ORACLE®

Agile Product Lifecycle Management

ChangeCAST User Guide

v9.3.1

Part No. E16500-01
September 2010

Oracle Copyright

CONTENTS

Preface

Oracle's Agile PLM documentation set includes Adobe® Acrobat PDF files. The Oracle Technology Network (OTN) Web site http://www.oracle.com/technetwork/documentation/agile-085940.html contains the latest versions of the Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

| Note | To read the PDF files, you must use the free Adobe Acrobat Reader version 9.0 or later. This program can be downloaded from the Adobe Web site http://www.adobe.com. |

The Oracle Technology Network (OTN) Web site http://www.oracle.com/technetwork/documentation/agile-085940.html can be accessed through **Help** > **Manuals** in both Agile Web Client and Agile Java Client. If you need additional assistance or information, please contact My Oracle Support (https://support.oracle.com) for assistance.

| Note | Before calling Oracle Support about a problem with an Agile PLM manual, please have the full part number, which is located on the title page. |

TTY Access to Oracle Support Services

Oracle provides dedicated Text Telephone (TTY) access to Oracle Support Services within the United States of America 24 hours a day, 7 days a week. For TTY support, call 800.446.2398. Outside the United States, call +1.407.458.2479.

Readme

Any last-minute information about Agile PLM can be found in the Readme file on the Oracle Technology Network (OTN) Web site http://www.oracle.com/technetwork/documentation/agile-085940.html

Agile Training Aids

Go to the Oracle University Web page http://www.oracle.com/education/chooser/selectcountry_new.html for more information on Agile Training offerings.

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

Introducing ChangeCAST

This chapter includes the following:

ChangeCAST works with target system-specific profiles to update your target systems with the latest Item, Bill of Material (BOM), and Manufacturer information from Agile.

About ChangeCAST

ChangeCAST coordinates the flow of information from the Agile database to the target system, as shown below.
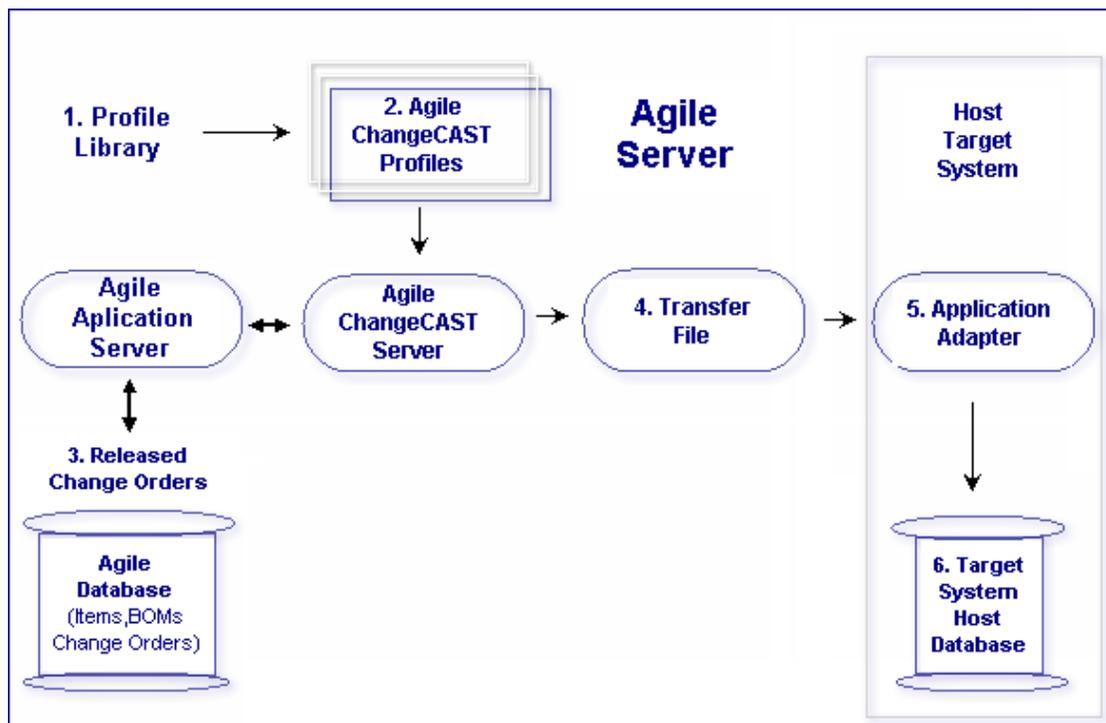
1. *Profiles* are created within ChangeCAST. They control:
    - The format of and naming convention for ChangeCAST transfer files
    - The destination of ChangeCAST transfer files
    - Whom to alert in case of errors (Notification)

- How often ChangeCAST polls for change orders and MCOs and transfers them (Schedule)

2. Profile *libraries* (sets of profiles) can contain up to 32 profiles. The active profile library is named ChangeCAST.agx, although you can rename it for distribution. Only one profile library can be active at a time.

3. Agile users create Items (such as Parts and Documents) and release them by creating and releasing change orders.

4. ChangeCAST checks for released change orders or MCOs. When ChangeCAST is in the Resumed connection state, it periodically polls the Agile database and checks for change orders and MCOs that have been released but not transferred per each profile.

5. If you find any released change orders or MCOs, ChangeCAST creates a transfer file for each enabled profile, according to the format settings for those profiles.

   That is, the change order information translates (as per the settings in the enabled profiles) into properly formatted transfer files and stores the files (one file or a set of files per released change order or MCO) at specified locations.

6. Depending on the destinations stored in the profiles, the files are either processed by a local application adapter, or transferred by FTP to a target system host(s) for processing. If the application adapter at the host target system site receives the transfer file, it validates the data and sends the data to the host target system's database.

ChangeCAST can synchronize up to 32 different target systems with the data in the Agile system, as illustrated below.
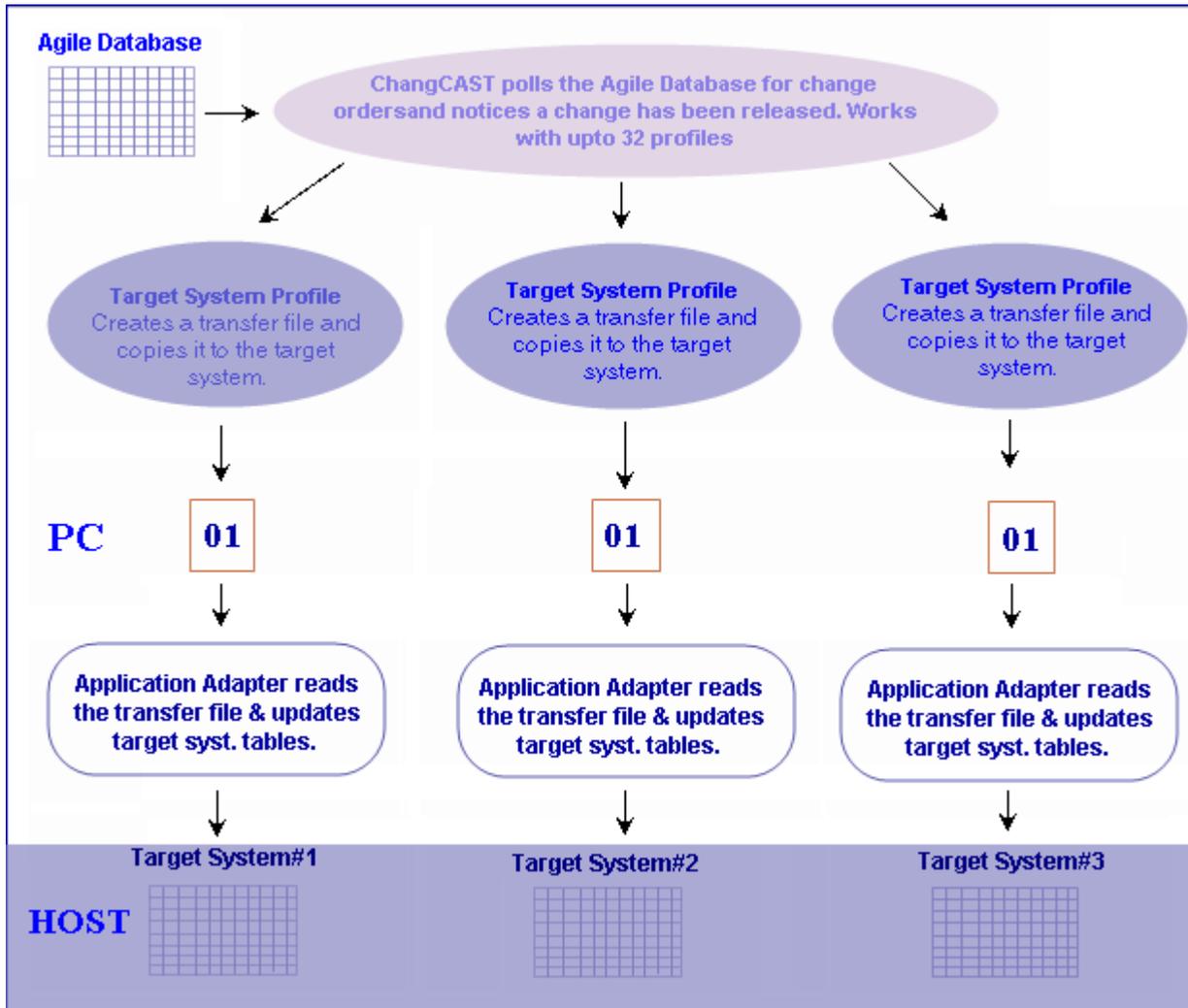
Some Important Definitions

Understanding the following terms will help you understand and use ChangeCAST and related files. The following table lists general terms and describes the ChangeCAST components and the various ChangeCAST files.

Terminology

Term	Definition
General Terms	
Attributes	A list of target system table-field elements that can be mapped; every profile contains a set of attributes. The terms *target system attribute* and *target system field* are used interchangeably in this manual.

Term	Definition
ChangeCAST connect state	Whether ChangeCAST is automatically transferring change orders for enabled profiles; the possible states are Paused and Resumed, controlled by buttons in the main ChangeCAST window.
Field	An individual piece of information; an attribute or column of a table. The terms *target system attribute* and *target system field* are used interchangeably in this manual.
Mapping	The pairing of target system attributes with Agile fields, system nulls, system variables (also known as system flags), or the result of a conditional expression.
Profile	A collection of settings used by ChangeCAST to process and deliver the transfer file to the target system. Profiles define many aspects of data transfer from Agile to a single target system, including transfer file structure definition, transfer settings, scheduling information, data mapping, and directory/file locations.
Profile library	Up to 32 profiles together in a single file with extension .agx (for ChangeCAST 8.1 and later) or .agc (for previous releases).
Row	A grouping of fields or a record in a table that represents a data element.
Table	An organized collection of records.
Transfer flag	An internal setting that tells ChangeCAST whether a change order has been successfully transferred.
Released	ChangeCAST checks for newly released change orders and MCOs (Manufacturer Change Orders). A change order or MCO is considered released when it enters the first Released-type status in the workflow. *Only the* first *Released-type status actually releases the routable object.* Subsequent Released-type statuses—given distinguishing status names—provide additional review/approval cycles for the released routable object. If the workflow includes a Complete-type status, it is the last status in the workflow.
Change Order **MCO**	ChangeCAST transfers both change orders (Change Order Class objects) and MCOs (Manufacturer Change Order Class objects).
ChangeCAST components	
ChangeCAST Service	A service that launches the ChangeCAST application, ChangeCAST.exe.
ChangeCAST.exe	An application used to configure and transfer files of Agile data to a host target system.
StartChangeCAST. exe	An application that starts the ChangeCAST Service.
ChangeCAST files	
Backup (.bak)	Backup of the Profile library.

Term	Definition
Error log (ErrorLog.txt)	A log file that tracks ChangeCAST mapping, condition syntax, and other problems encountered during validations and audits.
Exported ChangeCAST attribute file (.aga)	An ASCII text file containing a list of target system tables and fields that are mappable for a single ChangeCAST profile.
Mapping file (.map)	An ASCII (text) file containing the mappings of Agile fields to target system fields.
Profile library or (.agx.agc)	A file that contains all aspects of one or more profiles. AGX files (for the current ChangeCAST) are text files. AGC files (the format for pre-8.1 releases of ChangeCAST) are binary files.
Temporary (.agl.tmp)	Temporary files created during processing.
Transfer file (.agl, by default)	A formatted ASCII file, output from ChangeCAST, which is used to transfer change order information from Agile to a host target system. There is at least one transfer file for every change order processed by ChangeCAST. Transfer files adhere to the settings defined in corresponding profiles.
Transfer log (TransferLog.txt)	A log file that tracks the status of ChangeCAST's connect state and transfer attempts.

The ChangeCAST Window

When you launch ChangeCAST, the ChangeCAST window appears. The ChangeCAST window includes the main features, described in the following sections:

- Title bar
- Menu bar
- Toolbar
- Profile Library table, which displays all the profiles in the profile library (ChangeCAST.agx) and their current transfer status
- Transfer Log table, which shows status messages from the last few data transfers
- Status bar
- Profile library buttons
- Transfer control buttons

Title Bar

The title bar at the top of the ChangeCAST window contains the application name; the title bar at the top of most dialog boxes contains the currently selected profile.

Menu Bar

The ChangeCAST menu bar includes the menu options listed below.

Menu	Actions
File	Minimize application window, log in as a different user, exit.
Edit	Set launch options, enable differentiation between parts/documents and ECOs/MCOs.
View	Display and clear the Transfer and Error logs.
Profile	Add, rename, copy, import, remove, and audit profiles.
Mapping	Create, modify, import, and export Agile-to-target system field mappings and attributes.
Format	Define the format of transfer files.
Transfer	Define the destination, transfer type, email notification, file format, application adapter post-processor, and schedule for Agile-to-target system data transfers.
Reports	Produce a variety of reports for the current profile, all profiles in the library, or the Agile tables; reports are created as .txt files.
Help	Display online Help or ChangeCAST version and copyright information.

Toolbar

The ChangeCAST toolbar offers the shortcuts for menu commands described below.

Button	Actions
Equation 1: -2: ChangeCAST Add Profile	Opens the Add Profile dialog box for adding new profiles.
Equation 2: -2: ChangeCAST View Log File	Opens Windows Notepad and displays the Transfer log file (for all profiles).
Equation 3: -2: ChangeCAST Edit Mapping	Displays the Field Mappings dialog box for the current profile so you can create, modify, add, import, or export Agile-to-target system field mappings.
Equation 4: -2: ChangeCAST Format Options	Displays the File Format dialog box for the current profile so you can define or modify its transfer file format.
Equation 5: -2: ChangeCAST Transfer Options	Displays the Transfer Options dialog box for the current profile so you can enter or modify its transfer file destination, email error notification list, file naming scheme, and transfer schedule.
Equation 6: -2: ChangeCAST Audit	Validates mappings for the selected profile, including checks for valid attributes and syntax; errors are written to the ChangeCAST Error Log.

Profile Library Table

The Profile Library table is used to manage ChangeCAST profiles. It displays all profiles that have been created or imported into the profile library file, ChangeCAST.agx. The profile library can contain up to 32 profiles.

Profile Library Fields

The Profile Library table contains the fields described in the table below. The profiles are processed in the order shown in the list.

Field	Description
Profile	The name given to the current profile.
Description	An optional note describing the current profile.
Enabled	Whether the profile is active (Enabled) or not (Disabled).
Last CO	The number of the last change order transferred, for example EC23-2200.
Last Transfer File	The name of the transfer file for the last change order transferred — for example, AG000023.agl.
Status	The transfer status of the last transfer attempted, whether successful (Success) or not (Failed).
Date/Time	The date and time the last transfer was attempted (the Status field was updated).

Profile Library Buttons

Listed below are buttons which help you manage profiles. You can find them to the right of the Profile Library table.

Button	Action
Enable	Activates the current profile and changes the Enabled field to Yes, after first auditing the mappings.
Disable	Deactivates the current profile and changes the Enabled field to No.
Move Up	Moves the current profile up one row in the Profile Library table (profiles are processed in the order shown in the table, top to bottom).
Move Down	Moves the current profile down one row in the Profile Library table.
Import	Displays the Import Profile dialog box so you can import a profile from another profile library file (*.agx or *.agc).

Transfer Log Table

The ChangeCAST Transfer Log table contains the last several lines from the Transfer log file, with the most recent transaction listed at the bottom of the view. To view the entire Transfer log, click **View Log**.

Transfer Log Contents

Each logged transfer transaction contains the fields described in the table below.

Field	Description
Date/Time	The date and time of the current transfer attempt (log entry).
Change #	The number of the current change order, for example EC23-2200.

Field	Description
Filename	The name of the transfer file for the last change order transferred, for example AG000023.agl.
Transfer Status	Comments indicating whether the transfer was successful or not and additional information about the transfer, if appropriate.
Destination	The FTP site or local directory where the file was to have been transferred.
Status	The transfer status of the last change order transferred, whether successful (Success) or not (Failed).

Other event information also appears in the Transfer log. For more information, see Viewing and Printing Log Files on page 43.

Transfer Control Buttons

The buttons described in the table below control transfers. These buttons are located to the right of the Transfer log.

Button	Action
Pause	Stops the ChangeCAST polling schedule and transfer of change orders for all enabled profiles.
Resume	Starts the ChangeCAST polling schedule.
Transfer Now	Processes and transfers all change orders that have been released and not transferred for all enabled profiles; this is not dependent on the connection state or current schedule.
View Log	Opens Windows Notepad and displays the entire Transfer log.

ChangeCAST Status Bar

The status bar at the bottom of the ChangeCAST window displays the current ChangeCAST state (Paused, Resumed, or Processing), the name of the current logged-in user, and the name of the Agile server host computer.

Upgrading from a Previous Version

Before using ChangeCAST and attempting to upgrade from a previously installed version, you should be aware of the following issues:

▫ Fields on the **Page Three** tab cannot be mapped and transferred using ChangeCAST.

▫ Flex field is a custom field created by the customer. ChangeCAST does not transfer any flex field, though the flex field is visible in the mapping.

▫ The year is always stored in 4-digit format. Check the macros that accommodate this format. Any 2-digit years are automatically changes to the 4-digit format.

▫ If there is MCO-specific data that you want to transfer, you must map those fields.

▫ Only one ChangeCAST session may be running per the Agile Application cluster.

▫ By default, the Administrator role does not include privileges necessary to perform Change Analyst tasks. The Change Analyst role should include the following privileges for each type of object: Read, Create, Discover, Reports, Global Search, Modify, and Send.

> **Note** If your company is using ChangeCAST, in most cases not all users **should** be able to unrelease change orders (or MCOs) in Agile. To avoid having a change order unreleased after it has been transferred by ChangeCAST, the Unrelease privilege should *not* be granted to **any** users. ChangeCAST does not automatically re-send Unreleased change orders.

To upgrade ChangeCAST on a system where a previous version of ChangeCAST is installed:

1. Install ChangeCAST on the computer that contains the earlier release of ChangeCAST.

2. Ensure you have appropriate Read and Discover privileges.

3. Ensure you have the highest-level Product Collaboration user license to run a session of ChangeCAST.

   Contact your Agile administrator if you do not have the required license.

4. Start ChangeCAST, as described in Starting ChangeCAST on page 10. (The Agile Application server must be running.)

5. Ensure that profiles and settings are correct. If necessary, build ChangeCAST profiles, or use profiles provided by a ChangeCAST implementer. Create or modify field mappings, if necessary.

   > **Note** If you modify a profile, completed by an implementer, ensure he validates the changes too.

   For details on importing and using existing profiles, see Working with Profiles on page 13.

   For information about building new profiles, see the *Agile ChangeCAST Developer Guide*.

   For information about creating, modifying, and verifying field mappings, see Defining Attributes and Mapping Fields on page 21.

6. Configure and verify ChangeCAST transfer settings, including a polling schedule. Enable the profiles and start ChangeCAST.

   For details, see Formatting and Transferring Data Files on page 35.

Starting ChangeCAST

To start ChangeCAST:

1. Choose **Start** in the taskbar.

2. Choose **Programs | Agile | Agile 9.2.2.7 | Agile ChangeCAST Server.** The system prompts you to login with your Agile username and password.

3. If you have appropriate privileges, the ChangeCAST window appears. The first time you launch ChangeCAST, its connection state is Paused (the **Pause** button is grayed and the **Resume** button is available).

Getting Help

The online Help system for ChangeCAST contains descriptions of dialog boxes, menu commands, and other ChangeCAST features. Online Help is available from dialog boxes and the **Help** menu.

▫   To view information about a dialog box, click its **Help** button.

▫   For general Help, choose **Contents** from the ChangeCAST **Help** menu.

▫   For ChangeCAST version and copyright information, choose **About** ChangeCAST from the **Help** menu.

Where to Go From Here

With ChangeCAST running, you are ready to create new profiles or load and verify existing profiles.

▫   Working with Profiles on page 13 describes how to import and manage profiles.

▫   Defining Attributes and Mapping Fields on page 21 describes how to define and modify field attributes and mappings.

▫   Formatting and Transferring Data Files on page 35 describes how to set and verify file transfer settings.

Minimizing On Launch

You can use the **Minimized On Launch** setting in the Options dialog box to determine how ChangeCAST behaves when launched (choose **Options** from the **Edit** menu to display that dialog box).

The following table summarizes launch behavior for different Minimized On Launch settings and ChangeCAST connection states.

Minimize On Launch	Last Connect State	Launch Behavior
Not checked	Paused	When you launch ChangeCAST, you are prompted to log in. The ChangeCAST window opens and the connection state is Paused.
Not checked	Resumed	When you launch ChangeCAST, you are prompted to log in. The ChangeCAST window opens, and the connection state is Resumed. (ChangeCAST starts connecting and transferring change orders for each enabled profile according to the schedule settings.)
Checked	Paused	When you launch ChangeCAST, ChangeCAST automatically logs in as the previous user and appears as an icon in the system tray. The icon indicates the connection state is Paused.

Minimize On Launch	Last Connect State	Launch Behavior
Checked	**Resumed**	When you launch ChangeCAST, ChangeCAST automatically logs in as the previous user and appears as an icon in the system tray. The icon indicates that the connection state is Resumed and ChangeCAST is processing change orders according to schedule settings. **Note:** With these settings, ChangeCAST can process change orders before a user has logged in to Windows NT or Windows 2000 Server. This option allows ChangeCAST to process ECOs after the computer has restarted, without intervention. If the Agile application is not running, ChangeCAST will wait for it to start.

To maximize ChangeCAST window, click the icon in the system tray. The system prompts you to enter your password before the ChangeCAST window opens.

When you are able to configure ChangeCAST, click the **Resume** button to start it. For details, see Starting and Stopping ChangeCAST

Logging in As a Different User

You can login as a different user, if another person is using ChangeCAST.

To log in as a different user:

▫ If the ChangeCAST window is open, choose **Log In As A Different User** from the ChangeCAST **File** menu.

▫ If ChangeCAST is minimized to the system tray, right-click the icon in the system tray and choose **Login As A Different User** from the shortcut menu.

Working with Profiles

This chapter includes the following:

Profiles configure virtually all areas of ChangeCAST performance. A ChangeCAST *profile* is a group of settings that define many aspects of data transfer from Agile to a single target system. These aspects include transfer file structure, transfer file delivery, scheduling information, email notification lists, and data mapping. Profiles are used in the creation of transfer files.

All the profiles together make up a *profile library*. Only one profile library can be active at a time. The default profile library is ChangeCAST.agx, located in the same directory as ChangeCAST.exe. For other important definitions you require to work with ChangeCAST, see Some Important Definitions on page 3.

Creating and Managing Profiles

When you first install ChangeCAST, the profile table is blank, and ChangeCAST prompts you to create a default profile. You can create and import up to 32 profiles.

Note   When you launch ChangeCAST, a list of all available profiles appears in the upper table of the ChangeCAST window.

Adding and Importing Profiles

You can create a profile in the ChangeCAST profile library by adding a new profile or importing one from another profile library. Once you create a profile, you can copy, rename, or remove it.

Note   Since the profile library saves automatically, the **Save** or **Open** commands do not appear on the **File** menu.

▫   When you change the connection state to Resume, click **OK** in the dialog box after each transfer, or when you exit ChangeCAST.

Adding a New Profile

To add a new profile:

1.   Choose **Add Profile** from the **Profile** menu, or click the **Add Profile** toolbar button.

2.   Enter appropriate information in the Add Profile dialog box and all dialog boxes accessible from it.

3.   Click **OK** to save the new profile to the profile library.

| Note | Creating a new profile from scratch is a detailed process. The completed profile must exactly match the format requirements of the target system. For best results, follow the methodology outlined in the *Agile ChangeCAST Developer Guide.* |

Importing a Profile

For best results, store import source files (other profile library files) in a separate subdirectory, such as Profiles, located under the ChangeCAST program directory.

| Note | Do not to overwrite any files in the ChangeCAST program directory when bringing in source files. |

To import a profile from a ChangeCAST profile library (.agx or .agc file):

1. Choose **Import** from the Profile menu. The Import Profile wizard appears.

2. Select the type of profile library from which to import, click **Next**.

3. Use the Open dialog box to select the target .agx or .agc file, then click **Open**. Step 2 of the wizard appears.

4. Select profiles to import from the profile library. To select all profiles, click **Select All**. To deselect all profiles, click **Deselect All**.

5. After selecting the profiles to import, click **Next**. Step 3 of the wizard appears.

6. Specify the Change Order Transfer Setup option that you want. The choices are: **Keep transfer state settings**, **Set all change orders as transferred**, **Set all change orders as NOT transferred**. (For additional information about these options, click the **Help** button in the wizard.)

7. Under **Profile Library Options**, specify whether you want to add the new profiles to the active profile library or completely overwrite the active profile library. (If you overwrite the active one, ChangeCAST creates a backup copy in the ChangeCAST program directory.) Click **Finish** to import the profiles.

---

8. Check the imported profile name for uniqueness. If a duplicate is found in the profile library, the system prompts you to enter a new name or to skip that profile.
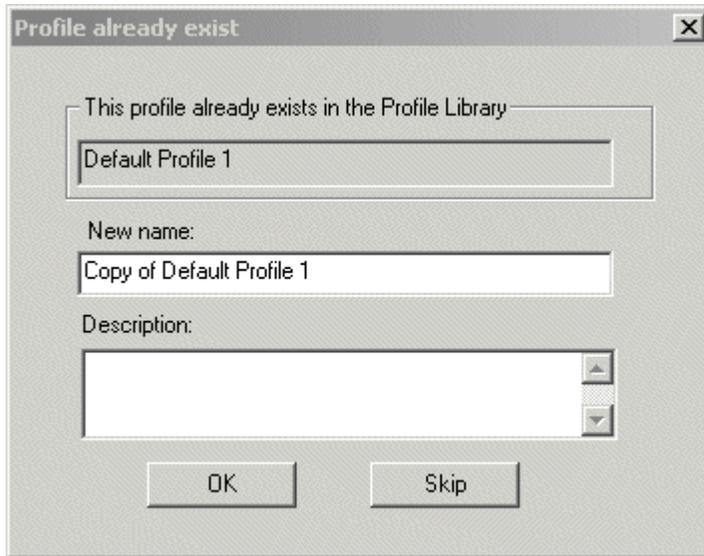
By default, the new profile is disabled.

Note   When you import a profile, you will need to edit the mappings and set transfer options (**Transfer** | **Protocol**, **Transfer** | **Notification**, and **Transfer** | **Schedule**) before you can enable the profile.

Auditing and Validating the Imported Profiles

You must audit and validate a profile to verify its integrity, after you import it.

To audit a profile:

1. Select the profile that was imported in the previous section.

2. Choose **Profile** | **Audit**. The audit function reviews the profile and compares all Agile mapped fields to designated target system tables. Most newly imported profiles fail the audit and return an Error Log dialog box, as in the following figure. This is normal.

Equation 7: -1: Audit errors

```
Error Log                                                              ×

The following errors have been found:

2/9/2002 11:42:03 AM The mapping <Part.Page Two.Item Status> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.Manufacturers.Preferred Status> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.BOM Table.Item Number> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.BOM Table.Find Num> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <ECO.Cover Page.Change Category> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.BOM Table.Qty> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.Page Two.Buyer Code> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.BOM Table.BOM Notes> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.Page Two.Planner Code> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.Page Two.Proposed Cost> is not valid.
2/9/2002 11:42:03 AM Error found: Invalid Agile Object
2/9/2002 11:42:03 AM The mapping <Part.Page Two.UOM Conversion> is not valid.

                        OK              Open log
```

3. To pass the audit, the profile must go through a validation step with the Edit Mapping function. Click **OK** to close the Error Log, and proceed to the next step.

4. Choose **Mapping** | **Edit Mapping**. The Field Mappings window appears and displays all Agile to target system field mappings for the selected profile.

   - If the Field Mappings dialog box appears with no errors or alert prompts, give the mappings a cursory review and click **OK**. Clicking **OK** validates the mappings. Proceed to Step 4, below.

   - If your profile contains conditional mappings, you may receive the following messages before the Field Mappings dialog box appears. This is normal.

   The Mapping Analysis message states, which mapped line number, needs to undergo an additional validation step. Note the mapping number and click **OK**.

   The Conditional Mappings message follows, stating that some target system tables are not mapped properly to related Agile tables. Click **OK** to continue.

5. When the Field Mappings dialog box appears, in the Mapped Fields pane, select the mapping line number that was displays in the Mapping Analysis message earlier, and click the **Edit Mapping** button. The Map Condition dialog box appears.

6. No information changes are required. Click **OK**. The Agile Table Type dialog box appears. No information changes are required.
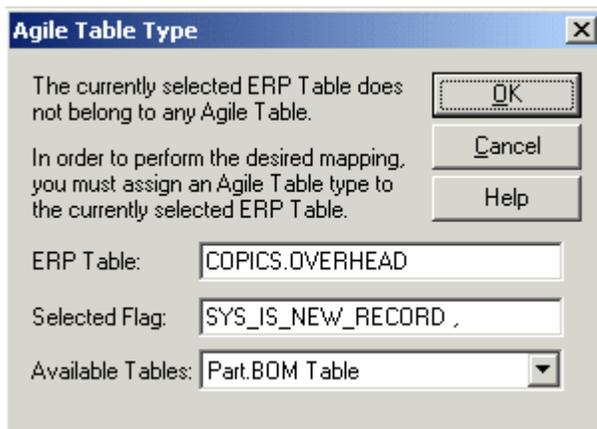
7. Click **OK.** The condition goes through an automated system validation. At this point, you should return to the Field Mappings dialog box.

8. Click **OK** to close the dialog box and proceed to the next step.

9. You can now re-audit the profile. Choose **Profile** | **Audit**. The Audit function reviews the profile and confirms that the profile is responding normally and that all mapped tables are valid. If they are, you should receive the following message:

Equation 8: -3: Agile Table Type dialog box

If the audit returns no errors, your profiles are in good shape. If you receive additional audit errors, perform Steps 2 through 6 again until all conditional rows are validated.

If you continue to receive errors, contact Agile Support.

Copying Profiles

You can create a new profile by copying one that already exists in your profile library. The copy contains the Format settings and Mappings of the original profile. The user needs to enter name and Transfer settings.

To copy a profile:

1. Choose **Copy** from **Profile** menu.

   The Copy Profile dialog box appears.

2. Use the list to select a source profile from your profile library. The current profile appears by default.

3. Enter a new name for the selected profile. The currently profile name appears by default.

4. Enter a new description or edit the current description. The description of the current profile

appears by default.

5. Click **OK** to add a profile with the new name and description.

6. Check imported profile names for uniqueness. If you find a duplicate in the profile library, the system prompts you to enter a new name or to skip that profile.

Renaming Profiles

You can rename the current profile or change the profile description.

To rename a profile:

1. Either select a profile in the Profile Library table of the ChangeCAST window and choose **Rename** from the **Profile** menu, or double-click a profile in the Profile Library table.

   The Rename Profile dialog box opens with the selected profile loaded.

2. Enter a new name for the profile. The name of the profile appears by default.

3. Enter a new description, or edit the current description. The description of the profile appears by default.

4. Click **OK** to apply the new name and description to the profile.

5. Check imported profile names for uniqueness. If you find a duplicate in the profile library, the system prompts you to enter a new name or to skip that profile.

Removing Profiles

If necessary, you can also remove a profile from the profile library.

To remove a profile:

1. Select a profile in the Profile Library table of the ChangeCAST window and choose **Remove** from the **Profile** menu.

2. The system prompts you to remove the profile or cancel the operation.

3. Click **OK** to remove the selected profile.

Note   Deleting a profile clears transfer flags, a process that takes several minutes. It is very important that you wait while ChangeCAST completes this process.

Using Profiles

Before you can use a profile, you need to:

□   Set up its Attributes table.

□   Complete a set of Agile-to-target system field mappings.

□   Enter transfer destination and schedule information.

□   Set up a list of users to notify in case of transfer problems.

For instructions, see Defining Attributes and Mapping Fields on page 21 and Formatting and

Distributing Profile Libraries

Sometimes it is appropriate to create a profile library on one computer and distribute it to ChangeCAST users working at other sites. ChangeCAST always uses ChangeCAST.agx as the active profile library.

To distribute a profile library:

1. Exit Agile ChangeCAST completely (Do not minimize).

2. Copy the profile library (ChangeCAST.agx) you want to distribute and give it another name, such as NewLibrary.agx.

3. Distribute it to the target ChangeCAST site or sites.

When it reaches the target site, you should:

- Copy it to a temporary folder such as c:\temp, to make sure that you do not overwrite a ChangeCAST file.

- Before you import the new profiles, decide whether to replace the current version of ChangeCAST.agx with the new profile library, or import profiles from the new profile library into the existing profile library.

- After deciding what to do with the profile library, follow the instructions for Importing a Profile on page 14.

- Verify Transfer settings.

Chapter 3

Defining Attributes and Mapping Fields

This chapter includes the following:

Before you can use a profile to transfer Agile data, you must map fields in the Agile database to fields in the target system.

Guidelines for Defining Attributes and Field Mappings

To define target system attributes and field mappings for each profile in your ChangeCAST profile library, follow these basic steps:

1. Select a profile in the Profile Library table of the ChangeCAST window. For details, see The ChangeCAST Window on page 5.

2. Decide whether you want ChangeCAST to distinguish documents from parts, and MCOs from ECOs. For details, see Differentiating Documents from Parts and MCOs from ECOs on page 22.

3. Define target system attributes to identify the fields in the target or host target system that could be chosen to receive data from the Agile system.

4. Print Agile Table and Attributes reports to assist in mapping Agile fields to fields in the target system. For details, see Defining Target System Attributes on page 22.

5. Use the Agile fields and target system attributes to create a set of Agile-to-target system field mappings. For more details, see Guidelines for Mapping fields on page 26.

6. Print a Mappings report to verify that the mappings are correct. For details, see Profile Reports on page 34.

| Note | Even if you obtain a profile library from another source, you need to verify that its mappings and settings are correct. |

7. Modify the mappings as necessary until they are correct.

Once you create the mappings, you can define transfer settings and start using ChangeCAST.

| Note | While working with attributes and mappings, it is a good idea to use a temp directory to hold attribute and other files that you have exported or intend to import or open. Be careful not to overwrite files in the top-level ChangeCAST program directory, especially ChangeCAST.agx. |

Differentiating Documents from Parts and MCOs from ECOs

By default, ChangeCAST treats documents as parts, and MCOs as ECOs. Therefore, the system maps documents and parts, and MCOs / ECOs to the same target system table. If you want ChangeCAST to distinguish documents from parts, and MCOs from ECOs, use the **Enable differentiation between Agile Classes** setting (in the Options dialog box). With this setting, you can map documents separately from parts, and you can map MCOs separately from ECOs.

Note   If you are upgrading from a prior release of ChangeCAST, before you can use **Enable differentiation between Agile Classes**, you must create new target system tables and attributes, and re-map documents and MCOs. In addition, you may require modifications, if you are using an application adapter, to support this mode.

To access the Enable differentiation between Agile Classes option:

1. Choose **Edit | Options**.

2. Check the **Enable differentiation between Agile Classes** box.

3. Click **OK**.

If you do not check this option, ChangeCAST treats documents as parts and MCOs as ECOs. This reflects the behavior in previous releases of ChangeCAST.

Defining Target System Attributes

Before you can complete a ChangeCAST profile definition, you need to define attributes for the target system database. These describe the database fields of the target system that you can map to receive data from Agile.

You can use the Attributes Table dialog box to define attributes for the target system by entering them manually or by opening or importing a ChangeCAST (*.aga) attribute file. For more information, see .

After you define a set of attributes, you can print and review an Attributes report. Modify the attribute definitions if necessary.

We recommend that you include *all* of the fields available for the target system. This makes it easier to add mappings that you did not use in your initial ChangeCAST implementation.

The Attributes Table Dialog Box

To display the Attributes Table dialog box:

1. Select a profile in the Profile Library table and choose **Edit Attributes** from the **Mapping** menu.

2. You can edit, view, or create new attributes individually with the text boxes at the top of the Attributes Table dialog box.

Equation 9: -1: Attributes Table dialog box
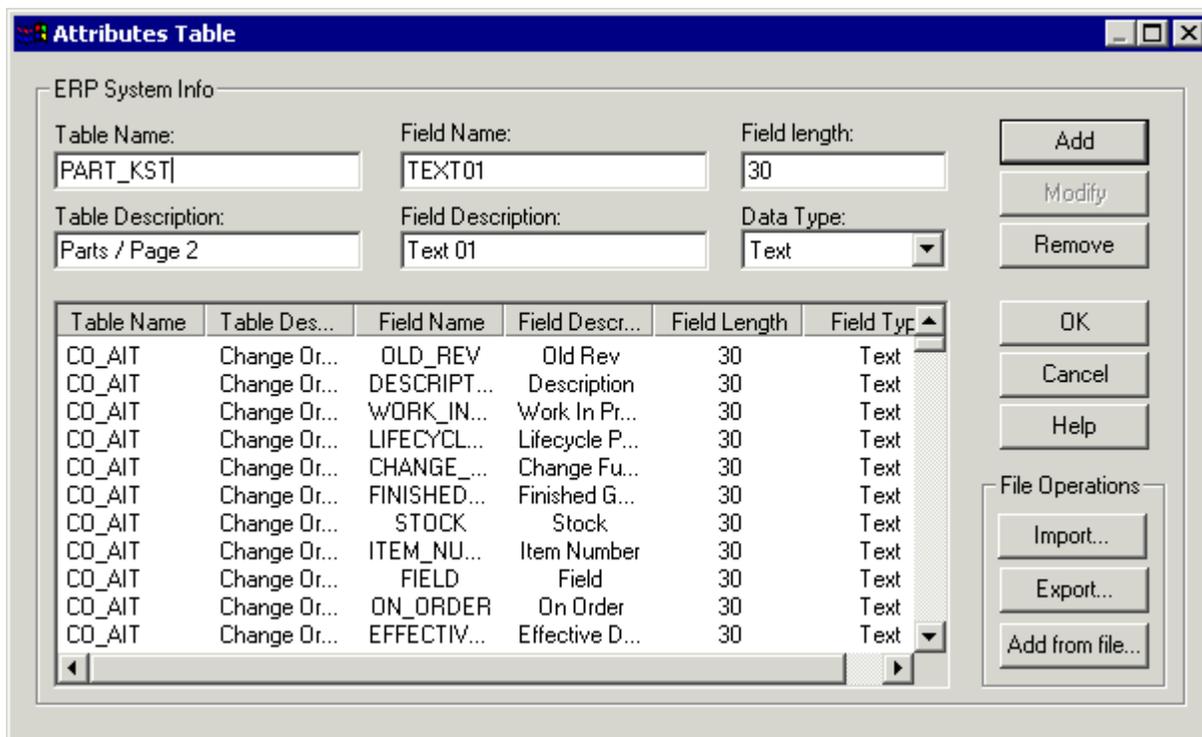
Attribute Text Boxes

The following fields appear for the row you select in the table at the bottom of the dialog box.

Field	Description
Table Name	Name of the target system table containing the target system field that may be targeted to receive data.
Table Description	Descriptive text used to define the target system Table name.
Field Name	Name of the target field in the target system table.
Field Description	Descriptive text used to define the field name.
Field Length	The maximum length (characters) allowed for data sent to the target system field.
Field Type	The type of data: numeric, date, or text.

The Attributes Table

The Attributes table, in the lower part of the dialog box, contains target system table names, table descriptions, field names, field descriptions, and field lengths for the loaded target system attributes.

The Attributes table must exist before you can map Agile fields to the target system. After loading or directly defining these target attributes, you can use the Field Mappings dialog box to configure the actual Agile-to-target system field mappings.

You can load attributes from an exported ChangeCAST attribute file (*.aga).

Attributes Table Dialog Box Buttons

The following buttons act on the Attributes table:

Button	Action
Add	Adds the data in the attribute text boxes to the Attributes table as a new row.
Modify	Replaces the selected row with edited data from the attribute text boxes.
Remove	Deletes the selected row.
Import	Replaces all existing attributes with the contents of the selected attribute file (*.aga).
Export	Saves the current Attribute table rows as an attribute file (*.aga).
Add from file	Adds attributes in the selected attribute file (*.aga) to the list of existing attributes.

Adding Individual Attributes

To create an attribute directly in the Attributes Table dialog box:

1. Enter attribute data in the text boxes.

2. Click **Add** to add the new attribute to Attributes table.

Note	The **Add** button is available only if the table name/field name combination you enter is different from all others in the Attributes table. You can add attributes, if you change the table name or field name. You can modify the attribute, if you change the table description or field description.

Modifying Attributes

To modify an existing attribute in the Attributes Table dialog box:

1. Select an attribute in the Attributes table.

    Its fields appear in the text boxes at the top of the Attributes Table dialog box.

2. Edit attribute data in the text boxes.

3. Click **Modify** to enter changes in the Attributes table.

Note	You cannot modify an attribute's target system table or attribute name if a mapping is currently using the attribute. You can modify the descriptions and field length.

Removing Attributes

To remove an attribute in the Attributes Table dialog box:

1. Select an attribute in the Attributes table.

2. Click **Remove** to delete attribute from the table.

Note You cannot remove an attribute if a mapping is currently using it.

Appending Attributes from a File

To append attributes from an attribute file to the bottom of the current Attributes table in the Attributes Table dialog box:

1. Click **Add from file** in the Attributes Table dialog box.

2. Select the attribute file (*.aga) that contains the attributes you want to add.

3. Click **Open**.

   The attributes in the selected file appear following those in the current table.

Importing Attributes

To select a new attribute file (*.aga) and replace all **existing attributes in the Attributes Table dialog box:**

1. Click **Import** in Attributes Table dialog box.

2. Choose an attribute file to import and click **Open**.

Note When you import an attribute file and replace all existing attributes, you also reset and remove *all existing mappings* for the profile.

Exporting Attributes

You can export all of the attributes in the current Attributes table to an .aga text file.

It is not necessary to export attributes, since the attribute information contained in the table is included in the current profile. However, you can use export .aga files for reference, and request your Agile Support representative to help with troubleshooting. You can copy these files to other Agile servers and use them as source files for importing ChangeCAST attribute sets.

To export attributes in the Attributes Table dialog box:

1. Click **Export**.

2. Specify the name and location of the ChangeCAST attribute file (*.aga).

3. Click **Save**.

Verifying Attributes

After you load or enter field attributes, you can verify if all necessary target system fields are included in the Attributes table and if their entry is correct.

To verify attribute definitions, print and review an Attributes report.

When the attribute data is complete, you can map Agile fields to the target system fields.

Specifying and Verifying Agile-to-Target System Field Mappings

ChangeCAST profiles contain mappings of fields in your Agile database to corresponding fields in a target system. ChangeCAST uses these mappings when it creates files that transfer information from an Agile database to a target system database.

Guidelines for Mapping Fields

To create, modify, and verify field mappings in ChangeCAST, follow these basic steps:

1. Before you begin to map Agile database fields to fields in the target system, it is a good idea to complete the following tasks:

    *   Produce a report of Agile data tables and fields. For more details, see Producing an Agile Tables Report on page 34.

    *   Complete entry target system attribute for each profile. For more details, see Defining Target System Attributes on page 22.

    *   Produce an Attributes report for each profile. For more details, see Profile Reports on page 34.

    *   Open the ChangeCAST Field Mappings dialog box and use it to map Agile fields to equivalent target system fields.

2. Produce a Mappings report and use it to verify the mappings. For more details, see Managing Mapped Fields on page 33.

3. Modify any incorrect mappings in ChangeCAST and produce additional Mappings reports until the mappings are complete.

    Note   If you are using profiles created by someone else, perform steps 2 and 3 to verify that the mappings are complete and correct.

    Important   Invalid characters within a target system table or target system field name will be replaced by the underscore character (_) unless you substitute the invalid character with a valid one. The invalid characters are a left parentheses (( ), a right parentheses ( )), an asterisk (*), and a period (.).

Mapping Manufacturer or AML Fields

The following considerations apply if you are mapping fields from Agile Parts:

▫ You must be sure the fields are set to Visible in Agile Administrator, in the **Manufacturer** or **Manufacturer Part** | **Attributes** node, and in the **Parts Class** | **Attributes** | **Manufacturer** node.

▫ Map all Agile Manufacturer fields to a single target system table, separate from other BOM item data.

▫ You cannot map the multilist fields of Manufacturers *and* Manufacturer Parts (see Appendix C of the *Agile ChangeCAST Developer Guide*).

▫ You cannot mix Pending changes in a single table with AML, and you cannot include BOM fields in the same table when you map AML fields.

Note You cannot map fields in the **Page Three** tab (an optional tab that your administrator may have set up). Ensure all fields that you must transfer are on **Page Two** or on other tabs, where you can map them.

The Field Mappings Dialog Box

You use the Field Mappings dialog box to create ChangeCAST field mappings.

To display the Field Mappings dialog box:

1. Select a profile in the ChangeCAST window.

2. Choose **Mapping** | **Edit Mappings**, or click **Edit Mapping** on the ChangeCAST toolbar.

   (You can also choose **Profile** | **Add** to display the Add Profile dialog box, then click the **Field Mappings** button in the Add Profile dialog box.)

The Field Mappings dialog box contains:

Tree or Table	Description
Agile Fields tree	Appears in the upper left portion of the dialog box and lists available Agile data tables and fields, grouped by table names. An Agile field can be used in multiple mappings. The field's ID number is shown in parentheses. (The ID is what is used for the actual mapping by ChangeCAST.)
Target System Fields tree	Appears in the upper right portion of the dialog box and lists all of the target system tables/fields configured in the Attributes Table dialog box. This tree hierarchy is grouped by table names in the target system. A target system field may be mapped only once. An asterisk in parentheses following a target system table name indicates that the target system table has attributes that are mapped to a field of an Agile table. An asterisk following a target system attribute indicates that the attribute is mapped to a field that belongs to an Agile table (for example, a BOM table).
Mapped Fields table	Appears in the lower portion of the dialog box; lists each target system field and what is mapped to it, displayed as a row in the table. Row order determines processing order, top to bottom.

Mapped Fields Table Columns

The Mapped Fields table contains these columns:

▫ The **No.** column, the leftmost column in the table, numbers each mapping. Each mapping occupies one row. The processing is from top to bottom, and the number in the **No.** column signifies the order.

▫ The **Target System Attribute** column contains the target table and field. Individual target system fields group by target system table name in the Mapped Fields table. The order of the entries in the Mapped Fields table is a direct reflection of the resulting transfer file.

> **Note** Mapping order is critical to the successful loading of data into the target system. For details, see Reordering Mapped Fields on page 33.

▫ The **Agile Attribute** column contains the Agile field and/or Map Condition expression defining the value to be transmitted.

Field Mappings Dialog Box Buttons

The **Import** button lets you import mappings from .MAP files (text files), replacing all existing mappings. The **Add** button lets you add mappings from a mapping file. For details, see Importing or Adding Field Mappings on page 31. The buttons to the right side of the Mapped Fields table apply to the selected mapping.

Button	Action
Unmap	Removes the selected mapping from the table.
Move Up	Moves the selected mapping up in the list within the appropriate table.
Move Down	Moves the selected mapping down in the list within the appropriate table.
Edit Mapping	Displays the Map Condition dialog box for the selected mapping. If no condition is configured, you can create a condition. If a condition already exists, you can edit the existing condition.
Reorder Tables	Displays a dialog box where you can specify the output order of the mapped tables.

> **Note** **Unmap** removes the selected mapping row. There is no undo for this action! If you remove a mapping and want to retrieve it, recreate it with the mapping tools at the top of the dialog box, or click **Cancel** to close the Field Mapping dialog box and lose any modifications that you have made.

Creating Field Mappings

To map an Agile field to a target system field:

1. Expand the source Agile Fields tree, and select the source Agile field.

2. Expand Target Fields tree, and select the target system field.

3. Click the **Map** button.

The mapping appears in the Mapped Fields table.

Mapping to Null

If you want to map a target system field to pass to the system NULL character, map the field to NULL. This often conveys a default setting.

To map a target system field to null:

1. Expand Target Fields tree, and select the target system field.

2. Click the **Map To Null** button.

When you map a field to null, the field lists in the Mapped Fields table. SYS_NULL appears in the **Expression** column in the Mapped Fields table as a placeholder for an Agile field or mapping condition.

Mapping to System Variables

The **Map Special** button lets you map target system fields to system variables, or system flags, such as SYS_ACD. This button is not available if you map the selected target system field.

See, the *Agile ChangeCAST Developer Guide* for information about system variables.

To map a target system field to a system variable:

1. Expand Target System Fields tree, and select the target system field.

2. Click **Map Special**.

3. In the **System Flags** list, select the flag to which you want to map the target system field.

4. Click **Map**.

   If there is only one system flag and the table has not been set as a "BOM table" or as an "AML table," the Agile Table Type dialog box appears so that you can assign an Agile table to the target system table that contains the target system field.

5. Select an Agile table from the list. Instead of setting up a simple mapping or mapping to null, you can specify a set of conditions to control a field's mapping.

Specifying a Map Condition

Map conditions are formulas that can examine and manipulate Agile field data and, based on the results, either use the data or change the data sent from the Agile field mapped in the Field Mappings dialog box.

ChangeCAST macro functions construct Map conditions as explained in *Agile ChangeCAST Developer Guide*, and in Online Help. To view macro information in Online Help, choose **Help** from the ChangeCAST menu bar. Then, choose **Help Contents** to display the Table of Contents for online Help, and choose **Macro Reference** from the list of Contents topics.

To specify a map condition for a new mapping:

1. Expand Target System Fields tree and select the target system field.

2. Click the **Map Condition** button.

The Map Condition dialog box appears. You can enter a formula for manipulating data, which will be sent from the mapped field.

For example, the formula =**IF(ISBLANK([Parts.General Items Attributes.Rev:1014]),"Invalid","Valid")** returns Invalid if no revision has been supplied. You can also change the form of the transmitted data using functions. For more information, see The Map Condition Dialog Box on page 30.

3. When you close the Map Condition dialog box, the mapping appears in the Mapped Fields table.

To edit a map condition for any existing mapping, double-click the mapping row in the table or select the mapping row and click the **Edit Mapping** button.

The Map Condition Dialog Box

Equation 10: -3: Map Condition dialog box
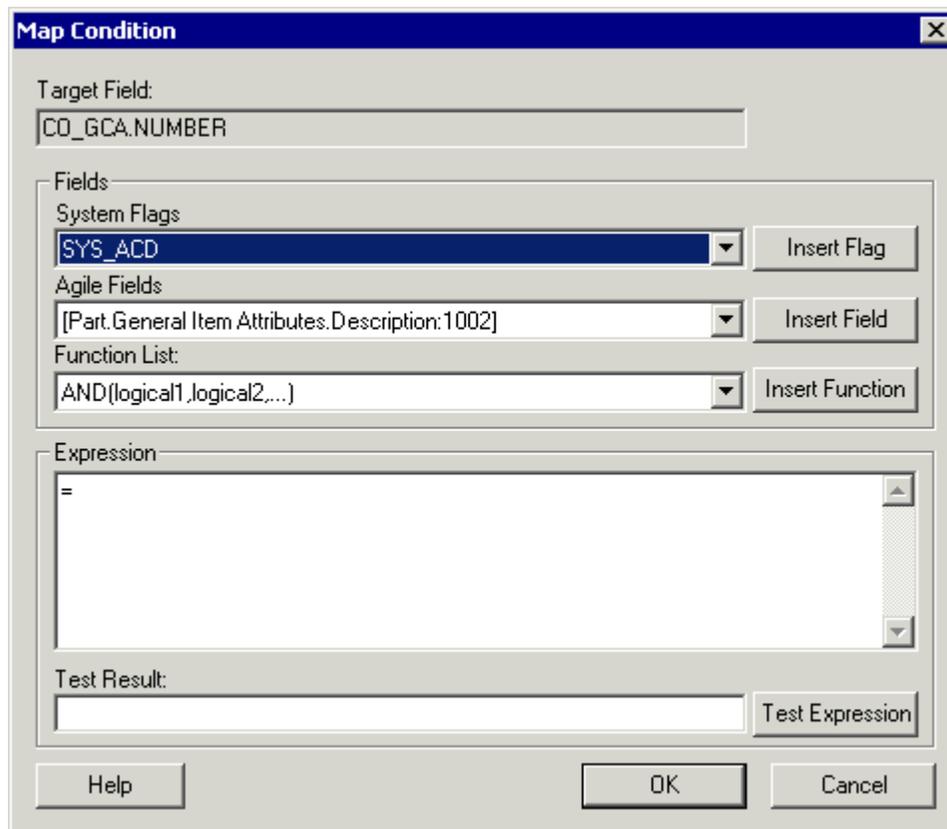
The Map Condition dialog box includes these boxes, lists, and buttons:

Name	Action
Target Field	Displays the name of the target system table/field to which this condition will apply.

Name	Action
System Flags list	Lets you select a system flag for use in the condition formula (refer to Agile ChangeCAST Macro Reference Help topics for explanations of the system variables).
Insert Flag button	Inserts the selected system flag, or variable, into the **Expression** field.
Agile Fields list	Allows you to select an available Agile source field.
Insert Field button	Inserts the selected field name into the **Expression** field.
Function List	Allows you to select macro functions for use in the condition formula (refer to Agile ChangeCAST Macro Reference Help topics for explanations of the functions and their syntax).
Insert Function button	Inserts the selected function (and placeholders) into the Expression field at the cursor location.
Expression field	Used to construct the condition formula that will be used to calculate the value for the target field; contains the fields and functions that you insert with the **Insert Flag**, **Insert Field**, and **Insert Function** buttons, including constants and system variables.
Test Expression button	Checks the syntax of the statement in the **Expression** field and generates a sample of the value returned by the condition formula.
Test Result field	Contains the result of running the test.

Editing Condition Formulas

You can edit the formula in the **Expression** field by inserting fields and functions at the cursor location. You can also cut (Ctrl+X), copy (Ctrl+C), and paste (Ctrl+V) selected text or type it directly.

Conditions are verified when the profile is enabled, when you click **OK**, or you click the **Test Expression** button in the Map Condition dialog box. When you are done with all mappings, you can click the **Audit** button in the ChangeCAST toolbar to test for syntax errors. See Toolbar for an illustration of the **Audit** button. For details, see The Error Log on page 44.

For more information about conditional field mappings, click **Help** in the Map Condition dialog box or choose **Help | Contents** from the ChangeCAST menu bar, then choose **Macro Reference** on the Help **Contents** tab. *The Agile ChangeCAST Developer Guide* contains examples to help you set up and debug conditions.

Importing or Adding Field Mappings

You can import and add field mappings from mapping (.MAP) files generated with ChangeCAST 8.1 or later systems.

Sample .MAP file

Equation 11: -4: Sample .MAP file

The **Import** button imports field mappings, *replacing* all existing mappings. The **Add** button imports field mappings, *adding* the imported mappings to the existing mappings.

To import field mappings in the Field Mappings dialog box, replacing any existing mappings:

1. Click the **Import** button. ChangeCAST warns you that it will replace existing mappings.

2. Click **Yes** to continue with the operation. The Open dialog box appears.

3. Locate the .map file you want to import and click **Open**.

The mappings appear in the Mapped Fields table.

To add field mappings in the Field Mappings dialog box:

1. Click the **Add** button. The Open dialog box appears.

2. Locate the .map file that contains the mappings you want to add, and click **Open**.

The mappings appear in the Mapped Fields table after any existing mappings.

Note	If there are conflicts (for example, one target system field is mapped to more than one Agile field), an error message appears, an entry is written in the Error log, and the offending fields are mapped to the SYS_NULL system variable. See Appendix A of the *Agile ChangeCAST Developer Guide* for more on the available macro functions and system variables.

Managing Mapped Fields

The Mapped Fields table, in the lower portion of the Field Mappings dialog box, lists existing Agile-to-target system field mappings.

If you select a mapping row in the table, you can use the buttons on the right side of the Mapped Fields table to manipulate the mapping. For a description of the buttons, see Field Mappings Dialog Box Buttons on page 28, http://www..

Exporting Field Mappings

You can export field mappings to use with other ChangeCAST profiles.

To export field mappings:

1. In the ChangeCAST window, select a profile that contains the mappings that you want to export.

2. Choose **Mapping | Edit Mappings**.

3. Click the **Export** button. The **Save As** dialog box opens.

4. Specify a filename and location for the mapping file. The file will have a .MAP extension.

5. Click the **Save** button.

The new mapping file is saved. You can now import it into other ChangeCAST profiles.

Reordering Mapped Fields

Mapped fields are processed and output from top to bottom, according to their row position appears in the Mapped Fields table on the Field Mappings dialog box. You can group fields by their target system table name.

To adjust the processing order of mapped fields at the table level:

1. Click the **Reorder Tables** button on the Field Mappings dialog box.

2. Select a table and click **Move Up** or **Move Down** to change the position of the table.

3. When you are done, click **OK**.

To reorder field mappings directly:

1. Select the mapping in the Mapped Fields table.

2. Use the **Move Up** or **Move Down** buttons to change the position of the field within the same table list.

3. When you are done, click **OK**.

Producing ChangeCAST Reports

ChangeCAST Profile reports can help you verify attribute definitions, mappings, and other profile settings. The Agile Tables report lists Agile tables and fields, so you can match them with

appropriate fields in target system tables.

Profile Reports

You can produce several kinds of reports for the profile currently selected in the ChangeCAST window or for all profiles in the profile library.

To produce a ChangeCAST Profile report:

1. Open the **Reports** menu.

2. Choose **Current Profile** to prepare a report for the selected profile, or choose **All Profiles** to prepare a report for all profiles in the library.

3. Choose the type of report:

   - **Attributes** to list current target system field attributes
   - **Mappings** to list current Agile-to-target system field mappings
   - **Settings** to list current transfer file format settings
   - **Transfer Options** to list target destination and communication settings

   A Save As dialog box appears and prompts you to save the report as a text file with extension .txt.

4. Specify a destination for the report, and enter a name.

5. Click **Save** to save the report to the specified destination and display its contents in Windows Notepad.

Producing an Agile Tables Report

You can produce a list of Agile data tables and their fields to help you map Agile data fields to fields in the target system database.

To produce an Agile Tables report:

1. Choose **Reports** | **Agile Tables**.

   A Save As dialog box appears and prompts you to save the report as a text file with extension .txt.

2. Specify a destination for the report, and accept the default name or enter a different name.

3. Click **Save** to save the report to the specified destination and display its contents in Windows Notepad.

Printing ChangeCAST Reports

To print a ChangeCAST report saved as a text file, open it in Notepad, WordPad, or another text editor or word processor outside of ChangeCAST and print it from there. Then you can use the report to help you change or verify ChangeCAST settings.

Formatting and Transferring Data Files

This chapter includes the following:

The following sections introduce ChangeCAST transfer files and describe how to specify the source, destination, and polling schedule for transfer files.

Formatting ChangeCAST Transfer Files

Transfer files are ASCII text files that relay information from Agile to a target system. Their default extension is .agl. They can have many format variations, depending on what the application adapter requires to verify and load information into the target system database.

Note   This information is only an overview. Unless you are involved in creating transfer files to suit specific application adapters, you *should not* change any transfer file format settings. Incorrect settings can result in transfer files that are not readable by the target system.

To set the format of ChangeCAST transfer files:

1. Select a profile in the Profile Library table in the upper half of the ChangeCAST window.

2. Choose a command from the **Format** menu, depending on the type of settings you want to review or modify:

    - **File Structure** — Basic elements of the file structure, such as data/layout sections and orientation (horizontal or vertical)

    - **Delimiters** — Whether fields are delimited or fixed length, and which characters to use as delimiters

    - **Data Format** — Format options for reference designators, time and date formats, text data conversions

    - **BOM/AML Settings** — Options for how BOM rows are output

3. In the File Format dialog box, change appropriate settings and apply them.

4. Produce and print a Settings report so you can verify the settings and change them if necessary. See Profile Reports on page 34.

For specific information, see the ChangeCAST online Help and the *Agile ChangeCAST Developer Guide*.

Reviewing and Modifying Transfer Settings

You can use the ChangeCAST **Transfer** menu and Transfer Options dialog box to review and change a number of settings related to data transfer:

□ **Protocol** — How transfer files are transferred (FTP or local copy) with appropriate destination settings

□ **Notification** — Whom to notify through e-mail in case of transfer problems

□ **Schedule** — When and how often to poll for change order releases and perform transfers

□ **Files** — Transfer file naming conventions and other transfer file details

□ **Application Adapter** — Starts a local application adapter (not available if files are FTP'd to another location).

□ **ChangeCAST Monitor** — Restarts data transfer automatically if the ChangeCAST service crashes during transfer of large volume of data

Note	You are most likely to change the Protocol, Notification, and Schedule settings. Only those who are closely involved in implementing ChangeCAST and related application adapters should need to change the Files and Application Adapter settings; as with Format settings, incorrect Files and Application Adapters settings can result in serious transfer problems.

The following sections describe how to review Protocol, Notification, and Schedule settings and change them if necessary. For details on Files and Application Adapter settings, see ChangeCAST Online Help and the *Agile ChangeCAST Developer Guide*.

Configuring ChangeCAST Monitor

The ChangeCAST Monitor tool restarts the ChangeCAST service automatically if it crashes during large volume data transfer. The monitor restarts automatically when:

□ **The total count of the change orders transferred exceeds 500**: The recommended value of changes that you can transfer per session is 200.

□ **The memory size of ChangeCAST process exceeds 1000MB**: If the ChangeCAST memory usage is higher than the upper limit that is set (1000MB). You can specify the upper limit within the CC Monitor window.

□ **ChangeCAST loses connection with the Agile server.**

Note	If the ChangeCAST detects that the network connection is not available or that the Agile Application Server cannot be reached, it will display an error message. Once a user clears the error message, ChangeCAST Monitor will automatically restart ChangeCAST to try and connect to the Agile Application Server again. ChangeCAST cannot automatically restart until a user clears the error message and the Agile Application Server is available.

To launch and run ChangeCAST monitor:

▫ Go to **Start > Agile > 9.2.2.7 > ChangeCAST** Monitor or click the ChangeCAST Monitor shortcut on your Desktop.

▫ Enter the following details in the blank fields.

  • **User**: "administrator". The username with which you log in to Agile server.

  • **Password**: "Agile". The password you use to log in to Agile server.

  • **Memory Size:** The maximum memory usage or VM size of the ChangeCAST process (between 200~1000MB). The recommended value is 700MB.

  • **No. of Changes:** The number of changes transferred in one ChangeCAST session (between 5~500). The recommended value is 200.

▫ Click **Save** to save the details.

▫ Click **Refresh** to check the Agile ChangeCAST service status.

▫ Click Start to enable the CC Monitor.

▫ Click **Stop** to disable the CC Monitor.

The Monitor Log logs in all the actions performed and saves it in the CC Monitor.log file within the same folder.

Note   You can only uninstall the CC Monitor manually.

Reviewing and Editing Protocol Settings

You can use the **Protocol** tab of the Transfer Options dialog box to configure file transfer protocol options, including whether to use FTP (File Transfer Protocol) and various FTP options.

If you check the **Use FTP** check box, the numbered files in the outgoing directory transmits in numerical order to the FTP target path specified on the **Protocol** tab.

▫ If the FTP process is successful, the file transfers but a copy remains in the outgoing directory.

▫ If the FTP process is not successful, an email indicating that there was an error is sent to the addresses listed on the **Notification** tab, and the profile status becomes Disabled. The file is not transferred. If the profile is re-enabled, the next time a transfer occurs, either on schedule or with the **Transfer Now** button or command, a new file is generated and transferred.

To display the Protocol tab, do one of the following:

▫ Select a profile in the ChangeCAST window and choose **Protocol** from the **Transfer** menu.

▫ Use the **Transfer Options** toolbar button.

ChangeCAST Protocol settings

Equation 12: -1: ChangeCAST Protocol settings
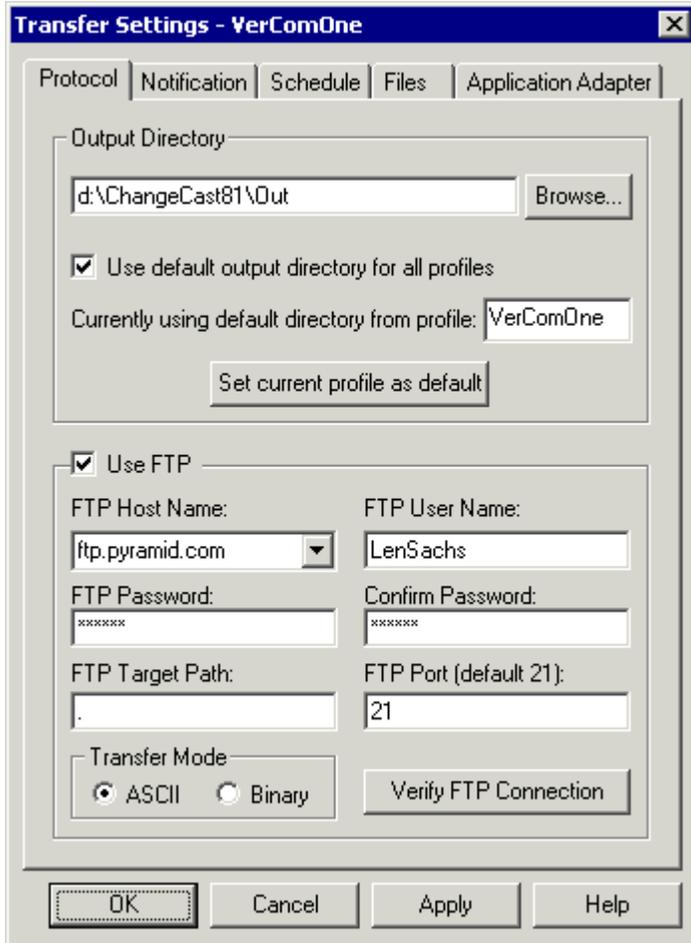
You can review the Protocol settings listed in the above table and change them if necessary.

| Important | Specify the FTP transfer target path as a relative path. Drive letters or literal paths are *not* accepted. |

Protocol options

Setting	Action
Output Directory	The local directory in which all transfer files are created and archived (whether using FTP or not) for this profile.
Use Default Output Directory For All Profiles	When checked, applies the same Output Directory information to all profiles; if not checked, settings apply only to the currently selected profile.

Setting	Action
Currently Using Default Directory From Profile	The name of the profile that is currently using this default directory. Available only if **Use Default Output Directory For All Profiles** is checked.
Set current profile as default	Sets the output directory of the currently selected profile as the default for all profiles. Available only if **Use Default Output Directory For All Profiles** is checked.
Use FTP	When checked, transfers data using FTP.
FTP Host Name	The IP address or DNS NAME (host alias) of the host system.
FTP User Name	Your FTP host login name.
FTP Password	Your FTP host password.
Confirm Password	A second entry of what you typed for **FTP Password**; the password entered must be exactly the same as the one entered previously, both the spelling and case.
FTP Target Path	The destination directory where files can be accessed by the application adapter for the host target system (if UNIX host, must use "/" as appears on target server). You can enter a dot (.) to specify the current path. **Important:** The FTP transfer target path must be specified as a relative path. Drive letters or literal paths are *not* accepted.
FTP Port	The host system FTP port (Port 21 is the default).
Transfer Mode	The FTP transfer mode, either Binary or ASCII; use the default, ASCII.
Verify FTP Connection	Tests the FTP parameters you entered by relaying a dummy file to the target then deleting it; if there are any problems contacting the FTP Host, an error message appears.

Reviewing and Editing Notification Settings

You can use the **Notification** tab of the Transfer Options dialog box to set up a list of users to notify by e-mail in case of processing or transfer errors. ChangeCAST does not detect failures of application adapters to process a transfer file once you deliver it. Notification can be different for each profile and you need to define it for each profile.

To display the Notification tab, do one of the following:

▫ Select a profile in the ChangeCAST window and choose **Notification** from the **Transfer** menu.

▫ Use the **Transfer Options** toolbar button.

You can review the following Notification settings and change them if necessary:

List	Action
All Users	Lists eligible users, obtain list from Agile Administrator; restart ChangeCAST to update the list.

List	Action
Users To Notify	Users selected to receive an email in the event of an error; if none are listed, no one is notified.

ChangeCAST Notification settings

Equation 13: -2: ChangeCAST Notification settings
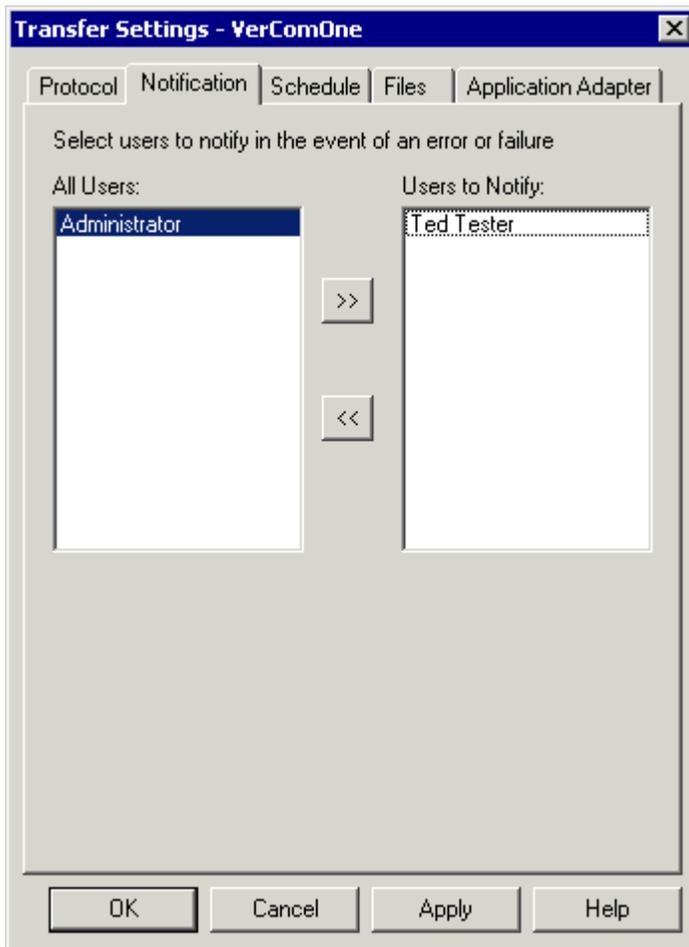
You can:

▫ Use >> to move the selected user from the **All Users** list to the **Users To Notify** list.

▫ Use << to remove the selected user from the **User To Notify** list and add it back to the **All Users** list.

▫ Use **Shift**+click or **Ctrl**+click to select more than one user.

Note If you add Users to Agile Administrator while ChangeCAST is running, on restarting ChangeCAST you discover new users.

Reviewing and Editing Schedule Settings

You can use the **Schedule** tab of the Transfer Options dialog box to specify how often to poll the Agile database and transfer released change orders.

To display the Schedule tab, do one of the following:

▫   Select a profile in the ChangeCAST window and choose **Schedule** from the **Transfer** menu.

▫   Use the **Transfer Options** toolbar button.

Equation 14: -3: ChangeCAST Schedule settings
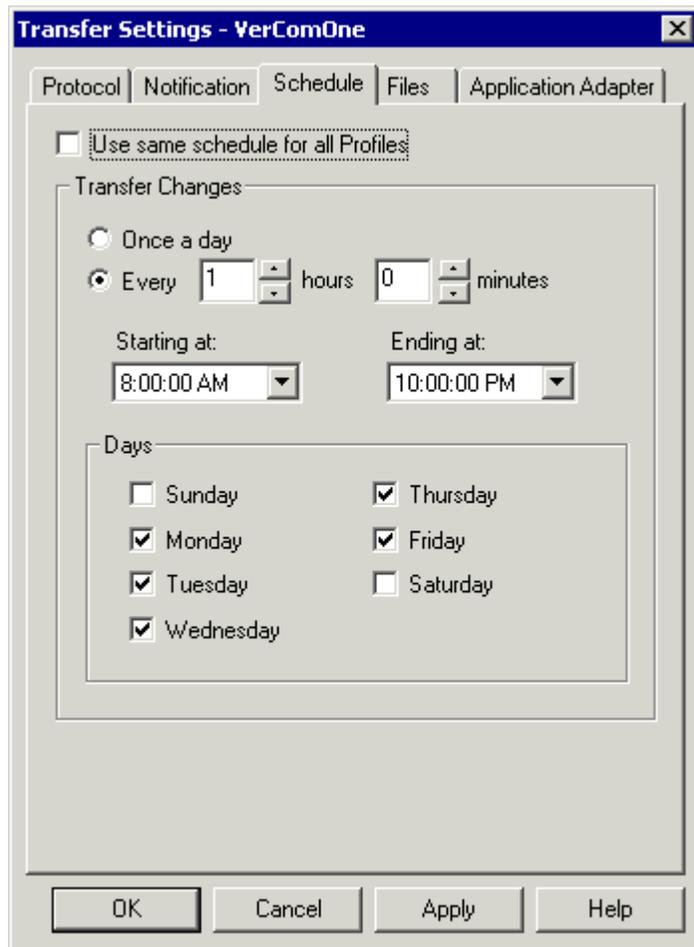
You can review the following Schedule settings and change them if necessary:

Setting	Action
Use Same Schedule For All Profiles	If checked, uses the same schedule for all profiles; if not checked, the current Schedule settings apply only to the selected profile.

Setting	Action
Once A Day	Automatically runs the transfer once a day at the designated start time. The default is once a day.
Every x Hours y Minutes	The default; specifies the time interval between transfers, calculated from the Starting At time: ▫ If previous transfer processing is not finished, the next transfer does not begin until the next scheduled time arrives. ▫ The minimum time is 0 hours, 5 minutes; the maximum time for each field is 11 hours and 59 minutes. ▫ The default is 1 hour, 0 minutes.
Starting At	Specifies an absolute time to start checking for released change orders: ▫ This option must be set. ▫ The default starting time is 8:00 AM.
Ending At	Specifies an absolute time to stop checking for released change orders, for example, to stop the schedule for regular backups or maintenance: ▫ The default time is 5:00 PM.
Days	Specifies the days to process change orders according to the hourly schedule; Monday through Friday are selected by default.

The ChangeCAST Service uses the Starting At and Ending At times to determine whether to process change orders:

▫ If you click the **Resume** button, and the current time is between the End and Start times (down time), no change orders will be processed until the Start time is reached.

▫ If you click the **Pause** button, then Agile ChangeCAST Service is stopped regardless of the schedule until it is started (Resumed).

▫ For multiple profiles processing, processing proceeds profile by profile.

Note   You can use the **Transfer Now** command to override schedule settings and force ChangeCAST to poll for change orders. For details, see

---

Enabling and Disabling Profiles

By default, new profiles are disabled. You can enable it, when you create, import and verify all settings of a profile.

To enable a profile:

1. Select a profile from the Profile Library table in the upper part of the ChangeCAST window.

2. Click the **Enable** button. The Transfer ECOs dialog box appears.

3. Choose **Transfer ECOs released prior to profile change(s)** to transfer all change orders with transfer

---

flags set to Not Transferred. Choose **Transfer ECOs from this point forward** to ignore all change orders released before the profile was enabled.

4. Click **OK**.

   If settings are valid, the profile is **Enabled**. Otherwise, an error message appears, an entry is made to the Error log, and the profile remains **Disabled.**

5. To disable a profile, select a profile and click **Disable**.

Note   If an FTP transfer fails, ChangeCAST automatically disables the profile and sends an email notification to all users listed in the Notification dialog box. You can check The Transfer Log on page 44 for details, fix the error, and enable the profile again.

Starting and Stopping ChangeCAST

When ChangeCAST has been properly configured, you can click **Resume** to start it.

Note   For information about launching ChangeCAST and opening the ChangeCAST window, see Starting ChangeCAST on page 10.

After you start ChangeCAST, it runs as a service. It polls the Agile database for newly released change orders or MCOs at the scheduled polling interval.

You can minimize the ChangeCAST window by clicking the **Minimize** button in the upper right corner of the window. To restore it to its original size, click the ChangeCAST icon in the Windows system tray.

If ChangeCAST finds a released change order or MCO, it does the following:

□ Uses all enabled profiles to create ASCII transfer files that describe the change order.

□ Relays the transfer files to a specified location - either a local drive or, using FTP, to a host target system. At this point, a target system-specific application adapter can load the information into the target system tables.

To stop ChangeCAST polling, click the **Pause** button. Polling for released change orders or MCOs stops and does not begin again until you click the **Resume** button.

Viewing and Printing Log Files

As ChangeCAST runs, its activities register in log files, so you can check a variety of information about how ChangeCAST is working:

□ TransferLog.txt, the Transfer log, documents the generation of transfer files plus transfer attempts and successes.

□ ErrorLog.txt, the Error log, documents condition syntax errors, and other error conditions that do not relate to transfer files or transfer attempts.

The log files appear in Windows Notepad. You can search and perform other activities available through the Notepad menus.

To print a log file:

1. Choose **Start | Programs | Accessories |** Notepad (or WordPad) to open a text editor.

2. Open a ChangeCAST log file (*.log) from the directory where ChangeCAST is installed (by default, c:\Agile\Agile 9.2.2.7\ChangeCAST).

3. Choose **File | Print** to print the file.

Note   When you open a log file outside of ChangeCAST, you can print it as usual, but text editors are not able to print when ChangeCAST launches them automatically.

The Transfer Log

The ChangeCAST Transfer log file (TransferLog.txt) shows if files have been sent to the specified destination and if their transfer was successful. The Transfer log accumulates information; when you open it, you see everything that occurred since you installed ChangeCAST or since a ChangeCAST user cleared the Transfer Log (with **View | Clear Transfer Log**). The last few lines of the Transfer log for the selected profile appears in the Transfer Log table of the ChangeCAST window.

To view the Transfer log, do one of the following:

□   Click the **View Log** toolbar button.

□   Click **View Log** in the ChangeCAST window.

□   Choose **Transfer Log** from the **View** menu.

To delete existing information in the Transfer log

□   Choose **Clear Transfer Log** from the **View** menu. The system prompts you to archive the log.

□   If you choose **Yes,** the Save As dialog appears, allowing you to save the current log, clearing the existing log.

□   If you select **Cancel**, the system clears the existing log without archiving it.

Note   If you clear the log without archiving it, the information is not recoverable. It is good practice to save archives and name them with the date of the archive as a backup procedure.

The Error Log

The ChangeCAST error log (ErrorLog.txt) lists errors resulting from audits that do not relate to file transfers. For example, it includes syntax expression errors in mapping conditions.

The Error log contains a date/time stamp followed by a narrative description of the error.

To view the Error log:

□   Choose **Error Log** from the **View** menu.

To delete existing information from the Error log:

▫ Choose **Clear Error Log** from the **View** menu. The system prompts you to archive the log.

▫ If you choose **Yes,** the Save As dialog appears, allowing you to save the current log, clearing the existing log.

▫ If you select **Cancel**, the system clears the existing log without archiving it.

Note If you clear the log without archiving it, the information is not recoverable. It is a good practice to save archives and name them with the date of the archive as a backup procedure.

Retransferring Change Orders

By default, ChangeCAST transfers data from all released change orders or MCOs, along with their Affected Items, AMLs, and BOMs, to a target system. Once you transfer data from a change order, the change order's transfer flag is set to "Transferred" to notify ChangeCAST to skip the change order the next time it polls the database. You can set the transfer flag manually so ChangeCAST ignores specific change orders, or retransfers specific change orders.

To change a transfer flag setting:

1. Choose **Set Transfer Flags** from the **Transfer** menu.

2. When the Set Transferred Flag dialog box appears, enter a search condition using the fields at the top of the dialog box, and choose **Search**.

3. Select one or more change orders from the list (which includes all change orders with Released or Complete Status Type that match the search condition).

   You can use the **Select All** and **Deselect All** buttons.

4. Select the appropriate Set **Transferred Flag** radio button.

5. Select **Transferred** to stop all selected change orders from being sent to the target system, or select **Not Transferred** to allow selected change orders to be sent to the target system the next time ChangeCAST polls the Agile database.

6. Click **Apply** to use the selected setting.

Forcing Unscheduled Transfers

Usually, you perform transfers according to the schedule defined on the **Schedule** tab. If appropriate, you can force ChangeCAST to look for newly released change orders or MCOs and untransferred change orders and MCOs immediately, without waiting for the next polling time.

To force a transfer:

▫ Choose **Transfer Now** from the **Transfer** menu, or click the **Transfer Now** button in the ChangeCAST window.

This command is available whether the connection state is Paused or Resumed.

Backing Up Files

Once you install ChangeCAST and find that it is operational on your server, there are several files and folders within the ChangeCAST directory that you need to back up regularly. These files and folders contain all transfer histories, error histories, output histories, and target system profiles. If there is a server problem, you will be able to recover them quickly if you have backups.

Folders:

▫ Archive

▫ Queue

Files:

▫ ChangeCAST.agx — contains all available maps of target system profiles

▫ ErrorLog.txt — contains all errors logged by each profile

▫ Service.txt — contains a list of all profile transaction histories

▫ TransferLog.txt — contains the full transfer history for each active profile

ChangeCAST updates each of the files and folders listed above daily and automatically. If a ChangeCAST problem occurs, Agile Support may ask for copies of these files for review. Agile administrators should become familiar with these files and folders and know how to access and read them.

Note If your company backs up the Oracle Database and Agile iFS directories on a daily basis, ensure to include these files.

Suggestions for Troubleshooting

Here are a few guidelines on error recovery and troubleshooting in case a transfer failure or other errors occur.

Error Recovery

If a transfer fails, create a corrected change order and release it in Agile. ChangeCAST will process the new information and send it to the application adapter. If not, all errors in the change order are corrected, and the application adapter will stop again, requiring a second correction, and so on.

Check the Error log, which lists the errors, and the Transfer log, to find out if the transfers were successful. If the application adapter for the target system has a log file, check it as well. For more details on other ways to trace the source of an error, see .

Troubleshooting

Determine the root cause of a change order in a systematic way. You will need to compare old Agile part and BOM configurations with current part and BOM configuration in the target system and the

transfer file. Because each of these components is a key factor in the successful transfer of data from Agile to the target system, consider each one when the processing of a change order fails.

Consider these areas when troubleshooting:

▫ Does the shared data of the prior revision of the part or BOM in Agile look exactly like the current revision of the part or BOM on the target system? Identify all differences and similarities. Identify which system is correct, and make appropriate changes to the incorrect database to ensure that data will be updated with the next attempt.

▫ In Agile, are there effective dates on all affected items? Take corrective action if necessary.

▫ In Agile, are there new revisions on all affected items? Take corrective action if necessary.

▫ In Agile, have you placed all the affected items on the **Affected** Items tab? Take corrective action if necessary.

▫ In Agile, have you filled in all required fields? Take corrective action if necessary. (This may require the Agile administrator to make changes to ensure that this problem does not re-occur.)

▫ Does the transfer file correctly reflect any changes to parts and old versus new BOM configurations? Check the ChangeCAST profile.

▫ Does the transfer file have the correct mapping of data? Check the ChangeCAST profile.

▫ Does ChangeCAST generate the file in the correct format? Check the ChangeCAST profile.

▫ Does the transfer file use correct conversion logic for dates, nulls, CR/LF, and so on? Check the ChangeCAST profile.

▫ Have commands to add, modify, and delete parts or BOMs been disabled, or has access been changed on the host system? See the target system or database administrator.