

**Oracle® Retail Macro Space Management**  
Fixture Studio User Guide  
Release 14.1

December 2014

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Oracle Retail Macro Space Management, Fixture Studio User Guide, Release 14.1

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# Preface

This guide describes the Macro Space Management user interface. It provides step-by-step instructions to complete most tasks that can be performed through the user interface.

## Audience

This User Guide is for users and administrators of Oracle Retail Macro Space Management. This includes merchandisers, buyers, business analysts, and administrative personnel.

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## Related Documents

For more information, see the following documents:

- *Oracle Retail Macro Space Management Release Notes*
- *Oracle Retail Macro Space Management Administration Module User Guide*
- *Oracle Retail Macro Space Management Configuration Module User Guide*
- *Oracle Retail Macro Space Management Data Importer User Guide*
- *Oracle Retail Macro Space Management Fixture Studio User Guide*
- *Oracle Retail Macro Space Management Product Studio User Guide*
- *Oracle Retail Macro Space Management Report Designer User Guide*
- *Oracle Retail Macro Space Management Merchandiser User Guide*
- *Oracle Retail Macro Space Management Planner User Guide*
- *Oracle Retail In-Store Space Collaboration Release Notes*
- *Oracle Retail In-Store Space Collaboration User Guide*
- *Oracle Retail In-Store Space Collaboration Mobile User Guide*
- *Oracle Retail Macro Space Planning Installation Guide*
- *Oracle Retail Macro Space Planning Data Model*
- *Oracle Retail Macro Space Planning Security Guide*

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- 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 (for example, 14.1) or a later patch release (for example, 14.1.1). If you are installing the base release or additional patch releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch releases can contain critical information related to the base release, as well as information about code changes since the base release.

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If a more recent version of a document is available, that version supersedes all previous versions.

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<http://www.oracle.com/technetwork/documentation/oracle-retail-100266.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.

## Conventions

**Navigate:** This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement “the Window Name window opens.”

This is a code sample

It is used to display examples of code

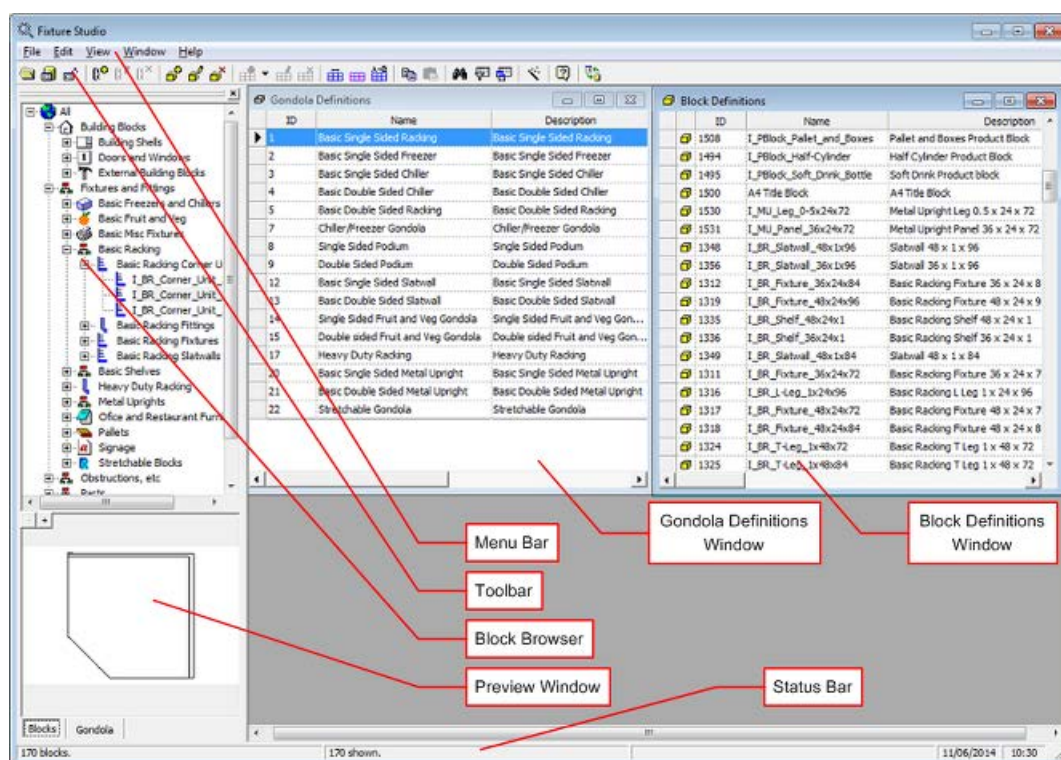




# Fixture Studio Overview

## Overview of Components

The Fixture Studio Window has a number of parts.



Option	Description
Menu Bar	This gives access to a number of menus, each controlling one aspect of Fixture Studio
Toolbar	This allows the selection of a number of options relative to fixture and gondola creation.
Block Browser	This has a hierarchical tree of fixtures or gondolas depending on which tab is selected.
Preview Window	When the fixturing tab is active, this gives a preview of the object selected in the fixture hierarchy. Display of this window can be turned on or off using the <b>Preview</b> option on the view menu.
Status Bar	This gives information on the number objects selected, status of current action, and so on.
Block Definitions Window	This window contains a list of all gondolas held in the Macro Space Planning database.
Gondola	This window contains a list of all blocks (fixtures, fittings and so on) held in the

Option	Description
Definitions Window	Macro Space Planning database.

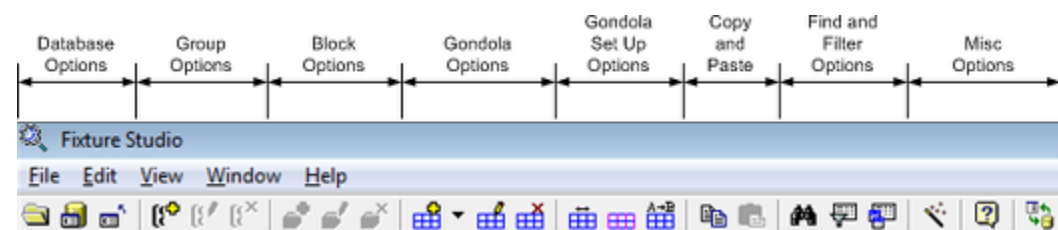
**Note:** whether blocks are automatically loaded into Fixture Studio depends in setting in the **Options dialog box** (View menu). If blocks are not set to automatically load, they must be imported using the **Read Blocks** option on the File menu.

## Fixture Studio and Local Memory
















All addition, editing and deletion of fixtures and gondolas is held within local memory in Fixture Studio. Information is only written back to the Macro Space Planning database when explicitly saved.

## Options on the Toolbar

The **Toolbar** gives access to a series of Fixture Studio options (some of which are also available from the menu bar).

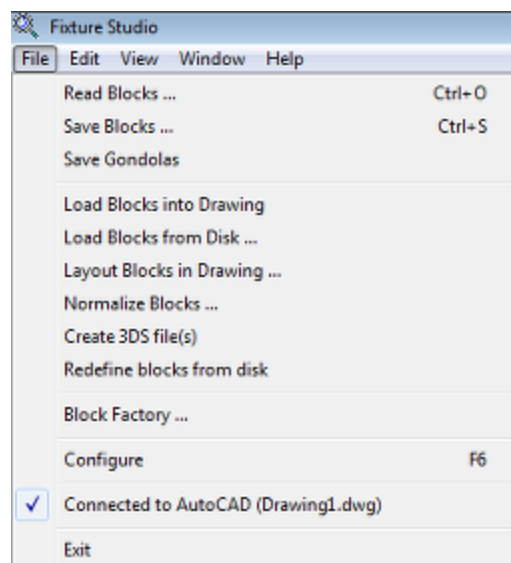


Icon	Option	Description
	Read Blocks	Read in block information from the database, current drawing in Planner or a combination of the two.
	Save Blocks	Save block information to the database and - depending on settings - to DWG files.
	Exit Fixture Studio	Exit the module.
	Add Group	Add a Group to the Fixture or Gondola hierarchy. The changes will not be written to the database until the <b>Save Blocks</b> option is used from the file menu or toolbar.
	Edit Group	Edit a Group in the Fixture or Gondola hierarchy. The changes will not be written to the database until the <b>Save Blocks</b> option is used from the file menu or toolbar.
	Delete Group	Delete a Group from the Fixture or Gondola hierarchy. The changes will not be written to the database until the <b>Save Blocks</b> option is used from the file menu or toolbar.
	Add Block Definition	Add a block (fixture) definition. The information will not be written to the database until the <b>Save Blocks</b> option is used from the file menu or toolbar.
	Edit Block Definition	Edit an existing block definition. The changes will not be written to the database until the <b>Save Blocks</b> option is used from the file menu or toolbar.

Icon	Option	Description
	Delete Block Definition	Delete a block definition. The deletion will not be written to the database until the <b>Save Blocks</b> option is used from the file menu or toolbar.
	Add Gondola Description	Add a gondola description. This will not be written to the database until the <b>Save Gondolas</b> option is used from the File menu.
	Edit Gondola Description	Edit an existing gondola description. Changes will not be written to the database until the <b>Save Gondolas</b> option is used from the File menu.
	Delete Gondola Description	Edit an existing gondola description. The deletion will not be written to the database until the <b>Save Gondolas</b> option is used from the File menu.
	Edit Gondola Sizes	Set up the list of sizes that gondolas can assume when placed in Planner, Merchandiser or In-Store Space Collaboration
	Edit Gondola Part Types	Set up the list of gondola part types. (These are used for reporting purposes.
	Map Gondola Parts	Map the name of an actual gondola part to a naming convention. This is used if blocks have names not following a naming convention.
	Copy	Copy the selected text
	Paste	Paste the selected text
	Find	Find a specified block by name
	Filter Block Definitions	Filter block definitions to match a list of criteria
	Set Columns in Grid	Set the columns that appear in the block definitions grid.
	Block Wizard	Calls the Block Wizard
	Help	Call these help files.
	Refresh	Reloads a set of basic information from the database. This includes information on layers, levels and so on.

## File Menu

The **File Menu** has varying options concerned with reading and saving blocks, AutoCAD operations and connection to AutoCAD.



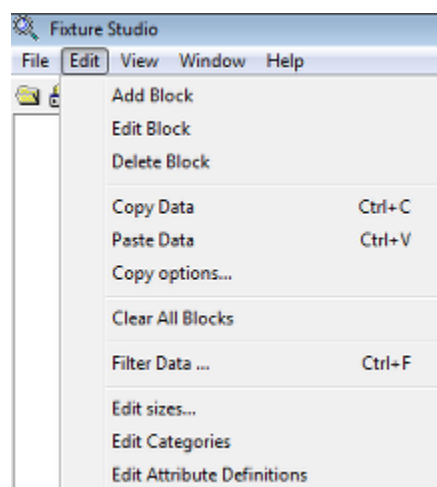
**Note:** The Load Blocks into Drawing, Load Blocks From Disk, Laying Out Blocks, Normalize Blocks, Create 3DS Files and Redefine blocks from disc will be grayed out unless the Connect to AutoCAD option has been checked.

Option	Description
Read Blocks	Depending on the settings in the Read Block Definitions dialog box this reads information from the Macro Space Planning database, the currently active drawing or both into Fixture Studio.
Save Blocks	This saves the details of all selected blocks back to the central Macro Space Management Planning from Fixture studio. It does not save Gondola Definitions.
Save Gondolas	This saves details of gondola definitions back to the database. It does not save details of component fixtures.
Load Blocks into Drawing	If active, this option is used to take copies of the DWG files from the Macro Space Planning directories currently specified in Fixture Studio and load a copy to the currently active drawing in AutoCAD
Load Blocks from Disk	If active, this option enables the user to select blocks from a source outside of the Macro Space Management database and load them into the currently active AutoCAD drawing. (This is in contrast to the Load Blocks into Drawing option which selects copies of the DWG files from the Macro Space Planning directories currently specified in Fixture Studio).
Layout Blocks in Drawing	If active, this option is similar to the Load Blocks into Drawing option, except that it bypasses the AutoCAD Insert command and lays out the selected blocks in a grid pattern in the currently active drawing in the AutoCAD environment.
Normalize Blocks	If active, this option is used to modify the AutoCAD properties of blocks selected in Fixture Studio. It is the equivalent of the AutoCAD Object Properties dialog box, but can be used to perform bulk operations.
Create 3DS Files	If active, this option allows users to create 3DS files (used in the Merchandiser module) from an AutoCAD 3DS file.

Option	Description
Redefine blocks from Disk	If active, this option allows the user to overwrite any blocks in the current selected floor plan in Planner with the latest versions specified in Fixture Studio.
Block Factory	This option opens Block Factory. Block Factory can be used to create a set of logical block names
Configure	This opens the Configuration Module
Connect to AutoCAD	This option will only be active if Planner is open. It allows users to connect to the drawing current open in Planner. If the focus is switched to a different drawing in Planner, this option must be closed and reopened so that Fixture Studio is connected to the new drawing.
Exit	Selecting this option closes Fixture Studio.

## Edit Menu

The **Edit Menu** has varying options concerned with editing block descriptions.



### Add Block, Edit Block and Delete Block

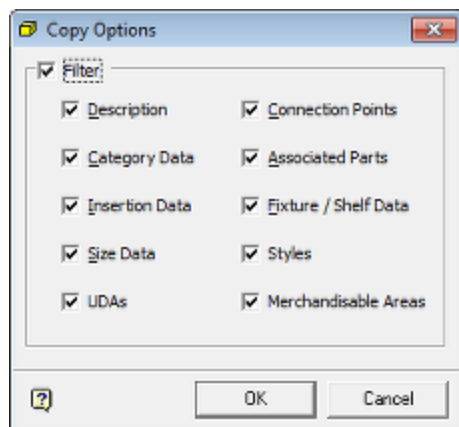
**Add Block**, **Edit Block** and **Delete Block** result in a block being added, or the selected block being either edited or deleted. See the sections on the **Block Details dialog box** and creating fixtures for more information.

### Copy Data, Paste Data and Copy Options

**Copy Data**, **Paste Data** and **Copy Options** allow information to be copied from one block to another, or copied into a block being added.

#### Copy Options

**Copy Options** brings up a dialogue box allowing the data being copied to be filtered.

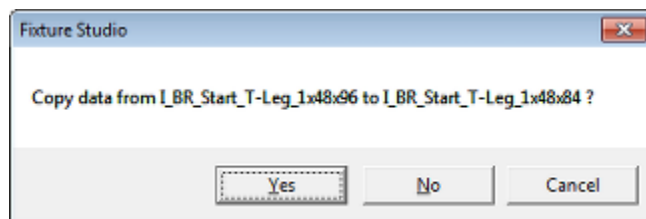


Only data that has been selected in the check boxes will be copied.

### Copying and Pasting Data

To copy data from one block to another:

1. Select the required data in the Copy Options dialog box.
2. Highlight the block the information is to be copied from in the Block Definitions Grid.
3. Select Copy Data from the Edit menu.
4. Highlight the block the information is to be copied to in the Block Definitions Grid.
5. Select Paste Data from the Edit menu.
6. If data is going to be overwritten, a confirmatory warning will appear.

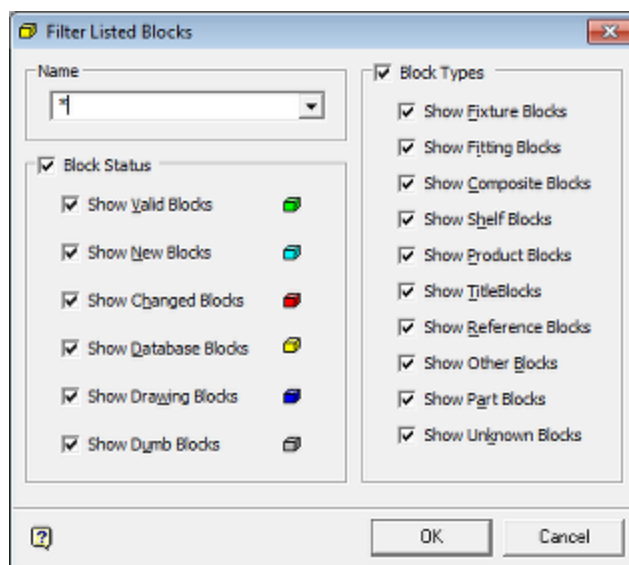


### Clear all Blocks

**Clear all Blocks** removes all blocks from the list of blocks currently loaded into Fixture Studio.

### Filter Data

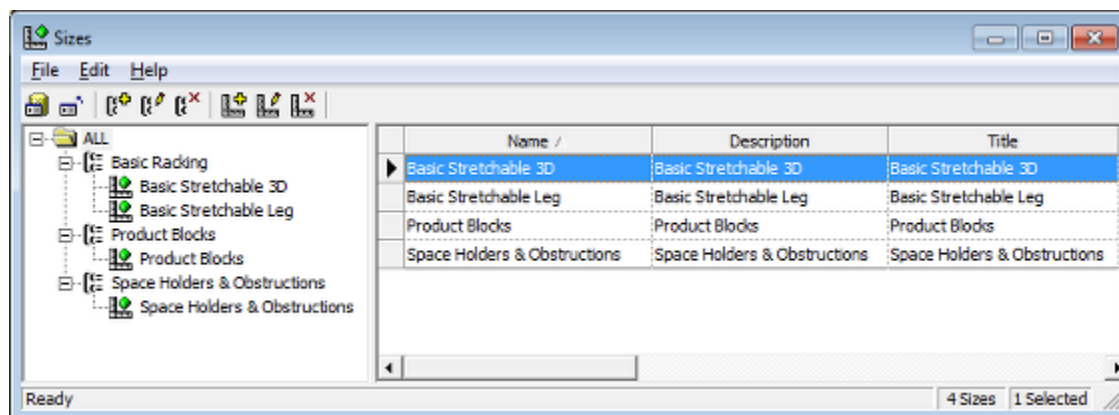
**Filter Data** brings up the Filter Listed blocks dialogue box.



See the section on **Filtering Listed Blocks** for more information on how to use this dialog box.

## Edit Sizes

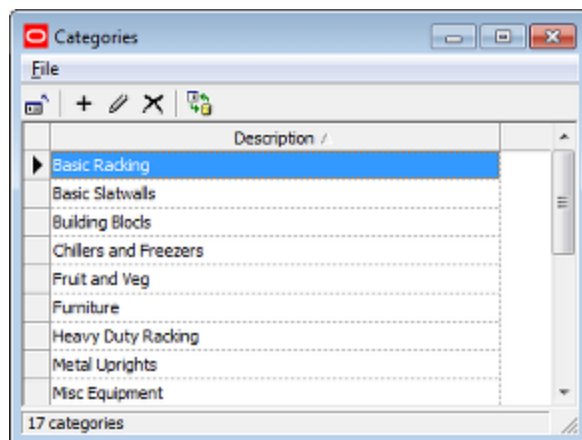
**Edit Sizes** brings up the Edit Sizes dialogue box. This is used to configure the sizes for stretchable blocks.



See the section on the **Sizes** tab of the **Block Details** dialog box for more information.

## Categories

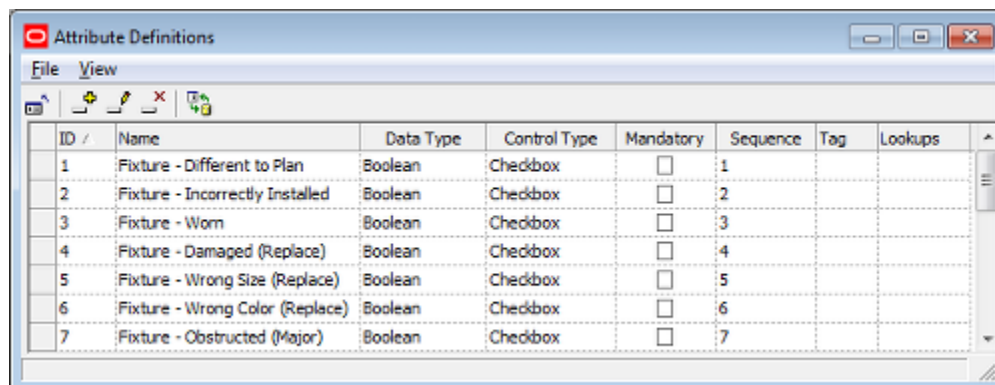
**Edit Categories** bring up the Edit Categories dialog box. This is used to configure a list of Categories that can be assigned to fixtures on the Categories tab of the Block Details dialog box. Categories are often used as filters for reporting purposes.



For more information on Categories, see the information on the **Category Tab** of the **Block Details** dialog box.

## Attribute Variables

Edit Attribute Variables brings up the dialog box used to configure the Attributes that can be assigned to fixtures in the Planner and Merchandiser Modules, and in In-Store Space Collaboration.

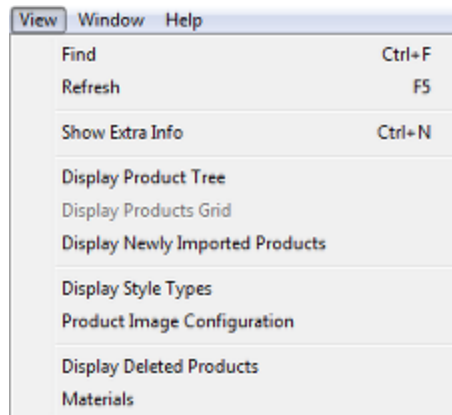


For more information on **Attribute Variables**, see the information on the **UDA Tab** of the **Block Details** dialog box.

## View Menu

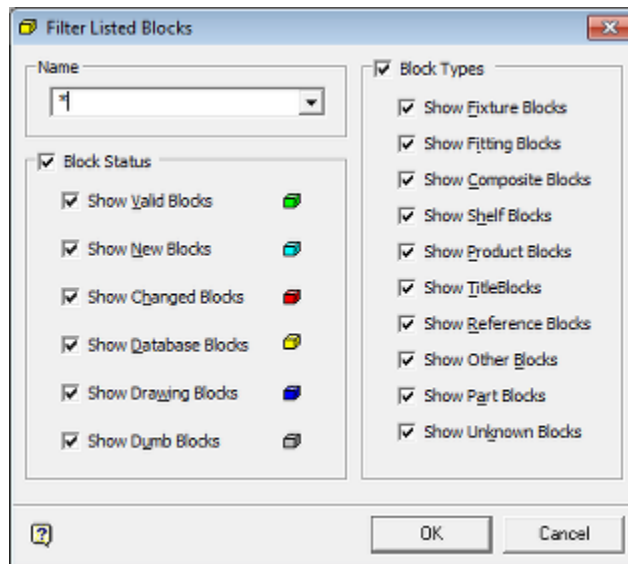
The **View Menu** has varying options concerned with filtering and viewing blocks.





## Filter Listed Blocks

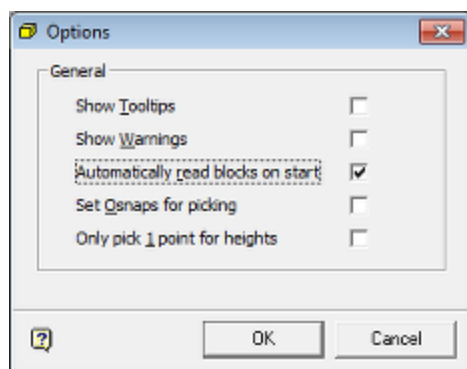
**Filter Listed Blocks** brings up the Block Filter. This can be used to select specific classes of blocks.



Check the required options and click **OK**. The list of blocks in the **Block Definitions Grid** will be filtered to match the selection.

## Options

**Options** brings up the Options dialogue box. This can be used to set some options determining how Fixturo Studio Functions



Option	Description
Show Tooltips	This option enables tool tips.
Show Warnings	This option enables warnings.
Automatically read blocks on start	This option loads the block information into Fixture Studio when the module is started. If this option is not checked, the blocks have to be manually read in using the Read Blocks option on the File menu.
Set OSnaps for picking	This option turns on OSnaps in the Planner module if they are off and if the Pick button is used in the Size tab of the Block Details dialog box.
Only pick 1 point for heights	This option assumes the base of the block is at zero elevation, allowing only the top of the block to be selected if Pick button is used in the Size tab of the Block Details dialog box.

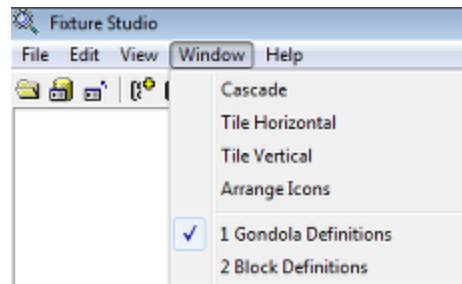
**Note:** 'Set OSnaps for Picking' and 'Only pick 1 point for heights' are not currently functional.

## Other Options

Option	Description
Block Browser	This option shows or hides the Block Browser (Object Browser)
Preview	This option shows or hides the Preview Window in the Block Browser (Object Browser)
Group By	This option allows data to bin the block Definitions Grid to be grouped by selected criteria.

## Window Menu

The **Window Menu** has two groups of options.



The first set of options arranges the active windows within Fixture Studio.

**Cascade** arranges them so they are stacked sequentially across the diagonal of the screen.

ID	Name	Description
1	Basic Single Sided Racking	Basic Single Sided Racking
2	Basic Single Sided Freezer	Basic Single Sided Freezer
3	Basic Single Sided Chiller	Basic Single Sided Chiller
4	Basic Double Sided Chiller	Basic Double Sided Chiller
5	Basic Double Sided Racking	Basic Double Sided Racking
7	Chiller/Freezer Gondola	Chiller/Freezer Gondola

**Tile Horizontal** arranges them so they all share the available space horizontally.

ID	Name	Description
1473	M10 Cap Head Screw - 30 mm long	M10 Cap Head Screw - 30 mm long
1460	I_Euro-Pallet-2	Euro Pallet 2: 39,25 x 47,25 x 5,75
1459	I_Checkout_Composite	Checkout Composite
1458	I_Checkout_Display_96x24x14	Checkout Display 96 x 24 x 14
1457	I_2_Drawer_Desk_60x30x28	2 Drawer Desk 60 x 30 x 28
1456	I_3_Draw_Filing_Cabinet_19x24x39	3 Drawer Filing Cabinet 19 x 24 x 39

ID	Name	Description
1	Basic Single Sided Racking	Basic Single Sided Racking
2	Basic Single Sided Freezer	Basic Single Sided Freezer
3	Basic Single Sided Chiller	Basic Single Sided Chiller
4	Basic Double Sided Chiller	Basic Double Sided Chiller
5	Basic Double Sided Racking	Basic Double Sided Racking
7	Chiller/Freezer Gondola	Chiller/Freezer Gondola

**Tile Vertical** arranges them so they all share the available space vertically.

ID	Name	Description
1473	M10 Cap Head Screw - 30 mm long	M10 Cap H
1460	I_Euro-Pallet-2	Euro Pallet
1459	I_Checkout_Composite	Checkout C
1458	I_Checkout_Display_96x24x14	Checkout D
1457	I_2_Drawer_Desk_60x30x28	2 Drawer D
1456	I_3_Draw_Filing_Cabinet_19x24x39	3 Drawer F

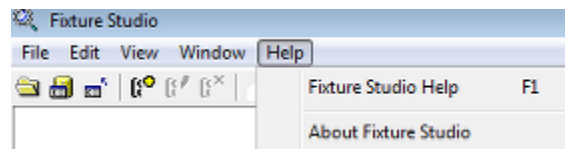
  

ID	Name
1	Basic Single Sided Racking
2	Basic Single Sided Freezer
3	Basic Single Sided Chiller
4	Basic Double Sided Chiller
5	Basic Double Sided Racking
7	Chiller/Freezer Gondola

The second set of options allows switching between those windows. Clicking on either **Gondola Definitions** or **Block Definitions** will cause that window to become active within Fixture Studio.

## Help Menu

The **Help Menu** has two options.



Clicking **Fixture Studio Help** (or pressing the F1 function key) will call this help module.

Clicking **About Fixture Studio** will bring up a dialogue box with information on the version of Fixture Studio the user has.

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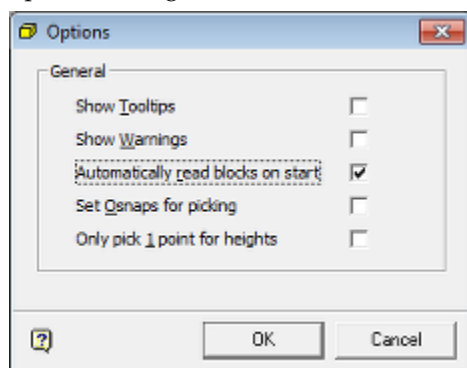
## Reading, Saving and Deleting Information

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### Reading Blocks

#### Automatically Reading Blocks on Start-up

Users have the option of whether Fixture Studio automatically reads in block details on starting. This is controlled by the **Automatically read blocks on start** option in the Options dialog box accessed from the View menu.



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**Note:** If the option is not selected, blocks must be manually read in by selecting the Read Blocks option from the View menu or toolbar.

---

Automatically reading in blocks on start up only reads in information from the database. At this stage Fixture Studio is not connected to Planner (File menu) therefore no information can be read in from that source.

#### Gondola Information on Start-up

Once the information is loaded into local memory, all changes and edits are saved into that local memory. The updated information is only written back to the database when the Save Blocks option is selected from the file menu.

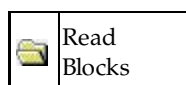
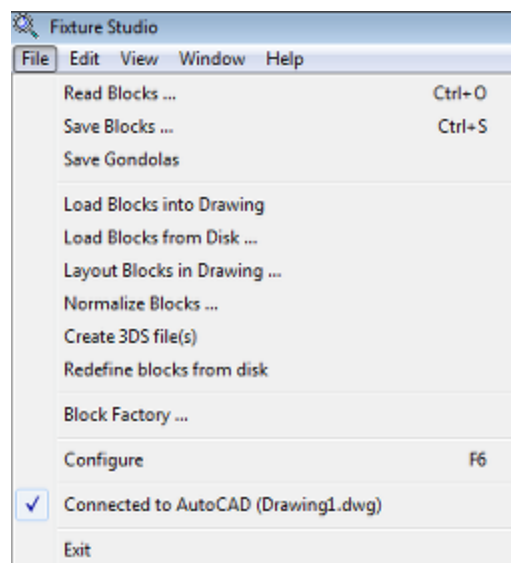
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**Note:** Gondola information is read into Fixture Studio on start-up. Again, it is held in local memory and is only written back to the central Macro Space Planning database when the Save Gondolas option is invoked from the file menu.

---

#### Manually Reading Blocks

Blocks are read from the database, from the drawing or both. The Read Block option can be invoked from the File menu or toolbar. To have the option of reading in blocks from the drawing (or merging results) the Connect to AutoCAD option must also have been selected on the File menu.



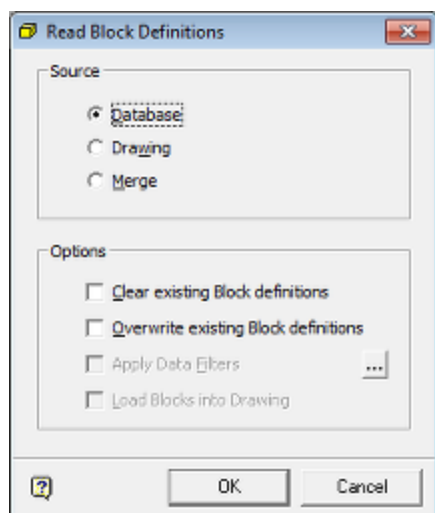
On selecting Read Blocks, the Read Block Definitions dialog box will appear. This has three options:

Option	Description
Database	Read in information from the database only
Drawing	Read in information from the Planner drawing Fixture Studio is connected to. This option will only be available if the Connect to Planner option has been selected on the File menu.
Merge	Read in information from the database, plus any blocks in the Planner drawing Fixture Studio is connected to that are not currently in the database. This option will only be available if the Connect to Planner option has been selected on the File menu.

These are described in more detail below.

### Read Blocks Option

On selecting this option the user has two check boxes: 'Clear existing Block definitions' and 'Overwrite Existing Block definitions'.



### 1. Clear existing Block definitions

If checked, this option deletes all information currently held in local memory and refreshes it with that held in the central Macro Space Planning database.

### 2. Overwrite existing Block definitions

This check box is only available if the 'clear existing Block definition' check box is not selected. On selecting 'Overwrite existing Block definitions', the Apply Data filters check box also becomes available. If checked, the button to the right can be used to bring up the Copy Options dialog box. Options checked within this dialog box will result in data from the central Macro Space Planning database overwriting what is held in local memory when the OK button is clicked in the Read Block Definitions dialog box.

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**Note:** If neither check box is checked, data held in local memory will be overwritten without any filtering.

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## Drawing Option

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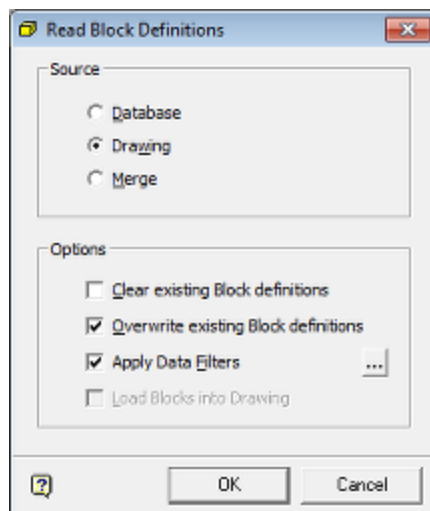
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**Note:** The usual purpose of reading in from the drawing is during implementation to bring in blocks from raw AutoCAD. It is normally used by expert users.

---

---

This option is only available if the Connect to AutoCAD option has been selected from the File menu. On selecting the Drawing option the user has two check boxes: 'Clear existing Block definitions' and 'Overwrite Existing Block definitions'.



### 1. Clear existing Block definitions

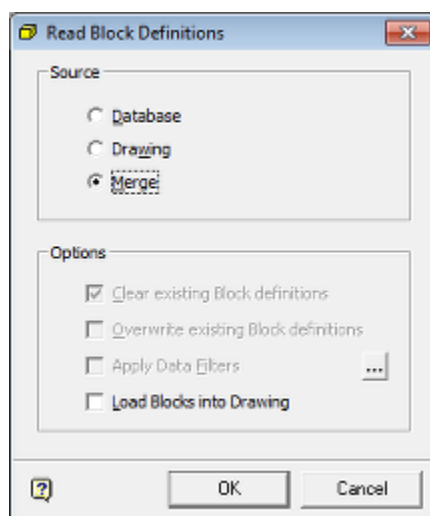
If checked, this option deletes all information currently held in local memory and refreshes it with a list of the blocks in the drawing.

### 2. Overwrite existing Block definitions

This check box is only available if the 'clear existing Block definition' check box is not selected. On selecting 'Overwrite existing Block definitions', the Apply Data filters check box also becomes available. If checked, the button to the right can be used to bring up the **Copy Options dialog box**. Options checked within this dialog box will result information read from the list of blocks in the drawing overwriting what is held in local memory when the OK button is clicked in the Read Block Definitions dialog box.

## Merge Option

The merge option is a combination of reading from the database and reading from the drawing. It is only available if the Connect to AutoCAD option has been selected from the File menu.



If Merge is selected, the blocks in the currently selected drawing will be compared to those held in local memory. Data from any blocks in the drawing but not in the database will be read into local memory. If blocks in the drawing are also in local memory and



they contain information different to local memory, some of this information (typically size data, block description [not block name] and connection point information) will be read into Fixture Studio and overwrite the information in local memory.

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**Note:** The Load Blocks into Drawing is not currently functional.

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## Saving Blocks

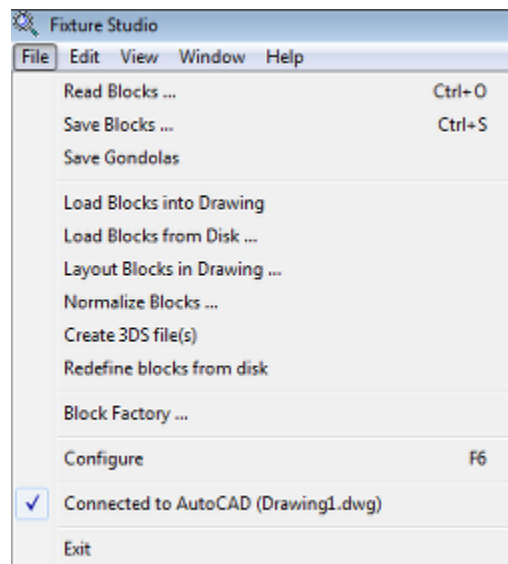
Information on blocks is held within the central Macro Space Planning database. When Fixture Studio is started, the information is loaded into local memory. When data has been added, changed, or deleted, that data needs to be written back to the central Macro Space Planning database to be made permanent. This is done by selecting the Save Blocks option on the File menu.

---

**Note:** Gondola information is read into Fixture Studio on start-up. Again, it is held in local memory and is only written back to the central Macro Space Planning database when the Save Gondolas option is invoked from the file menu.

---

Block information can be saved to the database, to the drawing or both. The options are invoked from the File menu or from the toolbar. To have the option of saving block information to the currently active drawing (and DWG file for the block held in the directory specified in the configuration module) the Connect to AutoCAD option must also have been selected.

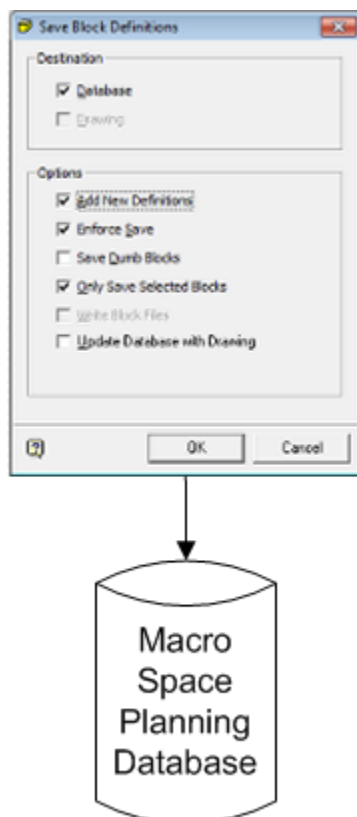


## Concepts for Saving Blocks

Before saving any blocks, it is helpful to understand how the process works. There are two cases: connected to Planner and no connected to planner.

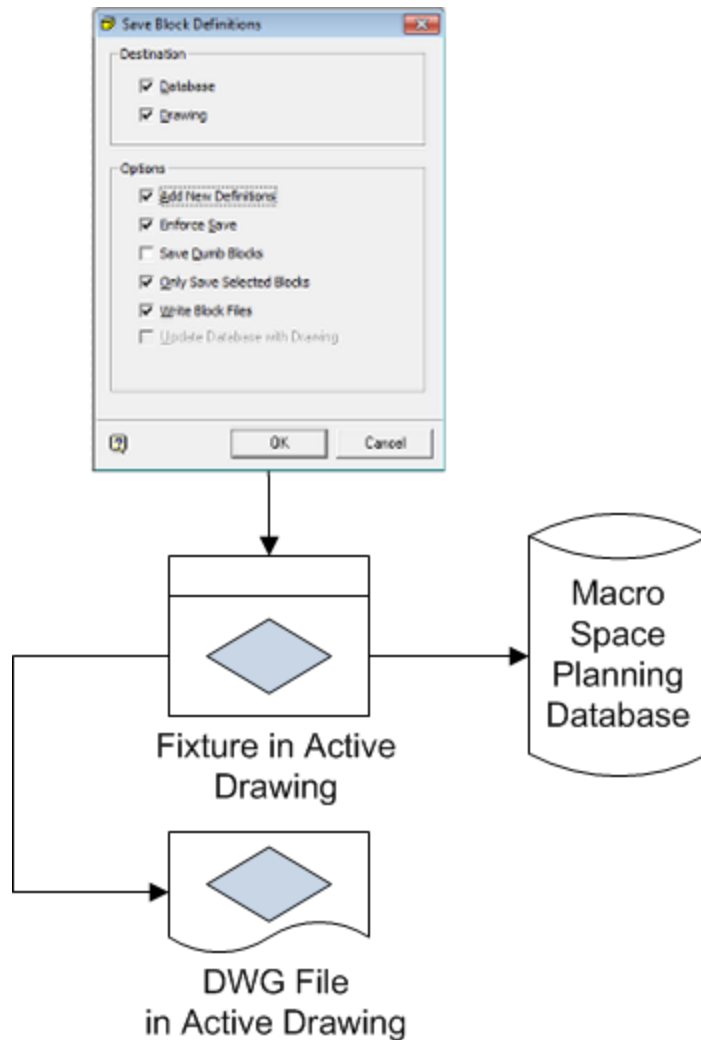
### Not Connected To Planner

If Fixture Studio is not connected to Planner (option on File menu) then Fixture Studio can only save information back to the Macro Space Planning database. This would typically be used to write MSP specific information in local memory back to the database. Examples would include fixture attribute information, changes to merchandisable areas and so on.



### Connected to Planner

If Fixture Studio is connected to Planner (option on File menu) then Fixture Studio can save information back to the Macro Space Planning database as well as the block in the currently active drawing and the DWG file in the directory specified in the Directories tab of the Configuration module.



On clicking **OK** in the Save Block Definitions dialog box, the following actions take place.

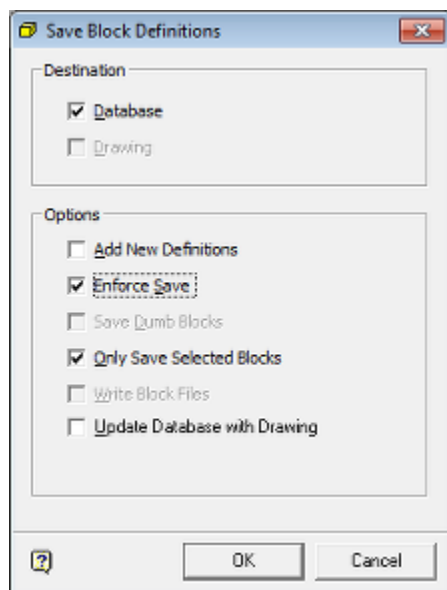
1. The information held in local memory is permanently written to the database.
2. XData (MSM specific data) is written to the instance of the block in the currently active drawing. (An instance of every block being saved must be in the currently active drawing).
3. A copy of the block in the currently active drawing is written to the directory specified in the Category tab of the block Details dialog box.

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**Note:** If Fixture Studio is not connected to Planner, the fixture in the active drawing will not have its XData updated, nor will a copy of the block be written to the directory specified in the Category tab of the block Details dialog box.

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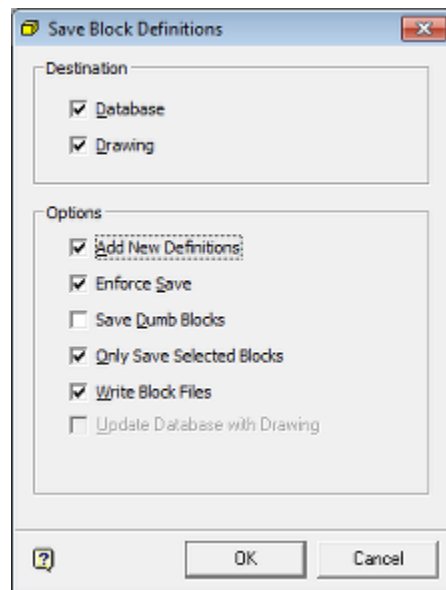
## Save Blocks - Not Connected to Planner Drawing



If Fixture Studio is not connected to the Planner drawing, the options to write to the drawing and write block files will be grayed out and unavailable. It will only be possible to save the current version of the local data held in Fixture Studio to the database. The available options are:

Option	Description
Add New Definitions	This option writes back all new block definitions in the locally stored data that are not presently held that in the database.
Enforce Save	This option will write back information from any blocks that have been changed but not selected for saving if the 'Only Save Selected Blocks' option has been selected.
Only Save Selected Blocks	This option will only save blocks that have been highlighted. It allows a subset of data to be saved back; not the entire contents of Fixture Studio.
Update Database with Drawing	This option is not currently functional.

## Save Blocks - Connected to Planner Drawing



If Fixture Studio is connected to the Planner drawing, the options to write to the drawing and write block files will be available. This means data will be written to the database. In addition, XData can be written to the blocks in the drawing Fixture Studio is currently connected to and DWG files for the blocks being saved will be written to the Windows folder specified in the Directories tab of the Configuration module.

---

**Note:** More information on this is in the section on fixture creation.

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Option	Description
Add New Definitions	This option writes back all new block definitions in the locally stored data that are not presently held that in the database.
Enforce Save	This option will write back information from any blocks that have been changed but not selected for saving if the 'Only Save Selected Blocks' option has been selected.
Save Dumb Blocks	Save blocks without any MSM information assigned.
Only Save Selected Blocks	This option will only save blocks that have been highlighted. It allows a subset of data to be saved back; not the entire contents of Fixture Studio.
Write Block Files	Write XData to the blocks in the current drawing and write a copy of the associated DWG files to the Windows folder specified in the Directories tab of the Configuration module.
Update Database with Drawing	This option is not currently functional.

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**Note:** The block written to the specified directory is the 'definition' block. Instances of this block are then placed in floor plans - it is the 'template' for all blocks being placed by store planners.

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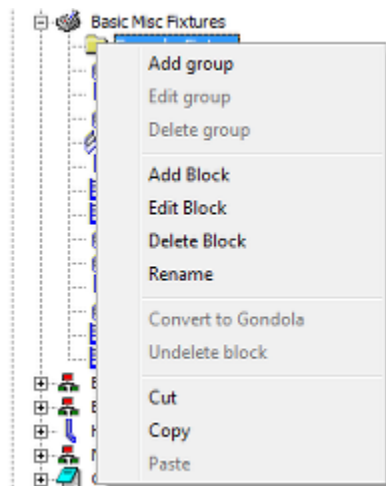
## Deleting Blocks

Deleting blocks from Fixture Studio takes place in multiple stages.

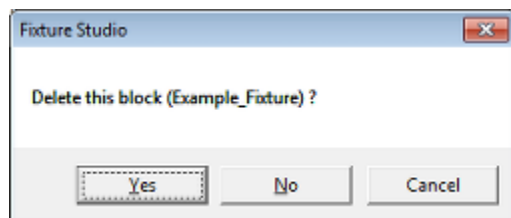
1. Mark block for deletion within Fixture Studio.
2. Save deletion information back to the database.
3. Purge the block information from the database.

### Marking blocks for deletion within Fixture Studio

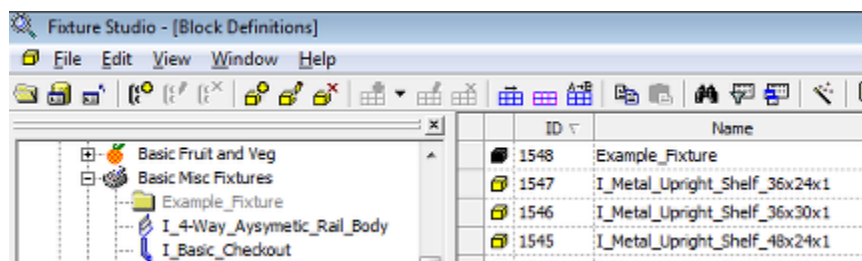
Blocks are marked for deletion in Fixture Studio by highlighting the block then using the Delete option on the right click menu.



A confirmation dialog box will appear. Click OK to confirm the deletion.

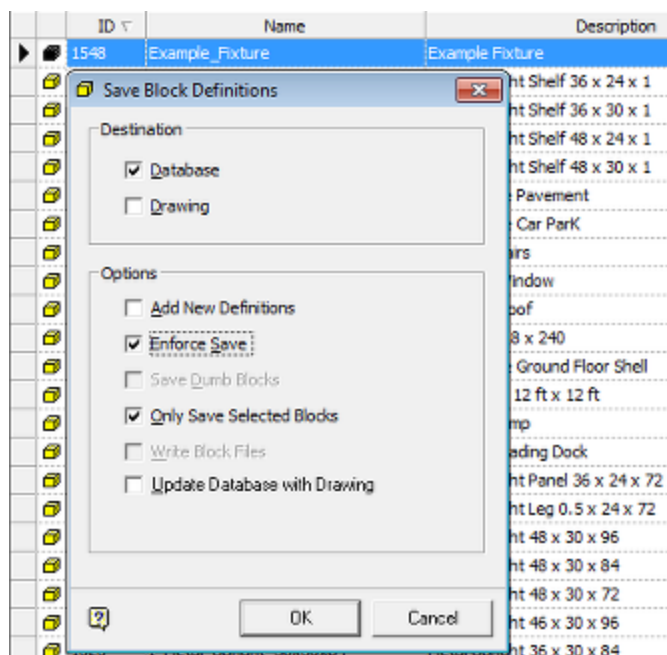


The block name will then be grayed out in the Fixture hierarchy and the icon will turn black in the Block details list.



### Save deletion information back to the database

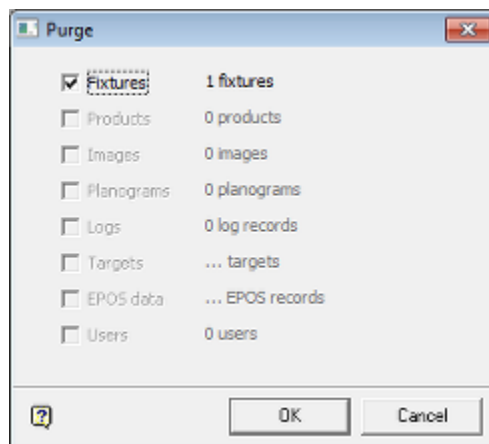
At present the block has a delete flag set against it in the information held locally within Fixture Studio. The next stage is to write that information back to the central Macro Space Planning database so the delete flag is set there as well. This is done by highlighting the entry in the Fixture Hierarchy and then using the Save Block Definitions dialog box from the File menu.



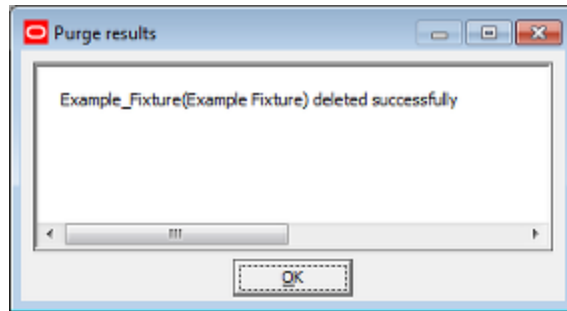
The Destination should be set to Database and the Enforce Save/Only Save Selected blocks options checked. On clicking OK, the delete flag will be written to the database.

## Permanently Deleting the blocks in the Administration Module

The blocks can be permanently deleted from the database by selecting the Purge option from the Tools menu in the Administration module.



A dialog box will appear with the results.



This will list the block successfully deleted and the blocks which cannot be deleted.

Typical reasons preventing blocks from being deleted include:

- Fixtures present in floor plan (blocks cannot be deleted from the database if instances still exist in other tables in the database).
- Fixture information may be present in other tables in the database, causing referential integrity problems.

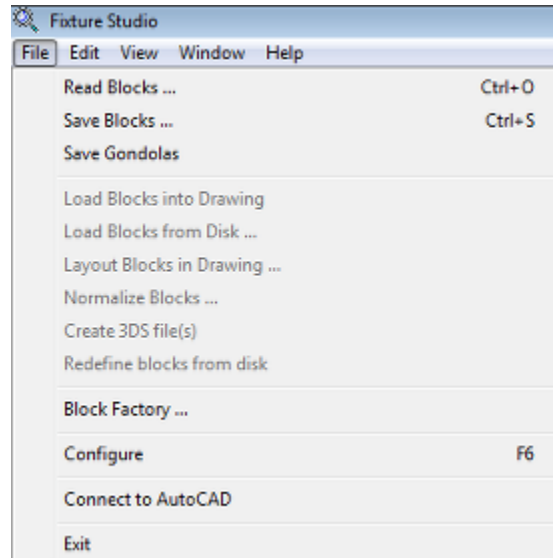


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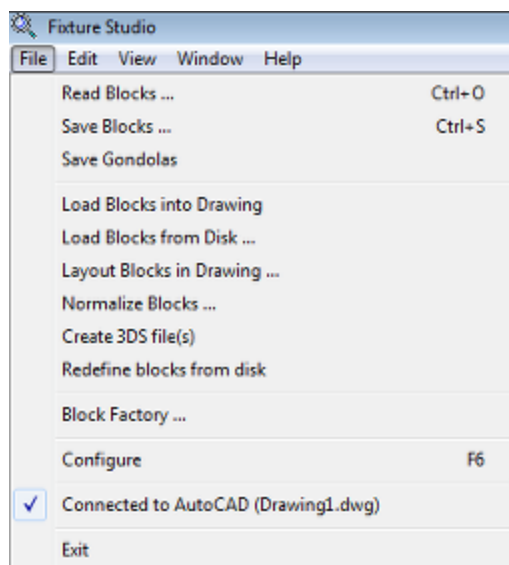
# AutoCAD Operations from Fixture Studio

## Connecting to AutoCAD

Before the AutoCAD functionality can be used from within Fixture Studio, users must first connect to the Planner module. Until this is done, the AutoCAD options on the file menu will remain grayed out and unavailable.



The Connect to AutoCAD option on the File Pull down 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 fixture Studio has connected to Planner, the AutoCAD based options will change from being grayed out to available and the Connect to AutoCAD option will have a tick by it.



## Load Blocks into Drawing

The **Load Blocks into Drawing** command is used to take copies of the DWG files from the Macro Space Planning directories currently specified in Fixture Studio and transfer them to the currently active drawing in AutoCAD

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**Note:** The Connect to AutoCAD option must be selected on the File menu.

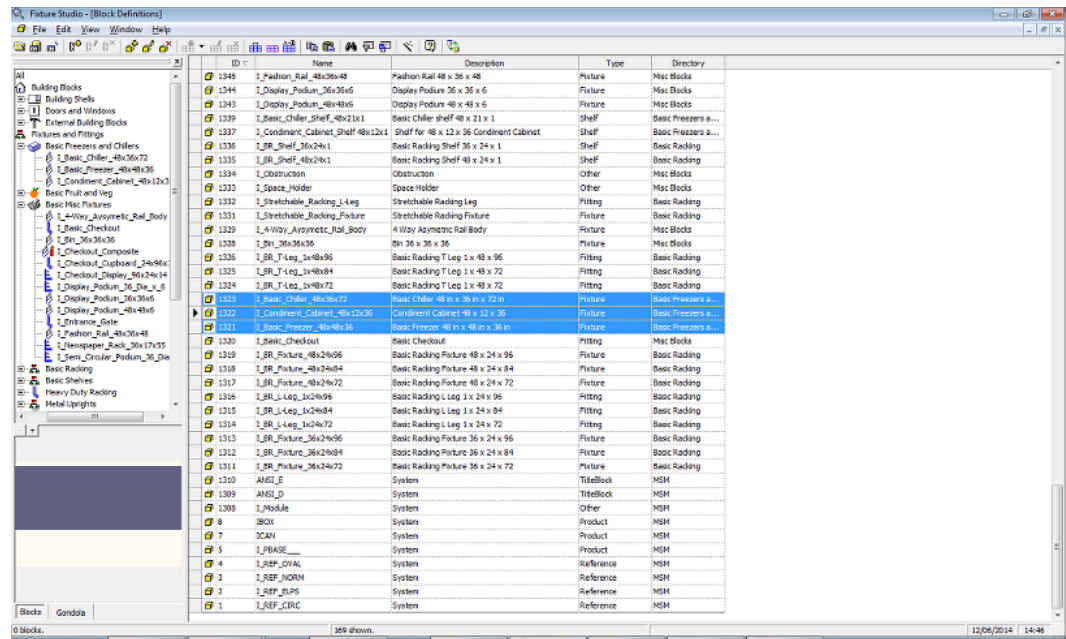
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There are three stages to this.

1. Select the required blocks in Fixture Studio
2. Select the Load Blocks into Drawing option
3. Select the Insert option in AutoCAD

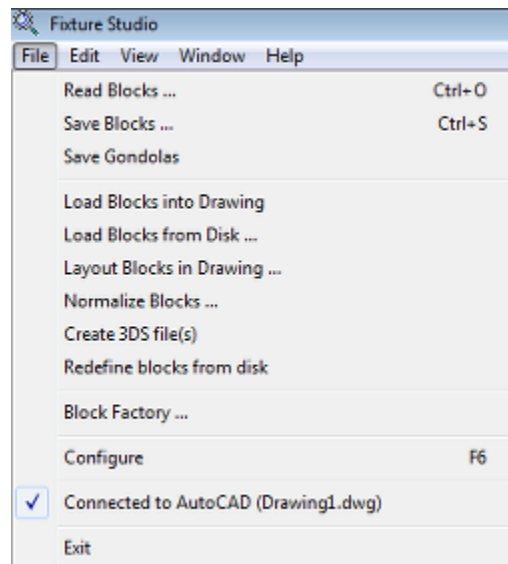
## Selecting the Required Blocks in Fixture Studio

Selecting the required blocks can be done in two ways in Fixture Studio; from the hierarchical tree, or from the 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.



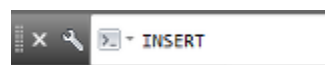
## Using the Load Blocks into Drawing option

Using the Load Blocks into Drawing will load the block definitions into the AutoCAD drawing. They will be loaded to the AutoCAD database associated with drawing and will not become visible until the insert command is used to put instances into the visible part of the drawing.

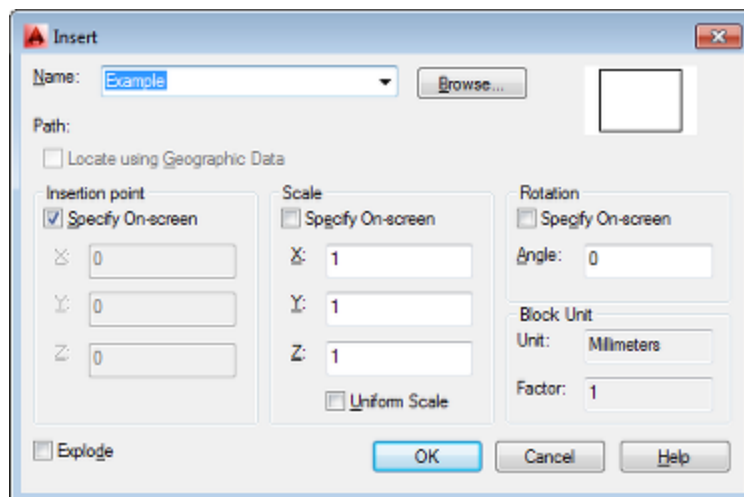


## Using the Insert Option

The Insert option can be invoked by typing INSERT into the command line.



This will bring up the Insert dialogue 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.

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**Note:** See the AutoCAD help files for full information on the Insert Options.

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## Load Blocks from Disc

**Load Blocks from Disc** enables the user to select blocks from a source outside of the Macro Space Management database and load them into the currently active AutoCAD drawing. (This is in contrast to the Load Blocks into Drawing option which selects copies of the DWG files from the Macro Space Planning directories currently specified in Fixture Studio).

There are two stages to this.

1. Select the Load Blocks from Disk option
2. Select the Insert option in AutoCAD

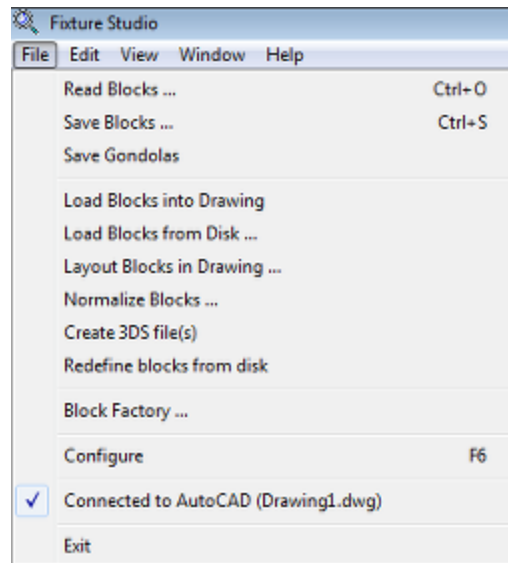
## Using the Load Blocks from Disc Option

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.

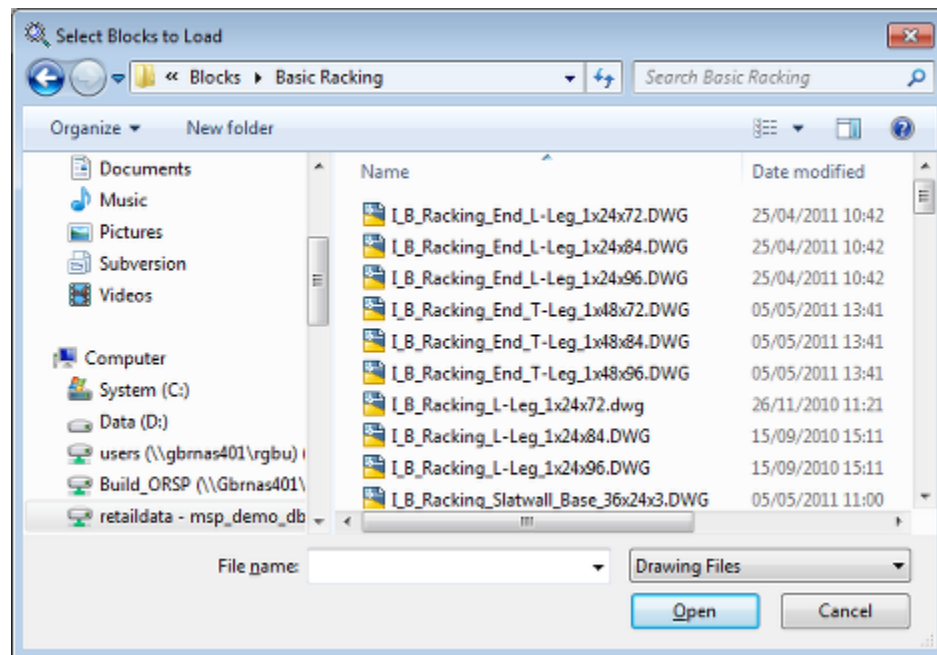
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**Note:** The Connect to AutoCAD option must be selected on the File menu.

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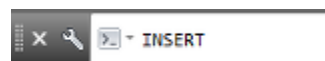


This will bring up Select blocks to Load dialogue box. Navigate to the required directory and highlight the required blocks. Click on Open to transfer the block definitions to the active AutoCAD drawing. They will not become visible until the insert command is used to put instances into the visible part of the drawing.

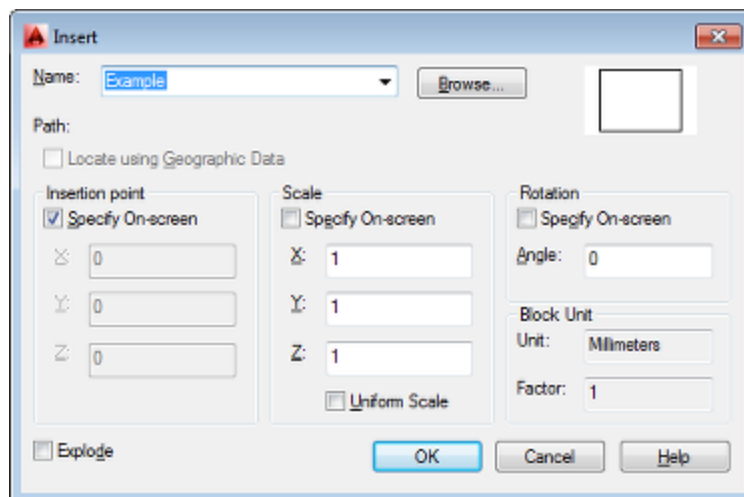


## Using the Insert Option in AutoCAD

When the block definitions have been transferred into the drawing, they are stored as information only. In order for an instance of the block to be visible in the drawing, it has to be inserted by typing **Insert** into the command line.



This will bring up the Insert dialogue 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.

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**Note:** See the AutoCAD help files for full information on the Insert Options.

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## Laying Out Blocks

The **Laying out Blocks** option is similar to the Load Blocks into Drawing option, except that it bypasses the AutoCAD Insert command and lays out the selected blocks in a grid pattern in the currently active drawing in the AutoCAD environment.

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**Note:** The Connect to AutoCAD option must be selected on the File menu.

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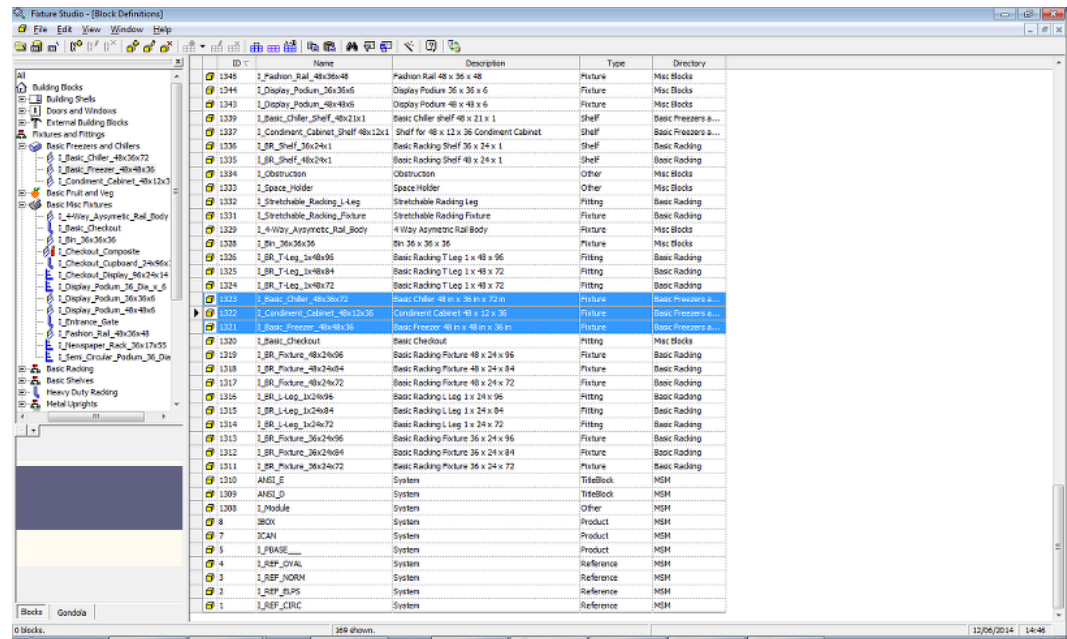
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There are two stages to this.

- Select the required blocks in Fixture Studio
- Select the Layout Blocks in Drawing option

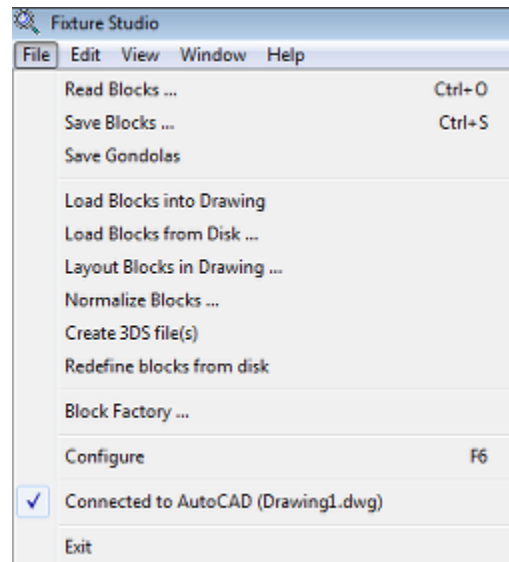
### Select the Required Blocks in Fixture Studio

Selecting the required blocks can be done in two ways in Fixture Studio; from the hierarchical tree, or from the 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.

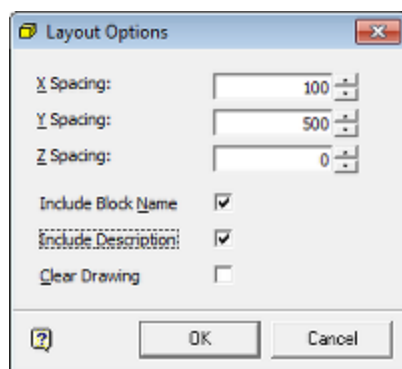


## Select the Laying Out Blocks Option

Click on the **Layout Blocks in Drawing** option in the File pull down menu.



This will bring up the Layout Options dialogue box.



The spacing between blocks can be specified by the X, Y and Z spacing. Ticking the appropriate check boxes will add the block name and/or description to each block when it is drawn the active drawing. Ticking the Clear Drawing check box will clear all previous blocks from the drawing.

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**Note:** The Z spacing is generally left at 0 so that the blocks draw at floor level.

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## Normalize Blocks

### Overview of Normalizing Blocks

The **Normalize Blocks** command is used to modify the AutoCAD properties of blocks selected in Fixture Studio. A copy of these blocks must be present in the AutoCAD drawing Fixture Studio is currently connected to. The properties of those blocks can then be modified by means of the Normalize Blocks command. The effect of this is local and the Fixture Studio **Save Blocks** command must be used to write the changes back to the DWG files reference by AutoCAD and Planner. In addition, any blocks that have been modified that are already placed in a floor plan will not be updated. For that a further operation is required. This can be done in several ways. Two of the most common are:

- Manually invoke the Restructure Drawing option from the Modify menu in Planner.
- Use the Restructure Drawing options during batch publishing of floor plans.

### Reasons for using Normalize Blocks

Normalize blocks is the equivalent of the AutoCAD Object Properties dialog box, but can be used to perform bulk operations. This is particularly useful when working with blocks that have been created outside of Macro Space Planning as they may require their properties changed to work within the application.

- For KPIs to work within Planner, the blocks color must be set to 'By Block'
- For the 'thicken' form of highlighting to work within Planner, the line weight must be set to 'By Block'.

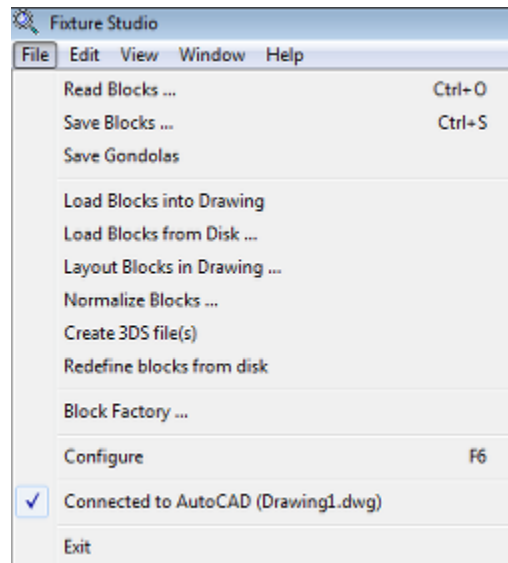
### Preparing to use the Normalize Blocks Functionality

Normalize Blocks operates on any instances of the blocks that are present in the drawing Fixture Studio is currently connected to. Before using the Normalize blocks function, the user should ensure that a copy of each required block is present in the drawing. One way of doing this is to use the **Load Blocks into Drawing** option from the file menu.



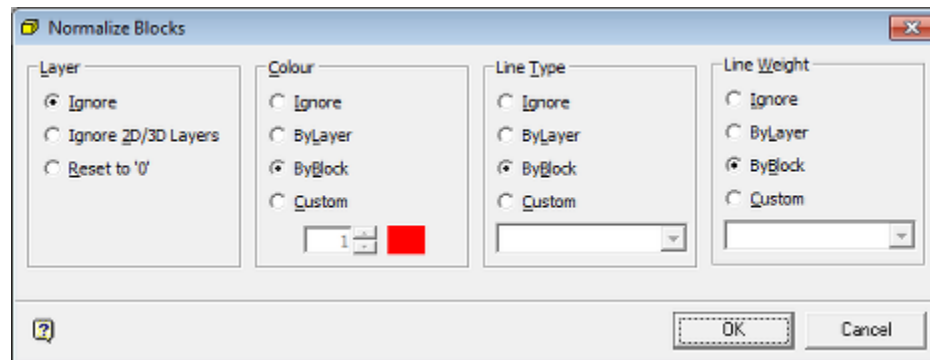
## Using the Normalize Blocks Functionality

The Normalize Blocks dialog box is accessed from the **File** pull down menu.



**Note:** The Connect to AutoCAD option must be selected on the File menu.

The Normalize Blocks dialogue box enables any currently selected blocks to have their AutoCAD Layer, Color, Line Type and Line Weight changed.



### 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 adopt the default color for the layer they are inserted on.
- If set to By Block, the selected blocks will adopt the default color for the layer they inserted are on except where the Planner functionality changes the color to a alternative one - for example for a KPI.

- If set to Custom, then the modified color for the selected blocks can be set by means of the spin control. These blocks will not then adopt the parent color of the layer they are inserted on; nor can their color be changed to display KPIs.

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**Note:** Color should normally be set to By Block. This enables blocks to have their colors changed in Planner when KPIs are applied.

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### Line type

- If set to Ignore, line types will be unchanged.
- If set by ByLayer, the selected blocks will adopt the default line type for the layer they inserted are on.
- If set to ByBlock the selected blocks will adopt the default liner type for the layer they inserted are on except where the Planner functionality changes it to an alternative one.
- If set to Custom, then the line type for the selected blocks can be set by means of the drop down list.

### Line Weight

- If set to Ignore, line weights will be unchanged.
- If set By Layer, the selected blocks will adopt the default weight type for the layer they inserted are on.
- If set ByBlock, he selected blocks will adopt the default line type for the layer they inserted are on except where the Planner functionality changes it to an alternative one.
- If set to a Custom level all selected blocks will be set to the line weight selected from the drop down list. These blocks will not then adopt the parent line weight of the layer they are inserted on; nor can their line weight be changed by the Planner functionality.

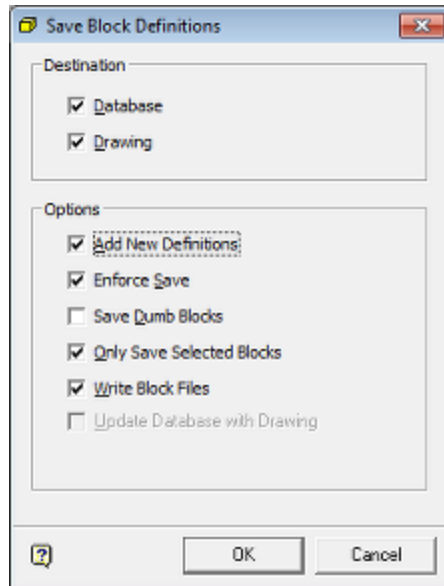
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**Note:** Line weight should normally be set to By Block. This enables blocks to have the thicknesses of their lines changes for highlighting purposes in Planner.

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## Saving the Changed Blocks

Normalize Blocks modifies the block definitions in the drawing. It is still necessary to save those changed block definitions back to the directories holding the DWG files. This can be done using the **Save Blocks** option from the File menu. Full details on how to use this dialog box can be found in the section on Reading, Saving and Deleting information.



The following settings should be used:

- Destination should be set to both Database and Drawing.
- Options should be Enforce Save, Only Save Selected Blocks and Write Block Files.
- If there are new blocks in the drawing the Add New Definitions check box should be selected as well.

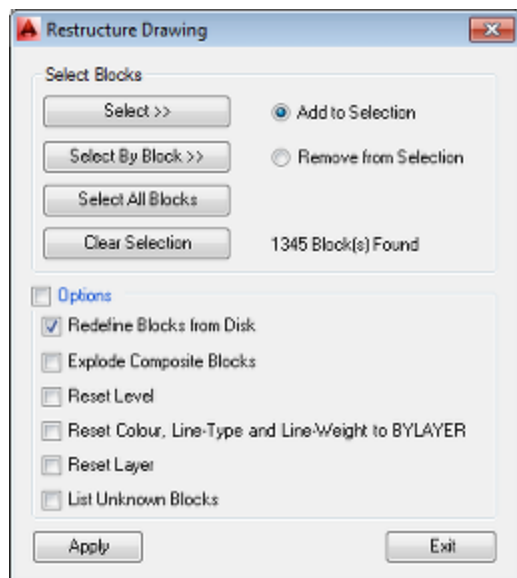
## Updating Floor Plans

Any older instances of the block that are present in existing floor plans will have the old settings. These can be updated in one of two ways:

- Manually invoke the Restructure Drawing option from the Modify menu in Planner.
- Use the Restructure Drawing options during batch publishing of floor plans.

### Manually using Restructure Drawing in Planner

Restructure Drawing can be called from the Modify Menu (Modify > Blocks > Restructure Drawing). This will bring up the Restructure Drawing dialog box.



Selecting all blocks then invoking the Redefine Blocks from Disc option will update the block definition in that specific floor plan.

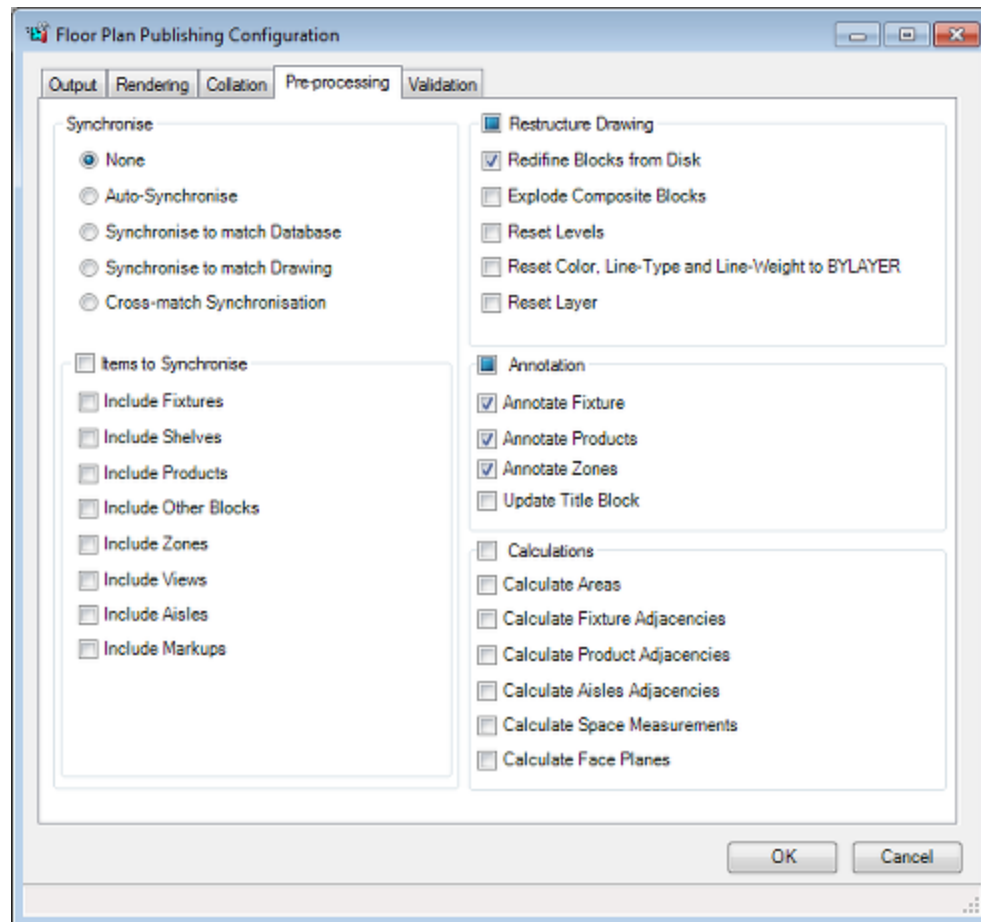
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**Note:** See the *Oracle Retail Macro Space Management Planner User Guide* for full information on how to use Restructure Drawing.

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### Using Restructure Drawing in a Batch Process

An alternative way of ensuring floor plans are updated with the latest definitions is to do it via a batch process. This is set up using the Configure Floor Plan Publishing option from the File menu. The Pre-processing tab has an option to Redefine Blocks from Disk. If this is selected, any batch publishing of floor plans will result in the block definitions in the floor plan being updated.




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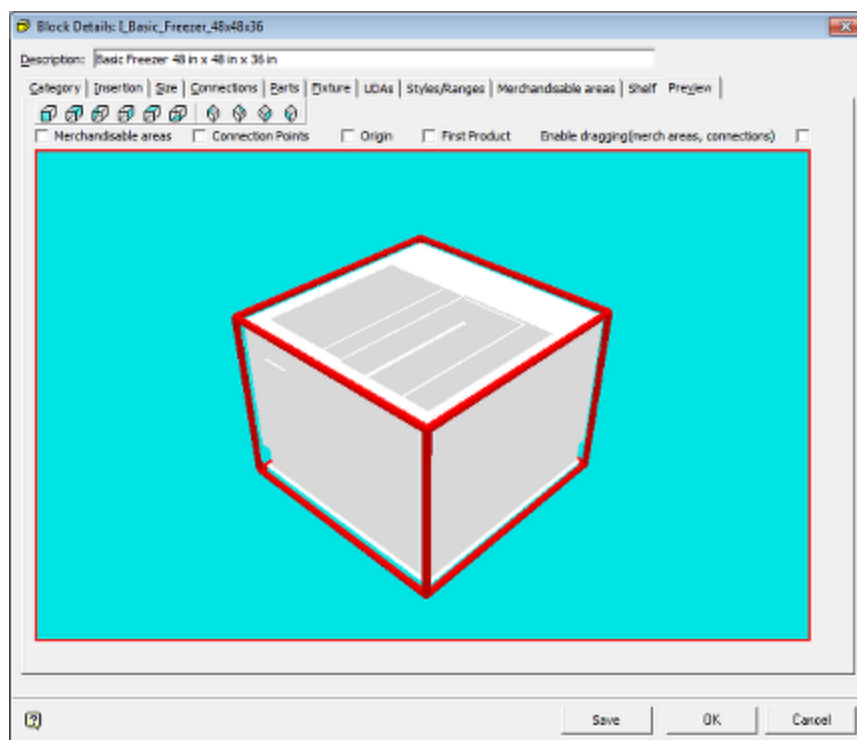
**Note:** See the *Oracle Retail Macro Space Management Administration Module User Guide* for full information on how to use this functionality.

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## Create 3DS Files

### About 3DS Files

DWG files are used in the Planner module. A different sort of file (3DS file) is used to represent equipment and merchandise in the Merchandiser module. They are also used to display the block in the Preview tab of the Block Details dialog box.



An error message will be displayed if the required 3DS files are not found in the Merchandiser Module or in the Preview tab of the Block Details dialog box.

## Creating 3DS Files

3DS files are created using the DWG file as a template.

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**Note:** The Connect to AutoCAD option must be selected on the File menu.

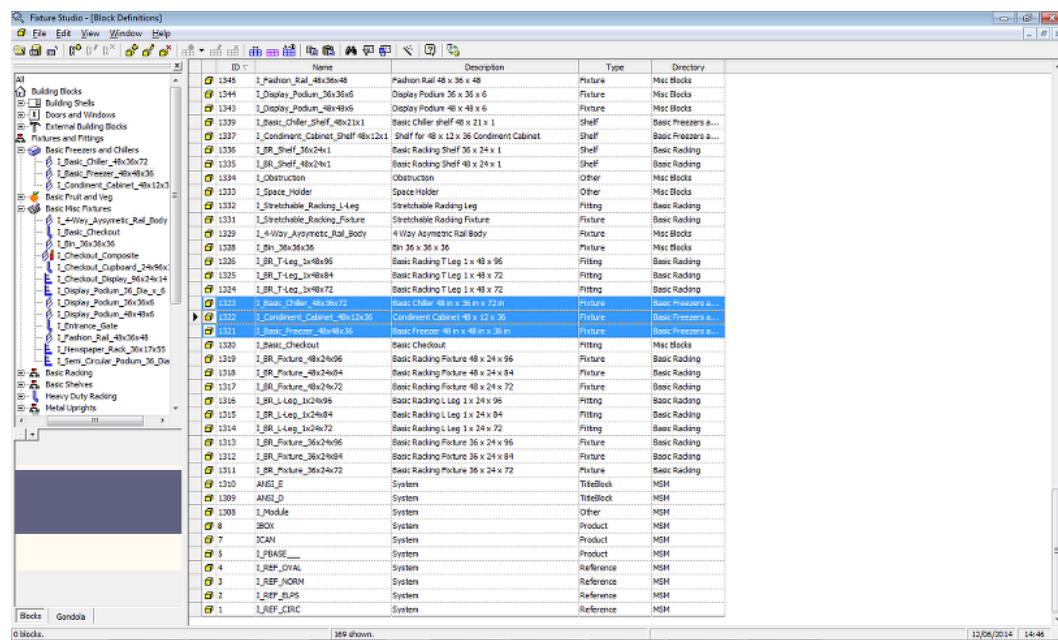
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There are two stages to this.

1. Select the required blocks in Fixture Studio
2. Select the Crease 3DS Files option

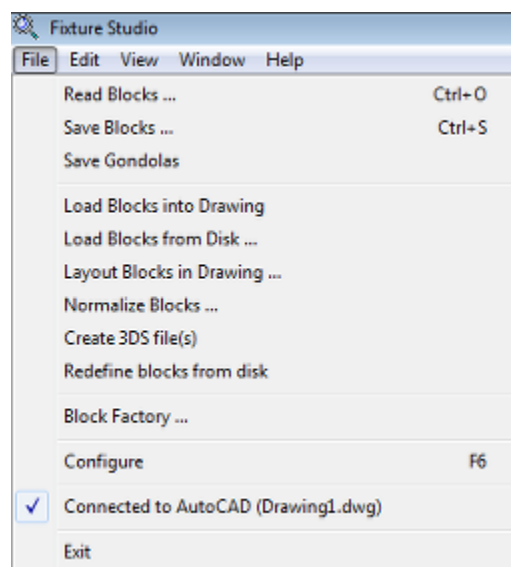
### Select the Required Blocks in Fixture Studio

Selecting the required blocks can be done in two ways in Fixture Studio; from the hierarchical tree, or from the 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.

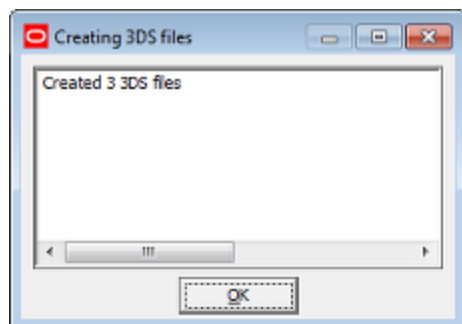


## Select the Create 3DS Option

Click on the Create 3DS Files option in the File pull down menu.



The required 3DS files will then be created in the same directory (specified in the Directories tab of the Configuration module) as the original DWG files. A confirmatory dialog box will appear.




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**Note:** 3DS files are also used in the Preview Tab of the Block details dialog box. If they are absent a 'graphics not found' message will result.

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## Redefine Blocks from Disc

**Redefine Blocks from Disc** allows the user to overwrite any blocks in the current selected floor plan in Planner with the latest versions specified in Fixture Studio.

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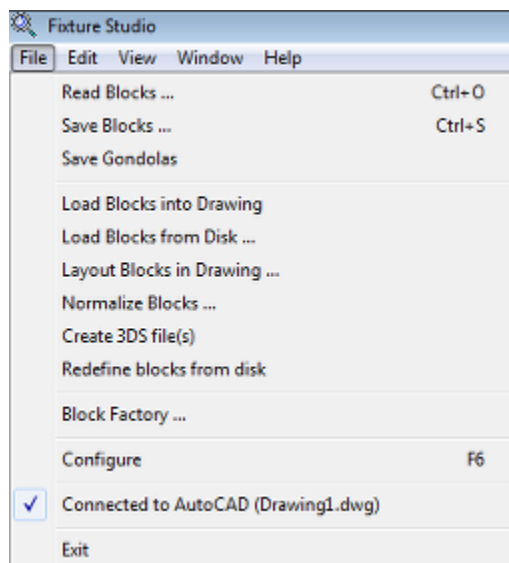
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**Note:** The Connect to AutoCAD option must be selected on the File menu.

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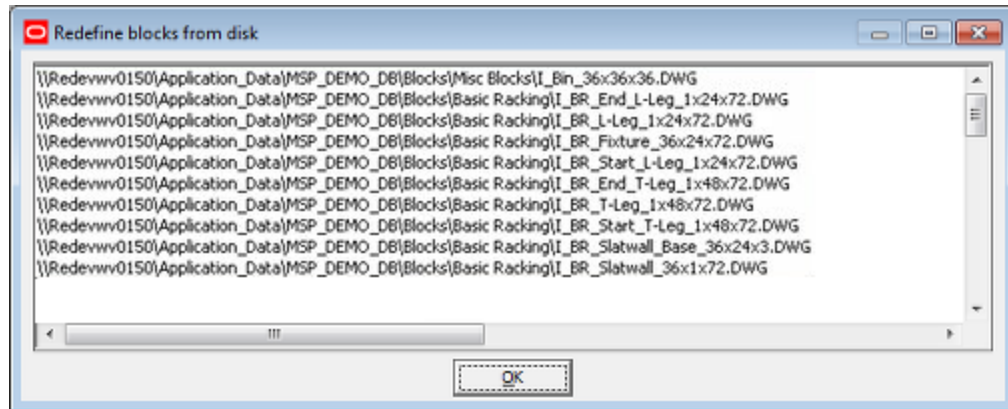
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It is accessed from the File pull down menu and is only active when Fixture Studio is connected to AutoCAD.



On selecting the command, Fixture Studio will identify all blocks in the drawing referenced by the Connect to AutoCAD option and replace them with the blocks currently referenced in Fixture Studio. A confirmatory dialog box will appear.





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**Note:** this task can also be carried out using the Restructure Drawing option in the Planner module.

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## Navigating Block Definitions

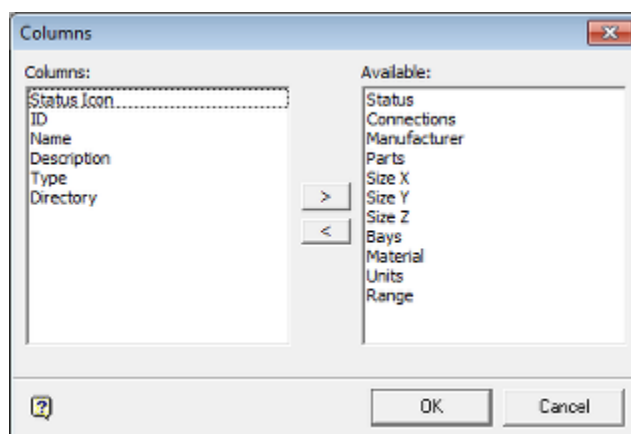
### Setting Columns

The columns that display in the Block Definitions window can be configured by clicking on the Set Columns in Grid Icon in the toolbar.

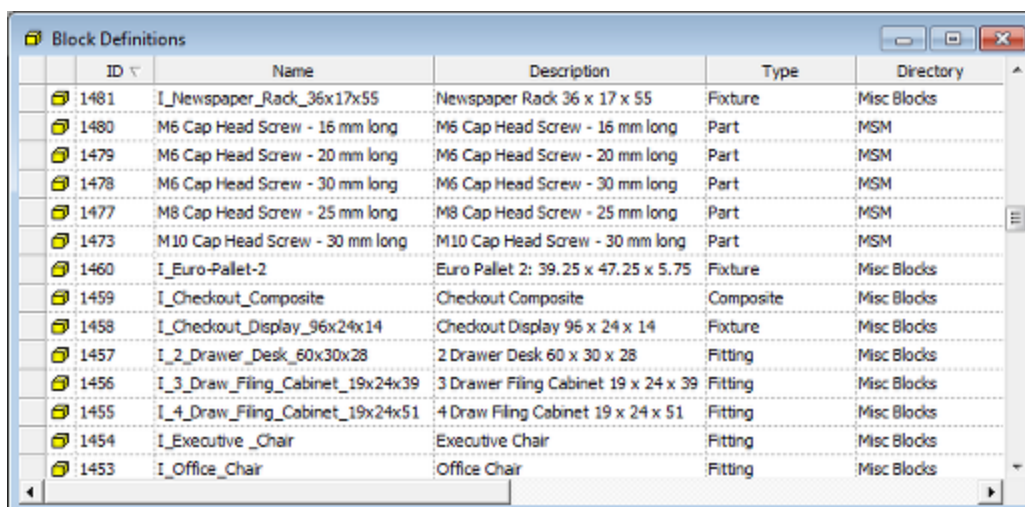
**Note:** The columns displayed in the Gondola Definitions window cannot be configured.



This will bring up the Columns dialog box.



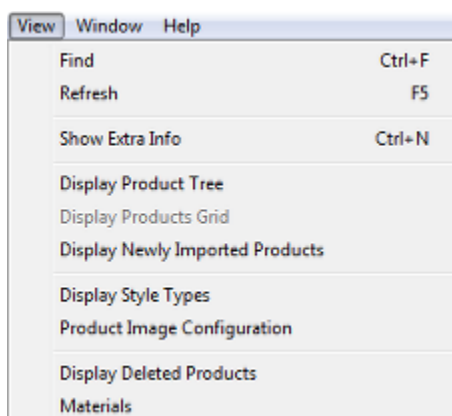
The Columns frame on the left contains a list of the columns that are currently displayed. The Available Frame on the right contains a list of columns that are not being currently displayed. The list of columns to be displayed can be modified by making use of the selection arrow in the middle of the dialogue box. When the selection has been made, clicking on OK will result in the Block Definition table being rearranged accordingly.



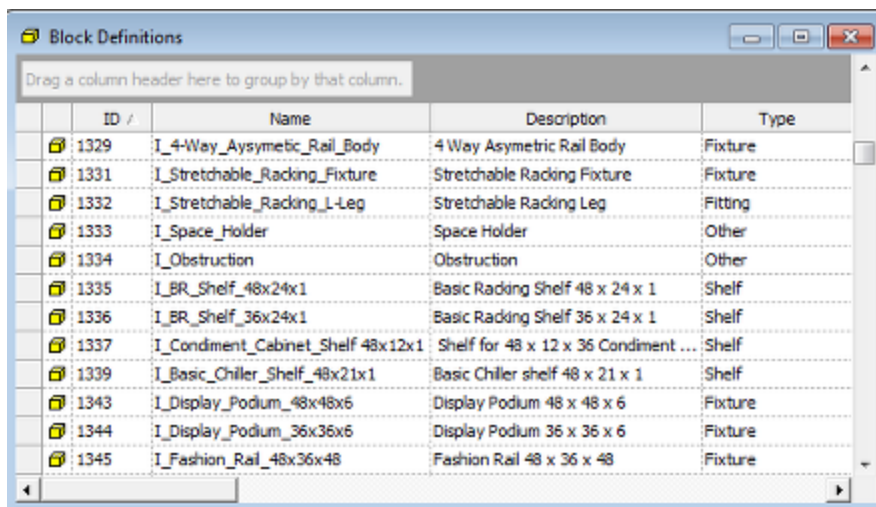
ID	Name	Description	Type	Directory
1481	I_Newspaper_Rack_36x17x55	Newspaper Rack 36 x 17 x 55	Fixture	Misc Blocks
1480	M6 Cap Head Screw - 16 mm long	M6 Cap Head Screw - 16 mm long	Part	MSM
1479	M6 Cap Head Screw - 20 mm long	M6 Cap Head Screw - 20 mm long	Part	MSM
1478	M6 Cap Head Screw - 30 mm long	M6 Cap Head Screw - 30 mm long	Part	MSM
1477	M8 Cap Head Screw - 25 mm long	M8 Cap Head Screw - 25 mm long	Part	MSM
1473	M10 Cap Head Screw - 30 mm long	M10 Cap Head Screw - 30 mm long	Part	MSM
1460	I_Euro-Pallet-2	Euro Pallet 2: 39.25 x 47.25 x 5.75	Fixture	Misc Blocks
1459	I_Checkout_Composite	Checkout Composite	Composite	Misc Blocks
1458	I_Checkout_Display_96x24x14	Checkout Display 96 x 24 x 14	Fixture	Misc Blocks
1457	I_2_Drawer_Desk_60x30x28	2 Drawer Desk 60 x 30 x 28	Fitting	Misc Blocks
1456	I_3_Draw_Filing_Cabinet_19x24x39	3 Drawer Filing Cabinet 19 x 24 x 39	Fitting	Misc Blocks
1455	I_4_Draw_Filing_Cabinet_19x24x51	4 Draw Filing Cabinet 19 x 24 x 51	Fitting	Misc Blocks
1454	I_Executive_Chair	Executive Chair	Fitting	Misc Blocks
1453	I_Office_Chair	Office Chair	Fitting	Misc Blocks

## Grouping Operations - Edit Menu

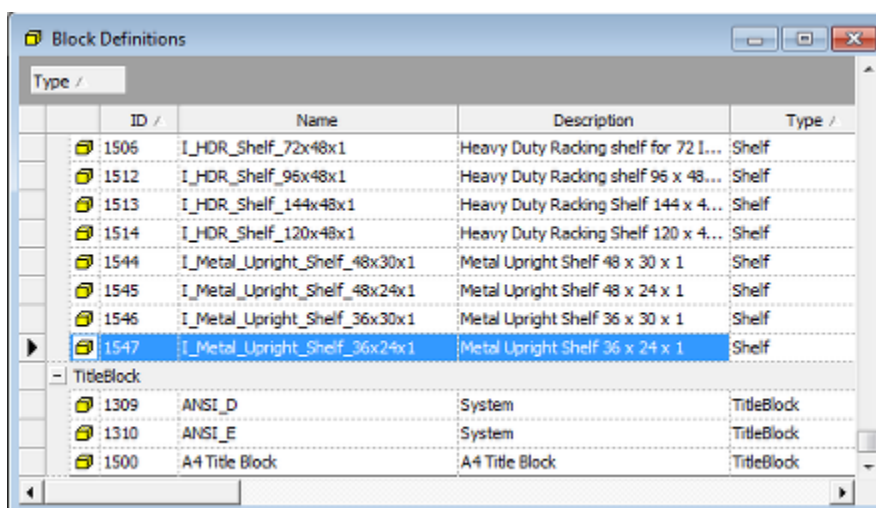
The Group By option on the View Pull Down Menu allows blocks with a common criterion to be grouped together, then the list expanded or collapsed.



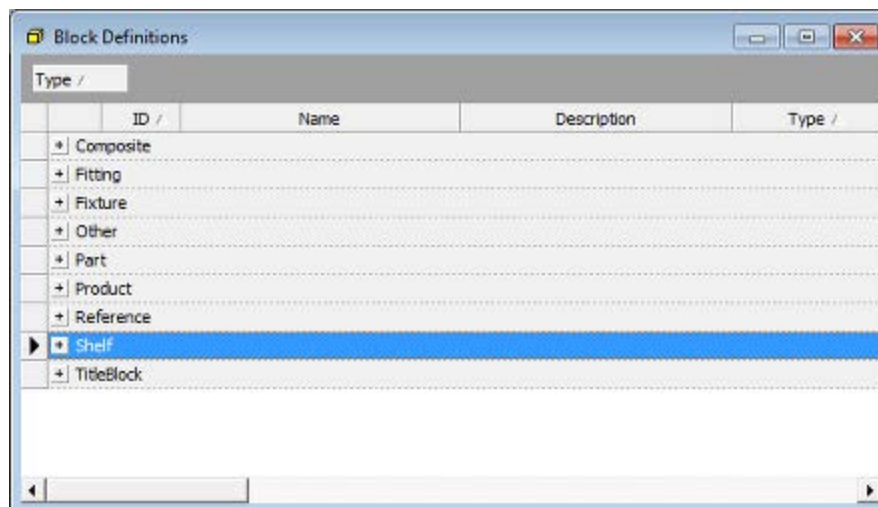
**Show Group By (<Ctrl> + G)** brings up a box above the table of blocks descriptions titled 'Drag a column header here to group by that column'.



When this is done the list of blocks is sorted into groups specified by the header dragged into the box.



Clicking on the dragged column header will change the direction the data is sorted. The grouped data can be **expanded** or **collapsed** using the options on the View pull down menu. A collapsed view is as below.



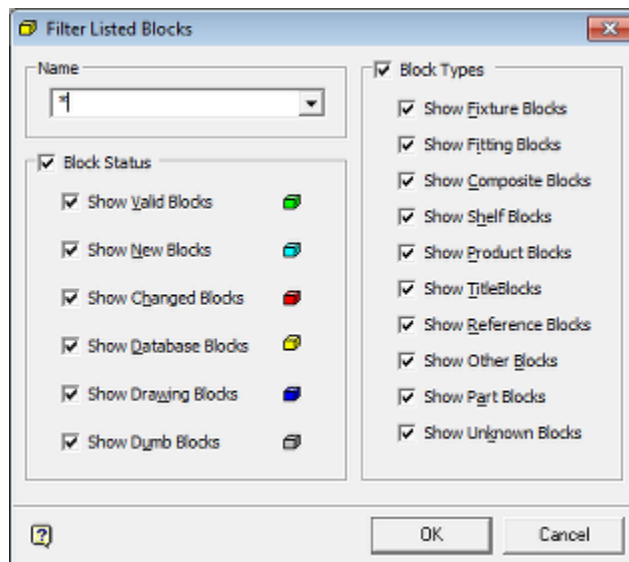
Any individual section of grouped blocks can be expanded or collapsed by clicking on the '+' or '-' signs to the left of the section.

## Filtering Blocks

The list of blocks showing in the Block Details dialogue box may be filtered using the filtering option on the toolbar (or from the Edit menu).



This will bring up the **Filter Listed Blocks** dialog box.



Filtering by name uses implied wild cards, although '\*' and '?' are also allowed.



	ID	Name	Description	Type	Directory
	1530	I_MU_Leg_0-5x24x72	Metal Upright Leg 0.5 x 24 x 72	Part	MSM
	1437	I_HDR_Upper_Leg_4x6x48	Heavy Duty Racking Upper Leg 4 x ...	Fitting	Heavy Duty Racking
	1436	I_HDR_Base_Leg_4x6x48	Heavy Duty Racking Base Leg 4 x ...	Fitting	Heavy Duty Racking
	1427	I_BR_Start_T-Leg_1x48x96	Basic Racking Start T-Leg 1 x 48 x...	Fitting	Basic Racking
	1426	I_BR_Start_T-Leg_1x48x84	Basic Racking Start T-Leg 1 x 48 x...	Fitting	Basic Racking
	1425	I_BR_Start_T-Leg_1x48x72	Basic Racking Start T-Leg 1 x 48 x...	Fitting	Basic Racking
	1424	I_BR_End_T-Leg_1x48x96	Basic Racking End T-Leg 1 x 48 x 96	Fitting	Basic Racking

Search String	Result
Leg	All examples of blocks containing Leg
I_BR-T-Leg_1x48x72	Find that exact file name
I_BR-T-Leg_1*	Find all examples of blocks beginning I_BR-T-Leg_1







To show all blocks again, clear the text box and press Return.

## Filtering by Block Status

The Block Status can be seen to the left of the Block Definitions Window.

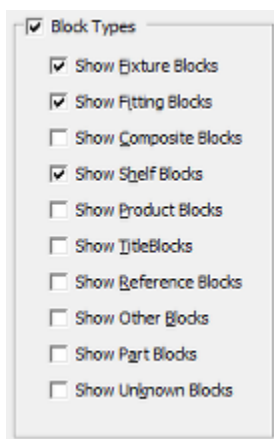
	1528	I_Metal_Upright_48x30x84	Metal Upright 48 x 30 x 84	Fixture	Metal Uprights
	1527	I_Metal_Upright_48x30x72	Metal Upright 48 x 30 x 72	Fixture	Metal Uprights
	1526	I_Metal_Upright_36x30x96	Metal Upright 46 x 30 x 96	Fixture	Metal Uprights
	1525	I_Metal_Upright_36x30x84	Metal Upright 36 x 30 x 84	Fixture	Metal Uprights

By using the Block Status frame it is possible to select blocks meeting specific stages of being registered in Fixture Studio.

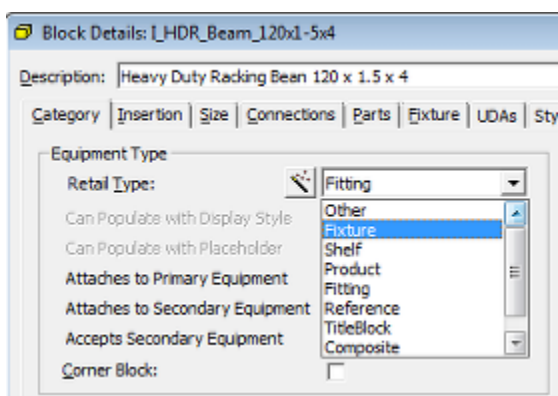
Icon	Description	Comments
	Show Valid Blocks	These are blocks that have just been updated by having the XData written to the blocks stored in the directory specified in the Categories tab of the Block Details dialog box.
	Show New Blocks	These are blocks just imported into fixture studio.
	Show Changed Blocks	These are blocks where the data has been changed in Fixture Studio but not yet written back to the database.
	Show Database Blocks	These are blocks where the information in Fixture studio matches that held in the database.
	Show Drawing Blocks	These are blocks in the drawing containing XData, but where that information has not yet been written back to the database. This is achieved by assigning data in the Block Details dialog box and then writing that data back to the drawing, but not the database.
	Show Dumb Blocks	These are blocks where no Macro Space Planning information has been assigned: they are pure AutoCAD blocks.

## Filtering by Block Type

By using the Block Type Frame, the blocks displayed in the Block Definitions window can be restricted to those of specific types.



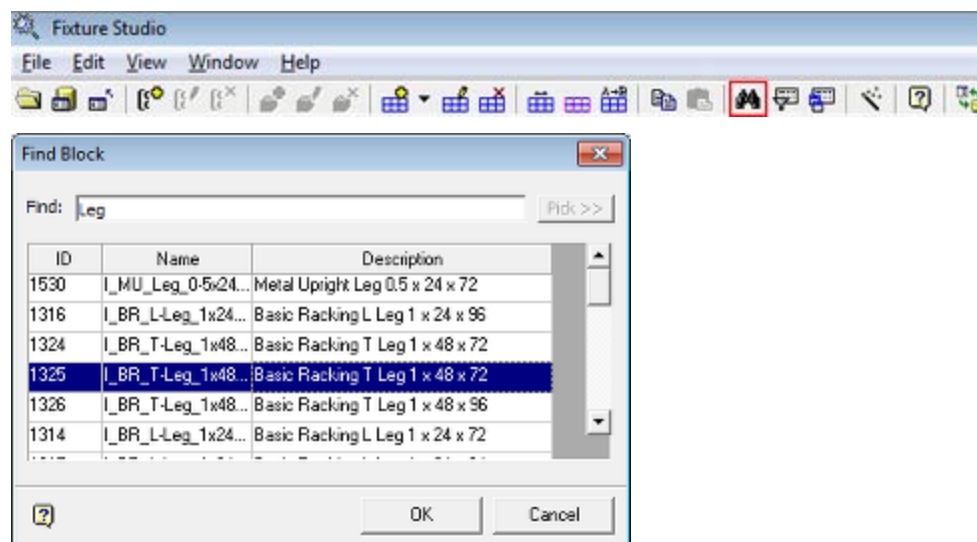
These types are set in the Retail Type drop down list in the Category Tab of the block Details dialog box.



## Find Block Definitions

Clicking on the **Find Icon** on the toolbar will bring up the Find Block dialogue box.





To use the Find Option, type in the required search string into the Find box and press **Return**. A list of block definitions matching the search string will appear 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 will be highlighted and the Find Block dialogue box will close.

---

**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 instances of the name Leg.

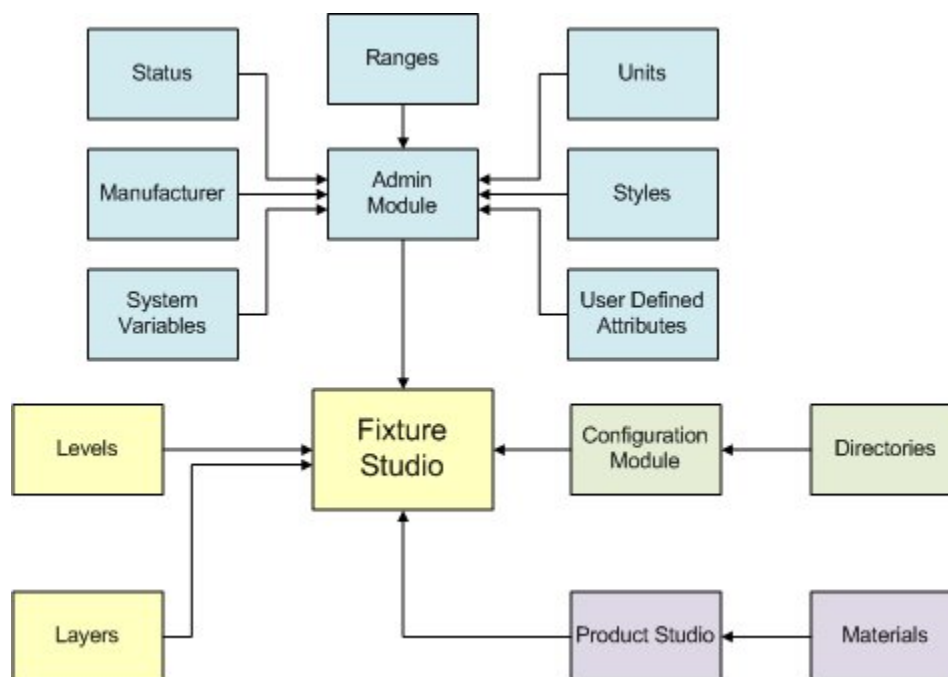
---



## Relationships with Other Modules

### Overview of Relationships to 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 Admin Module:

- List of Manufacturers.
- List of Ranges.
- Available status's
- List of possible Styles
- List of default units
- User Defined Attributes

### Configuration Module

The following can be configured within the Configuration Module:

- Directory for graphics (dwg and 3DS) files

### 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 a block on – only configurable within database

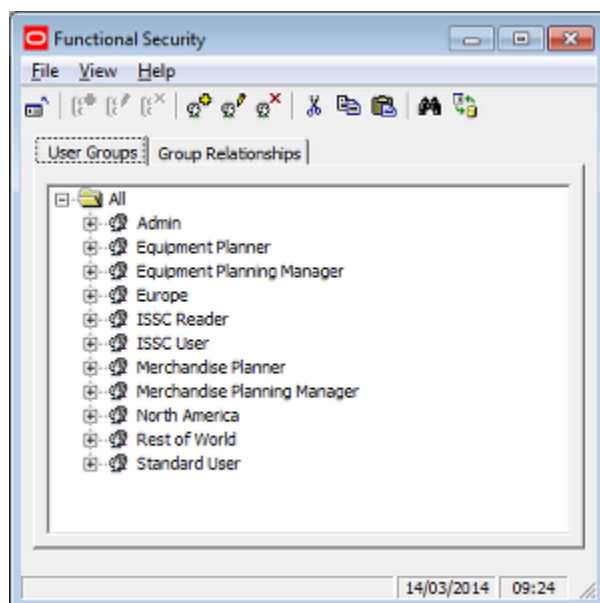
## **Product Studio**

- List of available materials – this affects the appearance of the graphics.

## The Admin Module

### Access to the Administration Module

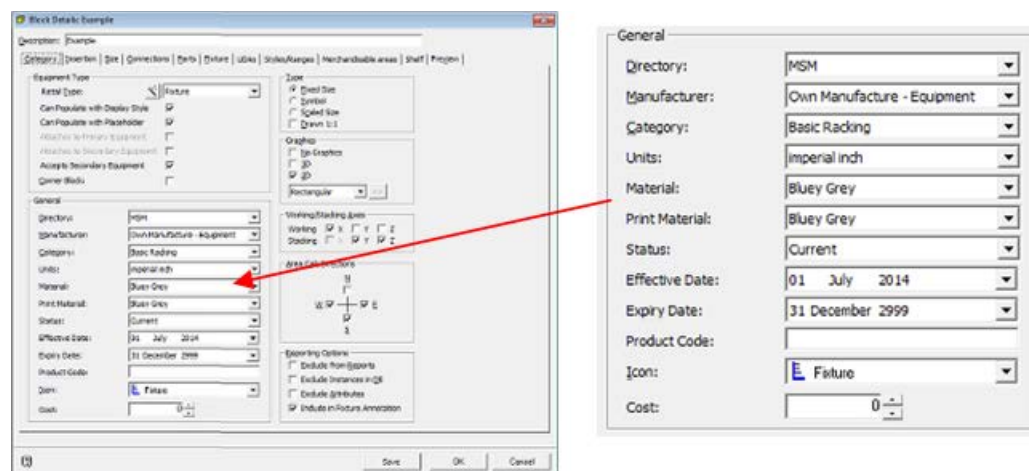
Access to the Administration module is controlled by the **Functional Security** dialog box accessed from the Security Menu.



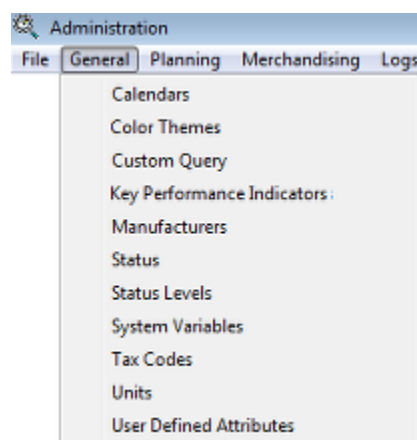
Access to this module is strictly controlled as Administrators control access rights and privileges for users within Macro Space Planning. They also control the global settings which affect the behavior of the application for all users. The examples in this section show where data in Fixture Studio is configured. Most users will not actually be able to access the module - the information in this section is to allow users to see how data is configured,

### Configuring the List of Manufacturers

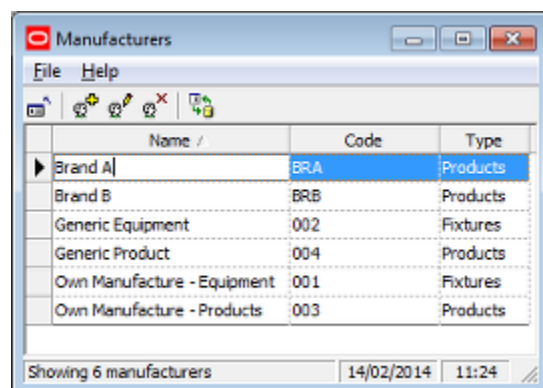
The List of Manufacturers is used in the General Frame of the Categories tab in Block Definitions.



The List of Manufacturers can be configured using the Manufacturers option on the General menu in the Administration Module.



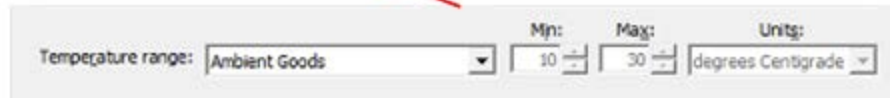
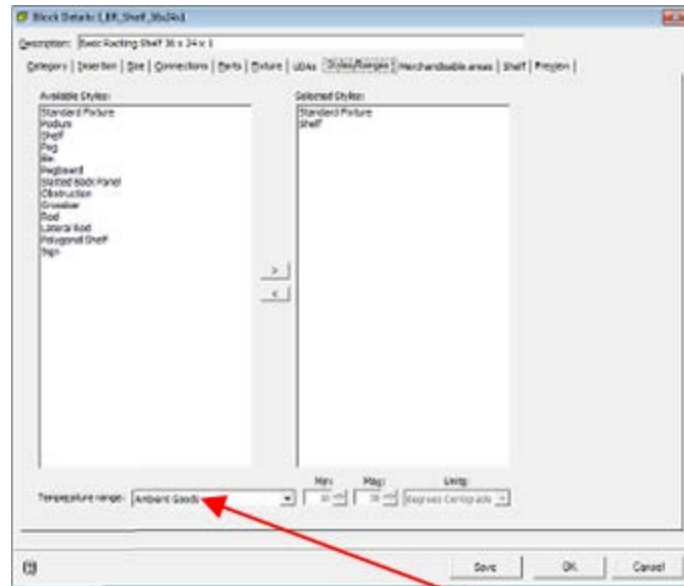
This brings up the Manufacturers dialogue box.



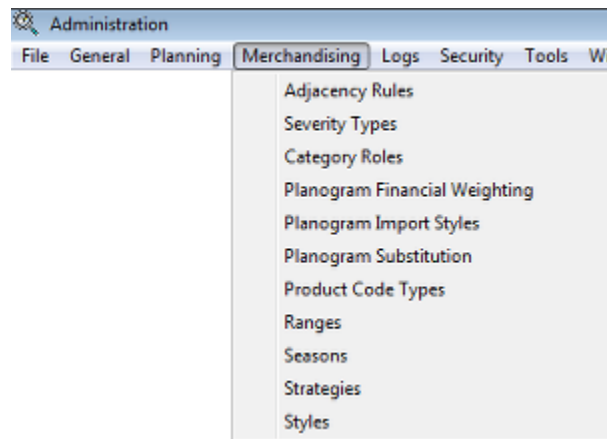
This enables a list of manufacturers to be built up and edited. This list is then used in both the Fixture Studio and Product Studio modules. The manufacturers assigned to fixtures and products are primarily used for reporting purposes.

## Configuring the List of Ranges

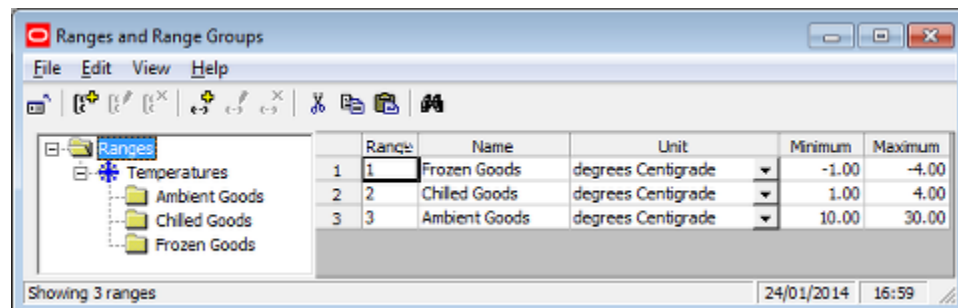
The **List of Ranges** is used in the General Frame of the Categories tab in the Block Definitions dialog box.



The List of Ranges can be configured using the Ranges option on the Merchandising menu in the Administration Module.



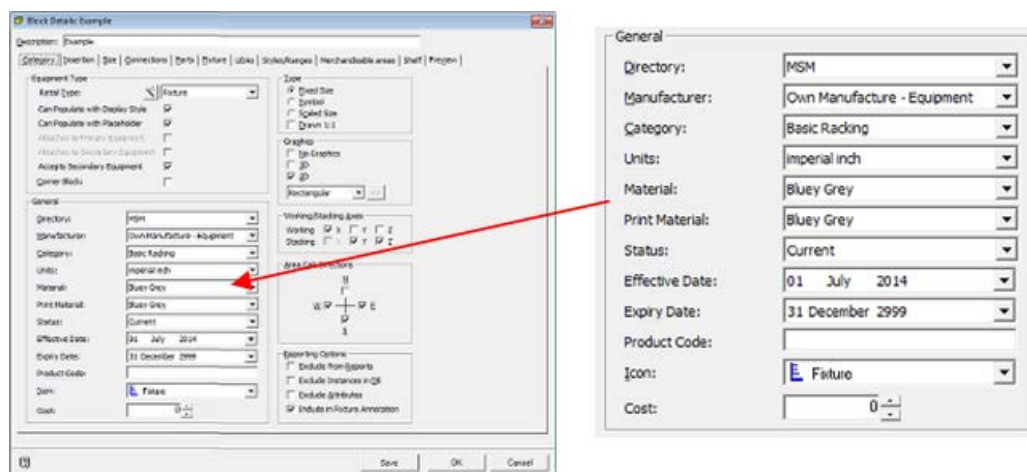
This brings up the Ranges and Range Groups dialogue box.



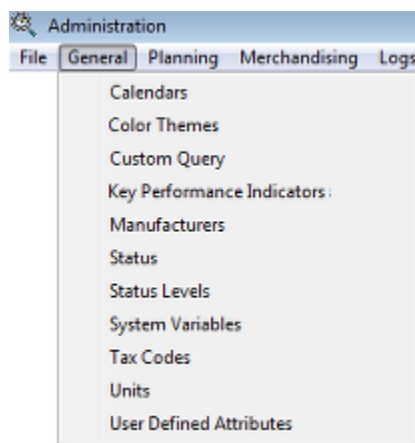
Temperature ranges can be assigned to both equipment and merchandise to ensure that only products and planograms are only placed on compatible equipment.

## Configuring the Available Status's

The **List of Statuses** is used in the General Frame of the Categories tab in Block Definitions.

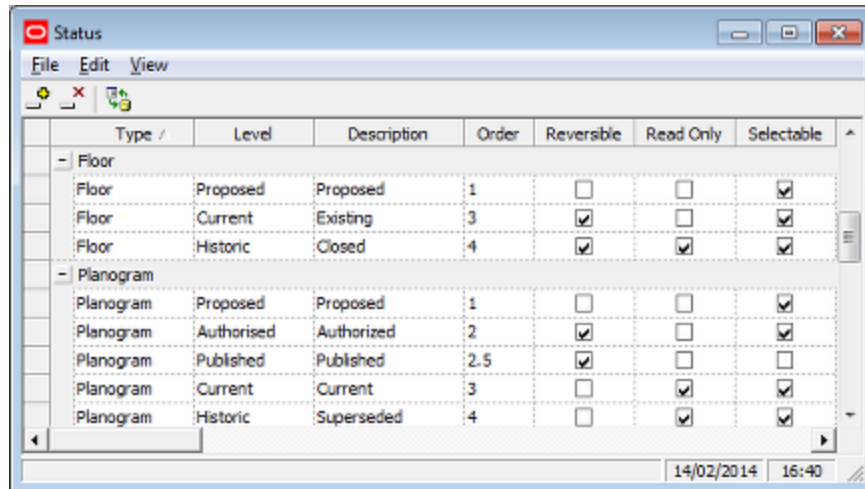


The List of Statuses can be configured using the Status option on the General menu in the Administration Module.



This brings up the Status dialogue box.

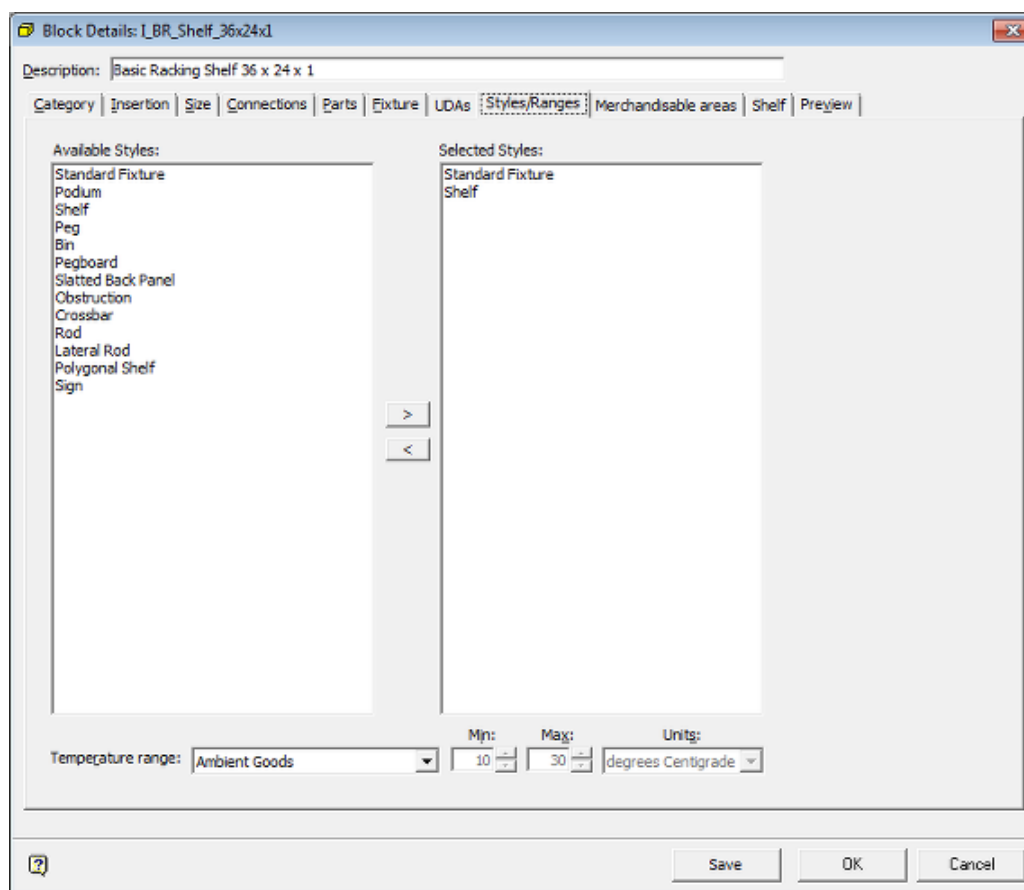




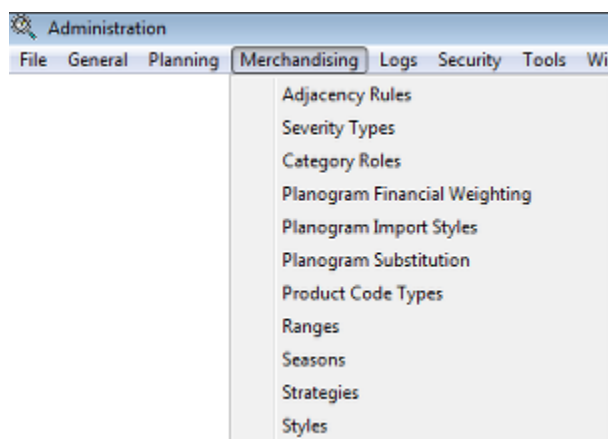
The Statuses available for blocks can be added, edited and deleted. Their order can also be configured. Changes can be defined as reversible or irreversible and files can be set to read only status when that status is reached. Finally, statuses can be set to be selectable or not selectable. Selectable statuses can be selected manually. Non-selectable statuses change automatically when other actions are carried out.

## Configuring the List of Styles

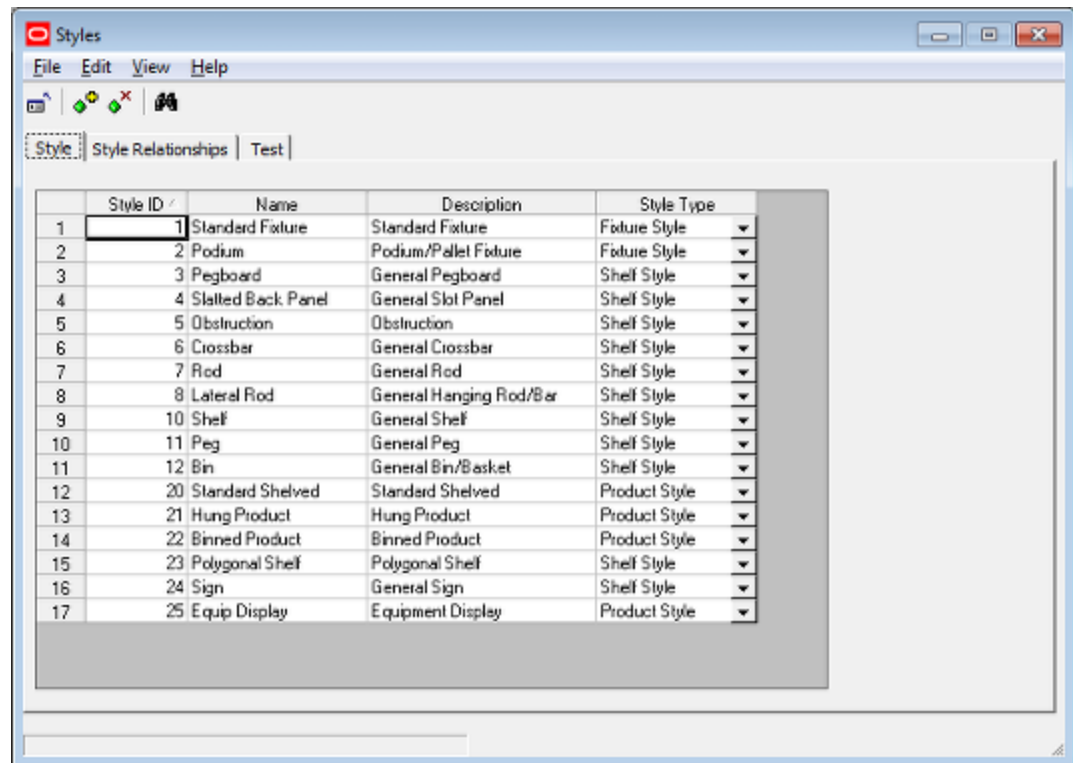
The **List of Styles** is used in the Available Styles Frame of the Styles/Ranges tab in Block Definitions.



The List of Styles can be configured using the Styles option on the Merchandising menu in the Administration Module.



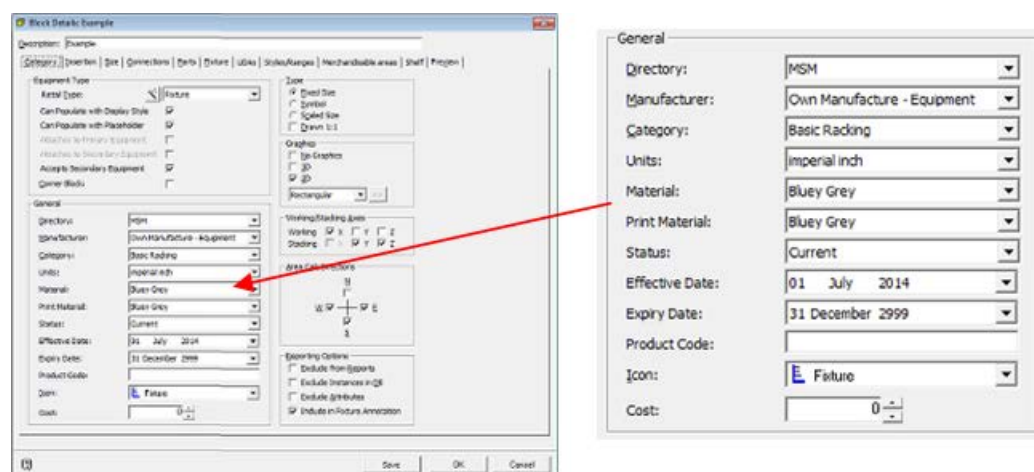
This brings up the Styles dialogue box.



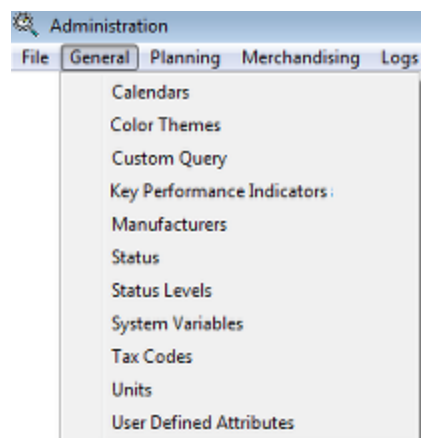
Styles can be added, edited and deleted in the Styles tab. The relationships between the varying types of styles can be defined in the Style Relationships Tab. The Test Tab allows users to conform the requisite Style Relationships have been defined. Styles can then be used (for example) to ensure than only compatible shelves are put onto fixtures in Merchandiser or that only compatible planograms are put on to equipment in the Planner and Merchandiser modules and in In-Store Space Collaboration.

## Configuring the Default Units

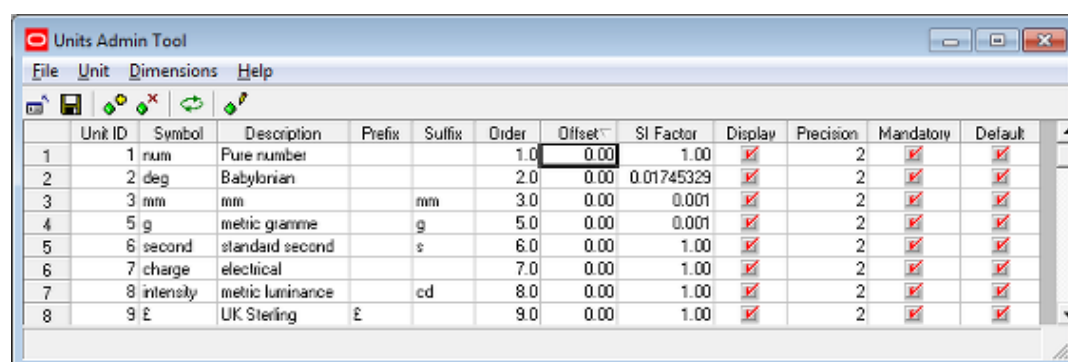
The **List of Units** is used in the General Frame of the Categories tab in Block Definitions.



The List of Units can be configured using the Units option on the General Pull down menu in the Administration Module.



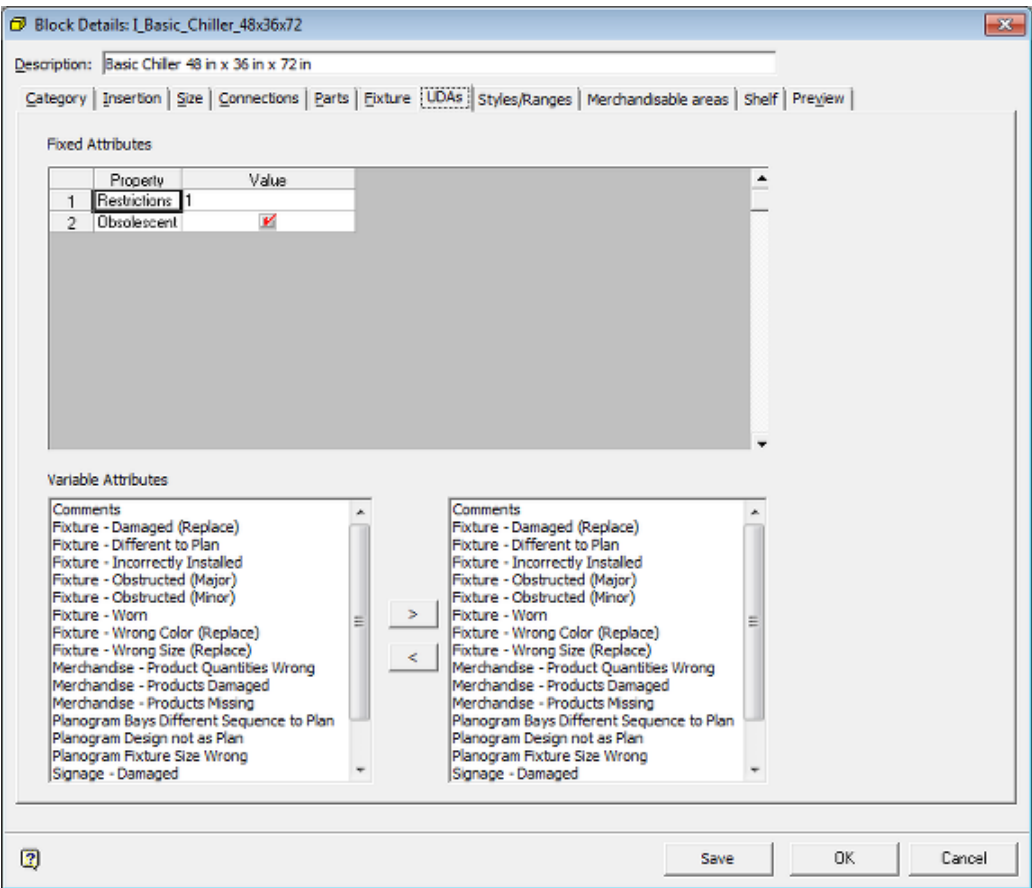
This brings up the Units Admin Tool dialogue box.



This allows units to be added, edited or deleted. It also allows other settings to be specified; for example whether use of that unit is mandatory.

## Configuring Fixed User Defined Attributes

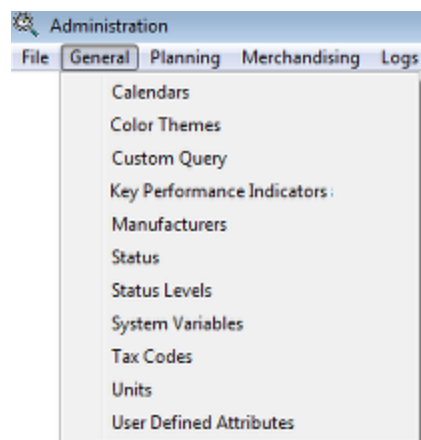
The List of **Fixed User Defined Attributes** is used in the UDAs tab in the Block Definitions dialog box.



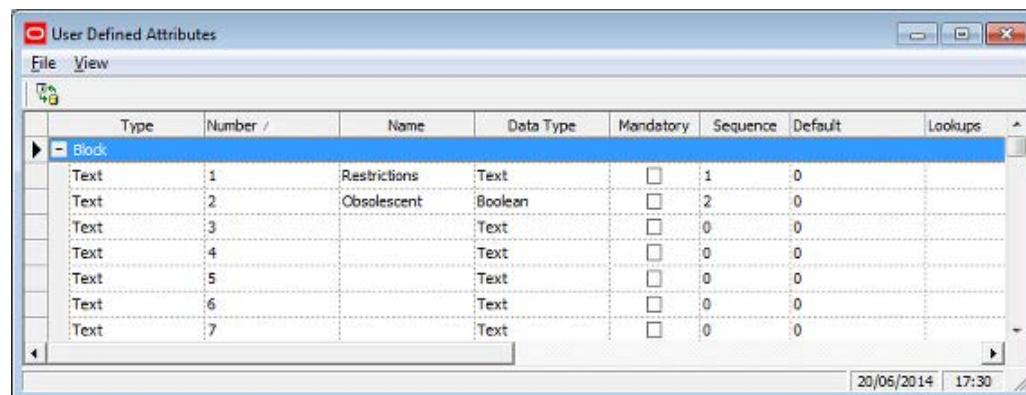
UDAs are of two types:

UDA Type	Description
Fixed UDA	This is definition data - one set of data will apply to all fixtures of that type. Fixed UDAs are configured in the Administration Module.
Variable UDA	This is instance data - different values can be assigned to each example of that fixture placed in a floor plan. Variable UDAs are configured using the <b>Edit Attribute Definitions</b> option from the <b>Edit</b> menu in Fixture Studio.

The list of fixed User Defined Attributes (UDA's) can be configured using the User Defined Attribute option on the Edit menu in the Administration Module.



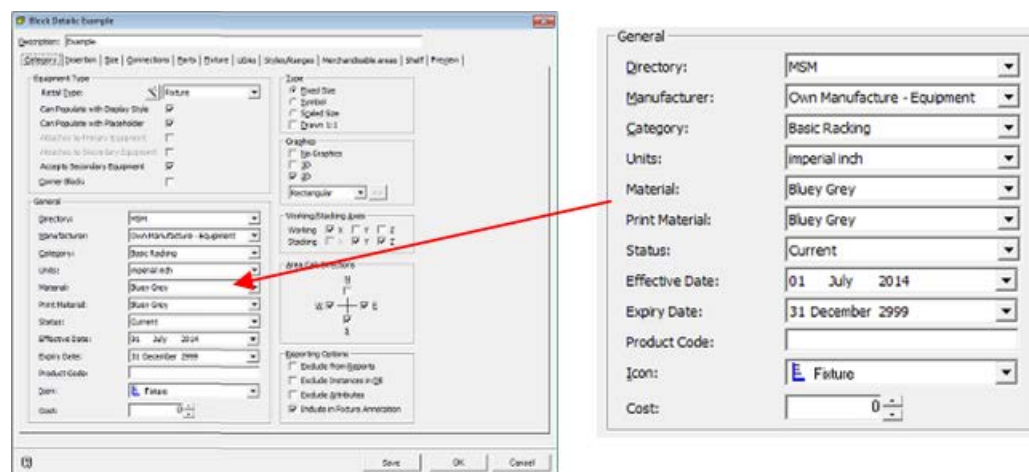
This brings up the User Defined Attributes dialogue box. This allows User Defined attributes to be added, edited and deleted. Fixed UDAs for fixtures are configured using the Block option.



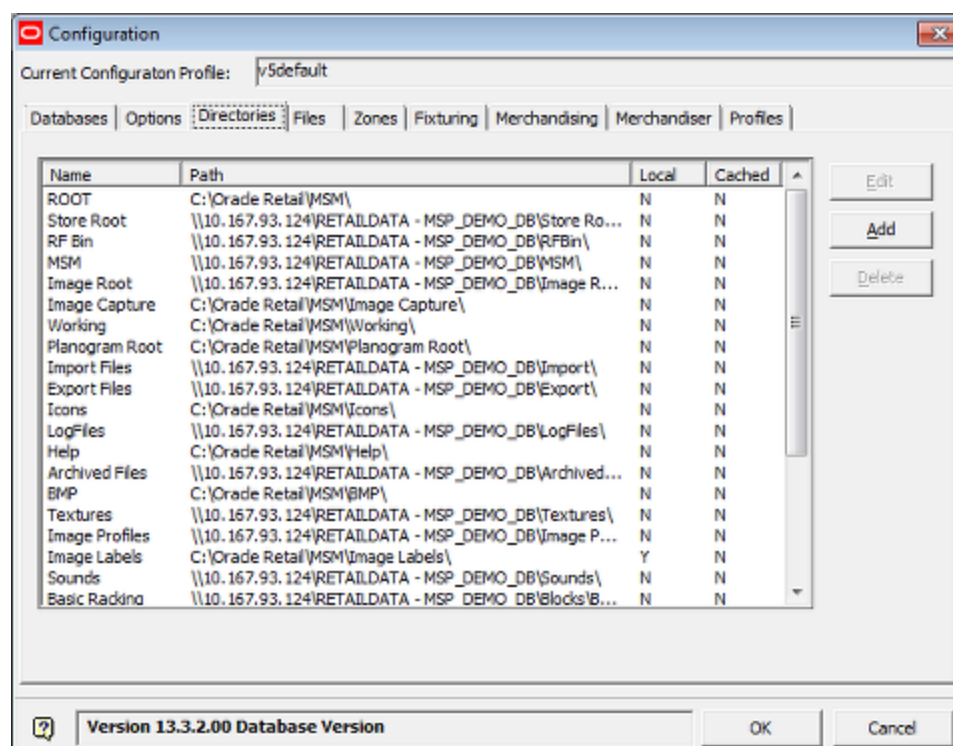
# The Configuration Module

## Configuring Directories

The Directory used to store DWG and 3DS files is specified in the Categories tab in the Block Definitions dialog box.



This determines the directory where Macro Space Management looks for the graphics associated with the corresponding block definitions. The Directories Tab can be accessed when the Configuration Module is accessed from the Administration module. Directory paths can then be set.

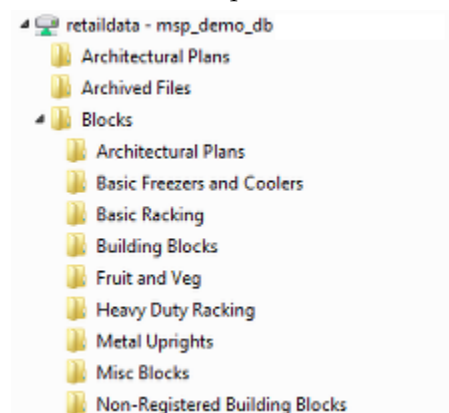


## Setting up the Required Directories

Setting up the required directories is done in two stages:

### 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:** These directories must be on a server in order to be accessible to all users.

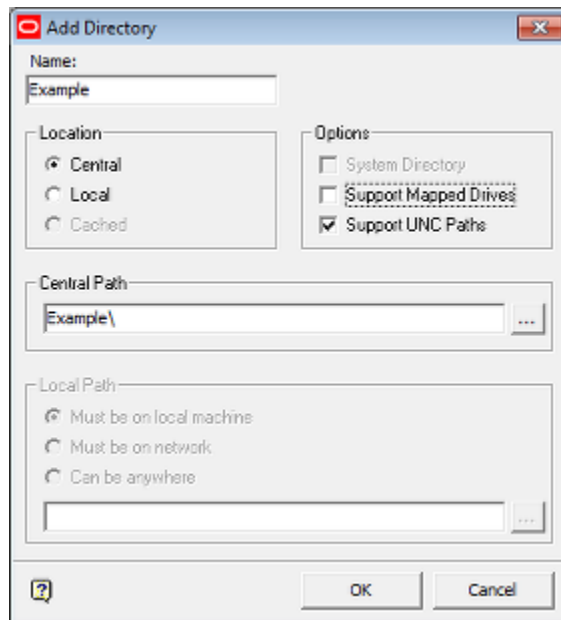
---

## Set up the required links in the Configuration Module

Links to the directories in the Windows file structure are set up in the Directories tab of the Configuration module. This can only be accessed from the Administration Module. Once in the Directories tab, paths to the windows folders can be set up using the **Add**



**Directory** option. This writes the paths back to the Macro Space Planning database, making the windows folders accessible to all Fixture Studio users.



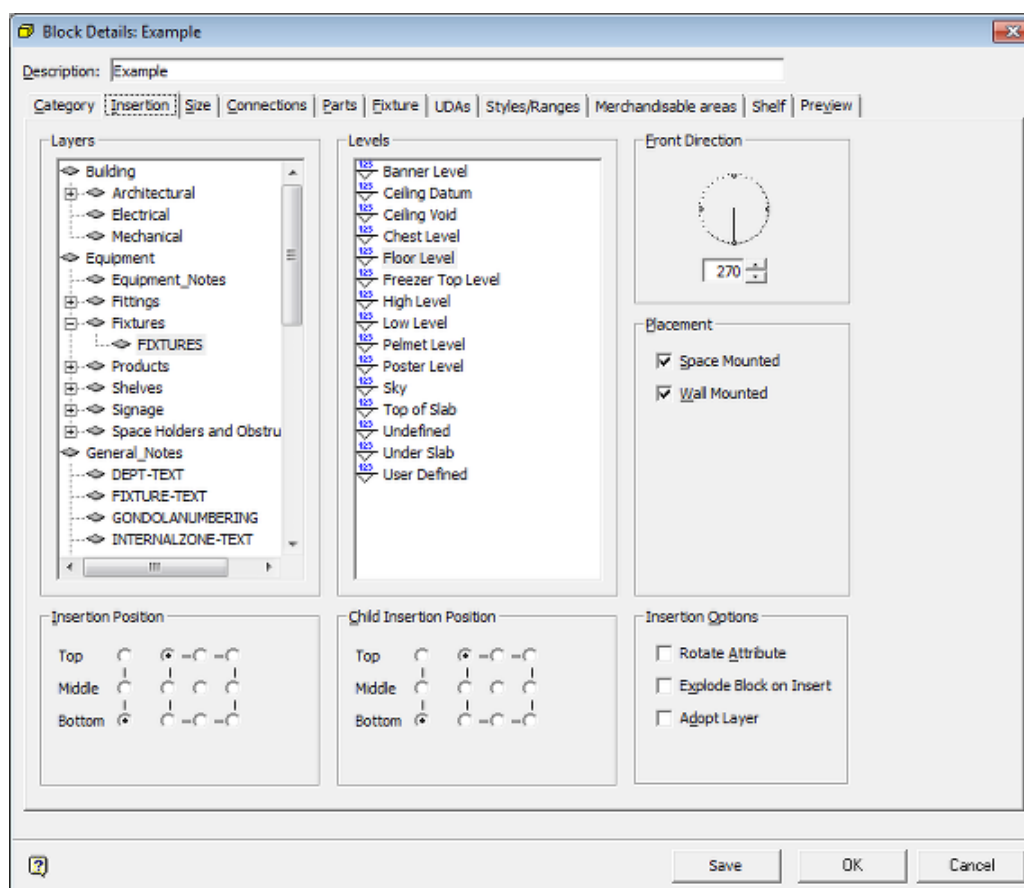
The image shows a Windows-style dialog box titled "Add Directory". It contains several input fields and checkboxes. The "Name" field at the top contains the text "Example". Below it, the "Location" section has three radio buttons: "Central" (selected), "Local", and "Cached". To the right, the "Options" section has three checkboxes: "System Directory" (unchecked), "Support Mapped Drives" (unchecked), and "Support UNC Paths" (checked). Below the "Location" section, the "Central Path" field contains "Example\" followed by a browse button "...". The "Local Path" section has three radio buttons: "Must be on local machine" (selected), "Must be on network", and "Can be anywhere", followed by an empty text field and a browse button "...". At the bottom left is a help icon "?", and at the bottom right are "OK" and "Cancel" buttons.



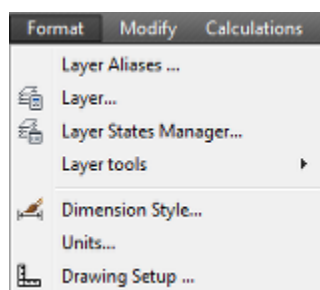
# Layers

## Configuring Layers

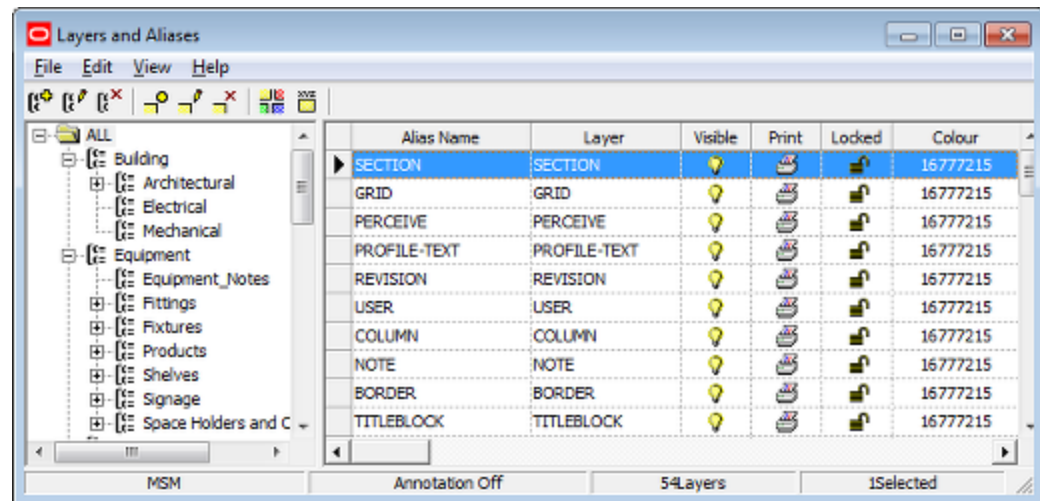
The **List of Layers** is used in the Layers frame of the Insertion tab in Block Definitions.



The List of Layer Aliases can be configured using the **Layer Aliases** option on the Format pull down menu in the Planner module.



This brings up the Layers and aliases dialogue box.

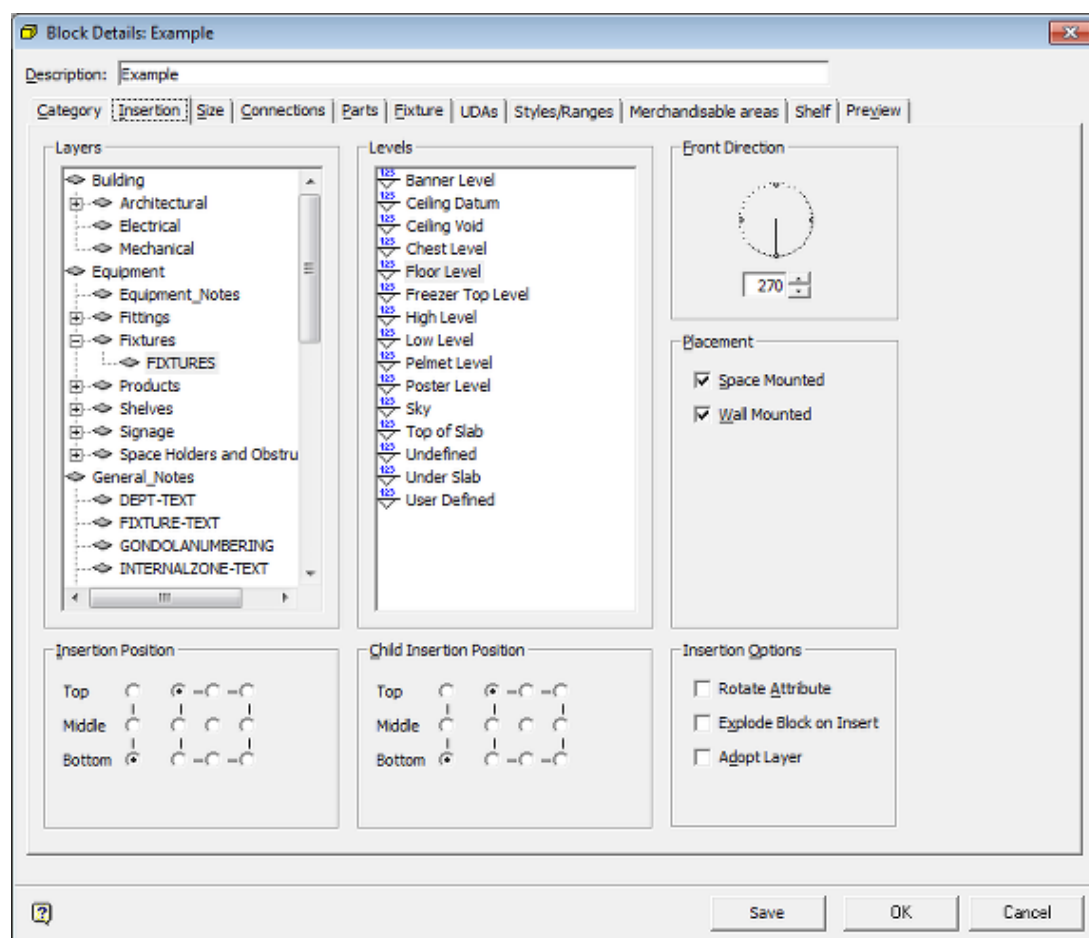


This can be used to configure Layers and Layer Aliases.

# Levels

## Configuring Levels

The **List of Levels** is used in the Insertion tab in Block Definitions.



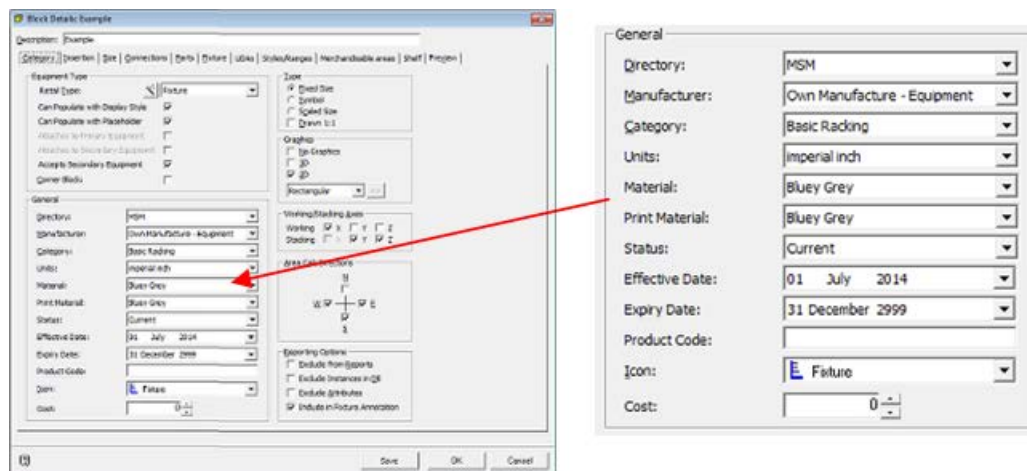
The list of levels is configured directly in the Macro Space Planning database. If additional levels are required, this must be done by an administrator with access rights to the database. See the *Oracle Retail Macro Space Planning Data Model* for details of the pertinent table.



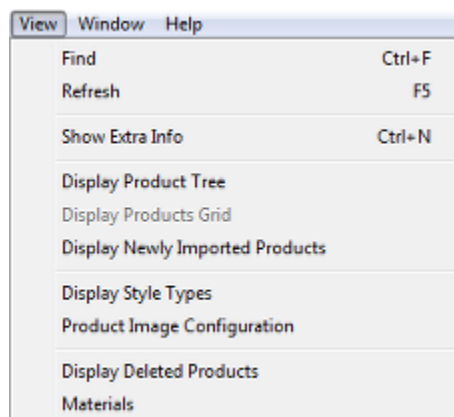
# Product Studio

## Configuring the List of Materials

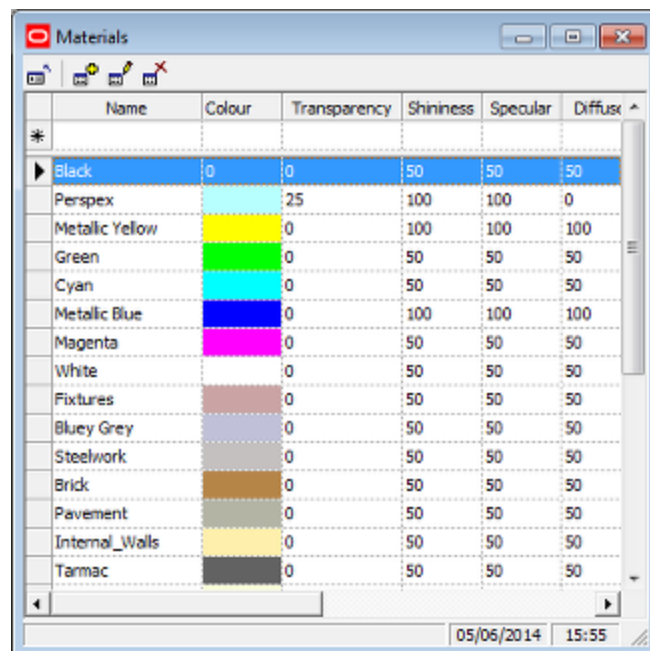
The List of Materials is used in the Category tab in Block Definitions. The **Material** is used to color the item of equipment in the Merchandiser module, while the **Print Material** governs the color the fixture or fitting will be displayed in when a floor plan is published.



The List of Materials can be configured using the Materials option on the View menu of Product Studio.



This brings up the Materials dialogue box.



The screenshot shows a window titled 'Materials' with a toolbar at the top containing icons for adding, editing, and deleting materials. Below the toolbar is a table with the following columns: Name, Colour, Transparency, Shininess, Specular, and Diffuse. The table lists various materials with their corresponding color swatches and numerical values for the other properties.

Name	Colour	Transparency	Shininess	Specular	Diffuse
Black	[Black Swatch]	0	50	50	50
Perspex	[Light Blue Swatch]	25	100	100	0
Metallic Yellow	[Yellow Swatch]	0	100	100	100
Green	[Green Swatch]	0	50	50	50
Cyan	[Cyan Swatch]	0	50	50	50
Metallic Blue	[Blue Swatch]	0	100	100	100
Magenta	[Magenta Swatch]	0	50	50	50
White	[White Swatch]	0	50	50	50
Fixtures	[Brown Swatch]	0	50	50	50
Bluey Grey	[Grey Swatch]	0	50	50	50
Steelwork	[Grey Swatch]	0	50	50	50
Brick	[Brown Swatch]	0	50	50	50
Pavement	[Grey Swatch]	0	50	50	50
Internal_Walls	[Yellow Swatch]	0	50	50	50
Tarmac	[Dark Grey Swatch]	0	50	50	50

The window also features a status bar at the bottom right displaying the date '05/06/2014' and the time '15:55'.

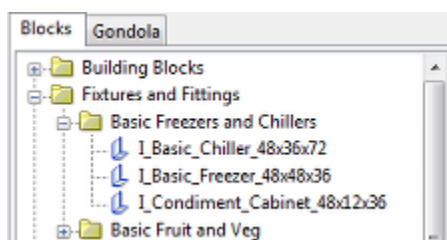
This can be used to add edit and delete options determining the surface appearance of graphics blocks inserted into the Merchandiser environment. It has no effect on how graphics display in the Planner environment.



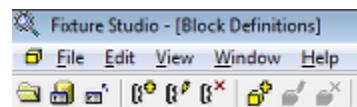
## Fixture Creation

### Adding, Editing and Deleting Fixture Groups

**Groups** are used to arrange fixture and gondola definitions into logical sub-sets. The resulting hierarchy is used in Fixture Studio for maintaining information on the equipment used in Macro Space Planning. The hierarchy also appears in the Object Browser in the Planner and Merchandiser modules and in In-Store Space Collaboration. These groups are a way of arranging large numbers of fixtures into sub-sets sharing a common characteristic. For example, one group could hold all fittings and fixtures used for clothing, another all those used for chilled or frozen foods.



Groups can be Added, Edited and Deleted using the options on the toolbar. (They may also be added using the options on the right click menu).



#### Icon Option

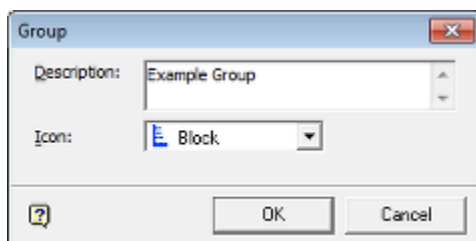
 Add Group

 Edit Group

 Delete Group

### Adding a Group

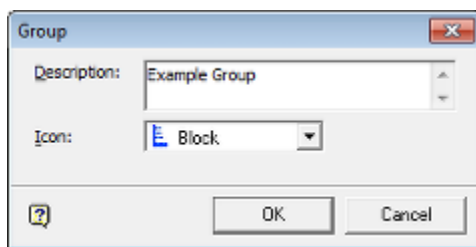
To add a group, highlight the parent group to which it is going to be added. Click **Add Group**. The Group dialogue box will appear.



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.

## Edit Group

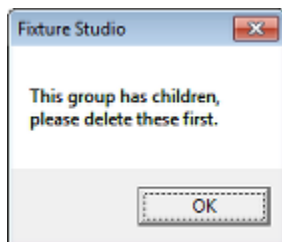
To add a group, highlight the group which is to be edited. Click the **Edit Group** Icon. The Group dialogue box will appear.



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 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 dialogue will appear.



If there are no child objects, the group will be deleted without any requirement for confirmation.

---

**Note:** Information of Fixture Groups will not be written back to the database until the **Save** option is used from the File menu. Information on Gondola Groups will not be written back to the database until the **Save Gondolas** option is used from the File menu.

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## Overview of AutoCAD Blocks

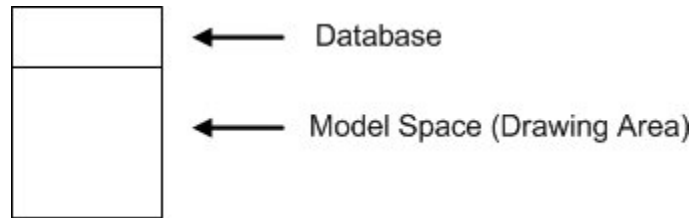
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**Note:** This section is intended for new users of AutoCAD - it can be skipped by experienced users. Some of the details have been simplified for purposes of explanation.

---

New users often struggle to understand the concept of an AutoCAD block and how Macro Space Management interacts with it. This section of help explains the basic concepts of an AutoCAD Block.

## The AutoCAD Drawing



The AutoCAD drawing (floor plan) may be considered to be in two parts:

- 1. Model space (or the drawing area)**

This is the part of the drawing that is visible to the user. It is where a fixture (or a store plan) is created.

- 2. Database**

This part of drawing is not visible to the user. It contains reference information for each instance of a block drawn in the visible part.

## Blocks and their Purpose

Blocks are a mini-drawing representing a single object that will be placed multiple times. Consider a checkout. Each store might contain ten checkouts. If there are three hundred stores in the chain, there will be total of three thousand checkouts. Drawing each checkout individually would be very labor consuming. Better to draw a single checkout and then store it in a form that can be repeatedly reinserted into other drawings. The form it is stored in is called a block.

Blocks can exist in two forms;

- 1. Locally within the drawing**

Once a block has been created within a drawing, it can be reused multiple times within that drawing. It cannot however be used outside of that drawing.

- 2. As an External DWG file**

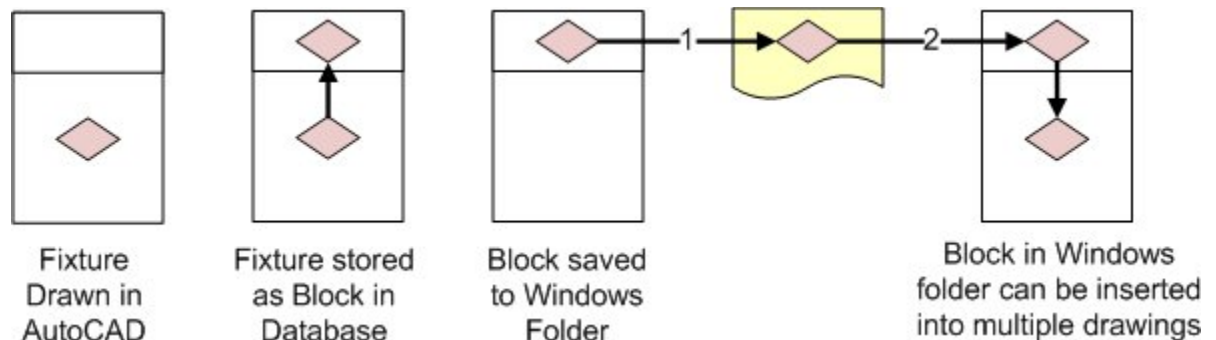
It is also possible to write the block to an external Windows folder in the form of a DWG file. This form of block can be used multiple times in any number of drawings.

The process can be represented diagrammatically as follows:

---

**Note:** This description refers to a process using AutoCAD functionality.

---



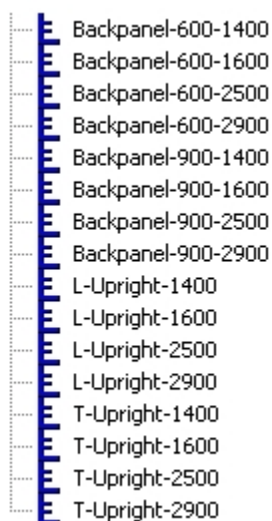
1. The fixture is drawn in AutoCAD.
2. The AutoCAD Block command is used to write local block into the database part of the drawing.

3. The AutoCAD Write Block (WBlock) command is used to write a copy of the block to a Windows folder
4. Once in the Windows folder, the AutoCAD Insert command can be used to insert multiple copies of the block into other drawings.

## Naming Conventions

**Note:** Naming conventions are important to the efficient operation of Macro Space Management. Lack of a naming convention will often make it more difficult to locate the required fixture blocks. Lack of a naming convention may also result in the creation of multiple gondolas that could have been defined more efficiently using a naming convention.

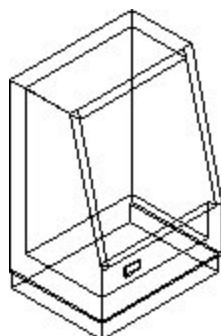
A naming convention is a pre-thought out and logical way of assigning block names. If blocks are given names like Widget-187567 and Gizmo-ADRTYN, it is not obvious what the blocks are for, or what their dimensions are. With a well thought out naming convention, things are far simpler.



In the above example, there are three types of block; Back Panels, L shaped uprights and T shaped uprights. It is apparent from the block names that the back panels have widths of 600 and 900 mm, and that they have heights of 1400, 1600, 2500 and 2900 mm. Similarly, it is obvious 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 the lack of naming convention means this cannot be deduced from the block name.

## Drawing the Fixture

The beginning point for creating a fixture is to create a representative drawing within the AutoCAD environment. This would normally be created within a drawing used as a Fixture Library.



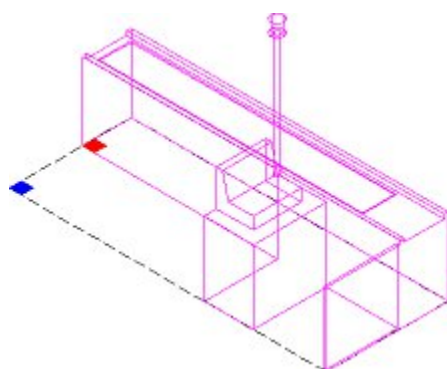
The drawing should be dimensionally accurate and showing the level of detail required for display in the Macro Space Management Planner and Merchandiser environments. The following points should be noted.

**1. Do not use unnecessary detail**

The drawing should be representative of the fixture, but drawing too great a level of detail is not recommended. This will increase the size of the eventual DWG file (and 3DS file) that will result. Because a floor plan may contain some thousands of fixtures, an over elaborate fixture drawing (and resulting increased file size) will result in performance in the floor plan becoming slow.

**2. Ensure the insertion point is appropriately positioned**

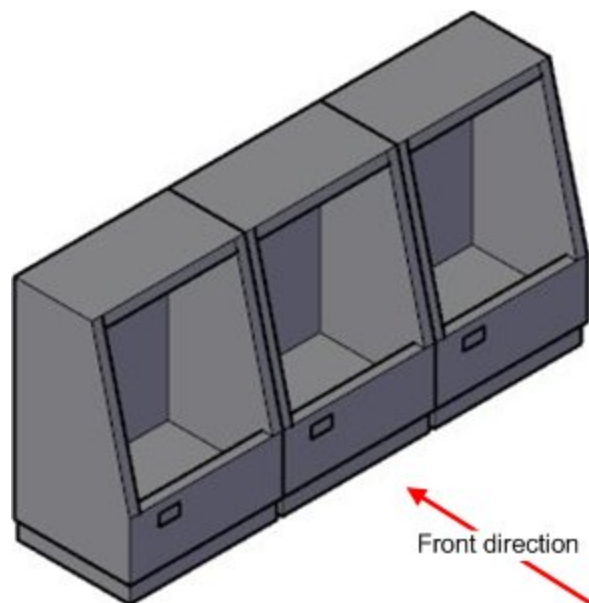
It is useful to have a consistent position for the insertion points for the fixtures that are drawn. This makes it easier when configuring blocks in Fixture Studio. For example, all fixtures could be created with insertion points of bottom, back, left; while all pegs could be created with insertion points of middle, centre, back. Another point to consider when selecting insertion points is In-Store Space Collaboration. This application represents fixtures and fittings as rectangles based on the extents of the block.



The checkout above (purple outline) is not rectangular in shape. The dotted outline indicates the rectangle that will represent the checkout in In-Store Space Collaboration. The insertion point for the fixture should be placed where the blue square is and set to bottom back left. If the insertion point is placed where the red square is, the rectangle representing the checkout will not be drawn in the correct position in ISSC.

**3. Ensure that the front direction of the fixture is correct**

Fixtures are assigned a front direction. This indicates the primary direction that a customer approaches to get merchandise.



By convention, this is normally 270 degrees (the equivalent of south). The fixture should be drawn so that, when converted into a block, it is in this orientation.

**4. Add in 2D/3D Functionality**

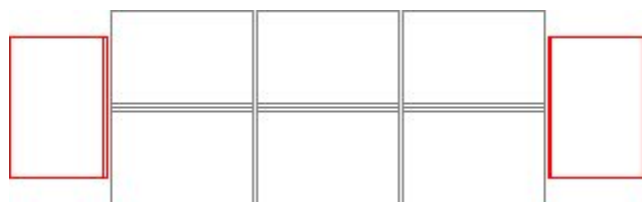
If 2D/3D functionality is required, the varying parts of the block must be configured accordingly. (See the section on how to create 2D/3D functionality for more information).

**5. Ensure the Color and Line Weight are set to 'By Block'**

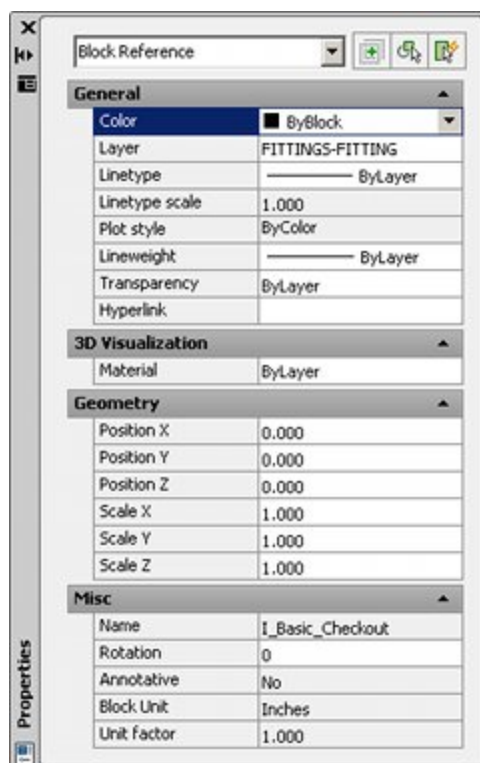
The ability to change the color and line weights of individual blocks within a drawing (floor plan) is used by two specific items of Macro Space Management functionality.

- KPI's depend on the ability to change the color of individual blocks

It is possible to color code blocks in a Planner floor plan by specific performance criteria. In the example below, fixtures designated as promotional fixtures have had their outline changed to red, while standard fixtures have gray outlines.

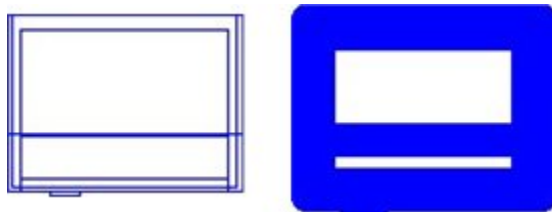


This functionality will only work if the color properties for the block are set to 'By Block' in the AutoCAD Properties dialog box when the block is being configured.

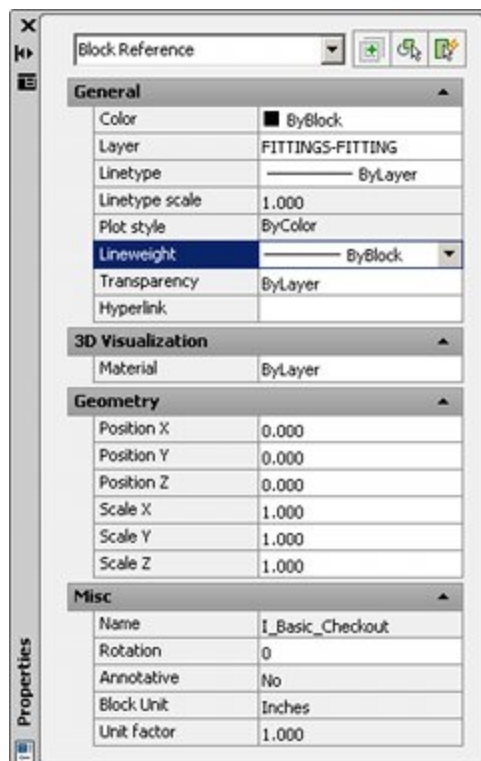


- The 'Thicken' form of Highlighting requires the line weight of the block to be changed.

Highlighting options for blocks are set in the Fixturing tab of the Configuration module. One option is Thicken. If the Highlight in View option is selected on the Object Browser in Planner, fixtures selected in the Fixture Hierarchy will have their outlines thickened.

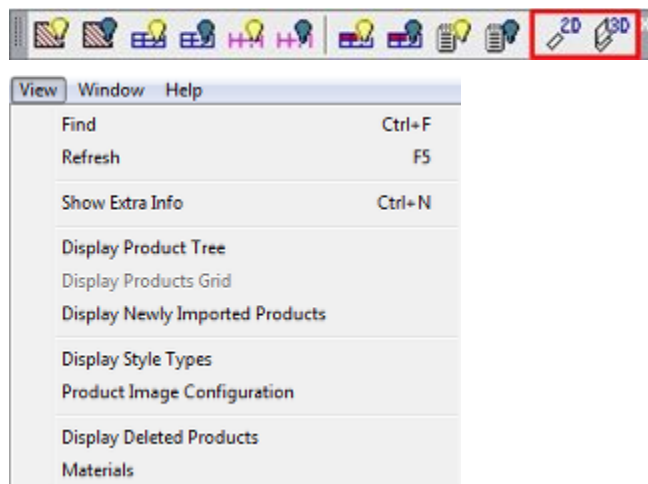


This functionality will only work if the Line weight properties for the block are set to 'By Block' in the AutoCAD Properties dialog box when the block is being configured.



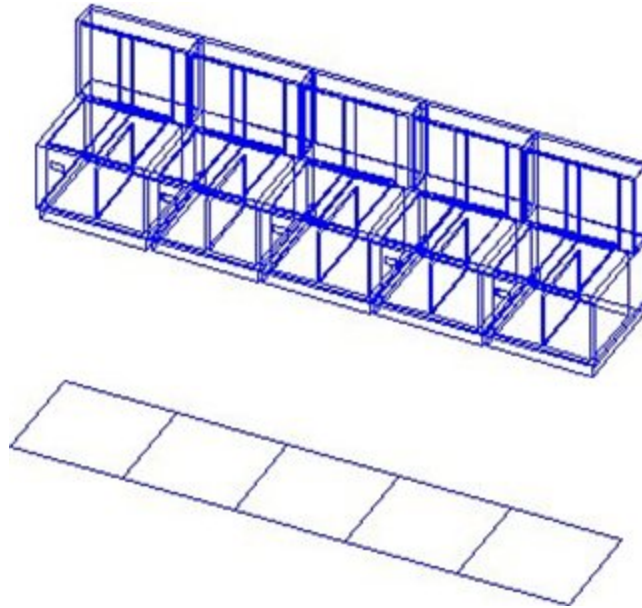
## 2D/3D Functionality

2D/3D functionality allows users to toggle between an outline at floor level and a full 3D representation of a fixture in the Planner module. The function is accessed from the Planner module from either the Retail Layers toolbar or the View Menu.



This is useful when publishing a store plan as it can be output with the fixtures in a simplified form with many of the construction lines omitted. The screen shot below shows the fixtures in both 3D (top) and 2D (bottom) form.





This can be achieved as follows:

---

**Note:** If an existing block from a client is being modified, this will have to be exploded first and then re-blocked after the 2D/3D modifications have been made.

---

1. Create a drawing to be used as a Fixture Library
2. In the drawing create two layers called 2D and 3D. (These precise names must be used as the MSM functionality references them).
3. While on Layer 0, draw an outline representing the outline of the block at floor level.

---

**Note:** The outline is only required if the fixture or fitting places directly on the floor. If the object is (for example) a shelf, then it only requires a 3D component so that it vanished from view when a floor plan is toggled to 2D.

---

4. Using the properties dialog box:
  - a. Set the Layer to 2D.
  - b. Set the Color to 'By Block' - this will ensure the block colors correctly for KPIs, etc.
  - c. Set the Line Weight to 'By Block' - this will ensure that the block thickens correctly if 'Thicken' is a highlight option.
5. While on Layer 0, draw a 3D representation of the block at floor level.
6. Using the properties dialog box:
  - a. Set the Layer to 3D.
  - b. Set the Color to 'By Block' - this will ensure the block colors correctly for KPIs, etc.
  - c. Set the Line Weight to 'By Block' - this will ensure that the block thickens correctly if 'Thicken' is a highlight option.
7. Use the Block command to turn the 2D and 3D components into a block.
8. Test that the block toggles between 2D and 3D mode by turning the 2D and 3D layers off and on as required.

---

---

**Note:** Setting Color and Line Weight to By Block enables instances of that block placed in floor plans to have the color and line weight modified by the application. If the Color and Line Weight are set to By Layer, then instances of that block will adopt the defaults for that layer when placed and cannot be modified by the application.

---

---

## Information for AutoCAD Experts

When converted onto a block later (on Layer 0), the block will contain internal layers called 2D and 3D. When the block is placed into floor plan in Macro Space Management, this will result in the creation of additional layers called 2D and 3D in that floor plan. When the 2D/3D functionality is used, the respective layers will be toggled on/off, leaving those parts of the block on either the 2D layer or 3D layer visible.

## Creating and Inserting AutoCAD Blocks

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**Note:** This section of help shows how to make, save and insert blocks using purely AutoCAD tools. It is intended for users new to AutoCAD so they can see the basic process involved. The procedure for registering blocks in Fixture studio is a little more complex and is discussed further on in this help material.

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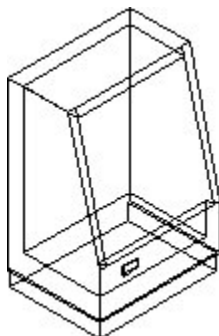
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The stages of creating a block are as follows:

### Required Stages for Block Creation

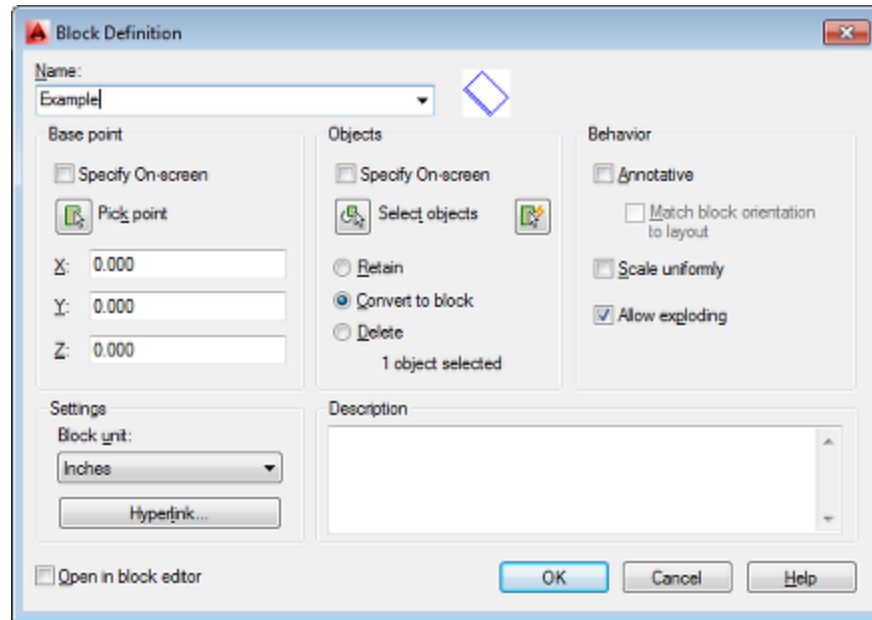
#### Draw fixture

The fixture is drawn using standard AutoCAD methods. It must be on Layer 0 of the drawing.



#### Convert to a Block

To convert to a block, type BLOCK into the command line and press Return. The Block Definition dialog box will appear.



1. Enter a unique name into the Name text box.
2. Click Select Object and select the required fixture
3. If the bottom back left corner of the fixture is at coordinates, 0,0,0, no further action is required. If the bottom back left corner of the fixture is not at 0,0,0 then the Pick Point button in the Base Point frame should be used to specify the bottom back left corner of the fixture.

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**Note:** the requirement to pick bottom back left is Macro Space Planning specific - it is not required in 'raw' AutoCAD.

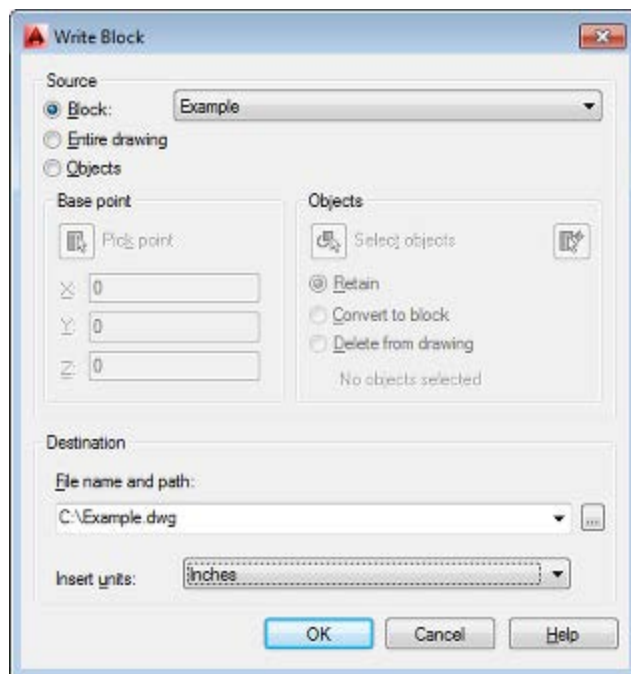
---

4. Set the correct units in the Settings Frame
5. On clicking OK, the selected fixture will be saved as a block.

The drawing of the fixture has now been converted into a block. This block may be inserted multiple times within the current drawing, but cannot yet be inserted in other drawings.

### Write to Windows Folder

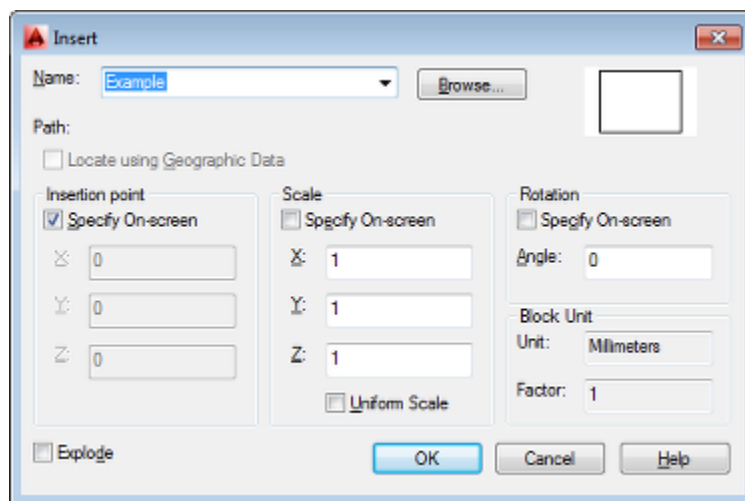
To take an existing block and write it to a Windows folder, Type WBlock (Write Block) into the command line and press Return. The Write Block dialog box will appear.



1. Click the Block Radio button
2. Select the name of the required block from the drop down list.
3. Select a destination to save the block. This can be done by clicking the button in the destination frame.
4. Ensure the Insert Units are set correctly.
5. On clicking OK, the block will be saved as a DWG file to the external windows folder.

### Inserting a Block

To take an existing block and reinsert it in a drawing, type INSERT into the command line and press Return. The Insert dialog box will appear.

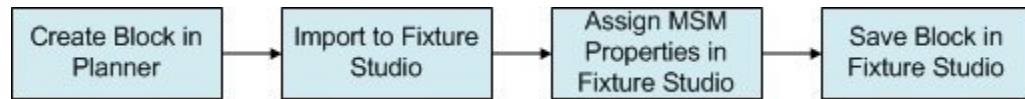


1. Select the Name of the block from the drop down list. This will give a list of blocks currently inserted in the drawing. If the required block is not in the list, click the Browse button, navigate to the appropriate Windows folder and select the required DWG file.

2. If the Specify On-Screen check box is ticked, the block can be inserted at any point in the drawing. If it is un-ticked, it will be inserted at the specified coordinates.
3. On clicking OK, the block will be inserted into the drawing.

## AutoCAD Blocks and Macro Space Management

In order to ensure optimum performance within Macro Space Planning, blocks must be created and defined in a very specific sequence. Failure to follow all steps in this process may result in problems when using functionality within Macro Space Planning.



### Required Steps

#### Create Block in the Planner Module

The first stage of the process is to create an AutoCAD block in the Planner module. This block should be configured so it meets the requirements of Macro Space Planning.

1. The insertion point should be in a systematic position - for example all fixtures can be created with insertion points at bottom back left, all shelves with insertion point at top back left.
2. If 2D/3D functionality is required, the block should be drawn on 2D and 3D layers as required.
3. Ensure the units are correct for the type of database the block will be used in: imperial or metric as required.
4. Ensure the block is appropriately named - where possible use a naming convention as this will markedly help with the creation of gondolas.
5. If possible, ensure the block is stored in a Fixture Library.

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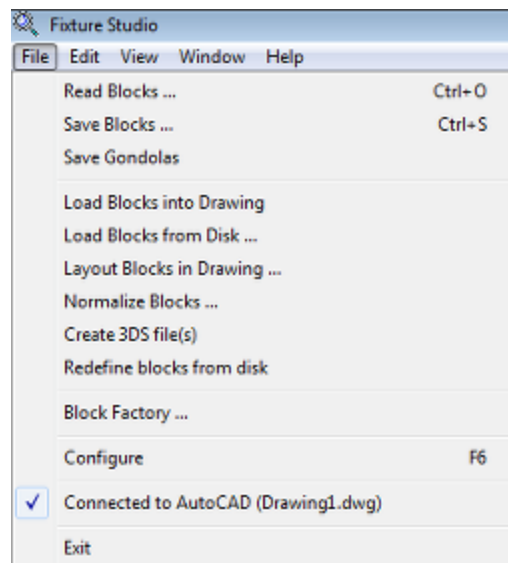
**Note:** Insertion points, 2D/3D functionality and naming conventions are discussed in more detail elsewhere in this help file.

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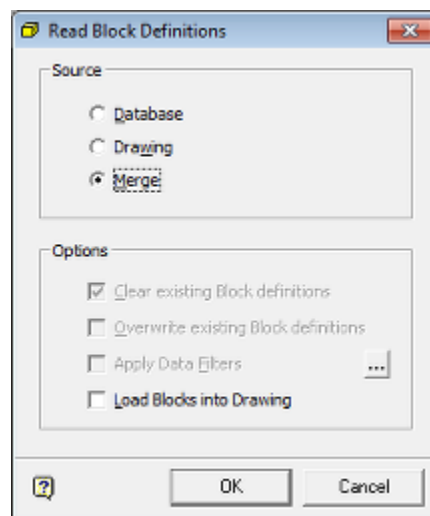
#### Import the Block into Fixture Studio

Importing the block from a Fixture Library into Fixture Studio is good practice. This is done as follows:

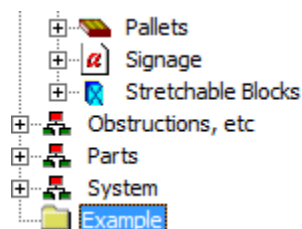
1. Ensure both Planner and Fixture Studio is open. Also ensure the Fixture Library is the active drawing in Planner.
2. Select the Connect to AutoCAD option from the File Menu. This will link Fixture Studio to the currently Active Drawing in Planner. It also means Fixture Studio can access the AutoCAD functionality it will require to save the block.



3. Select the Read Blocks option from the view menu. This will bring up the Read Blocks dialog box. Select the Merge option - this will compare the information in the database and the currently active Planner drawing. Any blocks that are in the drawing, but not the database will be imported into Fixture Studio.



4. The block(s) will then be seen in the Fixture Hierarchy. They can be 'dragged and dropped' to the appropriate Fixture Group in the Hierarchy



5. The required fixture is then highlighted and the Edit Block option selected. This will bring up the Block Details dialog box.

The required details are then configured in each tab. One item of data to set is the Directory. This specifies the Windows folder where the copy of the DWG file inserted by MSM into the planner drawing will be stored. On clicking OK, the details for the block will be stored locally in Fixture Studio - and not yet written back to the Macro Space Planning database. This can be seen in the list of blocks, where the Red icon and -1 Block ID indicate that data is not yet saved back to the database.

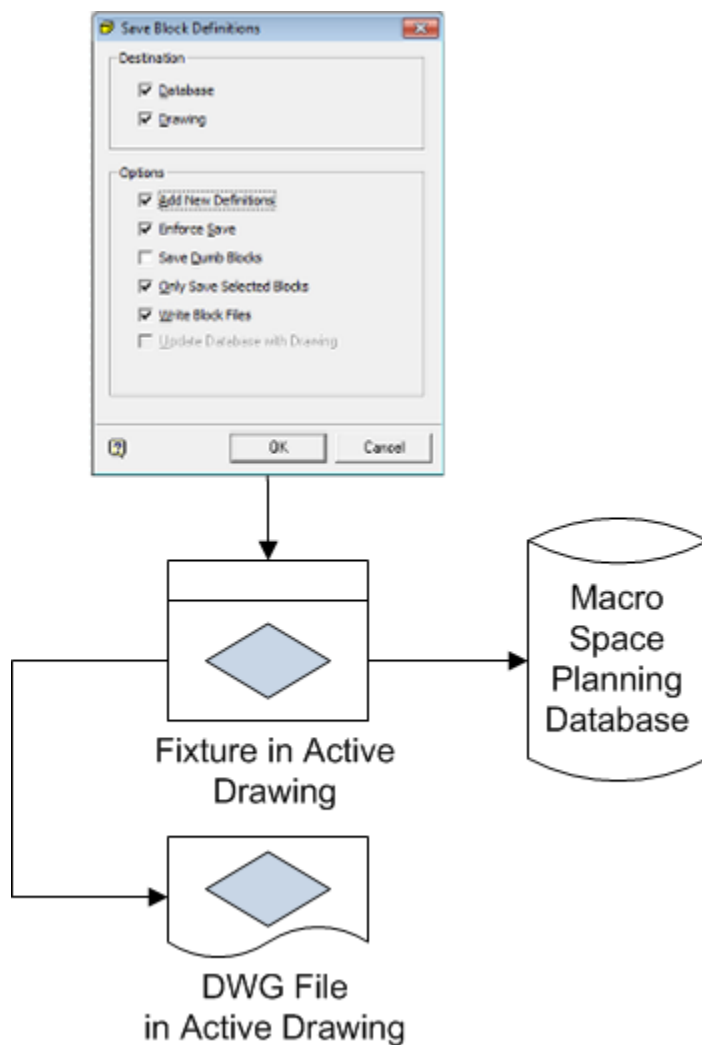
	ID /	Name	Description	Type	Directory
	-1	Example	Example	Fixture	MSM
	1	I_REF_CIRC	System	Reference	MSM
	2	I_REF_ELP5	System	Reference	MSM

6. Save the block details back to the database. This is done by selecting the Save blocks option from the File Menu.

- Both the Database and Drawing options should be selected - the drawing option will ensure that XData is written to the current copy of the block in the Fixture Library.

- Add New Definitions should be selected to ensure the new block's details are written back to the database.
- Only Save Selected blocks should be selected to avoid writing back details of all blocks (new or not) to the database.
- Write Block Files ensures XData is written both to the block in the Fixture Library and to the copy of the DWG file stored in the Directory specified in the Block Details dialog box.

It is important to understand how this process works.

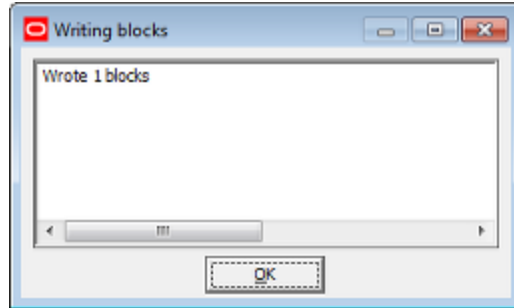


On clicking OK in the Save Block Definitions dialog box, the following actions take place.

- The information held in local memory is permanently written to the database.
- XData (MSM specific data) is written to the instance of the block in the currently active drawing. (An instance of every block being saved must be in the currently active drawing).
- A copy of the block in the currently active drawing is written to the directory specified in the Category tab of the block Details dialog box.

After saving, a confirmatory dialog box will appear.





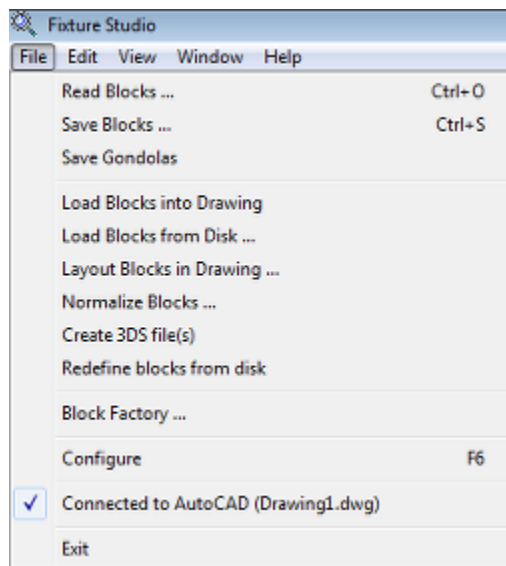

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**Note:** When first saving blocks, Fixture Studio sometimes saves the DWG file to the MSM directory rather than the directory specified in the block details dialog box. This problem can be solved by 'cutting and pasting' the DWG Files to the correct directory.

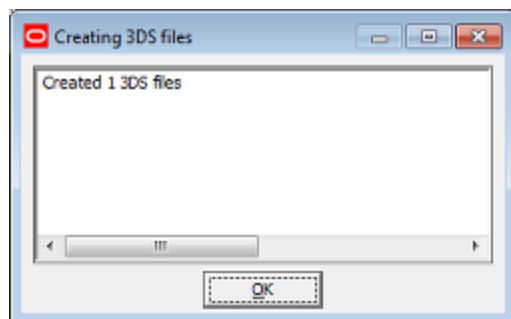
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#### 7. Create a 3DS File

To create a 3DS file, highlight the required block(s) in the Fixture Hierarchy and then select the Create 3DS file(s) option from the File menu. (You must be connected to AutoCAD [Planner] to access this option).



On clicking the option, the 3DS files will be created and a confirmatory message will appear.



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**Note:** Creating a Lightwave file is outside the scope of this part of help.

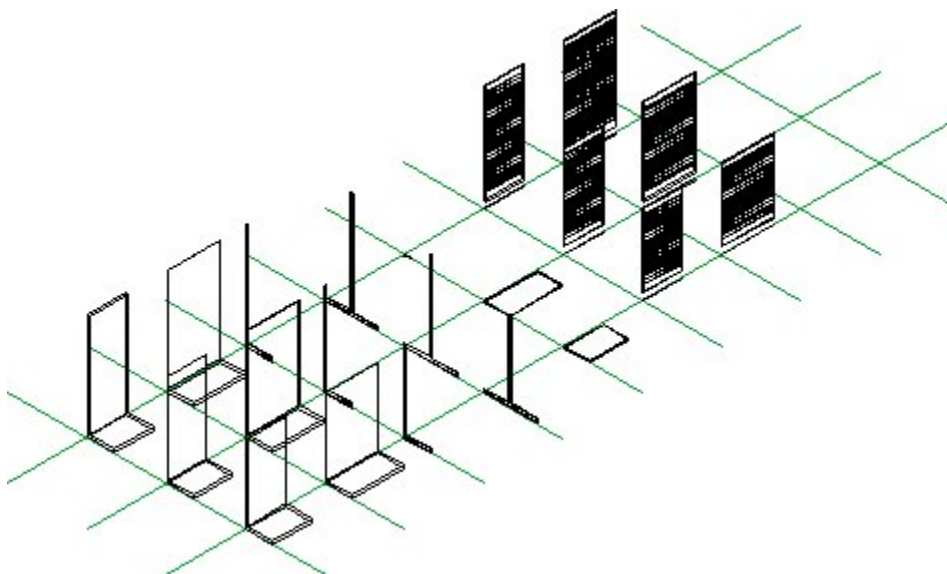
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## Tips and Tricks

The following tips and tricks are useful when creating blocks.

### Fixture Library

It is recommended all blocks be manipulated in fixture libraries. These are drawings that hold 'master copies' of specific types of blocks. Blocks are often organized using a grid - enabling them to be stored in a manner that facilitates locating any block that is to be modified.



There are often multiple fixture libraries. Each contains a specific class of block - for example racking or freezer/chiller units.

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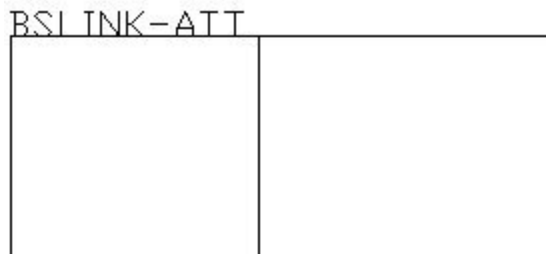
**Note:** The combination of Fixture Studio and fixture libraries provides an alternative to the Design Centre that pure AutoCAD users may be familiar with.

---

Having all blocks of a certain type grouped together in a drawing makes editing of the blocks easier, should it be required in the future.

## XData

Some data is stored in a specialized attribute called BSLINK-ATT. This attribute is produced when the Write Block command is used when saving blocks in Fixture Studio. It is located at the insertion point of the block, is of very small size and only becomes visible after the block is exploded in an AutoCAD floor plan.



This data is used for a number of actions including:

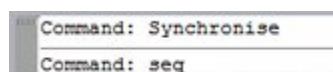
- Connection Points
- Fixture Manipulation

If the XData is absent, this will affect the operation of this functionality in Planner.

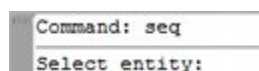
### Viewing the XData

Occasionally it is useful to view the XData (for example when liaising with Oracle Support). This can be done as follows in AutoCAD:

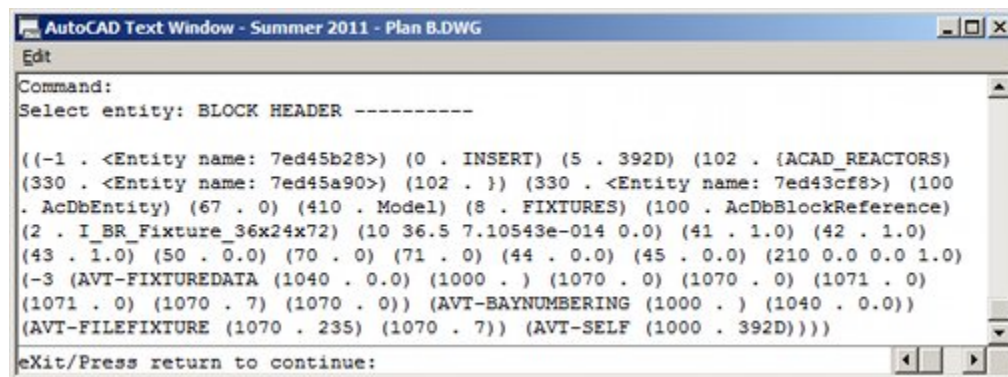
Enter SEQ into the AutoCAD command line.



The Command Line will instruct the user to select a block.



On clicking a block, the command line dialog box will appear with the XData visible.



Pressing Return returns the user to the AutoCAD floor plan.

## Using Composites to Rename Blocks

It is possible to create a composite block that will result in a renamed block being inserted into an existing drawing (floor plan) as part of the process required to. This is done as follows within AutoCAD:

1. Within a fixture library take a specific block from the client and explode it.

2. Select the exploded sub-entities and remake the (child) block with the required modified name.

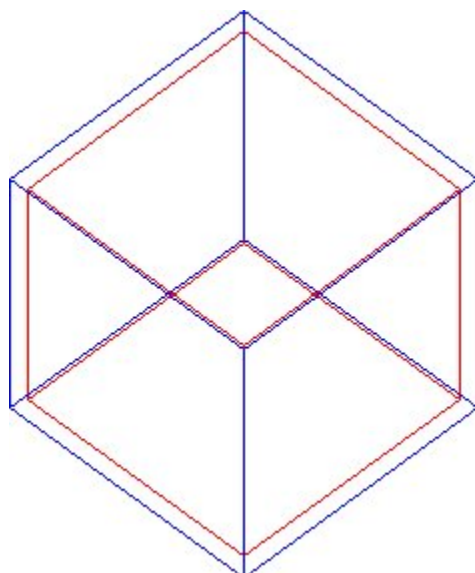
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**Note:** See the section on repositioning insertion points using composites - this task can be carried out at the same time as the block is renamed.

---

3. Select the recently created block and remake it as another block with the original block name. This is the composite (parent) block.
  - The inner (child) block has the modified name.
  - The outer (parent) composite block has the original name.

This should have resulted in a composite with the following properties that can be seen in the schematic diagram below:



The block with the red outline is the inner (child) block with the new name. The block with the blue outline is the (parent) composite block with the original name.

As will be described in a later chapter, the child block and parent composite block can then both be registered in Fixture Studio. An existing floor plan can then be opened (using Store Planner) in the Planner module. The Restructure Drawing facility can then be used to:

1. **Redefine Blocks from Disc**

This action will result in the recently created composite (parent) block replacing the older client designed block of the same name in the drawing. As the composite block has exactly the same insertion point as the older block it is replacing, it will occupy exactly the same position in the drawing.

2. **Explode Composites**

This action will result in the composite (parent) block exploding and disappearing. It will leave behind (in exactly the same position) the inner (child) block. This block will have the modified name.

---

**Note:** For the Explode Composite option to work in Restructure Drawing, the block must be set to type 'Composite' in the Retail Type drop down list in the Category Tab of the Block Details dialog box in Fixture Studio.

---

After the composite has been exploded, the Synchronization option can be used to write the changes back to the database.

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**Note:** Restructure Drawing and Synchronization are covered in more detail in the chapter on converting the client's existing drawings for use in Macro Space Management.

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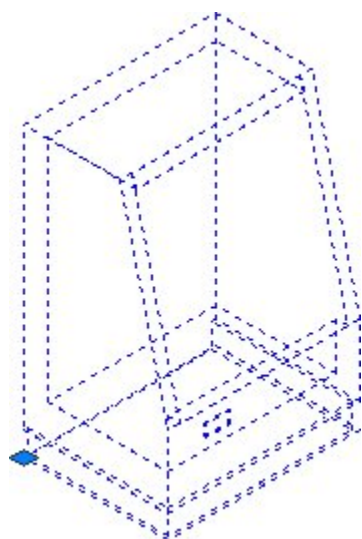
## Correcting Insertion Points using Composite Blocks

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**Note:** this section will only be of assistance to an experienced AutoCAD user.

---

All DWG files have an insertion point. This serves as a datum for when blocks are inserted and manipulated within a floor plan. In the example below, the insertion point can be seen at bottom, back, left for the fixture block. This is the default position assumed by much of the functionality in Macro Space Management and In-Store Space Collaboration.



If the insertion point is in another position, for example bottom, front, left, then there may be problems with functionality within Macro Space Management and In-Store Space Collaboration. For example:

- Area Calculations may not give the correct results.
- Product blocks may not place correctly in the Planner module.
- Shelves may not place correctly in the Merchandiser module without the aid of connection points.

This problem may be corrected as follows:

1. Within a fixture library take a specific block from the client and explode it.
2. Select the exploded sub-entities and remake the (child) block with the insertion point in the bottom, back, left position using an appropriate block name.

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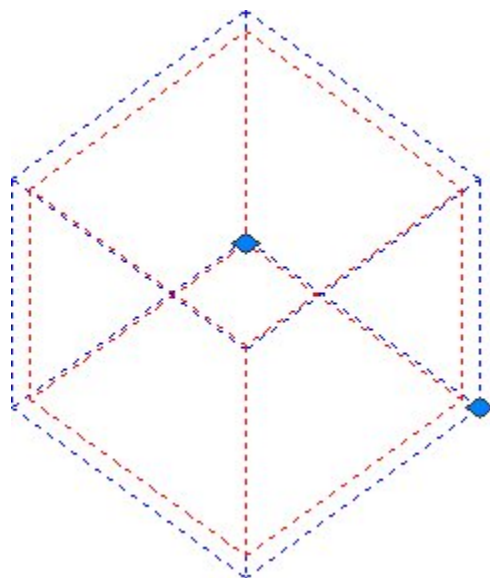
---

**Note:** See the section on renaming blocks using composites - this task can be carried out at the same time as insertion points are repositioned.

---

---

3. Select the recently created block and remake it as another block with the original insertion point and original block name. This is the composite (parent) block.  
This should have resulted in a composite with the following properties:
  - The inner (child) block has an appropriate bottom, back, left insertion point and a suitable name.
  - The outer (parent) composite block has the original name and insertion point.
 This can be seen in the schematic diagram below:



The block with the red dotted outline is the inner (child) block with the bottom, back, left insertion point. The block with the blue dotted outline is the (parent) composite block with a bottom, back, right insertion point. The child block and parent composite block can then both be registered in Fixture Studio. An existing floor plan can then be opened (using Store Planner) in the Planner module. The Restructure Drawing facility can then be used to:

1. **Redefine Blocks from Disc**

This action will result in the recently created composite (parent) block replacing the older client designed block of the same name in the drawing. As the composite block has exactly the same insertion point as the older block it is replacing, it will occupy exactly the same position in the drawing.

2. **Explode Composites**

This action will result in the composite (parent) block exploding and disappearing. It will leave behind (in exactly the same position) the inner (child) block. This block will have a bottom, back, left insertion position and possibly a different name (perhaps one obeying a naming convention).

---

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**Note:** For the Explode Composite option to work in Restructure Drawing, the block must be set to type 'Composite' in the Retail Type drop down list in the Category Tab of the Block Details dialog box in Fixture Studio.

---

---

After the composite has been exploded, the Synchronization option can be used to write the changes back to the database.

---

**Note:** Restructure Drawing and Synchronization are covered in more detail elsewhere in this help file.

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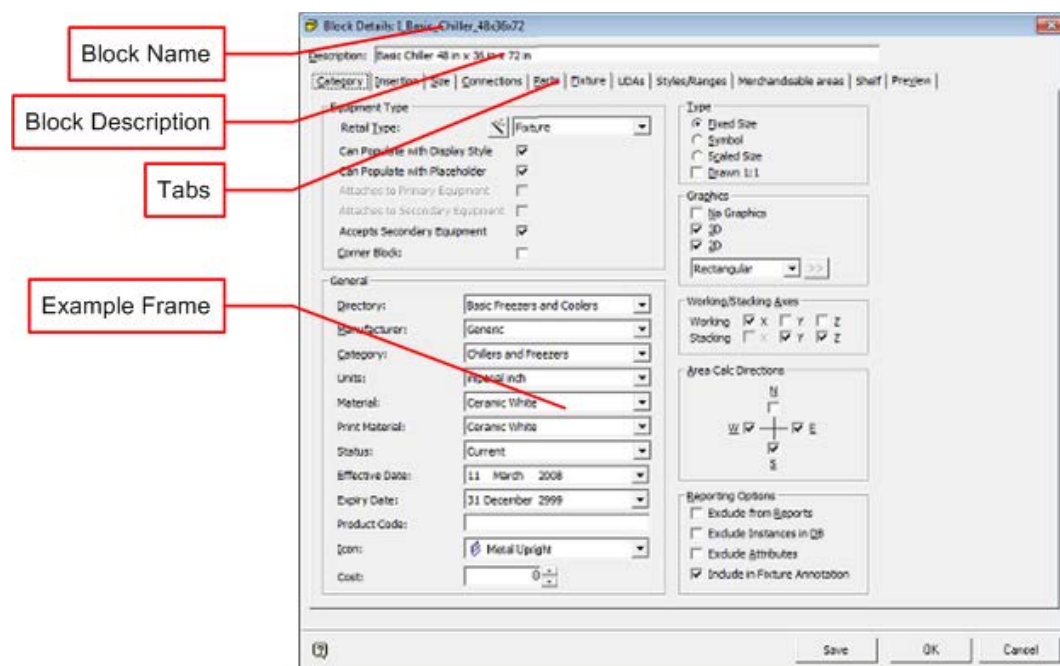




## Block Details Dialog Box

### Overview of Block Details dialogue box

The **Block Details dialogue box** allows the user to give the WBlock (World Block) created in Planner the intelligent properties needed by Macro Space Planning to carry out the full range of its fixturing, merchandising and reporting functions. Data added to Block Details is stored in the central Macro Space Management database.



The Block Name at the top of the dialogue 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. The Tabs allow the user to switch between various categories of Macro Space Management Block information. There are eleven tabs in total:













Tab	Description
Category	This tab holds the basic information on the block.
Insertion	This tab holds information on the layer and level defining how the block will be inserted into the floor plan.
Size	This tab is used to define the sizes for the block that will be used by MSP.
Connections	This tab is used to define the connection points that define how one block connects to another.
Parts	This tab is used to build up a parts list for the block. This would be used if (for example) a fixture was built up from a kit of parts. Having a parts list enables an accurate bill of materials to be built up for a floor plan.

Tab	Description
Fixture	This allows product blocks to be assigned to the block. This allows product placeholders to be used to represent the presence of products in a floor plan.
UDAs (User Defined Attributes)	This tab is used to assign user defined attributes. These are of two types. Fixed attributes apply to all instances of the block, while variable attributes can be assigned on a case by case basis.
Styles/Ranges	Styles and ranges are used as filters to determine what can be placed on the block.
Merchandisable Areas	This tab allows users to define the volume that can be occupied by products. This will generally be less than the total volume of the fixture.
Shelves	This tab allows the user to define a set of angles available to place shelves at.
Preview	This tab allows users to preview different aspects of the configuration for the block including insertion points, merchandisable areas and so on.

Each tab is split into a series of frames. Each frame deals with one aspect of the information on that tab.

## About Naming conventions







Gondola creation relies on a **convention for block naming**. Accordingly blocks should be named in a systematic manner.

	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.

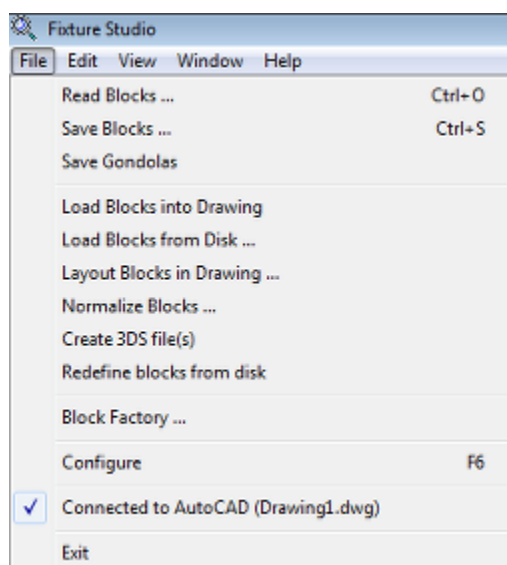
**Note:** Components for gondolas will be selected using these name conventions, so it is important that a consistent scheme is used when creating blocks. If this scheme is not consistent, it may not be possible to select the required blocks for creating gondolas. Block names can also include suffixes, for example -HD and -HD-Foot.

	ID	Description ▲	Name	Type
	405	Plant Shelf 600x600	Steel-Shelf-600x600	Shelf
	406	Plant Shelf 600x600 HD	Steel-Shelf-600x600-HD	Shelf
	407	Plant Shelf 600x600 HD with Foot	Steel-Shelf-600x600-HD-Foot	Shelf
	408	Plant Shelf 600x800	Steel-Shelf-600x800	Shelf
	409	Plant Shelf 600x800 HD	Steel-Shelf-600x800-HD	Shelf
	410	Plant Shelf 600x800 HD with Foot	Steel-Shelf-600x800-HD-Foot	Shelf

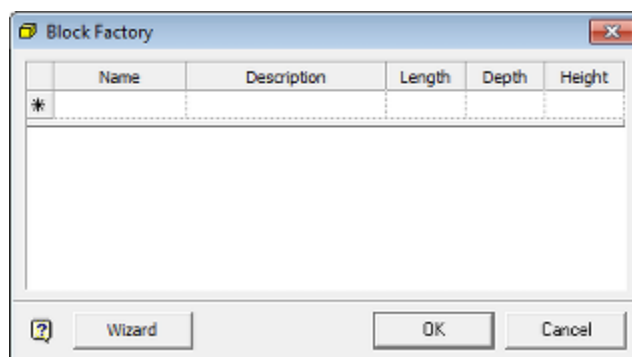
Suffixes can be used to further restrict the list of available blocks for a specific gondola.

## Block Factory

The Block Factory option is available from the File menu.



On selecting Block Factory, the Block Factory dialog box will open.



Block Factory will create a list of blocks within the fixture hierarchy. If a Fixture Group has been highlighted before Block Factory has been opened, the blocks will be created at that point in the hierarchy. If no fixture group has been highlighted, the blocks will be created under the fixture hierarchy root. When blocks are created in the hierarchy, they will have the name, description and dimensions assigned. All other information will have to be entered by editing the within the Block Details dialog box.

There are two options; manually enter the information into Block Factory, or use the Wizard to automatically create blocks.

## Manual Use of Block Factory

Name	Description	Length	Depth	Height
Example 1	Example 1	1	2	3
Example 2	Example 2	4	5	6
Example 3	Example 3	7	8	9

Buttons: Wizard, OK, Cancel

To enter information manually, enter the Name, Description, Length, Depth and Height in the top line. To store each line press Return. On clicking OK, the entries will be written to the fixture hierarchy.

## Block Factory Wizard

The Block Factory Wizard is accessed by clicking the Wizard button in the Block Factory dialog box.

**Block names & descriptions:**

<b>Name</b>	<b>Description</b>
Prefix: Example	Example
Include Length: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Separator: x	,
Include Depth: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Separator: x	,
Include Height: <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Suffix:	
Sample: Example 1x3x5	Example 1, 3, 5

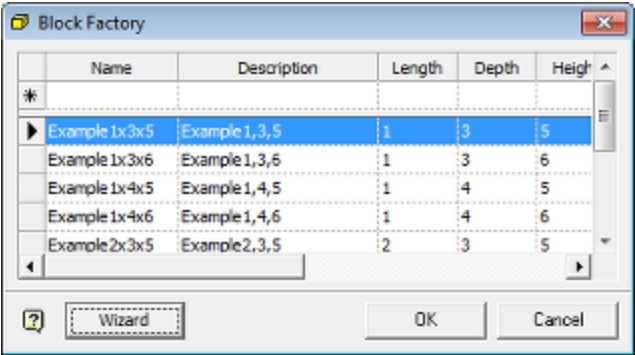
**Size variations:**

Length:	Depth:	Height:
1	3	5
2	4	6

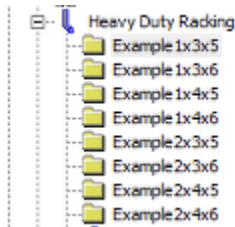
Additional Offsets: 0 0 0

Buttons: OK, Cancel

A Name and Description can be entered followed by the dimensions. The dimensions to be included and the separators can be specified, but the resulting name combinations must be unique. On clicking **OK**, this will produce a list of block names followed by dimensions in the Block Factory dialog box.



On Clicking OK, this information will be written to the fixture hierarchy.



The blocks can then be edited using the Block Details dialog box with additional information added before the modified block is saved back to the database.

---

**Note:** Using the Block Factory (or the Block Factory Wizard) does not create any graphics - the DWG and 3DS files will still have to be manually created and imported into Fixture Studio.

---



## Category Tab

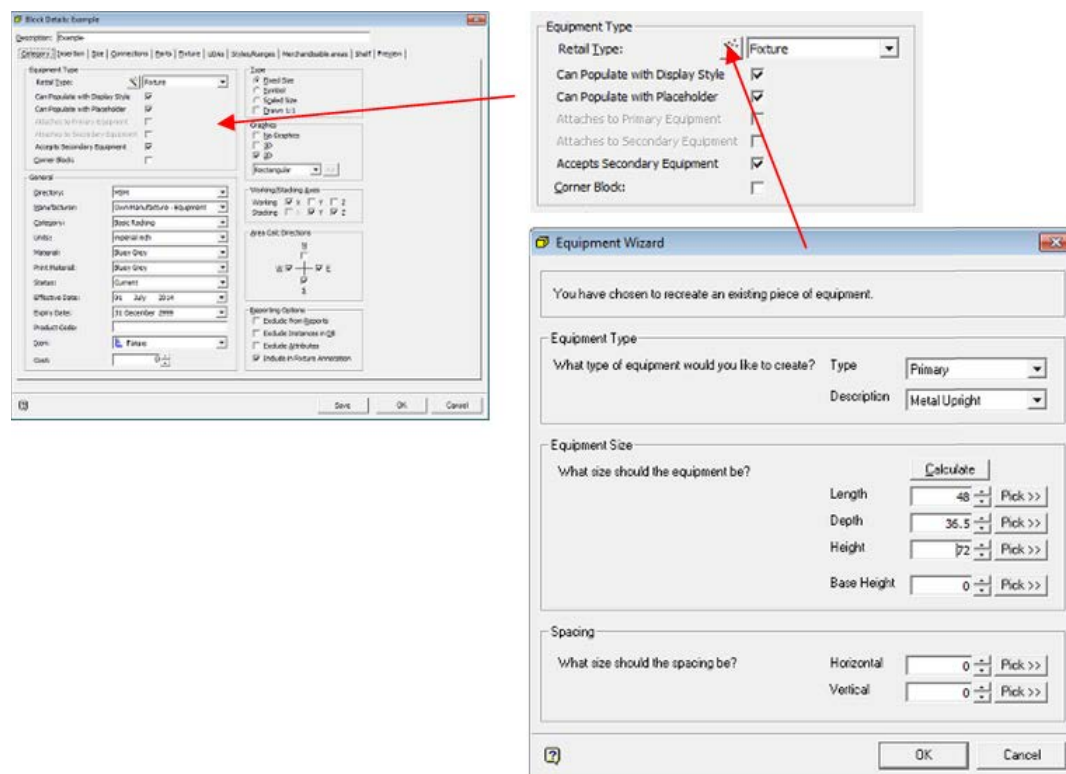
### Overview of the Category Tab

The **Category Tab** is used to set general parameters for the block being defined.

These parameters are discussed in more detail in the following sections.

### Equipment Options

The Equipment options can be set by a wizard to ensure the correct equipment type is assigned.



## Equipment Frame Options

A number of options are available in the Equipment Type frame. These have a significant influence on how the block will behave in a floor plan.

Option	Description
Retail Type	Retail Type determines the general characteristics of how the block behaves in the floor plan. For example only blocks of type 'Fixture' (Planner and Merchandiser and In-store Space Collaboration) or 'Shelf' (Merchandiser and ISSC) will accept merchandise. This can be set using either the drop down list or the wizard.
Can Populate with Display Style	The Can Populate with Display Style is only available if the Retail Type has been set to fixture or shelf. It determines whether the item of equipment can accept products at Display Style level in the Merchandiser module.
Can Populate with Placeholder	The Can Populate with Product Placeholder is only available if the Retail Type has been set to fixture or shelf. It determines whether the item of equipment can accept product placeholders in the Merchandiser module.
Attaches to Primary Equipment	This determines if the object can attach to primary equipment (fixtures) in the Merchandiser module. It will be grayed out for certain Retail Types.
Attaches to Secondary Equipment	This determines if the object can attach to secondary equipment (typically shelves) in the Merchandiser module. It will be grayed out for certain Retail Types.
Accepts Secondary Equipment	This allows the object to accept secondary equipment (for example shelves and rods) in the Merchandiser module. It will be grayed out for certain Retail Types.



Option	Description
Corner Block	This is a flag to show that the particular item of equipment is designed to go into a corner, for example to allow a run of fixtures to continue when it changes direction as a wall goes through a right angle. It also restricts options for populating and carrying out area calculations.

Retail Types	Description
Other	Equipment type Other is used as a catchall for blocks that are necessary for floor planning purposes but do not play a direct part in floor planning. An example might be blocks representing electrical sockets. X-Ref'd architectural plans also show as blocks of type Other in the synchronization dialog box when assigned to floor plans.
Fixture	Fixtures are the only items of equipment that can take merchandise, either directly or by means of associated shelves. Fixtures can be either floor mounted (placed directly on the floor) or wall mounted (bolted to a wall).
Shelf	Shelf objects are the only items of equipment other than fixtures that can hold merchandise. They must have a fixture as a parent when placed in a floor plan. Shelf is a blanket term for shelf objects such as baskets, shelves, pegs and so on.
Product	These blocks are used to represent products on fixtures and shelves. They can either be placeholders (which occupy the merchandisable area of the equipment without giving any information on the number of product items placed) or display styles (Merchandiser and ISSC) which represent individual SKUs.
Fitting	Fittings are items of equipment that can hold other equipment (for example signage). They cannot hold merchandise.
Reference	These are the blocks used for specific forms of annotation such as bay numbering and aisles.
Title Block	This is the 'frame' around a floor plan holding information such as the store name, data, store designer and so on. These are very specific types of AutoCAD blocks and have to be assigned a type accordingly.
Composite	This is a block made up from other blocks. An example would be a checkout composite made up of blocks representing a checkout, display cabinet, till and chair. This composite would be placed in the floor plan as a single entity, thus simplifying placement. After placement, it can be exploded into its constituent blocks, thus allowing the individual parts to be used in store planning.
Part	This is used for blocks created purely for the purpose of creating a part list associated with a fixture, fitting or shelf. This type of block exists in the database only and is not intended for placement in floor plans.

## Equipment Wizard

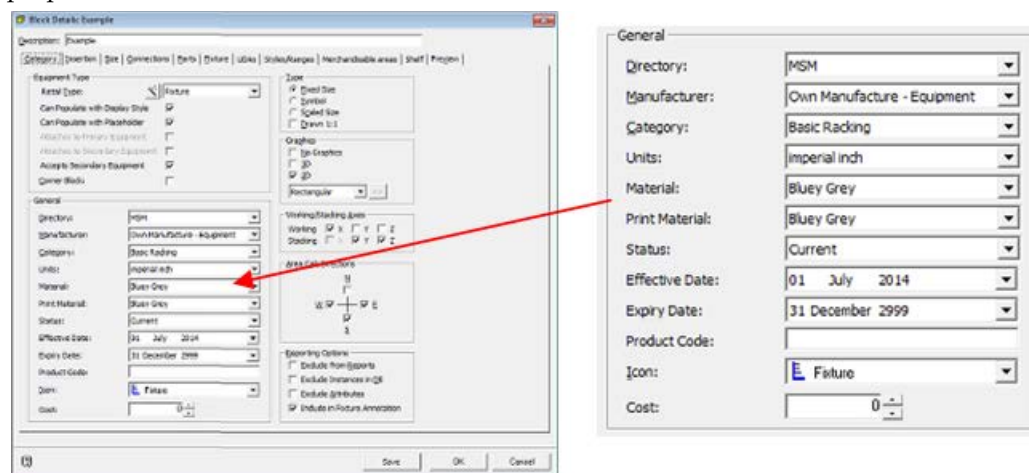
The equipment wizard

Options	Description
Equipment Type Frame	The Type and Description lists in the Equipment Type frame can be set to appropriate values for that block. When the OK button is clicked, the Retail Type and Icon will automatically be set in the Categories tab of the Block Details dialog box.

Options	Description
	<p>The Equipment Size frame enables the dimensions to be entered. On clicking the OK button, these will automatically be set in the Sizes tab of the Block Details dialog box.</p> <p><b>Note:</b> For the Calculate and Pick buttons to be active, the Connect to AutoCAD option must have been selected on the File menu and there must be an instance of the block in the Planner drawing.</p>
Equipment Size Frame	<p>There are three ways of inputting dimensions:</p> <ul style="list-style-type: none"> <li>Manually: numbers can be typed into the appropriate text boxes.</li> <li>Calculate: if connected to an AutoCAD with an instance of the block in the drawing, clicking the Calculate button will automatically populate the length, depth and height.</li> <li>Pick: if connected to an AutoCAD with an instance of the block in the drawing, clicking the Pick button will take the user to the drawing where the user can click two points (for example by using OSnap) to define that dimension.</li> </ul>
Spacing Frame	<p>The spacing frame is used to set the dimensions for a vertical array of connection points. This can either be set manually, or by means of the Pick buttons. The option will be grayed out if the Retail Type (Equipment Type frame) is not appropriate.</p>

## The General Frame

The **General Frame** enables the user to set a series of options concerning the basic properties of the block.



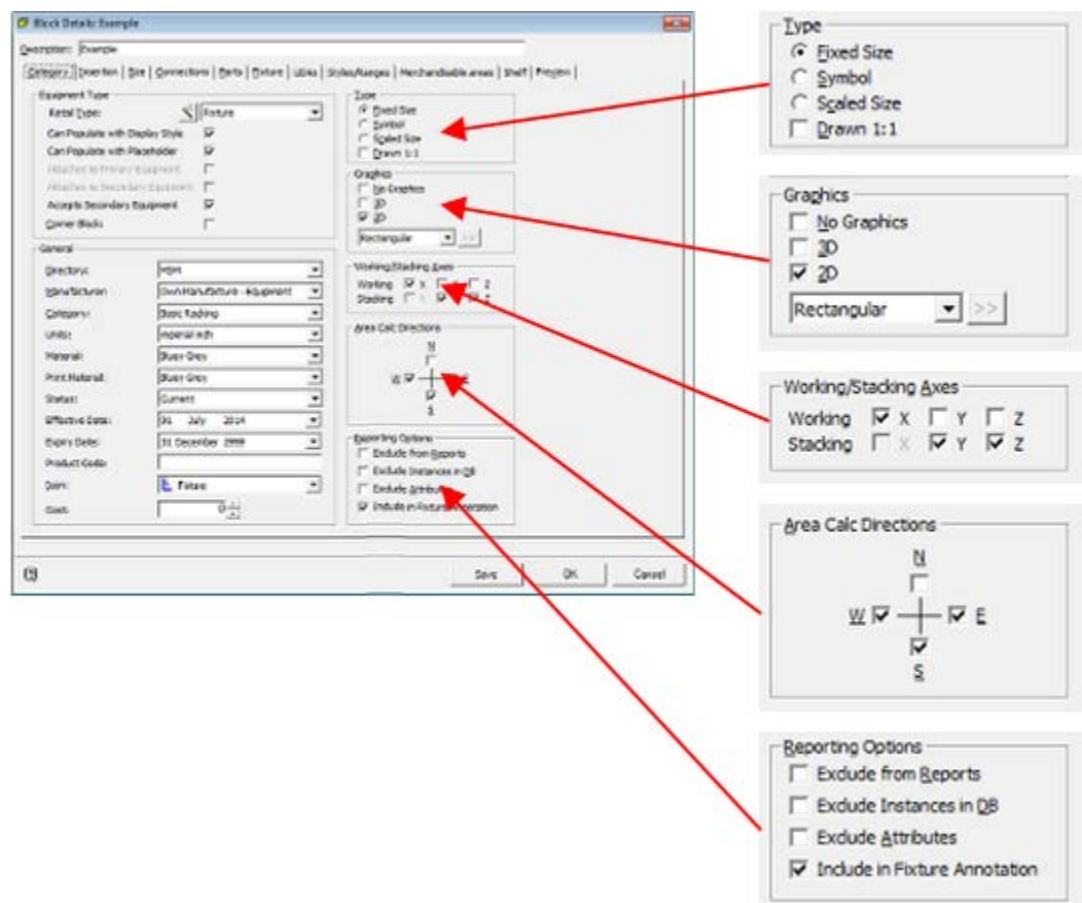
The general options are as follows:

Option	Description
Directory	<p>The Directory the block will be stored in is specified from a drop down list. The list of available directories is specified in the directories tab of the Configuration module (accessed from the File menu).</p> <p><b>Note:</b> See the Configuration Module help file for more information on how to configure directories.</p>

Option	Description
	The Manufacturer for the block can be selected from a drop down list. This list is configured in the Administration Module (General Menu).
Manufacturer	<b>Note:</b> See the Administration Module help file for more information on how to set up a list of manufacturers.
Category	Assign a Category to the block. This category can then be used for reporting purposes.
Units	Units specify the unit of measurement for the block. This should be set to the appropriate metric or imperial units. <b>Note:</b> See the Administration Module help file for more information on how to configure up a list of units.
Material	The Material can be selected from a drop down list. It determines the default color of the 3DS file used to represent the item of equipment in the Merchandiser module. The list of material is configured in the Product Studio module (View menu).
Print Material	The Print Material is selected from a drop down list. It determines the color of the item of equipment will print if a snapshot is taken of the view in the Merchandiser module. The list of material is configured in the Product Studio module (View menu). <b>Note:</b> See the Product Studio help file for more information on how to set up the list of materials.
Status	The Status is selected from a drop down list. It serves as an indication of where the block is in its business life cycle; for example in service, or superseded from service. This status can be used for a number of purposes. These include: <ul style="list-style-type: none"> <li>Use as a filter for populating fixtures into the object grid. (This requires changes to the Custom SQL).</li> <li>Use as a filter for reporting purposes.</li> </ul> The list of Statuses is configured in the Administration module (General menu). <b>Note:</b> See the Administration Module help file for more information on how to configure the list of statuses.
Effective Date	The Effective Date is set using the drop down control. It is the date at which the item of equipment is set to come into service. Items of equipment before their Effective Date (or with their Effective Date before the Active Date of the Floor Plan) are grayed out and unavailable in the Object Browser in the Planner and Merchandiser modules. The Effective Date can also be used as a filter for reporting purposes.
Expiry Date	The Expiry Date can be set using the drop down control. It is the date at which the item of equipment is set to come into service. Items of equipment after their Expiry Date (or with their Expiry Date after the Active Date of the Floor Plan) are grayed out and unavailable in the Object Browser in the Planner and Merchandiser modules. The Expiry Date can also be used as a filter for reporting purposes.

Option	Description
Product Code	The code is entered by the user. An example would be a manufacturer's product code. It is used for reporting purposes.
Icon	The Icon for the block can be selected from a drop down list. This list can only be customized by Oracle. The selected Icon will then appear against the Block Definition in the various hierarchical trees.

## Other Options



### Type

The **Type Frame** specifies how the block is to be drawn in the AutoCAD drawing or Virtual Reality environment. **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**, **Scaled size** and **Drawn 1:1** do not currently have any effect.

### Graphics

The **Graphics Frame** specifies what sort of graphics is drawn in the Planner environment. **No Graphics** is an option that can be used for blocks that are not visually displayed - such as parts. 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 no longer have any effect. The **drop down list** is used to specify the shape of the merchandisable area for fixture type blocks.

- Rectangular is the default setting and should be used for all blocks of basically rectangular shape.
- Circular can be used for all blocks with a circular profile.
- Semi-circular can be used for all blocks with a semi-circular profile
- Triangular caters for all blocks with an irregular profile. The functionality allows the user to draw an outline representing the merchandisable surface for the block.

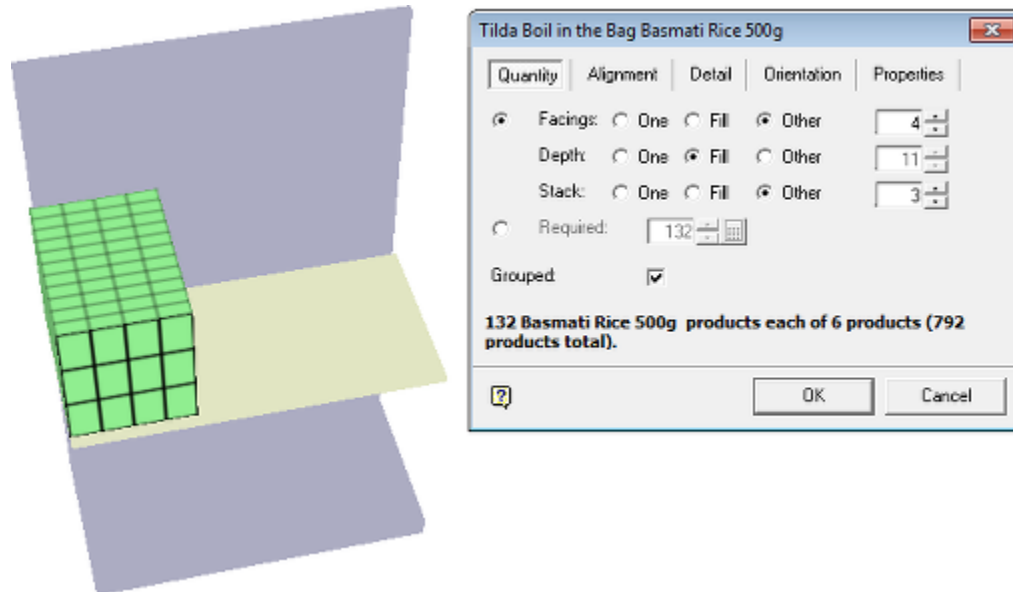
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**Note:** the method for drawing the extents of the shelf is covered in more detail in the section of Merchandisable areas.

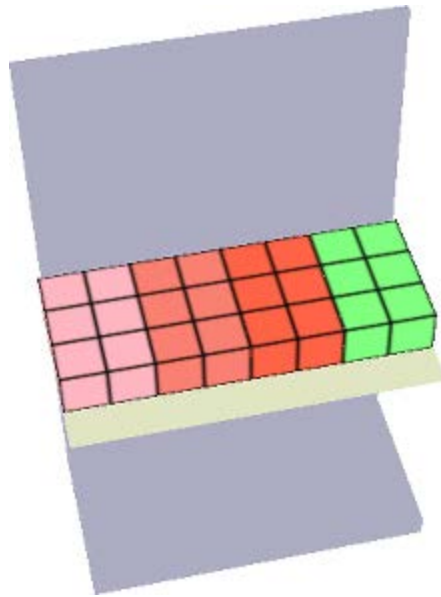
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## Working Axis and Stacking Axis

When different products are placed onto a shelf object they have to be aligned with each other during placement. Single products can be placed as groups with defined numbers of facing, depth and stack.

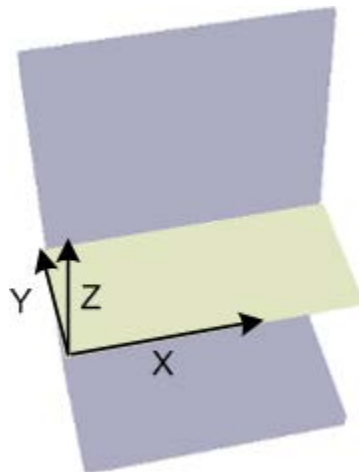


However, the way different products place next to each other needs to be defined. In this case different groups of products have been placed next to each other. The way different products are placed is based on the working and stacking axes defined.

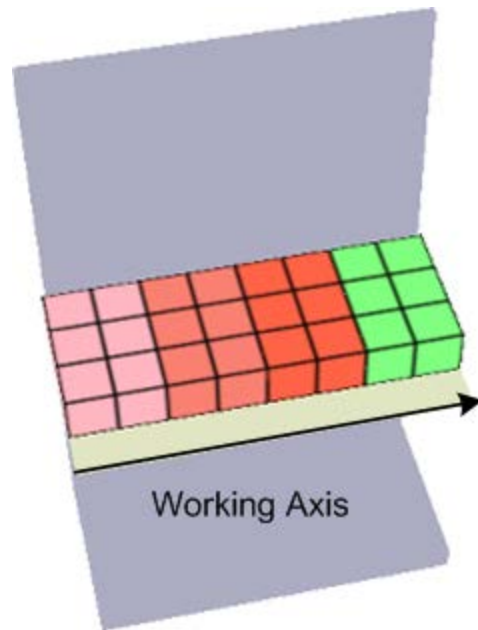


The working axis of an item of shelf equipment is the axis which product that is being sequentially placed is aligned along. The stacking axis (or axis's) is the additional direction(s) that products may be stacked on a fixture or shelf object.

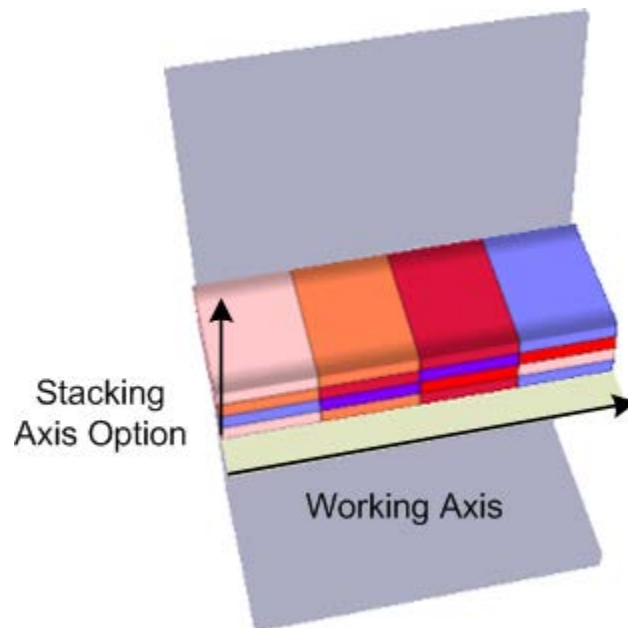
- The X axis is from left to right.
- The Y axis is from front to back.
- The Z axis is used for vertical placement.



In the example below, the shelf is used to display products that are normally displayed one facing high and next to each other. An example would be packet goods like rice on closely spaced shelves. In this case only an X working axis is required.



In the next example a product like boxed shirts is being displayed on a shelf. Here, each style of shirt will be presented in sequence along the shelf. Each style of shirt will come in different sizes such as small, medium and large. Accordingly, as well as an X working axis to allow different styles of shirts to be placed along the length of the shelf, it requires a Z stacking axis to enable different sizes of the same style to be stacked above each other.



Different types of fixture or shelf object will require different working and stacking axes. For example a freezer unit might require X and Y working axes to arrange pizzas, while a peg would require a Y working axis to hang products.

## Area Calculations

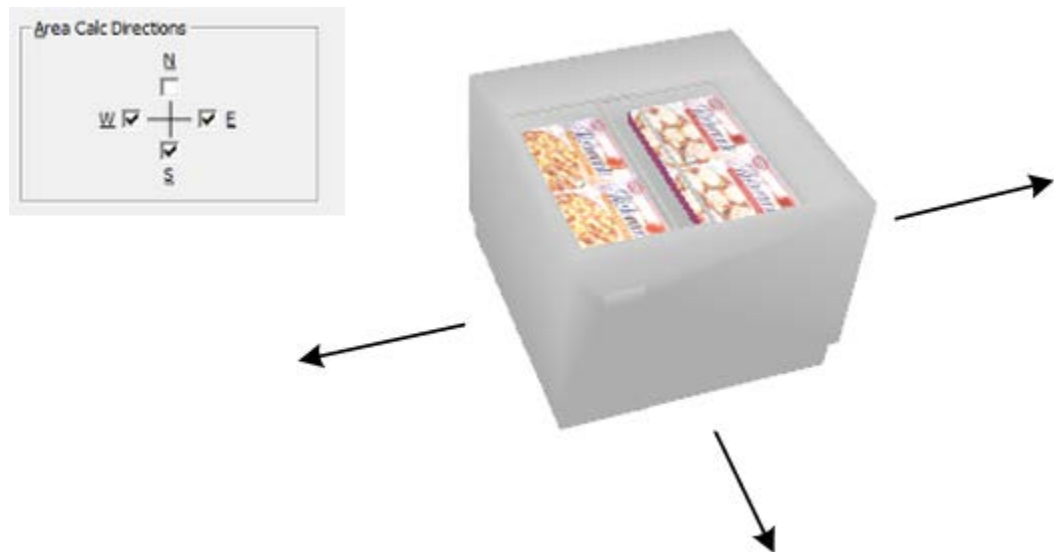
The **Area Calculations Direction Frame** is used to set the directions that the area calculation function uses when establishing the area apportioned to the fixture. (Fittings and shelves are not used in area calculations).

---

**Note:** Area calculations are initiated from the Calculations menu in the Planner and Merchandiser menus. They allow users to take into account the amount of aisle apportioned to the fixture. For example a fixture 4 feet long by 2 feet deep would have a foot print of 8 square feet. Area Calculations might assign a total area of 30 square feet to the fixture. Using this area for reporting purposes is more representative than the footprint, for example reporting on sales per square foot would take into account the size of the aisle in front of the fixture.

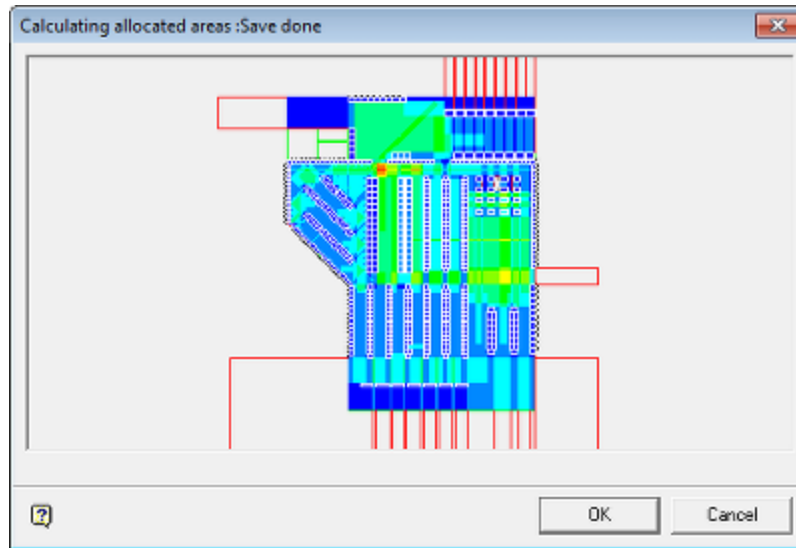
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Area calculation works by "feeling" out from the object in the specified directions. The starting point is the 'Front' direction of the fixture - this is specified in the Insertion tab. The check boxes that are then ticked should be appropriate to the function of the object. A fixture that is part of a gondola might have West, South and East ticked - feel out in front and to the sides. A freestanding display podium might have all directions checked because customers could approach from all points of the compass.



The data for all fixtures in a floor plan can then be determined by using the Allocate Areas option from the Calculations menu in the Planner and Merchandiser modules. On clicking OK, this information will be written back to the database where it can be used for reporting purposes.





## Reporting Options

The **Reporting Options Frame** allows the user to specify whether the Block Definition should be excluded from reports or the central database. 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.

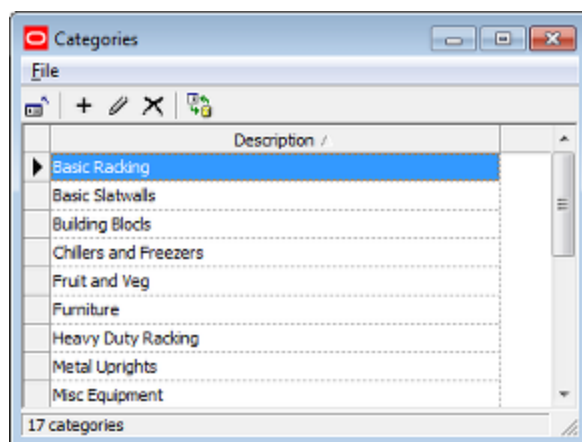
Option	Description
Exclude from Reports	This check box can be used as a flag. The flag can then be used as a filter to exclude items in a report. If you exclude instances of a block from the database, then it will also be ignored when rebuilding the drawing from the database.
Exclude Instances in DB	This check box allows the user to exclude information from the block being stored in the database during a save.
Exclude Attributes	This check box allows certain attributes of the Block Definition to be excluded from being stored in the central database. This option is not enabled in this implementation of Macro Space Management.
Include in Fixture Annotation	This check box controls fixture annotation in the Planner module. If this option is checked, the block will be annotated according to options set in the Text styles option (Planning menu) in the Administration module.

## Setting up the List of Categories

Categories are used for reporting purposes: they provide an easy way to identify all items of equipment matching specific criteria.

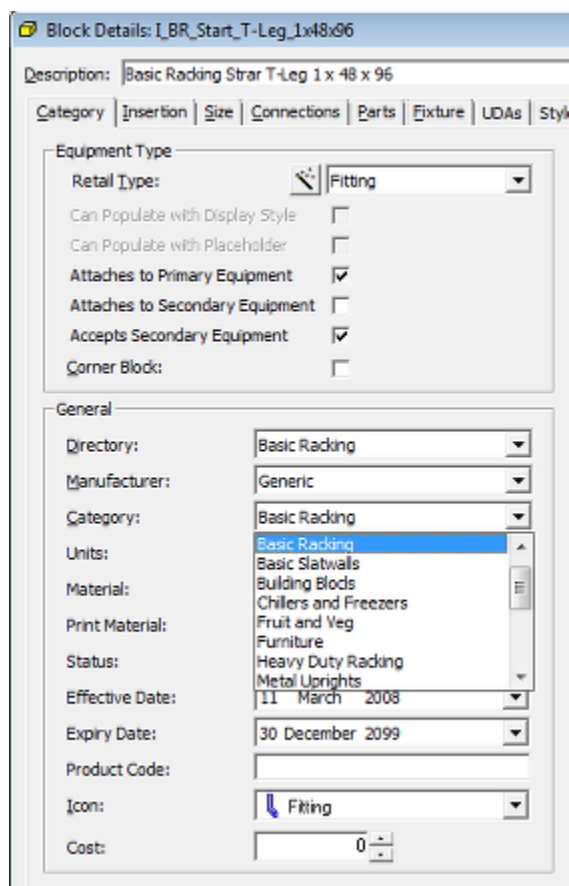
### Creating the List of Categories

To create a list of categories, select Edit Categories from the Edit menu. This is used to configure the categories that can be assigned to fixtures on the Categories tab of the Block Details dialog box.



## Using Categories

Once entered, these categories can be assigned to fixtures using the Categories drop down list on the Category Tab of the Block Details dialog box.

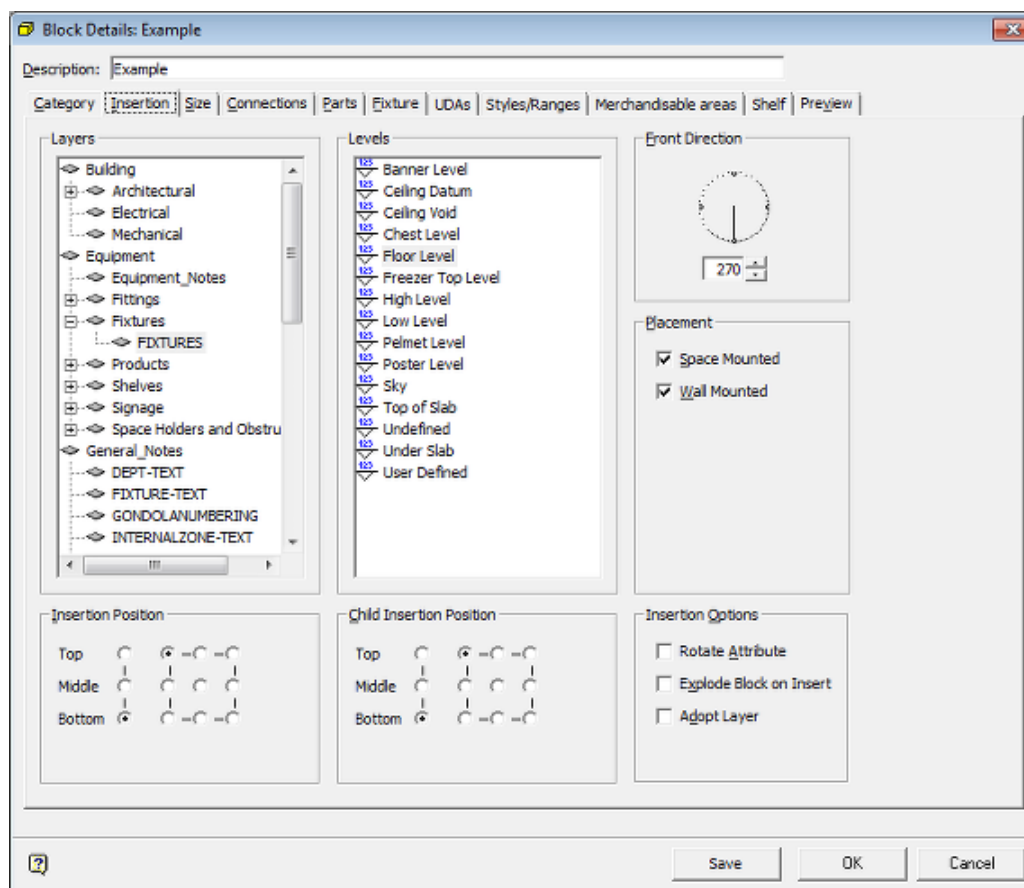


When generating reports (for example in BI Publisher), Categories can then be used as a filter.

## Insertion Tab

### Overview of the Insertion Tab

The **Insertion Tab** is used to specify a number of details affecting how the block is inserted into the drawing.



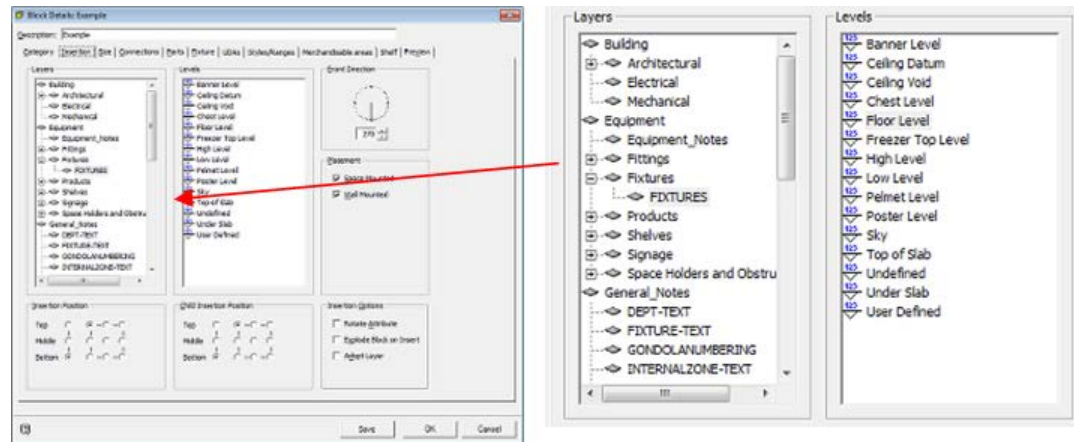
The options are as follows:

Option	Description
Layers	This option determines which layer the block will be placed on when inserted into a floor plan.
Levels	This option determines which level (elevation) the block will be placed at when inserted into a floor plan.
Front Direction	This option sets which face of the fixture is the primary one approached by customers
Placement	This option specified whether the equipment is to be placed on a wall or the floor.

Option	Description
Insertion Position	This option is set to match the AutoCAD insertion point for the block. This is necessary to ensure the block inserts in the correct position.
Child Insertion Position	This option determines the location for the first product to be inserted on the fixture.
Insertion Options	These options govern the behavior of the block at the moment of insertion.

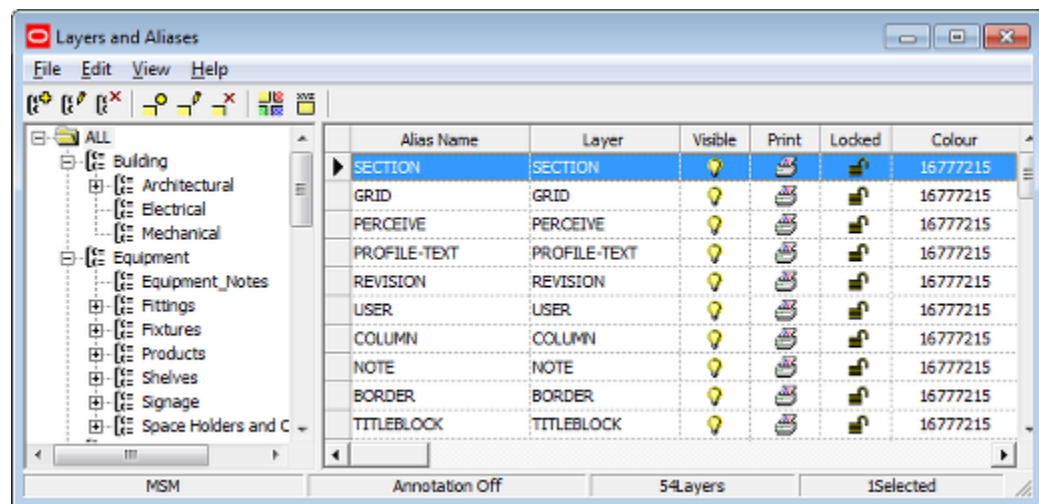
## Layers and Levels

Layers and Levels determine what layer the fixture is inserted on and at what elevation it is placed.



## Layers

Floor plans are broken up into a series of layers, each of which are generally associated with one class of object. Examples would be separate layers for fixtures and for product annotation. Layers are configured in the **Layer Alias dialog box** accessed from the **Format menu** in the Planner module.

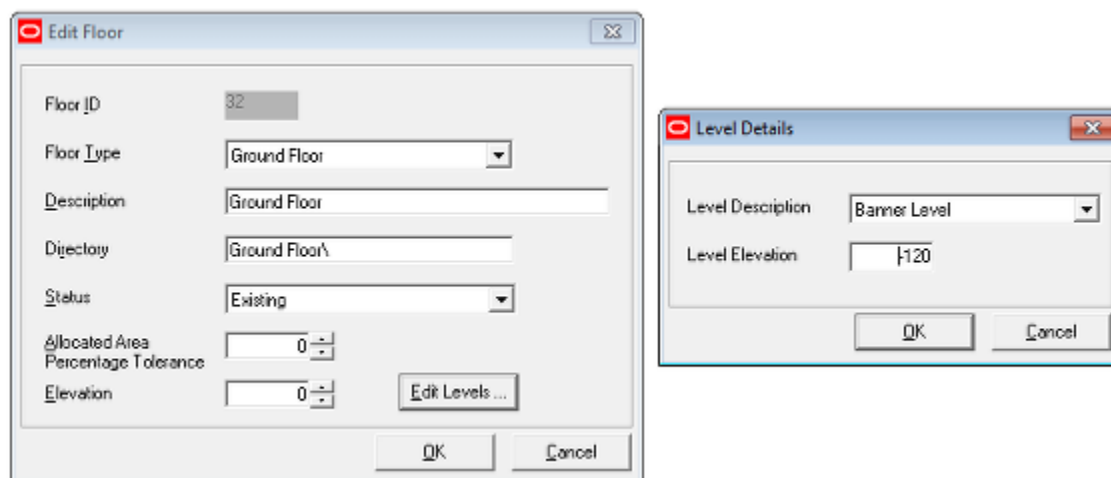


The hierarchy and layers set up in this dialog box are replicated in the Layers frame of the Block Details dialog box. Blocks are assigned to a layer by navigating to it in the

hierarchy and highlighting the pertinent layer. When placed in a floor plan the block will adopt this layer.

## Levels

The level is the elevation that the block will be placed on when inserted in the floor plan. The default levels are set up directly in the database - see the *Oracle Retail Macro Space Planning Data Model* for details. The default levels for a particular floor plan can be modified from the Floor dialog box in the Store Manager module in the Planner and Merchandiser modules.

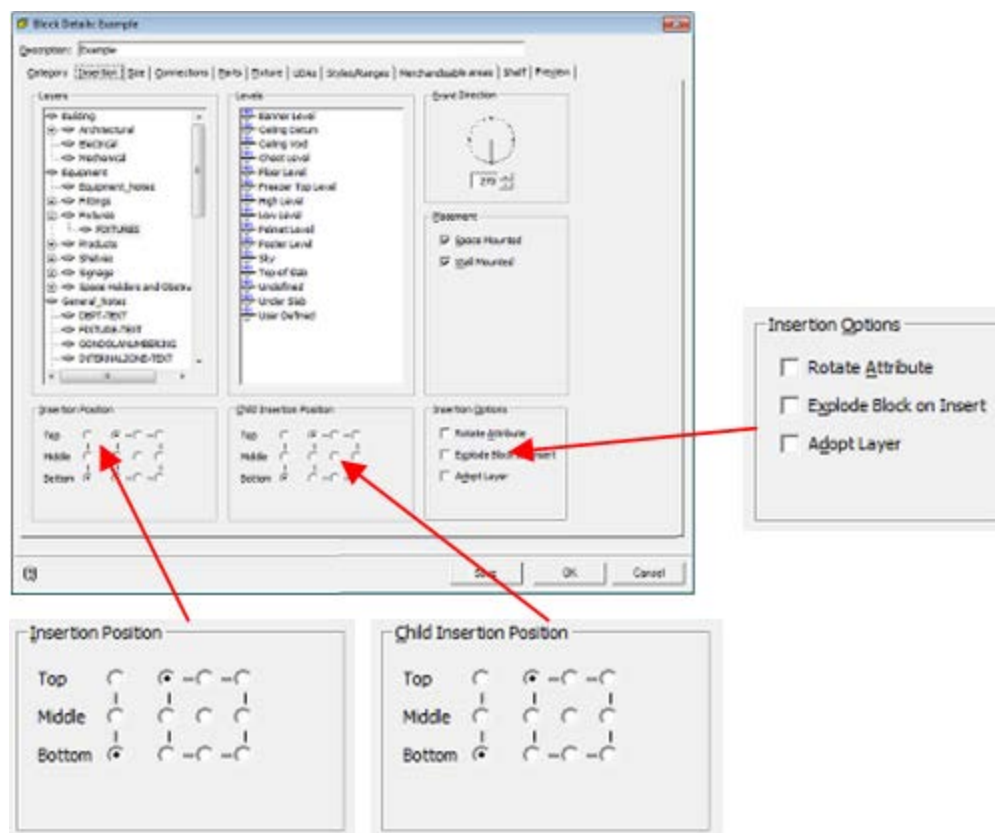


Blocks are assigned to a level by highlighting it. When placed in a floor plan the block will adopt this elevation. Common levels used are:

Level	Comment
Floor	This is the level generally assigned to fixtures and fittings
Undefined	This is the level generally assigned to shelves as their elevation depends on where they are placed on their parent fixture.

## Insertion Options

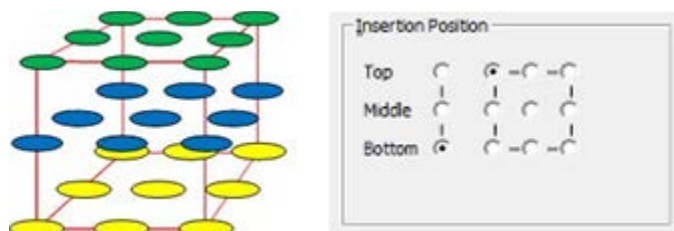
The insertion options determine how objects are placed in the floor plan and how products place on those objects.



## Insertion Position

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 drawn in AutoCAD. It is important that the fixture Studio 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 a position that differs from the correct one. This in turn will result in problems with adjacency calculations, placing of associated equipment and products, etc.

**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.

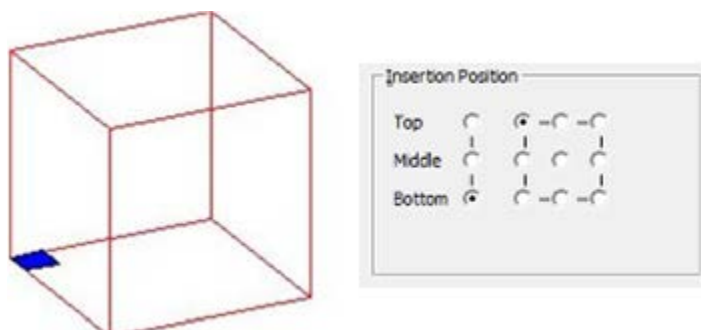


There are twenty seven possible insertion positions, aligned in three layers: top, (green circles), middle (blue circles) and bottom (yellow circles). The layer can be selected by clicking on the appropriate radio button. Each layer contains nine possible insertion points ranging from left rear to front right. The required option can be selected by clicking on the appropriate radio button.

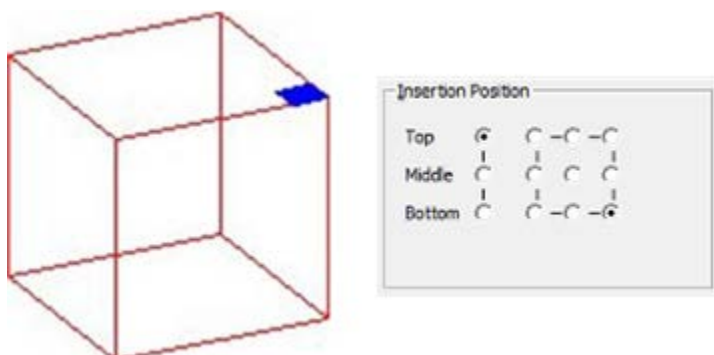
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**Note:** A consistent convention should be adopted for the position of the insertion point. If all blocks are drawn using this convention, then the potential for misalignment is sharply reduced.

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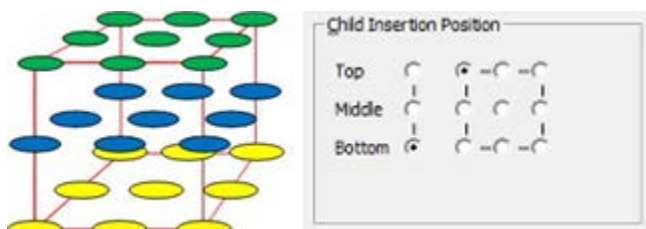
In the above example, the insertion position (blue square) is bottom-back-left, with the radio button in the Insertion position frame set accordingly.



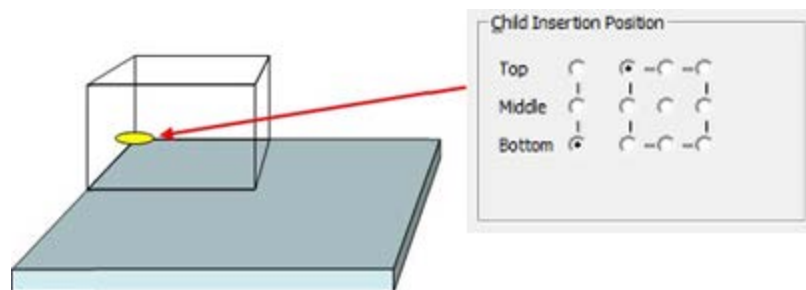
In the above example, the insertion position (blue square) is top-front-right, with the radio button in the Insertion position frame set accordingly.

## Child Insertion Position

The Child Insertion Position is the datum point at which an item of merchandise at Display Style level is inserted onto a fixture or shelf object in the Merchandiser module. There are twenty seven possible insertion positions, aligned in three layers: top, (green circles), middle (blue circles) and bottom (yellow 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.



An item of packaging going onto a shelf would generally have its child insertion position set to bottom-back-left.



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.

The position the first product will be inserted can be seen in the Preview Tab if the First Product Option is checked.

## Insertion Options

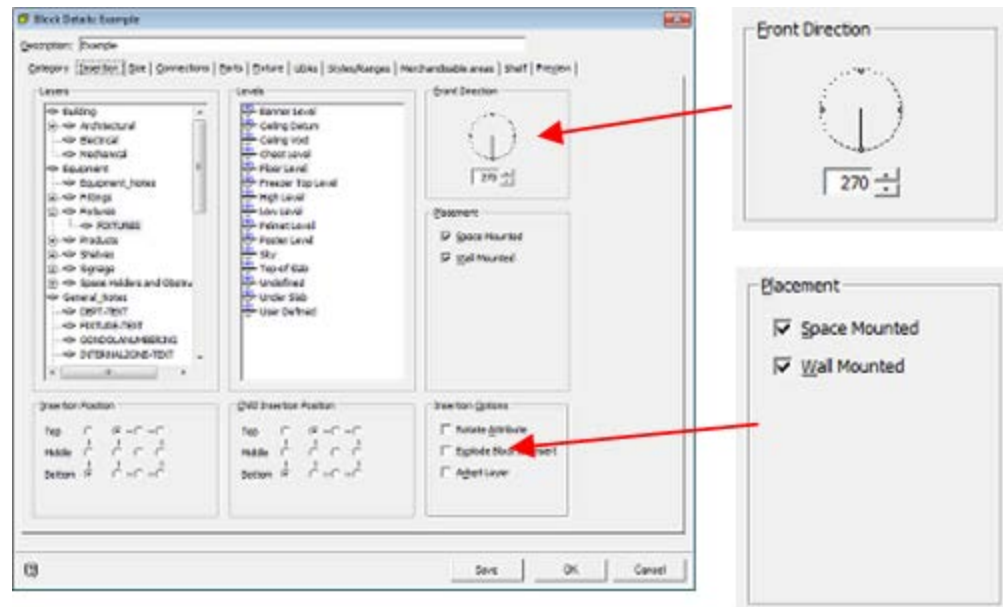
The **Insertion Options Frame** specifies how the block will behave on being inserted into the AutoCAD environment.

Option	Description
Rotate Attribute	If selected, this causes any non-constant attributes on the block to be rotated so they are upright and readable. An example might be 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.
Explode Block on Insert	If selected, any composite blocks will be exploded into their constituent parts when inserted into a floor plan.
Adopt Layer	This option is no longer in use. It has been included so as to be compatible with earlier versions of Macro Space Management.

## Other Insertion Options

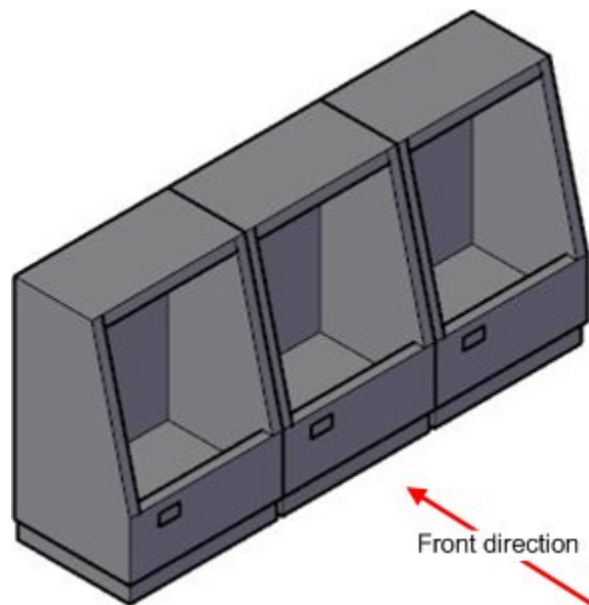
The other two insertion options are Front Direction and Placement





## Front Direction

The **Front Direction** represents the side of the fixture that has been designated as the front of the fixture. This can be visualized as the direction the customer will approach the fixture from. It also determines the default orientation of any shelves and merchandise that might be placed on the fixture.



**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.

## Placement

This enables two forms of mounting options to be specified.

Option	Description
Space Mounted	This block can be inserted into any floor space.
Wall Mounted	This block can be attached to a wall on insertion.

## Overview of the Size Tab

The **Size Tab** is used to specify the dimensions of a fixture.

It contains options:

Option	Description
Actual size	This is the actual size of the item of equipment
Nominal Dimensions	This is a size that can be entered by the user. It is a purely nominal size that can be used for calculation purposes.
Size details	The size details frame is used to select sizes that can be assigned to stretchable blocks.

## Stretchable Blocks

Stretchable blocks are blocks where the user can select the size when placed in a floor plan. Blocks become stretchable when a size rule has been applied. Stretchable blocks can be used:

- To represent a fixture that exists in a range of sizes. In this instance one block could be used to represent a dozen fixtures.
- To represent obstructions like columns in a floor plan. In this event, one block could be used to represent a column of any size.

Representing fixtures using stretchable blocks has advantages and disadvantages. It makes it easier to create and maintain the fixture and gondola libraries as fewer blocks are required. However, it may be possible for store planners to place a fixture in a combination of sizes that does not exist in practice. This will lead to problems when equipment is ordered in order to put a floor plan into service. In addition, reporting bills of materials, etc, becomes more complex if stretchable fixtures are used. This is because the report must now identify the fixture sizes and use a 'look up' list to relate that to a part number.

## Actual and Nominal Sizes

The Actual size and Nominal Dimensions for an item of equipment are entered in the Size tab. These dimensions are used for blocks of a fixed size. If additional information is entered in the Size Details frame, the block will become stretchable - able to take up a range of sizes.

The screenshot shows the 'Block Details Example' dialog box with the 'Size' tab selected. The 'Actual Size' section contains three input fields: Length (X) with value 48, Depth (Y) with value 36.5, and Height (Z) with value 72. The 'Nominal Dimensions' section contains three input fields: Nominal Length, Nominal Depth, and Nominal Height, all set to 0. A red arrow points from the 'Actual Size' section to a larger, detailed view of the same section on the right.

## Actual Size

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. Details may be entered in three ways:

Entry Method	Description
Direct entry	If the actual dimensions are known, they can be manually entered into the pertinent text boxes.
Calculate	For this option to work, Planner must be open, the Connect to AutoCAD option must be selected on the File menu and the floor plan in Planner that Fixture Studio is connected to must contain an instance of the block for which the sizes are to be calculated. Clicking the Calculate button will then return the maximum Length, Depth and Height of the block.

Entry Method	Description
Pick	For this option to work, Planner must be open, the Connect to AutoCAD option must be selected on the File menu and the floor plan in Planner that Fixture Studio is connected to must contain an instance of the block for which the sizes are to be calculated. Clicking the Pick button for a specific dimension will take the user to the Planner drawing. The user will then be invited to pick two points - for example by using AutoCAD's OSnap option. On clicking the second point, the user will be returned to Fixture Studio and the dimension automatically entered in the text box.

Care should be taken to ensure the Actual Size is entered accurately. This is because Macro space Planning uses the data for a number of purposes including drawing gondolas in Planner, Merchandiser and In-Store Space Collaboration. If the entered sizes are not accurate equipment may be drawn overlapping or with gaps between it.

- The Actual Sizes are used when placing instances of gondolas. If these sizes are not accurate the gondola may have parts that overlap or have gaps between them. For example, if a fixture has an actual length of 35 inches and a nominal length of 36 inches, it is important to use the actual length.

Nominal Dimensions

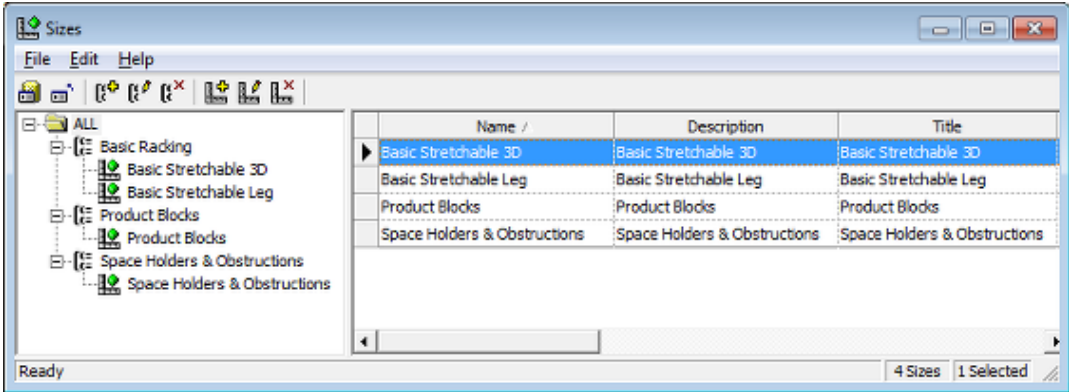
Nominal dimensions are primarily used for primary fixtures, where attached secondary equipment will substantially increase the volume. For example, consider a backpanel 600 mm long, 1900 mm high and 5 mm deep. If this backpanel has shelves attached, it will eventually occupy a significantly larger space. It could therefore be assigned nominal dimensions of 600 mm long, 1900 mm wide and 300 mm deep to allow for the eventual shelves.

**Note:** 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.

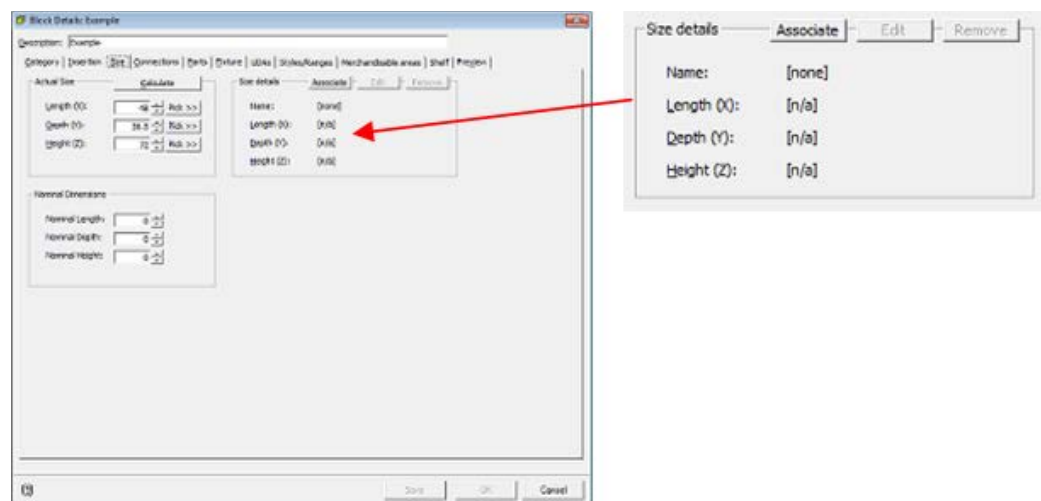
Overview of Size Details

Size details are used to make a block stretchable - to give it the ability to adopt a range of sizes when placed into a floor plan. These are used in three stages:

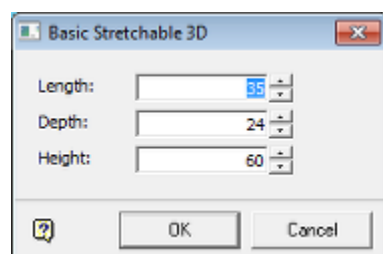
1. Sizes are set up using the Sizes dialog box accessed from the Edit menu in Fixture studio.



2. Sizes are assigned to blocks in the Sizes tab of the Block Details dialog box in Fixture Studio.



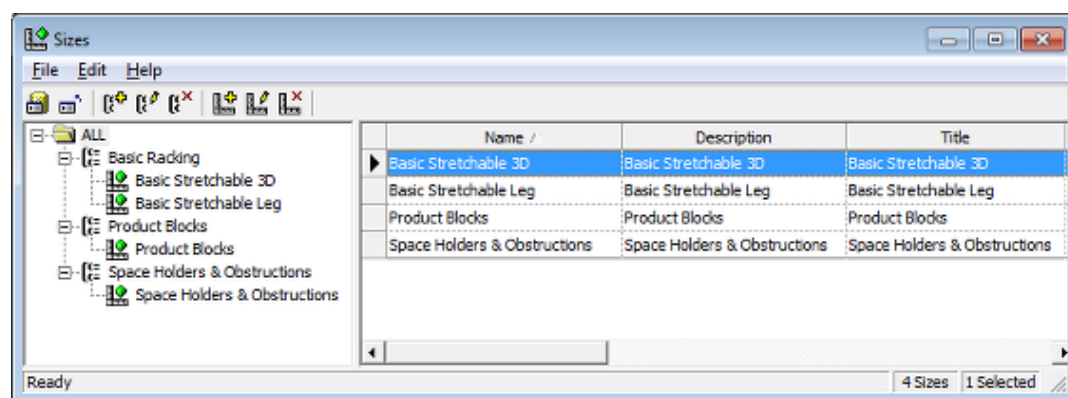
- When an instance of a block is placed in a floor plan, the user can select the required size on insertion.



## Setting up Sizes and Size Groups

### Overview

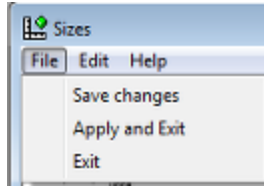
Sizes are used to assign the permissible dimensions to stretchable blocks. For administrative purposes, defined Sizes are organized by Size Groups. Sizes and size Groups are set up in the **Sizes dialog box** accessed from the Edit menu.



These are then assigned to individual items of equipment in the Size tab of the Block Details dialog box.

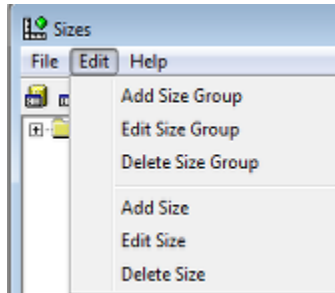
### The Sizes dialog Box Menus and Toolbar

#### File Menu



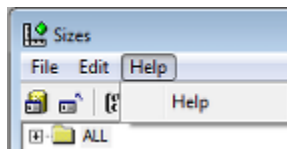
The **File menu** contains options to save the current changes, save the current changes and exit or exit without saving any changes.

### Edit Menu



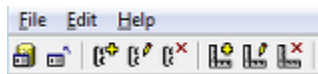
The **Edit menu** allows users to add, edit and delete sizes and size groups.

### Help Menu



The **Help Menu** allows users to call Fixture Studio help.

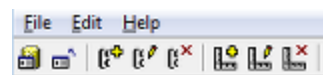
### Toolbar



Icon	Description
	Save changes
	Close dialog box
	Add Size Group
	Edit Size Group
	Delete Size Group
	Add Size
	Edit Size
	Delete size

## Size Groups

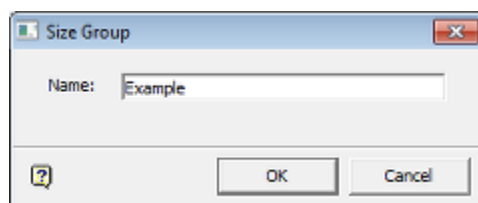
Sizes Groups are used to group together sizes of common purpose. They can be added, edited or deleted using the options from the Edit menu or toolbar.



Icon	Description
	Add Size Group
	Edit Size Group
	Delete Size Group

### Adding a Size Group

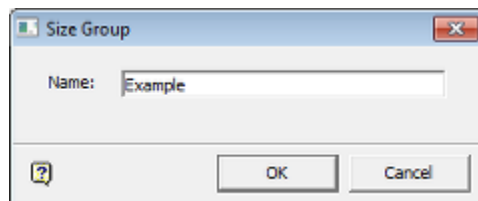
This is a function that allows a hierarchical tree to be built. To add a Size Group highlight the node in the hierarchical tree to which the new Size Group is to be added and click on the Add a Size Group icon. The Size Group dialogue box will appear.



Type in the name of the required Size Group and then click **OK**. The Size Group will be 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 on the edit a Size Group icon. The Size Group dialogue box will appear.



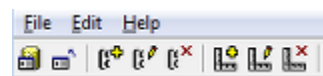
Change the name of the Size Group then click on OK. The Size Group will be amended in the hierarchical tree.

### Deleting a Size Group

To delete a Size Group, highlight the group and click on the Delete a Size Group icon on the toolbar. It is generally best to either delete any associated Sizes first or to move them to another Size Group by dragging and dropping.



## Sizes

To **Add a Size** click on the Add a Size icon in the section of the toolbar concerned with Adding, Editing and Deleting Sizes.

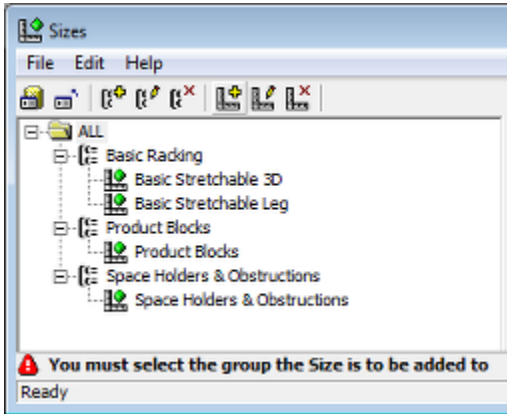


Icon	Description
	Add Size



	Edit Size
	Delete size

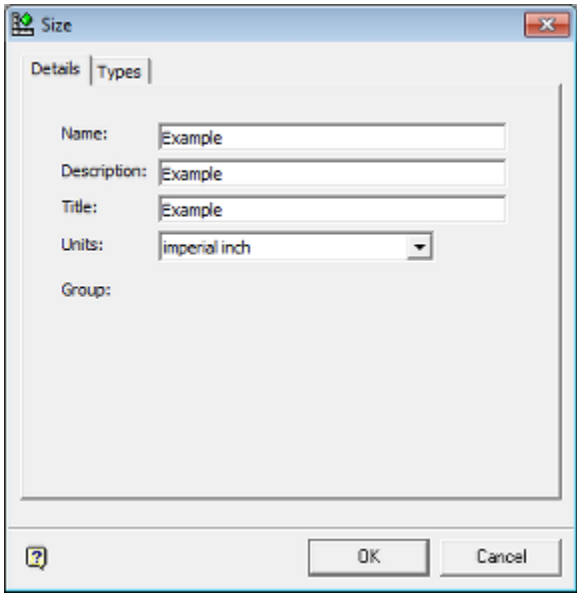
When adding a Size, first select the Size Group it is to be added to by clicking on it. If this is not done, an error message will result.



If a Size Group has been selected, the Size dialogue box will appear. This has two tabs: Details and Types.

**Details Tab**

The details tab is used to enter the name and description of the Size, together with the unit.



Option	Description
Name	The is the name of the size
Description	This is the description that will appear in the Sizes dialog box - it can be used to give more information on the purpose of the Size.
Title	This is the name that will be given to the size in the size tab of the block details dialog

	box.
Units	These are the units associated with the size. These will normally be inches or millimeters.

## Types Tab

The Types Tab holds details of the sizes that can be assigned to a stretchable block.

These options are discussed in more detail in the next section.

## Saving Information

To save the information entered in the Size dialog box, click **OK**. The dialog box will close and the information written back to the database.

## Size Types

There are a number of options for setting sizes. These are selected from the Type drop down list in the Types tab.

The different size types are:

Type	Description
Fixed	Give the store planner the option of a single, fixed size.
Variable	An option for a size variable by a fixed increment between a maximum and minimum size.
Choice	Pick from a set of specified values.
Match	Match the value of another selected dimension.
Delta	Set the value to be that of another dimension plus a specified amount.
Ratio	Set a size to be a ratio of another dimension
Locked	Lock a dimension from being chosen. This restricts the user to selecting the values for just one or two dimensions.

The parameters are as follows:

Option	Description
Dependent on	This option allows the dimension to be configured as independent of other dimensions or dependent on one of the other two.
Prompt	This is the name for the dimension that will appear in the stretchable fixture dialog box when a user places a fixture in the Planner or Merchandiser modules or in In-Store Space Collaboration.
Maximum	This is the maximum value the dimension can take.
Minimum	This is the minimum value the dimension can take.
Increment	This is the step size between maximum and minimum dimensions.

---

**Note:** Some of these options may be grayed out and unavailable depending on the size option selected.

---

## Fixed Sizes

The 'Size' dialog box is shown with the 'Details' tab selected. It has three columns for 'Length [X]', 'Depth [Y]', and 'Height [Z]'. Each column has a 'Type' dropdown set to 'Fixed'. Below each 'Type' dropdown is a 'Dependant On' section with three radio buttons: 'None', 'Length', and 'Height'. In this example, 'None' is selected for all three dimensions. Below the 'Dependant On' section is a 'Prompt' field, which is empty for all three dimensions. At the bottom of each column are three spinners for 'Maximum', 'Minimum', and 'Increment'. For Length, the values are 48, 0, and 0 respectively. For Depth, the values are 24, 0, and 0. For Height, the values are 72, 0, and 0. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

When setting fixed sizes, only a single dimension can be input for length, depth and height. All other options are grayed out. In the above example, the user would only be able to place a fixture with Length 48 inches, Depth 24 inches and Height 72 inches.

## Variable Sizes

The 'Size' dialog box is shown with the 'Details' tab selected. It has three columns for 'Length [X]', 'Depth [Y]', and 'Height [Z]'. The 'Length [X]' column has a 'Type' dropdown set to 'Variable', while 'Depth [Y]' and 'Height [Z]' are set to 'Fixed'. Below each 'Type' dropdown is a 'Dependant On' section with three radio buttons: 'None', 'Length', and 'Height'. In this example, 'None' is selected for all three dimensions. Below the 'Dependant On' section is a 'Prompt' field, which contains the text 'Length' for the Length column and is empty for the others. At the bottom of each column are three spinners for 'Maximum', 'Minimum', and 'Increment'. For Length, the values are 72, 48, and 12 respectively. For Depth, the values are 24, 0, and 0. For Height, the values are 72, 0, and 0. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Variable Size allows the user to set a number of discrete sizes that can be selected when the block is inserted into a floor plan. In the above example, the minimum size for the length has been set to 48 inches and the maximum to 72 inches. As the increment has been set to 12 inches, the user will be able to select lengths of 48, 60 or 72 inches when a fixture with this Size is inserted in the floor plan.

## Choice

**Choice** allows the user to set in a number of predefined size options.

Size

Details Types **Size choices**

Length [X] Depth [Y] Height [Z]

Type: Choice Fixed Fixed

Dependant On:

None Depth Height None Length Height None Length Depth

Prompt: Length

Maximum: 72 24 72

Minimum: 48 0 0

Increment: 12 0 0

OK Cancel

When this option is selected from the Type drop down menu an additional Size Choices Tab will appear.

The names entered in the prompt fields in the Types tab will appear in the Size Choices tab as the names of the dimensions.

Size

Details Types **Size choices**

+ - < >

Description	Length	Depth	Height
Large	72	24	72
Medium	48	0	0
Small	36	0	0

OK Cancel

The actual dimensions can be added in the Size Choices Tab. The toolbar allows the user to add, delete and re-order the list of dimensions.

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Icon	Option
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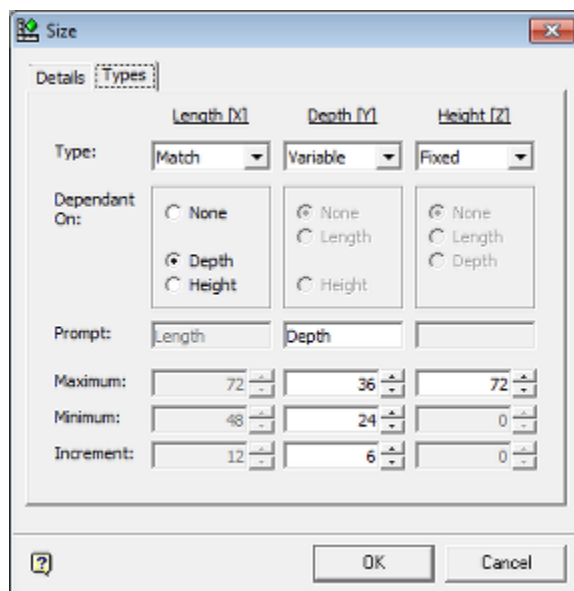
Add New Choice

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Icon	Option
	Delete Selected Choice
	Move Choice Up - this will change the order they are displayed in the Stretchable Fixtures dialog box when placed in a floor plan.
	Move Choice Down - this will change the order they are displayed in the Stretchable Fixtures dialog box when placed in a floor plan.

## Match Sizes

Match Sizes enables the user to link one dimension to another.



At least one dimension must be defined using another size option, for example Fixed. Other dimensions can be slaved to that specified dimension. In the above example, the length has been set up to match whatever value the user selects for the depth.

## Delta

Delta will allow a user to select another dimension and specify the current dimension to match that plus/minus a specified increment.

This functionality is not implemented in this release of Macro Space Management.

## Ratio

Ratio will allow a user to select another dimension and specify the current dimension to be multiplied by a specific ratio.

This functionality is not implemented in this release of Macro Space Management.

## Locked

Locked sizes enable the choices visible to the user to be restricted to only one or two dimensions when the dialogue appears during insertion.

**Size**

Details | Types

Length [X]    Depth [Y]    Height [Z]

Type: Fixed    Locked    Fixed

Dependant On:

None    None    None

Depth    Length    Length

Height    Height    Depth

Prompt: Length    Depth   

Maximum: 72    36    72

Minimum: 48    24    0

Increment: 12    6    0

OK    Cancel

For this option to work, lists of dimensions must first have been input into the Size Choices tab.

**Size**

Details | Types | Size choices

+    -    +    -

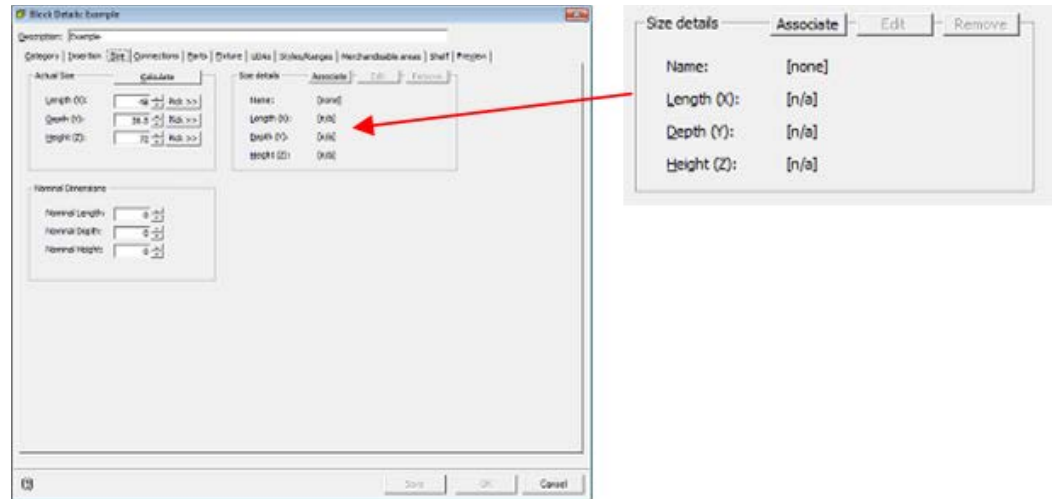
Description	Length	Depth	Height
Large	72		
Medium	48		
Small	36		

OK    Cancel

## Working with Size Details

Size details are assigned to blocks in the size details frame.



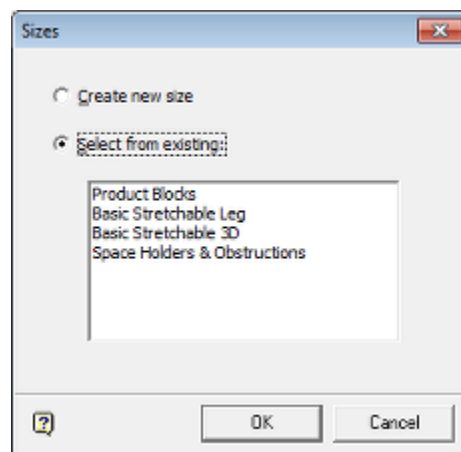


There are three options:

Option	Description
Associate	Associate a set of sizes (previously configured in the Sizes dialog box accessed from the View menu) with the block.
Edit	Edit the parameters of the sizes that will be associated with the block. This option should be used with caution as it will affect all other blocks with that set of sizes associated with it.
Remove	Remove the set of sizes from this block. when placed this block will now assume the sizes in the Actual Size frame.

## Associate

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. This is done by clicking **Associate**. This will bring up the Size dialog box.



**Note:** Create new size allows user to create a new range of sizes. It is better to this using the option accessed from the Edit menu.

This dialog box contains the sizes that have been configured using the Size option accessed from the View menu. Highlight the required choice and click **OK**. The size choices will be assigned to the block.

The 'Size details' dialog box has three tabs: 'Associate', 'Edit', and 'Remove'. The 'Associate' tab is active. It displays the following information:

Name:	Basic Stretchable 3D
Length (X):	24 - 84
Depth (Y):	24 - 48
Height (Z):	108 - 60

## Edit

Clicking **Edit** brings up the Size dialog box. This enables user to edit details of the sizes being assigned to the block. (This dialog box can also be accessed via the View menu).

The 'Size' dialog box has two tabs: 'Details' and 'Types'. The 'Details' tab is active. It displays the following information:

Name:	Basic Stretchable 3D
Description:	Basic Stretchable 3D
Title:	Basic Stretchable 3D
Units:	Imperial inch
Group:	<ul style="list-style-type: none"> <li>ALL <ul style="list-style-type: none"> <li>Basic Racking</li> <li>Product Blocks</li> <li>Space Holders &amp; Obstructions</li> </ul> </li> </ul>

At the bottom, there are buttons for '?', 'OK', and 'Cancel'.

**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. Accordingly, it should be done with caution.

## Remove

**Removing** a Size Group association can be achieved by clicking on **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.

The 'Size details' dialog box has three tabs: 'Associate', 'Edit', and 'Remove'. The 'Associate' tab is active. It displays the following information:

Name:	[none]
Length (X):	[n/a]
Depth (Y):	[n/a]
Height (Z):	[n/a]

## Connections Tab

### Overview of the Connections Tab

The **Connections Tab** lets the user specify the connection options for Macro Space Management blocks. These are used within the Planner and Merchandiser modules.

The Planner Module displays basic left/right/rear connection points allowing fixtures and fittings to be accurately aligned relative to each other. The Merchandiser model allows more complex use of connections, including additions of small items of equipment such as grilles to shelf objects. These connection settings also act as the defaults in the Add Shelf dialog box in the Merchandiser module.

**Note:** Gondolas provide a more efficient way of placing large numbers of items of equipment in a fixed alignment.

**Block Details: Example**

Description:

Category | Insertion | Size | **Connections** | Parts | Fixture | UDAs | Styles/Ranges | Merchandisable areas | Shelf | Preview

Name	Type	Gender	Shape	Minimum	Maximum	Default
Left	Connection	Male	None	1	1	Y
Right	Connection	Female	None	1	1	N

**Type**

☐ Text Reference Point  
☒ Connection  
☒ Default Connection

**Filters**

Gender: ☒ Male, ☐ Female, ☐ None  
 Shape:

**Size**

☐ Match  
 Minimum:   
 Maximum:

**Position**

X:   
 Y:   
 Z:

**Array**

Spacing: X: , Y: , Z:   
 Max Extents: X: , Y: , Z:

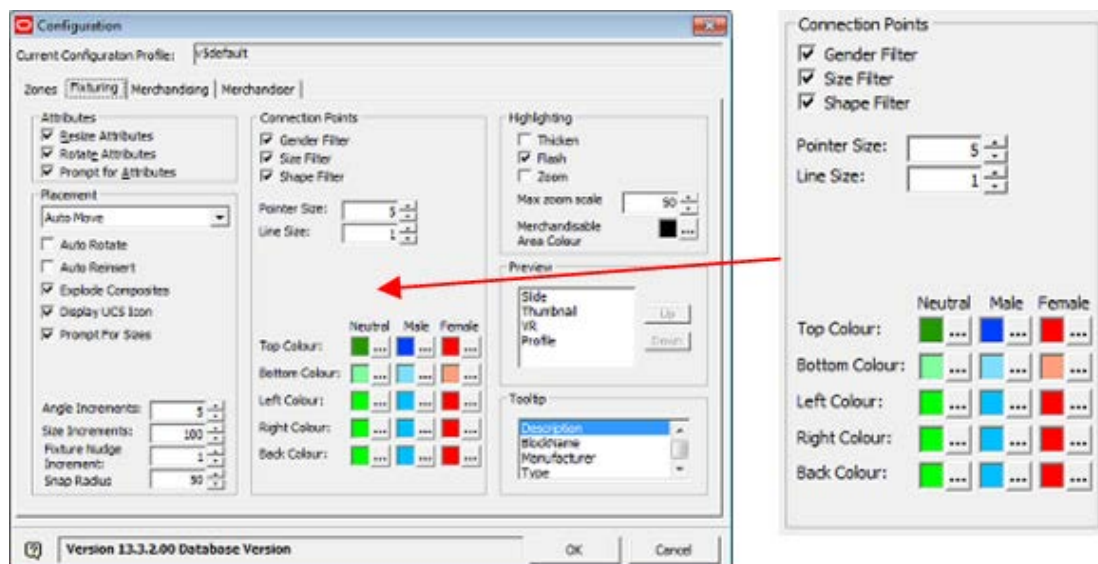
**Horizontal Angle**

**Vertical Angle**

A small Toolbar at the top lets users Add, Copy and Delete connections, while the Wizard on the toolbar allows the user to add three basic connections. The Connections List below lists all current connections for the Macro Space Management Block. Highlighting an individual connection enables the lower part of the tab - which allows the details of the connection to be configured.

## The Connections Tab and the Configuration Module

Settings in the Configuration Module (File menu > Configure) can affect how connection points appear in the Preview tab the Block Details dialog box of Fixture Studio. They also affect how connection points appear and behave in the Merchandiser module.



Option	Effect
Gender Filter	If selected, the two sets of connection points being used to connect one item to another must have opposite genders or no genders to connect.
Size Filter	If selected, the two sets of connection points being used to connect one item to another must have compatible sizes to connect.
Shape Filter	If selected, the two sets of connection points being used to connect one item to another must have compatible shapes to connect.
Pointer Size	This affects the appearance of the connection point as displayed in the Merchandiser module.
Line Size	This affects the appearance of the connection point as displayed in the Merchandiser module.
Colors	The colors for Neutral, Male and Female connection points can be set. These settings have local effect - changing one user's settings will not affect other users.




## The Connections Toolbar

The **Connections Toolbar** allows users to Add, Copy and Delete Connections. It also allows the user to invoke the Connections Wizard.

Option	Description
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Add a Connection

Option	Description
	Copy a Connection
	Delete a Connection
	Connection Point Wizard





## Connection Options




### Add a Connection

To add a connection to the list of connections:

1. Click Add Connection on the toolbar. This will create a blank line at the top of the list of connections.
2. Type in a name for the connection in the newly created blank line and press return.
3. This will create a new connection in the list of connections. This can be configured as required.

			
Name	Type	Gender	Shape /
Right	Connection	Female	None
Left	Connection	Male	None

			
Name	Type	Gender	Shape /
▶			
Right	Connection	Female	None
Left	Connection	Male	None

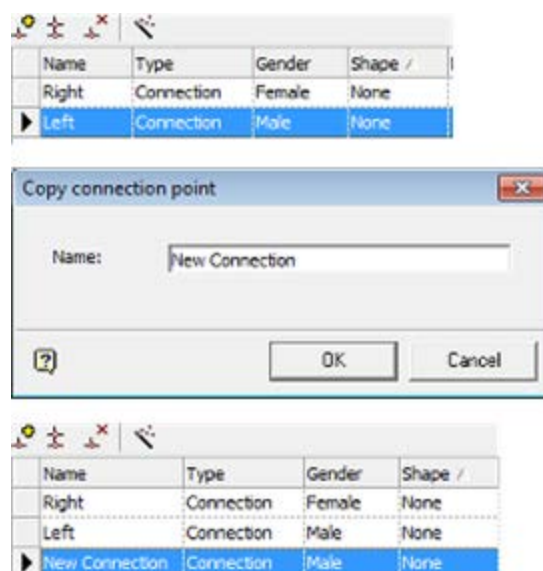
			
Name	Type	Gender	Shape /
Right	Connection	Female	None
Left	Connection	Male	None
▶ Example	Connection	None	None

See the information on Connection Lists for how to configure the connection.

### Copy a Connection

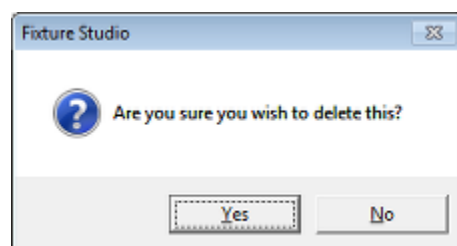
To copy an existing connection:

1. Highlight the connection it is desired to copy and click Copy Connection on the toolbar.
2. This will bring up the Copy connection point dialog box. Type in a new name for the connection being copied. Click OK.
3. A copy of the connection will be created in the list of connections. This can be edited as required.



### Delete a Connection

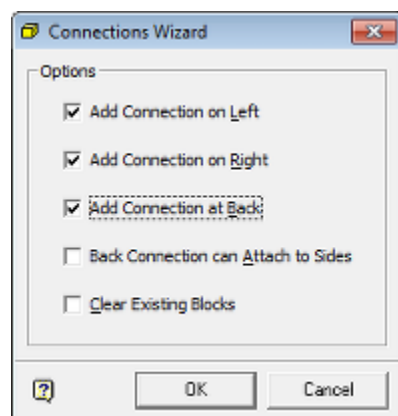
To delete a connection, highlight the connection to be deleted and click on the Delete icon. The user will be asked to confirm deletion.



### Connection Wizard

The **Connections Wizard** can be used to add a set of basic connection points that allow fixtures to snap to each other in the Planner and Merchandiser modules.

1. Click the connections Wizard icon on the toolbar.
2. This will bring up the Connections Wizard dialogue box.



3. Select the required options:
  - Selecting Add Connection on Left will add a Connection on the left.

- Selecting Add connection on Right will add a Connection on the right.
- Selecting Add Connection at Back will add a Connection at the back.
- Selecting Back Connector can Attach to Sides will configure the back connector so it is compatible with the connection points on the sides of the fixture.
- Selecting Clear Existing Blocks will remove all existing connections and replace them with ones created by the wizard. 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.

4. On clicking OK on the Wizard, the selected default connections will be added.

Name	Type	Gender	Shape /
Left	Connection	Male	Fitting/Rail
Right	Connection	Female	Fitting/Rail
Back	Connection	None	Fitting/Rail

## Connection Tab Options

The connection tab options will be grayed out and unavailable until a connection is selected from the list of those available. The details of that connection can then be configured using the available options.



## Type

The type frame allows the user to

Option	Description
Text Reference Point	<p>Selecting this radio button makes the connection one used for text. This brings up a slightly different form of the tab.</p> <p><b>Note:</b> The Text Reference point option is not currently operative.</p>
Connection	Selecting this radio button makes the connection one used as a connection point.
Default Connection	If selected this makes this connection the default for the fixture. This connection point will then be used when the Attach option is selected in the Add Fixture dialog box when inserting a fixture in Planner.

The user can specify whether the selected item is to be used as a physical connection point or as the anchor for instance specific text for the block. This option is set by the radio button. In addition, the selected connection can be designated as the Default by ticking the check box. If the Text Reference Point option is chosen, a new version of the Connections Tab appears. This can be used to attach text to a block in Planner.

## Filters

The Filters Frame enables the user to set parameters that can be used as filters to decide whether two connection points are compatible or not.

**Note:** Which of these filtering options is active in a floor plan in Merchandiser is determined by settings in the Fixturing tab of the Configuration module.

### Gender

The gender of a connection determines whether that connection is compatible with another. There are three genders; male, female and none. They are selected from by means of the radio button.

	Can connect with	
<b>Male</b>	Female	None
<b>Female</b>	Male	None
<b>None</b>	Any other connection	

### Shape

The Shape of a point connection can be specified from the drop down list. The shape is a theoretical concept and can be any convenient name - like connects with like. All shapes can connect with the 'None' option. The list of shapes available can only be defined directly in the database. In the example below, the 'Shapes' have been changed to text entries for specific types of connections.



	CNS_ID	CNS_DESC
1	0	None
2	1	Slot/Shelf
3	2	Peg/Pegboard
4	3	Rod/Bar
5	4	Fitting/Rail
6	5	Special Connection

### 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 checkbox is not ticked, then the connections must have overlapping size ranges. If they are not overlapping, the connections will not mate.

	Connection 1	Connection 2	
<b>Size Range</b>	0 - 50	25 - 75	Compatible
<b>Size Range</b>	0 - 25	50 - 75	Incompatible

### Position Frame

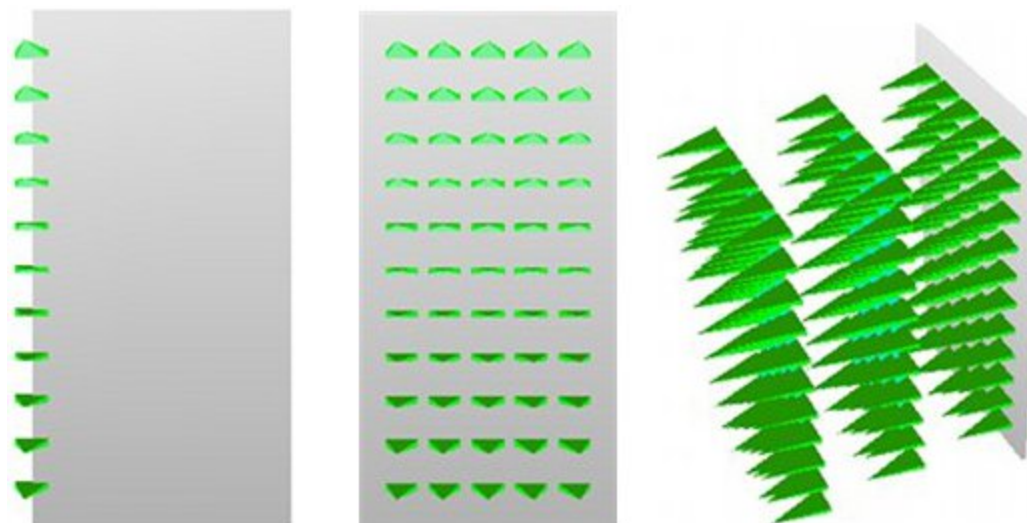
The Position **Frame** is used to specify the origin of the connection point. This is based on X, Y and Z offsets relative to the insertion point of the block.

**Note:** The pick button is not fully functional at present.

### Array

The **Array Frame** is used when it is desired to produce a connection line, plane or box. There are three options:

Option	Description
One dimension	Setting up spacing in a single dimension results in a line of connection points.
Two dimensions	Setting up spacing in two dimensions results in a two dimensional array of connection points. This would typically be in the X-Z plane which would result in an array of points parallel to the back of the fixture.
Three dimensions	Setting up spacing in three dimensions would result in a cuboid of connection points - it is difficult to think of circumstances when this would be required.



The above examples show the three options.

### Spacing

This specifies the distance between successive points.

---

**Tip:** If set to 0 a connection line will be drawn. This allows attachment at any point along the line, rather than at specific connection points.


---

### Max Extents

This specifies the dimension in that particular plane. It is drawn relative to the position point specified in the Position frame.

---

**Tip:** Once a value has been entered, clicking on the calculate

icon  will give the maximum distance the connection points can extend.

---

## Horizontal and Vertical Angles

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. 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.

---

**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.

---

## Connection Points for a Shelf

Shelves might be attached to a back panel. This worked example is for a back panel 36 x 1 x 72 inches in size.

### Settings

The first example is for a connection line

#### Type Frame

The Type is set to Connection.

#### Filters Frame

- The Gender is set to Female - this means that the connection point on the corresponding shelf will be set to male to make the connection compatible.
- The shape is set to slot/shelf. This option can be customized in the Connection Shape table in the database - see the *Oracle Retail Macro Space Planning Data Model* for details.
- The Size has been set to 10 and the Match option selected.

All of the above options can be used as filters if required.

---

**Note:** The color of the connection line will depend on the gender and settings in the Fixturing tab of the Configuration module.

---

#### Position Frame

This is set up using a standard Cartesian coordinate system.

- The connection will be on the left edge of the back panel, so the X coordinate is set to 0.
- The connection will be in the front face of the back panel, so the Y coordinate is set to -1 (bring it forward by one unit).
- The shelves will start 6 inches up from floor level, so the Z coordinate is set to 6.

## Array Frame

This connection line is being configured in the vertical (Z) plane, so we are only interested in the Z data.

- The spacing is set to 0 so this will be a continuous line.
- The Max extent is set to 60. This is calculated as follows:
  - The height of the fixture is 72 inches.
  - The connection line will start 6 inches from the base
  - The connection line should stop 6 inches from the top.
  - $72 \text{ inches} - (6 \text{ inches} + 6 \text{ inches}) = 60 \text{ inches}$ .

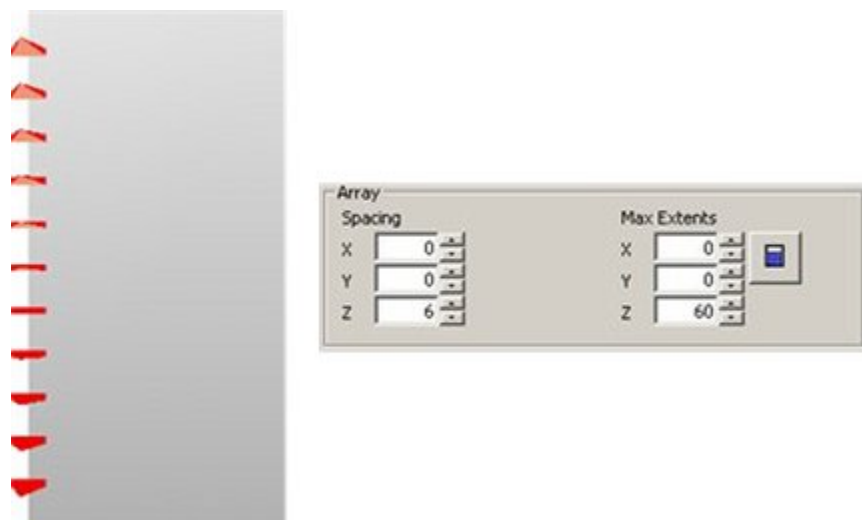
## Horizontal and Vertical Angle Frames

These are used to set the orientation of the connection points.

- The Horizontal angle is set to 270 degrees so the connection points protrude forward from the face of the back panel.
- The Vertical angle is set to 0 degrees so that the connection points are level.

## Connection Points

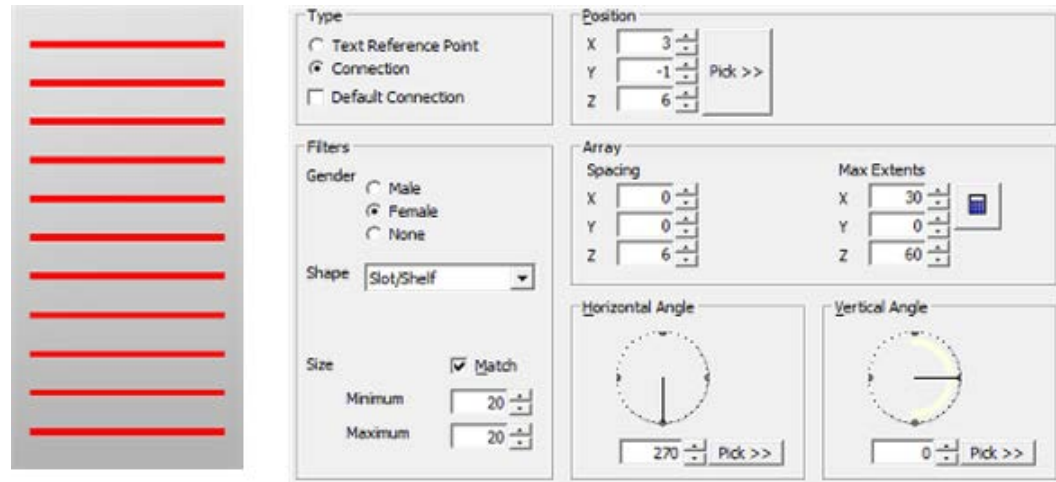
This example is similar to the first example except that the spacing has been set to 6 inches for the Z axis in the Array frame. This has resulted in a series of connection points rather than a connection line.



## Connection Lines for a Slatwall

**Note:** Please refer to the worked example for connection points for a shelf before attempting this example.

Varying shelf objects such as rods and pegs might be attached to a slatwall. This worked example is for a slatwall 36 x 1 x 72 inches in size.



## Settings

### Type Frame

The Type is set to Connection.

### Filters Frame

- The Gender is set to Female - this means that the connection point on the corresponding rod will be set to male to make the connection compatible.
- The shape is set to slot/shelf. This option can be customized in the Connection Shape table in the database - see the *Oracle Retail Macro Space Planning Data Model* for details.
- The Size has been set to 20 and the Match option selected. (This differs from the setting for Shelves to enable filtering options to work).

All of the above options can be used as filters if required.

---

**Note:** The color of the connection line will depend on the gender and settings in the Fixturing tab of the Configuration module.

---

### Position Frame

This is set up using a standard Cartesian coordinate system.

- The connection will be three inches in the left edge of the back panel, so the X coordinate is set to 3.
- The connection will be in the front face of the back panel, so the Y coordinate is set to -1 (bring it forward by one unit).
- The shelves will start 6 inches up from floor level, so the Z coordinate is set to 6.

### Array Frame

This connection lines are being configured in the horizontal (X) and vertical (Z) planes.

- The Z spacing is set to 6 so the lines will be 6 inches apart in the vertical plane.
- The X spacing is set to 0 so this will be a continuous line.
- The Max X extent is set to 30. This is calculated as follows:
  - The width of the fixture is 36 inches.

- The connection line will start 3 inches from the left hand edge.
- The connection line should stop 3 inches from the right hand edge.
- $36 \text{ inches} - (3 \text{ inches} + 3 \text{ inches}) = 30 \text{ inches}$ .
- The Max extent is set to 60. This is calculated as follows:
  - The height of the fixture is 72 inches.
  - The connection lines will start 6 inches from the base
  - The connection lines should stop 6 inches from the top.
  - $72 \text{ inches} - (6 \text{ inches} + 6 \text{ inches}) = 60 \text{ inches}$ .

### Horizontal and Vertical Angle Frames

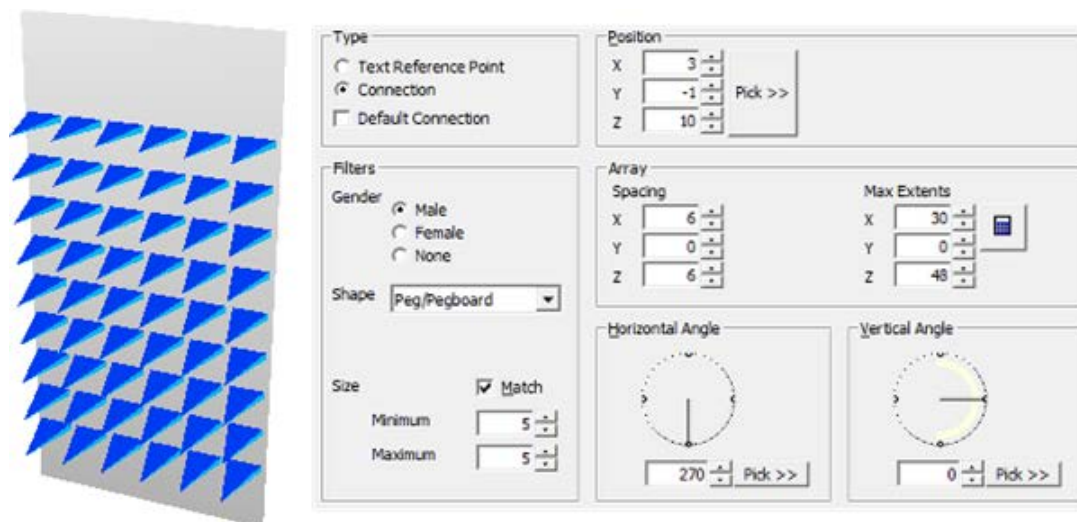
These are used to set the orientation of the connection points.

- The Horizontal angle is set to 270 degrees so the connection points protrude forward from the face of the back panel.
- The Vertical angle is set to 0 degrees so that the connection points are level.

## Connection Points for a Pegboard

**Note:** Please refer to the worked example for connection points for a shelf before attempting this example.

Varying shelf objects such as pegs might be attached to a peg board. This worked example is for a peg board 36 x 1 x 72 inches in size.



## Settings

### Type Frame

The Type is set to Connection.

### Filters Frame

- The Gender is set to Male - this means that the connection point on the corresponding rod will be set to female to make the connection compatible.

- The shape is set to peg/pegboard. This option can be customized in the Connection Shape table in the database - see the *Oracle Retail Macro Space Planning Data Model* for details.
- The Size has been set to 5 and the Match option selected. (This differs from the setting for Shelves to enable filtering options to work).

All of the above options can be used as filters if required.

---

**Note:** The color of the connection line will depend on the gender and settings in the Fixturing tab of the Configuration module.

---

### Position Frame

This is set up using a standard Cartesian coordinate system.

- The connection will be three inches in the left edge of the back panel, so the X coordinate is set to 3.
- The connection will be in the front face of the back panel, so the Y coordinate is set to -1 (bring it forward by one unit).
- The shelves will start 18 inches up from floor level, so the Z coordinate is set to 18.

### Array Frame

This connection lines are being configured in the horizontal (X) and vertical (Z) planes.

- The X spacing is set to 6 so the lines will be 6 inches apart in the horizontal plane.
- The Y spacing is set to 6 so the lines will be 6 inches apart in the vertical plane.
- The Max X extent is set to 30. This is calculated as follows:
  - The width of the fixture is 36 inches.
  - The connection points start 3 inches from the left hand edge.
  - The connection points should stop 3 inches from the right hand edge.
  - $36 \text{ inches} - (3 \text{ inches} + 3 \text{ inches}) = 30 \text{ inches}$ .
- The Max extent is set to 48. This is calculated as follows:
  - The height of the fixture is 72 inches.
  - The connection lines will start 18 inches from the base
  - The connection lines should stop 6 inches from the top.
  - $72 \text{ inches} - (18 \text{ inches} + 6 \text{ inches}) = 48 \text{ inches}$ .

### Horizontal and Vertical Angle Frames

These are used to set the orientation of the connection points.

- The Horizontal angle is set to 270 degrees so the connection points protrude forward from the face of the back panel.
- The Vertical angle is set to 0 degrees so that the connection points are level.

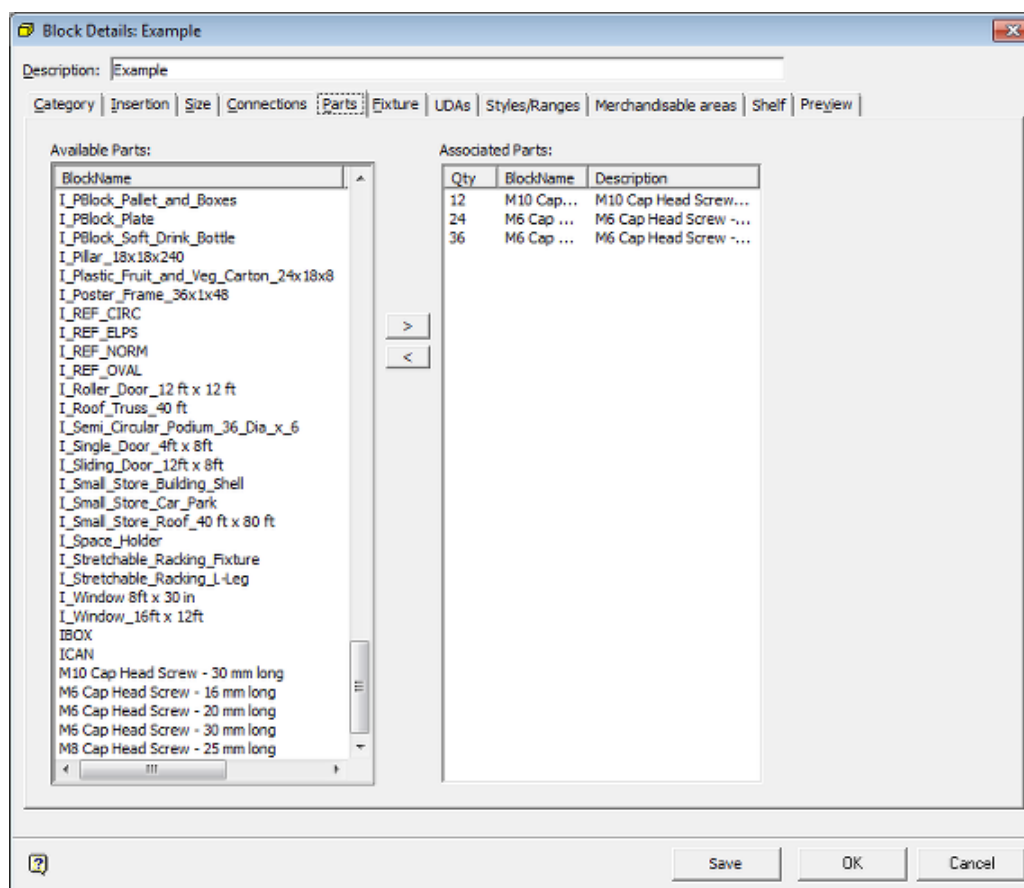




## Parts Tab

### Using the Parts Tab

The **Parts Tab** is used to improve the accuracy of reporting. A fixture can be represented by a single block in a floor plan. However the real life fixture may be more complex and made up from a number of parts such as uprights, cross-bars, castors and securing bolts. It is therefore possible to create a block and associate parts with it. When a report (such as a bill of materials) is run on a floor plan, that report can then be expanded from a list of parts to a list of required sub-components.



**Note:** Part blocks do not need graphics files - they will not be inserted into a floor plan.

### Creating Parts

**Part Blocks** are specialized type of block that have no graphics and exist only within the Macro Space Management database. Their only use is for reporting purposes.

**Note:** It is recommended that Part Blocks are kept in specific and separate Groups within the Fixture Studio Hierarchy.

Only a few basic parameters need to be defined - although more can be set if needed for detailed reporting purposes.

### Category Tab

After inputting an appropriate block name and description, in the Category Tab set the following:

- Set Equipment type to Part
- Ensure Effective and Expiry dates are set appropriately.
- Select the Part Icon.

### Insertion Tab

For the Insertion Tab, select a nominal layer.

---

---

**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.

---

---

### Size Tab

Unless it is necessary to have accurate dimensions, set nominal values in the Actual size frame. The block can then be saved to the database.

## Building up a Parts List

### Available Parts

The Available Parts Frame contains a list of all available parts. Block Names 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. Quantities, Block Names, 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 itself in the Qty column.

Associated Parts:

Qty	BlockName	Description
12	M10 Cap...	M10 Cap Head Screw...
24	M6 Cap ...	M6 Cap Head Screw ~...
36	M6 Cap ...	M6 Cap Head Screw ~...

The number can then be edited. Press <Return> to store the number.

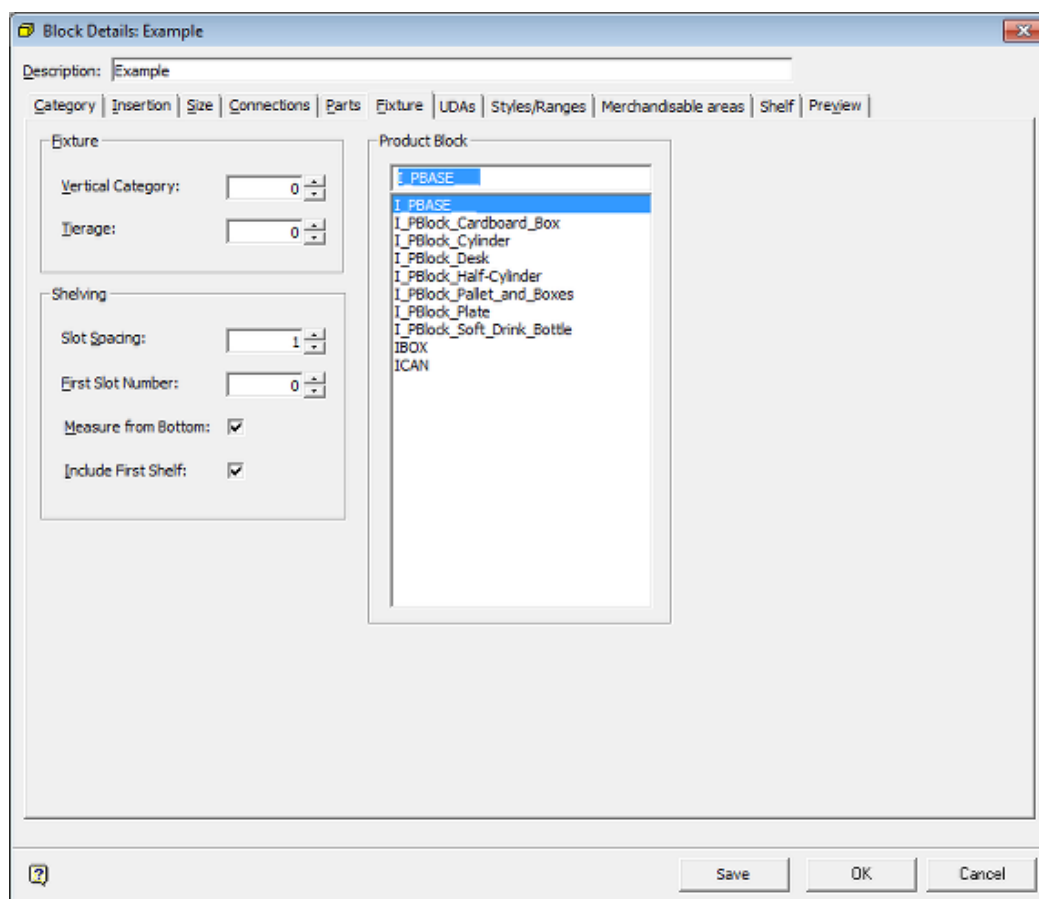


## Fixture Tab

### The Fixture Tab

#### Overview

The **Fixture Tab** is used to specify the behavior of shelving and the Product Block for a fixture.



#### Fixture Options

The **Fixture Frame** allows some details of how the fixture is to be merchandised to be specified.

---

**Note:** Vertical Category and Tierage have been largely superseded by Styles in Macro Space Management.

---

#### Vertical Category

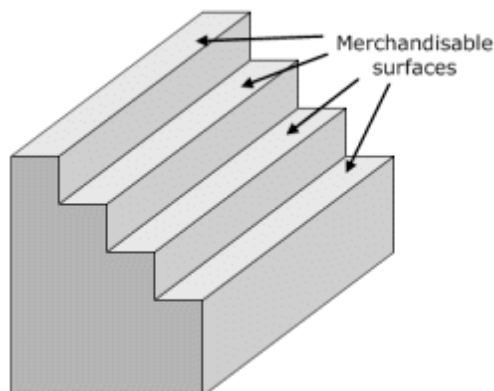
**Vertical Category** allows the aliased layer to be occupied by the fixture to be further sub-divided. The default is 0, but fixtures can be assigned to further vertical categories within

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 – fixtures in different Vertical Categories will not be shown as adjacent. Setting the Vertical Category also affects annotation – if Vertical Categories are set, each category will receive its own separate annotation. Finally, setting Vertical Categories affects the reporting options – material in different categories can be reported separately.

## Tierage

**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.

## Product Blocks

The **Product Block** Frame allows the details of the Product Block to be assigned to the Fixture.

---

**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 could be assigned to a table top, and a stepped product base could be assigned to a display cabinet with tiers.

## Shelving

The **Shelving Frame** is used to set parameters affecting the behavior of shelves on a fixture.

---

**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.

## About Merchandisable Areas, Product Blocks and Display Styles

### Options

#### 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 dialogue 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.

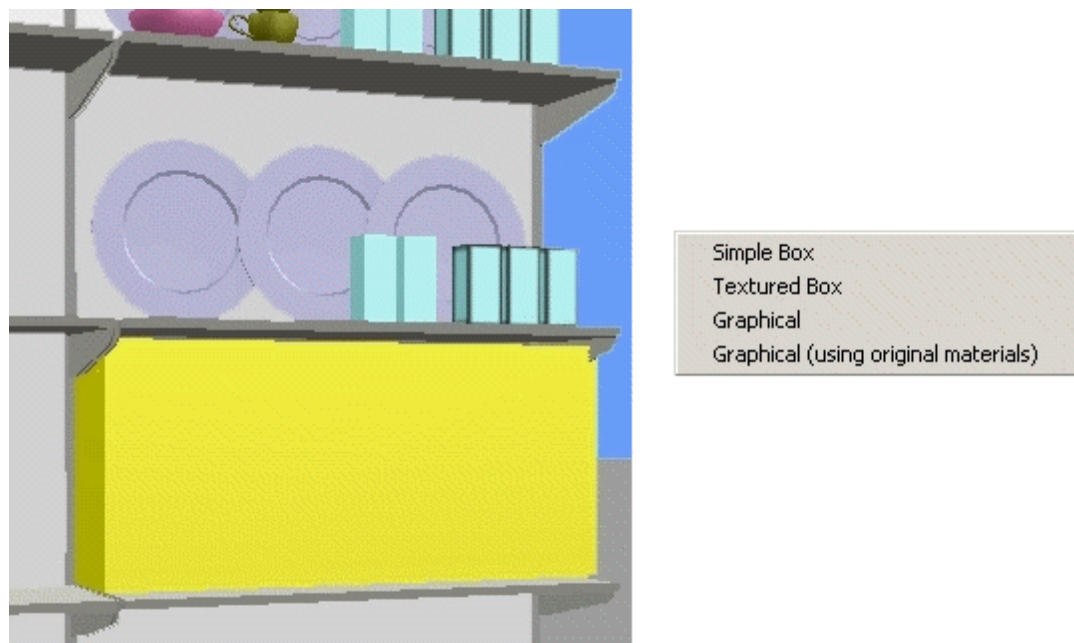
#### Placeholders and Display Styles

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.

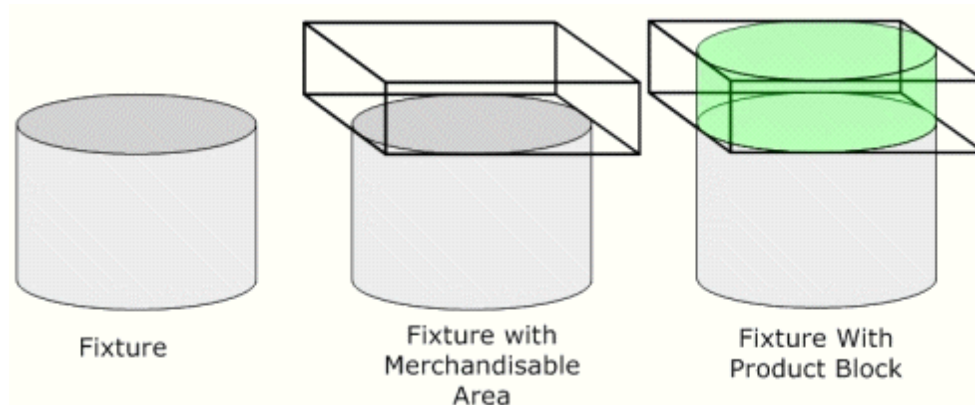


In the above example, the lower shelf is populated with a placeholder; while the upper shelf has products displayed using three types of display style product blocks. (The plates are shown as graphical style product blocks, the boxes on the left as simple boxes and the boxes on the right as textured boxes.

### Product blocks for Fixtures and Shelf Objects

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 scalable. 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 Product Blocks and Placeholders/Display Styles

### 1. Placeholders

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.

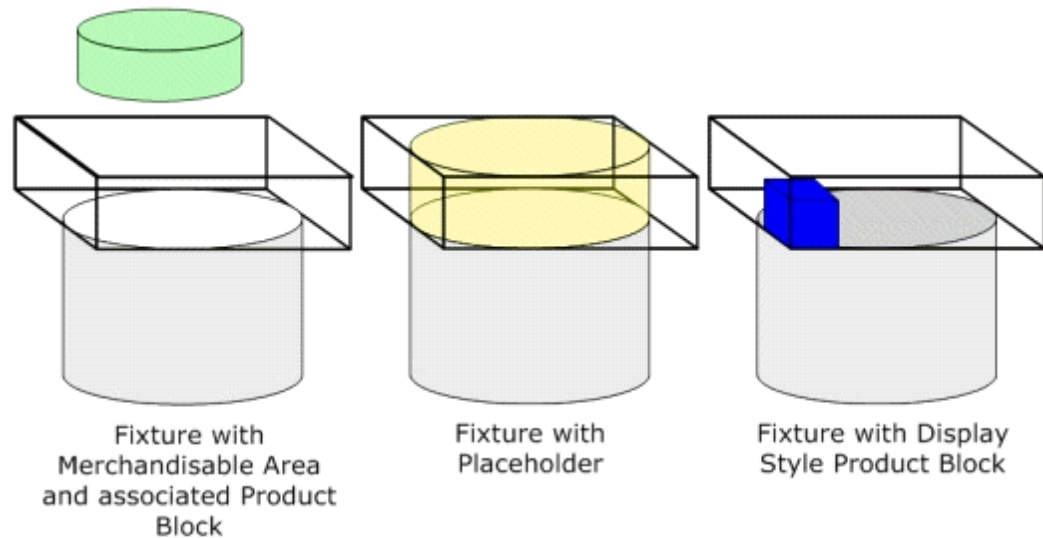
In the example below, the fixture on the left has a default Product Block assigned (green cylinder). It will not be required unless the fixture is merchandised by a placeholder. Because the default Product Block is scalable, it will take up the size determined by the merchandisable area of the fixture. 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.

---

**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.



### 2. 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.

---

**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 UDA Tab

The **User Defined Attributes Tab** is used to specify customized information for a block. This information can then be used for filtering or reporting purposes.

Block Details: I\_Basic\_Chiller\_48x36x72

Description: Basic Chiller 48 in x 36 in x 72 in

Category | Insertion | Size | Connections | Parts | Fixture | **UDAs** | Styles/Ranges | Merchandisable areas | Shelf | Preview

Fixed Attributes

	Property	Value
1	Restrictions	1
2	Obsolescent	<input checked="" type="checkbox"/>

Variable Attributes

Comments

- Fixture - Damaged (Replace)
- Fixture - Different to Plan
- Fixture - Incorrectly Installed
- Fixture - Obstructed (Major)
- Fixture - Obstructed (Minor)
- Fixture - Worn
- Fixture - Wrong Color (Replace)
- Fixture - Wrong Size (Replace)
- Merchandise - Product Quantities Wrong
- Merchandise - Products Damaged
- Merchandise - Products Missing
- Planogram Bays Different Sequence to Plan
- Planogram Design not as Plan
- Planogram Fixture Size Wrong
- Signage - Damaged

>

<

Comments

- Fixture - Damaged (Replace)
- Fixture - Different to Plan
- Fixture - Incorrectly Installed
- Fixture - Obstructed (Major)
- Fixture - Obstructed (Minor)
- Fixture - Worn
- Fixture - Wrong Color (Replace)
- Fixture - Wrong Size (Replace)
- Merchandise - Product Quantities Wrong
- Merchandise - Products Damaged
- Merchandise - Products Missing
- Planogram Bays Different Sequence to Plan
- Planogram Design not as Plan
- Planogram Fixture Size Wrong
- Signage - Damaged

Save OK Cancel

### Attribute Forms

There are two forms of attribute:

#### Fixed Attributes

Fixed attributes are 'definition data' assigned to a specific block definition in Fixture. They are configured in the **UDA dialog box** accessed from the General menu of the Administration module. Values can then be set on a block-by-block basis in the Fixed Attributes frame in Fixture Studio. The list of fixed attributes is constant from block to block. This list cannot be varied - only the values assigned to it can.

#### Variable Attributes

Variable attributes differ in two ways from fixed attributes:

- The list of attributes assigned to a specific block can be varied. The list of fixed attributes is invariable.
- Different values can be assigned to each instance of that block placed in a floor plan. This allows information to be assigned on a case by case basis - for example whether a fixture is damaged or whether it has an incorrect planogram on it.

This information can then be used for reporting or compliance purposes. Variable attributes are configured using the Edit Attribute Definitions option from the Edit menu in Fixture Studio. A list of possible options is assigned in the UDA tab of the Block Details dialog box. After an instance of the block has been placed in a floor plan, users can set individual values for each of the variable attributes by selecting the fixture/block and using the Show Attribute on the Fixturing Toolbar of the Object Browser.

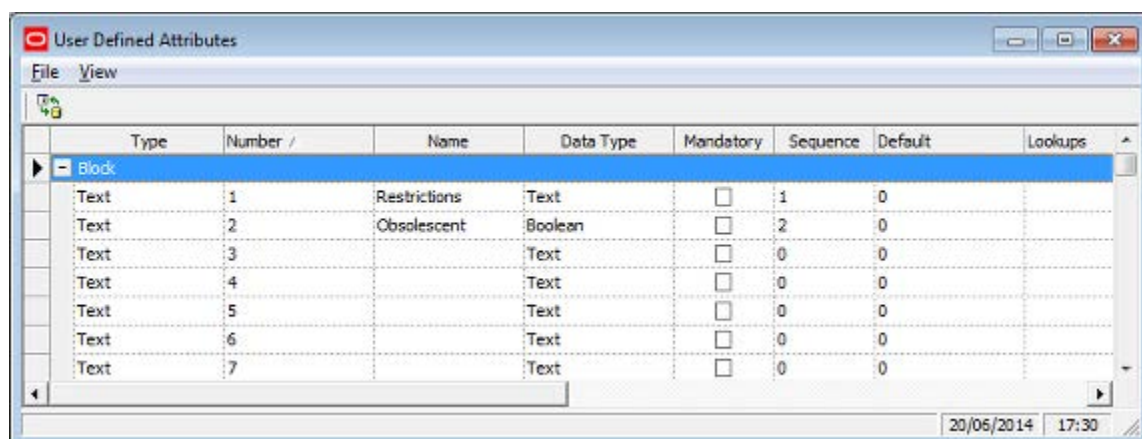
## Configuring Fixed UDAs

Setting up Fixed User Defined Attributes takes place in two stages.

1. The User Defined attributes are configured in the Administration Module.
2. The values for the User Defined Attribute are assigned on a case-by-case basis to each block definition in Fixture Studio.

## Configuring Fixed UDAs in the Administration Module

UDAs are configured in the Administration Module via the User Defined Attribute option from the General Module.



See the Administration Module Help File for more information on how to accomplish this.

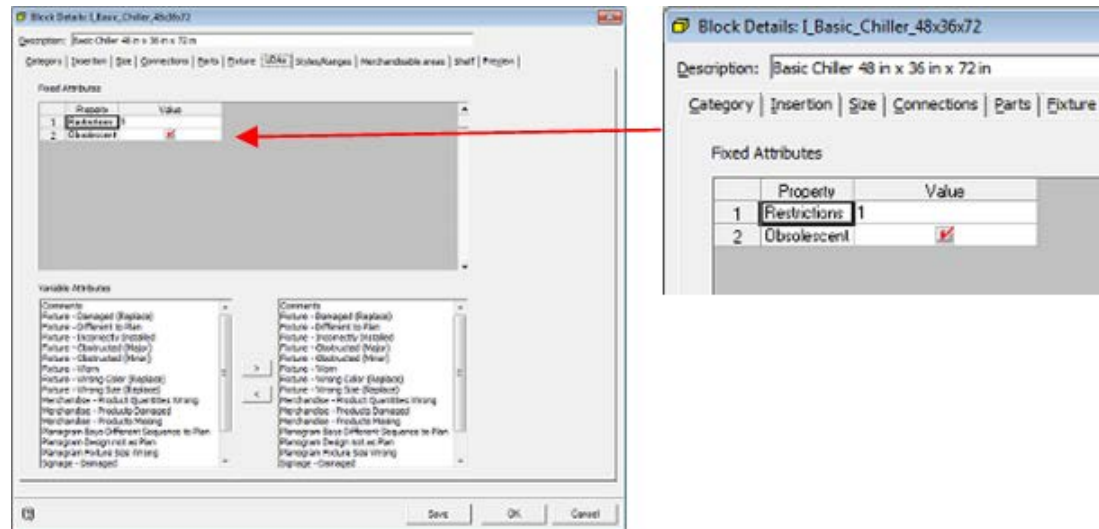
---

**Note:** Only users with Administrator's privileges can access the Administration Module

---

## Setting Values for Individual Block Definitions

Once the User Defined Attributes have been configured in the Administration module, values can be set for individual block definitions.



The list of User Defined Attributes will appear in the left. The value can then be set on the right. It could be a text, date or Boolean value. Depending on settings in the Admin module, a default could already be assigned, or the numeric or text value confined to ones specified in a drop down list. Once assigned, the UDA could be used for filtering purposes - for example in refining a list of a available fixtures in the Object Browser in the Planner or Merchandiser module. The UDA could also be used for filtering purposes in a report, for example in restricting data to a list of fixtures with a common characteristic.

---

**Note:** The display of information in the object browser is controlled by data in the Custom SQL table in the database. This can only be modified by users with access rights to the database.

---

## Configuring Variable Attributes

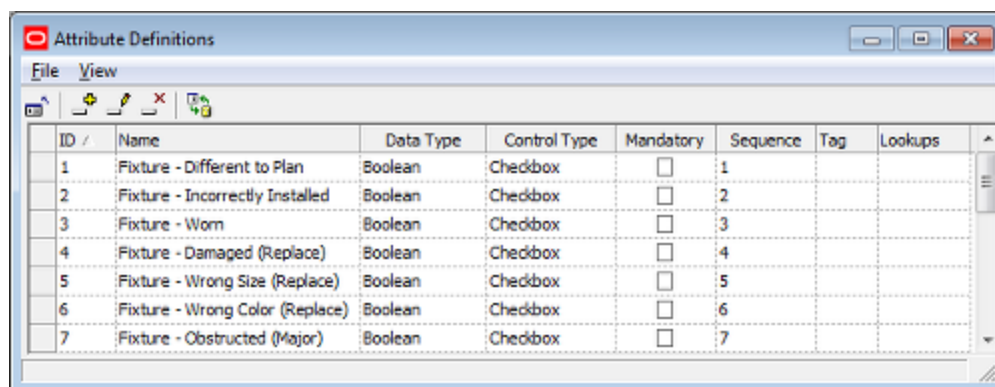
Setting up Variable Attributes takes place in two stages.

1. The Variable Attributes are configured using the Edit Attribute Definitions option on the Edit menu.
2. The variable attributes that can be set are then assigned to individual blocks.

When an instance of that block is placed in a floor plan then the values of the variable attributes that have been assigned to that block can be set in the Planner and Merchandiser modules. These values can also be set in In-Store Space Collaboration - this enables tasks such as store survey or compliance to be carried out.

## Configuring Variable Attributes

Variable Attributes are configured using the Edit Attribute Definitions option on the Edit menu. This will bring up the Attribute Definitions dialog box. Variable Attribute definitions can then be added, edited or deleted by means of the options on the toolbar.



Date set in this dialog box will appear in the UDA tab of the Block Details dialog box and in the Attributes dialog box in the Planner and Merchandiser modules and in In-Store Space Collaboration.

- ID - this cannot be edited and is automatically assigned by the software.
- Name - this is the name given to the Variable Attribute.
- Data Type - this is set from a drop down list and is determined by the type of information to be stored. The options are as follows:

Data Type	Description
String	Used for text values.
Integer	Used for whole numbers: 1, 2, 3, etc.
Long	Used for fractional numbers 1123.456, etc.
Single	Can be used as a substitute for Long.
Double	Can be used as a substitute for Long.
Boolean	Used for Yes/No options (with check boxes).
Currency	Used for financial values.
Image	Not in use.

- Control type - this specifies the type of control to be used in the Attributes dialog box in the Planner and Merchandiser modules and in In-Store Space Collaboration.

Control Type	Description
Text Box	A box for text, numbers or monetary values to be entered.
Drop Down List	Drop down list of preset values, normally used in conjunction with options in the Lookup field. Text can also be typed in.
Check Box	A checkbox for Yes/No options, normally used with the Boolean option.

- Mandatory - if checked, this will force the user to assign a value in the Attributes dialog box in the Planner and Merchandiser modules and in In-Store Space Collaboration before that dialog box can be closed.
- Sequence - this determines the order the options will be displayed in the Attributes dialog box in the Planner and Merchandiser modules and in In-Store Space Collaboration.
- Tab - this option is not currently in use.

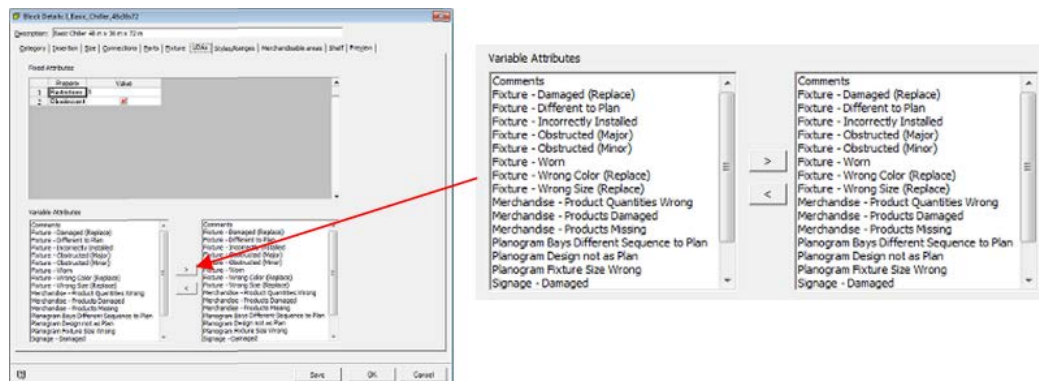
- Lookups - this enables the user to populate a predefined list of options for drop down lists. Each options is separated from the next by a 'pipe' - for example Value 1 | Value 2 | Value 3.

**Note:** in order to ensure the value is stored, press Return after entering it.

Once all values have been assigned, they can be saved back to the database by using the Exit option.

## Assigning Variable Attributes to Individual Blocks

After configuration in the Attribute Definitions dialog box, the list of Variable Attributes will appear in the left hand side of the Variable Attributes frame of the UDA tab on the block details dialog box.



- The '>' button can be used to add Variable Attributes to the list on the right hand side. This list will be displayed when the Attributes dialog box is invoked in the Planner and Merchandiser modules and in In-Store Space Collaboration.
- The '<' button can be used to remove Variable Attributes from the list on the right hand side.

## Using Variable UDAs

### Variable Attributes

Variable attributes are used for reporting purposes - particularly for compliance. They allow specific values to be assigned to individual instances for a fixture placed in a floor plan in the Planner or Merchandiser modules or in In-Store Space Collaboration. They are used in a three stage process:

1. A list of variable attributes is created in Fixtue Studio.
2. Those attributes are assigned to specific blocks via the Block Details dialog box in Fixtue Studio.
3. Individual fixtures, fittings or shelf objects can then be selected in a floor plan and values assigned to the variable attributes.

### Creating the List of Variable Attributes

Selecting **Edit Attribute Definitions** from the Edit menu brings up the Attribute Definitions dialog box. This is used to configure a list of variable attributes that can be assigned to fixtures on the UDA tab of the Block Details dialog box.

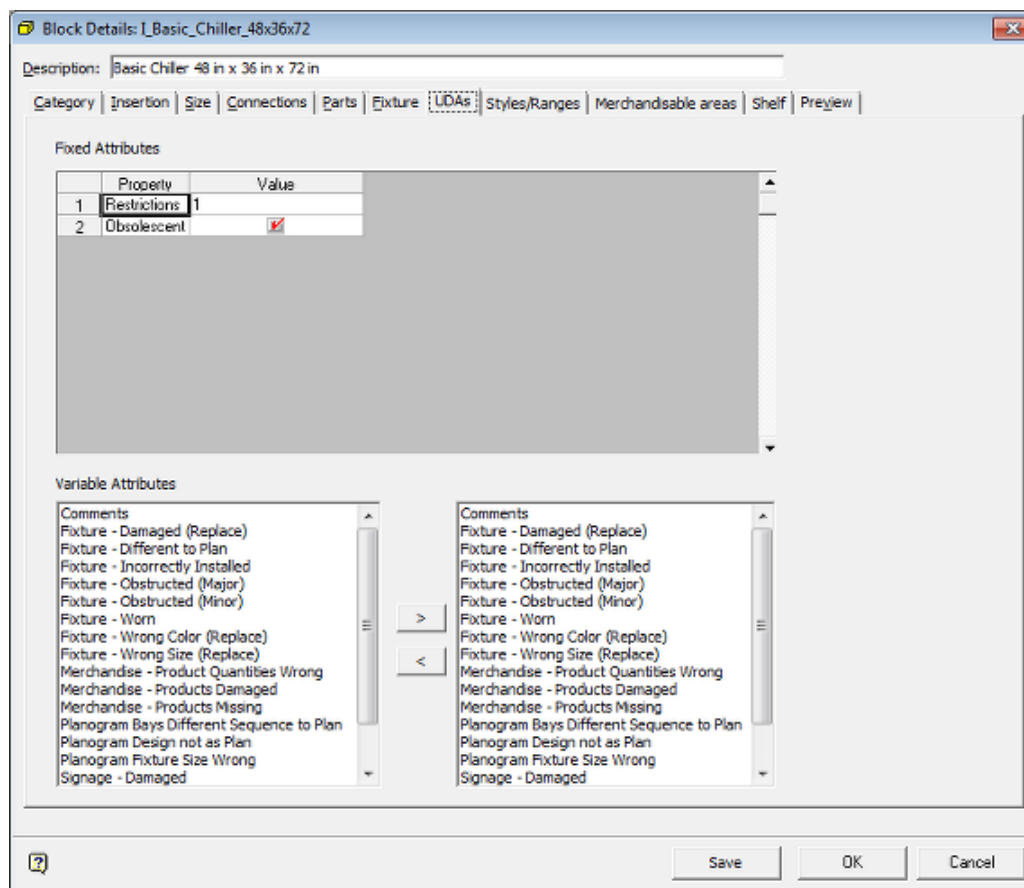
Attributes are configured as follows:

Item	Description
ID	This will be assigned automatically by the software.
Name	This is the name of the attribute. It will appear in the Block.
Data type	This is the form of the data that will be entered.
Control Type	This is the form of control used to accept data in the Planner and Merchandiser modules and in In-Store space Collaboration. It can be a check box, drop down list or text box.
Mandatory	This is whether the data is mandatory or not. This option should be used with caution as the Attributes dialog box cannot be closed in the Planner or Merchandiser modules or in In-Store Space Collaboration without the mandatory information being present.
Sequence	This is the order the information will be displayed in the Attributes dialog box in the Planner or Merchandiser modules or in In-Store Space Collaboration.
Tag	This option is not presently in use and can be left blank.
Lookups	This is used to populate a drop down list (if in use).

### **Assigning Variable Attributes to fixtures in Fixture Studio**

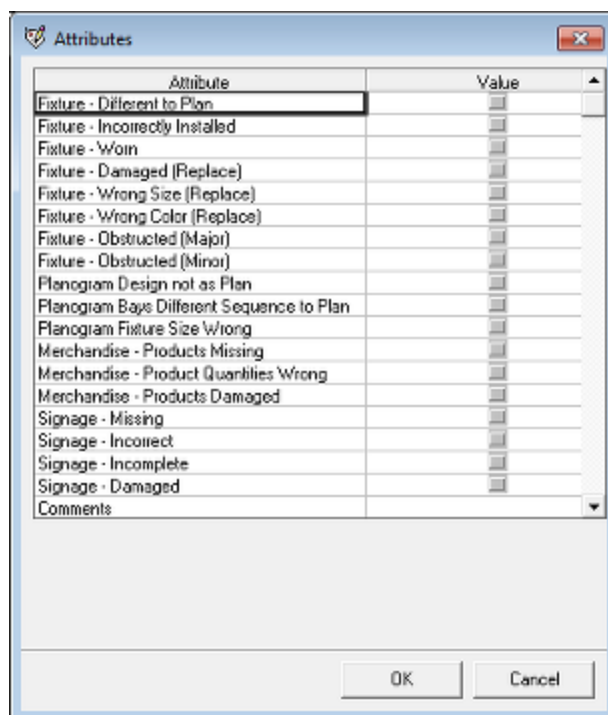
Once attributes are set up, they are assigned to individual blocks in the UDA tab of the block details dialog box. The attributes can be added (or removed) from the list of those that will display by means of the > or < buttons.





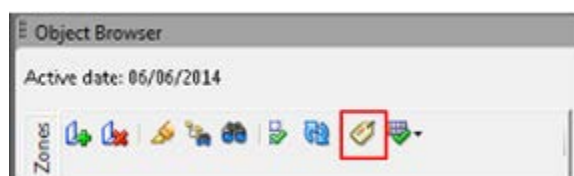
## Using Variable Attributes

Once the Variable Attributes have been assigned and saved, they can then be used to set 'instance' data for fixtures placed in a floor plan in the Planner or Merchandiser modules on in In-Store Space Collaboration. This is done by selecting one or more fixtures in the floor plan and then clicking the attributes icon on the Fixturing toolbar in the Object Browser. This will bring up the Attributes dialog box.



Information can then be entered and saved on a fixture by fixture basis. This can then be used for reporting purposes. For example, a KPI could be created to show all fixtures with incorrect planograms. This would mean an In-Store Space Collaboration user in an individual store could mark up planograms on site and a Macro Space Management user at headquarters could then see where reality in the store differed from what was in the floor plan.

Within the Planner and Merchandiser modules (and in In-Store Space Collaboration) Variable Attributes can be set for individual fixtures by selecting a fixture, then clicking the Show Attribute option on the toolbar.



This will bring up the Attributes dialog box.

A	B
Fixture - Different to Plan	<input type="checkbox"/>
Fixture - Incorrectly Installed	<input checked="" type="checkbox"/>
Fixture - Worn	<input type="checkbox"/>
Fixture - Damaged (Replace)	<input type="checkbox"/>
Fixture - Wrong Size (Replace)	<input type="checkbox"/>
Fixture - Wrong Color (Replace)	<input type="checkbox"/>
Fixture - Obstructed (Major)	<input checked="" type="checkbox"/>
Fixture - Obstructed (Minor)	<input type="checkbox"/>
Planogram Design not as Plan	<input type="checkbox"/>
Planogram Bays Different Sequence to Plan	<input type="checkbox"/>
Planogram Fixture Size Wrong	<input checked="" type="checkbox"/>
Merchandise - Products Missing	<input type="checkbox"/>
Merchandise - Product Quantities Wrong	<input type="checkbox"/>
Merchandise - Products Damaged	<input type="checkbox"/>
Signage - Missing	<input checked="" type="checkbox"/>
Signage - Incorrect	<input type="checkbox"/>
Signage - Incomplete	<input type="checkbox"/>
Signage - Damaged	<input checked="" type="checkbox"/>
Comments	None

OK Cancel

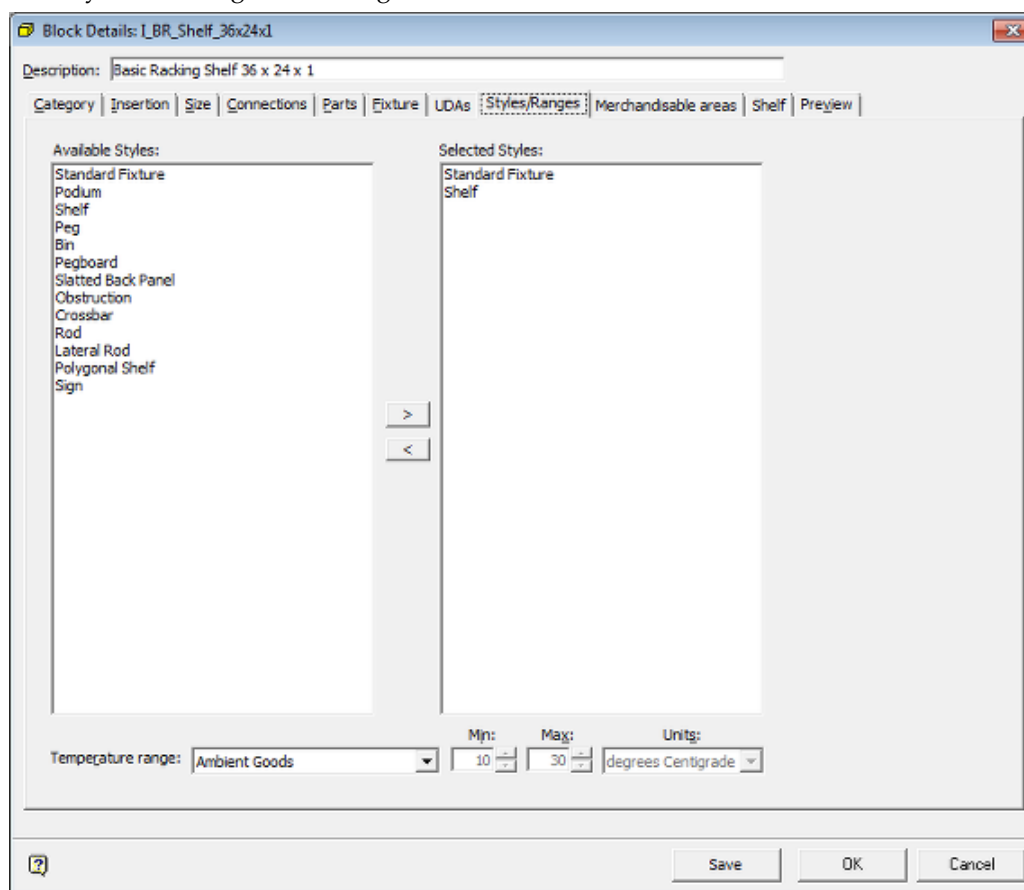
This will contain a list of attributes specific to that block in that floor plan that were assigned in the UDA tab of the Block Details dialog box in Fixture Studio. The values for that instance of the block can then be set accordingly. In the above example, the variable attributes allow an In-Store Space Collaboration user to set values based on a Store Survey or Compliance Check. Once set, the values can then be read in Macro Space Management if the floor plan is opened in the Planner or Merchandiser modules and the attributes displayed for the appropriate fixtures. Alternatively, the assigned attributes can be used for reporting purposes.



## Styles/Ranges Tab

### The 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 shelves and products than can be placed on that parent fixture or shelf. They are assigned to both fixtures and shelves. Both styles and ranges are configured in the Administration module.



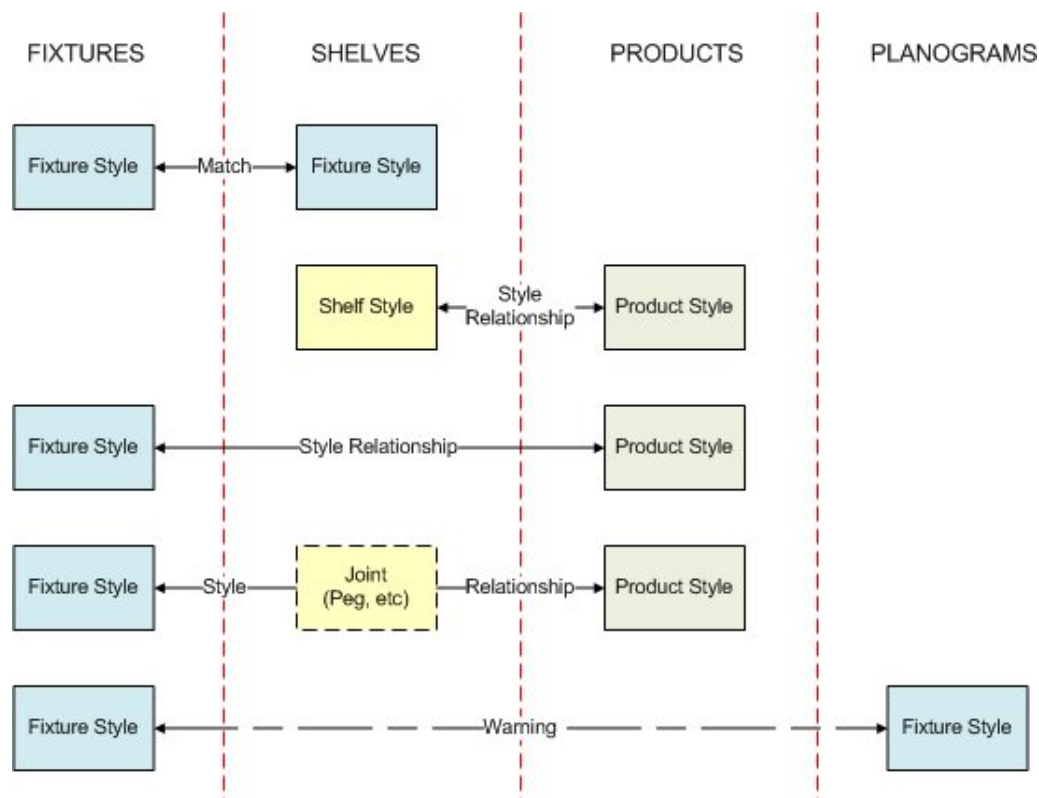
The style options are as follows:

Option	Description
Available Styles	This is the list of styles that can be selected. If the item of equipment is a fixture, only fixture styles will be visible. If the item of equipment is a shelf, both fixture and shelf styles will be visible.
Selected Styles	These are the styles to be used for that specific item of equipment. If a fixture, a fixture style must be selected. If a shelf object, both a fixture style and a shelf style must be selected.

The range is set from a configurable drop down list.

## Overview of Styles

**Styles** are used in as filters in the Planner and Merchandiser modules and in In-Store Space Collaboration, primarily to avoid incorrect placement of shelves, products and planograms. There are a variety of styles and style relationships.



Style Relationship	Description
Fixture - Shelf	Fixtures are assigned a fixture style. Shelves are also assigned a fixture style. When placing shelves onto fixtures in the merchandiser the two styles must match or the shelf cannot be placed
Shelf - Product	Shelf objects are assigned a shelf style. Products are assigned a product style in Product Studio. If a relationship has been set up between the two in the Administration module, the product can be placed in Merchandiser. Shelf/Product styles do not affect product placement in Planner on In-Store Space Collaboration.
Fixture - Product	Fixtures are assigned a fixture style. Products are assigned a product style in Product Studio. If a relationship has been set up between the two in the Administration module, the product can be placed in Merchandiser. Fixture/Product styles do not affect product placement in Planner on In-Store Space Collaboration.
Fixture - Joint - Product	This represents a special case. Joints can be set up in the Administration module. These represent a fixture-shelf-product style relationship. If a user places that product directly on a fixture in Merchandiser, the shelf object is automatically placed as well. This is most common when placing a product on a pegboard - placing the product causes the peg to be placed as well.

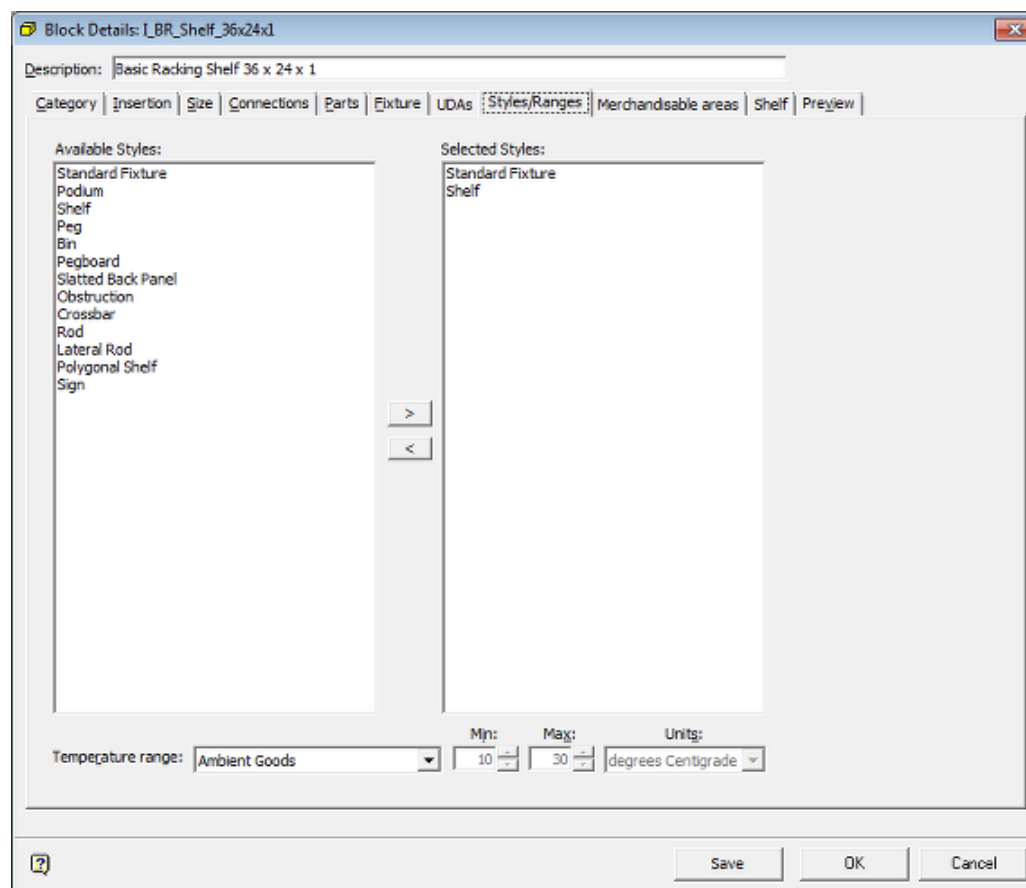
Style Relationship	Description
Fixture - Planogram	Both the fixture and the planogram have fixture styles associated with them. If an attempt is made to place a planogram of a fixture that does not match the style associated with the planogram, a warning will result.

## Overview of Ranges

Ranges are used as filters in the Planner and Merchandiser modules and in In-store Space Collaboration, primarily as a filter to ensure that planograms are not placed on incompatible equipment. For example, a planogram containing ice cream should be placed on freezers to prevent the ice cream melting when actually placed in the store.

## Working with Styles

The **Available Styles** Tab contains a list of styles that have been defined in the Administration Module. If a fixture, the list will only contain Fixture styles. If a shelf, the list will contain both fixture and shelf styles.



The style options are as follows:

Option	Description
Available Styles	This is the list of styles that can be selected. If the item of equipment is a fixture, only fixture styles will be visible. If the item of equipment is a shelf,

Option	Description
Selected Styles	These are the styles to be used for that specific item of equipment. If a fixture, a fixture style must be selected. If a shelf object, both a fixture style and a shelf style must be selected.

## Managing the List of Selected Styles

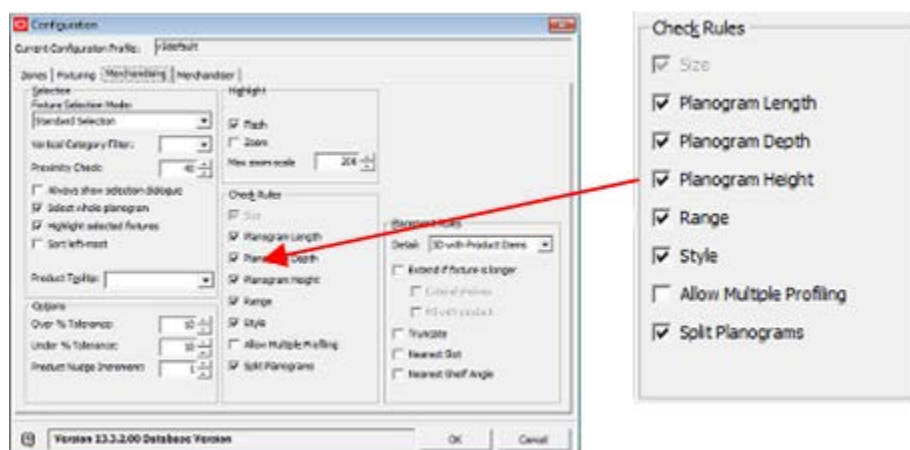


To add a style to the Selected Styles list, highlight the part in the Available Styles frame and use the Add arrow. Alternatively highlight and double click on the style in the Available Styles frame. Depending on the block, the styles will define the type of equipment it can connect with, and (if a shelf or fixture) the type of merchandise it can accept.

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.

## Configuration Module

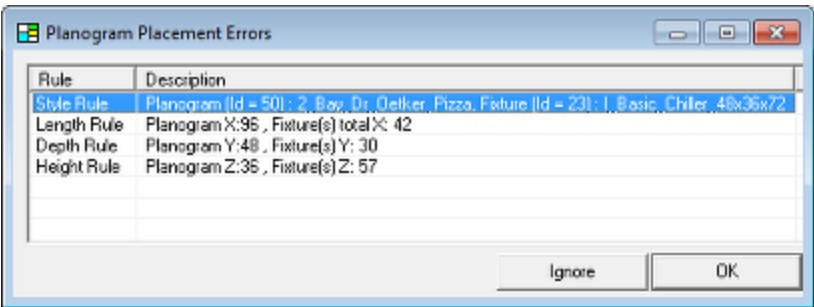
Whether Styles are used for filtering purposes in Macro Space Planning depends on settings the Check Rules frame of the Merchandising Tab in the Configuration Module - these are local settings that only affect the user making them.



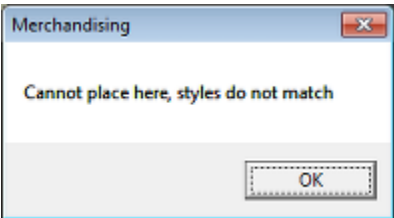
## Planner and Merchandiser Modules

If the range option has been turned on for an individual user in the Configuration Module, it will trigger a warning if the ranges on equipment and merchandise do not match when placing planograms.



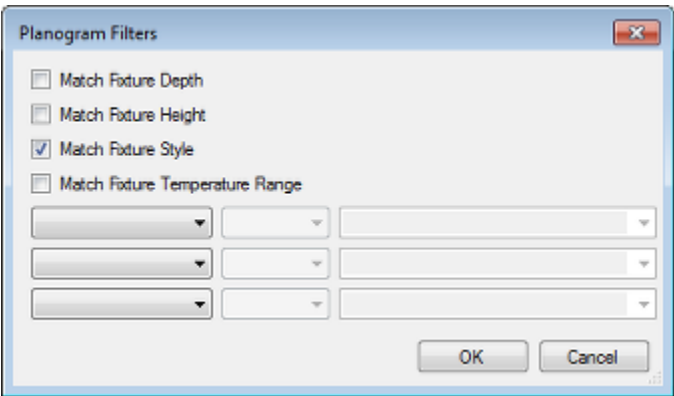


In addition, if the user tries to place a Display Style product on an incompatible fixture or shelf in Merchandiser, a warning will result.

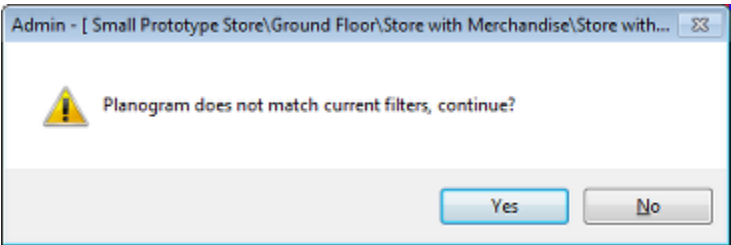


**In-Store Space Collaboration**

Styles can be used as a filter when placing planograms in In-Store Space Collaboration. This option is set in the Planogram Filter dialog box.



If this option is selected, a warning will come up when the user tries to place a planogram. This warning can be overridden by the user, but they will have been alerted to a problem.



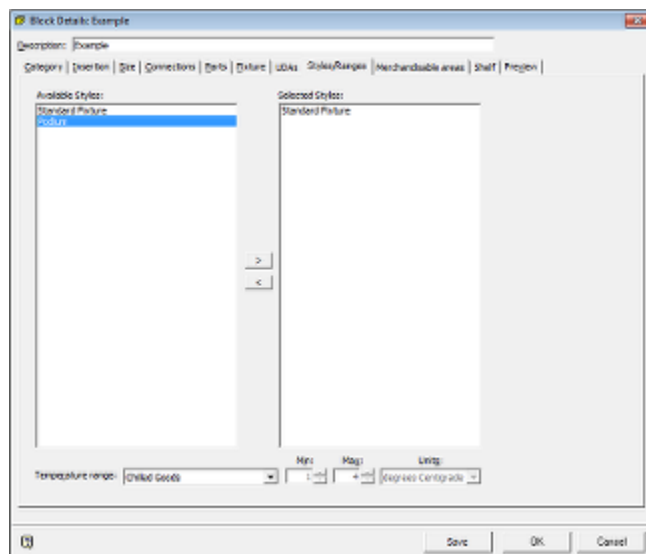
**Where Styles are Assigned**

Styles can be assigned to Fixtures, Shelf Objects, Products and Planograms.

## Assigning Styles

### Fixtures

Fixture Styles are assigned in the Fixture Studio Module in the Styles tab of the Block Details dialog box. A Fixture is required to have a Fixture style assigned. Only Fixture Styles will be available for selection in the Styles/Ranges Tab.



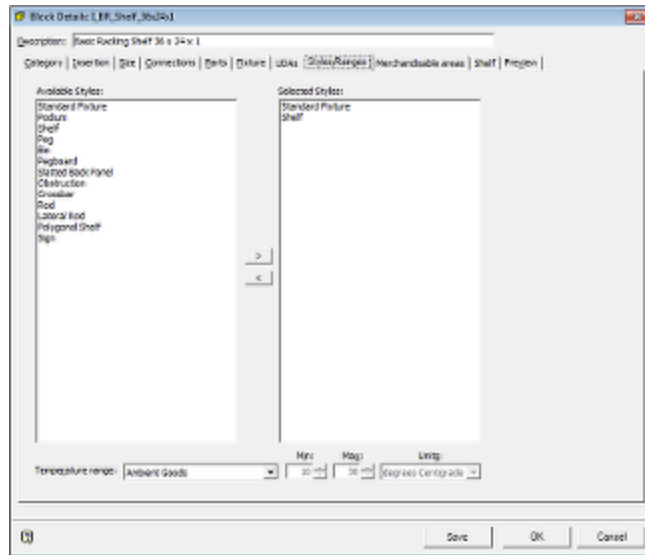
---

**Note:** Whether an object is designated as a fixture is set in the Categories tab.

---

### Shelf Objects

Both Fixture and Shelf Styles are assigned in the Fixture Studio Module in the Styles tab of the Block Details dialog box. A Shelf Object is required to have both Fixture and Shelf styles assigned. Both Fixture and Shelf Styles will be available for selection in the Styles/Ranges Tab.




---

**Note:** Whether an object is designated as a Shelf Object is set in the Categories tab.

---

## Products

Only Products at Display Style Level can be assigned Styles. This is done in the Styles Tab of the Display Style dialog box in Product Studio.

Product Display Style - Example

Name: Example-Hanging

Description: Example

Client Code:

Manufacturer: Generic Product

UPC: 12345678

Display Style Type: Unit

Code:

Quantity: 1

Sellable: ☒

Requires Power: ☐

Size & Shape | **Styles** | Images | Peg Holes | Orientation

Available Styles:

- Hinged Product
- Equipment Display
- Standard Shelved

Selected Styles:

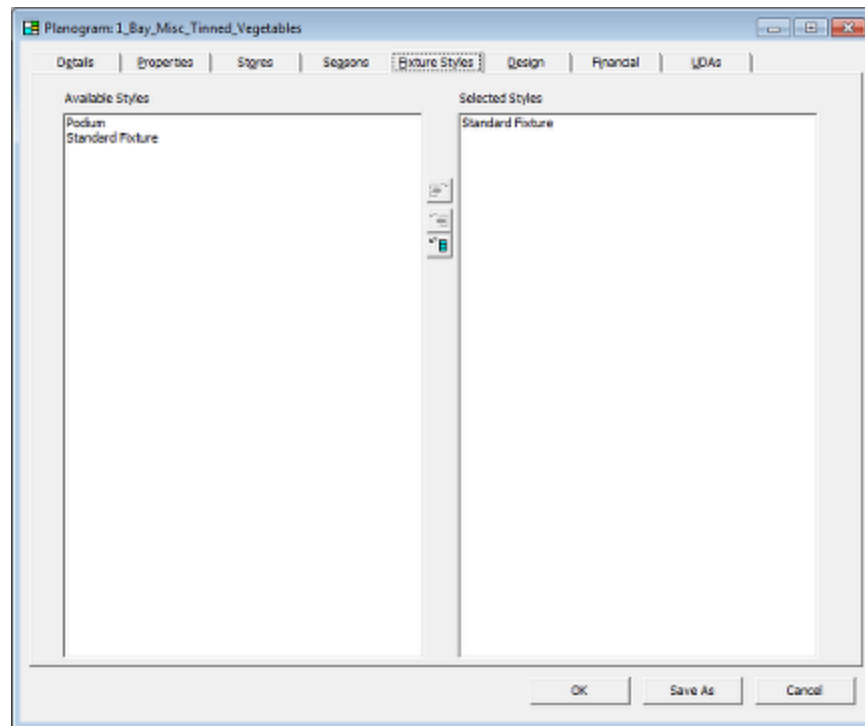
- Hung Product

OK Cancel

Only Product Styles will be available for Selection.

### Planograms

Planograms are assigned Fixture Styles in the Planogram Design dialog box in the Merchandiser Module.



Only Fixture Styles will be displayed.

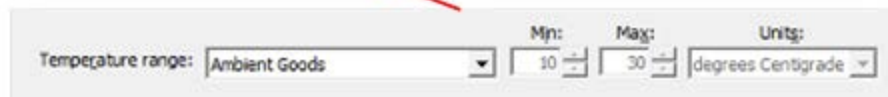
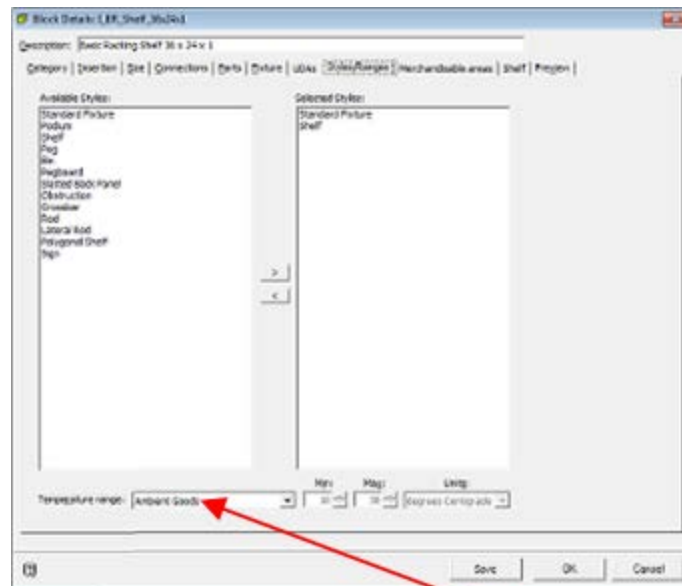
## Range Options

The **Range Options** frame allows the user to set a permissible temperature range for the fixture/shelf. This is compared with the temperature range for any display style level merchandise placed in Merchandiser. The merchandise can be placed if the temperature ranges match, but will be rejected if they do not.

---

**Note:** Temperature Ranges can also be used as a filter when placing planograms in In-Store Space Collaboration.

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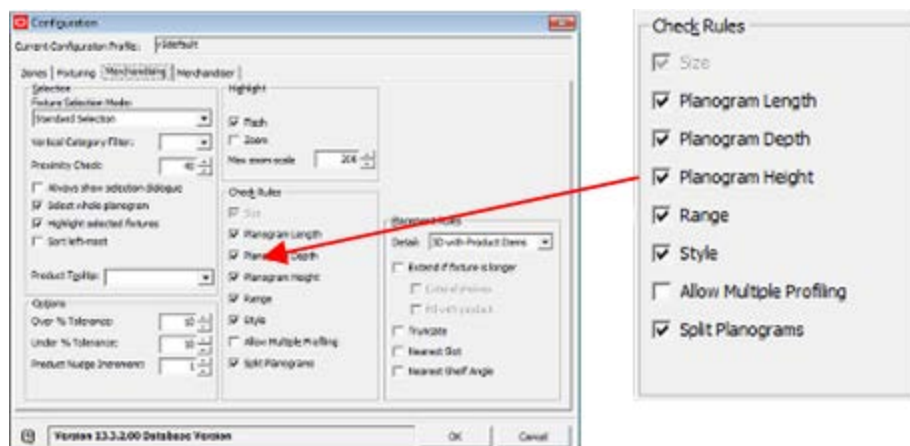


Temperature ranges are configured in the Administration module (Merchandising Menu > Ranges). They are then assigned to Fixtures and Shelf Objects in Fixture Studio. Temperature ranges can also be assigned to Products in Product Studio and to Planograms in Merchandiser (or can be imported with product or planogram information).

## Options

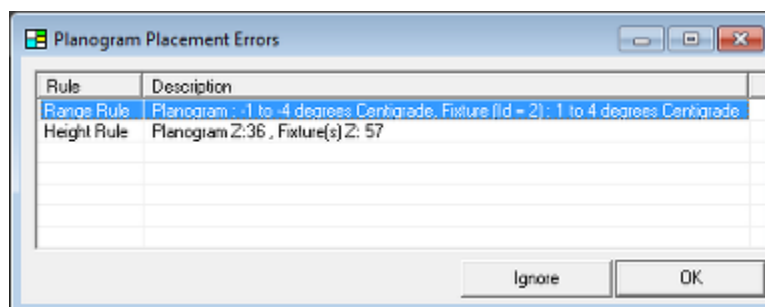
### Configuration Module

Whether Ranges are used for filtering purposes in Macro Space Planning depends on settings the Check Rules frame of the Merchandising Tab in the Configuration Module - these are local settings that only affect the user making them.

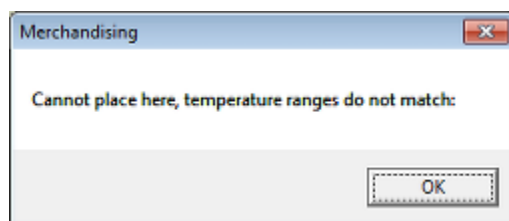


## Planner and Merchandiser Modules

If the range option has been turned on for an individual user in the Configuration Module, it will trigger a warning if the ranges on equipment and merchandise do not match when placing planograms.

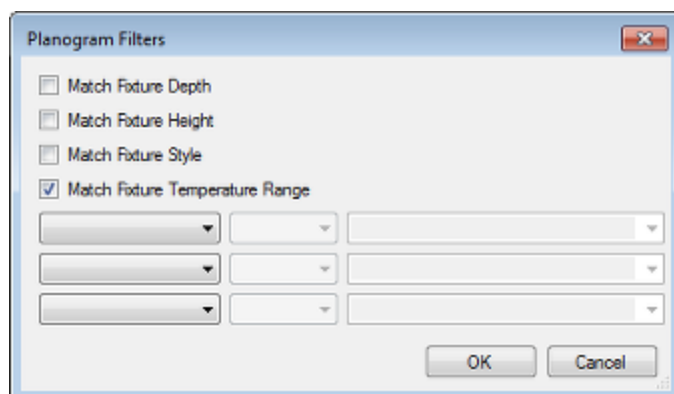


In addition, if the user tries to place a Display Style product on an incompatible fixture or shelf in Merchandiser, a warning will result.

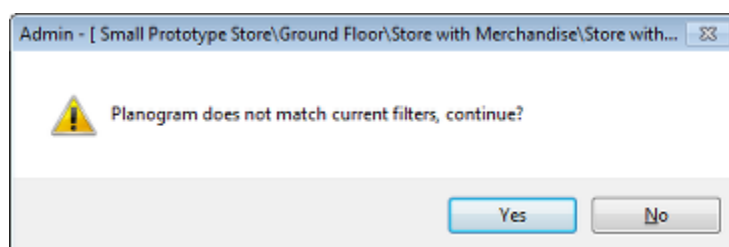


## In-Store Space Collaboration

Ranges can be used as a filter when placing planograms in In-Store Space Collaboration. This option is set in the Planogram Filter dialog box.



If this option is selected, a warning will come up when the user tries to place a planogram. This warning can be overridden by the user, but they will have been alerted to a problem.



## Where Ranges are Assigned

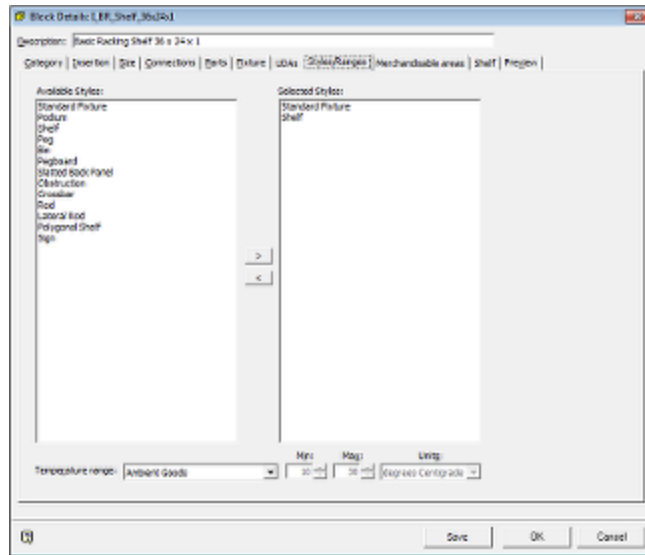
Temperature Ranges can be assigned to Fixtures, Shelf Objects, Products and Planograms.

## Assigning Ranges

### Fixtures and Shelf Objects

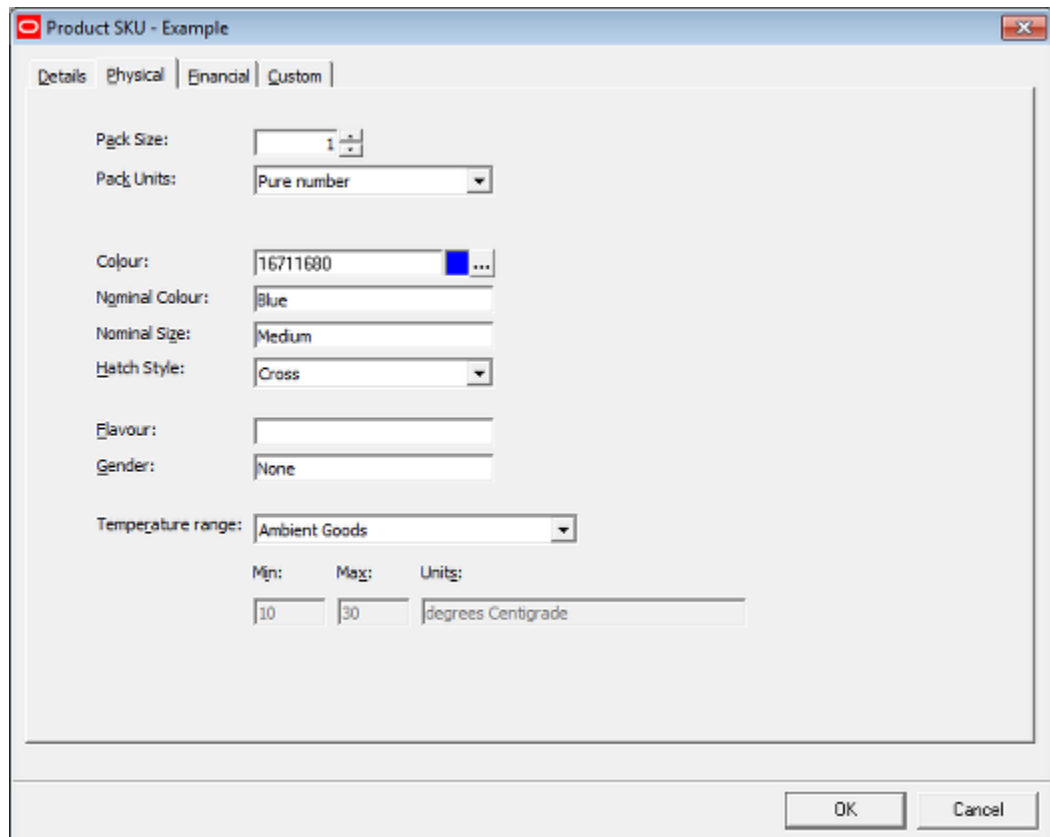
Ranges are assigned to fixtures and shelf objects in the Fixture Studio Module in the Styles tab of the Block Details dialog box.





## Products

Only Products at SKU Style Level can be assigned Temperature Ranges. This is done in the Styles Tab of the Display Style dialog box in Product Studio. The temperature range selected is then reflected in any Display Styles created as children of the SKU.



## Planograms

Planograms are assigned Fixture Styles in the Planogram Design dialog box in the Merchandiser Module.

Planogram: 1\_Bay\_Misc\_Tinned\_Vegetables

Details Properties Styles Segments Fixture Styles Design Financial UDAs

Name: 1\_Bay\_Misc\_Tinned\_Vegetables Revisions: 1

Description: 1 Bay Misc Tinned Vegetables

Associated Document: ...

Size Description: 36 x 24 x 72

Status: Authorized Client Code: 00000061

Family Code: Family ABC Buddy Family Code: Buddy Family 456

Assortment Code: Assortment 123 Units: Imperial inch

Temperature Range: Ambient Goods Time Units: standard hour

Weight Range: < No Ranges Selected > Manpower Set Time: 1.00

Publish Date: 02 November 2011 Manpower Dismantle Time: 0.50

Effective Date: 12 November 2011 Category Role: Routine

Expiry Date: 31 December 2099 Inventory Model: Inventory DEF

Stock Type: Normal Bank: 0

Autofill Rule: < No Rule Selected > Traffic Flow: ☒ Left to Right  
☐ Right to Left

Preferred Template: Basic Planogram Report Requires Power: ☐

Can be Split: ☐

OK Save As Cancel

## Merchandisable Areas Tab

### The Merchandisable Areas Tab

The **Merchandisable Areas Tab** is used to indicate the extents of the space that merchandise can take up on the fixture or shelf object.

The screenshot shows the 'Block Details: Example' dialog box with the 'Merchandisable areas' tab selected. The 'Primary area' section includes 'Offset 1' (X: 3, Y: 3, Z: 12), 'Offset 2' (X: 3, Y: 3, Z: 3), and 'Size' (X: 42, Y: 30.5, Z: 57). The 'Further areas' section includes a 'Names' list with an asterisk, 'Position' (X: 0, Y: 0, Z: 0), 'Size' (X: 0, Y: 0, Z: 0), 'Horizontal Angle' (0), and 'Vertical Angle' (0). The 'Unconstrained' checkbox is checked for the 'Size' field.

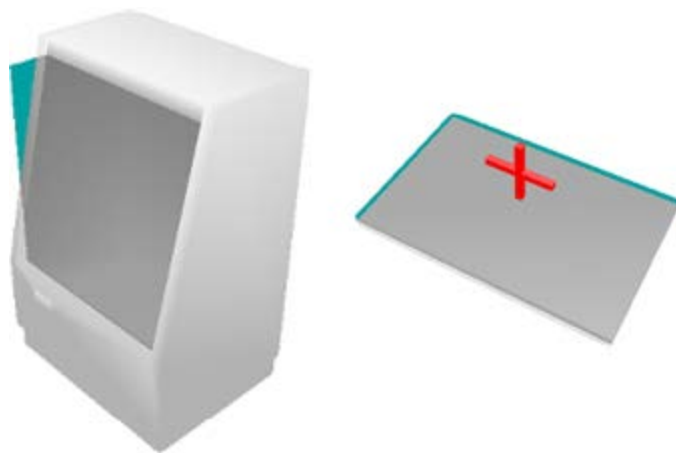
There are two types of merchandisable areas - Primary Area or Further Area. The two are mutually exclusive - you can have a Primary Area or Further Areas, but not both.

### Types of Merchandisable Areas

There are two types of merchandisable area; primary and further. The two are mutually exclusive: if you define further merchandisable areas, you cannot define a primary merchandisable area.

#### Primary Area

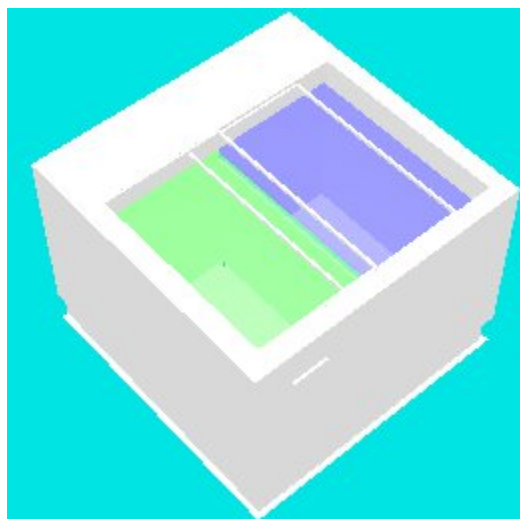
This option is used when there only one merchandisable area is required on a fixture or shelf object. In the example below, the fixture on the left shows a primary merchandisable area assigned to a chiller unit. The cross on the shelf on the right shows that it has been assigned a primary merchandisable area that is unconfined (unlimited) in the Z (height) axis.



Primary areas can be used with both fixed size and stretchable blocks.

### Further Area

Further Areas are used when multiple merchandisable areas are required. In the example below, the freezer has a permanent internal divider and thus has been assigned 'left' and 'right' merchandisable areas. Further areas are normally only used for fixed size blocks.



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---

**Note:** if a Primary Area has been assigned and a user defines a Further Area, the Primary Area will be disabled.

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---

## The Primary Areas Frame

The **Primary Area Frame** allows the user to specify the Primary Merchandisable Area. The Pick options will only be active if Fixture Studio is connected to Planner (File menu) and there is an instance of the block in the currently active drawing.

---

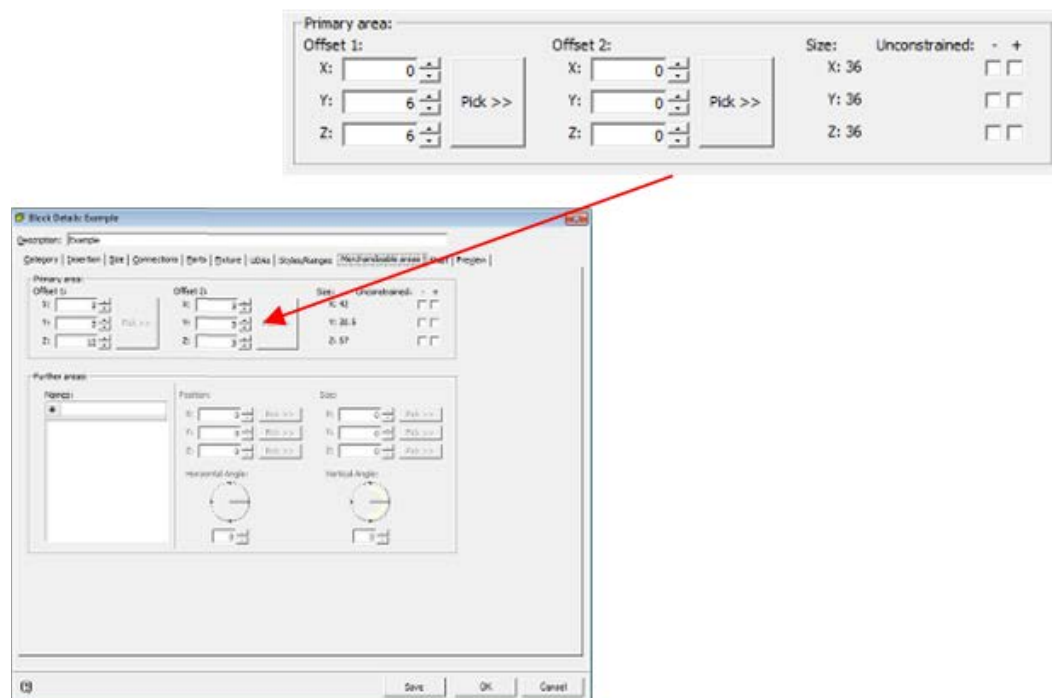
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**Note:** if a Primary Area has been assigned and a user defines a Further Area, the Primary Area will be disabled.

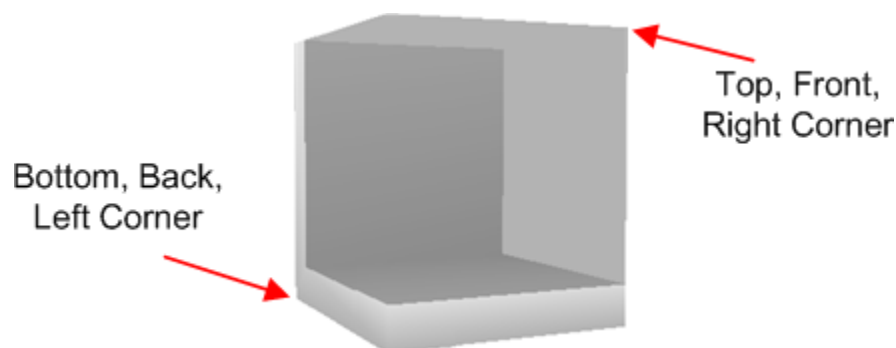
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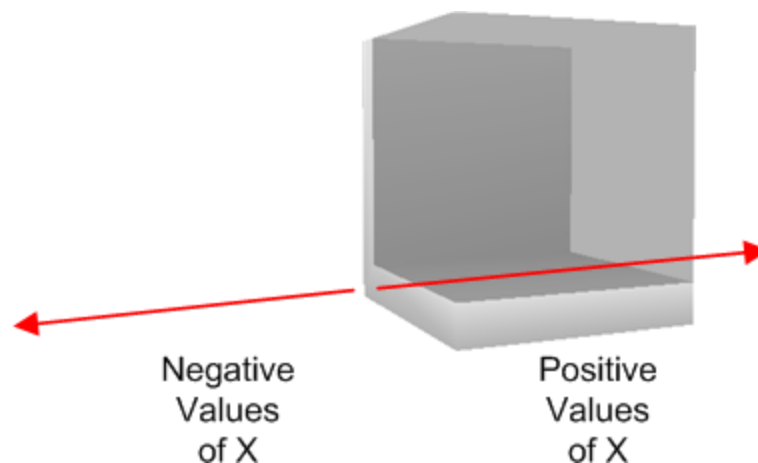
Primary Merchandisable Areas can be used in conjunction with stretchable fixtures.



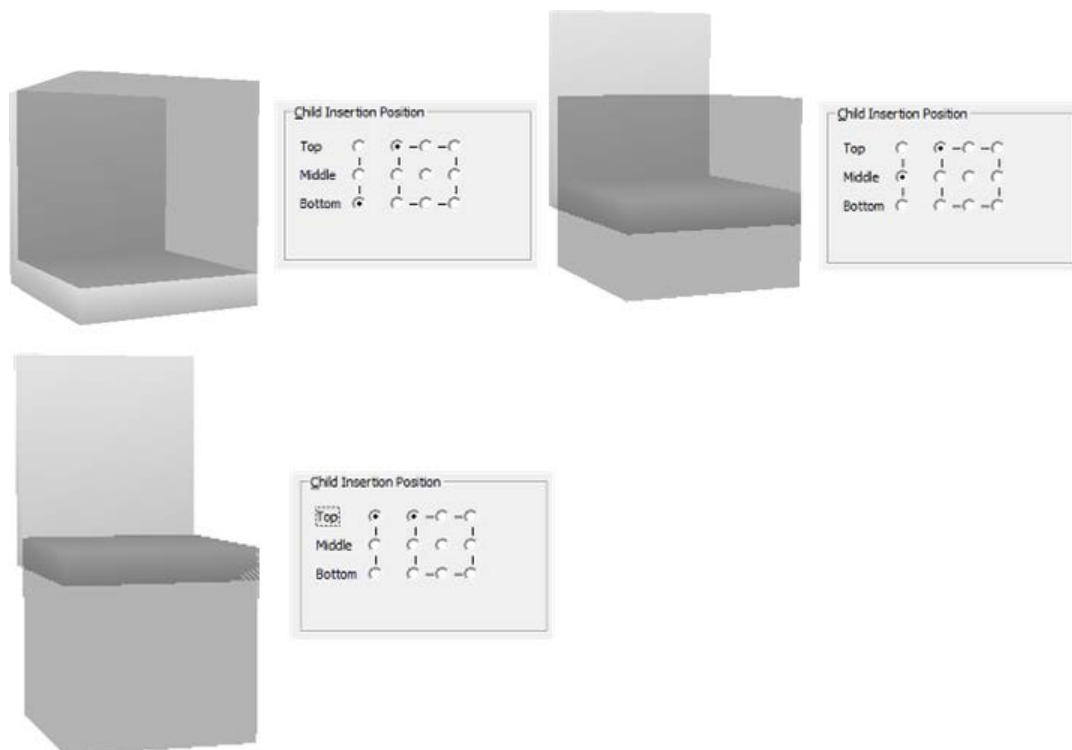
They are defined as a cuboid with reference to the extents of the fixture. Offset 1 defines the starting point of the Primary Area relative to the bottom-back-left corner of the fixture. Offset 2 defines the diagonally opposite corner of the Primary Area. This is relative to the top-front-right corner of the fixture



The offsets work relative to the extents of the block. A positive value brings the corner of the cuboid inside of the extents of the fixture, while a negative value moves it outside. This can be seen in the diagram below.

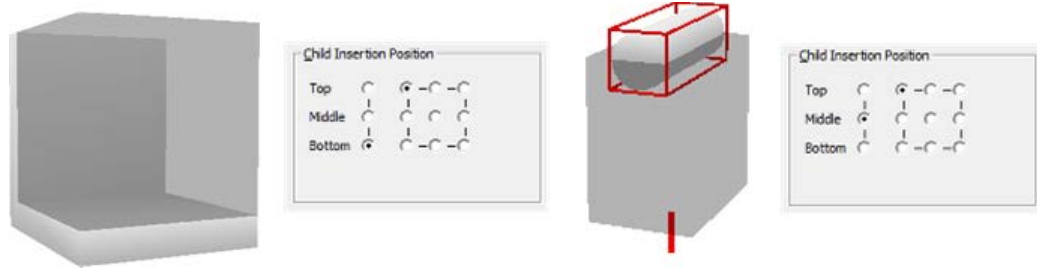


The position of the Merchandisable area is also affected by the Child Insertion Position set in the Insertion tab.



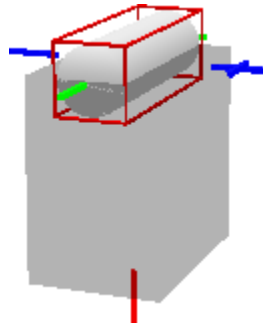
- If the Child Insertion position is set to bottom, the bottom-back-left corner of the merchandisable area will be aligned relative to the AutoCAD insertion pint of the fixture.
- If the Child Insertion position is set to middle, the centre of the back-left-side of the merchandisable area will be aligned relative to the AutoCAD insertion pint of the fixture.
- If the Child Insertion position is set to top, the top back-left corner of the merchandisable area will be aligned relative to the AutoCAD insertion pint of the fixture.

Normally, the Child Insertion Point would be set to bottom for fixtures that are to have merchandise stacked on them and to top for pegs or other shelf objects, where merchandise will hang.



In the above example, the fixture has the Child Insertion Position set to Bottom, and the Rod has the Child Insertion Position set to Top. Setting up the merchandisable areas for the two types of object requires slightly different techniques. These are explained in the worked examples that follow.

The size of the defined Primary area is shown towards the right of the frame, while the unconstrained check boxes allow merchandise to extend for any distance in that direction. If unconstrained areas are specified, these will be indicated by 'plus' or minus' symbols in the preview tab.




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**Note:** The unconstrained check boxes are normally only used with pegs and rods.

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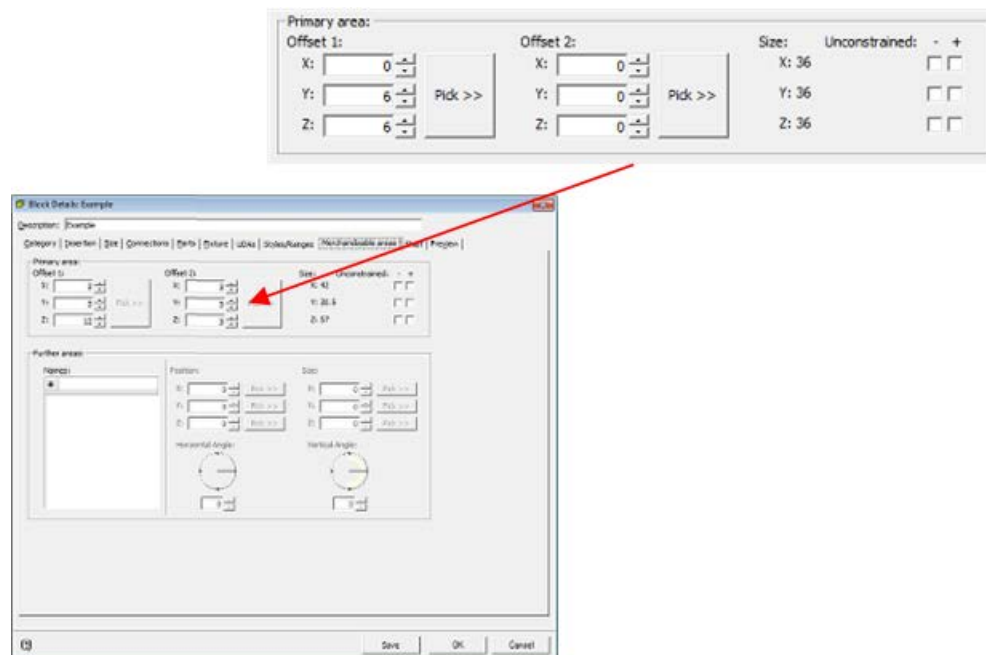
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## Additional Fixture Height

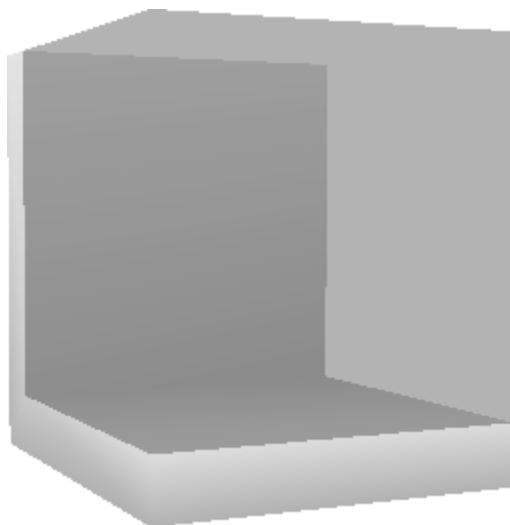
The height of a primary merchandisable area can also be affected by the **ADDITIONAL\_FIXTURE\_HEIGHT** system variable. This global setting can add a specified additional height to all Primary Areas. It is configured in the Administration module.

## Configuring a Primary Merchandisable Area for a Fixture

Primary Merchandisable Areas are configured in the Primary Areas frame.



In the specially created example fixture below, the fixture has a base and back. The merchandisable area has to take those into account. This example will show how to create that merchandisable area.

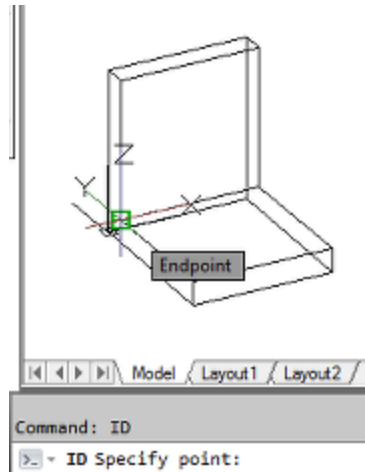


## Configuration

### AutoCAD ID Command

When identifying the coordinates that identify the extents of each merchandisable area, the AutoCAD ID command can be useful.





Position the fixture which is having its merchandisable areas configured with its insertion point at 0,0,0. and type ID into the command line. The user will be invited to pick a point. When OSNAP is turned on, a precise point can be picked on the fixture. The coordinates of the point will then be shown on the command line.



### Starting Condition of the Primary Area Frame

For a new block (fixture) the frame will be blank.

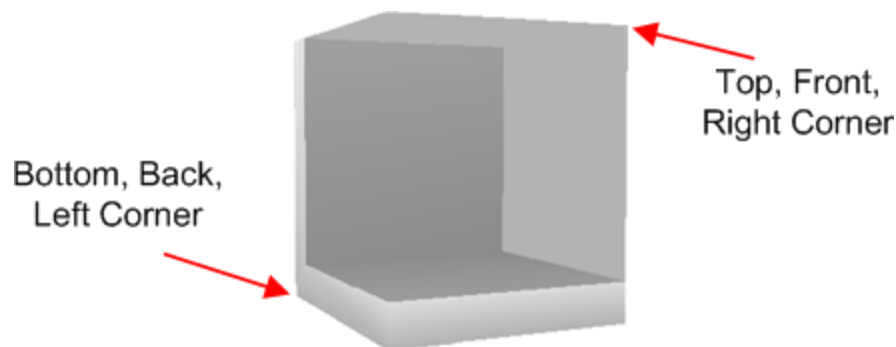
Primary area:		
Offset 1:	Offset 2:	Size:    Unconstrained: - +
X: <input type="text" value="0"/>	X: <input type="text" value="0"/>	X: 36 <input type="checkbox"/>
Y: <input type="text" value="0"/>	Y: <input type="text" value="0"/>	Y: 42 <input type="checkbox"/>
Z: <input type="text" value="0"/>	Z: <input type="text" value="0"/>	Z: 42 <input type="checkbox"/>
Pick >>		

### Before Starting

Ensure that the Insertion Point and Child Insertion Point (Insertion Tab) are appropriately set. In this case both have been set to bottom-back-left.

### Creating the Primary Area

In order to create the primary area, two offsets have to be entered. Offset 1 defines the starting point of the Primary Area relative to the bottom-back-left corner of the fixture. Offset 2 defines the diagonally opposite corner of the Primary Area. This is relative to the top-front-right corner of the fixture

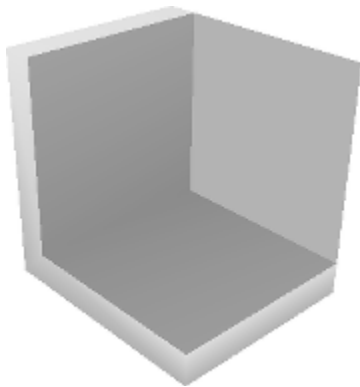


For the bottom-back-left corner, it is necessary to allow for the thickness of the back and the base of the fixture. Positive coordinates move the positions of the merchandisable areas inside the fixture, so coordinates of 0,6,6 are required. This leaves the position of the corner relative to the X Axis unchanged, but moves it up 6 units and forward 6 units. For the top-front-right corner, there is no need to change the coordinates. Accordingly, the defaults of 0,0,0 can be left unchanged.

The settings look as follows - the size of the merchandisable area is shown towards the right.

Primary area:			Offset 2:			Size:			Unconstrained: - +		
Offset 1:											
X:	0		X:	0		X:	36		<input type="checkbox"/>	<input type="checkbox"/>	
Y:	6	Pick >>	Y:	0	Pick >>	Y:	36		<input type="checkbox"/>	<input type="checkbox"/>	
Z:	6		Z:	0		Z:	36		<input type="checkbox"/>	<input type="checkbox"/>	

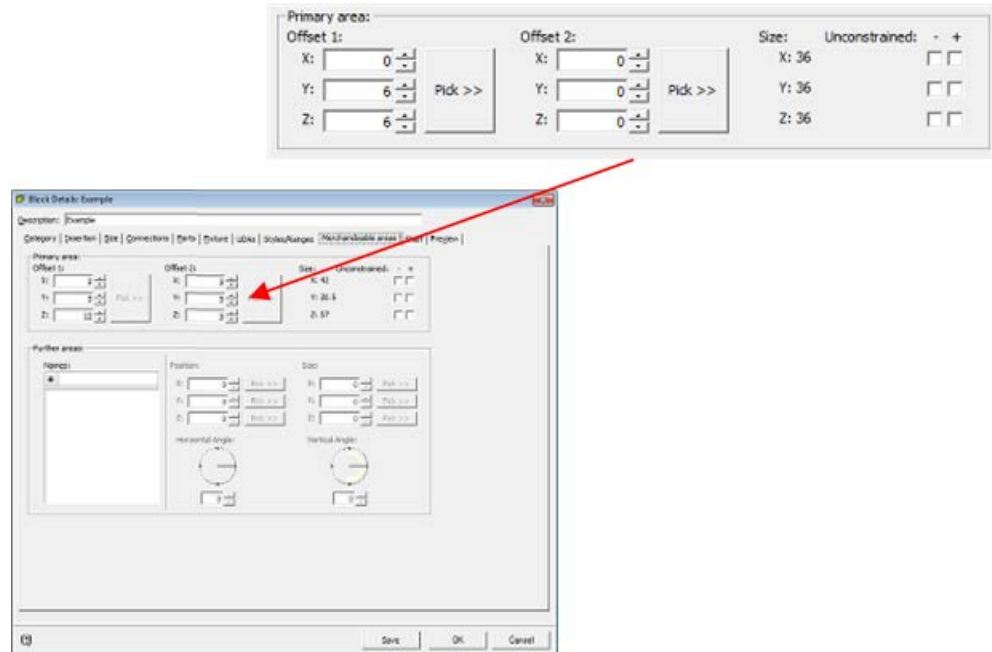
And the end result looks as follows:



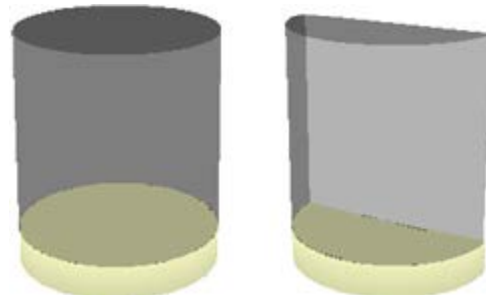
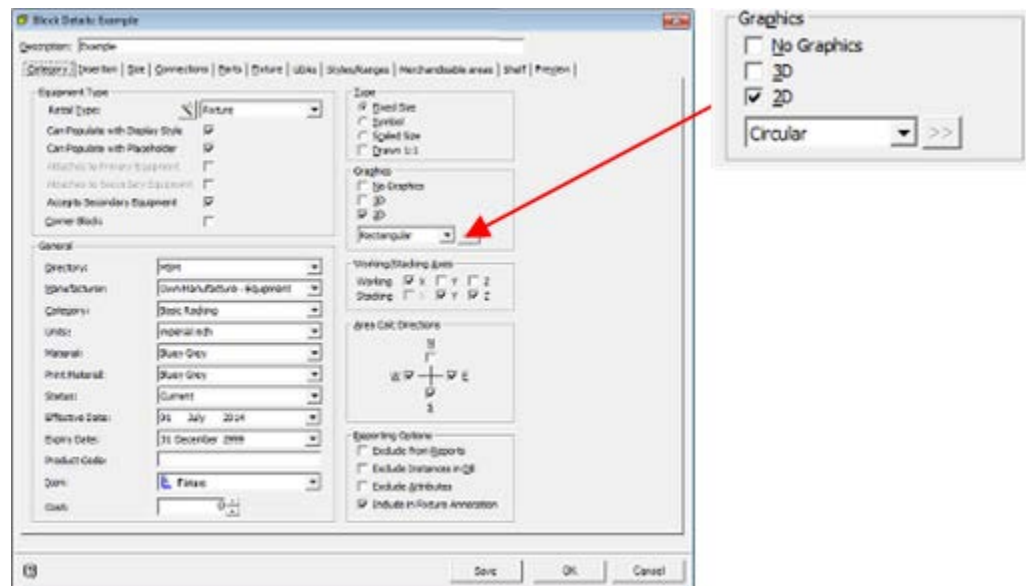
If the fixture has been defined as stretchable; when the dimensions of the fixture are specified in the floor plan, the merchandisable area will move relative to those dimensions and extend for the specified portion of the fixture.

## Configuring a Primary Merchandisable Area for Circular Fixtures

Primary Merchandisable Areas for Circular Fixtures are configured in the Primary Areas frame.



There are two 'special cases' provided for in the Category Tab. These are selected by setting the drop down list in the Graphics frame to Circular or Semi-Circular.



This example will show how to create a primary merchandisable area for a circular fixture - a semi-circular fixture follows exactly the same principles.

---

**Note:** the shape must previously have been set to Circular in the Category tab.

---

## Settings

### Starting Condition of the Primary Area Frame

For a new block (fixture) the frame will be blank.

The screenshot shows the 'Primary area:' dialog box. It has two sections: 'Offset 1:' and 'Offset 2:'. Each section has input fields for X, Y, and Z, each with a 'Pick >>' button. To the right, there is a 'Size:' section with 'Unconstrained:' checkboxes for X, Y, and Z. The default values are: Offset 1 X: 0, Y: 0, Z: 0; Offset 2 X: 0, Y: 0, Z: 0; Size X: 36, Y: 42, Z: 42. All 'Unconstrained' checkboxes are unchecked.

### Before Starting

Ensure that the Insertion Point and Child Insertion Point (Insertion Tab) are appropriately set.

### Creating the Primary Area

In order to create the primary area, two offsets have to be entered. The data in Offset 1 is used to specify the height of the primary area relative to the AutoCAD insertion point of the block. This necessitates entering a value for the Z (vertical) axis. Offset 2 defines the diameter of the primary area relative to that of the block. Entering a pair of values for the X and Y values will alter that diameter. The settings look as follows - the size of the merchandisable area is shown towards the right.

The screenshot shows the 'Primary area:' dialog box with the following values: Offset 1 X: 0, Y: 0, Z: 6; Offset 2 X: 0, Y: 0, Z: -36; Size X: 36, Y: 18, Z: 36. The 'Unconstrained' checkboxes for X, Y, and Z are still unchecked.

- Offset 1 is set to a value of 6 for the Z axis. Positive offsets move the starting point of the merchandisable area inside the fixture. In this case the value of the offset moves the start of the merchandisable area to the top face of the block.
- Offset 2 is set to a Z value of -36. Negative offsets move the starting point of the merchandisable area outside of the fixture - in this case 36 inches above the top face of the block. The X and Y offsets are set to 6. Positive offsets move the starting point of the merchandisable area inside the fixture - in this case making the merchandisable area 6 inches less in diameter than the diameter of the block.

The end result looks as follows:



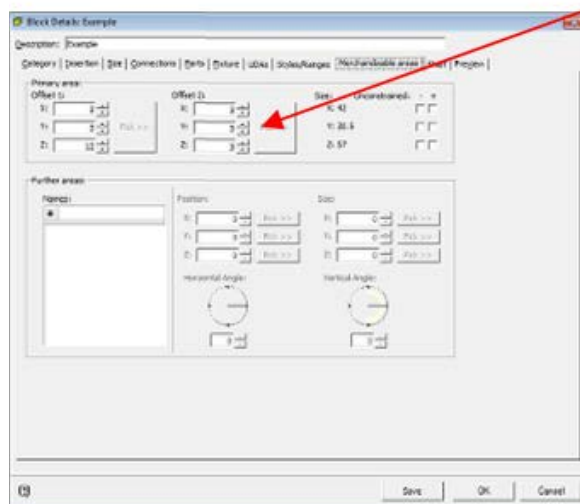
If the fixture has been defined as stretchable; when the dimensions of the fixture are specified in the floor plan, the merchandisable area will move relative to those dimensions and extend for the specified portion of the fixture.

## Configuring a Primary Merchandisable Area for a Peg or a Rod

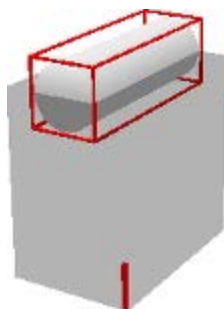
Primary Merchandisable Areas are configured in the Primary Areas frame.

Primary area:

Offset 1:	Offset 2:	Size:	Unconstrained:
X: <input type="text" value="0"/> <input type="text" value="0"/>	X: <input type="text" value="0"/> <input type="text" value="0"/>	X: 36	<input type="checkbox"/> <input type="checkbox"/>
Y: <input type="text" value="6"/> <input type="text" value="6"/> <input type="button" value="Pick &gt;&gt;"/>	Y: <input type="text" value="0"/> <input type="text" value="0"/> <input type="button" value="Pick &gt;&gt;"/>	Y: 36	<input type="checkbox"/> <input type="checkbox"/>
Z: <input type="text" value="6"/> <input type="text" value="6"/>	Z: <input type="text" value="0"/> <input type="text" value="0"/>	Z: 36	<input type="checkbox"/> <input type="checkbox"/>



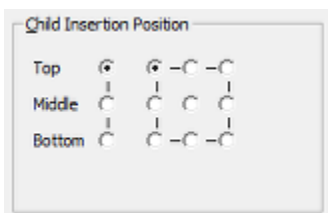
In the specially created example fixture below, a rod is represented by a simple cylinder. The merchandisable area has to take those into account. This example will show how to create that merchandisable area.



## Settings

### Setting the Child Insertion Position

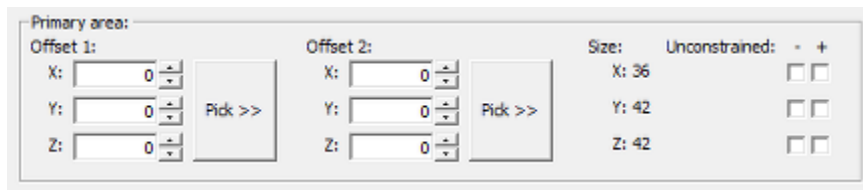
The first stage is to set the Child Insertion position.



This must be set to Top for a Peg or Rod.

### Starting Condition of the Primary Area Frame

For a new block (fixture) the frame will be blank.

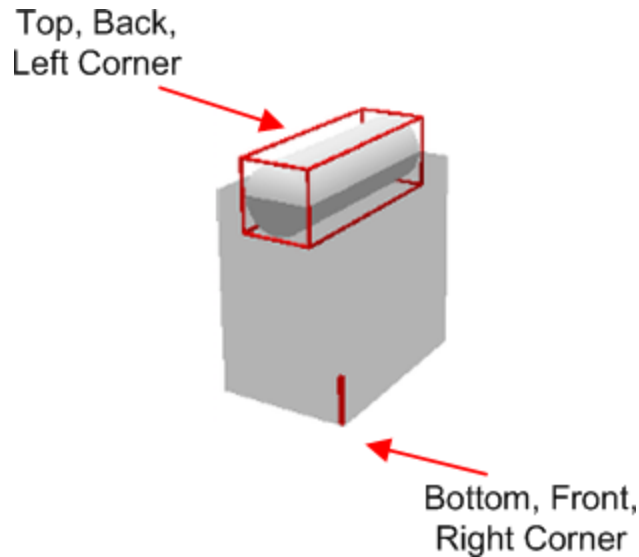


### Before Starting

Ensure that the Insertion Point is appropriately set. For most pegs and rods, this will be middle-back-centre.

### Offset 1 and Offset 2

The positions of the two offset points have changed slightly. Offset 1 is now top-back-left and Offset 2 is bottom-front-right.

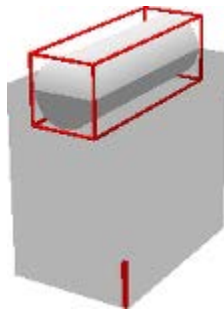


Negative values take the merchandisable area outside the extents of the rod. In this case we want the merchandisable area to extend three units to the side. Offset 1 is thus set to -3,0,0. We also want the merchandisable area to extend three units to the other side and twelve units down. Offset 2 is thus set to -3, 0,-12.

The settings look as follows - the size of the merchandisable area is shown towards the right.

Primary area:		Offset 1:		Offset 2:		Size:		Unconstrained:	
X:	-3	X:	-3	X:	12				
Y:	0	Y:	0	Y:	18				
Z:	0	Z:	-12	Z:	N/A			<input checked="" type="checkbox"/>	

And the end result looks as follows:



The size is shown towards the right of the frame. Although the height of the merchandisable area has been set to 12 units, this has been overridden by the software and any height of package can be hung from the rod (subject to not sharing the same space with other merchandise). At present the maximum width of packaging that can be hung from the rod is six inches. This can be overridden by ticking the 'Y' unconstrained check boxes.

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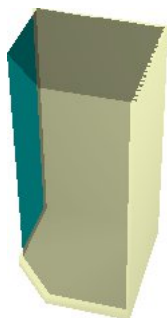
**Note:** using the unconstrained option should only be used if the working axis (Category tab) is set to 'Y' and there are no stacking axes set.

---

## Configuring a Primary Merchandisable Area for Non-Rectangular Areas

### Overview

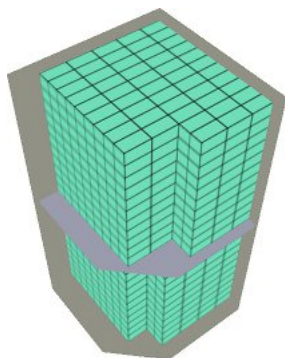
Most fixtures or shelves are rectangular, circular or semi-circular in section. Occasionally however, fixtures or shelves are less regular in shape. Fixture Studio provides a way of delineating the boundary of an irregularly shaped merchandisable area.



This is achieved by using functionality accessed on the category tab of the Block Details dialog box in Fixture Studio. The steps are as follows:

1. Open Fixture Studio and Planner.
2. Select the Connect to AutoCAD option on the file menu.
3. Open the required object for editing in Fixture Studio (Block Details dialog box).
4. Set the shape to Triangular on the Category tab and click the Pick button - this will open a raw AutoCAD drawing in with the extents of the object outlined in yellow.
5. Use the Load Blocks into Drawing command on the File Menu to load an instance of the block into the drawing.
6. Draw the shape of the object in the drawing.
7. Delete the instance of the block in the drawing.
8. Close the temporary drawing without saving it.
9. If necessary reset the dimensions of the fixture using the Calculate button.
10. Save the Block in Fixture Studio.

The result has associated a boundary with the block that defines the horizontal contours of the merchandisable area. The block will then only accept merchandise within that defined area.



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**Note:** How to configure Merchandisable Areas for non-rectangular areas is described in the section for the Merchandisable areas tab.

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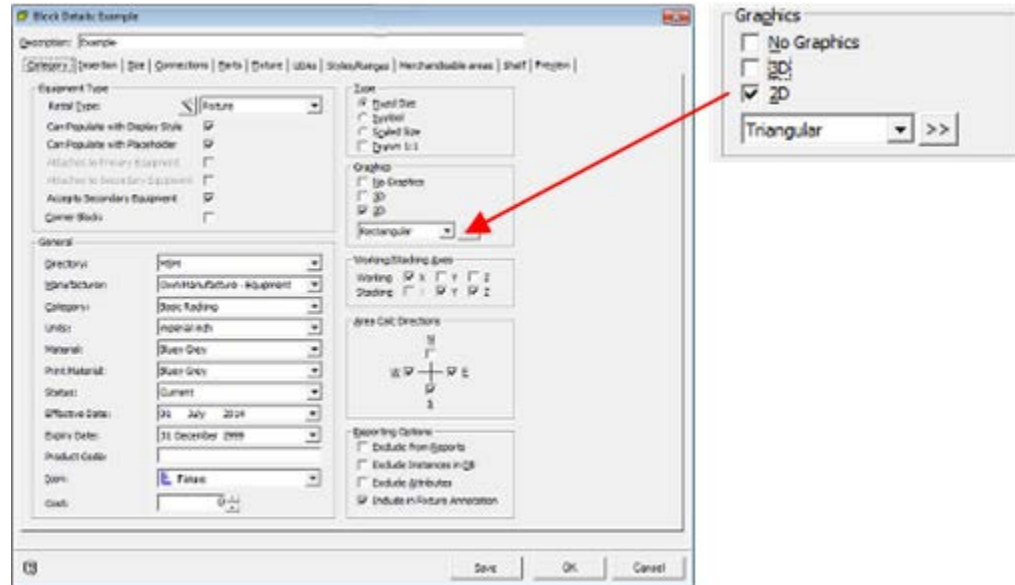


## Operations in the Category Tab

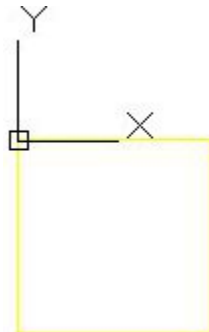
In order to define the shape of a non-rectangular area, select the **Connect To AutoCAD** option on the File menu. This will connect Fixture studio to the Planner module. Next open the Block Details dialog box for that fixture.

### Switching to AutoCAD

In the Category Tab of the Block Details dialog box select Triangular from the drop down list in the Graphics Frame. If Fixture Studio is connected to AutoCAD, this will make the pick button next to it active. Click the pick button and the user will be taken to the Planner module where a 'raw' AutoCAD drawing will open.

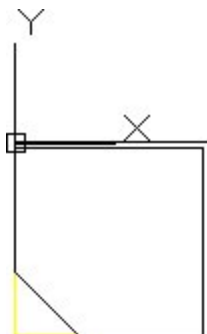


The raw AutoCAD drawing will have a yellow rectangle in it. This represents the extents of the block. Its origin will be at 0,0 in the drawing.



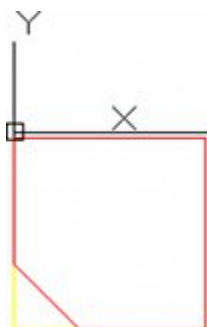
### Loading the block into the Raw AutoCAD Drawing

In Fixture Studio, highlight the block in the fixture hierarchy and select the **Load Blocks into Drawing** option from the File Menu. The block will be drawn with its insertion point at 0,0, overlaying the yellow rectangle representing the extents.



### Drawing the Shape of the Irregular Area

Using the fixtures as a guide, draw in a boundary representing the area that can be used for merchandising purposes. The boundary should be drawn with a polyline (PLINE in the AutoCAD command line) and the Close command should be used to ensure that the boundary is a single continuous line. AutoCAD's OSNAP functionality can be used to accurately follow the required outline.

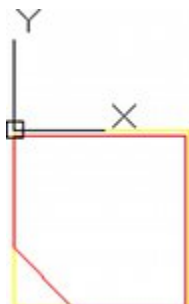


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**Note:** The outline here has been drawn in red for clarity - normally it would be the same color of the block.

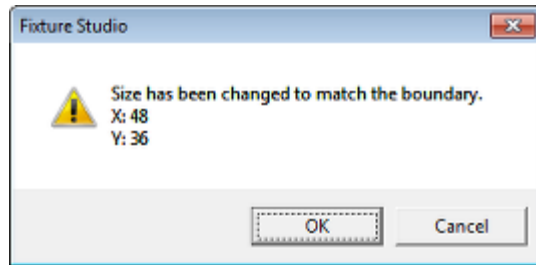
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Next, delete the instance of the block from the drawing, leaving behind the outline of the irregular area.

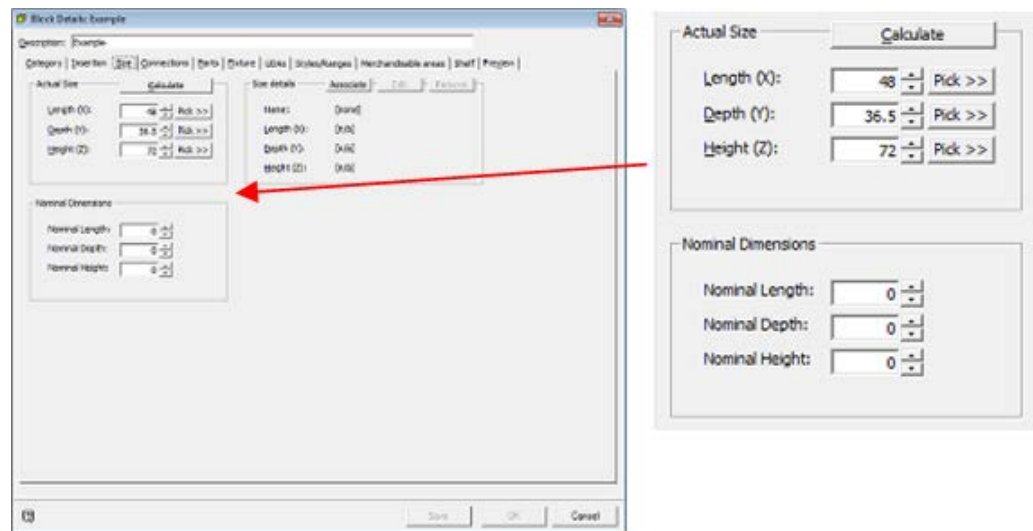


### Close the AutoCAD drawing without Saving

The next action is to close the AutoCAD drawing without saving it. This may sound counter-intuitive, but Fixture Studio has stored the coordinates for the outline in memory. Closing the drawing may be done by clicking the small 'x' at the top right corner and then stating you do not wish to save the drawing when a confirmatory dialog box appears. After the confirmatory dialog box has gone, the AutoCAD drawing may not immediately close. This is because if the boundary of the non-rectangular area has been drawn inside the extents of the block (for example for a fixture), Fixture Studio will change the extents of the block. This will be confirmed by a dialog box.



Click the OK button and the AutoCAD drawing will close. To reset the extents of the block back to the original value, click the Calculate button in the Actual Size frame of the Size tab.



### Save the Block in Fixture Studio

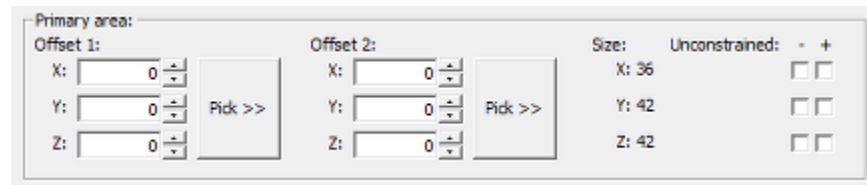
The final stage is to save the block in Fixture Studio. This is done by highlighting the block in the fixture hierarchy and selecting the **Save** option from the file menu. It is only necessary to write the information back to the database.

## Operations in the Merchandisable Areas Tab

The next stage is to define the size of the merchandisable area in the Merchandisable Areas tab.

### Starting Condition of the Primary Area Frame

For a new block (fixture) the frame will be blank.



### Before Starting

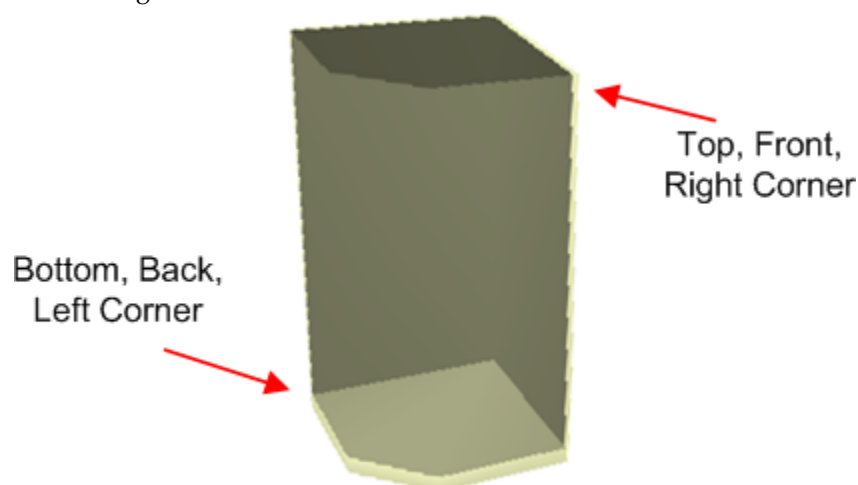
Ensure that the Insertion Point and Child Insertion Point (Insertion Tab) are appropriately set.

### Creating the Primary Area

In order to create the primary area, two offsets have to be entered. The data in Offset 1 is used to specify the height of the primary area relative to the AutoCAD insertion point of the block. This necessitates entering a value for the Z (vertical) axis. Offset 2 can be used to specify the height of the primary area relative to the top of the block. This necessitates entering a value for the Z (vertical) axis. The settings look as follows - the size of the merchandisable area is shown towards the right.

Primary area:		
Offset 1:		Offset 2:
X: <input type="text" value="0"/>	<input type="button" value="Pick &gt;&gt;"/>	X: <input type="text" value="0"/>
Y: <input type="text" value="0"/>		Y: <input type="text" value="0"/>
Z: <input type="text" value="3"/>		Z: <input type="text" value="0"/>
		Size: Unconstrained: - +
		X: 36 <input type="checkbox"/>
		Y: 36 <input type="checkbox"/>
		Z: 69 <input type="checkbox"/>

These work in combination with the non-rectangular area defined in the first stage. Offset 1 defines the bottom, back left corner. Offset 2 defines to top, front right corner, thus defining the starting position and height. The actual shape follows the non-rectangular area defined earlier.



In this example:

- Offset 1 is set to a value of 3 for the Z axis. Positive offsets move the starting point of the merchandisable area inside the fixture. In this case the value of the offset moves the start of the merchandisable area to the top face of the base of the block.
- Offset 2 has no settings. This is because the top of the merchandisable area is already correctly positioned at the top-front-right corner of the block.
- There is no need to enter X or Y coordinates for the primary area. This is read from data stored when the 'triangular' area was defined in the Category tab.

If the fixture has been defined as stretchable; when the dimensions of the fixture are specified in the floor plan, the merchandisable area will move relative to those dimensions and extend for the specified portion of the fixture.

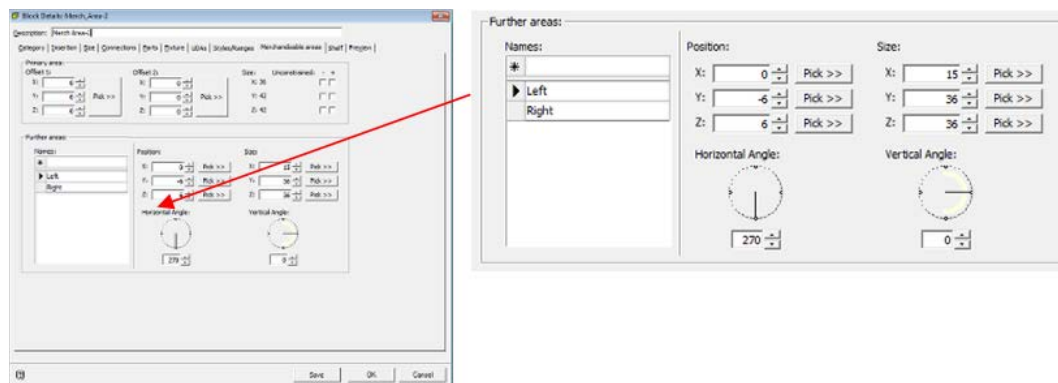
## The Further Areas Frame

The Further Areas frame allows other merchandisable areas to be specified. Further Areas are of fixed size and are not normally used with stretchable blocks.

---

**Note:** if a Primary Area has been assigned and a user defines a Further Area, the Primary Area will be disabled.

---



## Settings

### Names

Entering data into the text box and pressing Return will enter the name of a Further Area into the grid below. Highlighting the name of a Further Area and pressing Delete will remove it. Highlighting the name of a Further Area in the list will enable the data on the right hand side to be entered or edited.

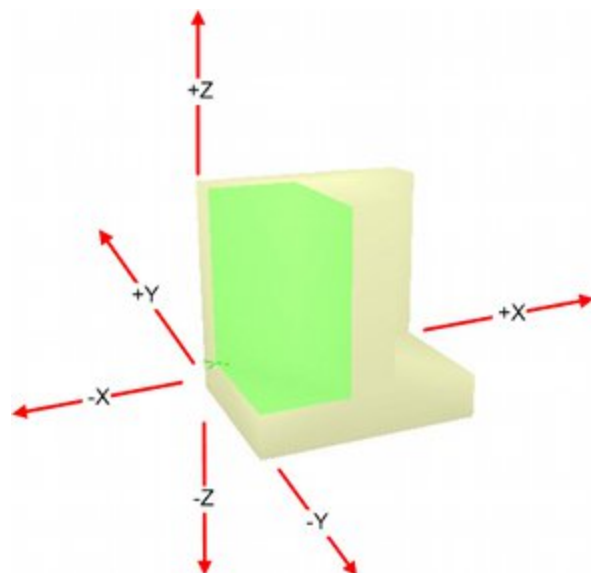
### Dimensions

The pair of X, Y, Z coordinates is used to specify the bounds of the Further Merchandisable area. The left hand set of X, Y and Z coordinates is used to specify the bottom-back-left corner of a cuboid. The right hand set of X, Y and Z coordinates is used to specify the top-front-right corner of a cuboid - the dimensions of this cuboid are relative to the first set of points. For example the two sets of points 6,6,6 and 12,18,24 describe a cuboid with its origin at 6,6,6. It has a length of 12 units, a depth of 18 and a height of 24.

The Pick buttons can be used to toggle the user to the currently active drawing in Planner. If an instance of the block is present, the user can pick the required points rather than manually enter them.

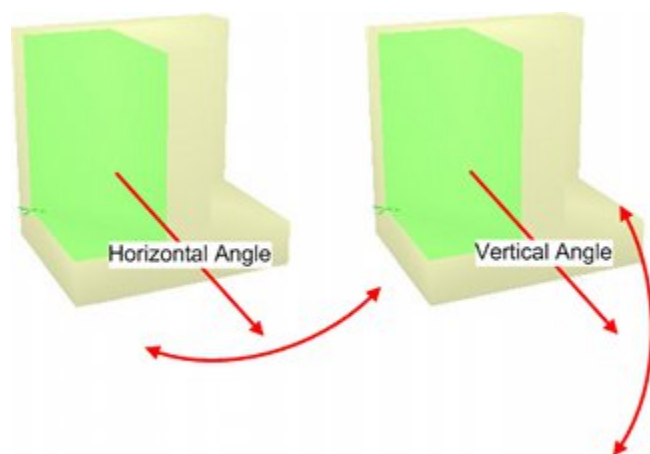
**Note:** The pick buttons are currently not working correctly.

The dimensions for the origin of the further merchandisable area obey a standard Cartesian coordinate system drawn relative to the insertion point of the block as defined in AutoCAD (Planner). The directions of the axes in this coordinate system are shown below.



### Horizontal and Vertical Angle

These options determine the orientation of the cuboid defined by the directions. This orientation can be changed by means of the Horizontal Angle and Vertical Angle controls. The effects of these controls are shown in the diagram below.




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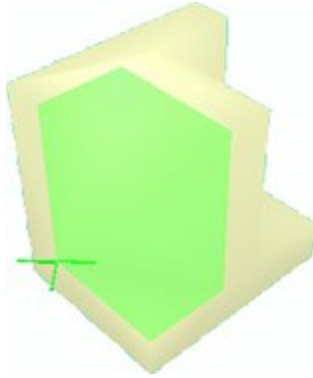
**Note:** the Horizontal Angle is often set to correspond with the Front direction of the fixture (Insertion tab).

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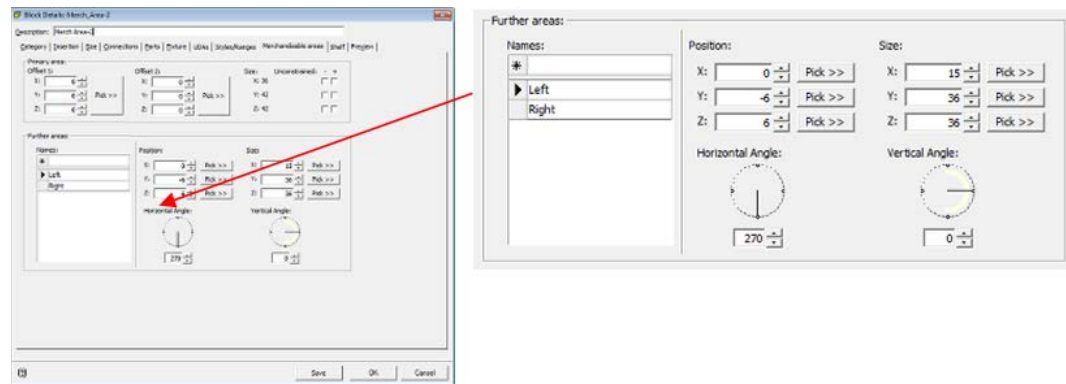
### Origin of Further Area

The origin of the further area (the first set of X, Y, Z coordinates) is indicated by an 'X'. This has been exaggerated in size in the diagram below for clarity - it is normally significantly smaller.

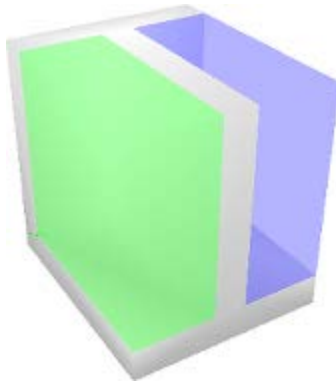


## Configuring Further Merchandisable Areas

Further Merchandisable Areas are configured in the Further Areas frame.



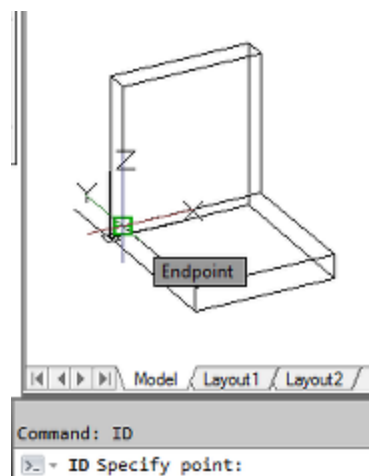
In the specially created example fixture below, the fixture has two merchandisable area; left (green) and right (blue). This allows merchandise to be placed taking into account the thickness of the base, rear and internal dividing wall. This example will show how to create those merchandisable areas



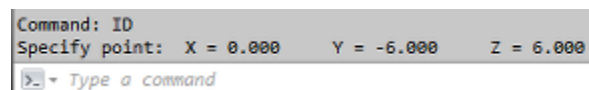
## Settings

### AutoCAD ID Command

When identifying the coordinates that identify the extents of each merchandisable area, the AutoCAD ID command can be useful.

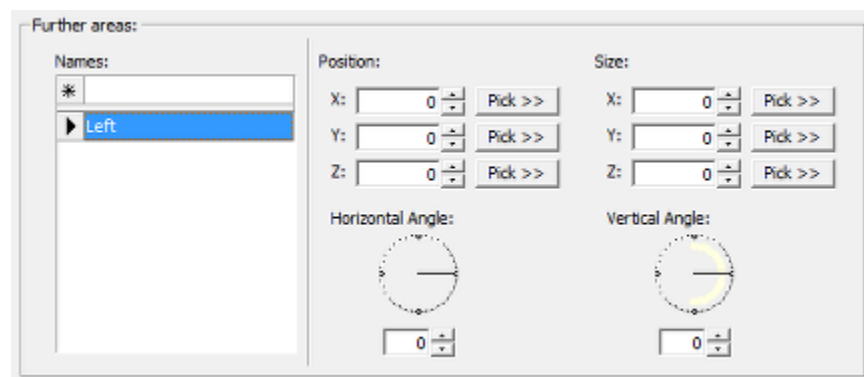


Position the fixture which is having its merchandisable areas configured with its insertion point at 0,0,0 and type ID into the command line. The user will be invited to pick a point. When OSNAP is turned on, a precise point can be picked on the fixture. The coordinates of the point will then be shown on the command line.



### Starting Condition of the Further Areas Frame

For a new block (fixture) the frame will be blank with no Further Areas added. The options will be grayed out and unavailable until a name has been entered and **Return** pressed.



### Before Starting

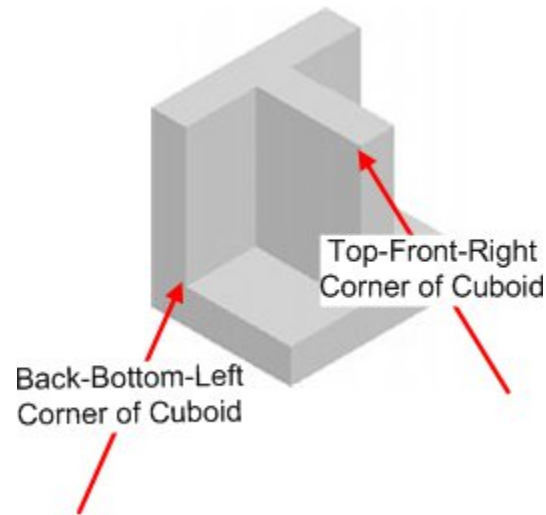
Ensure that the Insertion Point and Child Insertion Point (Insertion Tab) are appropriately set. In this case both have been set to bottom-back-left.

### Creating the Left Hand Area

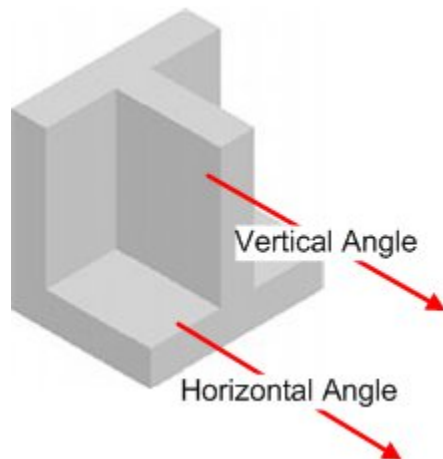
The first stage is to enter the name of the Further Merchandisable Area in the text box and press Return - in this case 'Left'. The name will appear in the list of available names. Highlighting it will activate the rest of the frame, which until now will have been grayed out. The next stage is to set the dimensions. We need to set them for the bottom-back-left and top-front-right corners of a cuboid. The coordinates for the bottom-back-left point are 0,-6, 6. These define the starting point of the cuboid. The next set of coordinates



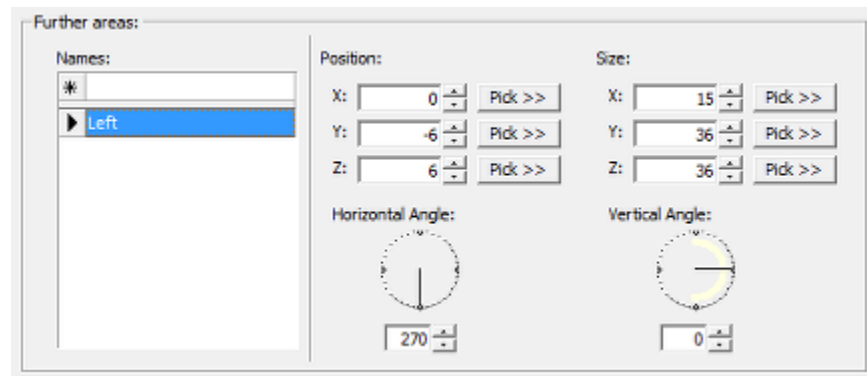
(12,18,24) define the volume of the cuboid - 12 units in positive X, 18 units in positive Y, 24 units in positive Z.



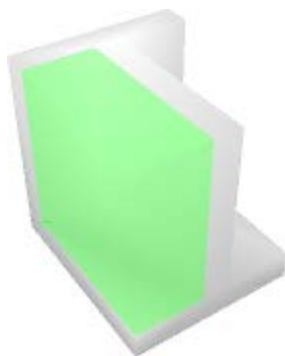
The Horizontal angle is set to 270 degrees. This matches the front direction of the fixture. The Vertical Angle is set to 0 degrees as the Further Area is parallel to the ground.



The settings look as follows:



And the end result looks as follows:

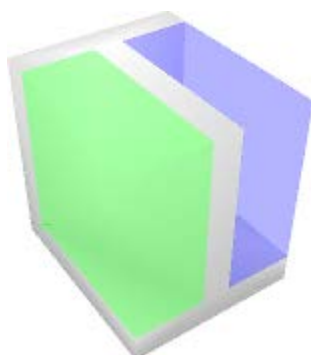


### Creating the Right Hand Area

The right hand is created in the same way as the left, except the first set of coordinates is set to 21, -6, 6 because this Further Area starts in a different place. The second set of coordinates is the same because the Further Area is the same physical size. The settlings are as follows:

Further areas:		Position:		Size:			
Names:		X:	21	Pick >>	X:	15	Pick >>
	*	Y:	-6	Pick >>	Y:	36	Pick >>
	Left	Z:	6	Pick >>	Z:	36	Pick >>
	▶ Right	Horizontal Angle:		Vertical Angle:			
		 270		 0			

The result is as follows (with the Left Further Area (colored green), and the Right Further Area (colored blue)).



## Constrained and Unconstrained Merchandisable Areas

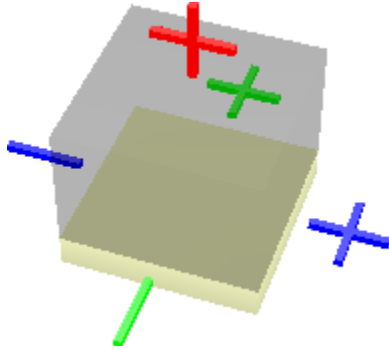
Primary Merchandisable Areas can either be constrained or unconstrained.

- **Constrained Areas** are areas that stay within the specified coordinates.
- **Unconstrained Areas** may take up any volume in the specified direction.

These options are set by checking the unconstrained check boxes in the Primary areas frame.

Primary area:			Offset 2:			Size:	Unconstrained:
Offset 1:	X: <input type="text" value="0"/>	Pick >>	X: <input type="text" value="0"/>	Pick >>	X: 36	<input type="checkbox"/>	<input type="checkbox"/>
Y: <input type="text" value="0"/>	Y: <input type="text" value="0"/>		Y: 42		<input type="checkbox"/>	<input type="checkbox"/>	
Z: <input type="text" value="0"/>	Z: <input type="text" value="0"/>		Z: 42		<input type="checkbox"/>	<input type="checkbox"/>	

Unconstrained axes are shown visually in the Preview tab as plus or minus signs if the Merchandisable Area option is selected.

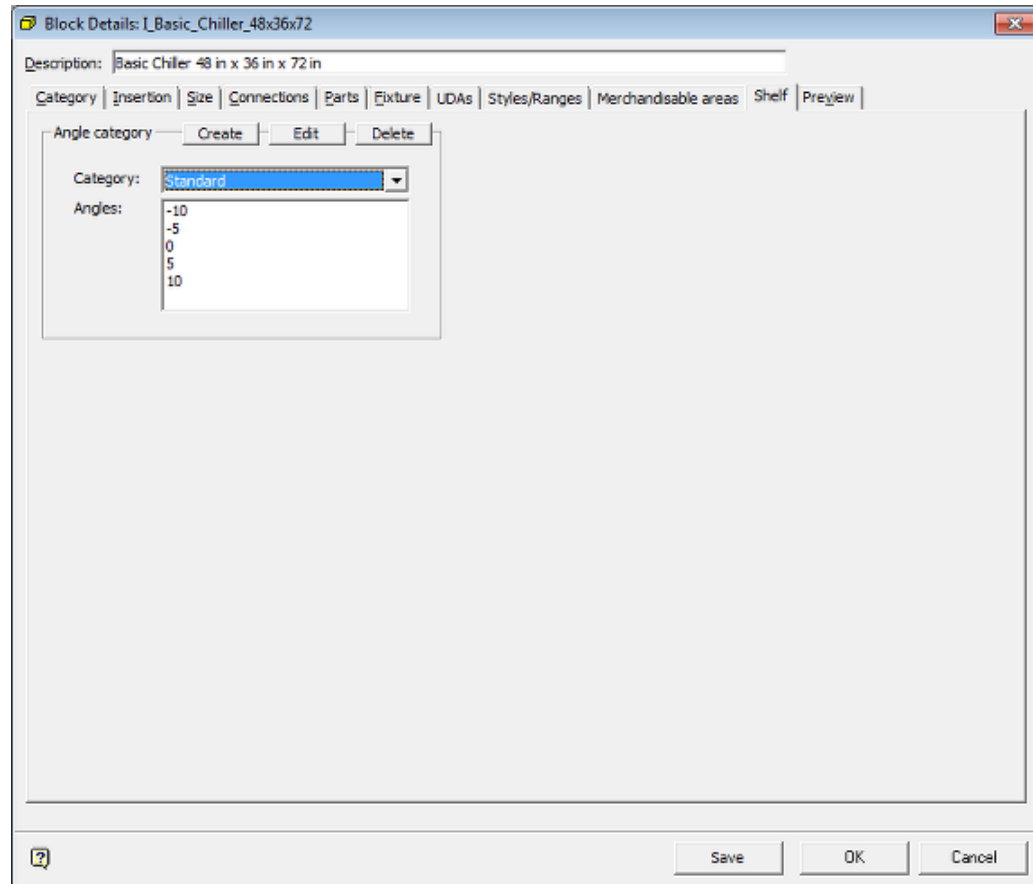




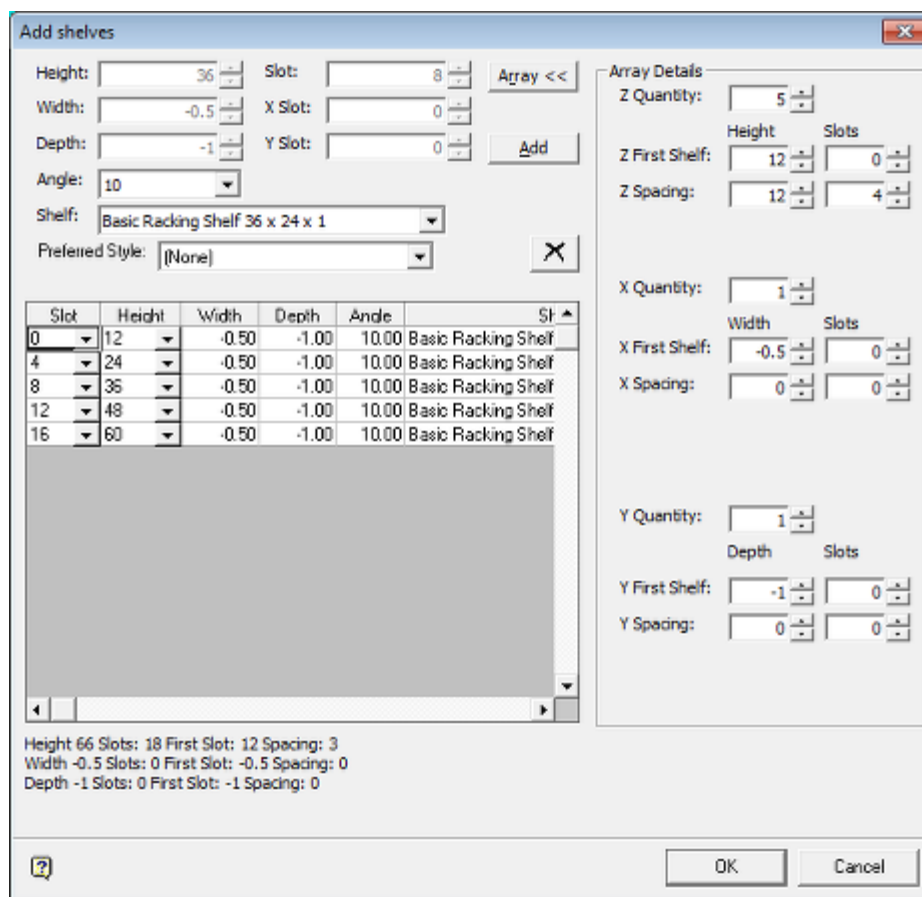
## Shelf Tab

### The Shelf Tab

The **Shelf Tab** can be used to define the permissible angles for shelves to be set at when placed on a fixture. This is only used in the Merchandiser module. Currently defined Angle Categories can be seen from the drop down list.



These Angles can then be used as predefined values when assigning shelves in the Merchandiser module - the screenshot below is the **Add shelves** dialog box from that module.



The 'Add shelves' dialog box contains the following fields and controls:

- Height:** 36
- Width:** -0.5
- Depth:** -1
- Angle:** 10
- Shelf:** Basic Racking Shelf 36 x 24 x 1
- Preferred Style:** [None]
- Slot:** 8
- X Slot:** 0
- Y Slot:** 0
- Buttons:** Array <<, Add, X

Slot	Height	Width	Depth	Angle	Shelf
0	12	-0.50	-1.00	10.00	Basic Racking Shelf
4	24	-0.50	-1.00	10.00	Basic Racking Shelf
8	36	-0.50	-1.00	10.00	Basic Racking Shelf
12	48	-0.50	-1.00	10.00	Basic Racking Shelf
16	60	-0.50	-1.00	10.00	Basic Racking Shelf

**Array Details:**

- Z Quantity:** 5
- Z First Shelf:** 12
- Z Spacing:** 12
- X Quantity:** 1
- X First Shelf:** -0.5
- X Spacing:** 0
- Y Quantity:** 1
- Y First Shelf:** -1
- Y Spacing:** 0

**Summary:**  
 Height 66 Slots: 18 First Slot: 12 Spacing: 3  
 Width -0.5 Slots: 0 First Slot: -0.5 Spacing: 0  
 Depth -1 Slots: 0 First Slot: -1 Spacing: 0

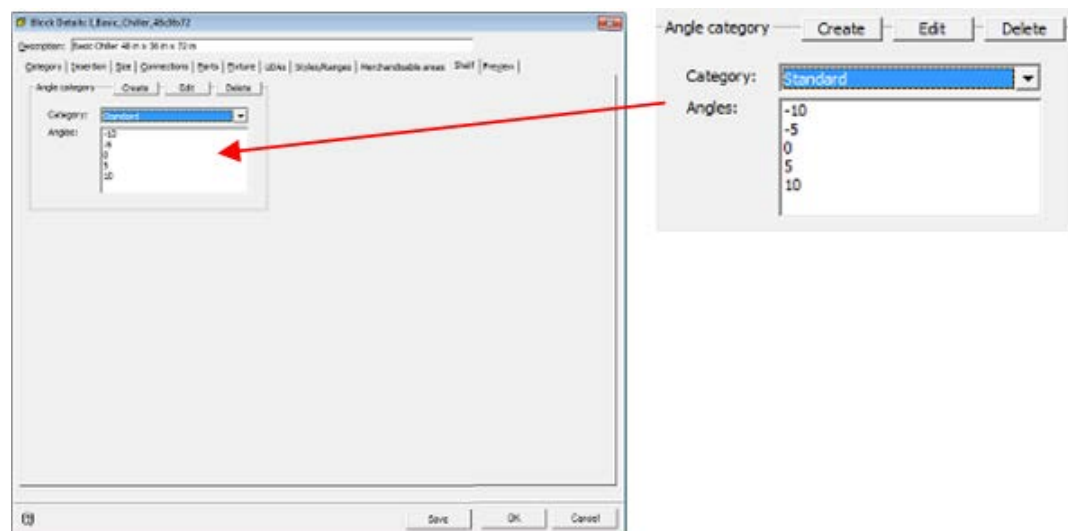
**Buttons:** OK, Cancel

## Specifying Permissible Shelf Angles

Angle categories may be created, edited or deleted.

### Creating an Angle Category

To create an Angle Category, click on the Create button in the Angle Category frame.

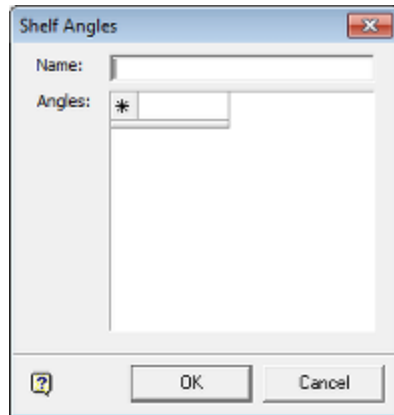


The 'Angle category' dialog box has the following structure:

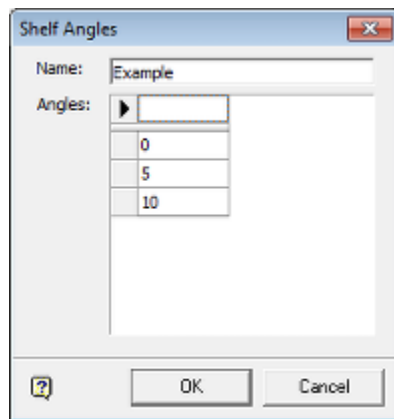
- Buttons:** Create, Edit, Delete
- Category:** Standard (dropdown)
- Angles:** -10, -5, 0, 5, 10 (list)

A red arrow points from the 'Create' button in the 'Angle category' frame to the 'Create' button in the 'Add shelves' dialog box.

This will bring up the Shelf Angles dialogue box.



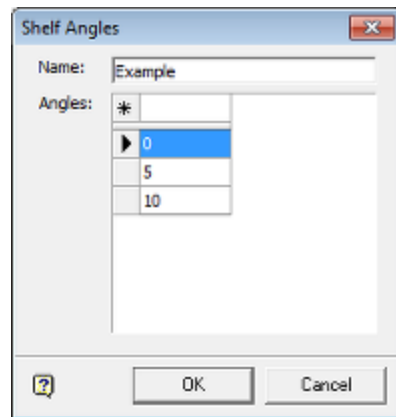
Type in the required Angle Category name then left click into the Angles box. (Do not press <Return> at this stage or it will close the dialogue box). Type the required angle in and press <Return>. Continue to type in the required angles and pressing return until the desired list of angles has been built up.



When the required Angles have been entered, click **OK** to save the information to the database and close the dialogue box.

## Editing an Angle Category

To Edit an Angle Category, select the required angle category in the drop down list. Click **Edit** in the Angle Category frame. This will bring up the Shelf Angles dialogue 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 dialogue box.

### Deleting an Angle Category

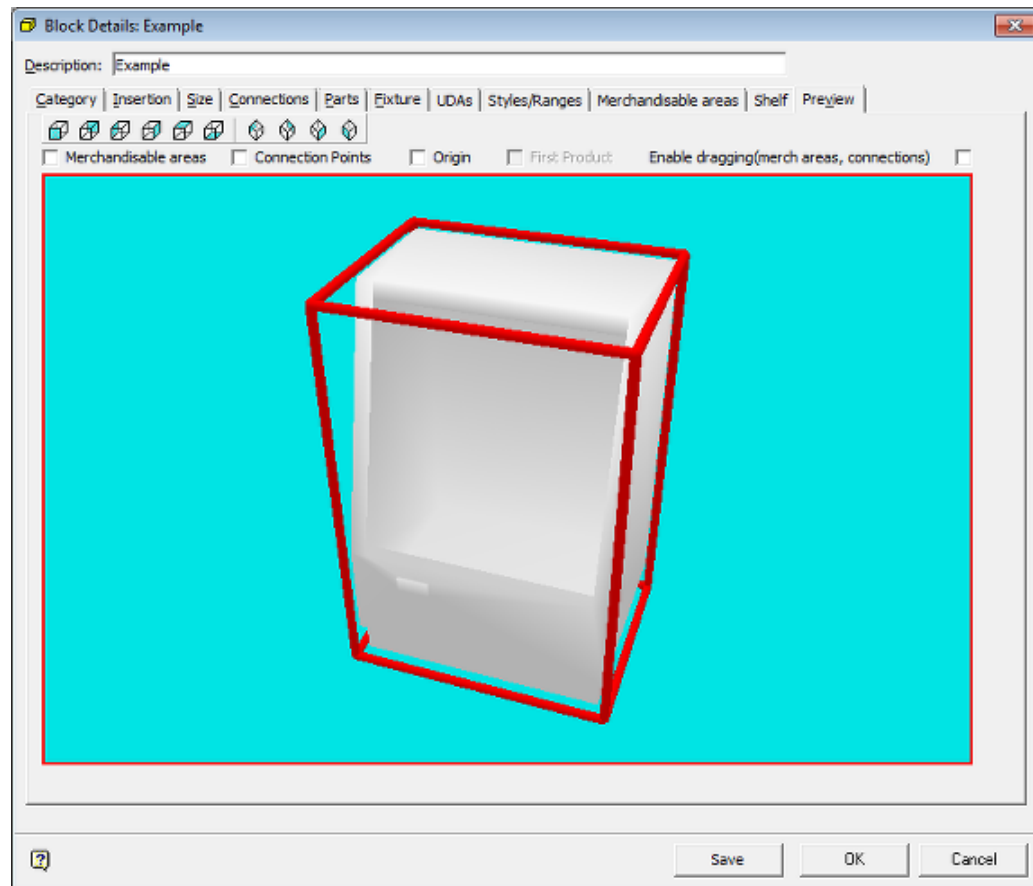
To delete an Angle Category, select the required angle category in the drop down list. Click **Delete** button in the Angle Category frame. The selected category will be deleted without further confirmation.



## Preview Tab

### Overview of the 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.



**Note:** In order to display an image in the preview frame, a 3DS file of that block must be present in the directory specified in the Category 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. Alternatively, different viewpoints can be adopted by clicking the icons in the Preview toolbar.
- The selection frame can be removed by holding down the Control key and left clicking with the mouse on the fixture. (Alternatively 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. Alternatively, different viewpoints can be adopted by clicking the icons in the Preview toolbar.

- The selection frame can be restored by holding down the Control key and left clicking with the mouse on the fixture.

The **Preview Tab Toolbar** allows users to select the point of view for the displayed preview.

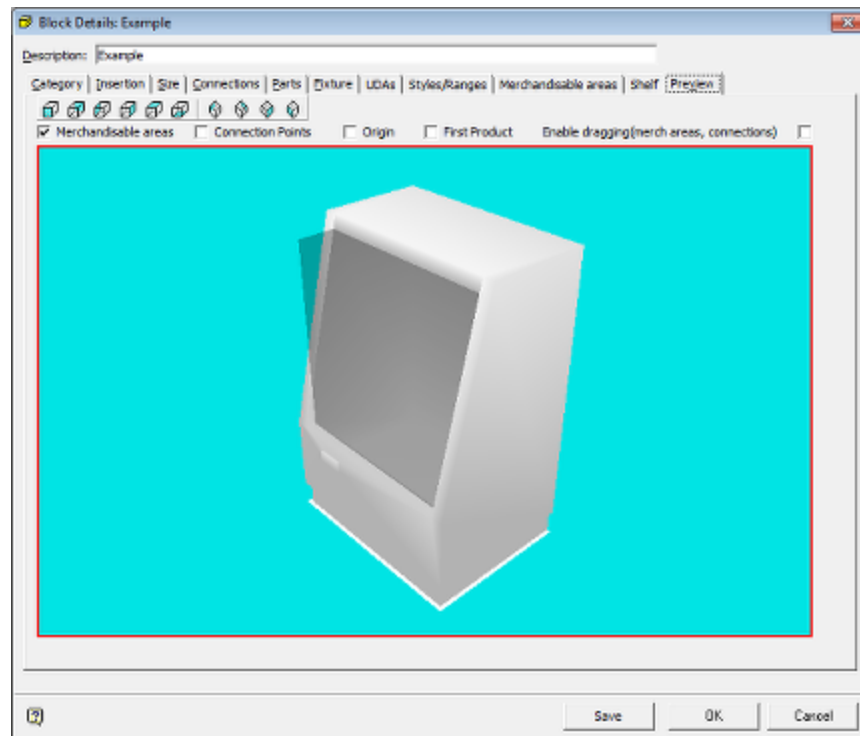


Icon	Description
	Front view of selected object
	Back view of selected object
	Top view of selected object
	Bottom view of selected object
	Left view of selected object
	Right view of selected object
	NW isometric view of selected object
	NE isometric view of selected object
	SE isometric view of selected object
	SW isometric view of selected object

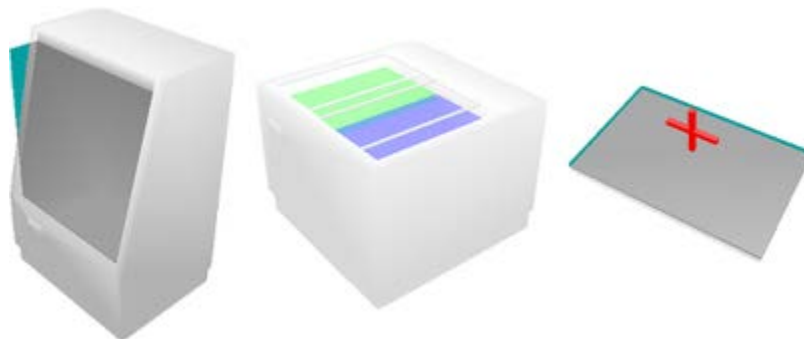
## Merchandisable Areas Option

The **Merchandisable Areas** option allows users to see the assigned merchandisable areas for a fixture or shelves represented as a colored box. Activate it by ticking the checkbox.

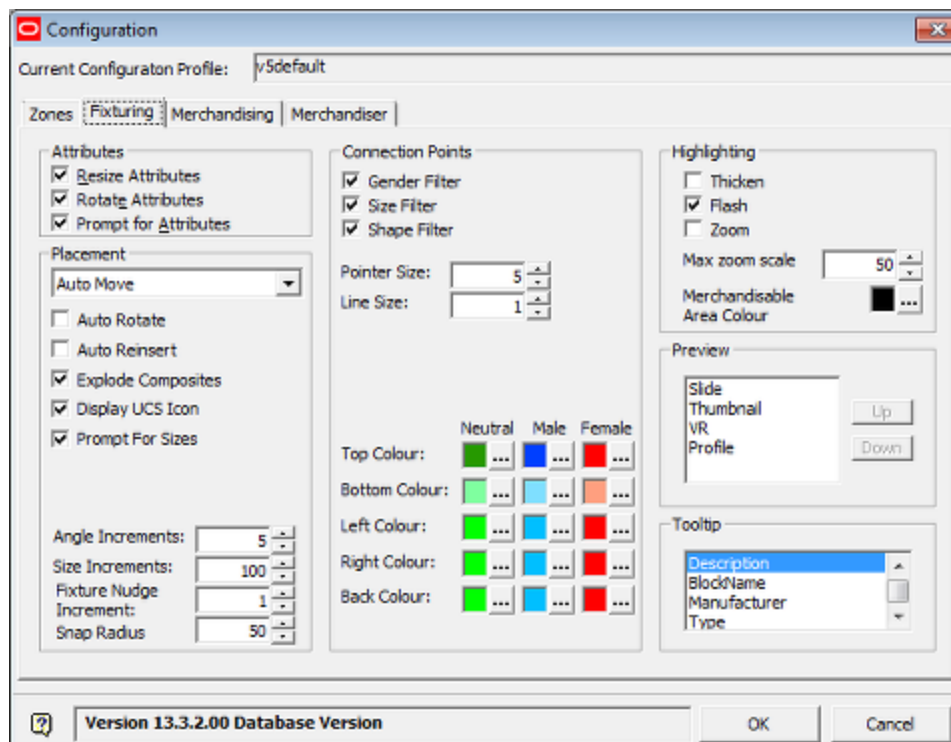
**Note:** Fittings cannot have merchandisable areas so this option will be grayed out and unavailable.



Merchandisable Areas are configured in the Merchandisable Areas tab. The exact appearance of the merchandisable area depends on the form that has been configured.

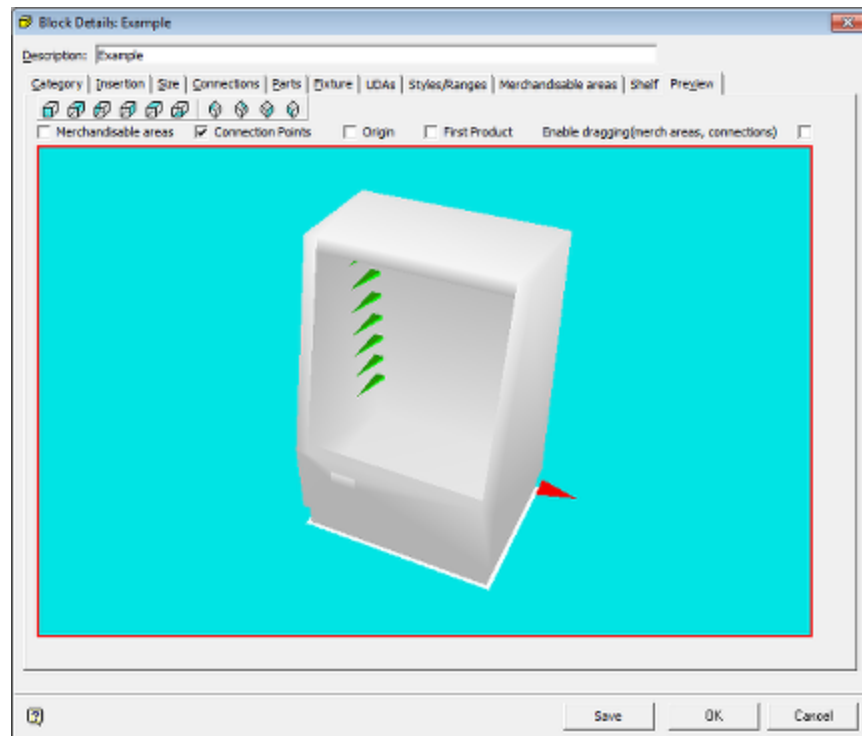


In the above example, the fixture on the left has a Primary Merchandisable Area, while the fixture in the center shows two Further Merchandisable Areas; each distinguished by a different color. The shelf on the right shows a cross denoting a merchandisable area unbounded in a specific direction - in this case the Z axis. Individual Users can set their preferred color for the primary merchandisable area by using the **Merchandisable Area Color** option in the Fixturing tab of the Configuration Module.



## Connection Points Option

The **Connection Points** option allows users to see the assigned connection points for a fixture, fitting or shelf object. Activate it by ticking the checkbox. In the example below, one connection point can be seen at the base of the fixture - this is used for connecting to other fixtures. Another set of connection points can be seen inside the fixture - these are used to ensure shelves position correctly.

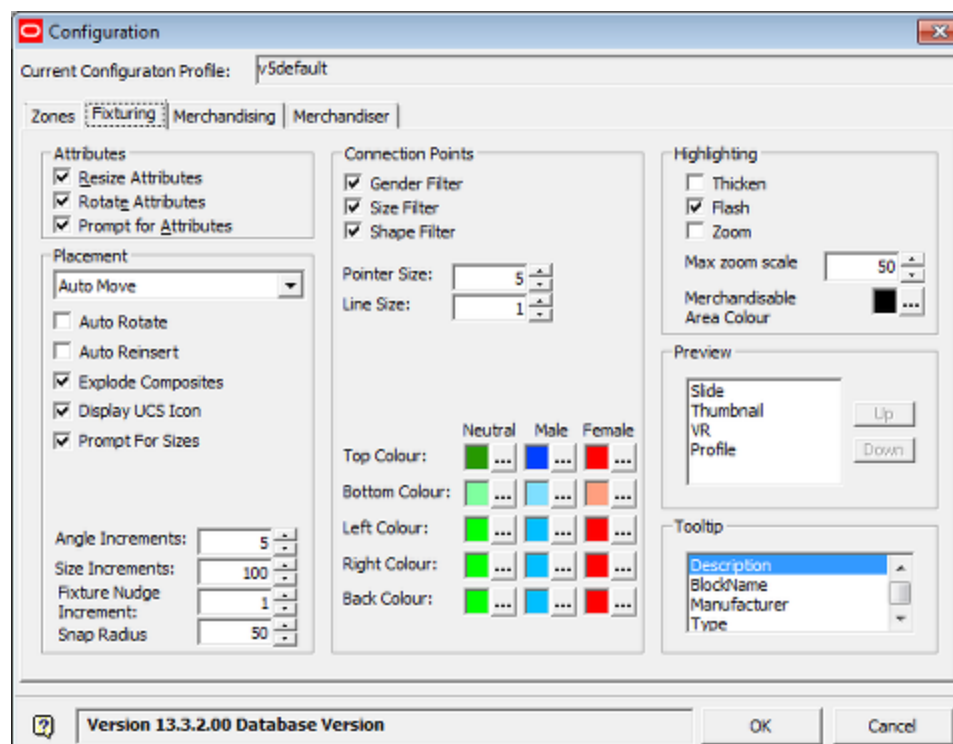


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**Note:** Connection Points are configured in the Connections tab.

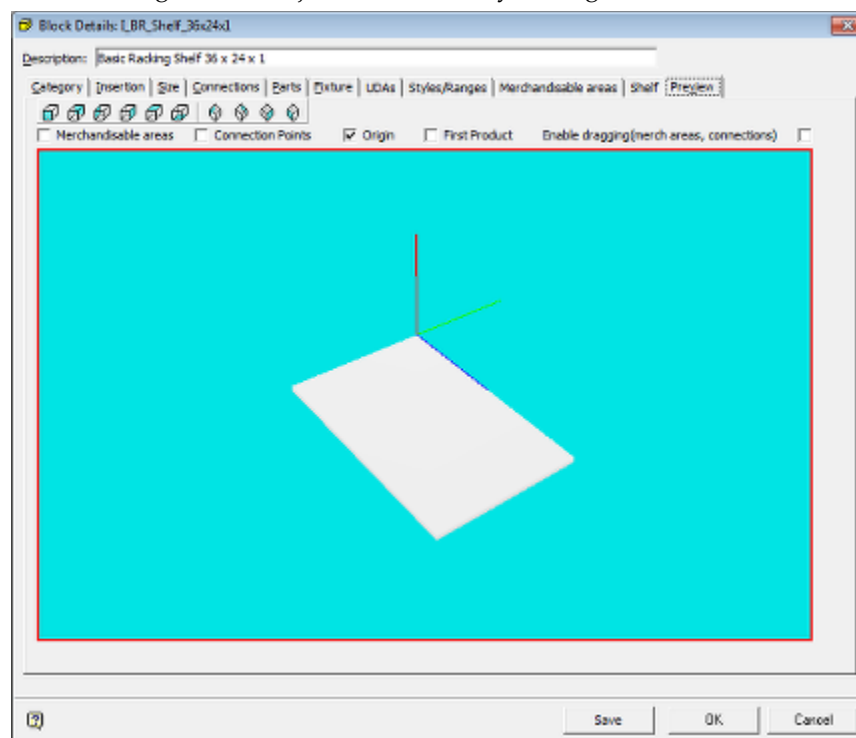
---

Individual Users can set their preferred display size and colors for the connection points in the Fixturing tab of the Configuration Module.

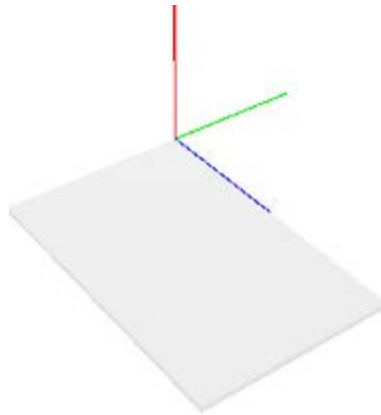


## Origin Option

The **Origin** option allows users to see the assigned origin (set in the Insertion tab) for a fixture, fitting or shelf object. Activate it by ticking the checkbox.



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.



---

<b>Blue Line</b>	Direction of X Axis
------------------	---------------------

---

<b>Green Line</b>	Direction of Y Axis
-------------------	---------------------

---

<b>Red Line</b>	Direction of Z Axis
-----------------	---------------------

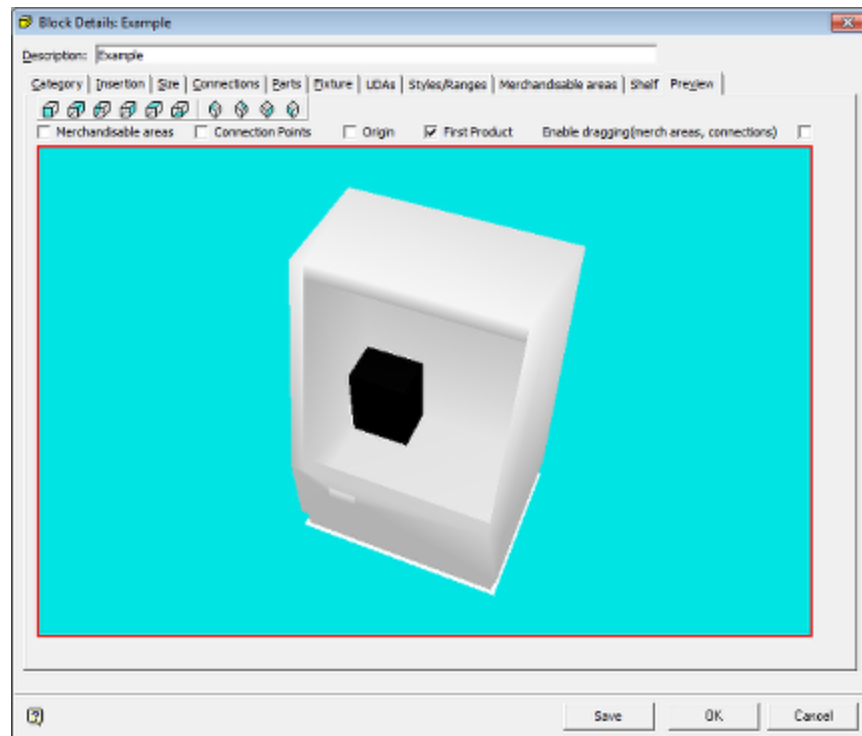
---

**Note:** This origin point corresponds to that set in the Insertion tab. It does not correspond to the AutoCAD DWG file insertion point.

---

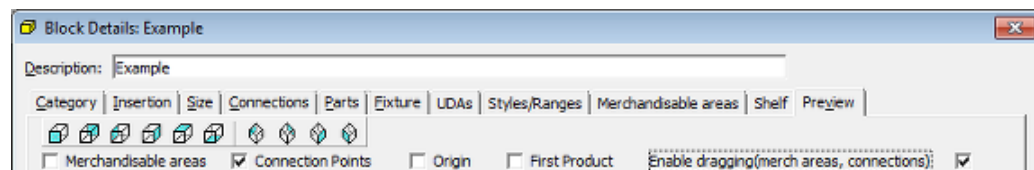
## First Product Option

The **First Product checkbox** (if selected) allows users to see where the first product will place on a fixture or shelf object. It is determined by the Child Insertion Position in the Insertion tab. Activate it by ticking the checkbox. In the example below, the child Insertion Position has been set to Bottom-Back-Left and the first product is shown as placing accordingly within the bounds of the merchandisable area.



## The Dragging Option

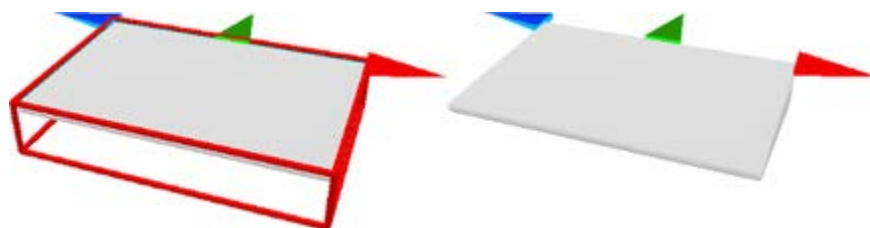
The **dragging option** allows users to manually change the positions of connection points or change the size and position of the merchandisable areas. The option is selected by ticking the Enable Dragging check box. It will also be necessary to check a second option for either Merchandisable Areas or Connection Points.



## Connection Points

### Moving a Connection Point

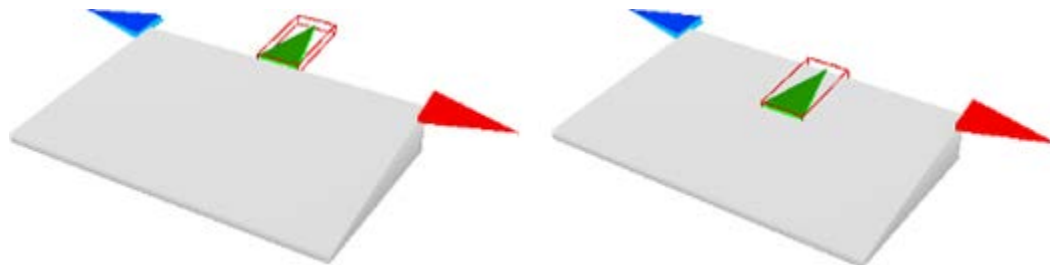
The first stage of dragging a connection point to a new position is to ensure the selection box around the object is de-selected by using **Escape**. The example below shows a shelf with and without a selection box.



Select a connection point by holding down the Control key and left clicking on it. It will be enclosed in a red selection box. While holding down the control key, move the mouse

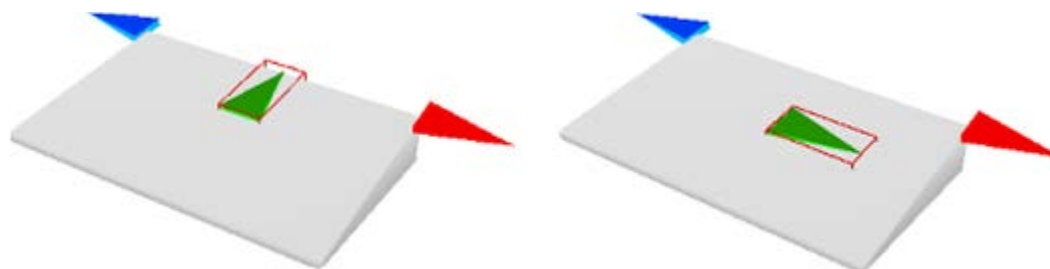


pointer over the selected connection point and hold down the left mouse key. The connection point can now be dragged to its new position.



### Rotating a Connection Point

Select a connection point by holding down the Control key and left clicking on it. It will be enclosed in a red selection box. While holding down the control key, move the mouse pointer over the selected connection point and hold down the right mouse key. The connection point can now be dragged to its new angle or rotation.

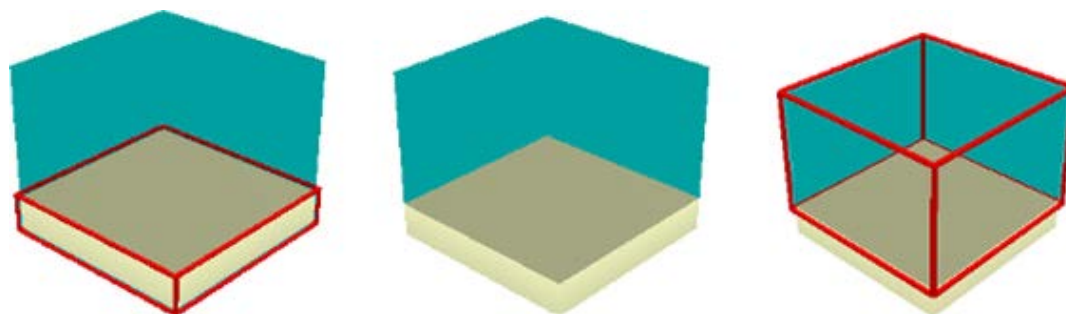


### Connections Tab

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 coordinates in the Connections tab, then confirming in the preview tab.

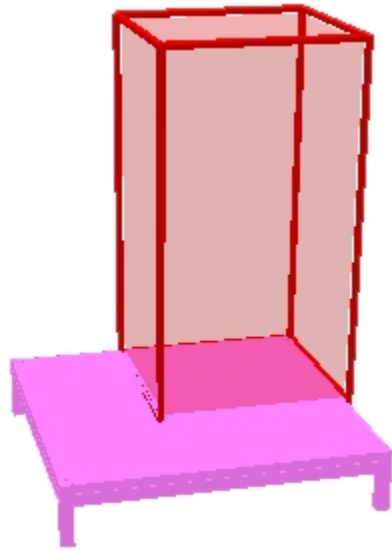
### Dragging a Merchandisable Area

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. Next ensure that the fixture is de-selected and the merchandisable area selected. This can be done by holding down the Control key, then left clicking on the fixture to de-select it. The merchandisable area can then be selected by holding down the Control key, then left clicking on the merchandisable area to select it.



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.



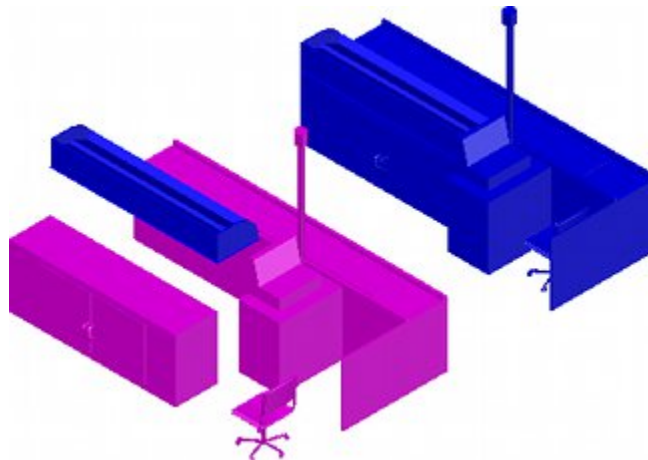
## Merchandisable Areas Tab

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 coordinates in the Merchandisable Areas tab, then confirming in the preview tab.

## Special Types of Blocks

### Composite Blocks

Composite blocks are 'super-blocks' made up of a number of individual AutoCAD blocks. In the example below the composite at the rear represents a combination of fixtures that might form a checkout installation. These include the checkout itself, a cupboard for storing bags, racking for holding products for last minute impulse buys and a chair for the checkout operator. These are shown in expanded form at the front of the diagram.



Composites provide a simple way of repetitively placing combinations of objects. Examples of how composites could be used include:

- Combinations of equipment - such as checkout complexes.
- Entire departments of equipment.
- Custom arrangements of equipment such as storage racking

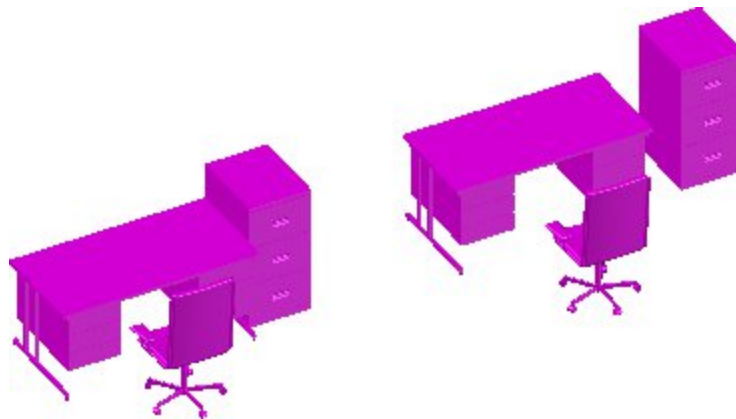
Composites are made by first creating the individual blocks, placing them into the correct alignment then making them into a composite block. Both the individual blocks and the composite block have to be registered in Fixture Studio.

### Composite Blocks and Merchandiser

Composite blocks are not visible in the Fixture Hierarchy in Merchandiser. If unexploded composites are present in a floor plan, they will not be visible in the Merchandiser floor plan.

### Configuring Composite Blocks

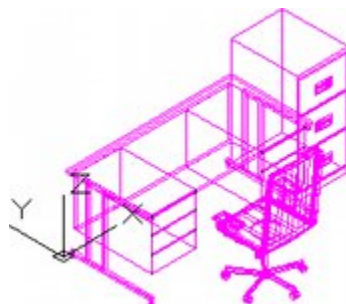
Composite blocks are 'super-blocks' made up of a number of individual AutoCAD blocks. In the example below a desk, chair and filing cabinet are going to be made into a composite for placing into offices in superstores. These are shown in composite form on the left and separated into their individual components on the right.



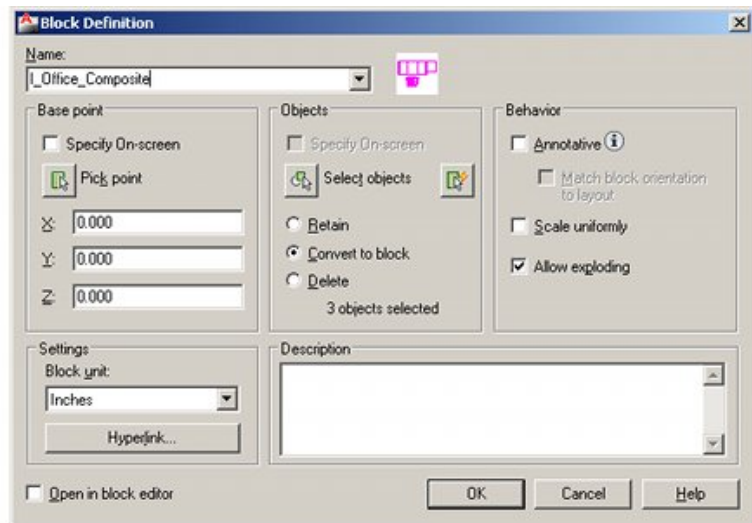
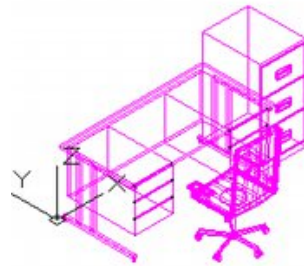
To make a composite block, the individual blocks must first have been created and registered in Fixture Studio.



Next the individual blocks are inserted into a Planner drawing and put into the required alignment.

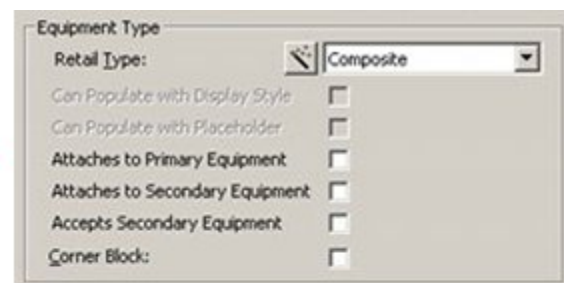
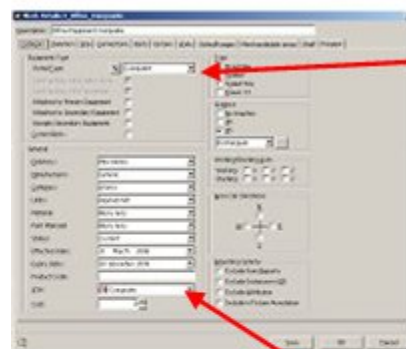


There are then selected and the AutoCAD Block command used.



Once the composite block has been created, it can be registered in Fixture Studio using standard methods. The settings specific to a composite block in the Block Details dialog box are as follows:

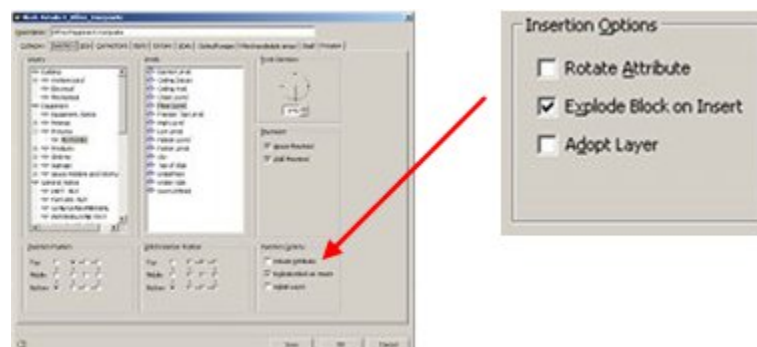
### Category Tab



- Set Retail type to Composite. This acts as a flag for some of the Macro Space Planning functionality, meaning that the composite block will be treated in a specific way. For example the composite block will not be visible in the Fixture Hierarchy in Merchandiser.

- Set the Icon to Composite. This will indicate to users in Planner that this particular block is a composite.

### Insertion Tab



The Explode Block on Insert option must be checked. This will cause the composite to break up into its component parts when inserted into a floor plan. This is important because composite blocks are not visible in Merchandiser.

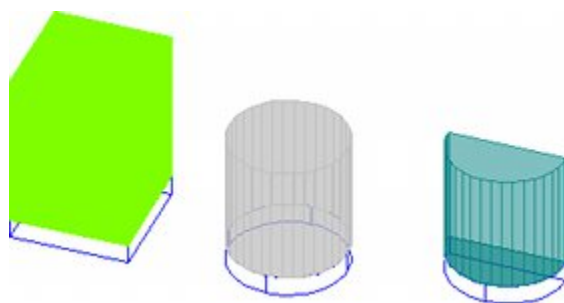
## Product Blocks

Product blocks are used to represent the volume taken up by products.

### Overview of Product Blocks

#### Planner

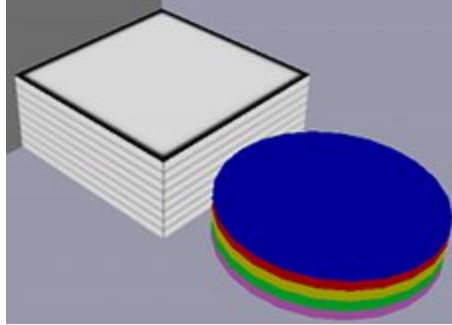
In the Planner module product blocks are used as placeholders. They show the volume that products may occupy but give no information on product quantities.



A different product block has to be created for each shape of fixture. In the above example, three different forms of product block are required to suit the three different shapes of fixtures.

#### Merchandiser

In the Merchandiser module, product blocks can be used to represent the shape of the product at display style level.



In the above example, the left hand set of products is displayed as a Textured Box, the right hand set of products as a Graphical display using a product block to represent the shape of the products.

---

**Note:** individual products have been given different colors for the purpose of this illustration.

---

## Creating the Product Block

Product blocks are created in two stages:

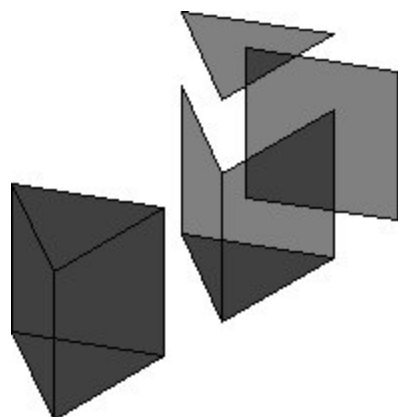
1. The Product Block is drawn in the Planner module.
2. The Product Block is registered in Fixture Studio.

Product Blocks can be used in the Planner module, the Merchandiser module, or both. Depending on where they are used, they may require slightly different properties.

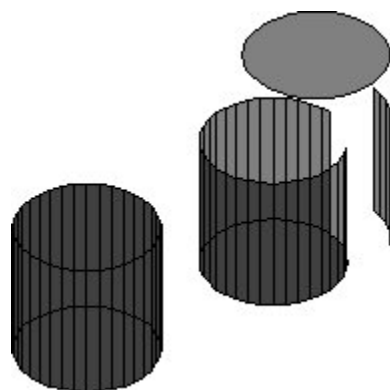
- For the Planner module, the product block needs to be hatched so that it will stand out in a wire frame drawing
- For the Merchandiser module, the DWG file for the product block needs to be converted into 3DS format so it can be displayed. If the product block is to be display in Merchandiser only, it does not require hatching.

## Drawing the Product Block

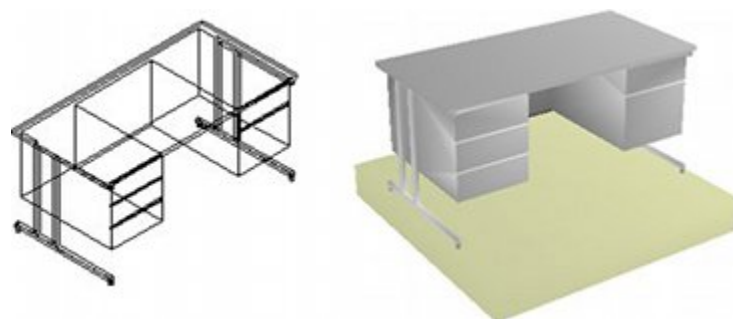
The product block should be drawn in the planner module. If the product block is being drawn for the Planner module, its faces should be hatched. As hatching can only be carried out on flat surfaces, this restricts the form of the product block. The example below shows a triangular product block and (on the right) a partially exploded form showing how it was constructed.



Curved surfaces can be approximated by many sided polygons. In the example below a circular product block has been created from a 32 sided polygon. (The right hand side shows a partially exploded



Alternatively more complex product blocks can be drawn purely for Merchandiser. In the example below, a desk shaped product block has been created in Planner (left side). When appropriately configured, this can be used to represent desks at Display Style level in the Merchandiser module.

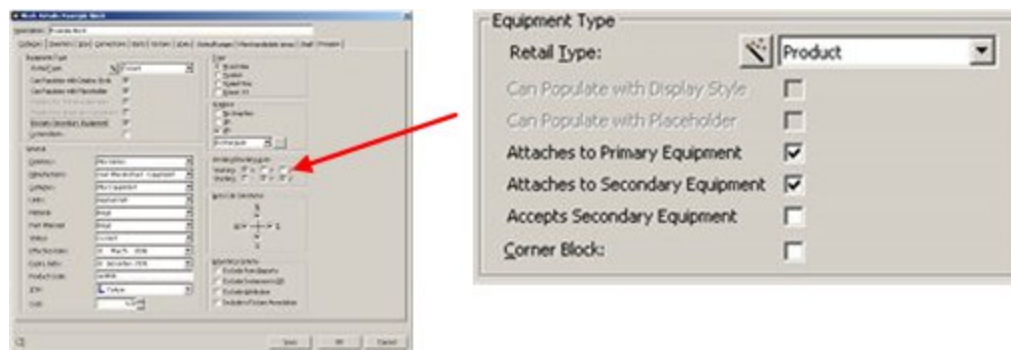


Once the product block has been drawn it can be made into an AutoCAD block and imported into Fixture Studio.

### Registering Product Blocks

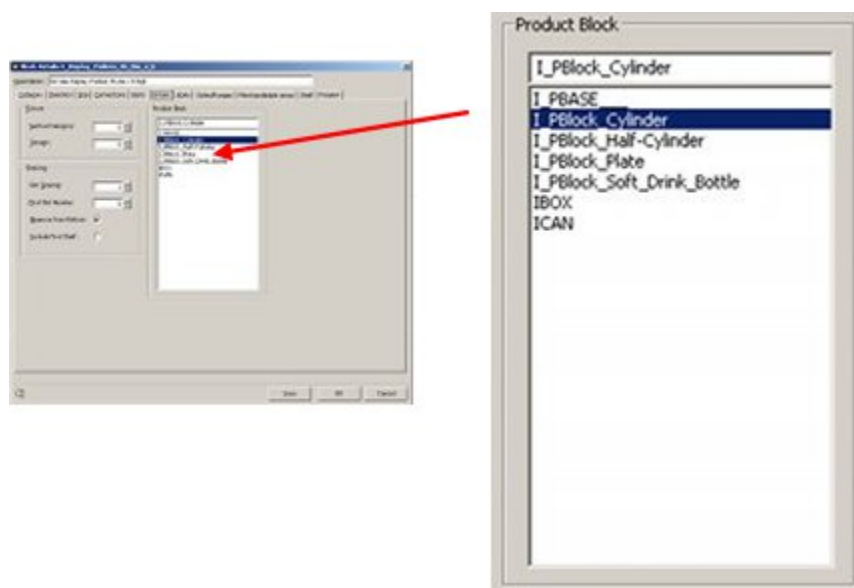
Product blocks are created in Planner and then designated as such in Fixture Studio. This is done by setting the Retail Type in the Equipment Type frame in Categories tab of the Block details dialog box to Product.





### Assigning Product Blocks to Fixtures

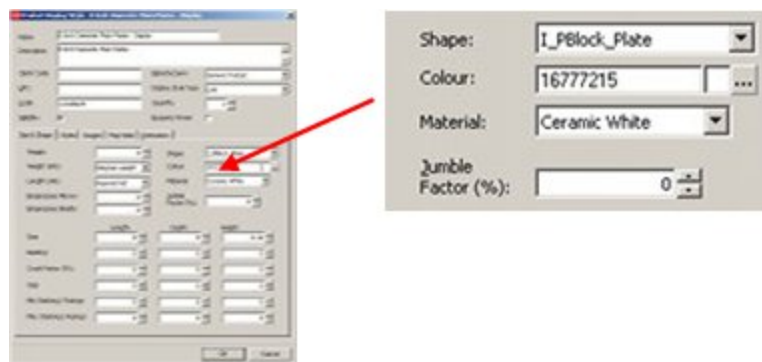
Product blocks are assigned to Fixtures in the Fixture tab of the Block Details dialog box in Fixture Studio.



The assigned product block will then be used to display product placeholders when a product is placed in the Planner module.

### Assigning Product Blocks to Display Styles

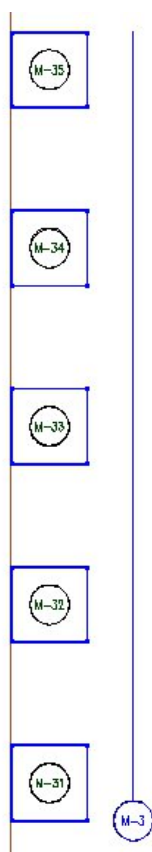
Product blocks are assigned to display styles in the Shape drop down list of the Size and Shape tab of the Display Style dialog box in Product Studio.



This product will be used when the 'Draw Products as option (right click menu) is set to Graphical in Product Studio.

## Reference Blocks

Reference blocks are used for Bay and Aisle numbering.

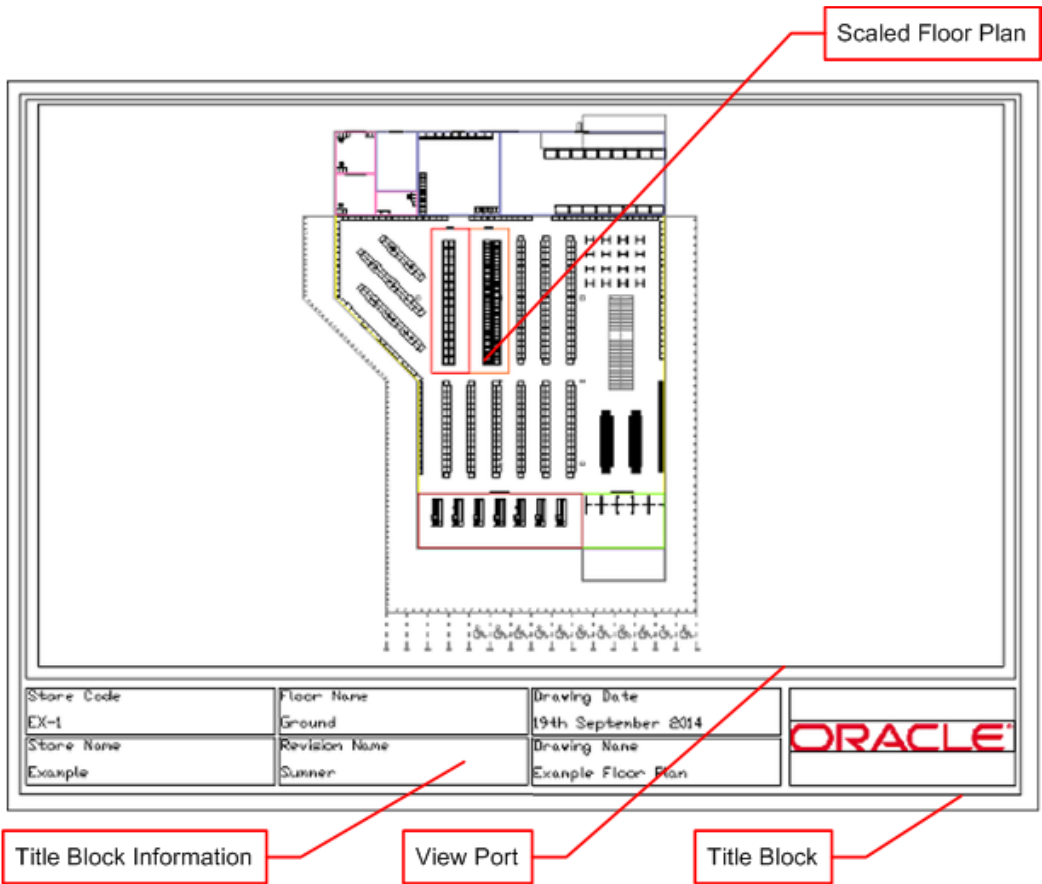


In the example above, the fixtures have been allocated bay numbers using a circular reference block, while the same reference block has been used to add the aisle number. Reference blocks are supplied with the application and there is not usually any need to change them.

## Overview of Title Blocks

**Title Blocks** are used to add information to a floor plan in preparation for publishing it in hard copy or PDF form. Title Blocks can also contain information on the drawing.

**Note:** For a more complete explanation of title blocks see the *Macro Space Management Administration Module Help File*.



Option	Description
Title Block	This is a special form of AutoCAD DWG file that overlays the store plan on model space. It contains text based information on the floor plan and one or more View Ports to display the drawing.
View Port	The View Port (of which there may be one or several) can be a window cut through the title block to show the floor plan underneath.
Title Block Information	This is a series of fields that can be populated with specific items of information. In the example above data like the store code and store name are shown, but any information in the database can be configured to appear.
Scaled Floor Plan	The floor plan is visible through the View Port. It is set to a specific scale.

Each Title Block is designed for a specific size of paper, so if drawings are to be printed off in a range of sizes, title blocks should be created for each size. A metric implementation of Macro Space Management may contain title blocks for A2, A3 and A4 size paper, while an imperial one may contain title blocks for ANSI A, ANSI B, ANSI C, ANSI D and ANSI E size paper.

## Using Title Blocks

There are three ways title blocks can be used:

Option	Description
Manually Publish from AutoCAD	Once a title block has been added to a floor plan it can be published using AutoCAD Plot functionality. Using this method, floor plans can be published at any status.
Publish Floor Plans from Planner module	The Publish Floor Plans option on the File menu allows users to manually publish selected floor plans. Dependent on settings in the Floor Plan Publishing configuration dialog box, a title block can be included.
Batch Publish Floor Plans	Floor plans can be batch published - the normal way of publishing floor plans in bulk. The functionality allows a title block to be specified.

## Overview of Creating Title Blocks

There are two stages to creating title blocks: preparation and configuration.

### Preparation

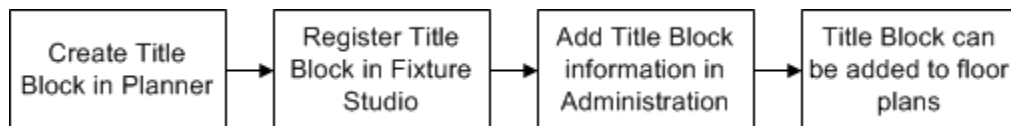
There are two actions required for preparation. These are carried out at the implementation stage and will generally not be modified afterwards.



Action	Description
Read in Canonical Media	Canonical media is the AutoCAD term for paper size. These have to be read into the database from the network printers before floor plans can be published.
Create Custom SQL	Custom SQL is a slightly modified form of standard SQL. It can be used to extract information from the Macro Space Planning database so that it can be inserted into the title block.

### Configuration

There are a series of steps to be following in order to create a title block and make it available for use in published floor plans.

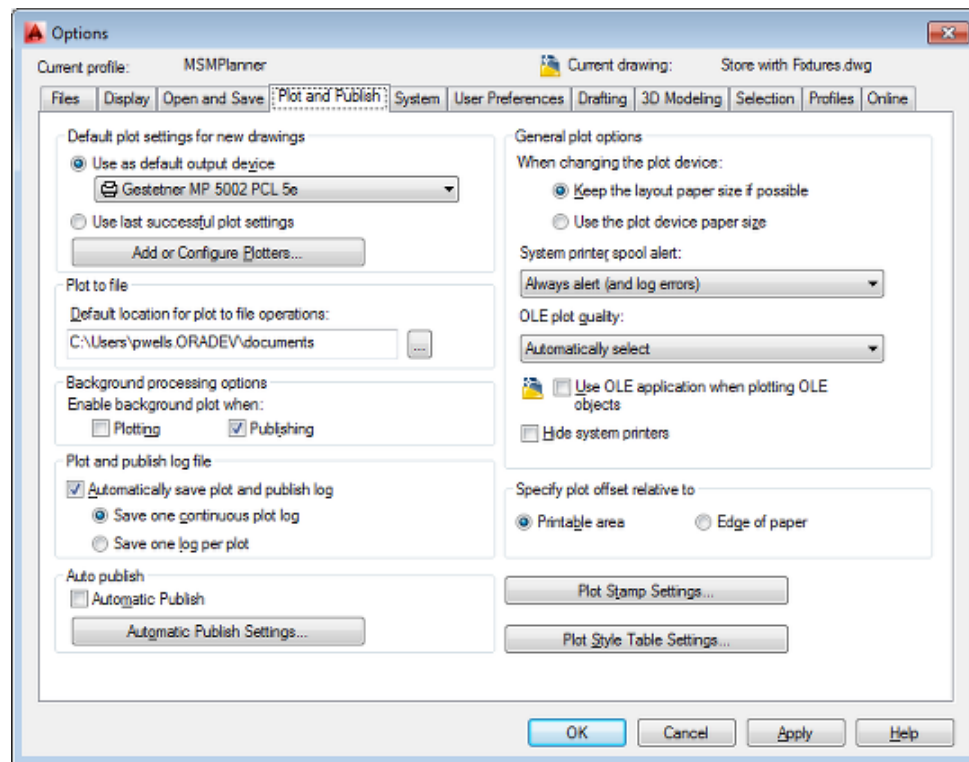


Action	Description
Create Title Block in Planner	A Title Block is a special form of AutoCAD drawing. This had to be created in the Planner module and written to a specific Windows folder.
Register Title Block in	After the Title Block has been created, it must next be registered in Fixture

Fixture Studio	Studio. This will make it appear in the list of blocks available for placement.
Add Title Block Information in Administration	Once the title block has been registered in Fixture Studio, some additional information needs to be added in the Administration module. This includes information such as the size of the viewport - in effect a window cut through the title block so that the floor plan can be seen through it.
Add Title Block to floor plans	After the Title Block has been created in Planner registered in Fixture Studio and added to the list of title blocks in Administration, it can then be used in floor plans.

## Influence of AutoCAD Settings on Title Block Parameters

Some AutoCAD parameters influence the configuration of Title Blocks. An example is the AutoCAD options dialog box.

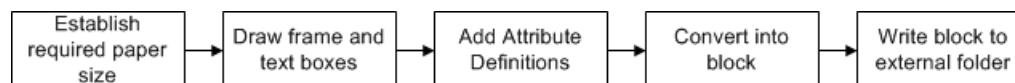


One of several settings that affect how title blocks function is the option to plot offset from the printable area or edge of the paper. This affects the parameters set in the **Title Blocks** dialog box accessed from the Planning Menu in the Administration module. These AutoCAD settings should be consistent on all machines used to publish floor plans.

**Note:** See the AutoCAD help files for more information.

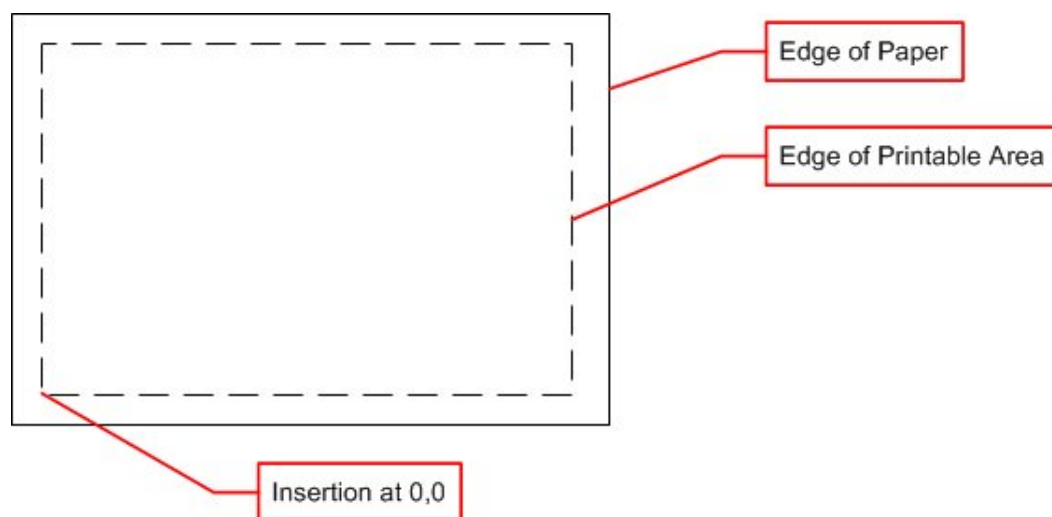
## Creating the Title Block in Planner

Creating the Title Block in the Planner Module requires a series of actions to be carried out.



## Establishing Required Paper size

Title Block Size has to take into account the printable area on the selected paper size. For example, A3 paper is 297 x 420 mm. However, printers (and plotters) cannot make use of all that area. A border (called the non-printable area) that cannot contain any lines or text exists around the edges of the paper. The size of the title block needs to allow for the non-printable area. If A3 paper is used, and the non-printable area is 6 mm wide, then the title block needs to be drawn at 285 x 408 mm to fit exactly into the printable area of the paper. The insertion point of the title block is normally defined as 0,0 when it is created.



## Draw Frame and Text Boxes

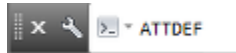
After the size has been established a frame can be drawn in planner, and text boxes added.



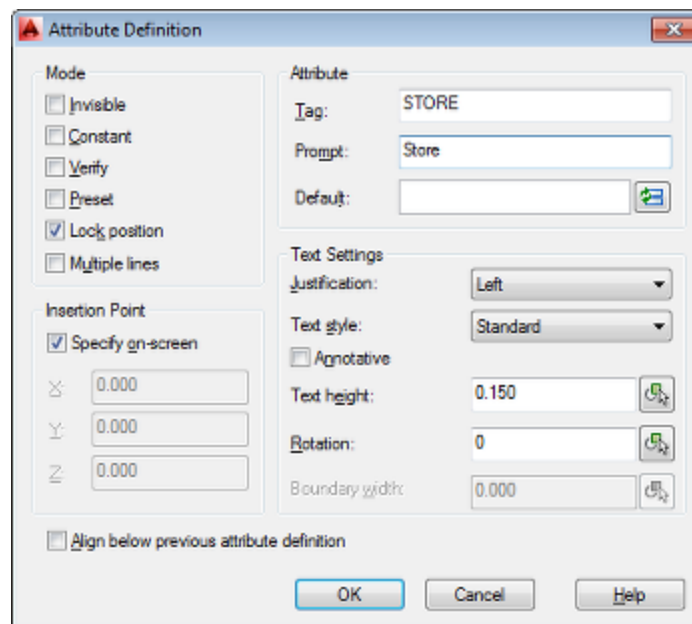
The Title block is usually drawn with the origin at 0,0.

## Add Attribute Definitions

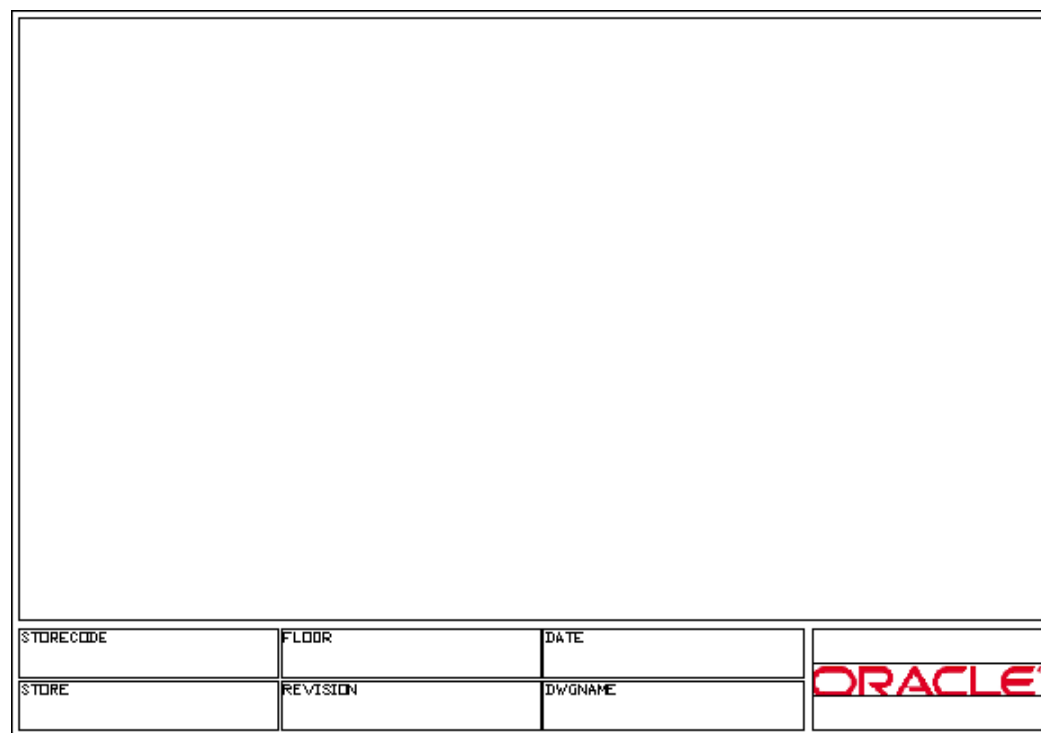
Attribute Definitions are used to set up the 'template' Attributes for the text boxes. They are invoked by typing ATTDEF into the AutoCAD command line in Planner and pressing **Return**.



This will bring up the Attribute Definition dialogue box.



The Attribute Definitions can then be put into the drawing.



Attribute Tags should not contain spaces. If necessary, join two words with an underscore: WORD1\_WORD2. The Attribute Tags should either match the names of the hard coded data or the column names or aliases in the Custom SQL. Two forms of attribute definition may be put into the Title Block: constant and populated. The constant attribute acts as a title for each item of information and remains the same irrespective of the floor plan it is inserted into. The populated attribute will update with data specific to the floor plan it is being inserted into.



Store Code EX-1	Floor Name Ground	Drawing Date 19th September 2014	ORACLE
Store Name Example	Revision Name Sunner	Drawing Name Example Floor Plan	

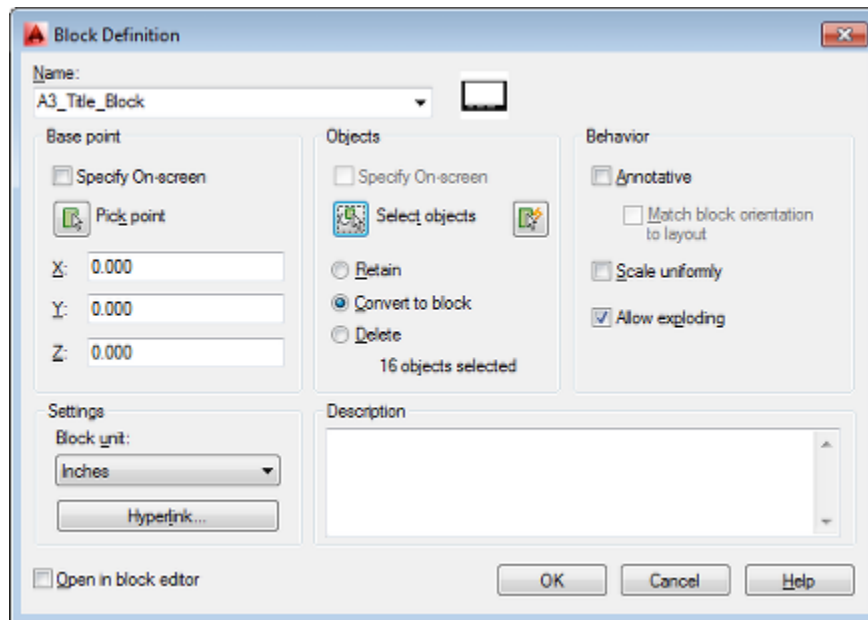
Constant Attribute

Populated Attribute

**Note:** See the AutoCAD help file for more information on Attributes.

## Convert into Block

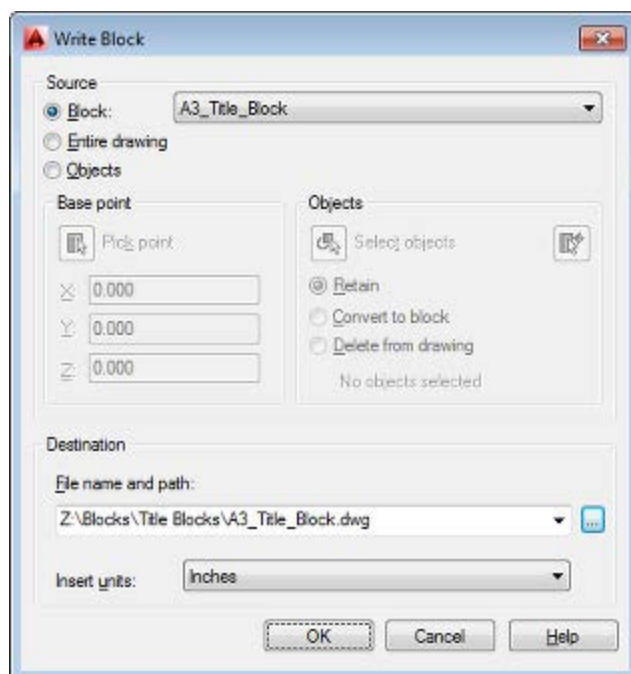
The Title Block can then be turned into a block with the 'block' command. This can either be initiated from the AutoCAD command line.



The individual components of the Title Block will then be combined to make a single object. This block definition is stored in the current drawing and is not yet globally available.

## Write Block to External folder

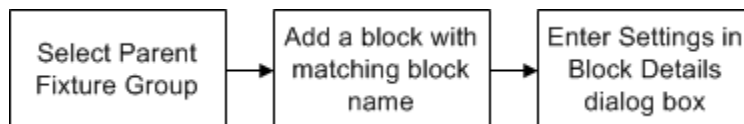
The Write Block (WBlock) command is used to write the block definition to an external directory where it can be used in any Macro Space Management drawing. The command is invoked by typing WBlock into the command line.



The destination should be a directory specified in the Directories Tab of the Configuration Module. This tab can only be accessed from within the Administration module.

## Registering the Title Block in Fixture Studio

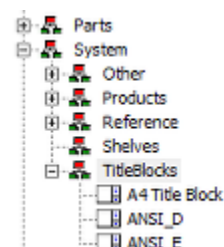
Registering the Title Block in Fixture Studio requires the following steps.



## Registering the Block

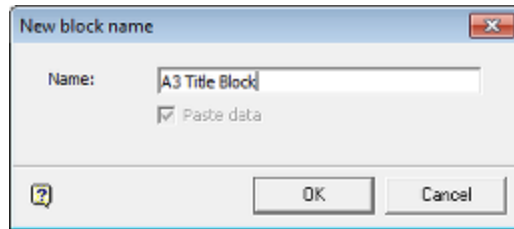
### Selecting the Parent Fixture Group

All blocks within Fixture Studio are arranged within a hierarchy. The default hierarchy provided with the application contains a Fixture Group called Title Blocks. This is the usual location for title blocks.



### Create a Block and Enter the Block Name

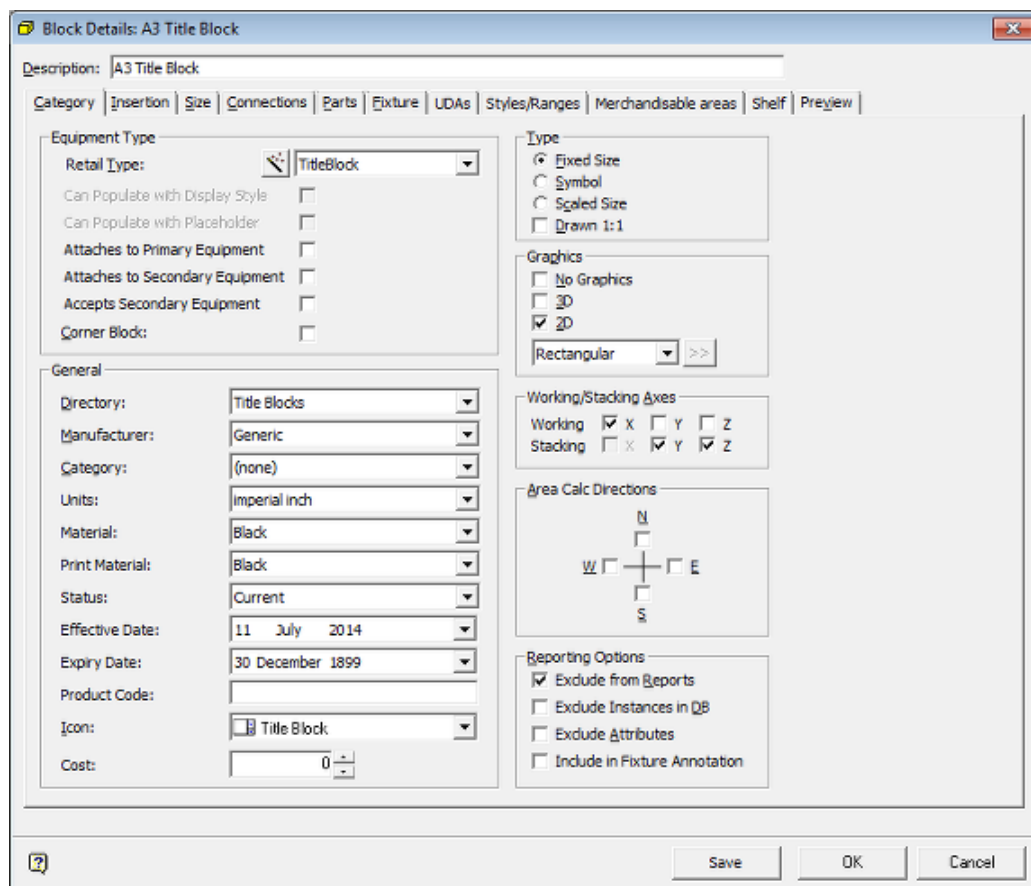
Highlight the Title Blocks Fixture Group and create a block by invoking the Add Block option from the Edit menu or the toolbar. This will bring up the New block name dialogue box.



Ensure that the block name entered exactly matches the block name specified in the WBlock command used in Planner. If these names do not match, the title block will not work when inserted into a floor plan. On clicking **OK**, the Block Details dialogue box will appear for editing.

### Enter Settings in the Block Details Dialogue Box

The Block Details dialogue box allows custom properties to be assigned to the title block.



Full details of how to use this dialogue box can be found in the Fixture Studio help file. The principal settings pertinent to title blocks are:

### Category Tab

Option	Description
Retail Type	This must be set to Title Block. This will be used by the software to identify blocks that can be used for this purpose. It will also ensure that the title block is grayed out and unavailable for placement except via the Insert menu in Planner.

Directory	This must be set to the same directory that the Title block was written to (WBlocked) from Planner. If this is not done, the application will not be able to find the title block when it is inserted into a floor plan.
Units	This is to ensure the Title Block is displayed at the correct scale when it is used. Using millimeters in place of inches will result in an incorrectly sized Title Block.
Icon	This should be set to title block. This provides an easy way of identifying title blocks in the Fixture Studio hierarchy.
Exclude From Reports	This option sets a flag which can be used to exclude the title block from the list of blocks in a floor plan. This flag improves accuracy in reporting.

**Insertion Tab**

Option	Description
Layer	The application comes with a pre-configured layer called TITLEBLOCK.
Level	This should be set to undefined
Insertion Position	Set the Insertion Position to match that of the AutoCAD insertion position for the title block. In the example in this help file, this is Bottom, Front, Left

**Size Tab**

Option	Description
Length	This should be set to the actual dimension of the paper - including that on the non-printable area.
Depth	This should be set to the actual dimension of the paper - including that on the non-printable area.
Height	The height should be set to 0.00001. This nominal value is to avoid 'divide by zero' errors in the code.

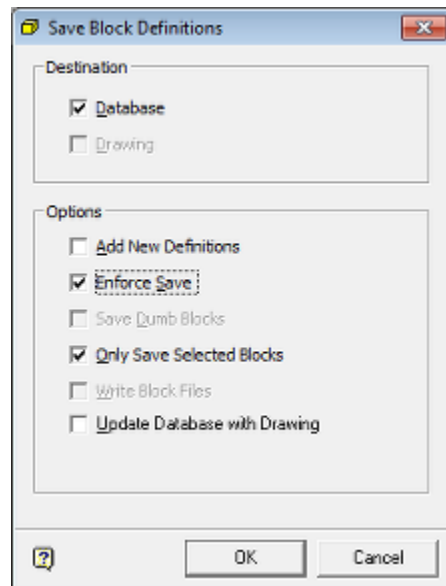
**Saving Locally**

With all information entered into the Block Details dialog box, click OK to save the information locally.

**Saving to the Database**

To save the information to the database:

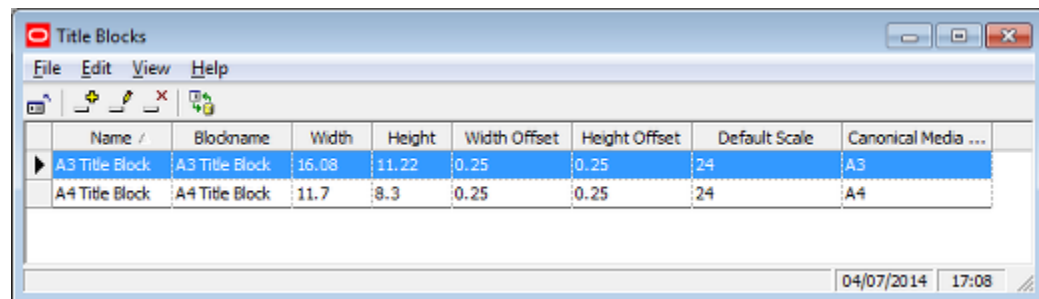
1. Highlight the title block in the list of blocks.
2. Select Save Blocks from the File menu. This will bring up the Save block Definitions dialog box.



3. Select Database, Add New Definitions, Enforce Save and Only Save Selected Blocks.
4. Click OK and the information will be saved to the database.

## Configuring the Title Block in the Administration Module

Once registered in fixture Studio, the Title Block needs to be registered in the Administration Module before it can be used in the Planner module. This is done using the title blocks option from the Planning menu.



Name /	Blockname	Width	Height	Width Offset	Height Offset	Default Scale	Canonical Media ...
▶ A3 Title Block	A3 Title Block	16.08	11.22	0.25	0.25	24	A3
A4 Title Block	A4 Title Block	11.7	8.3	0.25	0.25	24	A4

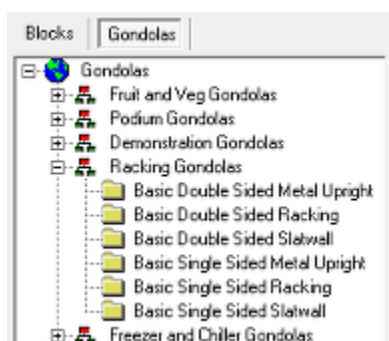
04/07/2014 17:08

See the *Oracle Retail Macro Space Planning Administration Module User Guide* for more information.

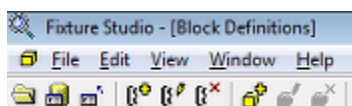
## Gondola Hierarchies

### Adding, Editing and Deleting Gondola Groups

**Groups** are used to arrange fixture and gondola definitions into logical sub-sets. The resulting hierarchy is used in Fixture Studio for maintaining information on the equipment used in Macro Space Planning. The hierarchy also appears in the Object Browser in the Planner and Merchandiser modules and in In-Store Space Collaboration. These groups are a way of arranging large numbers of fixtures into sub-sets sharing a common characteristic. For example, one group could hold all fittings and fixtures used for clothing, another all those used for chilled or frozen foods.



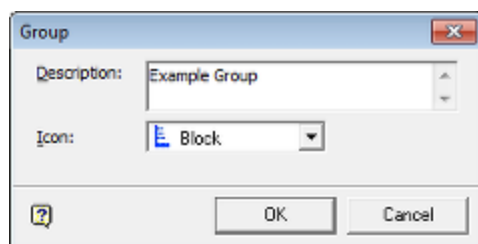
Groups can be Added, Edited and Deleted using the options on the toolbar. (They may also be added using the options on the right click menu).



Icon	Option
	Add Group
	Edit Group
	Delete Group

### Adding a Group

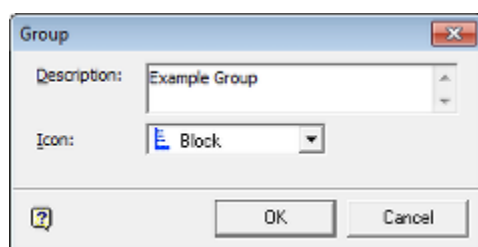
To add a group, highlight the parent group to which it is going to be added. Click the **Add Group** icon. The Group dialogue box will appear.



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.

## Edit Group

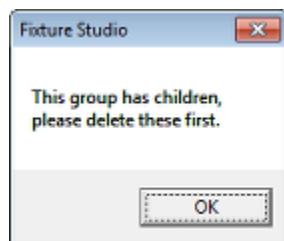
To add a group, highlight the group which is to be edited. Click the **Edit Group** icon. The Group dialogue box will appear.



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 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 dialogue will appear.



If there are no child objects, the group will be deleted without any requirement for confirmation.

---

**Note:** Information of Fixture Groups will not be written back to the database until the **Save** option is used from the File menu. Information on Gondola Groups will not be written back to the database until the **Save Gondolas** option is used from the File menu.

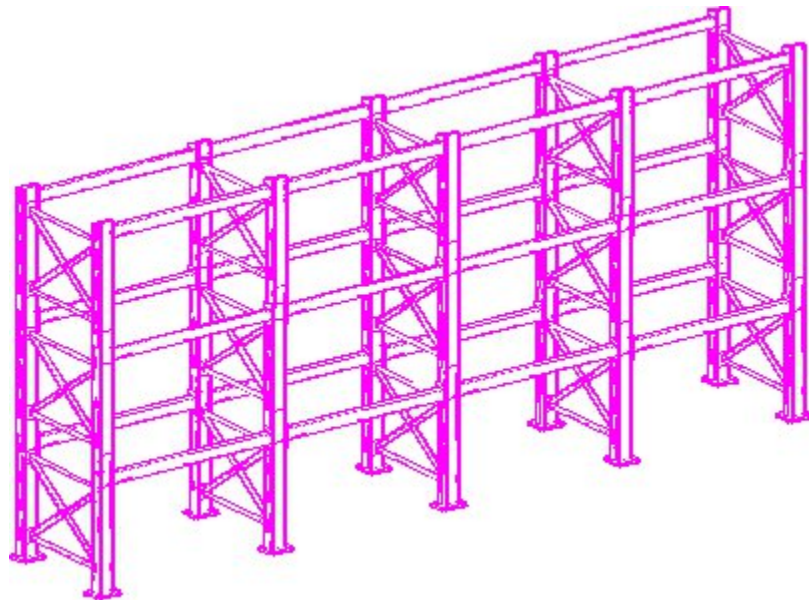
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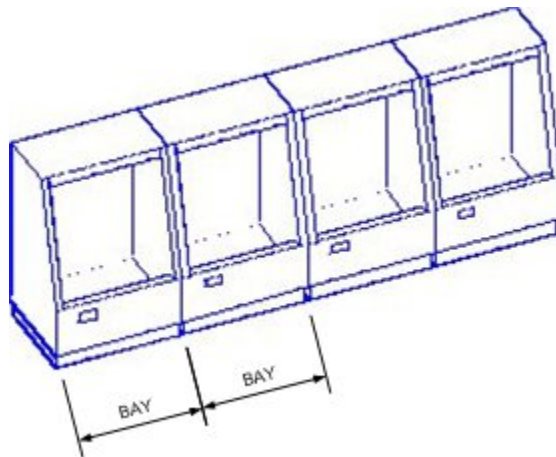
## Basic Concepts for Gondola Creation

### Overview of Gondola Creation and Use

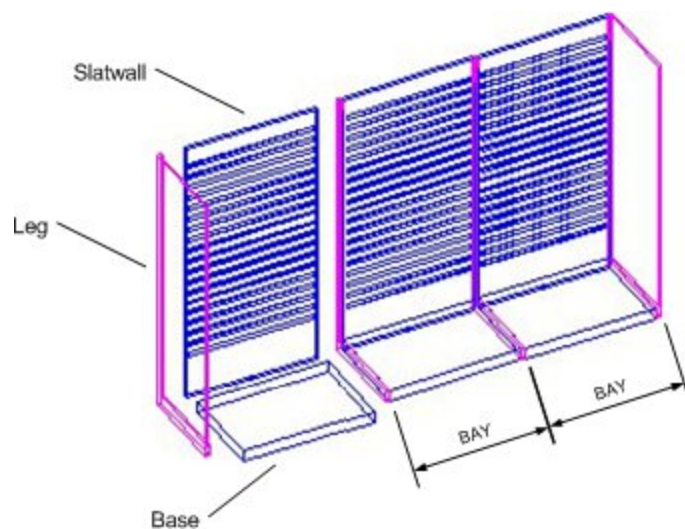
**Gondolas** are predefined arrangements of fixtures and fittings that are aligned to each other in a precise spatial relationship. This enables long runs of equipment to be placed using just a few commands - saving considerable time when creating store plans. In the example below, the run of storage racking is configured as a gondola and can be placed in four separate sizes in either two or three tiers.



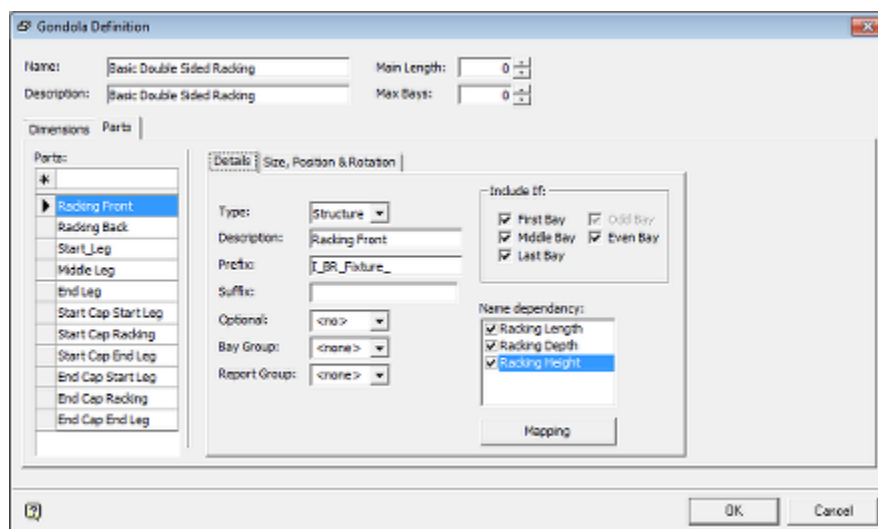
Gondolas are made up of repeating units called bays. A gondola consists of one or more bays. Each bay contains a specific arrangement of fixtures and fittings. A bay could be as simple as a simple fixture, for example a Chiller unit.



Equally, a bay could be made up multiple components. In the example below, the slatwall gondola consists of a number of bays. The first bay has been exploded to show it is made up of three components: a leg, slatwall and base.



Gondolas are defined in Fixture Studio using the Gondola definition dialog box.



They can then be placed in the Planner and Merchandiser module (and in In-Store Space Collaboration) using the Gondola Run dialog box.

This dialog box allows this specific gondola to be:

- Placed in any combination of six lengths and heights.
- Have optional start and end caps.
- Have a specific number of bays.
- Be placed at a specific angle from a specific starting point.

This makes laying out equipment in a store plan fast and easy.

## 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 fixtures are created; for example deciding on a naming convention. The steps are:

- Decide on and implement a naming convention
- Import the blocks into Fixture studio (not covered in this section)
  - Ensure Insertion points are consistently located
- Assign Gondola Part Types
- Assign Gondola Sizes
- Define Gondola
  - Define name, main length and maximum bays
  - Select and assign dimensions
  - Specify the list of parts
  - Define the part details
  - Define the part size position and rotation

## Naming Conventions and Block Names

When a gondola is placed in the Planner or Merchandiser modules, it relies on using a DWG or 3DS file to represent the gondola. In order to find the required file Macro Space Planning reconstructs the block name from selections made in the Add Gondola dialog

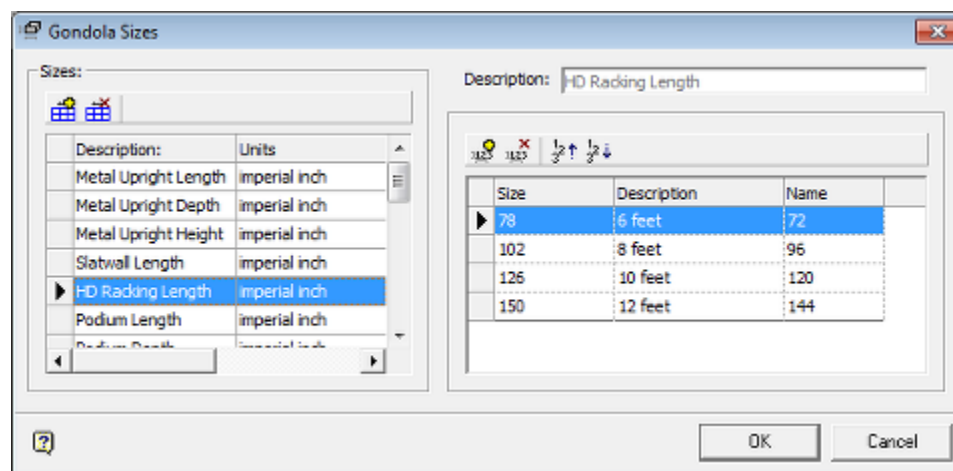
box and information in the Gondola definitions dialog box. This process will be followed for every part in the gondola.

## Steps to Build Up Block Names

Block names are built up as follows:

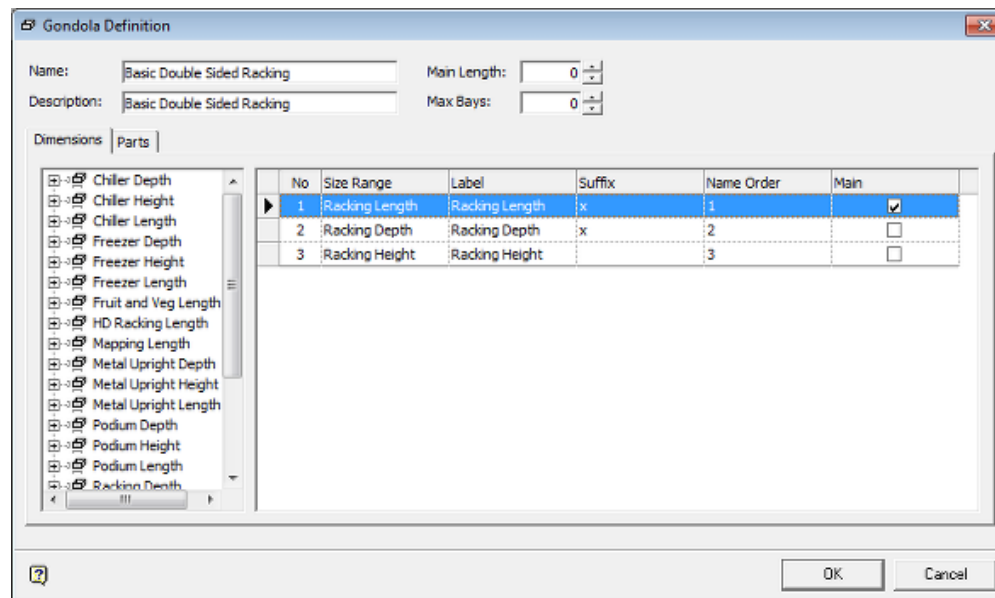
### Create a List of Sizes

A list of dimensions is built up using the Gondola sizes dialog box. A variety of sizes has been created, each with a set of dimensions associated with them. In the example below there are a range of sizes including Slatwall Length and HD Racking Length. HD Racking Length then has the following options associated with it: 6 feet, 8 feet, 10 feet and 12 feet.



### Associate a Size with a Gondola Definition.

Once a size has been created it can be associated with a specific gondola definition. In the example below the Racking Length, Racking Depth and Racking Height sizes have been chosen. Additional information has also been entered on suffixes, name order and so on which will affect the final block name.



### Configure Further Details in the Gondola Definition dialog box

Further details affecting the calculated block are entered in the Details sub-tab of the Parts of the Gondola Definition dialog box. These include such things as the prefix name for any block and which of the dimensions to use.

**Gondola Definition**

Name: Basic Double Sided Racking Main Length: 0

Description: Basic Double Sided Racking Max Bays: 0

Dimensions **Parts**

Parts:

- \*
  - Racking Front
  - Racking Back
  - Start\_Leg
  - Middle Leg
  - End Leg
  - Start Cap Start Leg
  - Start Cap Racking
  - Start Cap End Leg
  - End Cap Start Leg
  - End Cap Racking
  - End Cap End Leg

**Details** Size, Position & Rotation

Type: Structure

Description: Racking Front

Prefix: I\_BR\_Fixture\_

Suffix:

Optional: <no>

Bay Group: <none>

Report Group: <none>

Include If:

☒ First Bay ☒ Odd Bay

☒ Middle Bay ☒ Even Bay

☒ Last Bay

Name dependency:

☒ Racking Length

☒ Racking Depth

☒ Racking Height

Mapping

OK Cancel

### Calculating a Block Name

The starting point for calculating a block name comes when selections are made in the Add Gondola dialog box. This is then married up with the information in the Block Definitions dialog box to produce a block name.

#### Add Gondola dialog box

The starting point for placing a gondola is the Add Gondola dialog box. Here the user selects the required dimensions. In this example, there are three; Racking Length, Racking Depth and Racking Height. Values of 48 inches, 24 inches and 96 inches have been selected. On clicking the OK button, the application starts to reference information in the Gondola Definitions dialog box. Here the length has been selected as 36 inches, the depth as 24 inches and the height as 72 inches.

### Gondola Definitions dialog box - Prefix

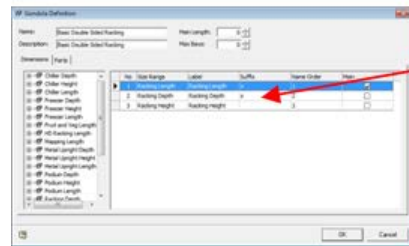
The next stage is derived from the Parts sub-tab of the Details tab of the Gondola Definitions dialog box. The Prefix (if any) is selected and becomes the first part of the block name. In this case it is **I\_BR\_Fixture\_**. This gives the first part of the block name.

### Building up the Dimensions of the Block

The dimensions of the block are built up from three things:

- The dimensions selected in the Add Gondola dialog box.

- Information specified in the Dimensions tab of the Gondola Definition dialog box.
- Information specified in the Details sub-tab of the Parts tab of the



No	Size Range	Label	Suffix	Name Order	Main
1	Racking Length	Racking Length	x	1	<input checked="" type="checkbox"/>
2	Racking Depth	Racking Depth	x	2	<input type="checkbox"/>
3	Racking Height	Racking Height		3	<input type="checkbox"/>

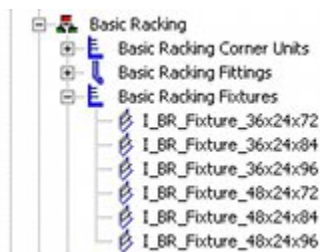
The dimensions are built up in name order.

- The starting point for the block name is the suffix: I\_BR\_Fixture\_.
- The first name dependency is Racking Length. This was selected as being 36 inches, so a value of 36 is added to the suffix, together with the Suffix for Racking Length. This modifies the block name to I\_BR\_Fixture\_36x
- The next name dependency is Racking Depth. This was selected as being 24 inches, so a value of 24 is added to the block name, together with the Suffix for Racking Depth. This modifies the block name to I\_BR\_Fixture\_36x24x
- The final name dependency is Racking Depth. This was selected as being 72 inches, so a value of 72 is added to the block name. There is no Suffix for Racking Depth. This modifies the block name to I\_BR\_Fixture\_36x24x72.

**Note:** see the section on Assigning Gondola Sizes for more information on how Name dependencies/Dimensions are configured.

## Selecting the Block

The final block name is **I\_BR\_Fixture\_36x24x72**. The functionality identifies that block name in the fixture hierarchy and uses it to draw the gondola.



**Note:** if the result of the above calculations is a block name that does not exist, the gondola will error when an attempt is made to place it in the Planner or Merchandiser modules or in In-Store Space Collaboration.



## Gondola Parts

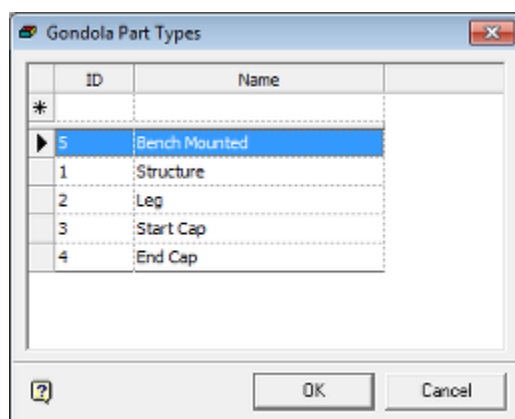
Gondolas can be considered to be made up from a number of components. In the example below, the gondola is made up of Freezers of type 'Structure' and Condiment Cabinets of type 'Bench Mounted'. This information can then be used for reporting purposes.



These reporting types can be defined in the Gondola Parts dialogue box. This is accessed from the Gondola Parts icon on the toolbar.



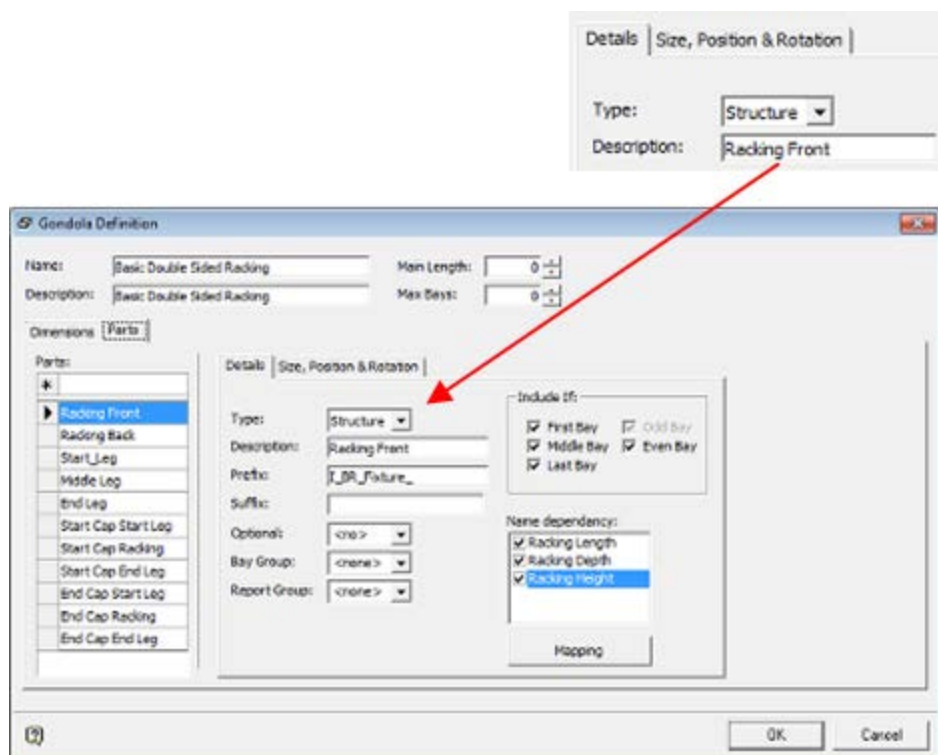
This will bring up the Gondola Parts dialogue box. Gondola parts can be added by typing entries into the top row and pressing Return to write the entry to the database.



Gondola parts can be deleted by highlight the pertinent entry and pressing Delete.

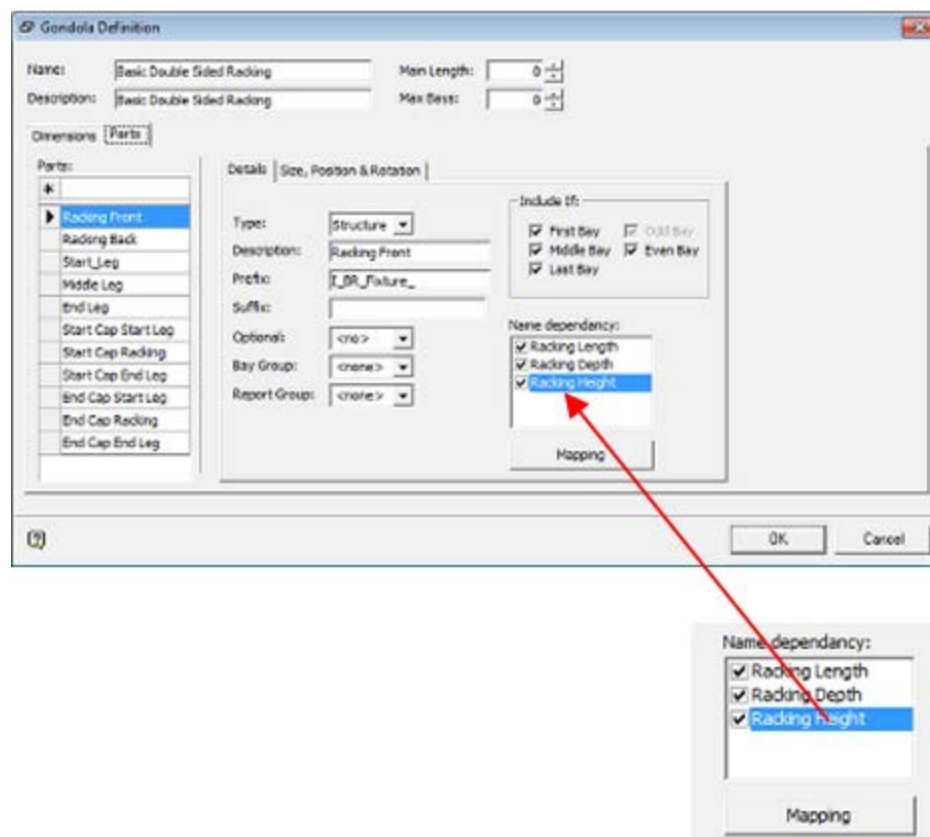
These part types will then be available in the Type drop down list of the Details sub-tab of the Parts tab of the Gondola Definition dialog box.



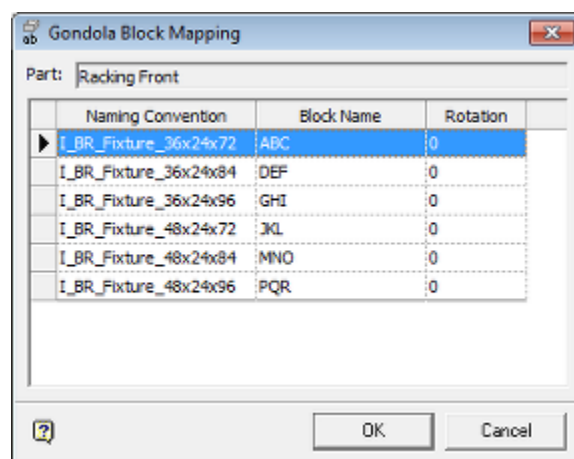


## Mapping Gondola Parts

Sometimes a client has an existing fixture library where the block names do not conform to a naming convention. Gondolas require blocks with naming conventions. Mapping Gondola Parts is initiated from the Mapping button of the Details sub-tab of the Parts tab of the Gondola Definition dialog box.



This will bring up the Gondola Block Mapping dialog box. It will already be populated with the names that would result if required blocks had a naming convention. (These are calculated from the information in the Gondola Definition dialog box). Enter the corresponding block names, together with any rotation required if they are in a different orientation from a Front direction of South (Insertion Tab - Block Details dialog box).



Once the dialog box is populated, it can be edited by recalling it from the toolbar.

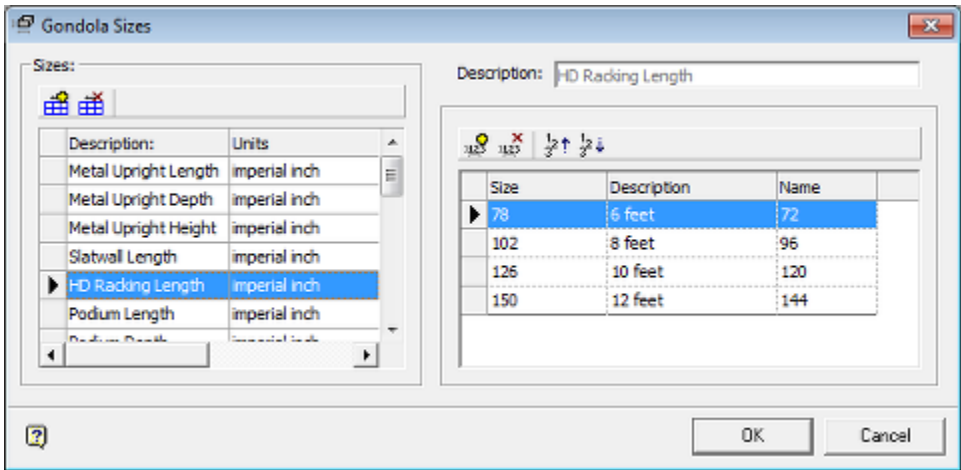


## Assigning Gondola Sizes

The parts that make up a gondola run come in specific sizes. The possible sizes for specific gondola dimensions are entered in the Gondola Sizes dialogue box. This is accessed by clicking on the Gondola Sizes icon on the toolbar.



This will bring up the Gondola Sizes dialogue box.

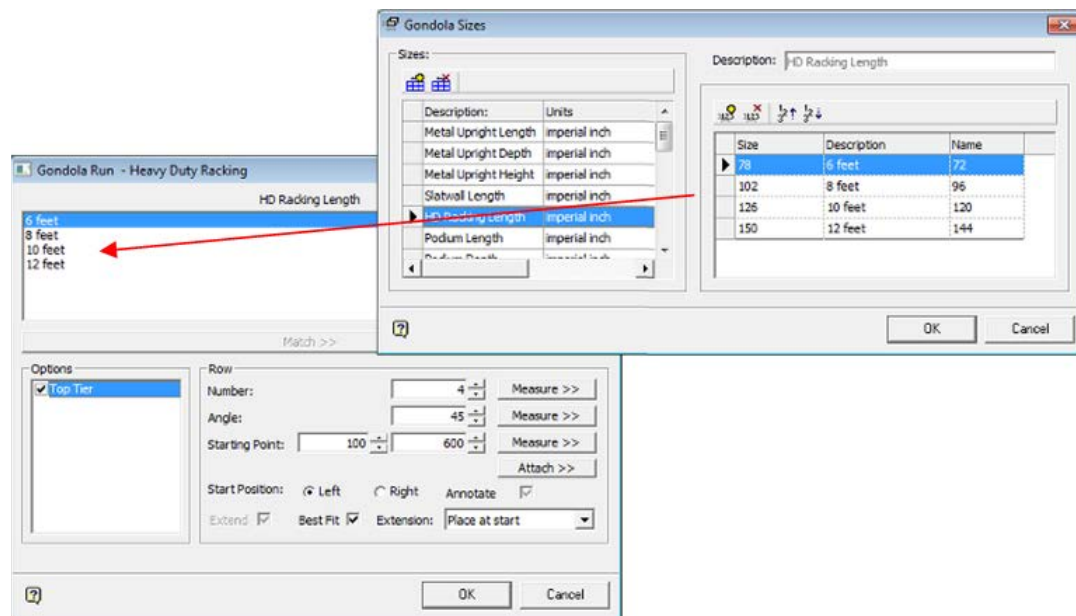


Dimensions can be added on the left hand size by clicking the Add Size icon. This will create a new line in the list of sizes. Enter a name in the **Description** field and select a unit from the **Units** drop down list. Press Return to add this dimension to the list of dimension and write the information back to the database. (If return is not pressed, the data will not be saved). Data can then be entered on the right.

Data	Description
Size	This is the physical size that will be used for calculation purposes by Macro Space Planning when drawing the bay. In the above example, the bays are 6 inches longer than the size of the main part for the bay.
Description	This is the text that will appear in the Add Gondola dialog box in the Planner and Merchandiser module (and in In-Store Space Collaboration). In the above example the description is in feet, which is easier for users to select than if the dimension were in inches.
Name	This is the text that will be matched to the block name. In the above example the '72' name will eventually be matched up to the pertinent part of the I_HDR_Beam_72x1-5x4 block name that will be used to draw the gondola.

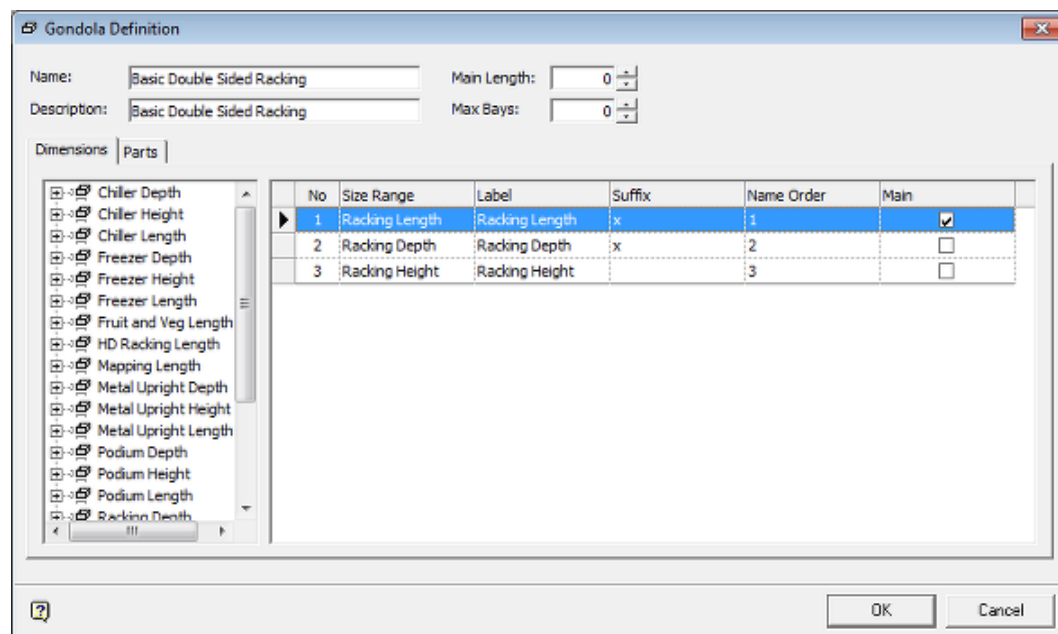
**Note:** Entries are only written to the database on pressing Return.

Once assigned to a gondola definition, Gondola sizes become available for selection in the Add Gondola dialog box in the Planner and Merchandiser module (and in In-Store Space Collaboration).



## Gondola Definitions - the Dimensions Tab

The **Dimensions Tab** is primarily used to specify the name and the dimensions used in the gondola. The list of dimensions available for selection is configured in the Gondola sizes dialog box. This is accessed from the toolbar.



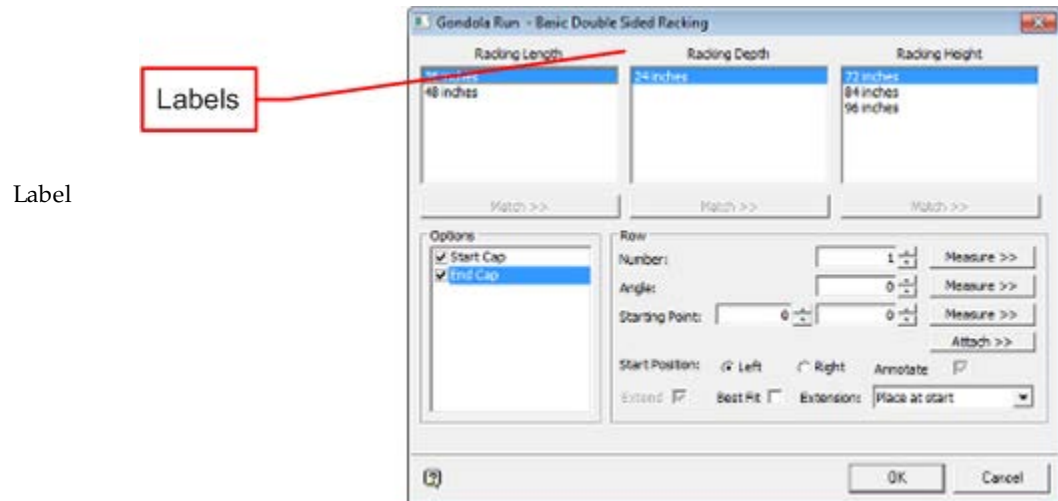
Options at the top of the dialog box:

Option	Description
Name	The Name must be unique within the Macro Space Planning database.
Description	The Description can be used to give more information as to the gondola definition if required. It does not have to be unique.
Main Length	If the main length is set to 0, the length of a bay will be set automatically based on the dimension selected when the gondola is placed in a floor plan. If the main length is set to any positive value, then each bay in the gondola will be that single, fixed length.
Max Bays	If set to 0, then the number of bays that can be placed in a floor plan is unlimited. If set to a positive number, this will limit the number of bays that can be placed when the gondola is added to a floor plan.

The list of available dimensions is available in the left hand pane. These are configured in the Gondola sizes dialog box that can be accessed from the toolbar. They can be selected for use by double clicking in the left hand pane - they will then appear in the right hand pane.

Options for Dimensions:

Option	Description
Size Range	This is the name of the dimension. It is defined in the gondolas sizes dialog box. It cannot be edited in the dimensions tab.
	This is the title given to the title for the dimension in the Add Gondola dialog box that is used to place gondolas in the Planner and Merchandiser modules and in In-Store Space Collaboration. This enables the dimension name to be modified to make it easy for store planners.



Suffix	This is used in building up the block name when the gondola is placed in a store plan. This is discussed in more detail in the section on the Parts tab.
Name Order	This is used in building up the block name when the gondola is placed in a store plan. This is discussed in more detail in the section on the Parts tab. Because of problems with the way Name Order currently works, it is recommended that the dimensions are selected in the sequence that will be used.
Main	This check box is used to specify the length of the bay when the gondola is placed in a store plan. Only one dimension can be designated as main. There should always be a 'Main' dimension specified unless the Main Length text box has a value specified.

## Gondola Definitions: Parts Tab - Details

The Details sub-tab of the Parts tab enables users to set up a list of gondola parts, define some rules as to how the blocks used to draw the gondola in a floor plan will be identified and specify the gondola bays that part will be used in.

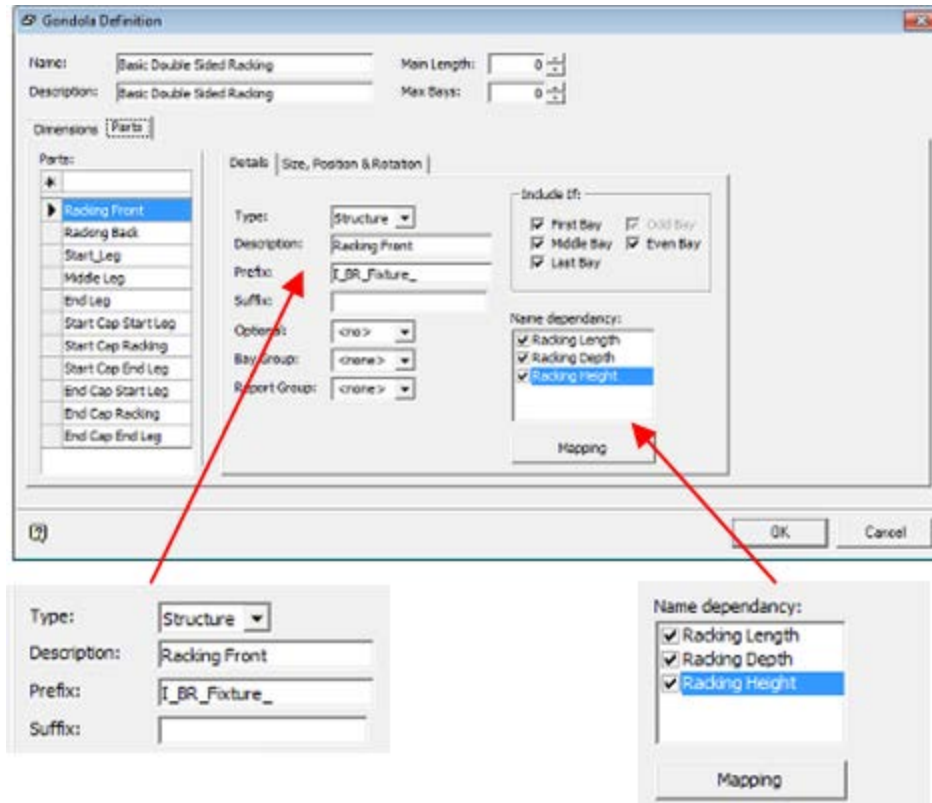
### Parts

Names for specific parts within a gondola are entered by typing a name in the text box at the top of the Parts frame and pressing Return. Pressing return is necessary for the information to be stored. Highlighting a specific name in the list will then activate the Details sub-tab.

Parts can be deleted by highlighting them in the list then pressing Delete. Highlighting a gondola part also makes it available for editing.

### Block Names

Two part of the Parts Tab/Details sub-tab are used to create a series of rules used to determine the name of the block used to create that part of the gondola.



The Name Dependency is used to specify which values for the dimensions will be used to build up the block name. In the above example, Racking Length, Depth and Height will be used.

Option	Description
Type	This is selected from a drop down list and is used for reporting purposes. The drop down list is configured using the Gondola Parts option on the toolbar.
Description	This is the part name. It is copied across from the left hand pane holding the list of part names.
Prefix	This will become the first part of the block name used to draw the gondola when it is placed in a floor plan. All blocks used to draw this gondola part will start <b>I_BR_Fixture_</b>
Suffix	This will be the concluding part of the block name. Suffixes like <b>_Wood</b> or <b>_Red</b> could be used to specify particular types of blocks.

An example block name would be built up as follows:

Option	Value
Prefix	I_BR_Fixture_
Racking Length	48. This will have a local suffix of 'x' as specified in the Parts tab.
Racking Depth	24. This will have a local suffix of 'x' as specified in the Parts tab.

Option	Value
--------	-------

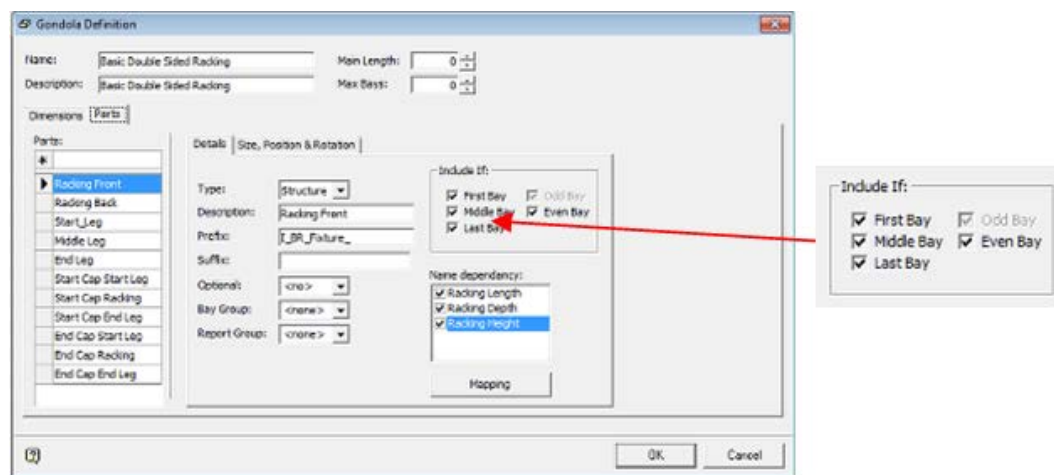
Racking Height	72. This has no suffix specified.
----------------	-----------------------------------

Suffix	None specified.
--------	-----------------

This will result in a block name of **I\_BR\_Fixture\_48x24x72**. Both a DWG and a 3DS file of this name (or a mapped name) must exist for the gondola to be drawn.

## Include If

These options are used to specify what bay the part will appear in.



Option	Description
--------	-------------

First Bay	Include the part in the first bay. This option is useful for end caps.
-----------	--

Odd Bay	Include the part in odd numbered bays.
---------	--

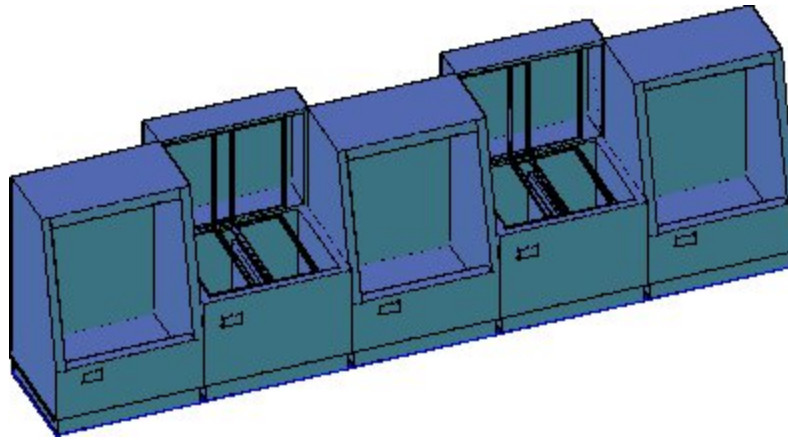
Even Bay	Include the part in even numbered bays. Both the Odd and even numbered options are generally checked to put the parts in all bays.
----------	--

Middle Bay	Put the path in the middle bay of the gondola run.
------------	--

Last Bay	Include the part in the last bay. This option is useful for end caps.
----------	---

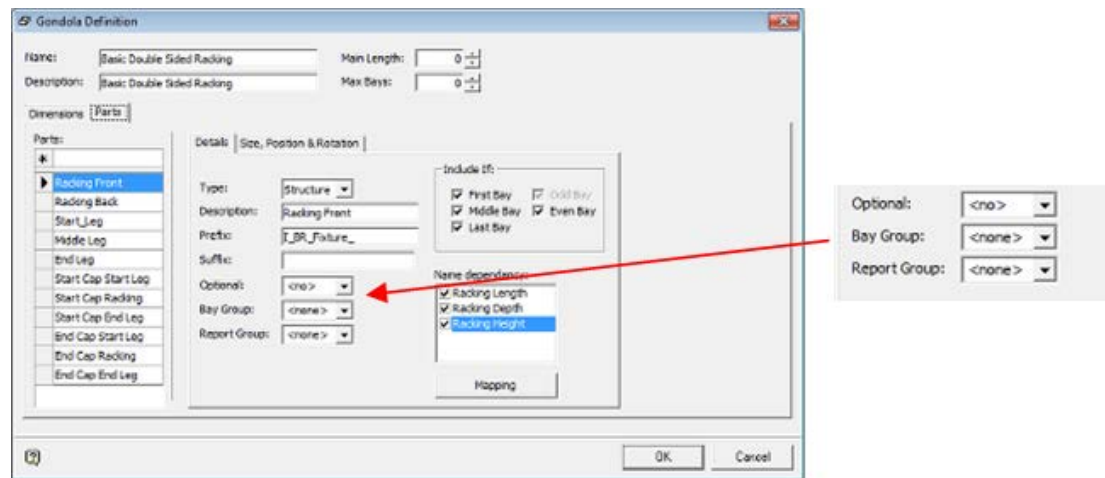
In this example alternating gondola parts have been defined using either **Odd Bay** or **Even Bay**.





## Optional

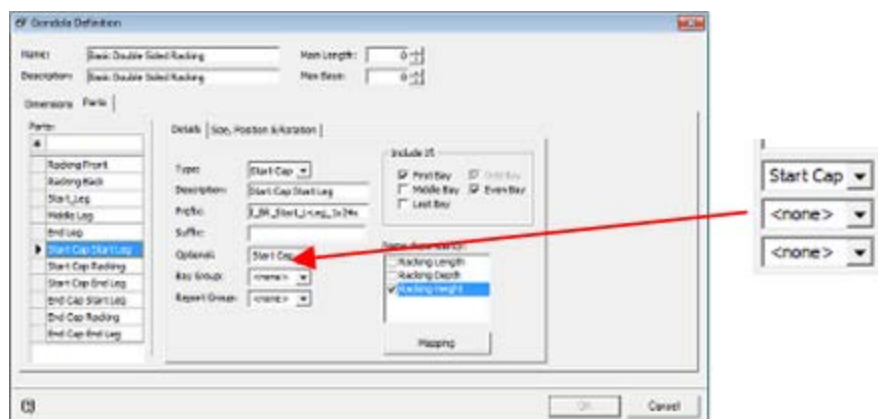
These three options allow users to configure further parts of the gondola.



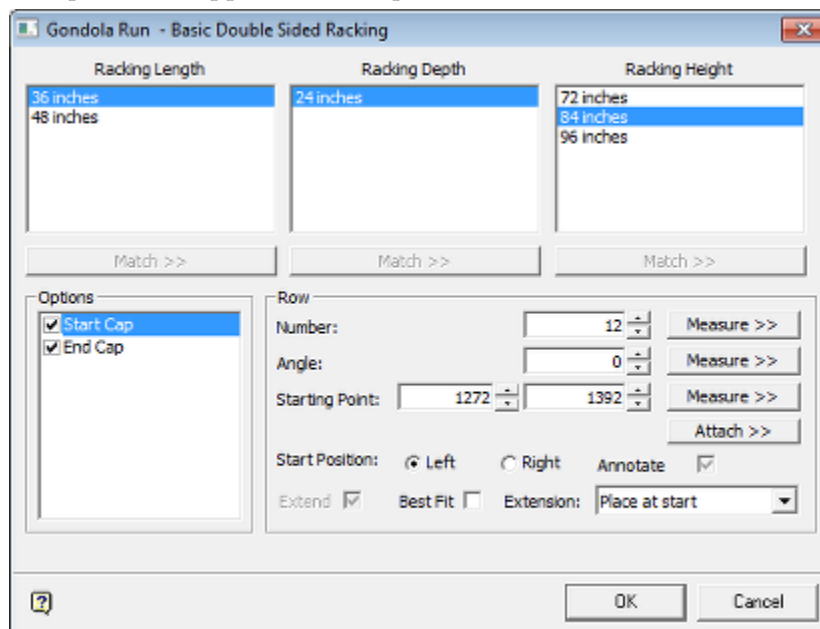
Option	Description
Optional	If the text is left untouched the part will appear in every gondola. If text is edited, the part will become optional with the option of including it added to the Add Gondola dialog box.
Bay Group	This functionality has not been implemented.
Even Bay	This functionality has not been implemented.

## Creating an Optional Part

To create an optional part, first enter text in the



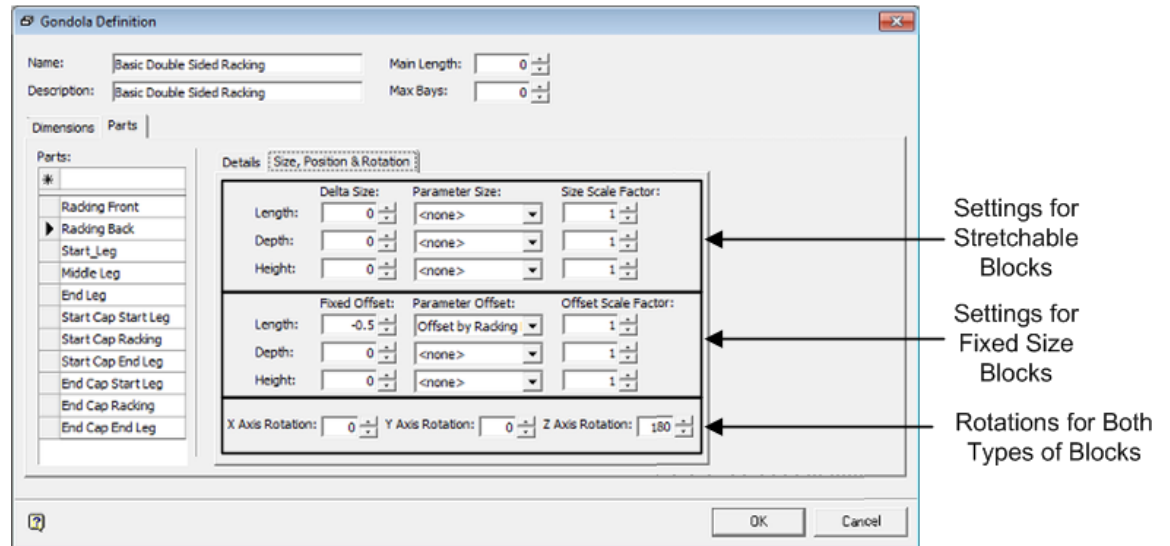
The option then appears in the Options frame of the Add Gondola dialog box.



The part can then be selected or de-selected by means of the check boxes when the gondola is added in the Planner and Merchandiser modules or in In-Store Space Collaboration.

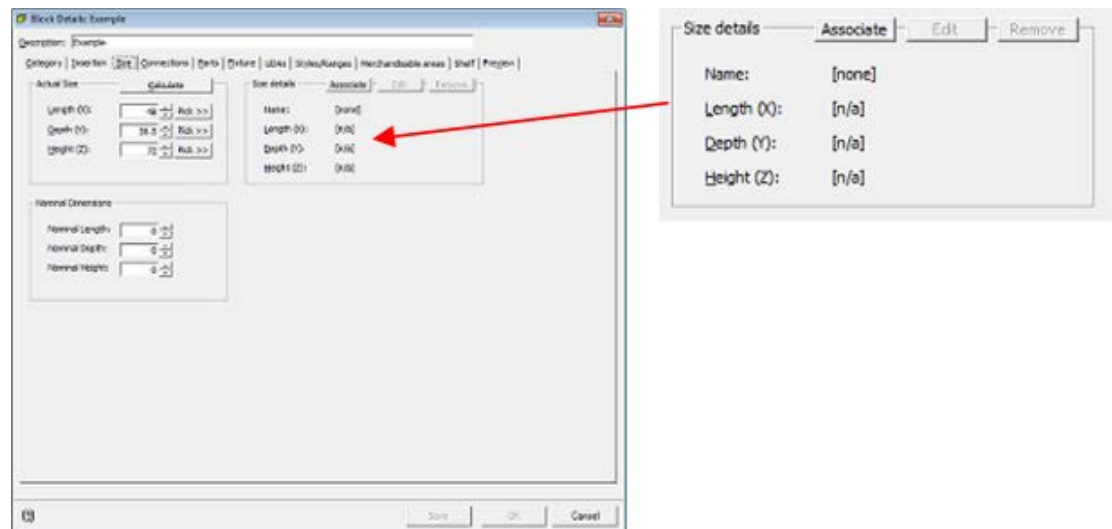
## Specifying Size, Position and Rotation

A gondola can contain a wide variety of parts. Some of these may need to be orientated relative to the base point of the bay and rotated relative to the initial insertion position of the block. This information is entered in the Size, Position and Rotation Tab



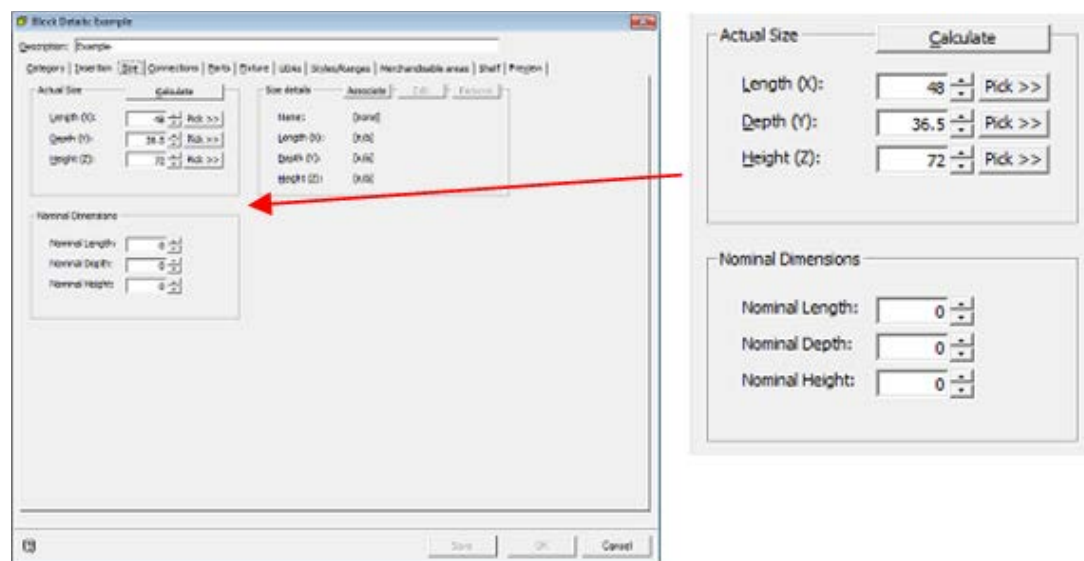
## Stretchable Blocks

The top section of the sub-tab specifies the dimensional offsets for stretchable block. Blocks are made stretchable by assigning a size to them in the Sizes tab of the Block Definition dialog box.



## Fixed Size Blocks

The top section of the sub-tab specifies the dimensional offsets for blocks of fixed size. These are blocks that have a single fixed size assigned to them in the Sizes tab of the Block Definition dialog box. The dimensions used are the **Actual Size** - in this example length of 48 inches, depth of 36.5 inches and height of 72 inches.



## Block Rotations

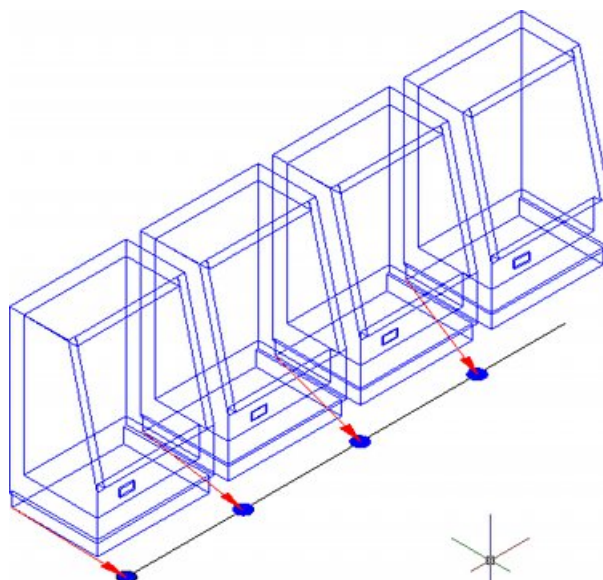
The bottom section of the sub-tab gives the rotation required to orientate each part within the gondola. Sections of the gondola such as the back and the start and end caps generally require a rotation.

**Note:** rotations are normally in the Z (Vertical) plane. It is unusual to rotate on the X or Y planes.

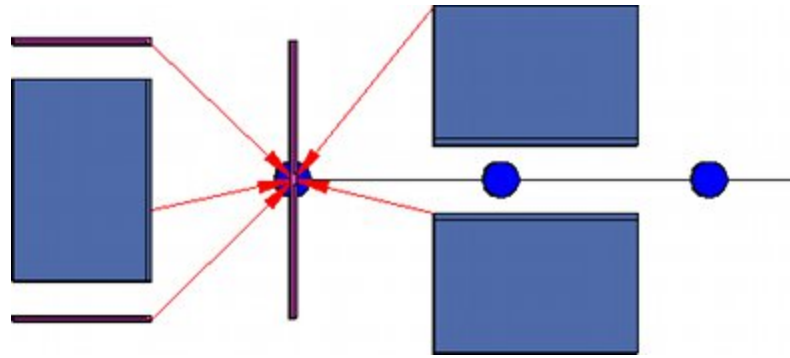
## Baselines and Base Points

### Overview

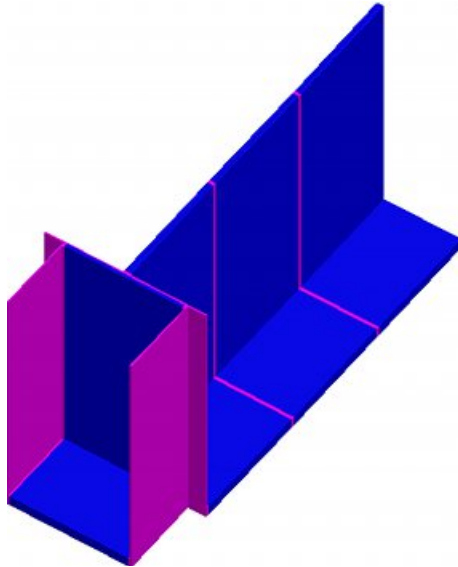
When configuring a gondola it can be considered as having fixtures placed along an imaginary baseline. Each point along the baseline is the origin for a specific bay.



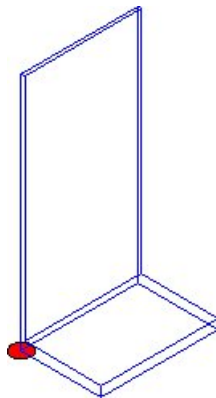
If there are multiple parts within a bay, all are associated with that base point.



In the above plan view, the two 'L' legs and fixture making up the start cap of a gondola, together with the 'T' leg and two fixtures are all associated with the first base point. Many of the parts have been given differing offsets and rotations so they draw in the correct position when the gondola is placed. The start cap and first few bays of the gondola are seen below.

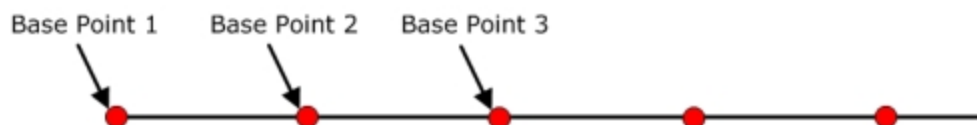


All parts are rotated and offset relative to their insertion point. In the example below, the insertion point (represented by a red circle) is situated at bottom-back-left of the fixture.



## Length of Each Bay

The distance between base points is specified in the **Size, Position and Rotation** sub tab of the **Parts** tab in the Add Gondola dialog box.



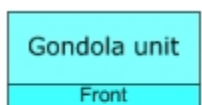
There are two options:

- Set a fixed Main Length - all bays will be this fixed length irrespective of the parts in them.
- Set a main length that will vary according to the dimension selected in the Add Gondola dialog box.

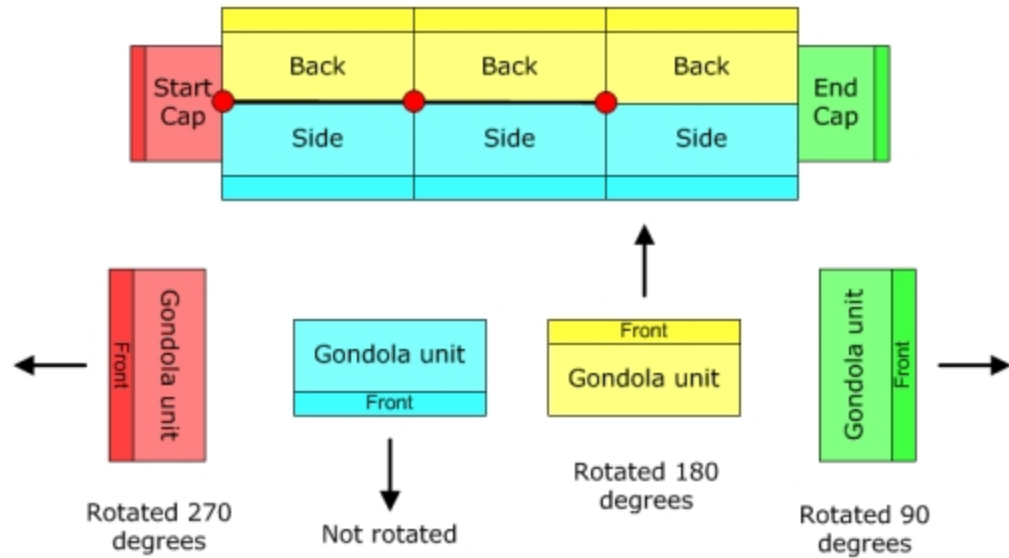
In the above example the length parameter for a block of fixed size has been set to Offset by Racking Length so the length of the block will be used as the dimension of the bay. (If a fixed length was to be used, the **Main Length** field would have a value in).

## Rotations of Gondola Parts

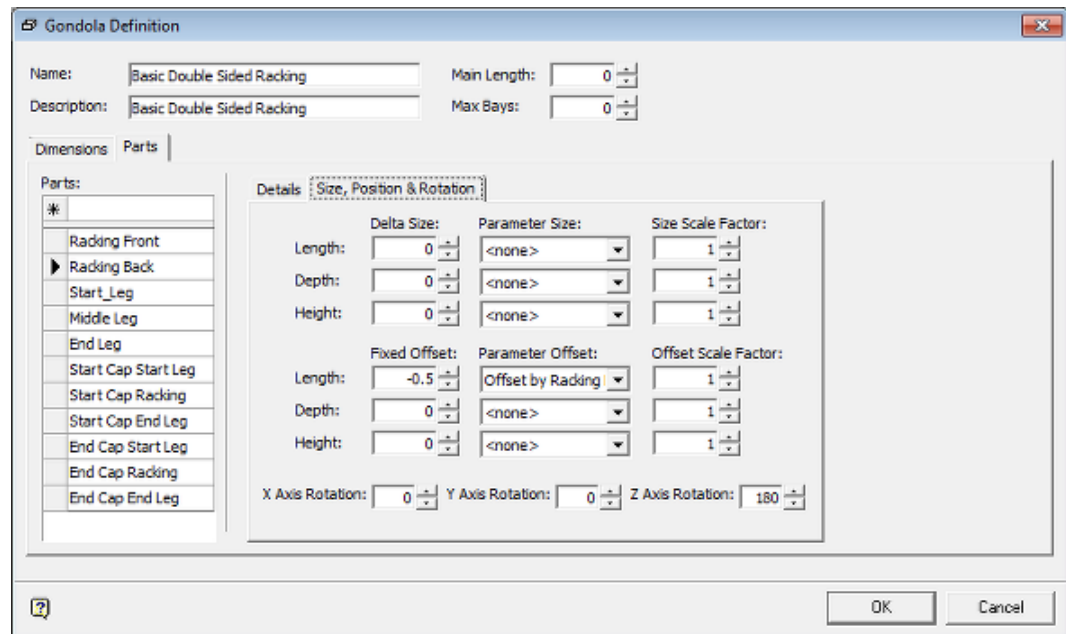
All fixtures and fittings have a designated front direction. This is normally set to point down the drawing when they are inserted.



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.

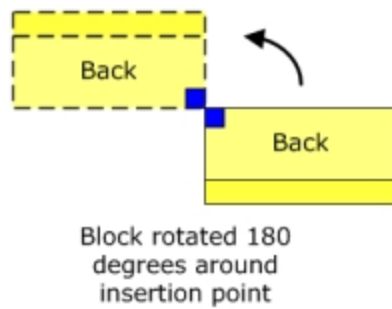


If we wanted to add a part to the back of the gondola, we would specify a 180 degree **Z Axis Rotation** in the **Size, Position and Rotation** sub-tab of the Parts tab of the Gondola Definition dialogue box.



## 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, we can see that the component to be used for the back of the gondola has been displaced to the left during the rotation.

We therefore 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

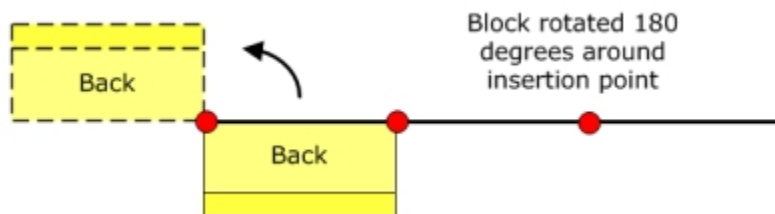
## Required Offsets

### Side

The sides of a gondola do not require any rotations or systematic offsets.

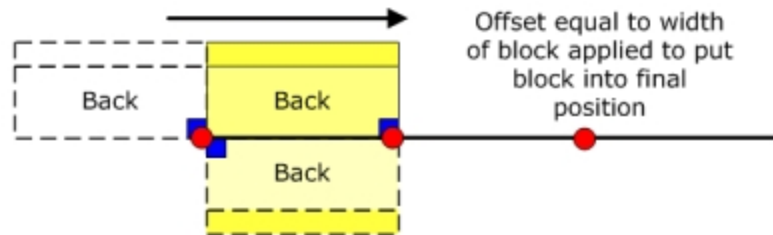
### Back

The Back of the gondola is rotated through 180 degrees to get the front facing in the correct direction.



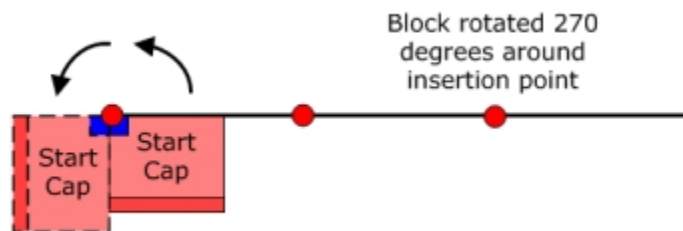
It then needs a positive offset equal to the width of the block.



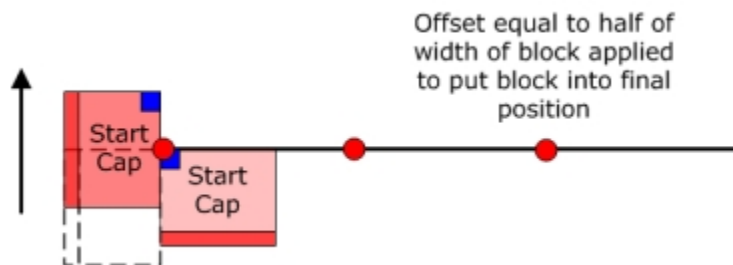


### Start Cap

The Start Cap is rotated through 270 degrees to get the front facing in the correct direction.

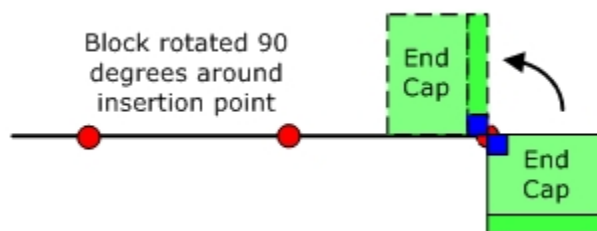


It then needs a positive offset equal to half of the width of the block.

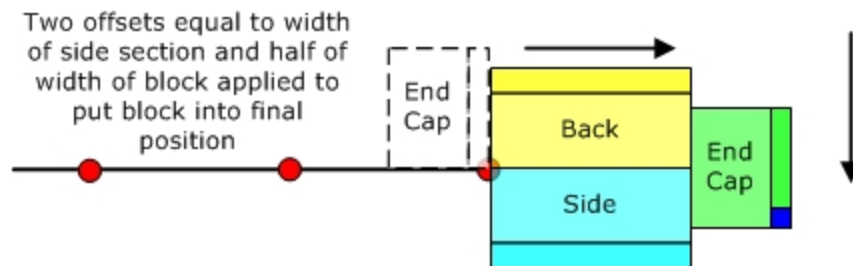


### End Cap

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).

**Gondola Definition**

Name: Basic Double Sided Racking Main Length: 0

Description: Basic Double Sided Racking Max Bays: 0

Dimensions Parts

Parts:

- \* Racking Front
- Racking Back
- Start\_Leg
- Middle Leg
- End Leg
- Start Cap Start Leg
- Start Cap Racking
- Start Cap End Leg
- End Cap Start Leg
- End Cap Racking
- End Cap End Leg

Details Size, Position & Rotation

Delta Size:		Parameter Size:	Size Scale Factor:
Length:	0	<none>	1
Depth:	0	<none>	1
Height:	0	<none>	1

Fixed Offset:		Parameter Offset:	Offset Scale Factor:
Length:	0.5	Offset by Racking	1
Depth:	0.5	Offset by Racking	-0.5
Height:	0	<none>	1

X Axis Rotation: 0 Y Axis Rotation: 0 Z Axis Rotation: 90

OK Cancel

In the above example the part is to be used in an end cap. It has been given a rotation, together with offsets for length and depth to get it into the correct position.

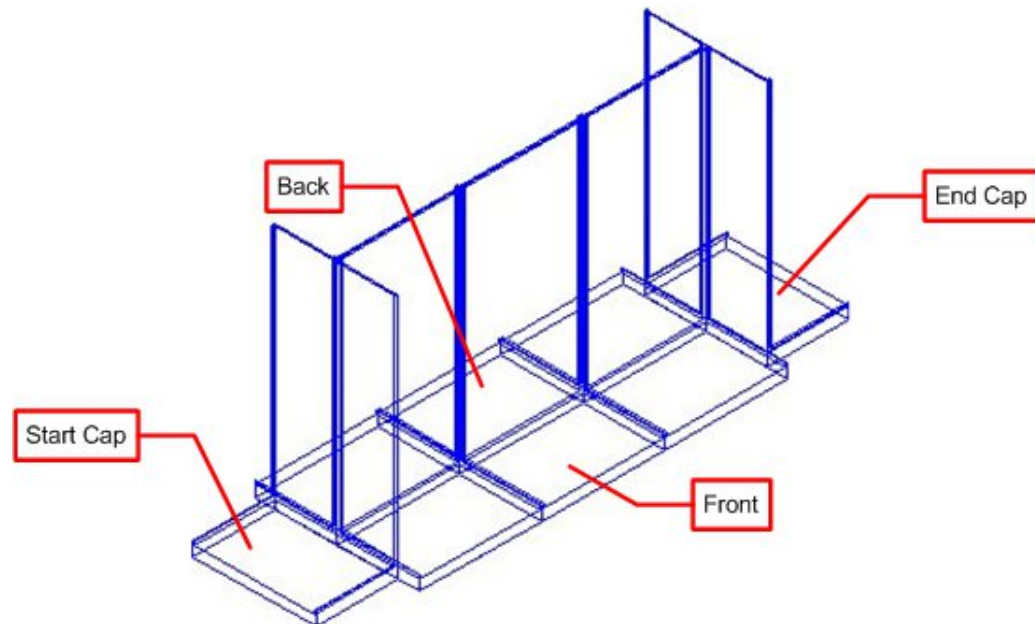
---

## Fixed Size Gondola Creation Example

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### Gondola Details

This worked example will show how to create a simple gondola.



It is made up of four parts: front, back, start cap (optional) and end cap (optional). These are defined in the Gondola Definition dialog box in Fixture Studio.

After definition in the Fixture Studio module, it can be placed using any combination of two lengths, two depths or three heights in the Planner or Merchandiser modules or in In-Store Space Collaboration.

## Testing the Gondola during Definition

When defining gondolas, it is a good idea to test each part after it has been defined. This enables the user to correct any errors before moving onto the next part. Test can be done by having a temporary floor plan open in the Planner module. The required sequence of actions is:

1. Click the OK button on the Gondola Definition dialog box - this saves the information locally in Fixture Studio.

2. Select the Save Gondolas option on the File menu - this saves the information to the Macro Space Planning database.
3. Click the Refresh option on the Toolbar of the Fixturing tab of the Object Browser - this reads the latest gondola definition information from the database into the Planner module.
4. Place the gondola and verify the parts are in the expected position.

## Creating the Gondola Sizes

In order to create the Gondola Sizes, we must first analyze the dimensions of the fixtures and fixtures and fittings that will be used to make up the gondola. In this example, the gondola will be formed from metal uprights. These follow a naming convention of **Block Name\_LengthxDepthxHeight**, enabling the sizes to be easily determined.



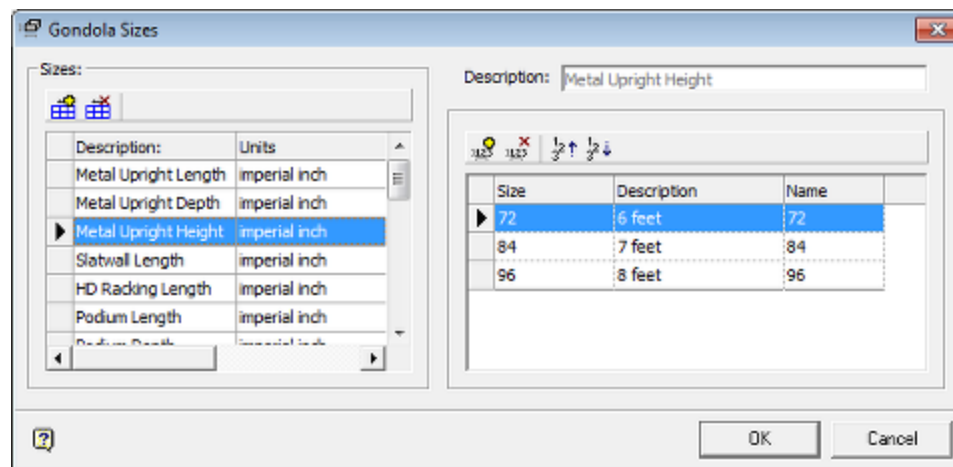
Looking at the list, it is possible to identify the dimensions required.

Dimension	Values
Length	36 and 48 inches
Depth	24 and 30 inches
Height	72, 84 and 96 inches.

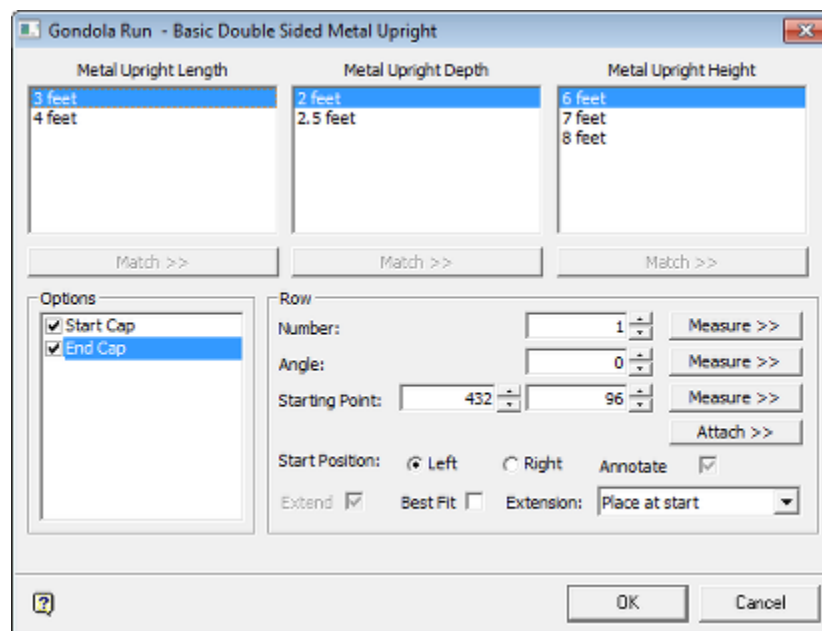
The Size option can then be selected from the toolbar.



The values can then be entered into the Gondola Sizes dialog box.

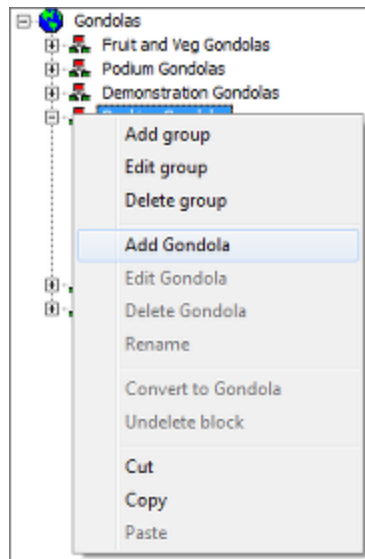


The sizes will then be available for selection in the Add Gondola dialog box when a gondola is placed in Planner, Merchandiser or in In-Store Space Collaboration. Note that the title for the dimension has come from the description assigned in the Gondola Size dialog box and similarly the text for the actual value has come from the description assigned to that particular size.

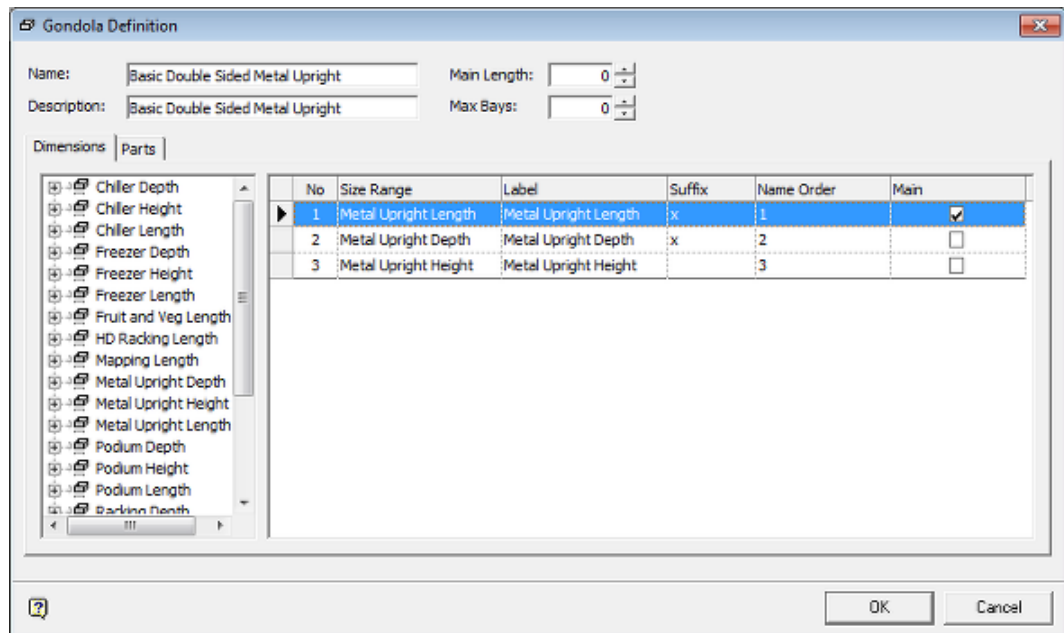


## Creating the Basic Information

The first stage of creating the gondola is to highlight a Gondola group and then select Add Gondola in the right click menu.



This will bring up the Gondola Definition dialog box. The first stage is to add name information and select the required dimensions.

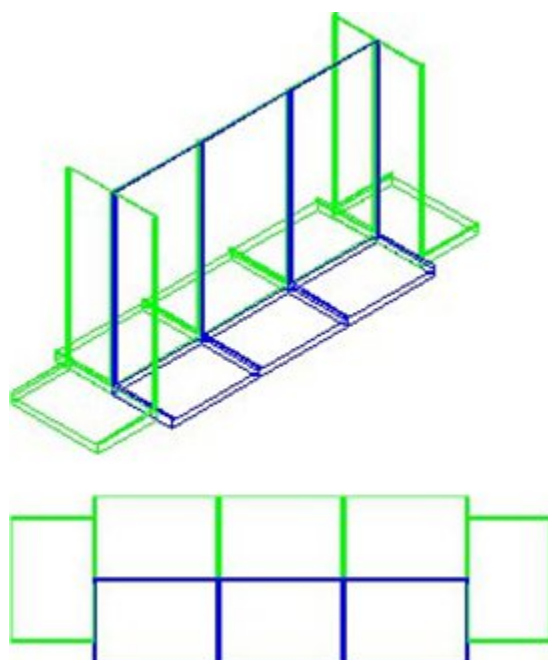


Option	Description
Name	This is entered as Basic Double Sided Metal Upright. This is the title that the user will see in the Planner and Merchandiser modules and in In-Store Space collaboration.
Description	This is the additional information available within the Gondola Definition dialog box. It has been left as Basic Double Sided Metal Upright but could be expanded at need.
Main Length	This is left at 0 as the length of a bay will be defined by the length selected in the Add Gondola dialog box.

Max Bays	This is left at 0 as it is not desired to set a maximum limit on the number of bays that can be placed.
Dimensions	These are selected in the sequence they are required; Metal Upright Length, Metal Upright Depth and Metal Upright Height. This sequence is important because it will affect how the block names are calculated when the gondola is placed.
Dimension Options	Once selected, the dimensions need a little configuration. The Metal Upright Length has been selected as the main dimensions - the value selected when adding a gondola into a floor plan will define the length of the bay drawn. As the blocks use a naming convention of <b>Block Name_LengthxDepthxHeight</b> suffixes of 'x' have been added for the Length and Depth to ensure the block name is calculated correctly.

## Creating the Front

The first part of the gondola to be created is the front. This is shown in blue in plan and perspective in the diagram below.



## Details Sub-Tab of Parts Tab

In order to do this, the following actions are required in the details Sub-Tab of the Parts tab of the Gondola Definition dialog box:



**Gondola Definition**

Name: Basic Double Sided Metal Upright Main Length: 0

Description: Basic Double Sided Metal Upright Max Bays: 0

Dimensions | **Parts**

Parts:

- \*
- ▶ **Front**

**Details** | Size, Position & Rotation

Type: Structure

Description: Front

Prefix: I\_Metal\_Upright\_

Suffix:

Optional: <no>

Bay Group: <none>

Report Group: <none>

Include If:

- ☒ First Bay ☒ Odd Bay
- ☒ Middle Bay ☒ Even Bay
- ☒ Last Bay

Name dependency:

- ☒ Metal Upright Length
- ☒ Metal Upright Depth
- ☒ Metal Upright Height

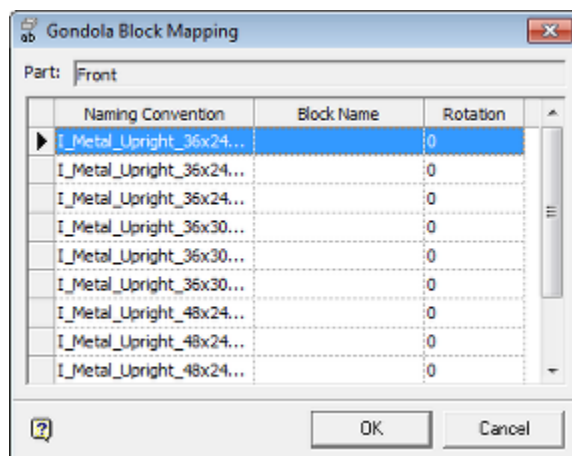
Mapping

OK Cancel

Option	Description
Part Name	This is generated by typing Front into the Parts text box and pressing <b>Return</b> . On highlighting Front in the list of parts, the Details sub-tab will become active, allowing the details to be configured.
Type	Structure has been selected from the predefined drop down list. This can be used for reporting purposes.
Description	This is identical to the text typed into the Parts text box. There is no need to change this.
Prefix	This is the first part of the block name that will be used to draw this specific part of the gondola. The naming convention for the block name is of the form <b>Block Name_LengthxDepthxHeight</b> . I_Metal_Upright_ is therefore entered into the Prefix field.
Suffix	The naming convention does not have a suffix for the block name, so this field is left blank.
Optional	The start and end caps for this gondola are to be mandatory, so this field is left unchanged.
Bay Group	This option is not implemented yet, so is left unchanged.
Report Group	This option is not implemented yet, so is left unchanged.
Include If	This option determines which bays the part will be drawn in. It will be drawn in all bays, so all options are checked.
Name Dependency	This determines what dimensions are going to be used in building up the block name. As the block name includes Length, Depth and Height, all three dependencies are checked.

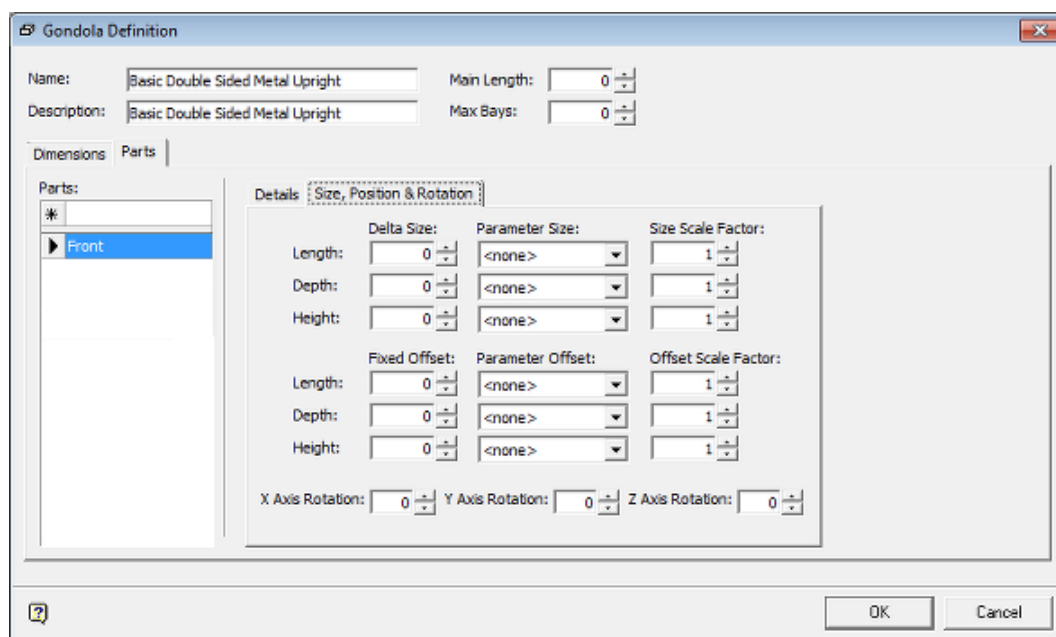
## Mapping Option

It is good practice to confirm the block names required to draw the gondola will be recreated correctly. This can be done by clicking the Mapping button. This confirms that the block names generated by the gondola functionality conform to those which are present in the database. It is suggested this is done for every gondola part created to verify data has been correctly entered.



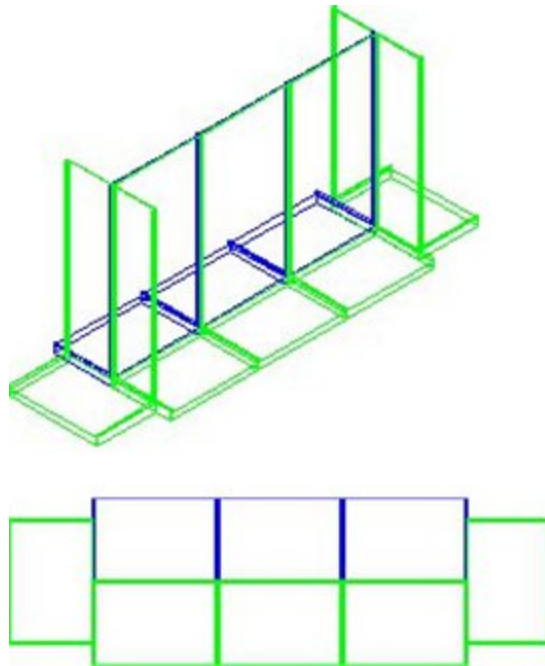
## Size, Position and Rotation Sub-Tab of Parts Tab

As the blocks used for the front of the gondola do not need any offsets or rotations, the Size, Position and Rotation tab can be left unchanged.



## Creating the Back

The next part of the gondola to be created is the back. This is shown in blue in plan and perspective in the diagram below.



## Details Sub-Tab of Parts Tab

In order to do this, the following actions are required in the Details Sub-Tab of the Parts tab of the Gondola Definition dialog box:

**Gondola Definition**

Name: Basic Double Sided Metal Upright Main Length: 0

Description: Basic Double Sided Metal Upright Max Bays: 0

Dimensions Parts

Parts:

- \* Front
- Back

Details: Size, Position & Rotation

Type: Structure

Description: Back

Prefix: I\_Metal\_Upright\_

Suffix:

Optional: <no>

Bay Group: <none>

Report Group: <none>

Include If:

- ☒ First Bay ☒ Odd Bay
- ☒ Middle Bay ☒ Even Bay
- ☒ Last Bay

Name dependency:

- ☒ Metal Upright Length
- ☒ Metal Upright Depth
- ☒ Metal Upright Height

Mapping

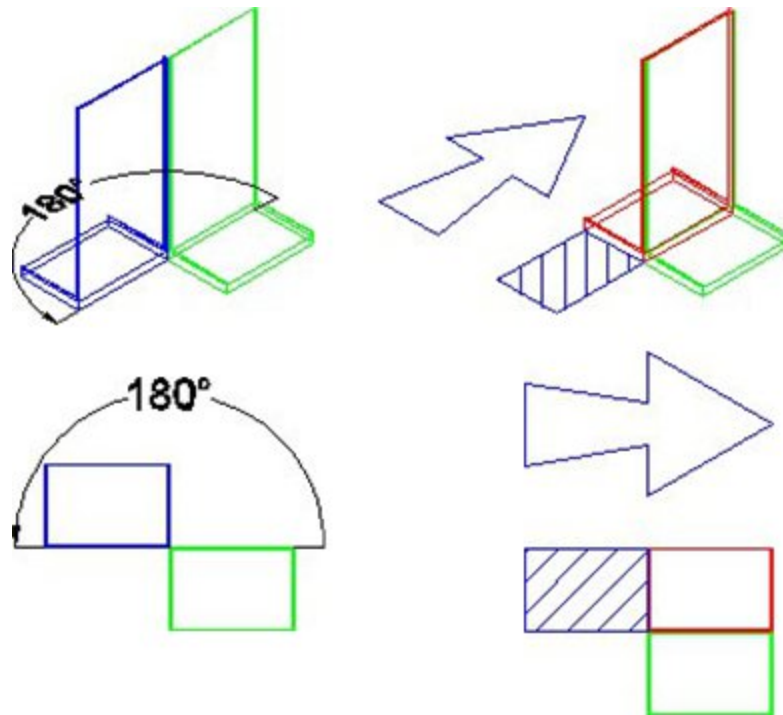
OK Cancel

Option	Description
Part Name	This is generated by typing Back into the Parts text box and pressing <b>Return</b> . On highlighting Front in the list of parts, the Details sub-tab will become active, allowing the details to be configured.

Option	Description
Type	Structure has been selected from the predefined drop down list. This can be used for reporting purposes.
Description	This is identical to the text typed into the Parts text box. There is no need to change this.
Prefix	This is the first part of the block name that will be used to draw this specific part of the gondola. The naming convention for the block name is of the form <b>Block Name_LengthxDepthxHeight</b> . I_Metal_Upright_ is therefore entered into the Prefix field.
Suffix	The naming convention does not have a suffix for the block name, so this field is left blank.
Optional	The start and end caps for this gondola are to be mandatory, so this field is left unchanged.
Bay Group	This option is not implemented yet, so is left unchanged.
Report Group	This option is not implemented yet, so is left unchanged.
Include If	This option determines which bays the part will be drawn in. It will be drawn in all bays, so all options are checked.
Name Dependency	This determines what dimensions are going to be used in building up the block name. As the block name includes Length, Depth and Height, all three dependencies are checked.

### Size, Position and Rotation Sub-Tab of Parts Tab

Other settings are required in the Size, Position & Rotation sub-tab. When the parts for the back are placed, they will initially be placed in the default position (green fixture). They then require a combination of a 180° rotation (blue fixture) and an offset to move it into position (red fixture) behind the equivalent front fixture.



**Gondola Definition**

Name: Basic Double Sided Metal Upright Main Length: 0

Description: Basic Double Sided Metal Upright Max Bays: 0

Dimensions Parts

Parts:

- \* Front
- ▶ Back

Details: Size, Position & Rotation

	Delta Size:	Parameter Size:	Size Scale Factor:
Length:	0	<none>	1
Depth:	0	<none>	1
Height:	0	<none>	1

	Fixed Offset:	Parameter Offset:	Offset Scale Factor:
Length:	0	Offset by Metal Up	1
Depth:	0	<none>	1
Height:	0	<none>	1

X Axis Rotation: 0 Y Axis Rotation: 0 Z Axis Rotation: 180

OK Cancel

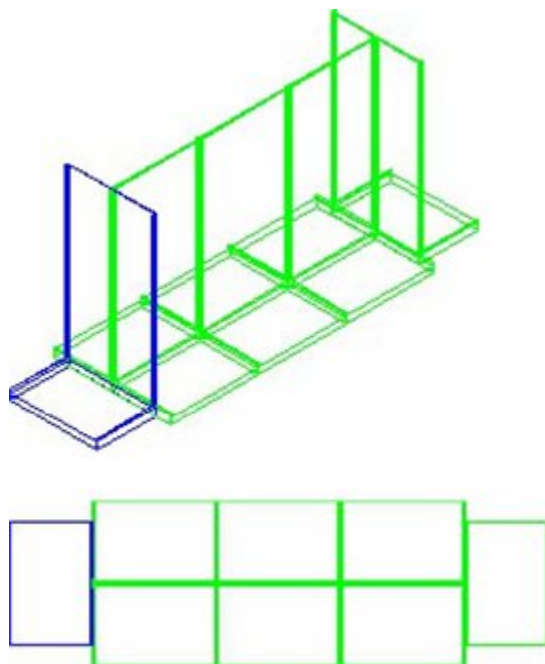
Option	Description
--------	-------------

Rotation	The required rotation is 180° around the Z (vertical) axis.
----------	---

Offset	Because the bays can be different lengths depending on selections made when the gondola is placed, the Length (X Axis) offset is set to "Offset by Metal Upright Length" from the drop down list. If the user selects 3 ft long fixtures, the offset will be three feet, if the user selects 4 ft long fixtures, the offset will be four feet.
--------	--

## Creating the Start Cap

The next part of the gondola to be created is the start cap. This is shown in blue in plan and perspective in the diagram below.



### Details Sub-Tab of Parts Tab

In order to do this, the following actions are required in the Details Sub-Tab of the Parts tab of the Gondola Definition dialog box:

The screenshot shows the 'Gondola Definition' dialog box with the 'Details' sub-tab selected. The 'Parts' tab is also visible on the left. The 'Details' sub-tab contains the following fields and options:

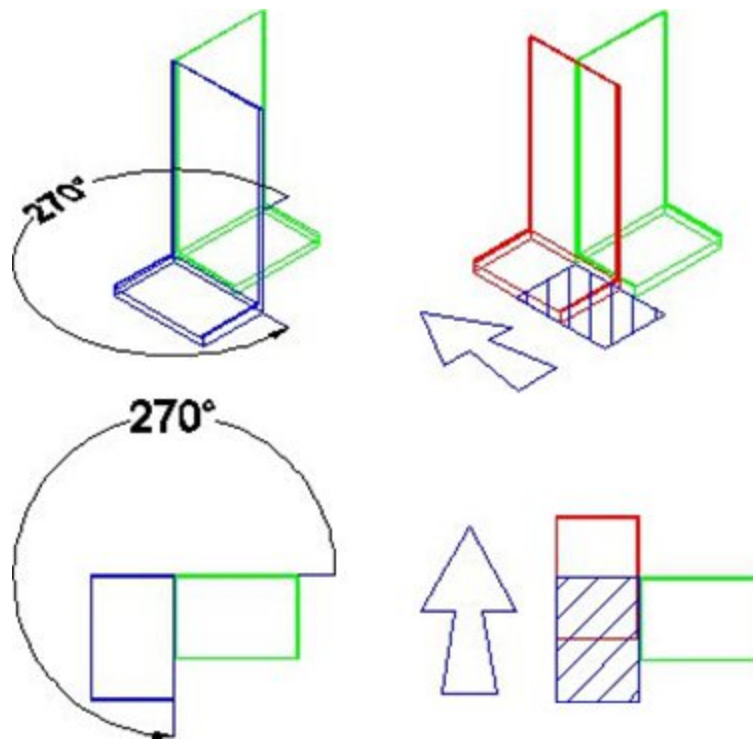
- Name:** Basic Double Sided Metal Upright
- Description:** Basic Double Sided Metal Upright
- Main Length:** 0
- Max Bays:** 0
- Parts:** A list with 'Front', 'Back', and 'Start Cap' (selected).
- Details:**
  - Type:** Start Cap
  - Description:** Start Cap
  - Prefix:** T\_Metal\_Upright\_
  - Suffix:**
  - Optional:** Start Cap
  - Bay Group:** <none>
  - Report Group:** <none>
- Include If:**
  - ☒ First Bay
  - ☒ Odd Bay
  - ☐ Middle Bay
  - ☐ Even Bay
  - ☐ Last Bay
- Name dependency:**
  - ☒ Metal Upright Length
  - ☒ Metal Upright Depth
  - ☒ Metal Upright Height
- Mapping:** A button.

At the bottom of the dialog box are 'OK' and 'Cancel' buttons.

Option	Description
Part Name	This is generated by typing Start Cap into the Parts text box and pressing <b>Return</b> . On highlighting Front in the list of parts, the Details sub-tab will become active, allowing the details to be configured.
Type	Structure has been selected from the predefined drop down list. This can be used for reporting purposes.
Description	This is identical to the text typed into the Parts text box. There is no need to change this.
Prefix	This is the first part of the block name that will be used to draw this specific part of the gondola. The naming convention for the block name is of the form <b>Block Name_LengthxDepthxHeight</b> . I_Metal_Upright_ is therefore entered into the Prefix field.
Suffix	The naming convention does not have a suffix for the block name, so this field is left blank.
Optional	The start and end caps for this gondola are to be mandatory, so this field is left unchanged.
Bay Group	This option is not implemented yet, so is left unchanged.
Report Group	This option is not implemented yet, so is left unchanged.
Include If	This option determines which bays the part will be drawn in. It will only be drawn in the first bay, so only this option is checked.
Name Dependency	This determines what dimensions are going to be used in building up the block name. As the block name includes Length, Depth and Height, all three dependencies are checked.

## Size, Position and Rotation Sub-Tab of Parts Tab

When the parts for the start cap are placed, they will initially be placed in the default position (green fixture). They then require a combination of a 270° rotation (blue fixture) and an offset to move it into position (red fixture) relative to the front fixture in the first bay.



**Gondola Definition**

Name: Basic Double Sided Metal Upright Main Length: 0

Description: Basic Double Sided Metal Upright Max Bays: 0

Dimensions Parts

Parts:

- \*
- Front
- Back
- Start Cap

Details Size, Position & Rotation

Delta Size:		Parameter Size:	Size Scale Factor:
Length:	0	<none>	1
Depth:	0	<none>	1
Height:	0	<none>	1

Fixed Offset:		Parameter Offset:	Offset Scale Factor:
Length:	0	<none>	1
Depth:	0	Offset by Metal Up	0.5
Height:	0	<none>	1

X Axis Rotation: 0 Y Axis Rotation: 0 Z Axis Rotation: 270

OK Cancel

Option	Description
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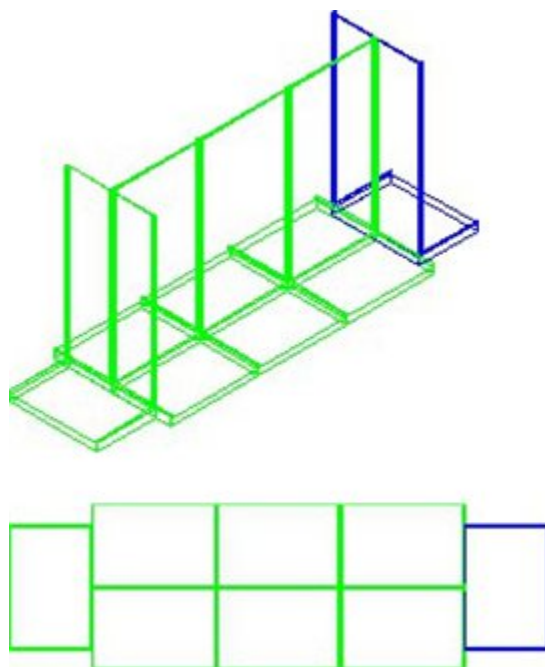
Rotation	The required rotation is 270° around the Z (vertical) axis.
----------	---



Option	Description
Offset	Because the bays can be different lengths depending on selections made when the gondola is placed, the Depth offset (Y Axis) is set to "Offset by Metal Upright Length" from the drop down list. The Scale Factor is set to 0.5. This means the fixture will be moved along by a distance equivalent to half its length. This places the centre of the fixture in the middle of the axis of the gondola. If the user selects 3 ft long fixtures, the offset will be 18 inches; if the user selects 4 ft long fixtures, the offset will be two feet.

## Creating the End Cap

The final part of the gondola to be created is the end cap. This is shown in blue in plan and perspective in the diagram below.



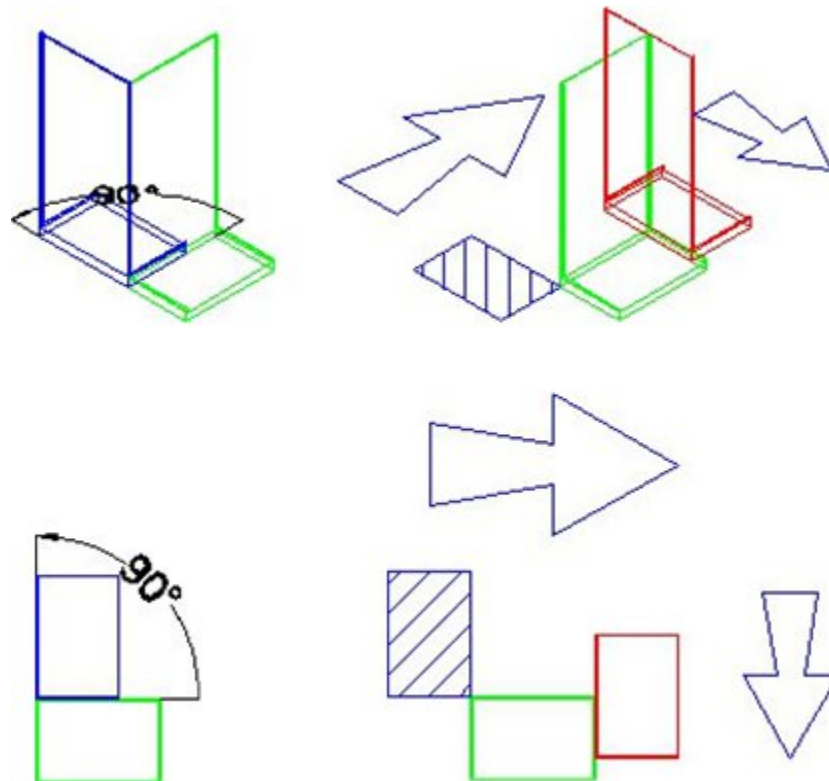
### Details Sub-Tab of Parts Tab

In order to do this, the following actions are required in the Details Sub-Tab of the Parts tab of the Gondola Definition dialog box:

Option	Description
Part Name	This is generated by typing Start Cap into the Parts text box and pressing <b>Return</b> . On highlighting Front in the list of parts, the Details sub-tab will become active, allowing the details to be configured.
Type	Structure has been selected from the predefined drop down list. This can be used for reporting purposes.
Description	This is identical to the text typed into the Parts text box. There is no need to change this.
Prefix	This is the first part of the block name that will be used to draw this specific part of the gondola. The naming convention for the block name is of the form <b>Block Name_LengthxDepthxHeight</b> . I_Metal_Upright_ is therefore entered into the Prefix field.
Suffix	The naming convention does not have a suffix for the block name, so this field is left blank.
Optional	Because the End Cap does not have to be present, it can be made optional by typing End Cap in place of the default <no> in the Optional text box. It will then appear as an optional part in the <b>Add Gondola dialog box</b> .
Bay Group	This option is not implemented yet, so is left unchanged.
Report Group	This option is not implemented yet, so is left unchanged.
Include If	This option determines which bays the part will be drawn in. It will only be drawn in the last bay, so this option is checked. Because the last bay could be an odd or an even number, both of these options are also checked.
Name Dependency	This determines what dimensions are going to be used in building up the block name. As the block name includes Length, Depth and Height, all three dependencies are checked.

## Size, Position and Rotation Sub-Tab of Parts Tab

When the parts for the end are placed, they will initially be placed in the default position (green fixture). They then require a combination of a 90° rotation (blue fixture) and two offsets to move it into position (red fixture) relative to the front fixture in the last bay.



**Gondola Definition**

Name: Basic Double Sided Metal Upright Main Length: 0

Description: Basic Double Sided Metal Upright Max Bays: 0

Dimensions Parts

Parts:

- \*
- Front
- Back
- Start Cap
- End Cap

Details Size, Position & Rotation

Delta Size:		Parameter Size:		Size Scale Factor:	
Length:	0		<none>		1
Depth:	0		<none>		1
Height:	0		<none>		1

Fixed Offset:		Parameter Offset:		Offset Scale Factor:	
Length:	0		Offset by Metal Up		1
Depth:	0		Offset by Metal Up		-0.5
Height:	0		<none>		1

X Axis Rotation: 0 Y Axis Rotation: 0 Z Axis Rotation: 90

OK Cancel

Option	Description
Rotation	The required rotation is 90° around the Z (vertical) axis.
Offsets (general)	Two offsets are required; one to move the fixture from the beginning of the last bay to the other side and one to adjust its position so that it is centered between the front and back (not shown) fixtures.
Offset 1	The first offset is an offset for length. Because the bays can be different lengths depending on selections made when the gondola is placed, the Length (X Axis) offset is set to "Offset by Metal Upright Length" from the drop down list. If the user selects 3 feet long fixtures, the offset will be three feet, if the user selects 4 feet long fixtures, the offset will be four feet.
Offset 2	The second offset is for depth. Because the bays can be different lengths depending on selections made when the gondola is placed, the Depth offset (Y Axis) is set to "Offset by Metal Upright Length" from the drop down list. The Scale Factor is set to -0.5. This means the fixture will be moved along by a distance equivalent to half its length - and because the offset is negative, the fixture will be moved along the -Y axis. If the user selects 3 feet long fixtures, the offset will be 18 inches; if the user selects 4 feet long fixtures, the offset will be two feet.

## Saving the Gondola

### Saving the Gondola in Fixture Studio

The gondola can be saved in Fixture Studio as follows:

1. Click the OK button on the Gondola Definition dialog box - this saves the information locally in Fixture Studio.
2. Select the Save Gondolas option on the File menu - this saves the information to the Macro Space Planning database.

### Updating Gondola Definitions in Planner and Merchandiser

If either the Planner or Merchandiser modules are open when a Gondola is being defined or updated in Fixture Studio, the definition must be updated in the Planner or Merchandiser modules before it can be used. The steps are as follows:

1. Ensure the Gondola Definition has been Saved in Fixture Studio with the Save Gondolas option on the File menu.
2. Click the Refresh option on the Toolbar of the Fixturing tab of the Object Browser - this reads the latest gondola definition information from the database into the Planner module.

### Updating Gondola Definitions in In-Store Space Collaboration

If In-Store Space collaboration is open when a Gondola is being defined or updated in Fixture Studio, the definition must be updated in ISSC before it can be used. The steps are as follows:

1. Ensure the Gondola Definition has been Saved in Fixture Studio with the Save Gondolas option on the File menu.
2. Use the Refresh option in the In-Store Space Collaboration toolbar to load the latest changes.

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# Stretchable Gondola Creation Example

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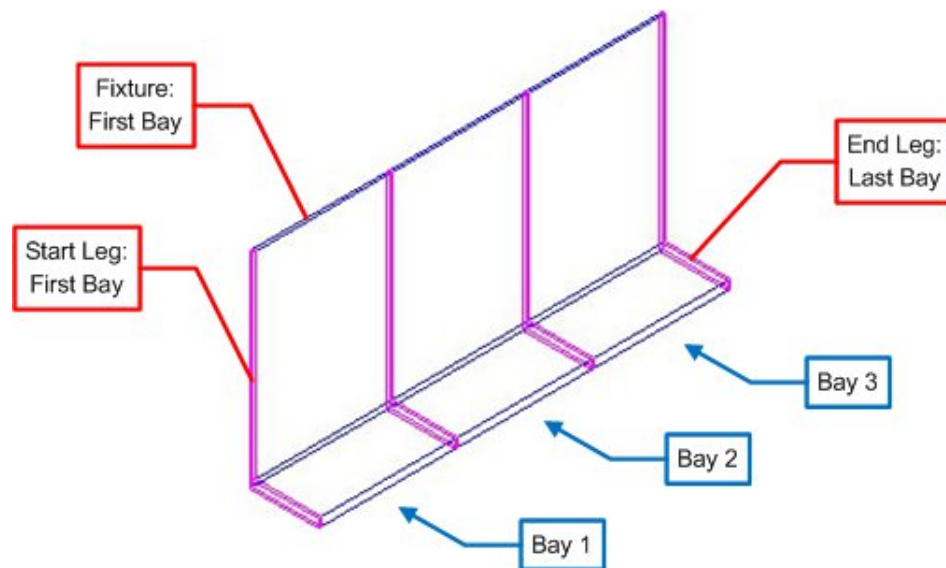
## Stretchable Gondola Details

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**Note:** Please refer to the worked example on how to create a fixed size gondola. It provides information that is necessary to understanding this example.

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This worked example will show how to create a stretchable gondola. It uses two parts - a stretchable leg and a stretchable fixture. Each bay consists of a leg and a fixture, except the end bay which has an additional leg.



These are defined in the Gondola Definition dialog box in Fixture Studio.

After definition in the Fixture Studio module, it can be placed using any combination of eleven lengths, five depths or nine heights in the Planner or Merchandiser modules or in In-Store Space Collaboration. This allows a gondola to be placed using any one of 495 combinations of length, depth and height using only two basic fixtures. This makes this method economical in terms of creating fixtures, but requires care when reporting bills of materials for a floor plan.

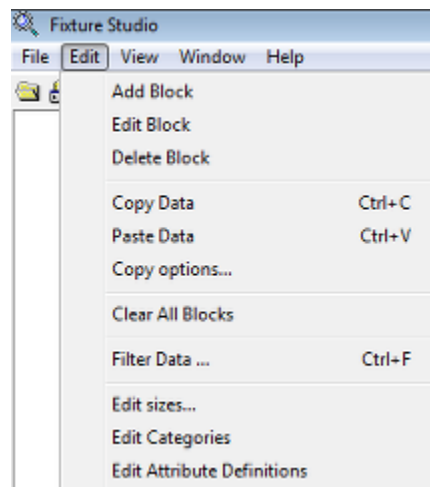
## Testing the Gondola during Definition

When defining gondolas, it is a good idea to test each part after it has been defined. This enables the user to correct any errors before moving onto the next part. Test can be done by having a temporary floor plan open in the Planner module. The required sequence of actions is:

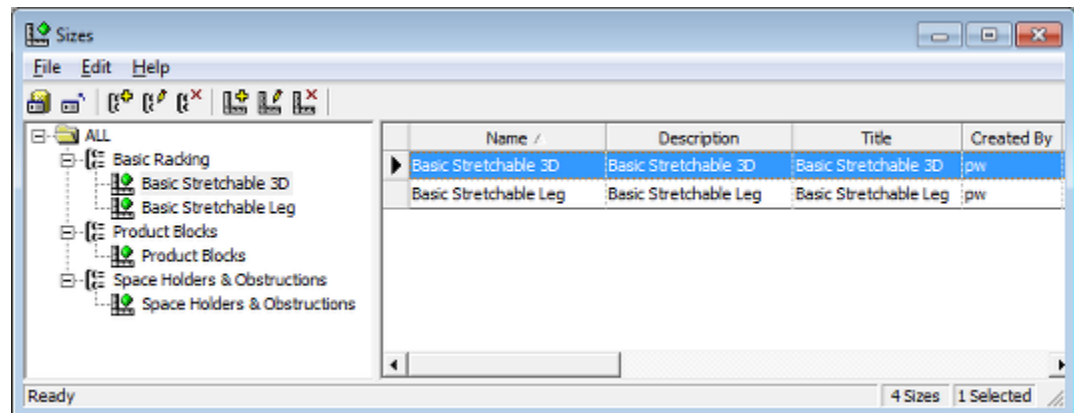
1. Click the OK button on the Gondola Definition dialog box - this saves the information locally in Fixture Studio.
2. Select the Save Gondolas option on the File menu - this saves the information to the Macro Space Planning database.
3. Click the Refresh option on the Toolbar of the Fixturing tab of the Object Browser - this reads the latest gondola definition information from the database into the Planner module.
4. Place the gondola and verify the parts are in the expected position.

## Assigning Sizes to the Stretchable Blocks

Stretchable gondolas use blocks that can have their sizes determined upon insertion into a floor plan. Sizes are assigned to blocks by selecting the Edit Sizes option from the Edit menu.



This in turn brings up the Sizes dialog box. Two different forms of stretchable sizes have been defined - one for stretchable fixtures and one for stretchable legs.



Specific sizes can then be defined in the Size dialog box. The maximum, minimum and increment should be noted as these will be required when setting up the list of gondola sizes.

The 'Size' dialog box has two tabs: 'Details' and 'Types'. The 'Details' tab is active, showing configuration for three dimensions: Length (X), Depth (Y), and Height (Z).

	Length (X)	Depth (Y)	Height (Z)
Type:	Variable	Variable	Variable
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:	Length	Depth	Height
Maximum:	84	48	72
Minimum:	48	24	108
Increment:	6	6	6

Buttons: ? (Help), OK, Cancel

These Sizes can then be assigned to specific blocks in the Sizes tab of the block Details dialog box.

The 'Block Details' dialog box for 'Stretchable Racking Fixture' is shown. The 'Sizes' tab is active, displaying a list of sizes. A red arrow points from the 'Basic Stretchable 3D' size in the list to a detailed view of its dimensions on the right.

**Size details:**

- Name: Basic Stretchable 3D
- Length (X): 48 - 84
- Depth (Y): 24 - 48
- Height (Z): 72 - 108

Buttons: Associate, Edit, Remove

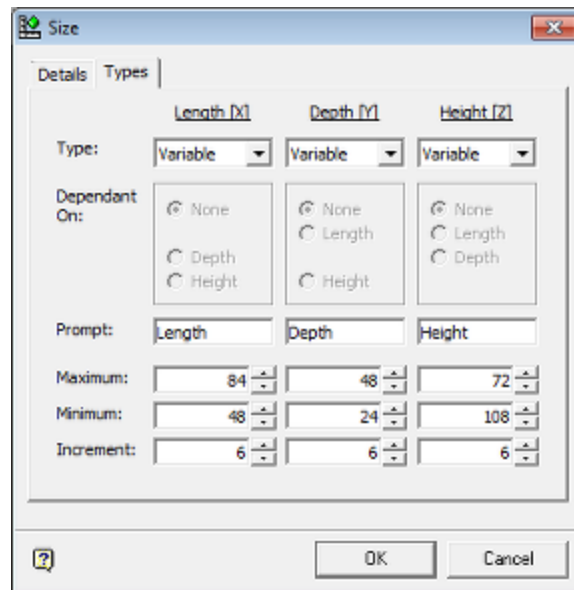
## Creating the Stretchable Gondola Sizes

In order to create the Gondola Sizes, we must first analyze the dimensions of the fixtures and fixtures and fittings that will be used to make up the gondola. In this example, the gondola will be formed from stretchable blocks. Because the blocks are stretchable, for this gondola, we only need two blocks.



The dimensions required for the Gondola sizes are those defined in the Sizes dialog box accessed from the Edit menu.





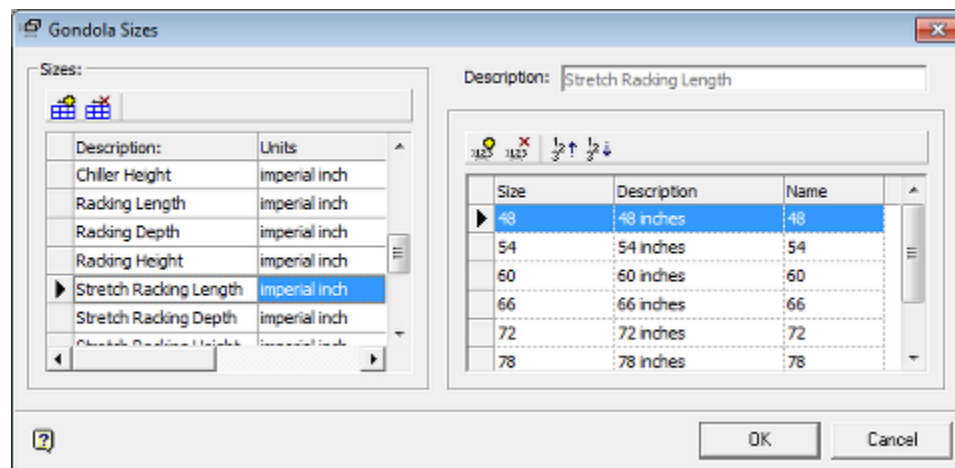
The Size dialog box is shown with the 'Details' tab selected. It contains three columns for Length [X], Depth [Y], and Height [Z]. Each column has a 'Type' dropdown set to 'Variable', a 'Dependant On' section with radio buttons for 'None', 'Depth', and 'Height' (all set to 'None'), a 'Prompt' field, and input fields for 'Maximum', 'Minimum', and 'Increment'.

	Length [X]	Depth [Y]	Height [Z]
Type:	Variable	Variable	Variable
Dependant On:	None	None	None
Prompt:	Length	Depth	Height
Maximum:	84	48	72
Minimum:	48	24	108
Increment:	6	6	6

Once the sizes are known, the Size option can then be selected from the toolbar.



The values can then be entered into the Gondola Sizes dialog box. The options should match those in the Size dialog box.



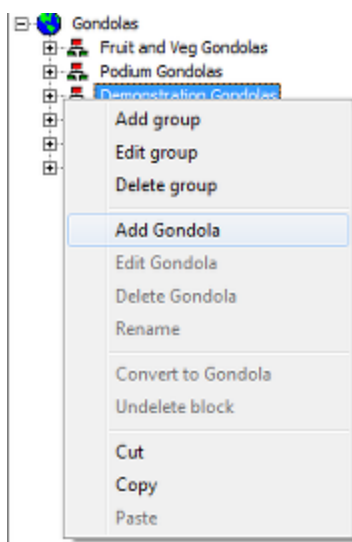
The Gondola Sizes dialog box is shown. It has a 'Description' field set to 'Stretch Racking Length'. Below it is a table with columns 'Size', 'Description', and 'Name'. The 'Size' column lists values from 48 to 78 in increments of 6. The 'Description' column lists the corresponding values in inches. The 'Name' column lists the values themselves. The 'Stretch Racking Length' row is highlighted.

Size	Description	Name
48	48 inches	48
54	54 inches	54
60	60 inches	60
66	66 inches	66
72	72 inches	72
78	78 inches	78

This is the same process as for creating sizes for gondolas used for blocks of fixed dimensions. The differences arise when the sizes are used in the Gondola Definition dialog box.

## Creating the Basic Information for the Stretchable Gondola

The first stage of creating the gondola is to highlight a Gondola group and then select Add Gondola in the right click menu.



This will bring up the Gondola Definition dialog box. The first stage is to add name information and select the required dimensions.

The 'Gondola Definition' dialog box has the following fields and options:

- Name:** Stretchable Gondola
- Description:** Stretchable Gondola
- Main Length:** 0
- Max Bays:** 0
- Dimensions:** A list of dimensions is shown on the left, including 'HD Racking Length', 'Mapping Length', 'Metal Upright Depth', 'Metal Upright Height', 'Podium Depth', 'Podium Height', 'Podium Length', 'Racking Depth', 'Racking Height', 'Racking Length', 'Slatwall Length', 'Stretch Racking Depth', 'Stretch Racking Height', and 'Stretch Racking Length' (highlighted).
- Table:**

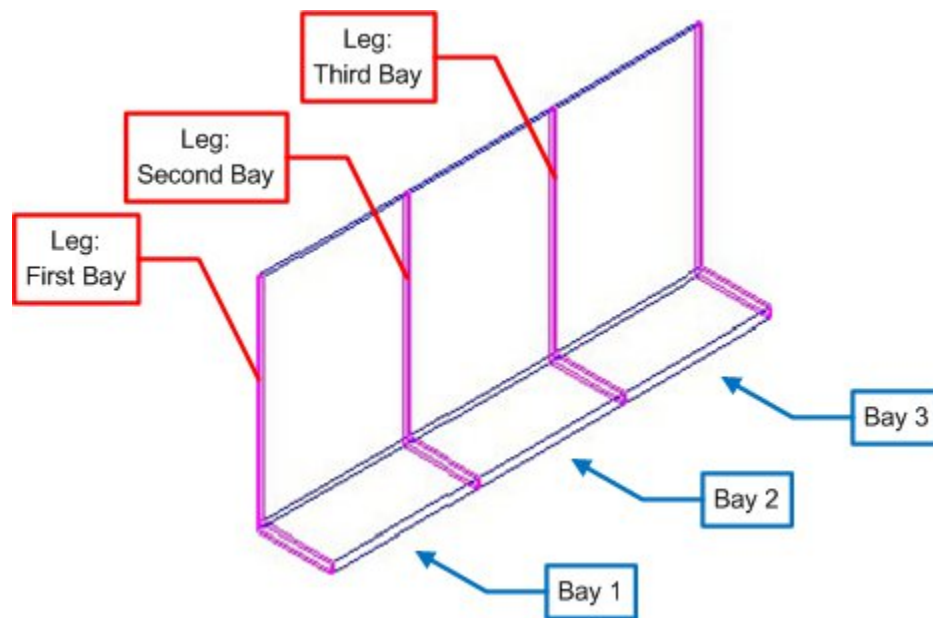
No	Size Range	Label	Suffix	Name Order	Main
1	Stretch Racking Length	Stretch Racking Length		1	<input checked="" type="checkbox"/>
2	Stretch Racking Depth	Stretch Racking Depth		2	<input type="checkbox"/>
3	Stretch Racking Height	Stretch Racking Height		3	<input type="checkbox"/>

Option	Description
Name	This is entered as Stretchable Gondola. This is the title that the user will see in the Planner and Merchandiser modules and in In-Store Space collaboration.
Description	This is the additional information available within the Gondola Definition dialog box. It has been left as Stretchable Gondola but could be expanded at need.
Main Length	This is left at 0 as the length of a bay will be defined by the length selected in the Add Gondola dialog box.
Max Bays	This is left at 0 as it is not desired to set a maximum limit on the number of bays that can be placed.

Option	Description
Dimensions	These are selected in the sequence they are required; Stretchable Racking Length, Stretchable Racking Depth and Stretchable Racking Height. This sequence is important because it will affect how the block names are calculated when the gondola is placed.
Dimension Options	Once selected, the dimensions need a little configuration. The Stretchable Racking Length has been selected as the main dimensions - the value selected when adding a gondola into a floor plan will define the length of the bay drawn. For stretchable gondolas no suffixes are required.

## Creating the Stretchable Gondola Leg

The first part of the gondola to be created is the leg. This will appear at the beginning of each bay.



## Details Sub-Tab of Parts Tab

In order to do this, the following actions are required in the details Sub-Tab of the Parts tab of the Gondola Definition dialog box:

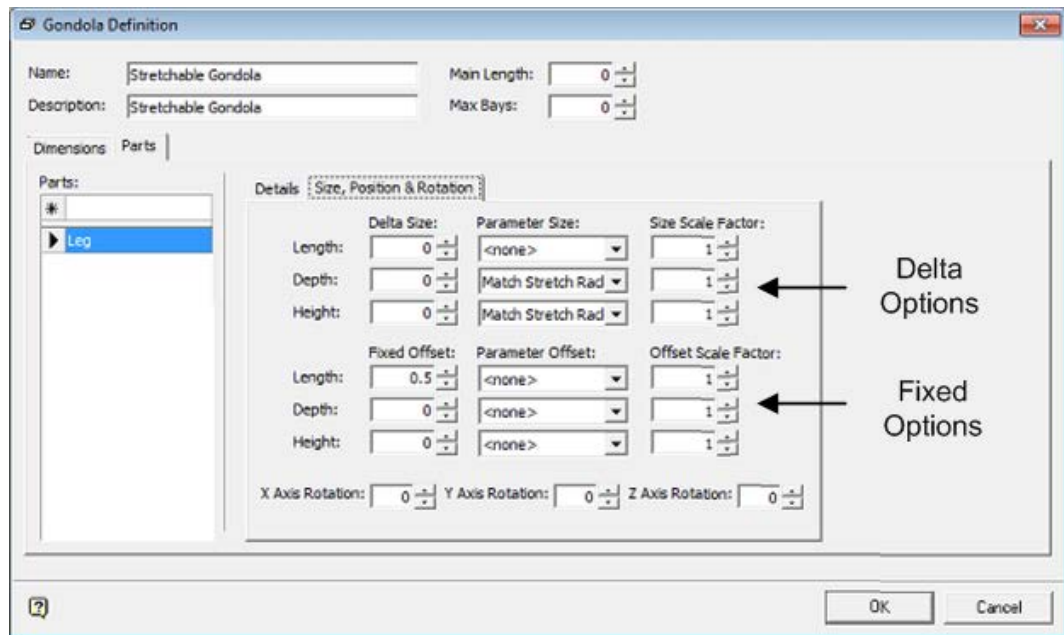
Option	Description
Part Name	This is generated by typing Leg into the Parts text box and pressing <b>Return</b> . On highlighting Leg in the list of parts, the Details sub-tab will become active, allowing the details to be configured.
Type	Leg has been selected from the predefined drop down list. This can be used for reporting purposes.
Description	This is identical to the text typed into the Parts text box. There is no need to change this.
Prefix	For a stretchable gondola, the entire block name can be entered into the Prefix field. In this case it is <b>I_Stretchable_Racking_L-Leg</b> .
Suffix	No suffix is required, so this field is left blank.
Optional	The leg is mandatory for this gondola, so this field is left unchanged.
Bay Group	This option is not implemented yet, so is left unchanged.
Report Group	This option is not implemented yet, so is left unchanged.
Include If	This option determines which bays the part will be drawn in. It will be drawn in all bays, so all options are checked.
Name Dependency	This determines what dimensions are going to be used in building up the block name. For stretchable gondolas, these should be left unchecked.

### Mapping Option

For fixed size gondolas, it is good practice to confirm the block names required to draw the gondola will be recreated correctly. This option is not available for stretchable gondolas. Clicking the mapping button will just bring up a warning dialog box.



## Size, Position and Rotation Sub-Tab of Parts Tab



### Delta Options

Delta options are used for the stretchable properties. They are governed in part by options in the Size dialog box and in the Gondola sizes dialog box (The sizes in the Gondola size dialog box should reflect those in the Add Gondola dialog box). For the leg, the stretchable sizes have been defined as fixed as 1 inch for length and stretchable for depth and height.

### Option Description

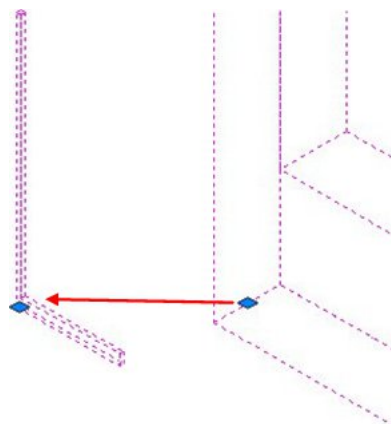
**Length** This is left as None as the length has been fixed at 1 inch.

**Depth** This has been set as Match Stretchable Racking Depth so the depth of the leg will be set to match the selection in the Add Gondola dialog box.

**Height** This has been set as Match Stretchable Racking Height so the height of the leg will be set to match the selection in the Add Gondola dialog box.

### Fixed Options

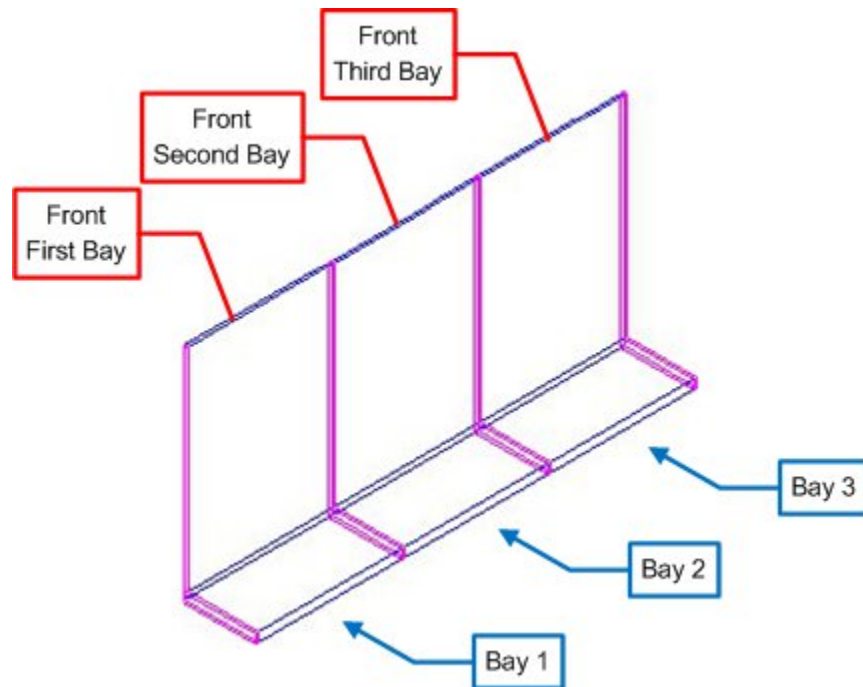
A further setting is required in the lower part of the tab. This is for an offset to get the leg into the correct position. The leg is 1 inch in length (width) and the insertion point is set to bottom back middle. A small adjustment needs to be made so that the insertion point for the gondola is shifted to the bottom, back left corner of the leg. This means the corner of the leg will go down on the selected insertion point for the gondola, ensuring very accurate placement.



Option	Description
Length	As we want the bottom-back-left corner of the leg to be the start position of the bay, the leg is given a positive offset of 0.5 inches in the length (X) axis.
Depth	No setting required
Height	No setting required.

## Creating the Stretchable Gondola Front

The first part of the gondola to be created is the front. This will appear in each bay.



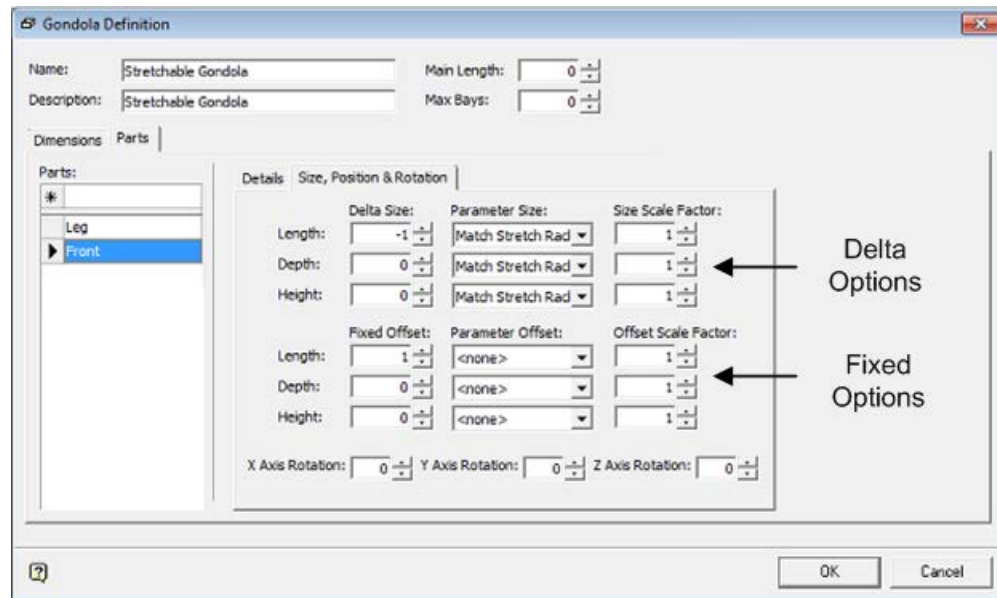
### Details Sub-Tab of Parts Tab

In order to do this, the following actions are required in the details Sub-Tab of the Parts tab of the Gondola Definition dialog box:

Option	Description
Part Name	This is generated by typing Front into the Parts text box and pressing <b>Return</b> . On highlighting Front in the list of parts, the Details sub-tab will become active, allowing the details to be configured.
Type	Leg has been selected from the predefined drop down list. This can be used for reporting purposes.
Description	This is identical to the text typed into the Parts text box. There is no need to change this.
Prefix	For a stretchable gondola, the entire block name can be entered into the Prefix field. In this case it is <b>I_Stretchable_Racking_Fixture</b> .
Suffix	No suffix is required, so this field is left blank.
Optional	The front is mandatory for this gondola, so this field is left unchanged.
Bay Group	This option is not implemented yet, so is left unchanged.
Report Group	This option is not implemented yet, so is left unchanged.
Include If	This option determines which bays the part will be drawn in. It will be drawn in all bays, so all options are checked.
Name Dependency	This determines what dimensions are going to be used in building up the block name. For stretchable gondolas, these should be left unchecked.

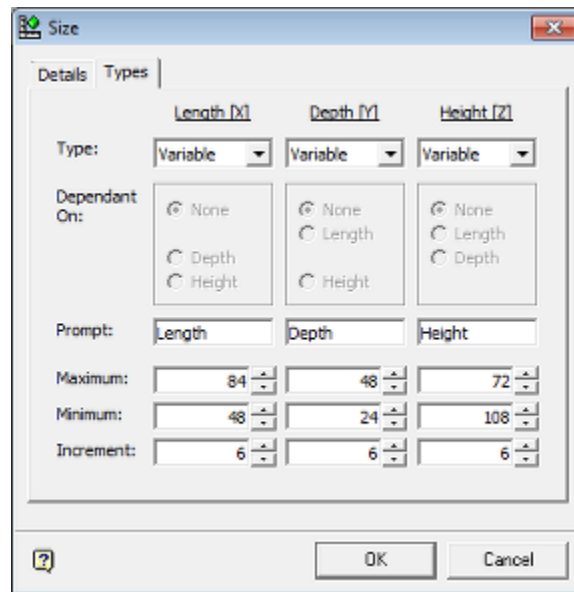


## Size, Position and Rotation Sub-Tab of Parts Tab



### Delta Options

Delta options are used for the stretchable properties. They are governed in part by options in the Size dialog box and in the Gondola sizes dialog box (The sizes in the Gondola size dialog box should reflect those in the Add Gondola dialog box). For the leg, the stretchable sizes have been defined as fixed as 1 inch for length and stretchable for depth and height.



Option	Description
Length	This has been set as Match Stretchable Racking Length so the depth of the leg will be set to match the selection in the Add Gondola dialog box. It has also been given a delta value of -1. This reduces the length specified in the Add Gondola dialog box by one inch to allow for the thickness of the leg at the start of the bay.

Option	Description
Depth	This has been set as Match Stretchable Racking Depth so the depth of the leg will be set to match the selection in the Add Gondola dialog box.
Height	This has been set as Match Stretchable Racking Height so the height of the leg will be set to match the selection in the Add Gondola dialog box.

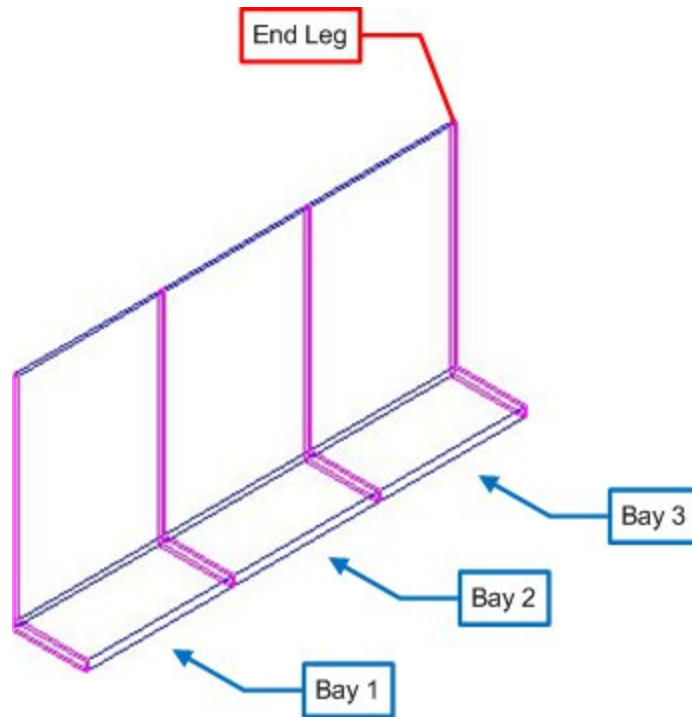
### Fixed Options

A further setting is required in the lower part of the tab. This is for an offset to get the leg into the correct position. The leg is 1 inch in length (width) and the insertion point is set to bottom back middle. A small adjustment needs to be made so that the insertion point for the gondola is shifted to the bottom, back left corner of the leg. This means the corner of the leg will go down on the selected insertion point for the gondola, ensuring very accurate placement.

Option	Description
Length	This has been given a fixed offset of one inch. This moves the insertion position of the front part up by one inch to allow for the present of a leg as the start of the bay.
Depth	No setting required
Height	No setting required.

## Creating the Stretchable Gondola End Leg

The last part of the gondola to be created is the end leg. This will only appear on the end of the last bay.



## Details Sub-Tab of Parts Tab

In order to do this, the following actions are required in the details Sub-Tab of the Parts tab of the Gondola Definition dialog box:

**Gondola Definition**

Name: Stretchable Gondola Main Length: 0

Description: Stretchable Gondola Max Bays: 0

Dimensions | **Parts**

Parts:

- \*
- Leg
- Front
- End Leg**

**Details** | Size, Position & Rotation

Type: Leg

Description: End Leg

Prefix: T\_Stretchable\_Racking\_L-Le

Suffix:

Optional: <no>

Bay Group: <none>

Report Group: <none>

Include If:

- ☐ First Bay
- ☒ Odd Bay
- ☐ Middle Bay
- ☒ Even Bay
- ☒ Last Bay

Name dependency:

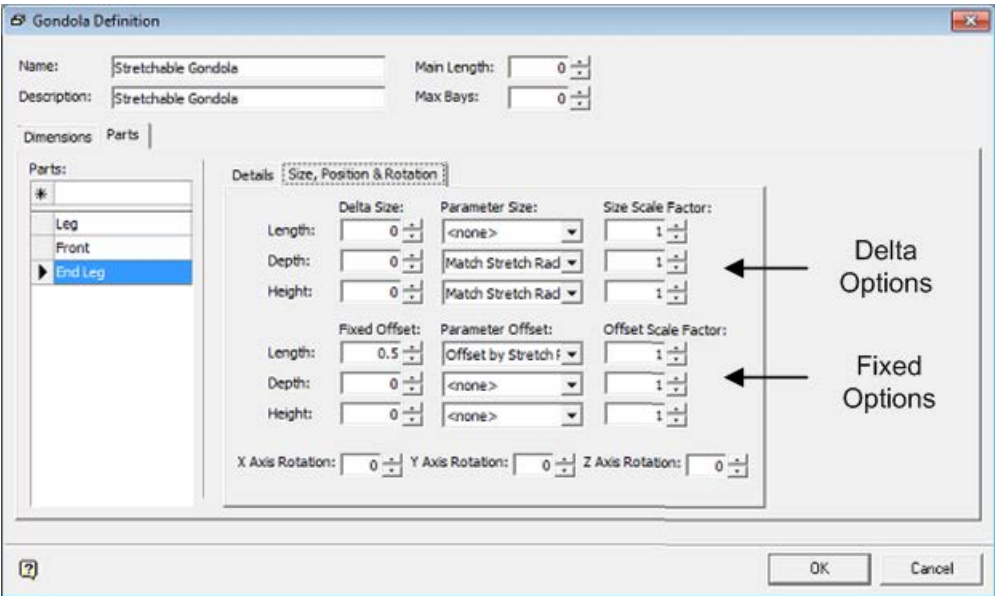
- ☐ Stretch Racking Leng
- ☐ Stretch Racking Dept
- ☐ Stretch Racking Heigl

Mapping

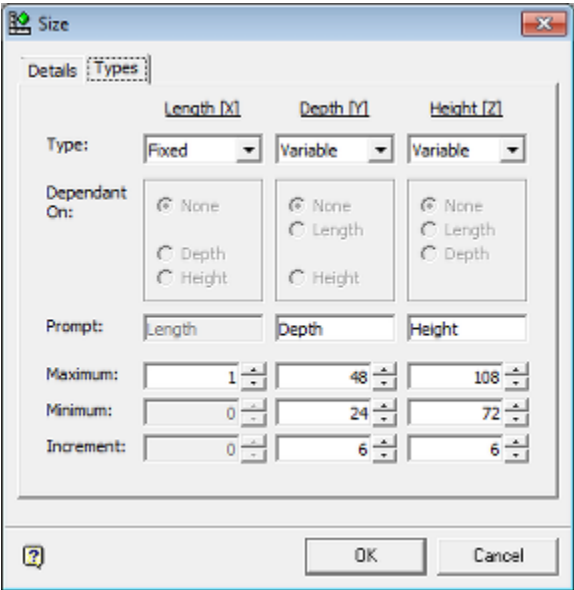
OK Cancel

Option	Description
Part Name	This is generated by typing End Leg into the Parts text box and pressing <b>Return</b> . On highlighting End Leg in the list of parts, the Details sub-tab will become active, allowing the details to be configured.
Type	Leg has been selected from the predefined drop down list. This can be used for reporting purposes.
Description	This is identical to the text typed into the Parts text box. There is no need to change this.
Prefix	For a stretchable gondola, the entire block name can be entered into the Prefix field. In this case it is <b>I_Stretchable_Racking_L-Leg</b> .
Suffix	The naming convention does not have a suffix for the block name, so this field is left blank.
Optional	Because the End Cap does not have to be present, it can be made option by typing End Cap in place of the default <no> in the Optional text box. It will then appear as an optional part in the <b>Add Gondola dialog box</b> .
Bay Group	This option is not implemented yet, so is left unchanged.
Report Group	This option is not implemented yet, so is left unchanged.
Include If	This option determines which bays the part will be drawn in. It will only be drawn in the last bay, so this option is checked. Because the last bay could be an odd or an even number, both of these options are also checked.
Name Dependency	This determines what dimensions are going to be used in building up the block name. As the block name includes Length, Depth and Height, all three dependencies are checked.

Size, Position and Rotation Sub-Tab of Parts Tab



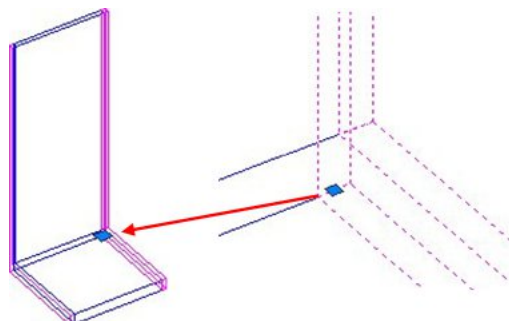
Delta Options



Option	Description
Length	This is left as None as the length has been fixed at 1 inch.
Depth	This has been set as Match Stretchable Racking Depth so the depth of the leg will be set to match the selection in the Add Gondola dialog box.
Height	This has been set as Match Stretchable Racking Height so the height of the leg will be set to match the selection in the Add Gondola dialog box.

### Fixed Options

A further setting is required in the lower part of the tab. This is for an offset to get the leg into the correct position. The leg is 1 inch in length (width) and the insertion point is set to bottom back middle. A small adjustment needs to be made so the leg places adjacent to the part to the left of it.



Option	Description
Length	As we want the bottom-back-left corner of the leg to be the start position of the bay, the leg is given a positive offset of 0.5 inches in the length (X) axis. The leg also has to be moved to the right hand side of the 'front' part of the bay. To do this, it is given an offset of 'Offset by Stretch Racking Length'.
Depth	No setting required
Height	No setting required.

## Saving the Stretchable Gondola

### Saving the Gondola in Fixture Studio

The gondola can be saved in Fixture Studio as follows:

1. Click the OK button on the Gondola Definition dialog box - this saves the information locally in Fixture Studio.
2. Select the Save Gondolas option on the File menu - this saves the information to the Macro Space Planning database.

### Updating Gondola Definitions in Planner and Merchandiser

If either the Planner or Merchandiser modules are open when a Gondola is being defined or updated in Fixture Studio, the definition must be updated in the Planner or Merchandiser modules before it can be used. The steps are as follows:

1. Ensure the Gondola Definition has been Saved in Fixture Studio with the Save Gondolas option on the File menu.
2. Click the Refresh option on the Toolbar of the Fixturing tab of the Object Browser - this reads the latest gondola definition information from the database into the Planner module.

## Updating Gondola Definitions in In-Store Space Collaboration

If In-Store Space collaboration is open when a Gondola is being defined or updated in Fixture Studio, the definition must be updated in ISSC before it can be used. The steps are as follows:

1. Ensure the Gondola Definition has been Saved in Fixture Studio with the Save Gondolas option on the File menu.
2. Use the Refresh option in the In-Store Space Collaboration toolbar to load the latest changes.