thickness of the line as drawn. It can be changed by selecting from the drop down list.
- Checking **Locked** means this item cannot be deleted.

## Adding a View

To add a view to the report, click on the View icon on the insert toolbar.

**Figure 8–32 Add a View**

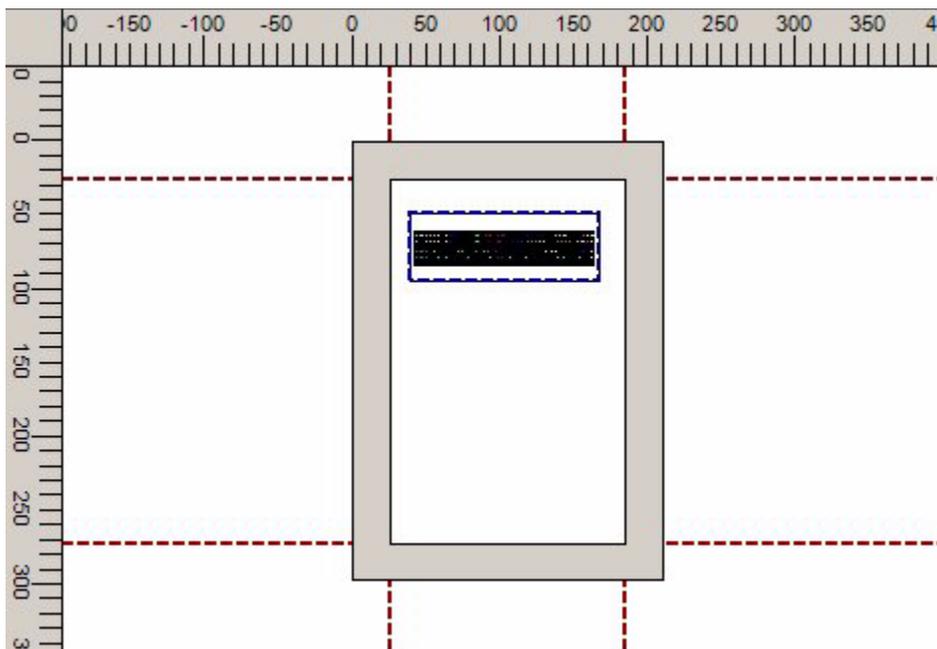


(Alternatively, select the View option from the Insert menu).

To add a View, move the cursor to the required start position in the Report Layout Designer. Hold down the left mouse button and drag to form a View.

When the left hand mouse button is released, a View will be drawn.

**Figure 8–33 Report Layout Designer - Add View**



This view contains a dummy image. To add a planogram from the Oracle database, click on the Select Planogram option. Select a planogram from the Select Planogram dialog box.

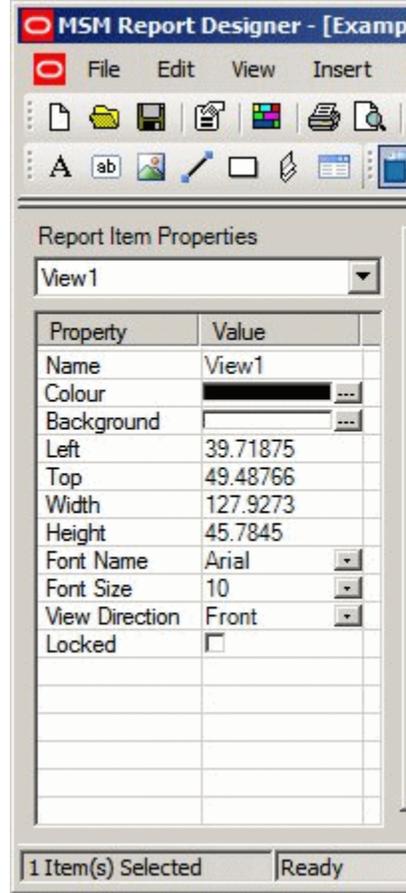
---

**Note:** Ensure the filter is set. If there is no filter criteria set, then all available planograms will be displayed in the list. If there is a large number of planograms in the database, the software may stop responding.

---

Set the filter criteria, click on the filter icon, then highlight a planogram in the list of those available. Click on the OK button and the planogram will be added to the view.

Figure 8–34 Add View - Example



The varying properties of the View can then be edited in the Report Item Properties Object Browser.

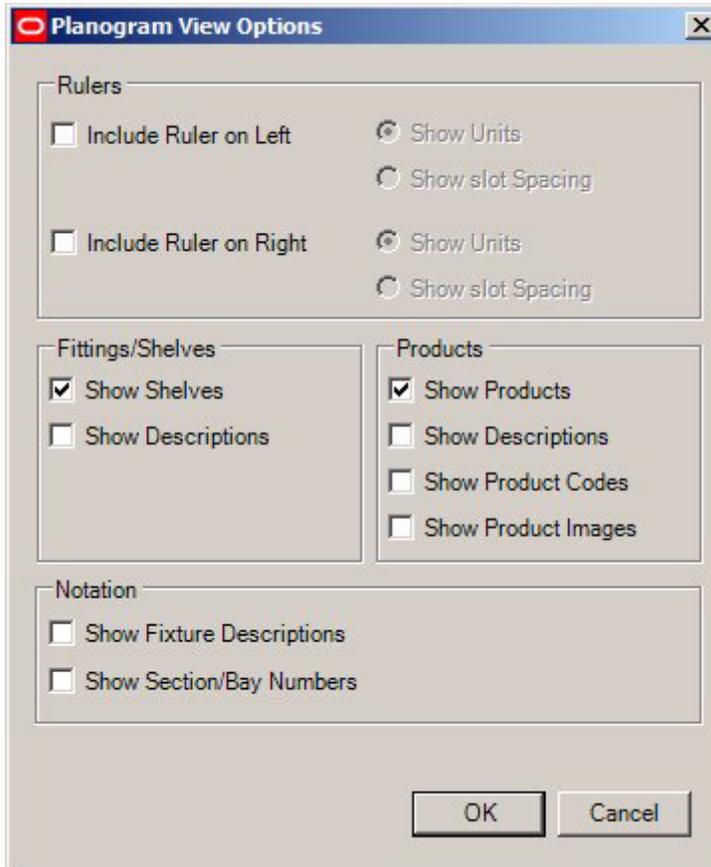
- **Name** is what the View is called in the drop down list. It can be edited by typing in a different value.
- **color** is the color of the border of the View. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Background** is the color of the background of the View. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Left, Top, Width** and **Height** allow the position and size of the rectangle containing the View to be changed. They can be edited by typing in different values.
- **Font Name** and **Font Size** can be changed by selecting new values from the drop down list.
- **View Direction** is the current direction the planogram is being viewed from. It can be changed by selecting from the drop down list.
- Checking **Locked** means this item cannot be deleted.

Some details of the View can be customized using the Planogram View Options dialog box available from the View Directions toolbar.

**Figure 8–35 View Directions toolbar**



**Figure 8–36 Planogram View Options**




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**Note:** The colors of the Fixtures in the view can be changed by going to Fixture Studio and changing the default color of the fixture. The colors of the Products in the view can be changed by going to Product Studio and changing the default color of the product. This will affect all instances of those fixtures or products. (See Fixture Studio and Product Studio help files for more information).

---

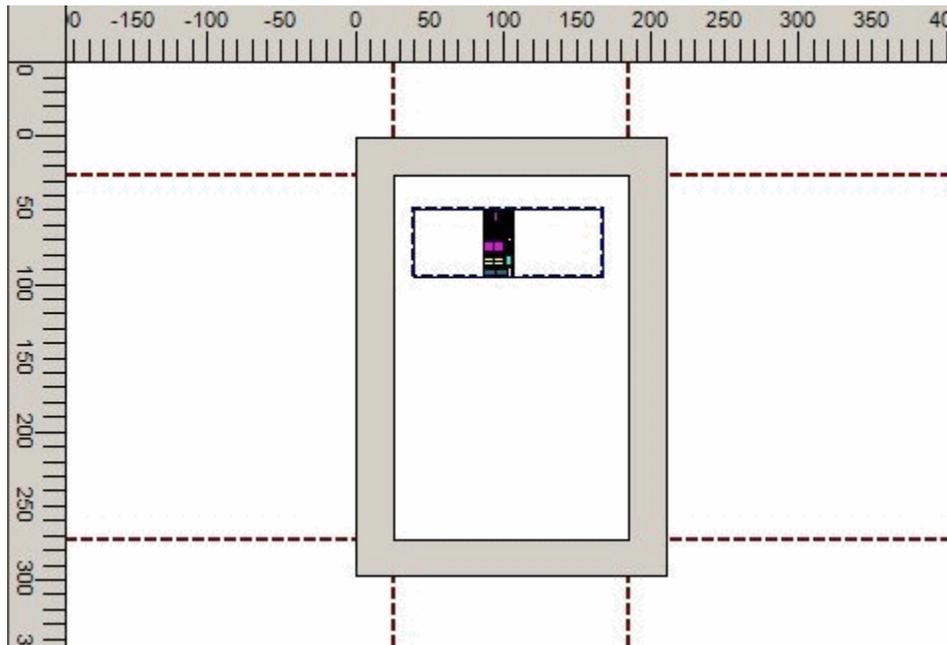
## Working with Views

The Views Toolbar allows users to change the direction the planogram is viewed from.

**Figure 8-37 Views Toolbar**

It also allows some annotation of the planogram view.

It is also possible to view it from the right using the View Directions toolbar.

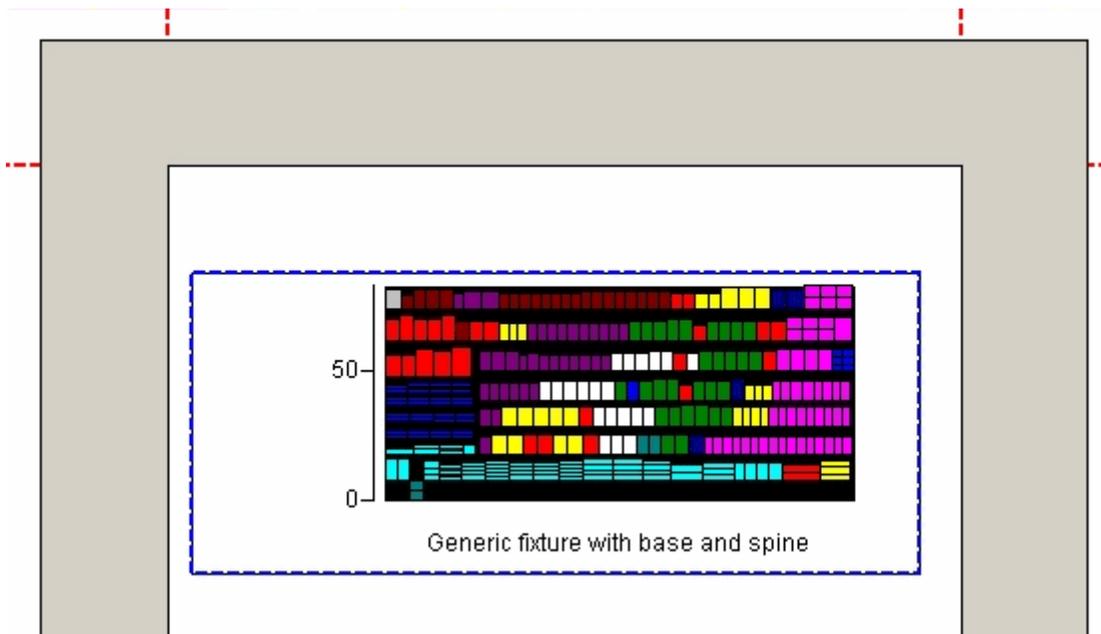
**Figure 8-38 View Directions toolbar**

It is also possible to annotate the planogram view with some information. This is done by clicking on the Planogram view option in the Views toolbar.

This will bring up the Planogram View Options dialog box.

Tick the required options and they will appear in the Planogram view.

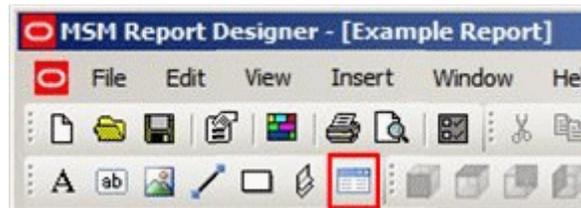
**Figure 8–39 Planogram View**



## Adding a Table

To add a table to the report, click on the Table icon on the insert toolbar.

**Figure 8–40 Add Table**



(Alternatively, select the Table option from the Insert menu).

To add a Table, move the cursor to the required start position in the Report Layout Designer. Hold down the left mouse button and drag to form a rectangle.

When the left hand mouse button is released, the Select Data Source dialog box will appear. This allows the table to be customized.

Figure 8-41 Select Data Source

Select the data source to use

Planogram Equipment

Field Name	Use Field	Field Width	Data Format	Alignment
Row	<input checked="" type="checkbox"/>	3	None	Centre
Block Code	<input checked="" type="checkbox"/>	10	None	Centre
Block Name	<input checked="" type="checkbox"/>	25	None	Centre
Name	<input checked="" type="checkbox"/>	20	None	Centre
Manufacturer	<input checked="" type="checkbox"/>	20	None	Centre
Part Name	<input checked="" type="checkbox"/>	20	None	Centre
Part	<input checked="" type="checkbox"/>	25	None	Centre
Qty	<input checked="" type="checkbox"/>	5	None	Centre
Slot	<input checked="" type="checkbox"/>	5	None	Centre
Shelf Length	<input checked="" type="checkbox"/>	10	None	Centre

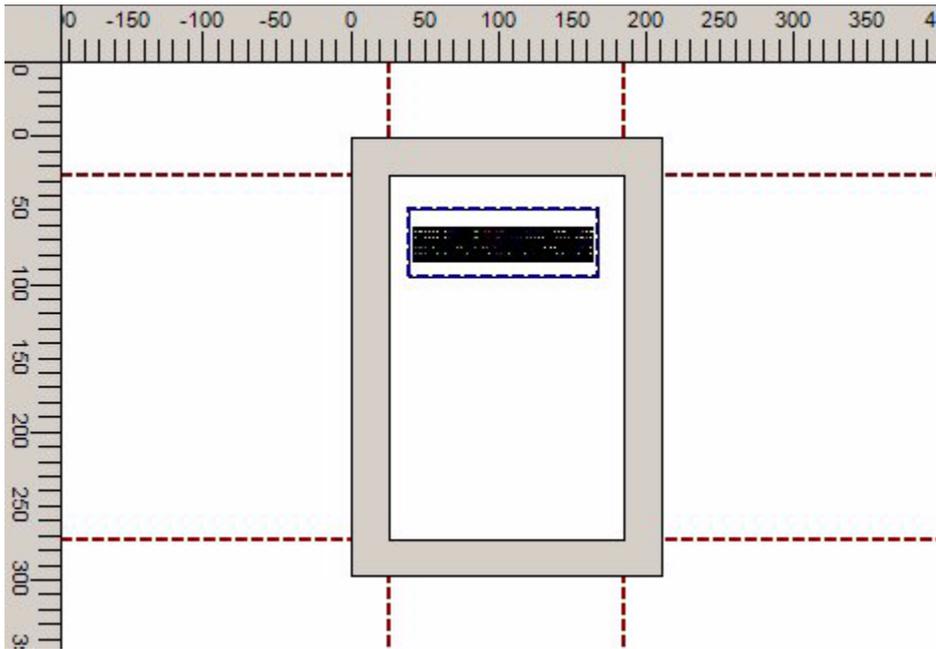
Word wrap text in cells

Flow excess records to a new page page

OK Cancel

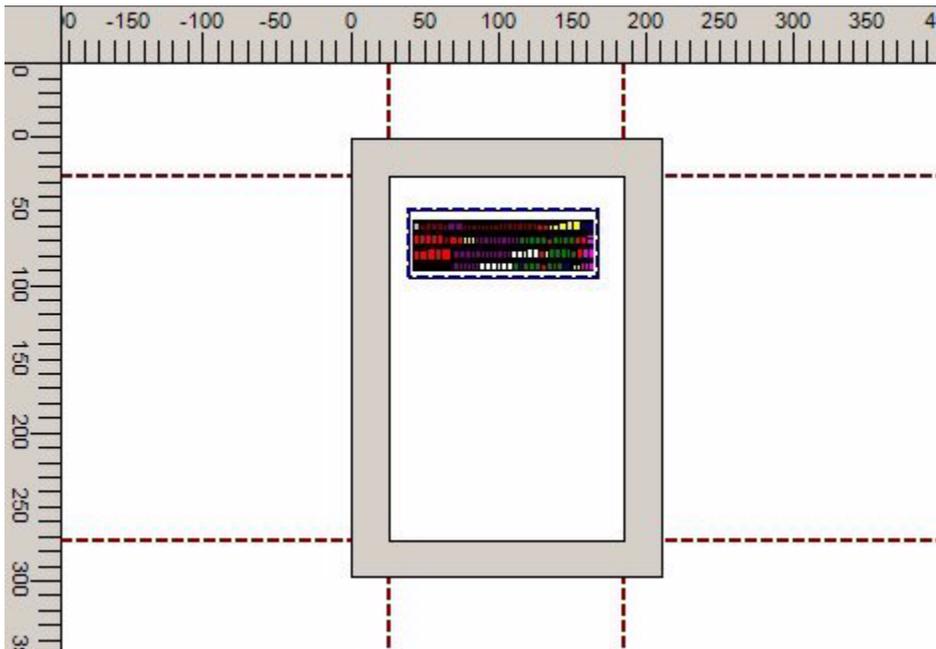
- **Field Name** cannot be altered.
- If the **Use Field** check box is ticked, the data will be included in the table.
- **Field Width** can be changed by typing in an alternative value.
- **Data Format** can be changed using the drop down list
- **Data Alignment** within the table can be changed using the drop down list.
- When the **OK** button is clicked, the table will appear.

**Figure 8–42 Add Table**



The varying properties of the Table can then be edited in the Report Item Properties Object Browser.

**Figure 8–43 Report Item Properties**



- **Name** is what the Table is called in the drop down list. It can be edited by typing in a different value.

**color** is the color of the border of the Table. It can be changed by clicking on the button and selecting a new color from the pallet that appears.

- **Background** is the color of the background of the Table. It can be changed by clicking on the button and selecting a new color from the pallet that appears.
- **Left, Top, Width and Height** allow the position and size of the rectangle containing the Table to be changed. They can be edited by typing in different values.
- **Font Name and Font Size** can be changed by selecting new values from the drop down list.
- **Data Source** can be changed from the drop down list.
- Checking **Locked** means this item cannot be deleted.

## Other Design Options

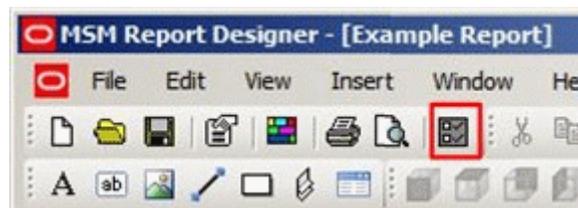
### Using Snap to Neatly Align Items

The Snap Option allows users to align objects to an invisible grid.

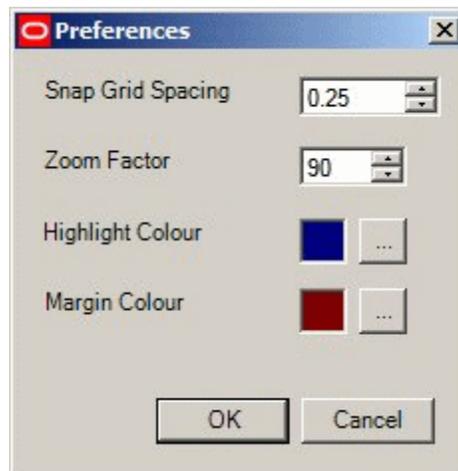
Snap is turned on via the button on the Status bar.

The Snap Grid settings are set using the Preferences option called via the Preferences icon on the toolbar.

**Figure 8–44** Preferences Icon



**Figure 8–45** Preferences Options



The Snap Grid spacing can then be set using the spin controls.

---

**Note:** To see the effect of the Snap Grid for the first time, it is recommended that the value be set to a fairly large one. Useful values are 25 mm for metric settings and 0.25" for imperial settings.

---

When the Snap option is selected objects can only be moved about in the design window to locations determined by the snap grid.

When the Snap option is turned off, objects can be moved to any location.

### Changing Label and Field Text via Toolbar

The appearance of label and field text can be changed via the options on the toolbar. These options are grayed out until a label or field is selected to edit.



When a label or field is selected to edit, they become active.

Text can be justified Left, Centre or Right, and Top, Middle or Bottom.

It can also be changed to Bold or Italic.

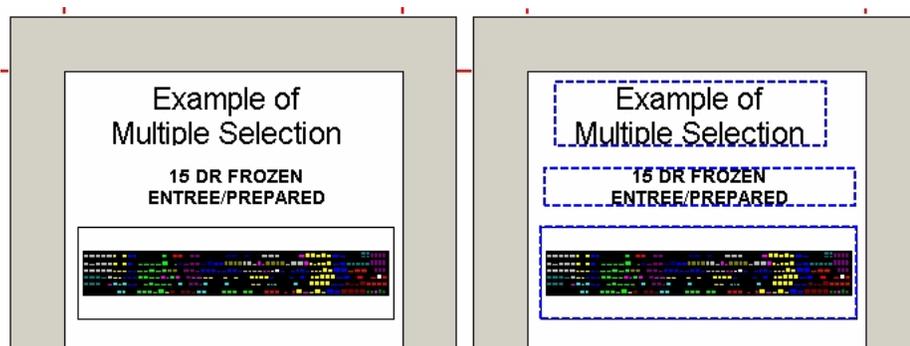
Selected options are highlighted.

### Selecting Multiple Items

**Multiple Items can be selected** by holding down the shift key while left clicking on the required objects.

In the example below the three objects on the left have been selected and are shown highlighted with selection boxes on the right.

**Figure 8-46 Multiple Item Selection**



Only items that can be collectively edited are available in the display.

If they cannot be collectively edited, that section of the display is blank.

In the example on the left, the Left, Top, Width and Height values cannot be added while multiple objects are selected.

## Using Grouping

**Grouping** allows all items in the group to be selected, even if just one item in the group is selected.

Grouping is turned on or off by using the Group button on the Status Bar.

(The Status bar also provides information on the number of items selected, etc.).

**Figure 8-47 Status Bar**



Multi-selected items can be grouped or ungrouped using the options available on the toolbar.

**Figure 8-48 Group Options**



### Grouping Items

To Group items, ensure Group is selected on the Status bar. Multi-select the required items then click on the Group icon. Selecting any one of the grouped items will then select the others.

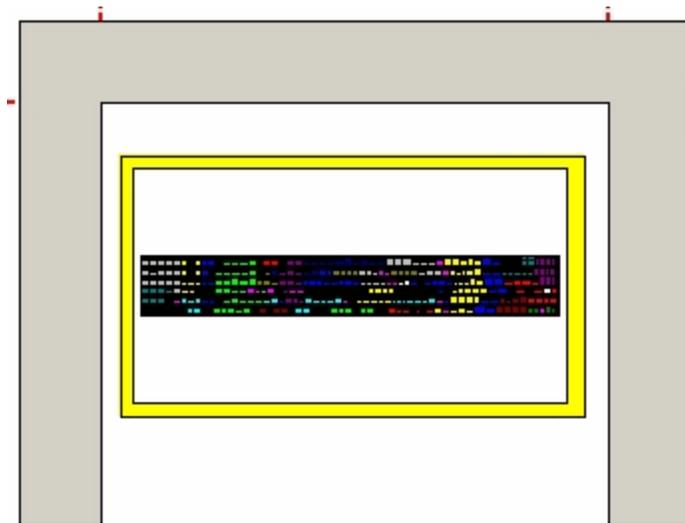
### Un-grouping Items

To Un-group items, ensure Group is selected on the Status bar. Select the required group then click on the un-group icon. The items will now be ungrouped and will only select singly.

## Bring to Front or Send to Back

Bring to Front or Send to Back can be used with superimposed objects.

**Figure 8–49 Bring To Front**

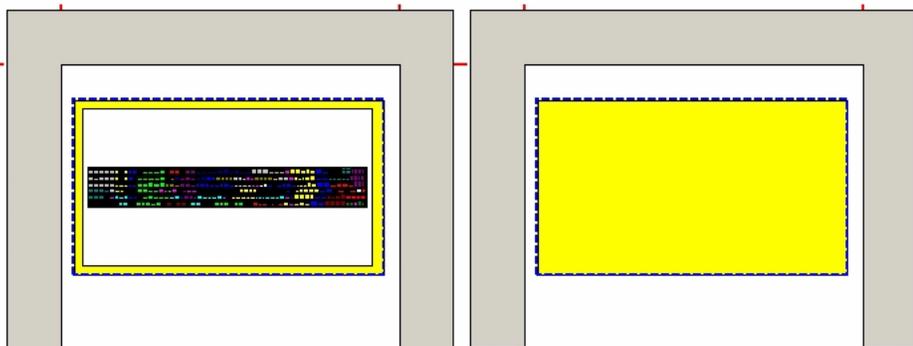


In this example a view has been superimposed on top of a yellow rectangle.

The yellow rectangle is first selected (blue rectangle in left hand image), then the Bring to Front icon is clicked on the toolbar.

This brings the yellow rectangle in front of the view.

**Figure 8–50 Bring To Front - Example**



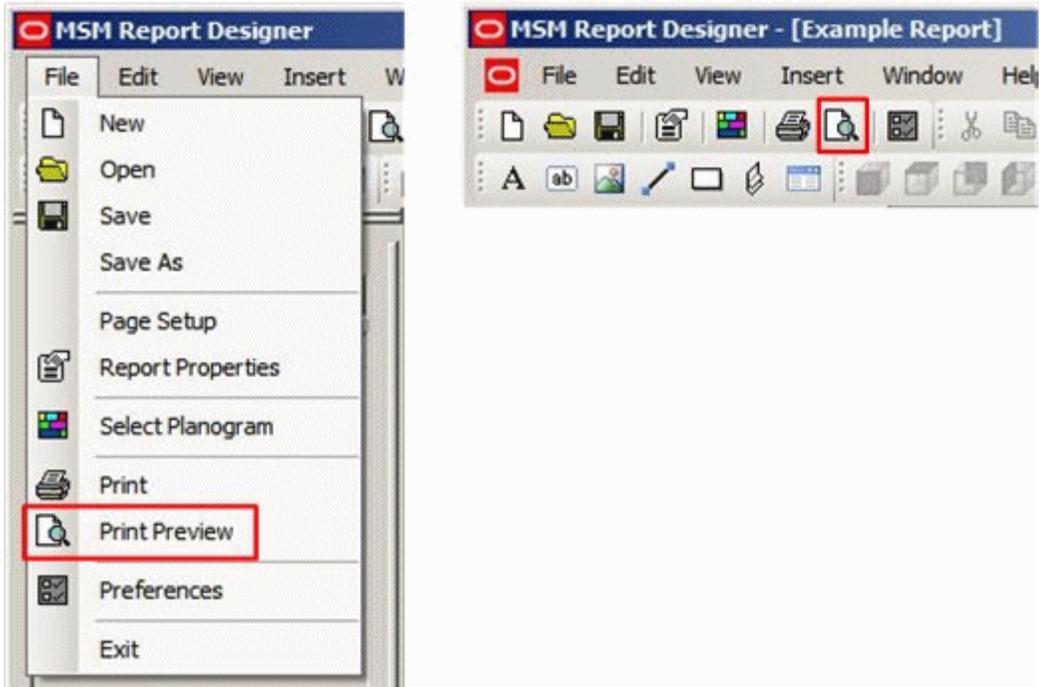
The process can be reversed by clicking on the Send to Back icon.

## Opening an Existing Report Template

To open an existing report design template click on the open option in the File menu or in the toolbar.

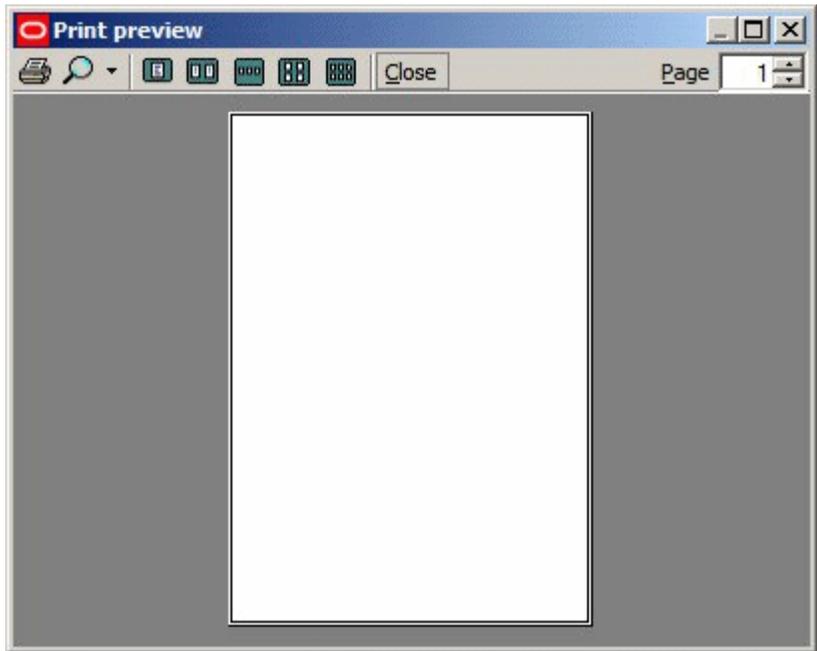


**Figure 8-53** *Print File and Toolbar Menu*



This will bring up the Print Preview dialog box.

**Figure 8-54** *Report Layouts dialog box*



The icons at the top allow the user to print, zoom in or zoom out, or see multiple pages.

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**Note:** The print preview does not print information for a specific planogram - it just allows the user to confirm that the format of the printed report is correct. Using the print button from the print preview will send the current preview to the default printer. To print a planogram specific report, use the print option.

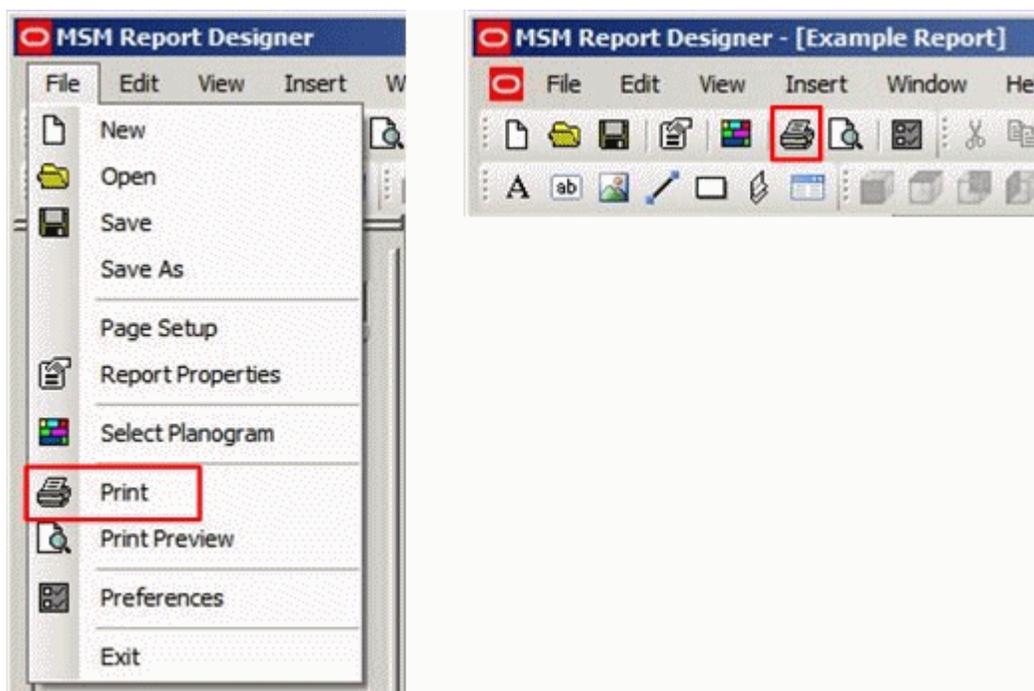
---

## Printing

Printing can be initiated from the Print options on the File menu (or the toolbar) once a Report Design Template is open.

(Print Preview only allows test printing of a generic report. Reports on specific planograms must be initiated through the print option).

**Figure 8-55** *Print Report*



This will bring up the Print dialog box. Select the printer.

The Page Range and Collate options will be disabled. However, the user will be able to select the printer and set its preferences, as well as being able to set the number of copies that are printed.

When the options have been set, click on OK to print. This will bring up the Select Planogram dialog box.



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## Troubleshooting

This section contains information on commonly experienced problems and its solutions.

### Applications Problems and Solutions

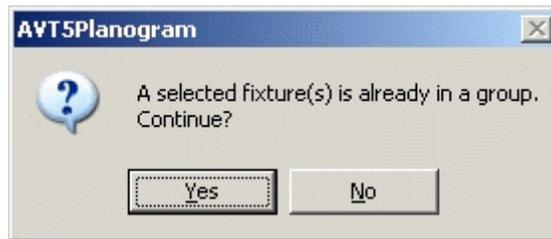
The following is a list of some commonly encountered problems and their solutions.

**Table 9–1 Applications Problems and Solutions**

Issue	Solution
Planner	
I am having trouble changing the status of a Revision	If changing from Authorized to Current status, ensure that one drawing in the revision has Authorized status.
I cannot edit a drawing	If you only have read only privileges, you cannot edit drawings. Ask an Administrator for your privileges to be changed.
I can't find a drawing	If the drawing is no longer present within the Macro Space Management file structure, this will be indicated by the <i>Lost</i> icon.
I cannot manually set a drawing to current status	This option is not available. Drawings are automatically set to <i>Current</i> status when the status of a Revision is set to Current.
I cannot manually set a drawing to historical status	This option is not available. Drawings are automatically set to Historical status when the status of a Revision is changed to Historical.
I cannot manually set a Revision to Historical	Revisions cannot directly be changed to Historical status. They change when another revision becomes Current.
I'm having trouble comparing my Store to the Prototype	When comparing Stores to a Prototype, it is important to remember that the number of floors may be different.
I'm having trouble changing the status of a drawing	<ul style="list-style-type: none"> <li>■ The status of a drawing cannot be changed if it has been associated with a floor. Check that the drawing is correctly associated with a Revision, (not a Floor).</li> <li>■ The status of a drawing within a Revision can only be set to proposal or approved. Its status will change to current when the status of the Revision is set to Current.</li> </ul>
My Revision has a status of Historical and I want to use it	<p>It is not normally possible to reverse Historical status.</p> <p>Create a new revision and copy the required files from the Historical revision.</p>

**Table 9–1 (Cont.) Applications Problems and Solutions**

Issue	Solution
My Store Root is different from the Configuration File	<p>The Store Root can be changed from either the Configuration Module, or from within Store Manager.</p> <p>If it is changed from the Configuration Module by another user while another person is working in Store Manager, then Store Manager will not immediately update.</p> <p>Many of the file icons will change to the Lost icon:</p> <p>To remove the problem, close the Store Manager Module, then reopen it. Store Manager will then see the same Store Root that was specified in the Configuration Module.</p>
When I open a drawing it will only open in Read Only mode	<p>Once drawings have been set to Current or Historical status they can only be viewed in Read Only mode. This is because they are either in use within the stores, or have been taken out of service.</p> <p>Windows Explorer should also be used to check the status of the file. When Macro Space Management sets a file to Read Only status, it is just a flag in the database. If a File has been set to Read Only by the Windows operating system, then Macro Space Management will not be able to change the status.</p>
I Cannot Access the Administration Module	<p>The Administration Module is only available to users with administrative privileges. If you do not have these privileges, you will not be able to access the Administration Module.</p>
I can't make a Group or Family	<p>There are two possibilities if a user cannot make a family or group.</p> <p>Firstly, the objects could be incompatible. Groups cannot for example include both shelves and products.</p> <p>Secondly, groups and families can only be created when in the appropriate tab. For example fixture groups can only be created while in the fixturing tab in the Object Browser</p>
I can't remove objects from a Group or Family	<p>Objects can only be removed from groups and families when in the appropriate tab. For example fixture groups can only be modified while in the fixturing tab in the Object Browser</p>
I'm creating a Group and I'm being told there is a fixture already in it	<p>If a user has selected several objects with the intent of forming a Group, they could receive the following warning.</p>



One reason for this is that there could be selected fixtures in the drawing other than the current view.

If necessary use <Ctrl> + D to de-select all objects in the drawing, then re-select the objects required.

Fixturing

**Table 9–1 (Cont.) Applications Problems and Solutions**

<b>Issue</b>	<b>Solution</b>
A recently created fixture in Fixture Studio doesn't show on the Object Browser	<p>Fixtures created in Fixture Studio have to be saved there before they become available to the Planner module of Macro Space Management.</p> <p>Newly added and saved fixtures from Fixture Studio will not show in the hierarchical tree on the Object Browser until the Refresh option has been run.</p>
A recently created gondola in Fixture Studio doesn't show on the Object Browser	<p>Gondolas created in Fixture Studio have to be saved there before they become available to the Planner Module of Macro Space Management.</p> <p>Newly added and saved gondolas from Fixture Studio will not show in the hierarchical tree on the Object Browser until the Refresh option has been run.</p>
I've placed a fixture and its very large	Macro Space Management is working in imperial dimensions, and the fixture was designed using metric dimensions.
I've placed a fixture and its very small	Macro Space Management is working in metric dimensions and the fixture drawing was dimensioned in inches.
I can't bay number a recently placed a fixture or gondola	Fixtures or gondolas cannot be bay numbered until the Synchronize and Adjacency options have been run.
I select a fixture and it zooms to the extents of the drawing	Whether or not a fixture zooms to the extents of the drawing is determined by the Highlighting frame in the Fixturing Tab of the Configuration module. If the user does not want the selected fixture(s) to zoom to the extents of the drawing, uncheck the zoom box in the Highlighting frame.
Message in Fixtures windows says object has no graphics	<p>If an object in the Fixtures window, for example a fixture, fitting or gondola, has a message in bold saying it has no graphics file, this means the object was created outside AutoCAD and has no AutoCAD .DWG file associated with it.</p> <p>An example would be fixtures in Fixture Studio. These are often created using an external graphics program such 3D Studio. The results are saved as .3DS files and will accordingly display in Fixture Studio. Other external graphics programs supported by Fixture Studio are LightWave 3D (file extension .LWO) and Harvard Graphics applications (file extension .TPL). The object without an AutoCAD dwg file will appear in the hierarchical tree in the Fixturing tab of the Object Browser with an error message like in the above example.</p> <p>To correct the problem, Macro Space Management needs an MSM AutoCAD drawing. This can be done by typing 3DSIN in the MSM AutoCAD command line, then following the prompts to load the 3D Studio drawing into the current MSM AutoCAD drawing.</p> <p>The Wblock command can then be used to write the required objects to the Macro Space Management.</p>
The Fixture is very narrow	<p>The fixtures menu actually contains a mixture of fixtures and fittings. Fittings are typically used to close off the end of a row of fixtures, hold up display cabinets, etc.</p> <p>Fittings can be quite narrow. Fittings cannot be populated with merchandise</p>
Synchronization and Bay Numbering	Before Bay Numbering can be carried out, the Synchronization Module must be run to ensure the information from the drawing has been fully transferred to Macro Space Management's Central database. Next, the Adjacency option must be run so the central database has up to date information on which fixture is next to which fixture. Bay Numbering can then be carried out.
Fixture Studio	

**Table 9–1 (Cont.) Applications Problems and Solutions**

<b>Issue</b>	<b>Solution</b>
Combinations using Naming Conventions	<p>Naming conventions rely on a consistent approach being applied to block names. In the above example podiums have been named using a consistent convention.</p> <p>There are available in widths of 1025 and 1200 mm, depths of 800, 1025, 1200, 1500 and 1750 mm and heights of 200, 480 and 680 mm. This gives a theoretical number of <math>2 \times 5 \times 3 = 30</math> combinations, yet there are only 13 actual blocks.</p> <p>When specifying gondolas, care must be taken that the dimensions chosen minimize the number of potential combinations, or else more combinations will be generated than there are blocks to match them.</p> <p>If a block name is generated while drawing a gondola that does not match the list of available ones, an error will result.</p>
Problems with Naming Conventions	<p>The Gondola Definitions dialog box is used to specify the components of a gondola. If there are errors in specifying the components, Macro Space Management will not be able to find the blocks to draw the gondola in the Cad or Virtual Reality environments.</p> <p>The gondola can be saved without problems, but when an attempt is made to place it in a drawing an error message will result. All Prefixes and Suffixes must be correctly defined for Macro Space Management to reference the correct block.</p>
Zones	
I Cannot Delete a Zone Type	<p>Zone Types cannot be deleted if there is a Zone Definition associated with it. The associated Zone Definitions must be deleted or assigned to another category first.</p>
I'm Trying to Add a Zone and an Error Message Comes Up	<p>In order to add a Zone to a drawing, a drawing must first be opened via Store Manager. If a user tries to add a Zone to the default drawing, an error message is displayed.</p>
I'm Trying to Draw a Zone and the Lines Will Only Draw to Specified Points on the Drawing	<p>If the lines being used to draw a zone will only finish at corners, midpoints, etc, of existing zones, then the OSNAP command is on. Turn OSNAP off if trying to draw Zones of customized shape.</p>
I've Created a Zone Type, but it Doesn't Appear in the Zone Descriptions List	<p>It will only appear in the Zone Definitions list after it has been defined.</p>
I've Tried to Cut a Hole and a Hole Problem Error Message Displays	<p>When cutting a hole, the Zone into which the hole is to be cut must first be selected in the hierarchical tree in the Zone Definition window. Failure to do this will result in an error.</p>
The Changes Made to Zone Definitions Have Had No Effect	<p>Changes made in the to Zone Definitions in the Configuration Module only take effect the next time Macro Space Management is restarted.</p>
The Changes Made to Zone Types Have Had No Effect	<p>Changes made in the to Zone Types in the Configuration Module only take effect the next time Macro Space Management is restarted.</p>
The Outline of a Previously Erased Hole has Reappeared	<p>If a Hole has been erased using AutoCAD tools, then the drawing must be synchronized before another hole is drawn. If it is not, then a 'ghost' image of the AutoCAD erased Hole will reappear.</p>
The View Zone Type and View Hatch Types Buttons Don't Appear to Be Working	<p>If the Zone Description window is maximized, the View Zone Type and View Hatch Types windows will tend to appear behind the Zone Description window. It will have to be minimized before the new windows can be seen.</p>
Data Importer	

**Table 9–1 (Cont.) Applications Problems and Solutions**

<b>Issue</b>	<b>Solution</b>
Data Importer is reading the wrong data.	<p>If the Start Line is incorrect, Data Importer will read the wrong data. The start line will typically be set to 1 during configuring the data Import.</p> <p>It should be set to where the first line of actual data is (typically 2 or 3) before data is imported into the database using data importer. If it is left at 1, errors will result as Data Importer reads in data incompatible with the database.</p>
CSV file	<p>It is important to save the CSV file in the format that is appropriate for the system it will be used on. If you do not save the CSV file in the format appropriate for the system you are working on, errors may result. For example, if you are working on a computer with the Windows operating System, and you want to use the file on that computer, it is important to save the file in the CSV (Windows) format. If however, you are using Windows and want to use the text file on a Macintosh computer, save the file in the CSV (Macintosh) format. If you are using a Macintosh computer and want to use the text file on a system running Windows or Windows NT, save the file in the CSV (Windows) format</p>

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## About AutoCAD

AutoCAD is a software program that enables extremely sophisticated drawings to be produced. It is the platform on which the Planner module is based.

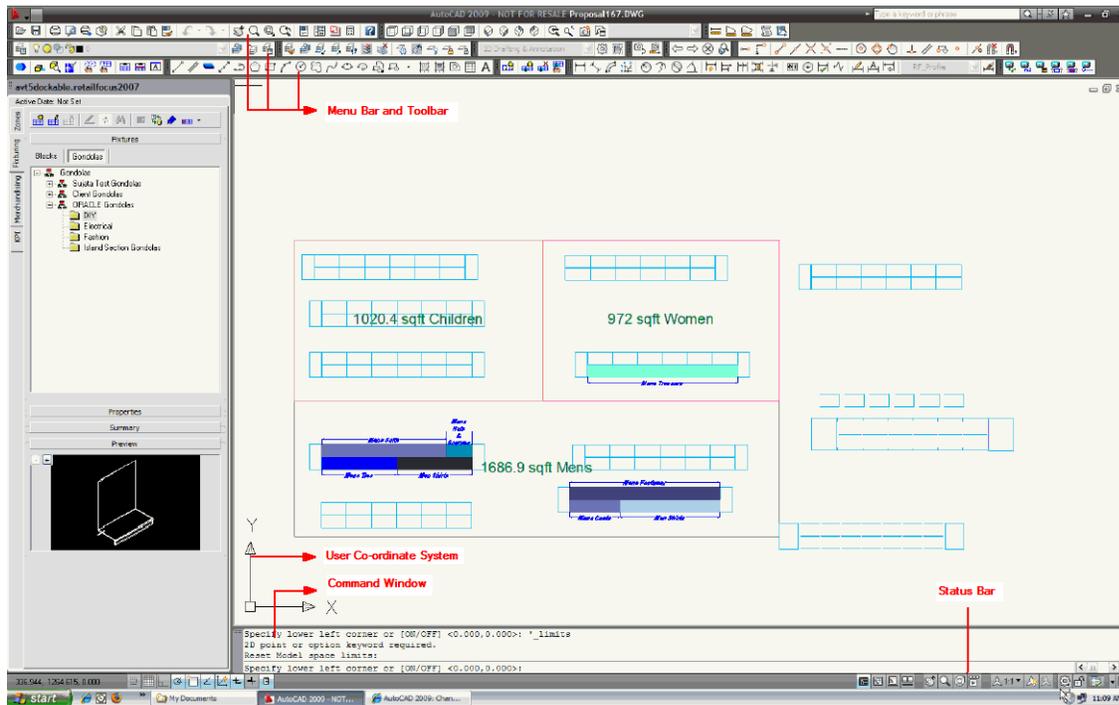
The information in this section only provides a brief overview of AutoCAD along with details regarding of some of the more common commands.

### AutoCAD Window

The AutoCAD screen has several features as follows:

- The menu bar at the top of the screen contains drop down menus that give access to varying AutoCAD and Macro Space Management features.
- Immediately below the menu bar are the Macro Space Management and AutoCAD toolbars giving access to specific functions. Further toolbars on the left and right detail AutoCAD drawing options.
- An icon detailing the User Co-ordinate System axes can be seen in the lower left corner of the screen.
- The command window at the bottom of the screen contains a text based record of commands used within AutoCAD. A mirror image of the command window can also be brought up by pressing F2.
- The status bar gives an immediate indication of which main AutoCAD features are turned on or off.

Figure 0-1 AutoCAD Window



## AutoCAD Command Line

All activities within AutoCAD are confirmed by text prompts on the Command Line, located at the bottom of the screen. If the activity has not been successful, AutoCAD will put an alert on the command line.

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**Note:** The AutoCAD command line can be brought up in its own window by pressing the F2 key.

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## Moving About and Sizing the Screen

The scale of the drawing can be changed by means of the central wheel on the mouse. Each click of the wheel resizes the screen. The default is by 10%.

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**Note:** The rate at which the scale is changed can be altered by typing the command `Zoomfactor` into the command line. Values are allowed in the range 3 - 100, larger values resulting in bigger changes.

---

Double clicking on the mouse wheel automatically resizes the screen so the drawing occupies the full screen.

The cursor, which appears as a white cross, can be moved about the screen by means of the mouse.

## Cartesian Coordinates

**Cartesian coordinates** are a way of describing the position of an object relative to a reference point. The reference point is normally called the origin, and has co-ordinates (0, 0). All other locations can be described relative to the origin.

The X ordinates are to the left or right of the origin. X ordinates with a positive value are to the right, negative ones to the left. The Y ordinates are above or below the origin. Y ordinates with a positive value are above the origin, negative ones below. Thus a reference of (10, 10) describes a point above and to the right of the origin. Similarly a reference of (-5, -15) describes a point below and to the left of the origin. The system can be extended to three dimensions by the use of a "Z" axis.

Any form of units can be used for Cartesian co-ordinates, although these must be the same when co-ordinates are being compared. Millimetres, inches, meters, yards, kilometres and miles are examples of valid units.

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**Note:** An alternative form of coordinate system is Polar coordinates.

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## Polar Coordinates

**Polar coordinates** are a way of describing the position of an object relative to a reference point.

For polar coordinates, the offset relative to the current location is specified in the form of a distance and an angle, for example 5000 mm, 45 degrees.

The system can be extended to three dimensions if necessary.

Any form of units can be used for Polar coordinates, although these must be the same when coordinates are being compared. Millimetres, inches, meters, yards, kilometers and miles are examples of valid units.

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**Note:** An alternative form of co-ordinate system is Cartesian co-ordinates.

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## Selecting Information in the Drawing

Individual fixtures, lines etc., can be selected by clicking on a line within the fixture.

Group of fixtures, etc., can be selected by clicking on the appropriate icon, left clicking to set the first position of the selection box, left clicking again to set the end position of the selection box, then right clicking to activate the selection.

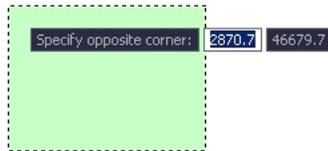
If the mouse is taken to the right of the first selection point, the selection box will be blue. This means all features completely within the box will be selected.

**Figure 0-2** Select Drawing



If the mouse is taken to the right of the first selection point, the selection box will be green. This means all features that are within, or have a line cut by the box will be selected.

**Figure 0–3 Select Drawing**



In both cases completion of selection is signified by the solid lines within the block turning to dotted lines.

Multiple selections of objects can be made by repeatedly left clicking to define selection rectangles. All objects within the multiple selection rectangles will be selected when the terminating right mouse click is made

Continue left clicking, dragging and right clicking to define further rectangles.

Right click to select all define rectangles.

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**Note:** It is helpful to confirm on the command line that each step of action is correct.

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## Lines and Polylines

**Lines** and **Polylines** behave slightly differently.

- Lines can be linked together to form shapes, but each line behaves as an individual object.
- A Polyline can define a complex shape, but the lines are linked so that the shape behaves as a single object.

## Osnap Options

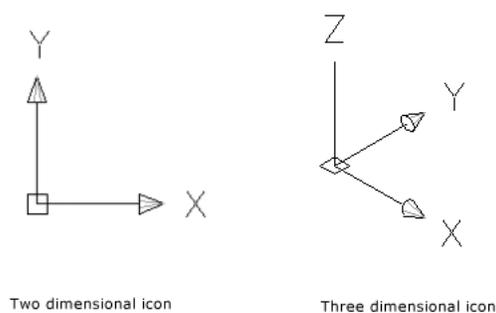
The Osnap option can be found in the status bar at the bottom of the AutoCAD window.

When Osnap is ON objects can be snapped, (attached), to each other in 3 dimensional views. Lines can only be drawn to specified end-points.

When Osnap is OFF objects can be moved, (but not attached to each other), in 3 dimensional views. Lines can be drawn to any end-point.

## 2D and 3D options

The screen can be toggled between two and three dimensional options. The current mode can be seen from the icon in the lower left of the screen.

**Figure 0-4 2D and 3D options**

## Blocks

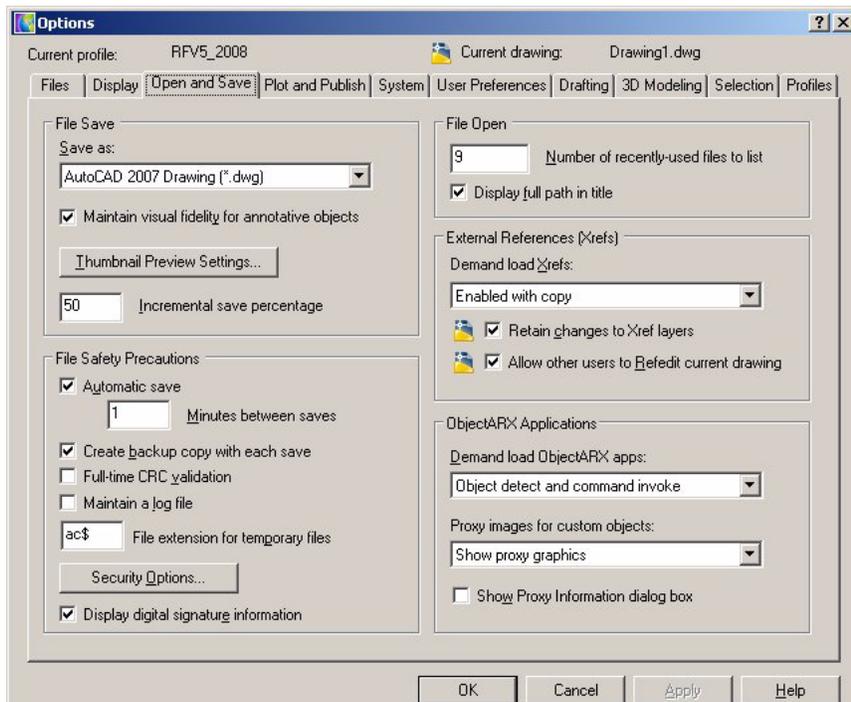
A Block is a generic term for one or more objects that have been combined to create an entity that behaves as a single object. Blocks have a name and an insertion point, together with information on the individual objects that have been combined to make the block.

Creating blocks allows pre-designed objects to be inserted into a drawing

## Auto-Saving AutoCAD

AutoCAD has an auto-save option. To access this feature, complete the following steps:

1. Right-click to access the special menu. From the menu, select **Options**.
2. The Options dialog box opens. Select the **Open and Save Tab**.
3. From the File Safety Precautions section of the dialog box, check the **Automatic Save** check box. The AutoCAD drawing will be automatically backed up at interval specified in the Minutes between saves field.

**Figure 0-5 Automatic Save**

## Useful Commands

### Overview

This section details some of the useful commands in AutoCAD. Many of these commands have to be typed on the AutoCAD command line for them to take effect. Press Enter after typing the command for it to take effect. Alternatively, many can be activated from a menu or toolbar.

### Zoom Extent, (ZE)

The **Zoom Extent** command centers any drawn objects on the screen and adjusts the scale of the drawing to the largest possible magnification.

The center button (or scroll wheel) of the mouse can be double-clicked to activate the Zoom Extent command.

### Extrude, (EXTRUDE)

The **Extrude** command can be used to turn a two dimensional object, (such as a rectangle), into a three dimensional object with height, as well as length and depth. The command is invoked by typing Extrude <Return> on the command line.

### Distance, (DIST)

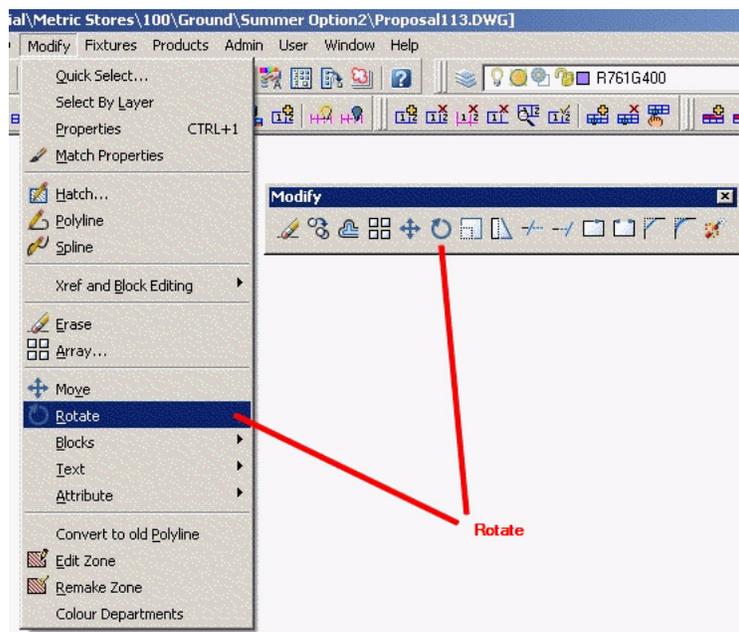
The **Distance** command is useful for measuring objects. It is invoked by typing Dist <Return> into the command line.

AutoCAD invites you to specify a start and then a finish point. It then reports on the distance between those two points.

## Rotate, (ROTATE), command

The **Rotate** command can be used to manipulate objects.

It can be activated by typing Rotate <Return> in the command line. It can also be activated by selecting the Rotate icon in the Modify toolbar or the Rotate option in the Modify menu.



Objects are rotated by selecting them, specifying the base point, then specifying the rotation angle.

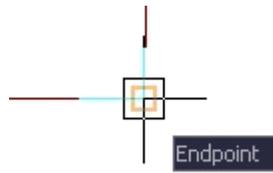
## Object Snap, (OSNAP)

The **OSNAP (Object Snap)** AutoCAD command will have a significant effect on the way shapes are drawn in AutoCAD. OSNAP can be turned on and off by clicking on the button at the bottom of the AutoCAD window.

**Figure 0–6** *Osnap option*



If OSNAP is On then when shapes are being drawn, the lines will snap to pre-specified points in any existing shapes. Depending on AutoCAD setting, a series of small boxes will appear as the mouse is moved about. These represent the points to which lines can be snapped.

**Figure 0-7 Select End Point**

Lines can only be drawn to these points.

If OSNAP is Off, then lines can be drawn to any desired point within the drawing.

## Move, (MOVE), Command

The **Move** command can be used to manipulate objects in 3D views. There are two options to activate the Move command as follows:

- In the Command Line, type MOVE and press <Return>.
- Select the Move icon from the Modify toolbar .

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**Note:** If OSnap is enabled in the status bar, objects can be snapped (attached) to each other. If OSnap is not enabled, object are moved without being attached. For more information about OSnap, see Object Snap (OSNAP).

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## xref, (XREF)

**XREF** is a method AutoCAD uses to link drawings. When you attach a drawing as an xref, you link that referenced drawing to the current drawing. Any changes to the referenced drawing are then displayed in the current drawing when it is opened.

This is used within Macro Space Management where an architectural drawing can be attached as an xref to multiple drawings at the same time. This allows a single architectural drawing to be used as a framework on which multiple arrangements of zones, fixtures, aisles and merchandise may be planned.

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**Note:** Using xref's reduces the quantity of data stored, as each architectural plan is only used once for each floor and not copied under multiple file names.

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## Polyline, (PL)

The Polyline command tells AutoCAD to start drawing using Polylines. There are two methods that can be used to activate Polylines:

- From the Command Line, type PL and press <Return>.
- From the Draw menu, select **Lines - Polyline**.

---

---

**Note:** Use Polylines in Macro Space Management to draw blocks instead of Lines.

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## Polyline Edit, (PEDIT)

The **Polyline Edit** command brings up several useful options for Polylines. To edit a Polyline, complete the following steps:

1. Click once onto the desired Polyline to select it. The Polyline will change from a solid to a dotted line to confirm the selection.
2. To activate the Polyline Edit command, right-click to open the Polyline Edit menu or type PEDIT into the command line and press return.

### Additional Polyline Edit Options

Close creates the closing segment of the Polyline and connects the last segment with the first to make a continuous Polyline.

## Regenerate, (REGEN)

The **Regenerate** command regenerates the entire drawing. It also re-computes the screen coordinates for all objects in the current viewport and re-indexes the drawing database for the best display and object selection performance.

To use the Regenerate command, do the following:

1. From the command line, type Regen and press <Enter>.

## Plan, (2D), views

To change from 3D to 2D view, do the following:

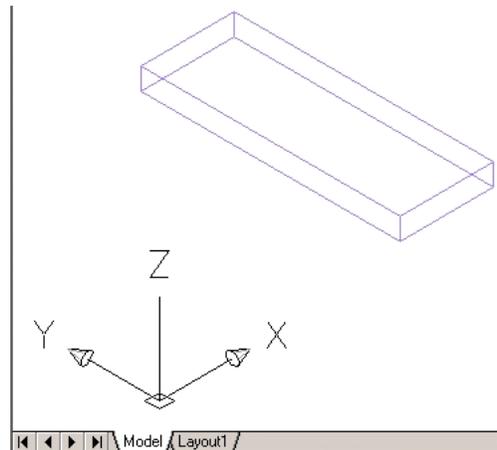
1. From the Command Line, type Plan and press <Enter>.
2. Type World and press Enter to select the type of 2D view desired.

## Isometric, (3D), Views

AutoCAD will show three dimensional views if the required compass direction is typed in. There are four available: southwest, (SW), southeast, (SE), northwest, (NW), and northeast, (NE).

To show a three dimensional view, (or to move from one three dimensional view to another), type the compass direction and press <Return>.

For example SW <Return> gives a three dimensional view from the southwest direction.

**Figure 0-8 Isometric Views**

## Erase, (ERASE)

The **Erase** command can be used to remove lines, shapes, or other AutoCAD objects.

---

**Note:** Using the Erase command removes the information from the AutoCAD drawing. It does not necessarily remove the information from the Macro Space Management central database. This can only be done by using the Macro Space Management Synchronize options which ensure that the contents of the drawing and the contents of the central database are the same.

---

The Erase command can be activated by typing Erase <Return> into the command line. It can also be activated from the Modify toolbar, or the Clear option on the Edit menu.

After activating the Erase command, select the objects to be erased, then press <Return> or right click to erase the object.

## Undo, (UNDO)

The **Undo** command takes you back one operation, undoing the effect of the previous operation. To activate the Undo command, do the following:

1. From the command line, enter UNDO and press <Return>.
2. AutoCAD requests the number of steps to undo.
3. Enter a number and press <Return>.

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**Note:** The previous action can also be undone by using the <Esc> key.

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## Purge, (PURGE)

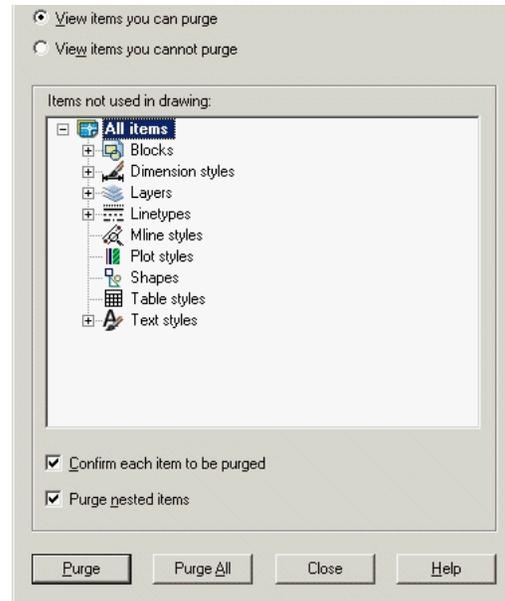
The **Purge** command removes all obsolete or unwanted objects from the drawing.

To purge objects from a drawing:

1. From the command line, enter Purge and press <Return>.

2. The Purge dialog box opens.
3. Select items to purge using the hierarchical tree. After selecting items for purge, click Purge or Purge All.

**Figure 0-9 Purge Option**



## AutoCAD Menu Options

### File Menu

The File menu allows you to access to a number of general options.

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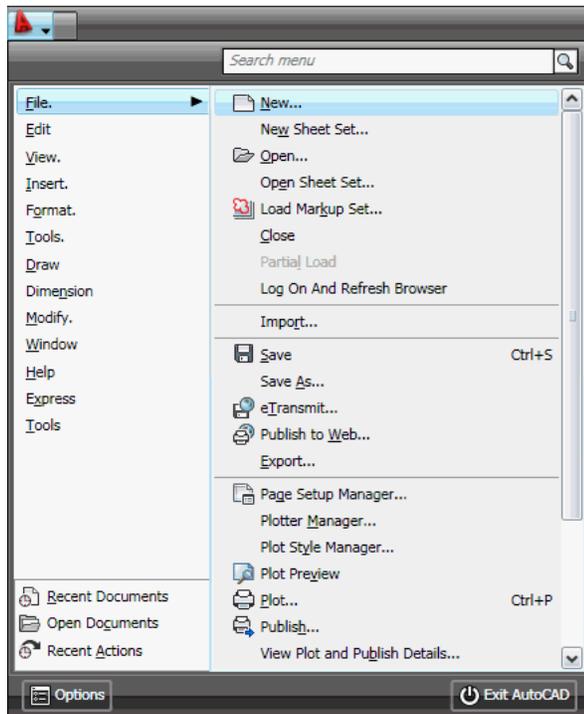
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**Note:** This section of the help file refers to the File menu associated with the 2009 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface will be slightly different.

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**Figure 0–10 Planner - File menu**



**Table 0–1 Planner - File Menu**

Functionality	Source	Comment
Open	Macro Space Management	Opens Store Manager
Close	Macro Space Management	Closes the current drawing
Save	Macro Space Management	Saves the current drawing
eTransmit	AutoCAD	See AutoCAD Help File for further information.
Export	AutoCAD	See AutoCAD Help File for further information.
Publish	AutoCAD	See AutoCAD Help File for further information.
Plot	AutoCAD	See AutoCAD Help File for further information.
Options	AutoCAD	See AutoCAD Help File for further information.
Configuration	Macro Space Management	Opens the Configuration Module

**Table 0-1 (Cont.) Planner - File Menu**

<b>Functionality</b>	<b>Source</b>	<b>Comment</b>
Synchronize	Macro Space Management	Opens the Synchronization Module
Refresh Browser	Macro Space Management	Refreshes the Object Browser with the latest information from the database
Drawing Utilities	AutoCAD	Calls varying AutoCAD utilities - see AutoCAD Help File for further information.
Send	AutoCAD	See AutoCAD Help File for further information.
Drawing Properties	AutoCAD	See AutoCAD Help File for further information.
Exit	Macro Space Management	Exits the Module

## Edit Menu

The Edit menu gives you access to the AutoCAD functionality.

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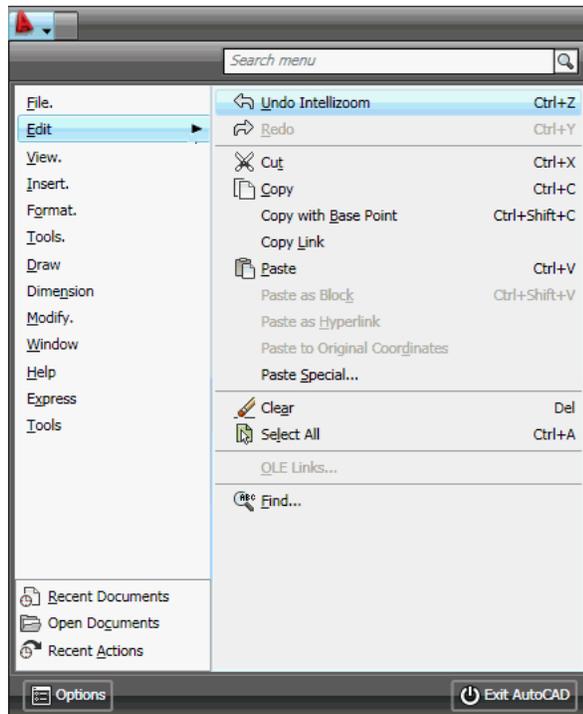
**Note:** This section of the help file refers to the Edit menu associated with the 2008 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface may be slightly different menu.

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**Figure 0–11 Planner - Edit menu**



**Table 0–2 Planner - Edit Menu**

Functionality	Source	Comment
Undo	Macro Space Management	Allows the last command(s) to be undone. (The exact text will vary depending on what the last executed command was).
Redo	Macro Space Management	Allows the last command(s) to be undone. (The exact text will vary depending on what the last executed command was).
Cut	AutoCAD	See AutoCAD Help File for further information.
Copy	AutoCAD	See AutoCAD Help File for further information.
Copy with Base Point	AutoCAD	See AutoCAD Help File for further information.
Copy Link	AutoCAD	See AutoCAD Help File for further information.

**Table 0-2 (Cont.) Planner - Edit Menu**

<b>Functionality</b>	<b>Source</b>	<b>Comment</b>
Paste	AutoCAD	See AutoCAD Help File for further information.
Paste as Block	AutoCAD	See AutoCAD Help File for further information.
Paste as Hyperlink	AutoCAD	See AutoCAD Help File for further information.
Paste to Original Coordinates	AutoCAD	See AutoCAD Help File for further information.
Paste Special	AutoCAD	See AutoCAD Help File for further information.
Clear	AutoCAD	See AutoCAD Help File for further information.
Select All	AutoCAD	See AutoCAD Help File for further information.
OLE Links	AutoCAD	See AutoCAD Help File for further information.
Find	AutoCAD	See AutoCAD Help File for further information.

## View Menu

The View menu provides the following options:

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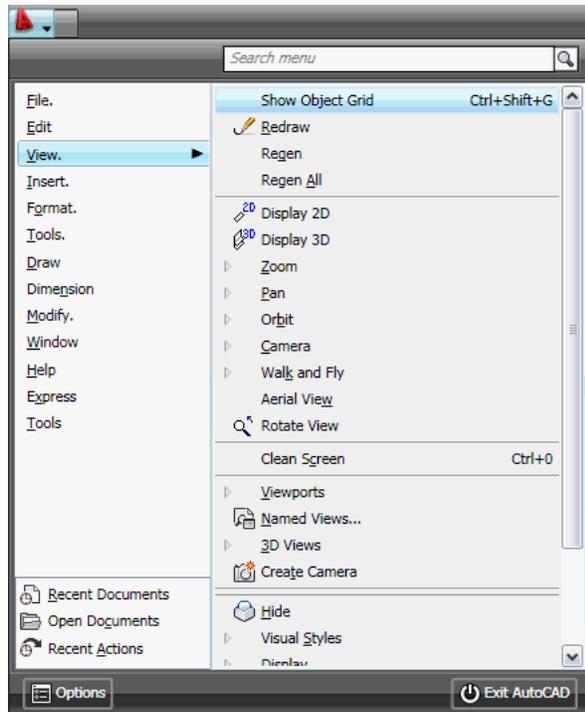
**Note:** This section of the help file refers to the View menu associated with the 2008 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface may be slightly different menu.

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**Figure 0–12 Planner - View Menu**



**Table 0–3 Planner - View Menu**

Functionality	Source	Comment
Redraw	AutoCAD	See AutoCAD Help File for further information.
Regen	AutoCAD	See AutoCAD Help File for further information.
Regen All	AutoCAD	See AutoCAD Help File for further information.
Display 2D	Macro Space Management	Displays the drawing in Macro Space Management 2D Mode. (The blocks must have been configured accordingly).
Display 3D	Macro Space Management	Displays the drawing in Macro Space Management 3D Mode. (The blocks must have been configured accordingly).
Zoom	AutoCAD	See AutoCAD Help File for further information.

**Table 0–3 (Cont.) Planner - View Menu**

Functionality	Source	Comment
Pan	AutoCAD	See AutoCAD Help File for further information.
Orbit	AutoCAD	See AutoCAD Help File for further information.
Walk and Fly	AutoCAD	See AutoCAD Help File for further information.
Aerial view	AutoCAD	See AutoCAD Help File for further information.
Rotate View	AutoCAD	See AutoCAD Help File for further information.
Viewports	AutoCAD	See AutoCAD Help File for further information.
3D views	AutoCAD	See AutoCAD Help File for further information.
Visual Styles	AutoCAD	See AutoCAD Help File for further information.
Toolbars	AutoCAD	See AutoCAD Help File for further information.
color Products	Macro Space Management	Allows products be to colored according to their general type.
Reports	Macro Space Management	Allows simple reports to be produced on objects within the current drawing.
Drawing Comparison	Macro Space Management	Allows one drawing to be compared with another.
Show (Hide) Object Browser	Macro Space Management	Will show or hide the Object Browser.
Show (Hide) Object Grid	Macro Space Management	Will show or hide the Object Grid.

## Insert Menu

The Insert menu provides ways to attach further information to the store plan.

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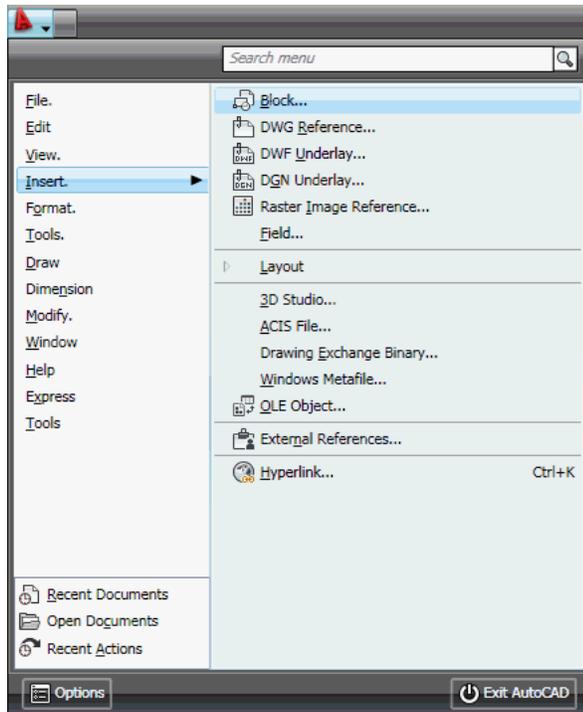
**Note:** This section of the help file refers to the Insert menu associated with the 2008 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface may be slightly different menu.

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**Figure 0–13 Planner - Insert Menu**



**Table 0–4 Planner - Insert Menu**

Functionality	Source	Comment
Block	AutoCAD	See AutoCAD Help File for further information.
External References	AutoCAD	See AutoCAD Help File for further information.
DWF Underlay	AutoCAD	See AutoCAD Help File for further information.
Add Architectural Plan	Macro Space Management	X-Refs an architectural plan to the currently active drawing
Add Title Block	AutoCAD	See AutoCAD Help File for further information.
Update Title Block	AutoCAD	See AutoCAD Help File for further information.
Bay Numbering	Macro Space Management	Add numbering to the fixtures in the store plan

## Format Menu

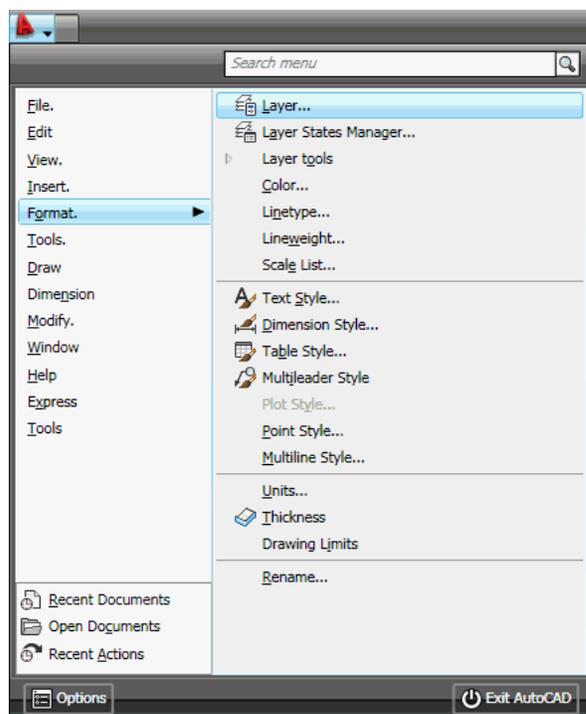
The Format menu allows you to control the layers, dimensions and units associated with the drawing.

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**Note:** This section of the help file refers to the Format menu associated with the 2008 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface may be slightly different menu.

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**Figure 0–14** *Planner - Format Menu*



**Table 0–5** *Planner - Format Menu*

Functionality	Source	Comment
Layer Aliases	Macro Space Management & AutoCAD	Calls a mixture of Macro Space Management and AutoCAD functionality.
Layer	AutoCAD	See AutoCAD Help File for further information.
Layer States Manager	AutoCAD	See AutoCAD Help File for further information.
Layer Tools	AutoCAD	See AutoCAD Help File for further information.
Dimension Style	AutoCAD	See AutoCAD Help File for further information.
Units	AutoCAD	See AutoCAD Help File for further information.

**Table 0–5 (Cont.) Planner - Format Menu**

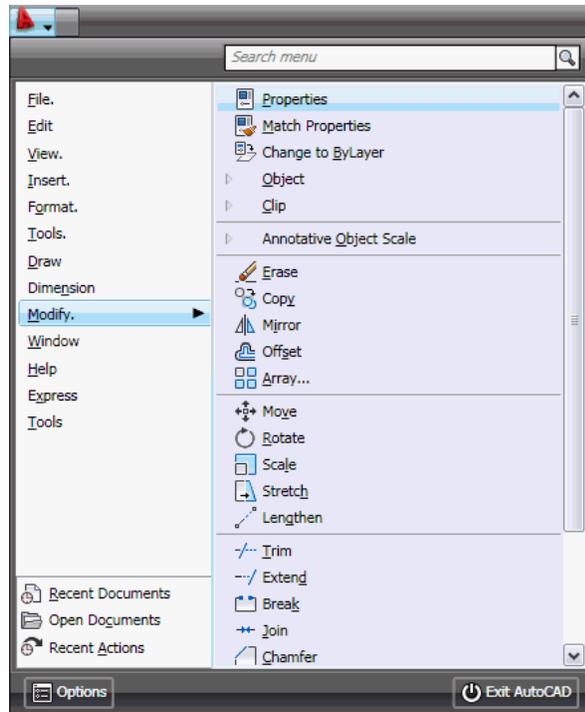
Functionality	Source	Comment
Drawing Set Up	Macro Space Management	Allow the user to select the scales for Paper space.

## Modify Menu

The Modify menu allows you to modify objects in the store plan.

**Note:** This section of the help file refers to the Modify menu associated with the 2008 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface may be slightly different menu.

**Figure 0–15 Planner - Modify Menu**



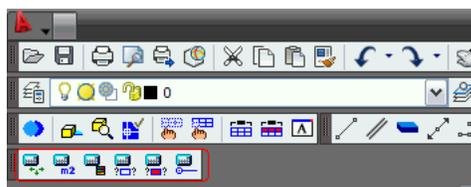
Functionality	Source	Comment
Properties	AutoCAD	See AutoCAD Help File for further information.
Match Properties	AutoCAD	See AutoCAD Help File for further information.
Change to ByLayer	AutoCAD	See AutoCAD Help File for further information.
Object	AutoCAD	See AutoCAD Help File for further information.

Functionality	Source	Comment
Clip	AutoCAD	See AutoCAD Help File for further information.
Erase	AutoCAD	See AutoCAD Help File for further information.
Copy	AutoCAD	See AutoCAD Help File for further information.
Array	AutoCAD	See AutoCAD Help File for further information.
Move	AutoCAD	See AutoCAD Help File for further information.
Rotate	AutoCAD	See AutoCAD Help File for further information.
Blocks	Macro Space Management & AutoCAD	Calls a mixture of Macro Space Management and AutoCAD functionality.
Attributes	Macro Space Management	Allow the user to select the scales for Paper space.
Text	Macro Space Management & AutoCAD	Calls a mixture of Macro Space Management and AutoCAD functionality.

## Calculations Menu

The **Calculations** menu enable you to initiate various calculations that enter data into the central Macro Space Management database.

**Figure 0-16** *Planner - Calculations Menu*

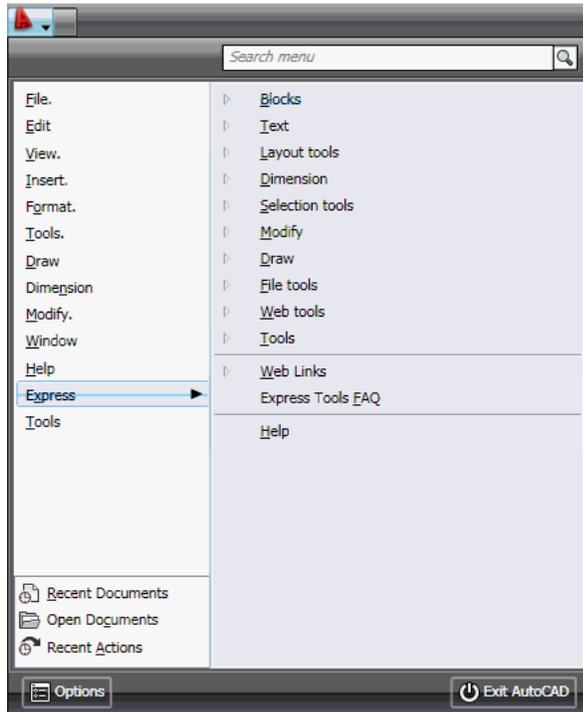


## Express Menu

The **Express** menu provides quick access to commonly used AutoCAD functionality.

**Note:** This section of the help file refers to the Express menu associated with the 2008 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface may be slightly different menu.

**Figure 0–17** *Planner - Express Menu*



## Help Menu

The Help menu contains a number of options that access Help and Assistance.

**Note:** This section of the help file refers to the Help menu associated with the 2008 version of AutoCAD. If you are using earlier versions of AutoCAD, the interface may be slightly different menu.

**Table 0–6** *Planner - Help Menu*

Functionality	Source	Comment
AutoCAD Help	AutoCAD	See AutoCAD Help File for further information.
New Features Workshop	AutoCAD	Not yet available
Planner Help	Macro Space Management	Calls Macro Space Management's Help File for this module.

**Table 0–6 (Cont.) Planner - Help Menu**

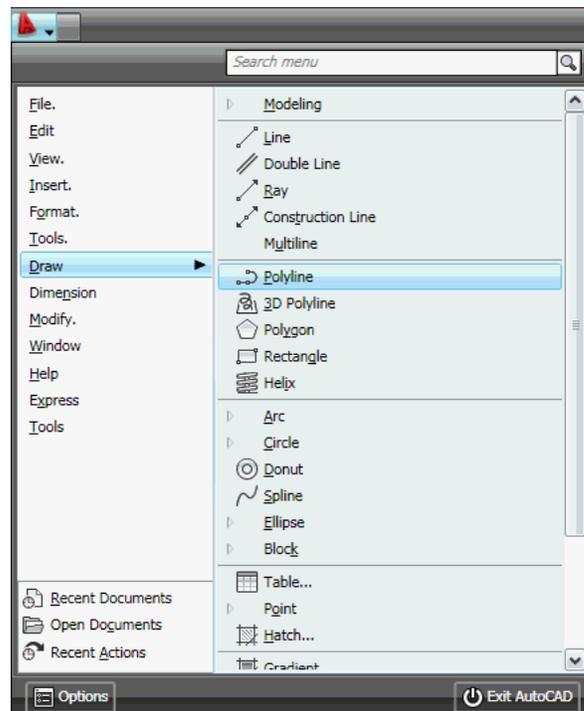
Functionality	Source	Comment
Additional Resources	AutoCAD	See AutoCAD Help File for further information.
Customer Involvement Program	AutoCAD	See AutoCAD Help File for further information.
About	AutoCAD	Gives the AutoCAD version.
About Planner	Macro Space Management	Gives the Planner version

## Drawing Simple Objects

### Drawing using Polylines

Simple objects can be drawn using the **Polyline option**.

It can be initiated by typing PL into the command line. Alternatively, it can be invoked from the Draw menu or from the AutoCAD drawing toolbar.

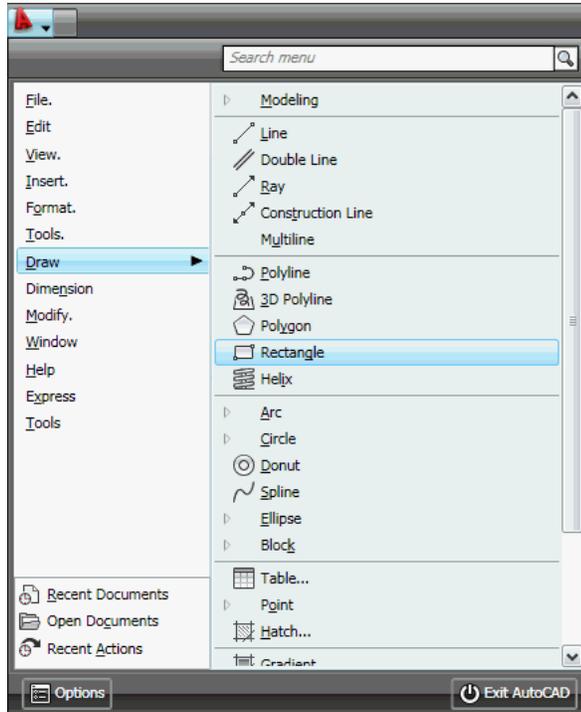
**Figure 0–18 AutoCAD - Polyline**

When drawn, Polylines can be edited using the Polyline Edit, (PEDIT), option.

## Drawing Rectangles

**Rectangles** can be drawn using the <Rectangle> option from the Draw menus or the drawing toolbar.

**Figure 0–19 AutoCAD - Rectangle**

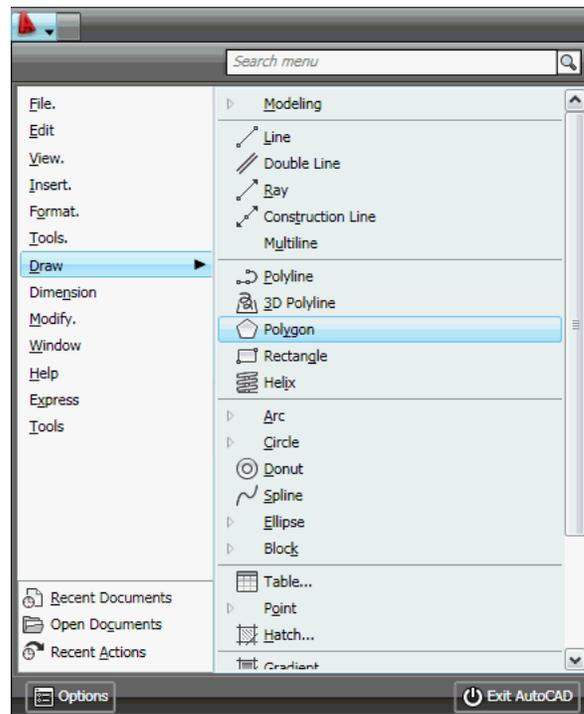


Clicking on this icon will return the cursor to the drawing screen. Left click to establish the start point of the rectangle. The cursor can then be dragged with the mouse to the other corner and left clicked again to define the size.

Alternatively, the "X" and "Y" dimensions can be entered in the text box associated with the cursor after left clicking to establish the start position. Type in the "X" dimension; use the <Tab> key to move to the next text box and type in the "Y" dimension. Click <Return> to finish drawing the rectangle.

## Drawing Polygons

**Polygons** can be drawn using the Polygon option from the Draw menu or the drawing toolbar.

**Figure 0–20 AutoCAD - Polygon**

AutoCAD will require the number of sides. Enter a number and press <Enter>

AutoCAD will then require the position of the centre of the polygon. Either drag the cursor to the required place and left click, or enter the required X and Y co-ordinates. (Use the <Tab> key to move between X and Y co-ordinates and press <Enter> to complete).

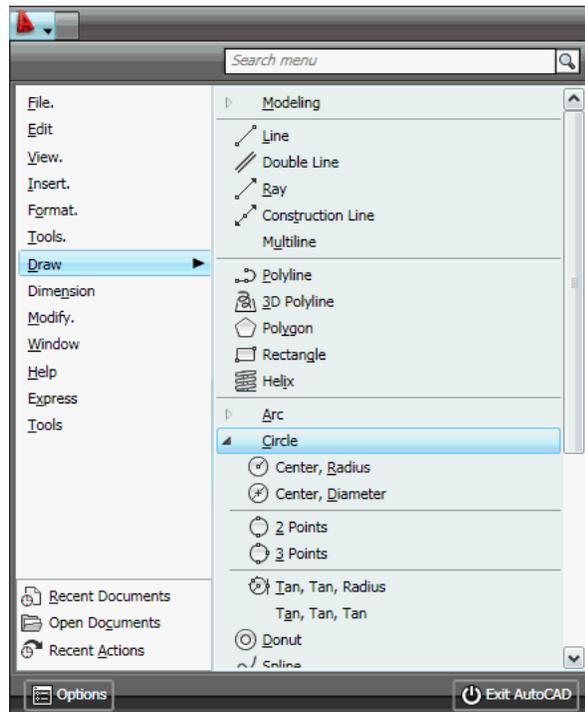
Select whether the polygon is to be inscribed within a circle or circumscribed about a circle. Press <Enter>.

Specify the radius of the circle. Either drag the cursor to the required radius and left click or entering the required dimension and press <Enter>

## Drawing circles

**Circles** can be drawn using the <Circle> option from the Draw menus or drawing toolbar.

**Figure 0-21 AutoCAD - Circle**



Clicking on the option will return the cursor to the drawing screen. Left click to establish the start point of the circle. The cursor can then be dragged and left clicked again to define the size.

Alternatively, the X and Y dimensions can be entered in the text box associated with the cursor to establish the start position. Next type in the required radius. Press <Return> to finish drawing the circle.

## Making Objects 3-Dimensional

2 dimensional objects can be made 3 dimensional by using the Extrude command. To use the Extrude command, complete the following steps:

1. From the AutoCAD command line, type Extrude and press <Enter>.
2. AutoCAD will ask you to select an object. Click on the required object - the lines will turn from solid to dotted to indicate the object has been selected. Press <Enter> to confirm selection that object.
3. AutoCAD will then ask for the height to be specified. Type in the required dimension and press <Enter>.
4. Enter any angle required and press <Enter>.

The object will then become three dimensional.

## Manipulating Simple Objects

### Rotate, (ROTATE), command

The Rotate command can be used to manipulate objects.

It can be activated by typing Rotate <Return> in the command line. It can also be activated by selecting the Rotate icon in the Modify toolbar or the Rotate option in the Modify menu.

Objects are rotated by selecting them, specifying the base point, then specifying the rotation angle.

## Attaching objects to each other using MOVE

(OSnap must be enabled).

Type **Move** in the command line and press <Return>. Alternatively click on the Move icon in the Modify toolbar

Select the first required object by clicking on it. The solid outline will turn to dotted. Press <Return> to confirm.

Move the cursor to any corner of the object. A small cross will appear on the object. This is the base point. Press <Enter> or left click to confirm.

Move the cursor to the second object it is desired to attach, (snap), the first to. A small cross will appear by any corner the cursor is by. When the required corner has been located press <Enter> or left click to confirm. The two objects will then become attached.

## Turning Objects into Blocks

### Overview of Turning Objects into Blocks

A block is a generic term for one or more objects that have been combined to create a single object.

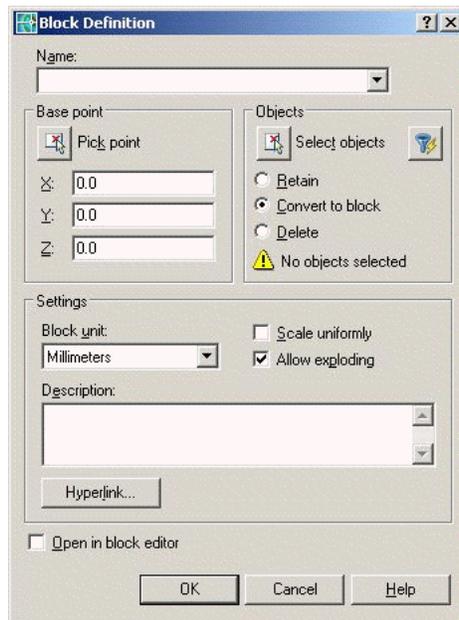
Converting object(s) into blocks that can be used in Macro Space Management is done in stages as described below:

1. The object is turned into an AutoCAD block.
2. The AutoCAD block is written to a Macro Space Management fixture library using the Wblock command. This turns the AutoCAD block into a Macro Space Management Block.
3. The Macro Space Management Block is given a slide to assist in visual selection.
4. The Macro Space Management Block is assigned Block properties. This makes it intelligent, allowing many of the more sophisticated Macro Space Management functions to operate.

This portion of the Help File deals with converting object(s) into AutoCAD blocks. Macro Space Management Block operations are dealt with in the Block section of the Help File.

### Creating AutoCAD Blocks

When the Make Block option has been selected, the Block Definition dialog box will appear.

**Figure 0-22 Block Definition**

It is recommended that any selection operations are carried out on 3D drawings.

Name is a unique identifying name of up to 255 characters.

Pick point is the insertion point of the block. It can either be identified in terms of X, Y, and Z co-ordinates; or it can be selected from the drawing.

---

**Note:** the selected insertion point of the block should be the same as the one that will be selected later for the Macro Space Management block details. If they differ, unpredictable effects could occur when inserted into a drawing.

---

If selected from the drawing then the dialog box will temporarily close while the pick point is selected. This is done by moving the cursor over the block. Available pick points will show as crosses. Left click or press <Return> to select. The dialogue box will then reappear.

Objects are selected by left clicking on the on the Select Objects button. This temporarily closes the dialogue box. Select the required objects by left clicking to identify the start position, dragging the cursor so the required objects are within the selection box, then left clicking again to define the selection box. Right click or press <Return> to complete selection and the dialogue box will reappear.

Settings allow the required dimensions to be selected. Ensure that these are set to metric or imperial units depending on which units Macro Space Management is using.

It is also possible to enter a more extended description of the block - for example Freezer Unit: Type A.

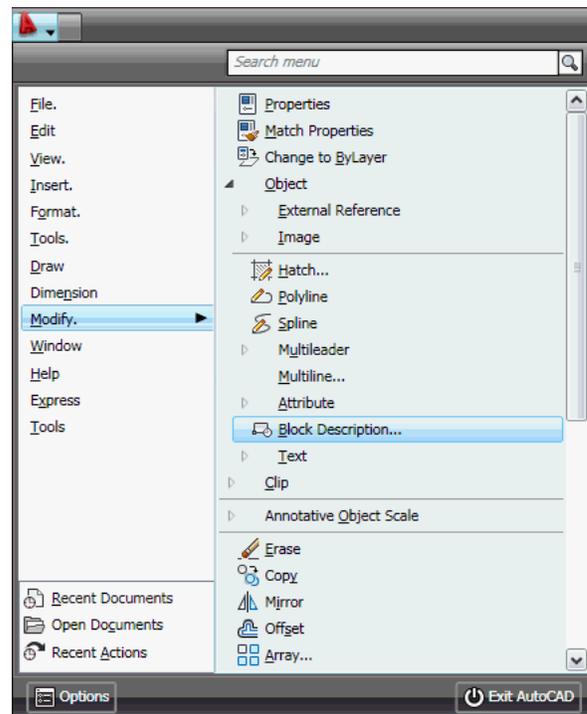
When all the required options have been selected, click on OK to create the block.

## Accessing the AutoCAD Create Block Option

The AutoCAD Create Block option can be accessed in two ways.

There is a Make Block icon on the Modify toolbar - click this to activate the option. Alternatively, the Block Description option can be selected from the Modify menus.

**Figure 0-23** Block Definition

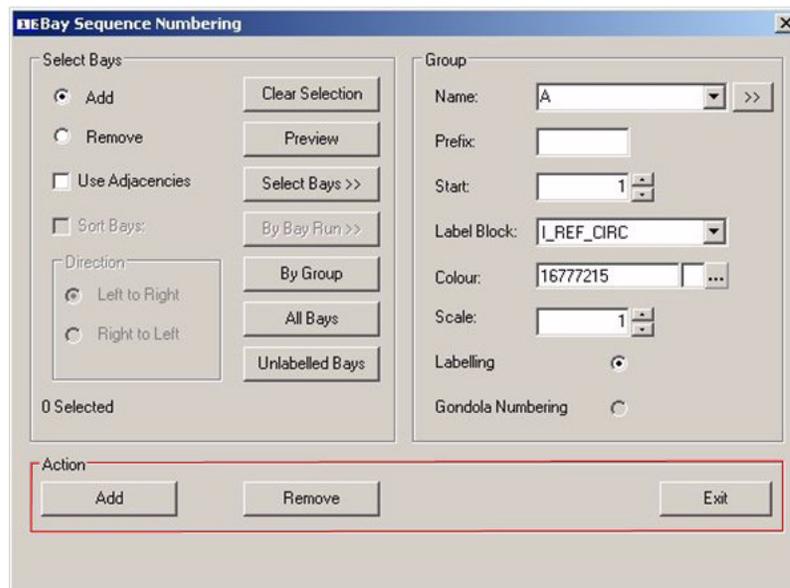


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## Windows Terminology

### Buttons

Buttons are used to select from available options.

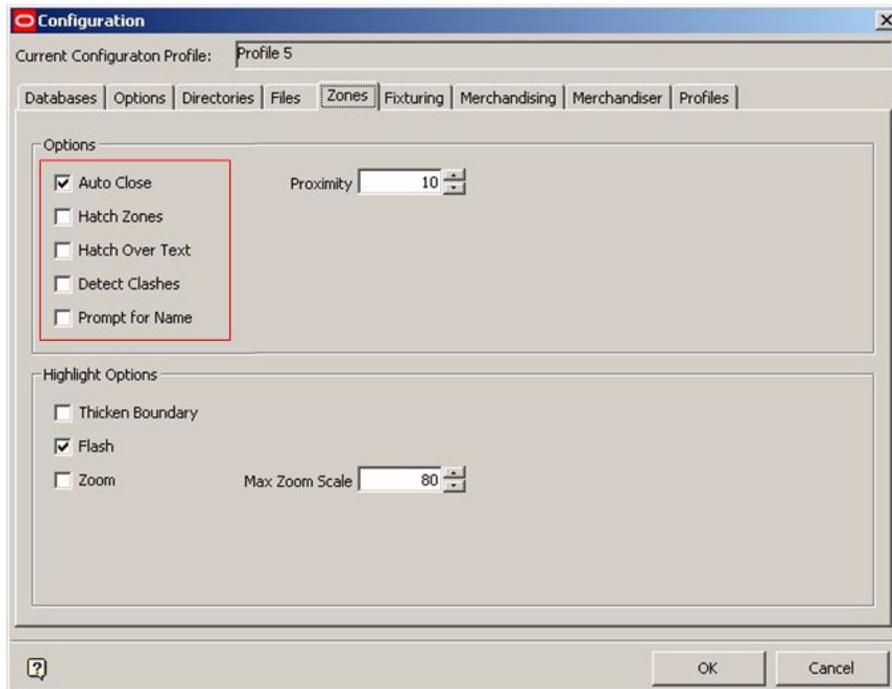


In the screen above, there are three buttons available within the Action frame. These are labeled Add, Remove, and Exit.

Using the mouse cursor, left clicking on any of these buttons will initiate the relevant action.

### Check box

Check boxes are used where one or more options can be selected from a list.



In the figure above, there are five check boxes available in the Options Frame.

Selected options are shown by a small tick, while the box for unselected options remains blank. In this case only the Auto Close check box has been selected.

If the option is not available, then the check box is greyed out.

## Control Key

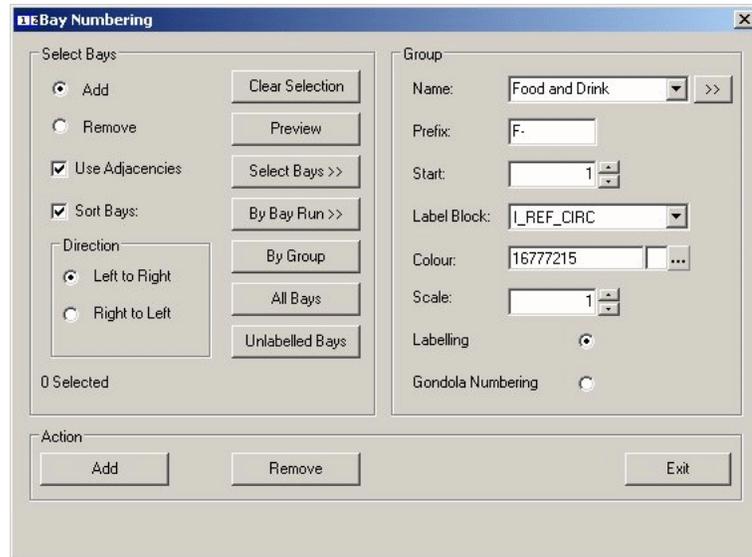
In Macro Space Management and In-Store Space Collaboration Help Files there are references to keyboard shortcut keys such as <Ctrl + A>.

This means that you must hold down the Control key on the keyboard (marked **Ctrl**) and press the **A** key.

Similarly, <Ctrl + P> means holding down the Control key on the keyboard (marked **Ctrl**) and pressing the **P** key.

## Dialog Box

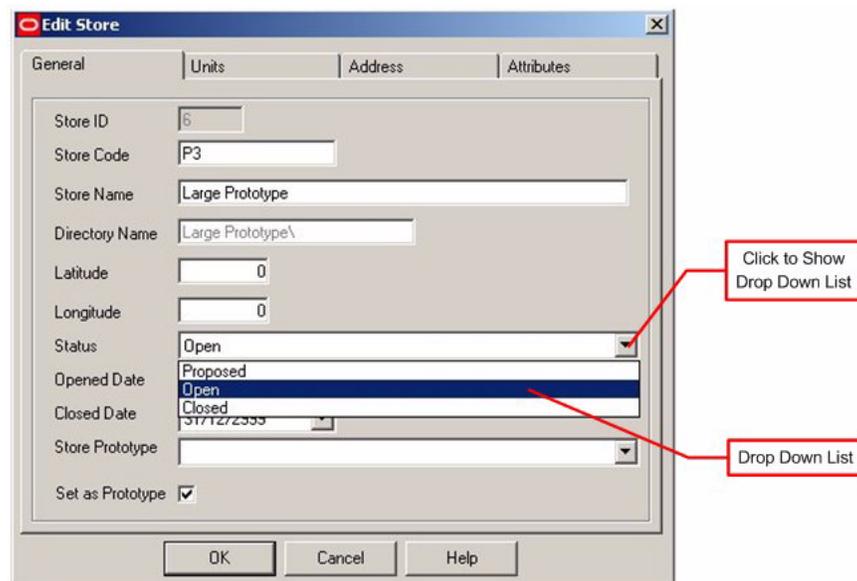
A dialog box is a small window that appears when you click on a menu or toolbar and contains further options.



In the above example, the dialog box contains a series of options for Bay Sequence Numbering. Note that the options can be accessed in different ways including buttons, check boxes, and radio buttons.

## Drop down list

A drop-down list represents a list of alternatives for selection. Normally only the current value shows, the full list can be seen by clicking the down arrow on the selected field.



Drop-down lists are indicated by a small downward arrow to the right hand side of the current field.

Drop-down lists are activated by left clicking on either the selection box or the arrow. Selections can be made by highlighting the required option with the mouse pointer,

and then left clicking. Once an option is selected, the drop-down list collapses, leaving only the current value showing.

In the above example the current value for Opened Date field is Open. Clicking on the current value has revealed a list of alternative options, from which another can be selected.

If the full drop down list is not visible, scroll bars will appear to allow the user to run forwards or backwards through the alternatives.

## Frame

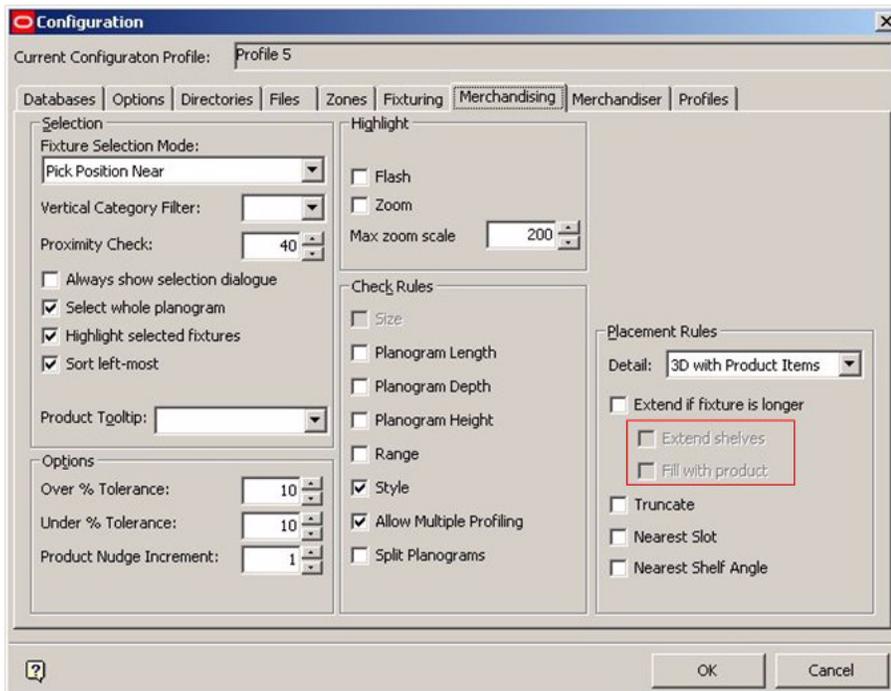
Frames are sub-sections of a dialog box, toolbar, and so on.

In this example of a dialog box there are three frames.

Along with the Action frame that has been outlined, there are also Select Bays and Group frames.

## Graying out

When buttons or other options are not available, the text turns from black to grey. Similarly check boxes turn from white to grey if they are not available.



In this example, the **Extend if fixture is longer** check box is not selected and the **Extend Shelves** and **Fill with Product** check boxes are grayed out and not available.

When the **Extend if fixture is longer** checkbox is selected, the **Extend Shelves** and **Fill with product** options will no longer be grayed out and become available.

## Maximize, Minimize, and Close Buttons

Maximize, Minimize, and Close buttons can generally be found at the top right side of the title bar.

- The Minimize button appears on the left and minimizes the visible screen, leaving only an annotated button on the status bar at the bottom of the window.
- The Maximize button appears in the center and restores the window to full size if it has been set to a smaller size.
- The Close button appears on the right and closes the window. In most of the modules, a warning message appears that prompts you to save the data or changes before closing the window.

## Menu

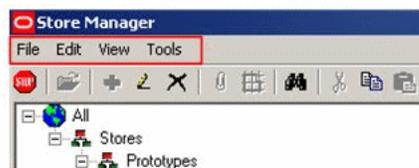
A Menu is a list of options.

Menus are accessed from menu bars or by right clicking the mouse in a suitable part of the window (pop-up menus).

Options are selected from the list by highlighting the one required with the mouse pointer, and then left clicking.

## Menu bar

A Menu bar is a list giving access to a series of drop-down menus. Menu bars are text based.



In the example above, the menu bar gives access to a series of drop-down menus including File, Edit, View, and Insert.

## Mouse Actions

Many actions in Macro Space Management are controlled using a Mouse device.

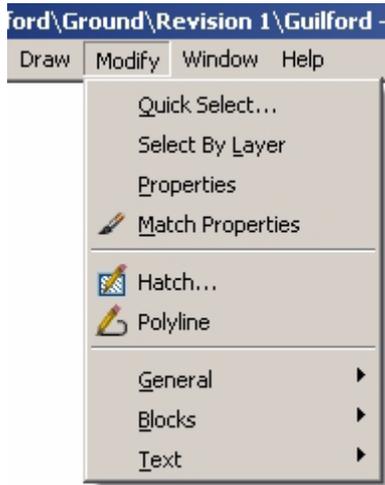
The Mouse device controls the movement of the mouse pointer. The mouse cursor is used to navigate on screen or through objects before the left or right buttons on the mouse are clicked to perform an action.

- The left hand button is typically used to select and click items, position the cursor in a document, and drag items. Using the left button in this manner is called left clicking.
- The right hand button is typically used to display menus of tasks or options that change depending on where you click. Using the right button in this manner is called right clicking.
- The scroll wheel can be used to move the displayed area up or down. It can also be clicked to perform other functions.

Some functions are activated by clicking a button twice in quick succession. This is called double clicking. Double click speeds can be changed using the Windows Control Panel.

## Drop Down menu

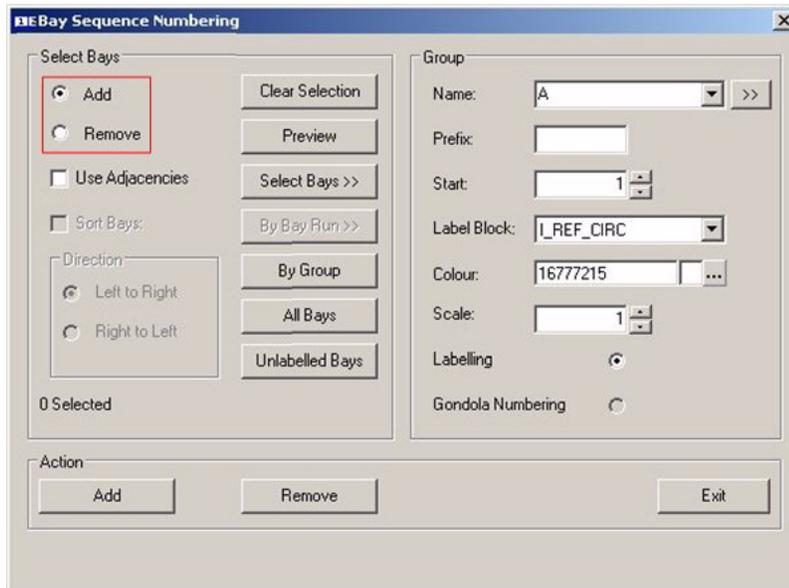
Drop Down menus are normally activated from Menu bars. Left clicking activates the menu, from which further selections can be made.



In this example the Modify menu has been activated.

## Radio button

Radio buttons are used when only one selection can be made from a list.

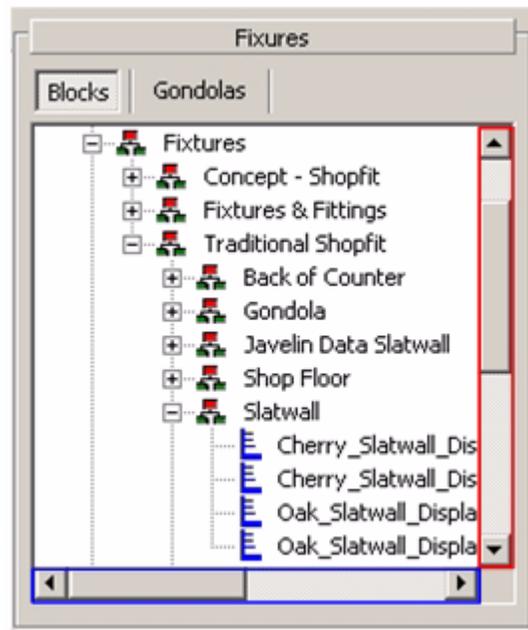


In the above example two mutually exclusive options are available. The **Add** radio button has been selected to add bay numbers.

Clicking on the **Remove** button would switch to this option, with the Add option deselected.

## Scroll bars

**Scrollbars** are used when the information to be displayed is larger than the available area. They can be used to move the displayed area left or right and up and down.

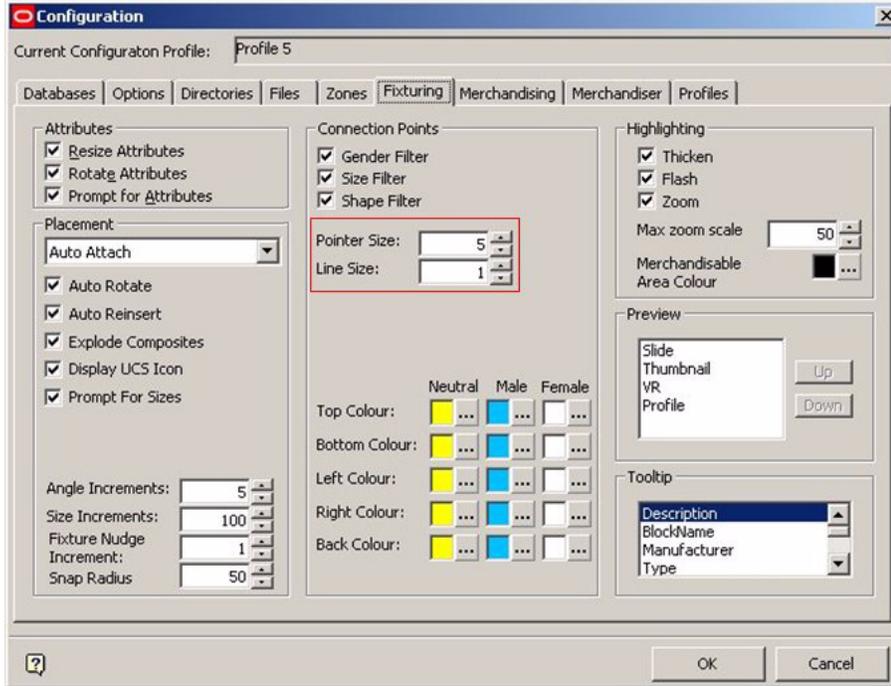


The scrollbar on the right of the displayed area has been highlighted in red. It can be used to move it up and down.

The scrollbar at the right of the displayed area has been highlighted in blue. It can be used to move it left and right.

## Spin control

**Spin controls** are used when a variable has to be changed within a specified range.

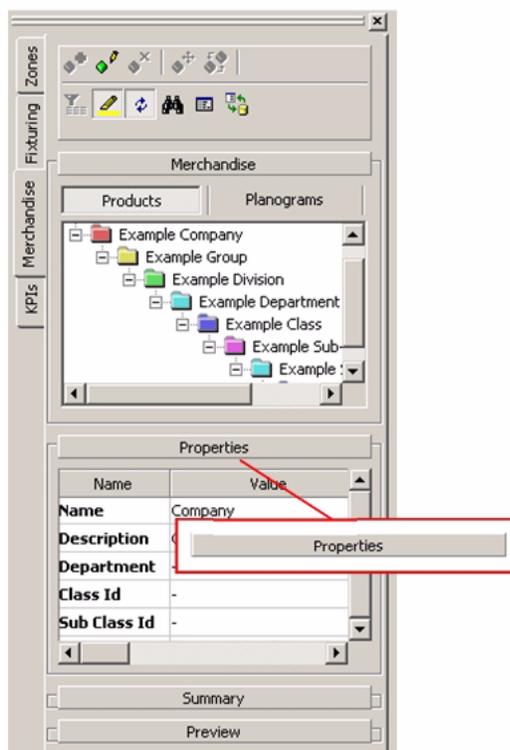


As an example Macro Space Management has a series of options in the Configuration module to change standard parameters within the software.

The Pointer Size and Line Size options in the Connection Points frame can be adjusted by clicking on the up or down arrows beside the figure.

## Splitter bar

Splitter bars are used in the Macro Space Management environment. They are used to open and minimise windows in the Object Browser.



In the above example the Merchandise and Properties windows are open, while the Summary and Preview windows are closed.

The Properties window can be closed by left clicking on the Properties splitter bar. It can be opened again by a second left click.

## Status bar

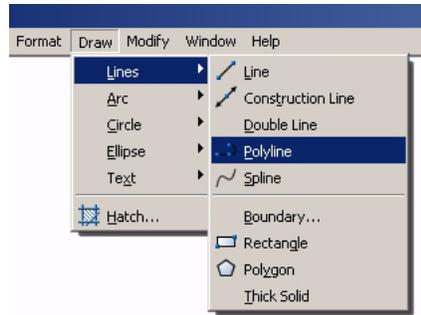
The **Status Bar** is found at the bottom of the screen.



Within the Macro Space Management and In-Store Space Collaboration environments it often contains information as to selections made, or options that can be toggled on and off.

## Sub-menus

**Sub-menus** are secondary menus that appear when an option is selected on the main menu.



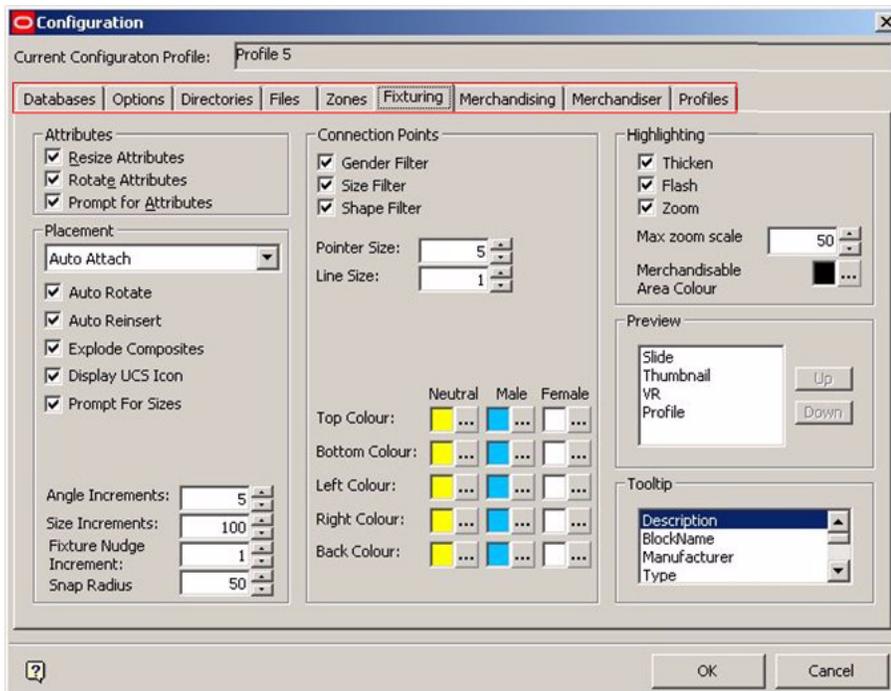
Sub-menus are always indicated by small triangles to the right of the option on the main menu. In this example three options on the main menu have a sub-menu.

Options on sub-menus are selected by highlighting the required option on the main menu with the mouse pointer, then bringing the mouse pointer over to the sub-menu to highlight the required option. The option can then be activated by left clicking with the mouse.

In the above example, the Lines option has been selected on the main menu and the Polyline option is about to be selected on the sub-menu.

## Tabs

**Tabs** are used to organize options within a dialogue box when that dialogue box contains a large number of options.

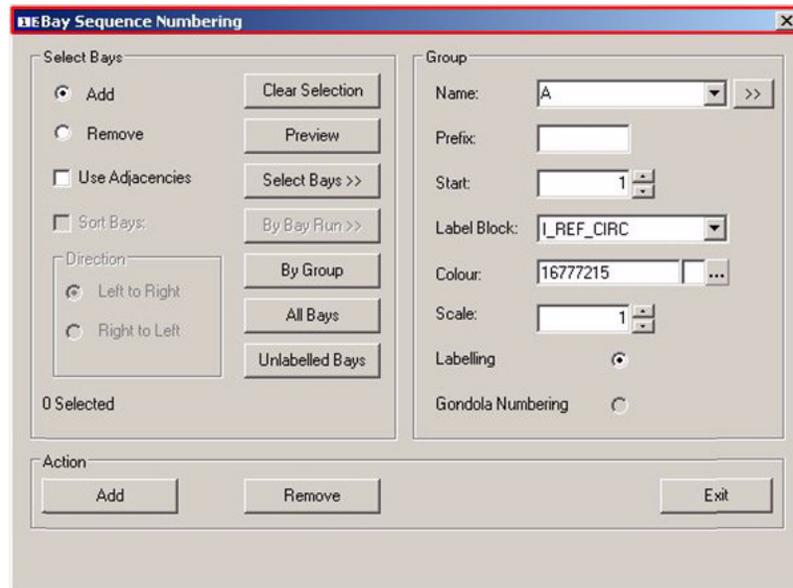


In the above example of a dialogue box, the Fixturing tab has been selected. This has given access to a range of options that can be modified as required.

Clicking on the Zones or Merchandising tabs would give access to alternative options appropriate to those functions.

## Title bar

The **Title Bar** is a small panel at the top of a window or dialog box that displays the name of that item.



In the example above, the dialog box has been labeled as Bay Sequence Numbering so the user is aware of its purpose.

## Toolbar

**Toolbars** are similar to menu bars, in that they are used to activate further options. The primary difference is that the options within toolbars are indicated by icons rather than text.

## Toolbar Icons and Tool Tips

**Icons** are pictorial representations of options that can be accessed.

Icons are selected by pointing the mouse cursor over the icon, and then clicking the icon.

If the mouse pointer is left over the icon for a few seconds, a tool tip for the icon will appear. In the example above, the text "Polyline" appears for the icon.

Here the Polyline icon is about to be selected. This is shown by its slightly raised appearance compared to the other icons.

## Definitions - A

### Access Rights

**Access Rights** are the privileges that users have to access the various parts of Macro Space Management. Some users, for example Administrators, will have new universal access rights. Other users will have more restricted access rights and will only be able to use a limited number of the parts of Macro Space Management. Access rights are sometimes called Privileges.

### Aisle

An **Aisle** is designated by a line and represents a theoretical path through a store. It is generally bordered on one or both sides by fixtures. The line representing the aisle is an AutoCAD Polyline and can take the form of any number of interconnected straight lines and arcs. Aisles are used to further define the relationship between fixtures and products.

### Aisle adjacency

**Aisle adjacency** establishes which planograms share a common aisle. It is similar in concept to product adjacency, but enables the correlations between planograms to be analyzed over a larger area than the more specific correlation done for product adjacency. Planograms can have aisle adjacency if they are in bays or bay groups that share a common aisle. The exact method used to calculate the adjacency depends of settings within Macro Space Management. Aisle adjacency is calculated by establishing the distance to the nearest aisle in four 90 degree opposed directions. The aisle selected is the closest aisle to the fixture that falls within a predetermined tolerance.

### Annotation

**Annotation** is the information printed on the drawings containing information on the fixtures and products placed on that drawing. Annotation is customizable within the Configuration Module.

## Architectural Drawing

An **Architectural Drawing** is a detailed dimensional drawing of the floor of a store. It may also include other information such the position of gas, electrical and water services, etc. It is often used, (by means of xrefs), as the basis for store plans.

## Adjacency

**Adjacency** is the relationship of certain classes of object within Macro Space Management to one another. There are three different types of adjacency; fixture, product and aisle. They are used for differing purposes.

Fixture adjacency is used to establish which fixtures are treated as having a relationship with each other. This could be for bay numbering, gondola numbering and other purposes. Planograms can have two forms of adjacency to one another. The first depends on the relationship of their parent fixtures to each other and is known as product adjacency.

Planograms can also have a relationship with each other depending on the relationship of the parent fixtures to any aisles that may have been placed. This is known as Aisle Adjacency. It is important to note that slightly different rules apply for aisle, fixture and product adjacency. For example a specific bay might be adjacent to another bay by the rules of fixture adjacency, but the product in those bays might not be adjacent by the rules of product adjacency.

## Area calculations

**Area calculations** are performed to establish what area a fixture is visible from for sales purposes. It is calculated by measuring out in the specified directions from the fixture until another object is reached, or the measuring reaches the limit of the tolerances set in the Configuration Module.

The area is then adjusted to allow for any overlaps it might share with nearby features. It is also adjusted to allow for any zone or departmental boundaries. The resulting calculated area is a good indication of the space from within which the customer can view the fixture.

## Authorized Status

**Authorized status** is given to objects or plans that have been approved for use, but have not yet reached their Effective Date and gained Current status.

## Definitions - B

### Base Height

**Base height** is the minimum height at which any product can be placed.

### Base Linear

See **Nominal Base Linear**.

## Bays

Fixtures and gondolas are sub-divided into **bays**. These bays are allocated numbers to simplify identifying locations.

A fixture will be assigned a single bay number. Gondolas, which comprise a number of fixtures, may have two or more bay numbers associated with them.

## Bay Groups

**Bay Groups** are two or more fixtures that have been linked together to so they are treated as a single bay during bay numbering operations. Bay groups may also be treated as a single bay during adjacency calculations.



In the above illustration the yellow bays have been designated a *bay group* and have been numbered accordingly.

All other bays have been numbered as single fixtures.

## Birth Date

The **Birth Date** is the date at which an object becomes active.

Birth Dates are associated with the Status of Stores, Floors and Revisions.

The Birth Date is the date at which the Store, Floor or Revision becomes active.

## Block

A **Block** is a collection of data describing (for example) a fixture or fitting. It can be regarded as a drawing in its own right which, when inserted into a floor plan, also inserts all the information associated with that drawing.

Macro Space Management contains a library of blocks.

Blocks are normally drawn within AutoCAD and imported into Macro Space Management.

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**Note:** There is a difference between AutoCAD blocks and Macro Space Management blocks. AutoCAD blocks are normally called blocks. Macro Space Management blocks are called MSM blocks.

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## Block types

There are a variety of **block types**. These include:

- Composite Blocks
- Fitting Blocks
- Fixture Blocks
- Other Blocks
- Part Blocks
- Product Blocks
- Reference Blocks
- Shelf Blocks
- Title Blocks
- Unknown blocks

There are also:

- Database Blocks
- Drawing Blocks

See individual entries for more information.

## Brown goods

A term often used to describe goods that will be used in the living room and bedrooms of a house.

Such goods include televisions, sound systems, computers, etc.

## Definitions - D

### Database Block

A **Database Block** is a block that has been read from the Macro Space Management Central Database. (Conversely, a Drawing Block is a block that has been read from an AutoCAD drawing).

### Death date

The **Death Date** is the date at which a current object is no longer active.

### Drawing Block

A **Drawing Block** is a block that has been read from an AutoCAD drawing. (Conversely, a Database Block is a block that has been read from the Macro Space Management Central Database).

### Dumb Block

A **Dumb Block** is one that has not yet had any block properties associated.

## Definitions - E

## Effective Date

The **Effective Date** is the date at which an object becomes active.

## Exclusion

**Exclusion** is an option within Block Properties.

Any object set for exclusion will not appear in calculations or reports.

## Explode on Insert

**Explode on Insert** is an option in the Block Details Module. Selecting it means a composite block is split back into its constituent parts on insertion into a drawing. The individual components can then be manipulated separately.

## Definitions - F

### Fence

A **Fence** is an AutoCAD method of selecting objects on a drawing. It is invoked by typing Select into the AutoCAD command line, followed by Fence to specify the method. The user can then use the mouse to specify a multi-segmented line on the drawing. Any object by the line will be selected.

### File

Files can exist at every level in the hierarchy with the exception of clusters.

Files can be of multiple types and formats. The icon in the example above is that of an AutoCAD file, but Word, Excel, Bitmap and many other file types can also be used within Macro Space Management.

Files can be imported, linked to, copied, created or deleted using the various Store Manager Tools. They can also be displayed in varying ways.

### Filtering of planograms

A retail operation may create many thousands of planograms. When populating a store, the required planograms must be quickly and efficiently filtered from those available. This operation is often called profiling.

Some profiling/filtering is done by the use of layers. When populating a fruit and vegetable fixture, Macro Space Management automatically selects fruit and vegetable planograms.

Other profiling is user controlled. For example, it is possible to select all planograms over a certain height, or those designed for a specific season.

Within Macro Space Management, planogram selection is done via the Profiling sub-module.

### First Slot

**First slot** is the height of the first slot, (for example on a peg board), above the height of the base of the fixture.

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**Note:** Base Height can be set using the Base Height in the Fixture Dimensions Frame of the Size Tab in the Block Definitions dialog box.

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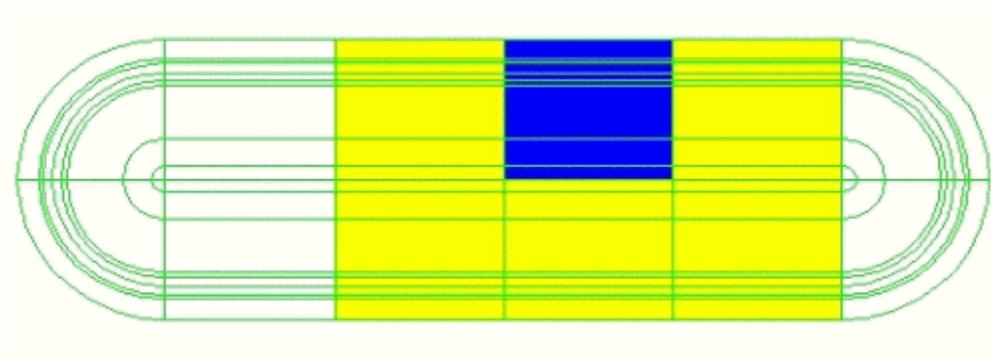
---

## Fitting blocks

**Fitting Blocks** are blocks containing details of specific fittings.

## Fixture adjacency

**Adjacent fixtures** are fixtures that are touching, or within a specified proximity to each other.



In the diagram all yellow colored fixtures are adjacent to the white fixture.

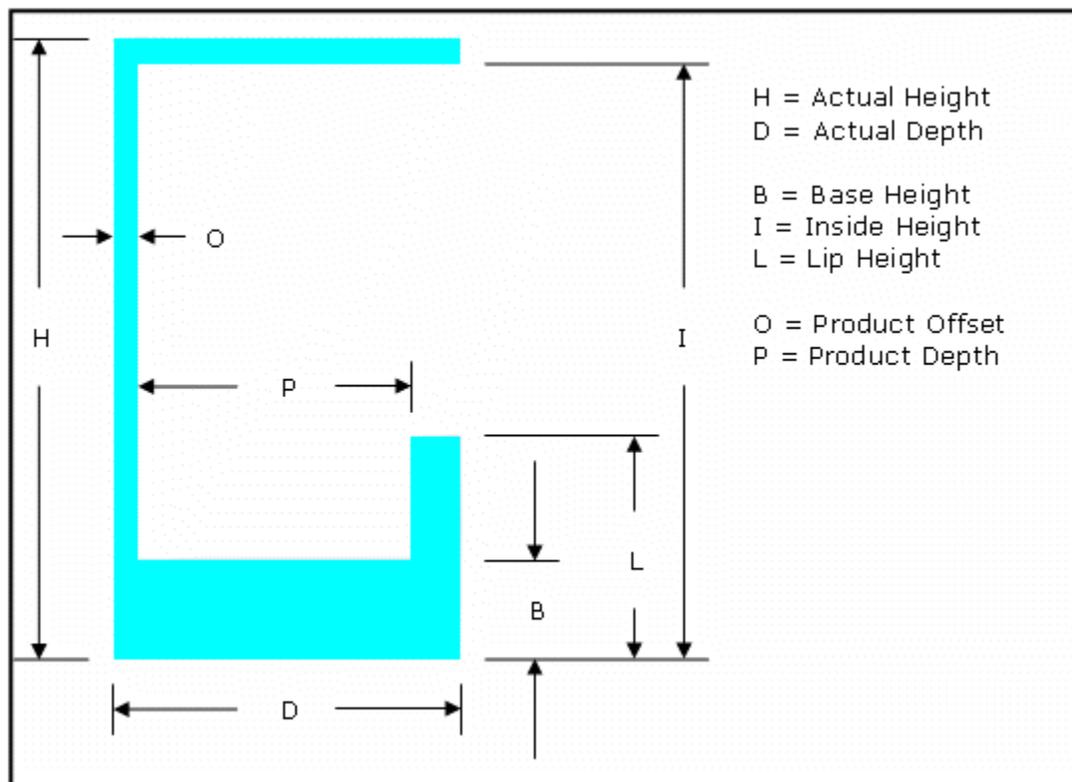
All fixtures that Macro Space Management identifies as having adjacency in a drawing are treated as a gondola for planning purposes.

**Note:** There is a difference from product adjacency.

## Fixture blocks

**Fixture Blocks** are blocks containing details of specific fixtures.

## Fixture Dimensions



**Actual Height** is the specified height of the block.

**Actual Depth** is the specified depth of the block.

**Base Height** is the minimum height at which product could be placed.

**Inside Height** is the height to the inside of the upper part of the fixture.

**Lip Height** is the height to the top of the lip of the fixture.

**Product Offset** is the dimension that has to be subtracted from the Actual Depth to give the available depth that can be populated by product.

**Product Depth** is the depth to which it is desired to populate the fixture with product.

## Fixtures, fittings and shelves

**Fittings** are items within a store that aid the retail effort, but do not themselves hold merchandise. Examples are display material and checkout counters.

Some fittings are used to support or augment fixtures. For example a shelving unit could be made up of support legs, (a fitting), and shelves, (a fixture).

Fittings always remain separate items on the drawing, (and can be hidden from view using the Hide Fittings command).

A Fixture is a structure designed to hold products for sale. It can take many forms including runs of shelving, display cabinets and kiosks.

A fixture can hold product directly, or via shelves. A shelf always has a parent fixture.

As well as the obvious definition of a Shelf, it can be used as a generic description as equipment within a fixture which can hold product.

For example a backboard might hold several support bars. The support bars could in turn have rods attached. Product could then be hung from those rods. The arrangement of rods emanating from a single support bar is generically called a shelf for planning purposes.

Each shelf or fixture always has a product base associated with it. This serves as a placeholder for any merchandise placed on it.

Fixtures and fittings are often color coded as to purpose. As an example, fixtures holding groceries might be drawn in green, fixtures holding chilled goods in blue.

## Floors

A *Floor* is a distinct physical level within a store. It can only be associated with a specific store and will not be found elsewhere in the hierarchy.

A Floor can have architectural drawings associated with it. These can only be associated at this level.

A floor can also contain single or multiple revisions, (specific arrangements of fixtures and fittings). The drawings associated with these revisions have to be contained at the revision level.

Any connection between drawings in revisions and architectural drawings has to be made using xrefs.

## Footprint

The **Footprint** is calculated from the X and Y dimensions of an object; in effect by multiplying the length and the width.

This calculation works best for square and rectangular objects. It is less effective for circular and polygonal objects.

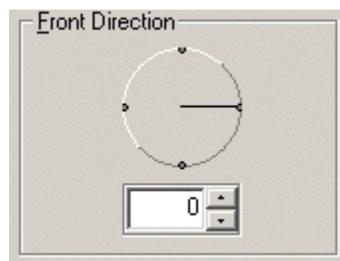
In these cases it may be preferable to input a nominal area in the Sizes tab of the Block Details module.

Nominal Area

## Front

All fixtures have a designated **Front direction**. This is the section of the fixture where the customer typically stands to select their products.

Front directions are set in the Block Details Module.



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## Definitions - G

### Global Change

A **Global Change** is a change made to Macro Space Management that affects all users simultaneously.

If, for example, the Update Database option is used in the Configuration Module to change the name of a specified database, then all Macro Space Management users will read and write information to that new database.

A record of all current settings is stored in a Profile.

### Gondolas

A **Gondola** is an arrangement made up from two or more fixtures linked together by means of connection points or in sufficiently close proximity to meet the definition of adjacency. An example might be a run of 10 fixtures placed back to back, with end caps on each end to maximize the area devoted to sales.

Gondolas are internally sub-divided into sections, each new section beginning where fixtures go through more than a 30o change of angle when connected.

Gondolas are often color coded as to purpose. For example gondolas holding groceries might be drawn in green, fixtures holding chilled goods in blue.

Note that single fixtures are numbered as gondolas if the Gondola Numbering option is used.

### Gross Area - Zones

The **Gross Area** of a Zone is the total area of a Zone before any Holes or other non-usable areas have been taken into account.

### Groups

**Groups** are collections of fixtures and gondolas that have been linked within Macro Space Management so they can be subjected to collective operations such as moving or rotating.

## Definitions - H

### Hierarchical structures

A **Hierarchical structure** is one where objects are organised in the form of a tree. The more fundamental data is close to the trunk, while the more dependent data is further out on the branches. The most fundamental part of the hierarchical structure is the root.



Hierarchical structures are used to allow objects to be set out in a logical relationship to each other.

The Stores cluster contains the Prototypical sub-cluster. This sub-cluster contains the Large Prototype store. The Large Prototype store has a 'Level 1' floor, and that floor contains the Prototype revision.

The Store cluster is closest to the trunk, while the New Dover Layout revision is the most dependent data.

## Historical Status

Anything that was once current and has now been taken out of service has **Historical** status.

Generally drawings with Historical status can only be viewed in read only mode, and cannot be directly re-used within Macro Space Management.

## Hole - Zones

A **Hole** is an area cut into a Zone to represent a pillar or similar obstruction.

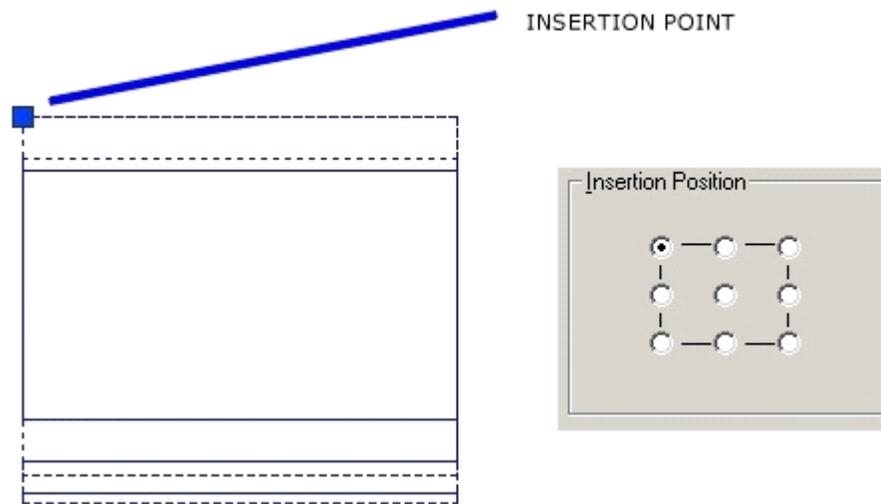
Its area is subtracted from the Gross Area of the Zone to give the Net Area.

## Definitions - I

### Insertion points

The **Insertion Point** is the point at where a fixture, fitting or gondola is located on the drawing. It can be designated anywhere within the fixture during the drawing stage and appears as a small blue square.

Insertion points can be revealed by left clicking on any line within the drawing of the fixture, fitting or gondola.



The position of the Insertion Point is defined in the Block Details module.

## Inside Height

The **Inside Height** of a fixture is the height after the thickness of any top section not suitable for merchandising has been subtracted.

For example, if a fixture is 2000 mm high, but it has a 100 mm pelmet, then the Inside Height is 1900 mm.

## Internal Area

The basis for any store plan is normally an Architectural Drawing. This is normally referred to another AutoCAD drawing to act as a blueprint for the arrangement of zones, fixtures, fittings and merchandise.

The first zone to be drawn is often the Internal Area Zone. This defines the maximum area available for sales activities.

The Internal Area can include both Sales and Non-Sales areas.

It is also possible to draw both sales and non-sales Zones outside of the internal area. Any Zones outside the Internal Area will not be included in any Area Calculations.

## Definitions - K

### Key Performance Indicator

**Key Performance Indicators**, (KPI's), are used to give an overview of the efficiency of the merchandised layout.

They are presented in the form of color coding to show performance against specific criteria.

KPI's present a general view of how sales income is performing.

## KPIs

This abbreviation means **Key Performance Indicators**. See the appropriate section.

## Definitions - L

### Layers

AutoCAD drawings are often divided into **Layers**. Each layer contains a specific type of information. For example one layer might contain information on fixtures, another data on electrical wiring.

Layers can be further sub-divided into aliases. Each aliased layer will contain very specific information. For example, one aliased layer might contain details of all the fixtures capable of holding chilled goods; another all fixtures holding fruit and vegetables.

Layers are one method used by Macro Space Management to filter fixtures, planograms, etc.

### Local Change

A **Local Change** is a change made to Macro Space Management that affects only the user's computer - typically the Registry settings will be changed on that computer.

Local changes are often made to customize the operation of the software so that it meets the user's individual preferences. An example of this would be enabling or disabling Sounds in the Configuration Module.

A record of all current settings is stored in a Profile.

### Log File

**Log files** are files recording problems during operation of Macro Space Management. This enables problems to be investigated at a later date.

Their location is specified in the Directories tab of the Configuration Module

## Definitions - N

### Net Area - Zones

**Net Area** is the area remaining in a Zone after Holes have been taken into account.

### Nominal Area

**Nominal Area** is a value that can be set in the Size tab of the Block Definitions module by the Macro Space Management user.

Parameter	Value	Action
Nominal Area	0	
Nominal Base Linear	0	Pick >>
Base Height	150	Pick >>
Product Offset	0	Pick >>
Product Depth	0	Pick >>
Inside Height	0	Pick >>
Front Lip Height	0	Pick >>

Include Pelmet

It overrides the Footprint that would otherwise be calculated from the X and Y dimensions of the object.

Nominal Areas are often used when the object is not a square or rectangular shape.

For example a circle would have a footprint calculated from the product of two 90 degree opposed diameters. This Footprint would be 27% greater than the area of the equivalent square.

Footprint

## Nominal Base Linear

**Nominal Base Linear** is a measurement used when the populatable length of a fixture is different from the actual length.

An example would be a chest freezer, where the actual length of the unit would be greater than the length available to place product.

Another use would be a non-rectangular fixture, such as a curved one. In this case a Nominal Base Linear dimension would be entered to facilitate Area Calculations.

## Definitions - O

### Objects

There are varying classes of data used within Store Manager. Each distinct class of data is described as an Object. Objects include:

- Store root.
- Clusters.
- Sub-clusters.
- Stores.
- Floors.
- Revisions.
- Files.

For administrative purposes, these objects are organised within a hierarchy. They often have a status, and their use is governed by rules.

## Other block

An **Other Block** is a block that contains architectural information.

## Definitions - P

### Parent-Child Relationships

Some objects within Store Manager are linked together in such a manner that changes to one object may result in changes to other objects linked to it. Such objects are described as being in a Parent-Child relationship. The object that has dependent objects associated with it is known as the parent, while the objects that are associated with the parent object are known as the children.

In a hierarchical structure, children of one parent can be parents of their own children in turn.

When the status of a parent object is changed; it can result in changes to the status of child objects. Similarly, the status of parent objects can sometimes only be changed when the status of the appropriate child object is correct.

When a parent object is deleted, it affects all the associated child objects. Conversely, a child object can often be deleted without affecting the parent.

### Part Blocks

A **Part Block** is a block that contains information on a specific type of part.

### P\_Base

Also called a Product Base, a P\_Base is a class of object within Macro Space Management that is capable of showing the presence of a planogram.

Planograms cannot be placed unless the fixture has had a generic P\_Base designated. Every fixture must therefore contain at least one P\_Base.

When the planogram is placed, a simple rectangular slab will be drawn on each shelf on the fixture to show that product has been placed.

P\_Bases are a type of Product Base.

### PDA File

A **PDAfile** is a form of AutoCAD file that is produced when a Revision is made Current.

A PDA file can be used in hand held devices or for In-Store Space Collaboration.

### Perimeter Gondola

A gondola that follows a wall or other structural feature.

## Planogram substitution

**Planogram Substitution** allows the replacement of a currently planogram type with that of a selected replacement.

Depending on the options available and specified, replacement can be universal for the selected floor, store or group of stores - all required planograms are replaced in a single operation.

More complex substitutions require Macro Space Management Enterprise - a version with automatic updating facilities.

## Planograms

**Planograms** are objects within Macro Space Management that hold details of merchandise to be placed into the fixtures within a store. Planograms define the type, quantity and arrangement of the sales goods to be placed in the bay(s). They are designed to maximize sales revenue by placing the optimum combination of products into the available sales space.

Planograms are infinitely flexible and can be configured to hold any combination of products.

Planograms are placed in fixtures and gondolas, but must be of suitable configuration for that specific fixture or gondola.

## Privileges

**Privileges** are the rights that users have to access the various parts of Macro Space Management.

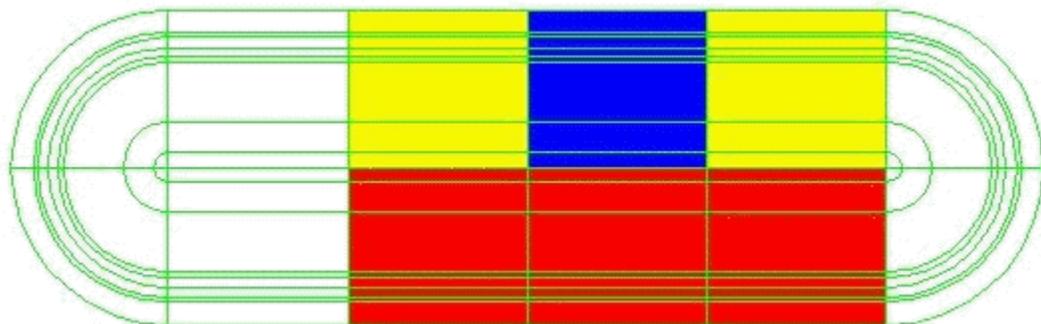
Some users, for example Administrators, will have near universal access rights.

Other users will have more restricted access rights and will only be able to use a limited number of the parts of Macro Space Management

Privileges are sometimes called Access Rights.

## Product adjacency

**Product Adjacency** is used to establish which planograms are in proximity to each other. A product can be adjacent to the products on the fixtures to its left and right, and to other planograms that might share the same fixture.



The products in the yellow fixtures are adjacent to the product(s) in the blue fixture. Product in the red fixtures is not adjacent to the product(s) in the blue fixture.

Note: There is a difference from Fixture Adjacency

Product adjacency can then be used establish if two of the planograms fall within previously determined rules.

These rules might determine if planograms should be associated to improve product sales; for example pasta being adjacent to pasta sauces.

These rules might also determine if planograms should not be associated. For example, fresh meat planograms should not be placed in proximity to planograms containing dairy products.

## Product Base

A **Product Base** is also called a P\_Base.

See the entry for P\_Base for the definition.

## Product block

A **Product Block** is the generic description of block that will be used to locate planograms. Planograms cannot be placed without a product block being present on the fixture.

Product Bases, (P\_Bases), are a specific type of Product Block.

## Product colors

An alternative form of presentation for the efficiency of the merchandised layout is in the form of Product colors. Each bay is allocated a color relative to the class of layout group it belongs to. This enables the general form of the layout to be seen at a glance.

Product coloring allows the Macro Space Management user to concentrate on specific details of the merchandising arrangement within the store.

## Product Depth

**Product Depth** is the maximum depth a product can occupy on a shelf.

For example a fixture might be 1000 mm deep. The back wall might be 100 mm thick and the front lip 100 mm thick.

This leaves a Product Depth of 800 mm.

## Product Offset

**Product Offset** is the distance that has to be allowed from the back of a fixture for anything that might reduce the depth. For example a fixture might be 1000 mm deep with a back wall be 100 mm thick.

This leaves a maximum available depth for product of 900 mm.

## Products

A **Product** is a single type of merchandisable item.

- Jasmine rice is one type of product.
- Basmati rice is another type of product.

- Japonica rice is a third type of product.
- Short grained rice is yet another type of product.

Products can be combined in a Planogram to give a planned combination of products filling part of all of a fixture.

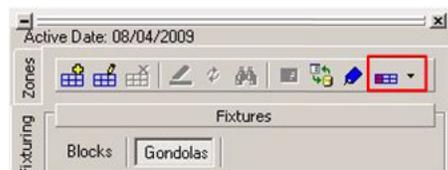
For example, a Rice planogram might contain specified amounts of Jasmine, Basmati, Japonica, short-grained, and other types of rice.

## Profiling

See filtering of planograms.

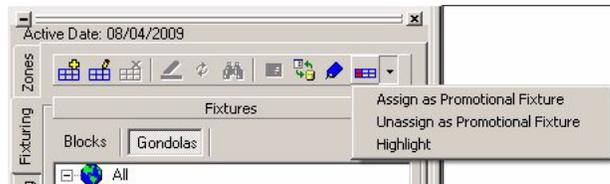
## Promotional Fixtures

**Promotional Fixtures** can be assigned within a gondola by selecting a fixture or fixtures and clicking on the Fixture Attribute icon in the toolbar.



Promotional Fixtures are normally used for reporting purposes.

They are assigned by selecting a fixture then selecting the appropriate option from the toolbar menu.



Fixtures designated as Promotional can be identified by using the highlight option. Alternatively, they can be identified by running a report on the drawing or by using a KPI.

## Prototype store

A Prototype Store is a store that is used as a basis for comparison for other stores within the Store Manager hierarchy.

Prototype Stores can be theoretical; designed by marketing staff as an exemplar of what a store should be. They can also be practical examples selected from operational stores.

There can be many Prototype Stores, but each operating store can only have a single Prototype Store assigned to it at one time.

Prototype status can be assigned to a store by editing its properties.

## Publish date

The **Publish Date** is the date at which a previously authorized file is issued to the stores.

The file will not become current until the Effective date is reached.

## Definitions - R

### Reference Block

A **Reference Block** is a block containing information on how to present Bay numbering.

Depending on the type of Reference Block chosen, bay numbering can be written onto, (for example), oval, round, elliptical or rectangular backgrounds.

### Report Studio

**Report Studio** is a module within Macro Space Management that contains a number of standard reports.

This module is now being superseded by BI Publisher.

Additional customised reports can be produced by Oracle at the customer's request.

### Revision

A Revision is used as a folder to hold a set of files that refer to one specific arrangement of the fixtures, fittings and merchandise on a floor.

Floors can have many revisions. For example a floor could have Spring, Summer, Autumn and Winter revisions, each representing a planning arrangement to be used at the appropriate time.

Floors can also have different revisions showing different marketing mixes, fixture arrangements, etc.

Any connection between drawings in revisions and architectural drawings has to be made using xrefs.

Only one Revision can be Current at any one time.

### RFBin

The **RFBin** is Macro Space Management's equivalent of the Recycle Bin. Files marked for deletion are sent to the RFBin, but will not be permanently deleted until the Purge option is used in the Admin menu.

## Definitions - S

## Scaled size block

A **Scaled Size Block** is attached to an object of some sort to append visual information. The scale of the scaled size block is determined by the block onto which it is attached.

## Security Server

This part of Macro Space Management - Security Server - retains a record of the user's access rights.

Each time a user attempts to open another module, Security Server will either allow or prevent it, depending on the user's rights.

This means that a user only has to log into once per session.

## Shelf Block

A **Shelf Block** is a block containing details on a specific type of shelf.

## Shelf Types

**Shelves** can be of any number of user defined types. Examples include:

- Open shelves
- Heavy shelves
- Obstruction shelves
- Peg Boards
- Lateral Rods
- Rods

Shelf type is assigned in the Fixtures Tab of the Block Details dialog box.

## Shelf Category

**Shelf Category** is found in the Shelving Frame of the Block Details dialog box

Shelf Category allows the aliased layer to be occupied by the shelf to be further sub-divided. The default is 0, but shelves can be assigned to further vertical categories within the aliased layer. For example generic goods could be assigned to Shelf Category 1, branded goods to Shelf Category 2...

## Slot Spacing

**Slot Spacing** is the distance between slots in certain types of shelving, (for example peg boards).

It is set using the spin controls within the Shelving Frame in the Fixtures Tab in the Block Details dialog box.

## Snake Gondola

A single sided gondola that may go through a number of changes of angle - hence 'snake gondola'.

## Status

**Status** defines the current standing of an object within the system.

For example an arrangement of fittings and fixtures for a floor layout can be defined as either a Proposal, (at the design stage), Authorised, (approved for use in the future), Current, (in use), or Historical, (taken out of service).

The status of an object will change as Macro Space Management users move through the business cycle.

## Status of clusters and sub-clusters

Clusters and sub-clusters are not objects. As such, they do not require a status.

## Status of files

The **status** of a file can have one of several potential status's, typically including:

**Proposal** - a trial layout currently being considered for adoption.

**Authorised** - a layout that has been set to become current at a specific date. Such layouts have birth dates.

**Published** - a layout that has been sent to the stores for future implementation at an agreed date.

**Current** - the layout currently in use. Such layouts can have *death* dates where they revert to an inactive status.

**Historical**- layouts that have once been current and have reverted to inactive status. Such layouts can be reactivated by a change of status.

## Status of floors

**Floors** can typically have one of three statuses:

**Proposed** - where the floor is at the design stage.

**Existing** - where the floor is in use.

**Demolished** - where the floor is no longer available.

## Status of revisions

The **status of a revision**, (or layout of a floor), can be set to the following typical options:

**Proposal** - a trial layout currently being considered for adoption.

**Authorised** - a layout that has been set to become current at a specific date. Such layouts have *birth* dates.

**Current** - the layout currently in use. Such layouts can have *death* dates where they revert to an inactive status.

**Historical**- layouts that have once been current and have reverted to inactive status. Such layouts can be reactivated by a change of status.

## Status of stores

**Stores** can typically have one of three statuses:

**Proposed** - the store is in the design or purchase stage.

**Open** - the store is in use.

**Closed** - The store has been taken out of service.

## Store Root

The **Store Root** is the origin of the hierarchical tree. All other data emanates from the Store Root.

Normally, stores are grouped in clusters and sub-clusters for ease of organization.

However, it is possible to add stores directly at the root level without them being associated with a cluster or sub-cluster.

## Stores

A Store is the unique description of a specific retail outlet. Stores are made up of one or more floors. Stores are normally associated with one or more clusters; although they can, (less usually), be directly associated with the Store Root.

Stores can be associated with more than one cluster. However, this multiple association is merely a series of links to the same store within the central database. Stores act as containers for floors and their associated files.

## Sub-clusters

A **Sub-cluster** is a sub-division of a Cluster. Sub-clusters are used to allow a finer level of detail when analyzing the performance of groups of stores.

For example the cluster of stores labelled England might be further sub-divided into sub-clusters called north, central and south.

If necessary, this process could be continued further, with the north sub-cluster being further divided into, for example, city and suburban sub-sub-clusters.

## Synchronisation

Macro Space Management and In-Store Space Collaboration can modify drawings in a number of ways.

This may result in different information being held in a drawing in the Planner module and in the central MSM database.

At intervals Macro Space Management needs to ensure that both drawing and database contain the same information. This process is called synchronisation and is controlled by the Synchronisation module.

## System Variable

A **System Variable** is a parameter within the Macro Space Management database that makes a permanent and fundamental change in the way Macro Space Management operates.

System variables are often used as switches to toggle features on and off.

System variables are not accessible through the standard Macro Space Management interface and should only be changed by system administrators.

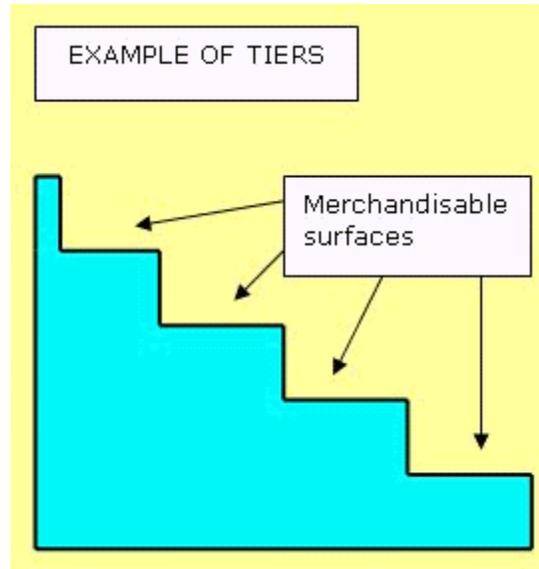
It is strongly recommended that system variables are only changed after consultation with the Oracle Technical Support Team.

## Definitions - T

### Tierage

**Tierage** is activated when the Has Shelves tick box is unchecked in the Fixtures Tab of the Block Details dialog box.

The fixture then has tiers, (often used for displaying sample products), rather than shelves.



If Tierage is selected then the number of tiers can be selected using the spin control for Tierage.

### Title block

A **Title Block** is a block associated with a floor plan. It contains information such as drawing title, drawing number, drawing issue, drawing date, revision history, designer, etc.

It may contain information on floor area, merchandisable area, non-sales area, etc.

In short, a Title Block specifies all the information contained within a drawing.

### Trusted connection

A **Trusted Connection** for users is one where access rights are assigned when the computer starts up there is no need to sign on with passwords, etc.

User ID Passwords will always be required for Oracle databases.

If a connection is not trusted, then the Macro Space Management User Name and password will be required to connect to the central database.

## Turn Grouping Off

When **Grouping** is turned off interconnected objects within, for example, gondolas are treated as individual objects.

Individual fixtures within a gondola can then be manipulated as separate entities.

## Turn Grouping On

When **Grouping** is turned on all interconnected objects within, for example, a gondola can be manipulated as a single entity.

For example a gondola can be moved to a new position by "dragging and dropping".

## Definitions - U

### Unregistered Block

An **Unregistered Block** is a block that exists in an AutoCAD drawing but has not yet been registered in the Macro Space Management Central Database.

## Definitions - V

### Vertical Category

**Vertical Category** is a way of sub-dividing an aliased layer.

Found in the Fixtures Tab of the Block Details dialog box, Vertical Category allows the aliased layer to be further sub-divided.

The default is 0, but (for example) fixtures can be assigned to further vertical categories within the aliased layer. For example TV's could be assigned to Vertical Category 1, CD Players to Vertical Category 2...

## Definitions - W

### White Goods

**White Goods** is a term often used to describe electrical goods for kitchen or bathroom applications.

## Definitions - X

### Xref

XREF is a method AutoCAD uses to link drawings. When you attach a drawing as an xref, you link that referenced drawing to the current drawing. Any changes to the referenced drawing are then displayed in the current drawing when it is opened.

This is used within Macro Space Management where an architectural drawing can be attached as an xref to multiple drawings at the same time. This allows a single architectural drawing to be used as a framework on which multiple arrangements of zones, fixtures, aisles and merchandise may be planned.

**Note:** Using xrefs reduces the quantity of data stored, as each architectural plan is only used once for each floor, not copied under multiple file names.

## Definitions - Z

### Zone

The purpose of a **Zone** is to allow Macro Space Management users to represent space within a floor plan

It is a sub-division of the total available floor area that can be used to designate that area as a sales or non-sales area. The description of the purpose can then be further defined. A Zone can be allocated to a specific type of sales; for example fruit and vegetables or electrical goods. Alternatively it could be allocated to a more specific non-sales function, for example offices or storage purposes.

The Zone can also contain information on pillars or other obstructions that might affect the area of merchandisable space.

The Zone can be used to filter the total list of fixtures, fittings and Planograms in the store, enabling the Macro Space Management user to establish which have been placed in that particular part of the store.

The Zone can also be used for specific reports, again giving more information on what is in a specified part of a store.

### Zone Definitions

After Zone Types (broad classes of Zones) have been defined, individual types of Zones can be defined.

Examples of Departments (Sales Zones) Definitions might include:

- Chilled Goods
- Furniture
- Ladies clothing

Examples of Non-Sales Zone Definitions might include:

- Corridors
- Offices
- Toilets

As well as name and zone type, Zone Definitions can include the type of hatching used in the drawing, the color of the hatching and a user defined code.

### Zone Types

A **Zone Type** is the broad class a zone falls into. Zone Types are user defined and can include:

- Internal Areas

- Departments
- Non-Sales areas

Each Zone Type is drawn onto its own AutoCAD layer - only Zones on the same layer will be detected as clashing, (overlapping).

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