

# AutoReceive Internal Release Notes

Release 8.1, March 2014

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## Release Summary

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This document describes the updates made to Care360® AutoReceive 8.1. It provides a description of the functional changes that have been implemented since the previous release, AutoReceive 8.0.

A summary of the features and updates for this AutoReceive 8.1 release are listed below. Details on major features and updates are included in the following section, "Functional Changes/Enhancements."

- **Care360 Interactive Notifications installation.** Interactive Notifications is now available to be installed after an AutoReceive upgrade for all customers except those using a Quest Diagnostics® lockdown computer.
- **POCT results.** Uploading point-of-care testing (POCT) results to AutoReceive using an external POCT device (such as HemoCue®) for delivery to Care360 Lab Orders and Results is no longer supported.
- **AutoReceive User QuickStart.** The *AutoReceive User QuickStart* will no longer be updated.

## Functional Changes/Enhancements

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The Care360 AutoReceive 8.1 release includes the following new functionality.

### Care360 Interactive Notifications Installation

Interactive Notifications is now available to be installed after an AutoReceive upgrade for all customers except those using a Quest Diagnostics lockdown computer or those with no internet connection. The Interactive Notifications installation is silent except for the initial prompt requesting the user's permission to proceed; if five minutes elapse without interaction from the user, the prompt closes and the installation proceeds.

Prior to the AutoReceive 8.1 deployment, a file of all AutoReceive user names and corresponding Hub accounts, provider accounts, and providers will be submitted to the Interactive Notifications team. This file will be used in conjunction with the AutoReceive user name to determine the provisioning information necessary for Interactive Notifications.

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**Note:** If accounts are later added to AutoReceive, the Interactive Notifications team must be notified to add the account to the Interactive Notifications Administration application.

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Only one instance of Interactive Notifications can be installed and running on a computer. Thus, if AutoReceive is installed on a server, Interactive Notifications is only available for the same user name under which AutoReceive is installed.



### Interactive Notifications Application

Interactive Notifications resides in the Windows system tray and sends a variety of timely notifications to the desktop. The notifications can include lab results that exceed established priority values, notices of Care360 availability and Interactive Notifications updates, and newsworthy information from Quest Diagnostics. By default, AutoReceive users are configured to receive Quest Diagnostics news notifications as well as notifications of Interactive Notifications updates, and they can provide feedback via the *Feedback* menu item. If desired, users can unsubscribe from the Quest Diagnostics news notification.

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**Note:** AutoReceive users who are also Labs & Meds premium service users can configure their Interactive Notifications subscription preferences to receive notifications of priority lab results. In addition, they can use the client supplies order form available from the Interactive Notifications menu.

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After the installation is complete, the Interactive Notifications icon (  ) appears in the system tray along with the AutoReceive icon (  ). When a notification is sent, the Interactive Notifications icon blinks and a custom popup appears, as in the following example:



Instructions for using Interactive Notifications are available with AutoReceive documentation from the Care360 Resource Center (<http://custcenter.medplus.com/tech-support/emaxxcenter/index.htm>).

## Integration of AutoReceive Upgrade and Interactive Notifications Installation

Below is the basic process that occurs when Interactive Notifications is installed as part of an AutoReceive upgrade. This information is provided for troubleshooting and support purposes.

1. The AutoReceive upgrader does the following:

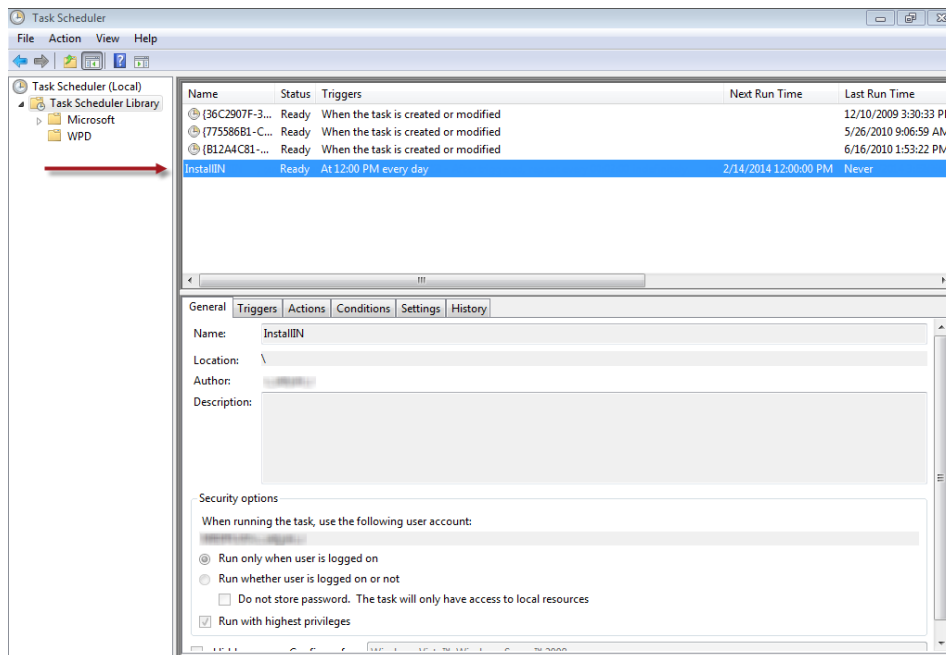
- Writes the Interactive Notifications launch program (CINAR\_installer.exe) to C:\temp.
- Starts AutoReceive 8.1.
- Adds writeINDataFile=true to the app.properties file.

2. AutoReceive 8.1 does the following:

- Checks the app.properties file, and if writeINDataFile=true, creates the in.properties file (for Interactive Notifications provisioning) in the C:\temp directory with the following AutoReceive information, as applicable. proxyuser=  
proxyport=  
proxyserver=  
proxypass=  
username=

The minimum required information is the AutoReceive user name.

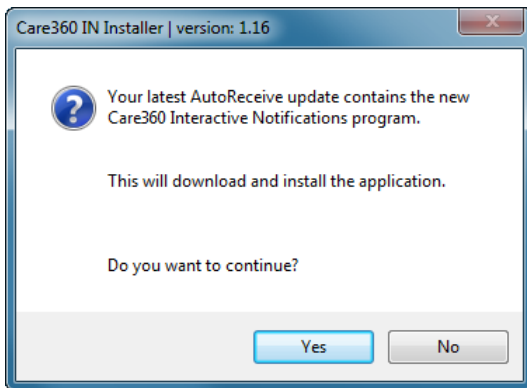
- If the in.properties file was created successfully, removes the writeINDataFile=true property from the app.properties file.
- **Windows XP operating systems:** Adds a shortcut to CINAR\_Installer.exe in the Start folder.
- **Windows 7 and newer operating systems:** Adds the Interactive Notifications installer task (InstallIN) to Windows Task Scheduler.



3. **Windows XP operating systems:** CINAR\_Installer.exe runs when the PC admin user logs in.

**Windows 7 and newer operating systems:** Windows Task Scheduler runs CINAR\_Installer.exe. The InstallIN task is scheduled to run once a day at noon for thirty days until Interactive Notifications is installed. If Interactive Notifications has not been installed after thirty days, this task is removed.

4. CINAR\_Installer.exe requests that the user confirm whether or not the Interactive Notifications installation program should be downloaded and installed.

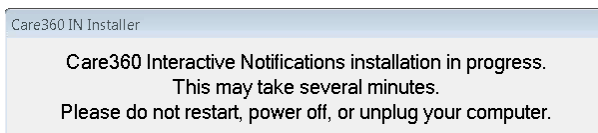


5. One of the following occurs, depending on the response:
- If the user clicks *Yes*, or if no response is received within five minutes, the Interactive Notifications files listed below are downloaded to C:\temp\_cinar, and a silent install of Interactive Notifications begins.
    - CINAR.exe (Interactive Notifications installation program)
    - CINAR.iss (InstallShield® file)
    - CINAR.pdf (Interactive Notifications marketing communication)

In addition, if the target PC does not have full Microsoft .NET 4 framework, CINAR\_Installer.exe accesses the Microsoft web site to start a silent install of the .NET 4 framework.
  - If the user clicks *No*, Interactive Notifications is not installed and the Windows Task Scheduler InstallIN task (or shortcut to CINAR\_Installer.exe in the Windows XP Start folder) is deleted.
6. The Interactive Notifications installer runs silently. During installation, Interactive Notifications reads the values in the in.properties file, submits them to the Interactive Notifications server, receives the activation code, and creates the CINAR.log file in the C:\temp folder.

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**Note:** The following Interactive Notifications progress message appears during the installation:



7. If the installation is successful, Interactive Notifications deletes the Windows Task Scheduler task (or shortcut to CINAR\_Installer.exe in the Windows XP Start folder) and prints the Interactive Notifications marketing communication document (CINAR.pdf). One minute is allowed for the print task to complete. If the print task does not complete, Interactive Notifications does not start automatically. Instead, you will have to start it via the *Start* menu.

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**Note:** The following log files are created to aid with troubleshooting:

C:\temp\CINAR.log (Contains information about the entire process.)  
 C:\temp\_cinar\CINAR.log (Contains information from InstallShield.)

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## POCT Results

Uploading point-of-care testing (POCT) results to AutoReceive using an external POCT device (such as HemoCue) for delivery to Care360 Lab Orders and Results is no longer supported. All references to POCT results have been removed from the documentation. There were no references to POCT results in the AutoReceive user interface, but POCT endpoint entries do remain in the app.properties file, and POCT entries remain in the debug.log file.

## AutoReceive User QuickStart

The *AutoReceive User QuickStart* will no longer be updated. This QuickStart contains core AutoReceive tasks such as starting and stopping in both Classic and Service mode, downloading results manually, etc., all of which are available in the AutoReceive help and *AutoReceive User Manual*, both installed with AutoReceive.

The existing QuickStart is current as of AutoReceive 8.0 except that it does not include user interface navigation specific to Windows 8.0 and 8.1. The QuickStart resides in the Care360 Resource Center (<http://custcenter.medplus.com/tech-support/emaxxcenter/DocIndx/QuickStarts.htm>).

# Product Update History

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This section provides a comprehensive history of previous AutoReceive releases.

## Changes in the AutoReceive 8.0 Release

- **Expanded platform support.** AutoReceive now supports the following operating systems:
  - Windows® 8.1 and Windows 8
  - Windows Server® 2012 R2
  - Windows Small Business Server (SBS) 2011 Standard
- **Windows 2000.** Windows 2000 has been removed from the list of supported operating systems in the AutoReceive documentation. Windows 2000 will be supported for existing clients until their AutoReceive installations can be migrated to a newer platform.
- **Care360 Interactive Notifications.** Interactive Notifications is installed automatically after an AutoReceive upgrade. Interactive Notifications is a service that resides in the Windows system tray and that sends a variety of timely notifications to the desktop.
- **Installer improvements.** The AutoReceive installer has been enhanced to automate tasks that previously had to be done manually.
- **Restart options for AutoReceive user interface.** Several options have been added to support attempts to start the AutoReceive user interface via *Start > All Programs > AutoReceive > AutoReceive* when another instance of AutoReceive is already running. Previously, the only choice was to terminate AutoReceive.
- **Restart option for AutoReceive service.** A new option has been added to the Windows *Start* menu for restarting the AutoReceive service when the AutoReceive icon is no longer available in the Windows notification area.
- **Automatic recovery.** AutoReceive can now automatically recover from system error conditions that can occur in either Classic or Service mode.
- **Retry attempts for result download failures.** Several configurable properties are now available for adjusting the number of times that AutoReceive retries downloading results as well as the amount of time between these retry attempts.
- **Monitoring.** AutoReceive now captures and collects details about the session that was in progress each time it is restarted (user-initiated restart or AutoReceive-initiated restart).
- **Hardware Tracking Report.** A new report is available to aid Quest Diagnostics® in tracking AutoReceive computers.
- **Reorganization of AutoReceive documentation set.** The AutoReceive documentation set has been updated to include an administrator manual (intended for internal use only) and a technical notes document that can be given to clients to inform them of the AutoReceive footprint and to prepare them for AutoReceive installation.

## Changes in the AutoReceive 7.0 Release

- **Expanded platform support.** AutoReceive 7.0 is now supported on computers running Windows 7 and Windows Server 2008. Additionally, AutoReceive can now be used on computers with 64-bit processors.
- **New operating system support.** AutoReceive is now supported on computers running Windows 7 or Windows Server 2008, as well as all other supported versions of Windows. Installation under Windows 7 and Windows Server 2008 is similar to installation under Windows Vista® (all three versions support User Account Control). AutoReceive functionality is identical under all versions of Windows.
- **64-bit processor support.** AutoReceive is now supported on computers with 64-bit processors, provided those computers are running supported versions of Windows. AutoReceive functionality on 64-bit computers is identical to the functionality available on 32-bit machines, although some install directories may change.
- **Expanded service mode support.** AutoReceive 7.0 can be run as a Windows service under Windows Vista. Additionally, service mode is available in all other supported versions of Windows.
  - **Service mode in Windows Vista.** AutoReceive can now run as a service under Windows Vista. Previous versions of AutoReceive could only run as standard applications under Windows Vista. If you previously used AutoReceive as a standard application, then AutoReceive 7.0 will default to this mode after installation. You can change how AutoReceive runs through the AutoReceive user interface.
  - **Service mode in Windows 7 and Windows Server 2008.** AutoReceive 7.0 can be run in service mode under all supported versions of Windows. If you are installing AutoReceive for the first time, it will run in service mode by default.
  - **Switching from Classic to Service mode.** Under Windows Vista, Windows 7, and Windows Server 2008, when switching from Classic to Service mode, running AutoReceive for the first time with a new user account, or restarting the service after any termination, users must do the following to run AutoReceive in Service mode:
    1. Right-click the *AutoReceive* icon.
    2. Click *Run as Administrator*.

## Changes in the AutoReceive 6.0 Release

- **Clinical document uploading.** AutoReceive now provides the ability to upload non-electronic, clinically-relevant documents in an electronic format and to transfer electronic records into Care360 Labs & Meds via the hub.
- **Point-of-care testing (POCT) integration.** AutoReceive now provides the ability to upload Point-of-Care Testing (POCT) results using an external POCT device, for delivery through the hub to Lab Orders and Results.
- **Radiology results.** AutoReceive now supports the receipt of Radiology results in addition to Lab results. The Result Summary Report now displays a summary of Radiology results contained within a batch listed separately from the Lab results. In the event there are no results for a result type (lab, radiology), only the section heading will display.

## Changes in the AutoReceive 5.0 Release

- **Print Summary page.** AutoReceive can now be configured to identify Test in Question (TIQ), Test Not Performed (TNP), and Abnormal results and report them via the *Print Summary* page.
- **Patient Alert page.** AutoReceive can now be configured to generate an advisory message to be printed with a batch of results, if that batch contains any TIQ or TNP results.
- **Service mode.** Added Service mode support on all supported operating systems.

## Changes in the AutoReceive 4.7 Release

- **Print order.** A new subscription parameter called *SCR* has been added. This parameter allows the user to select the order in which results will be sorted before printing.
- **Auto Receive Service network drive access.** By default, the AutoReceive service runs as the Local System account and does not have privileges to write to a network drive. In order to allow the AutoReceive Service to write to a network drive, the service must be re-configured to run using an account with the correct privileges.

## Changes in the AutoReceive 4.6 Release

**Support for "Q-Suite" service providers.** In order to support the Reshape Q-Suite initiative, functionality has been added to AutoReceive to automatically update existing subscription configurations to use the new "Q-Suite" service providers.

## Changes in the AutoReceive 4.5 Release

- **Splash screen.** A splash screen has been added to notify users of AutoReceive activity during startup. This serves as a visual indicator that the AutoReceive user interface is running while the initial startup tasks are being performed.
- **Print in multiple locations in client's office.** AutoReceive now allows more than one printer to be configured for a printable subscription. A separate print task is created for each configured printer. The Print Log has been modified to reflect information about each task as it runs, including the task's corresponding subscription and printer. The Subscription Configuration screen has been upgraded to allow the selection of more than one printer.
- **Print summary.** AutoReceive can now be configured to print a document summarizing the print session to include:
  - Subscription Name
  - Print Job Start date and time
  - Print Job End date and time
  - Total Pages Printed
  - Total Unique Results Printed
- **Reprint last reports.** AutoReceive now allows the most recent set (batch) of downloaded results to be reprinted. After a successful printable result download, the results are stored in a temporary directory to allow reprinting if requested. The client can request a reprint of the last batch by right-clicking the AutoReceive icon and selecting *Reprint Last Reports* from the pop-up menu.

- **Collate multiple reports.** AutoReceive now provides the option to collate multiple reports when printing two or more copies for each test result by selecting the *Collate Multiple Reports* checkbox.
- **Change notification options.** You can choose to keep the AutoReceive status window on top of all other windows by selecting the *Always on Top* checkbox.

## Changes in the AutoReceive 4.0 Release

- **Windows service installation.** The AutoReceive client application is installed to run as a Windows service (rather than a standard Windows application) on computers running a supported Windows operating system. Installing AutoReceive as a service allows it to run continuously in the background, even when no user is currently logged in to Windows. (Windows operating systems that support service operation include: Windows XP, Windows 2000, and Windows Server 2003.)

On computers that do not support the Windows service installation, AutoReceive is installed to run as a standard Windows application, as in previous versions.

- **Windows Vista Support.** The AutoReceive client application can now be installed and used on PCs running the Windows Vista operating system. However, AutoReceive is installed to run as a standard Windows application on Vista, not as a service.
- **Windows platform support.** The Windows NT, Windows 98, and Windows Me operating systems are no longer supported. Do not attempt to install AutoReceive 4.0 on these operating systems, as the installation will fail, and may or may not display an error.
- **Proxy server username and password.** The AutoReceive Network Configuration dialog box has been updated to include Username and Password fields in the Proxy Server Setting area, so that you can enter the appropriate login credentials as required by your proxy server.
- **File naming mode.** There are now two naming modes that you can select from, to indicate how HL7 and PDF files are named: Standard and Enhanced. The Standard naming mode uses a timestamp only to name the file, while the Enhanced mode adds a Provider ID, Message Control ID (MCID), and Document ID (PDF files only) to the file name to aid in matching an HL7 file to any corresponding PDF file(s).
- **Configuration viewer.** A new AutoReceive Configuration dialog box has been added, allowing the user to view the current AutoReceive configuration settings. The configuration settings are read-only, and are to be used primarily when working with Customer Support for troubleshooting purposes.
- **Advanced settings.** A new Advanced Settings dialog box has been added, allowing the user to manually switch the AutoReceive operating mode from Service Mode to Classic Mode, or vice versa.
- **Auto-update.** A new auto-update service is now in use.

## Changes in the AutoReceive 3.0 Release

- **Client status and error reporting.** The AutoReceive client application can now automatically communicate troubleshooting information to Customer Support on a regular basis, enabling support personnel to monitor and diagnose the ongoing “health” of individual AutoReceive clients. The AutoReceive client is normally configured to send messages automatically (at a regular interval), but the user can manually initiate this action as needed (using the new Send Status/Errors option).
- **Flowsheet printing.** The AutoReceive client application can now automatically print flowsheets that have been generated using Care360 Physician Portal. A flowsheet is a table of analyte and medication values that enables a physician to observe trends for a patient over a specified period of time. By applying a custom filter to a flowsheet, the Care360 Physician Portal user can select specific analytes and date ranges to include in the flowsheet; the flowsheet is then generated automatically when associated results are received into the system. Flowsheets are distributed in PDF format.

No change was made to the AutoReceive client application to enable this functionality; flowsheets are printed in the same manner as other printable (PDF) documents.

- **Print log.** A new View Print Log option has been added, allowing you to access the Print Log window. The Print Log displays the status of print jobs that have been queued, as well as those that have successfully completed, from a Printable Test Results subscription.
- **Peak load distribution.** Architectural changes have been made on the back-end distribution servers that reduce the “peak” load from concurrent AutoReceive client PDF download requests. Rather than allowing all AutoReceive clients to potentially access the servers at the standard time intervals (commonly on the quarter hour), the load is automatically distributed over period of time prior to each client’s scheduled print time.

This change does not impact the scheduled print times that are configured for individual AutoReceive clients—printing will still be performed as previously scheduled.

## Changes in the AutoReceive 2.0 Release

- **Communications progress indicators.** So that you can better monitor the connection status of AutoReceive, the application system tray icon changes appearance to notify you when a communication session is in progress. This occurs during scheduled downloads, when you initiate a download, or when AutoReceive automatically updates. During the communication session, the icon changes to a lightning bolt symbol.

In addition, you have an option to display a small status window on your screen that provides information about the success or failure of communications activity such as connections, downloads, saves to disk, printing and system updates.

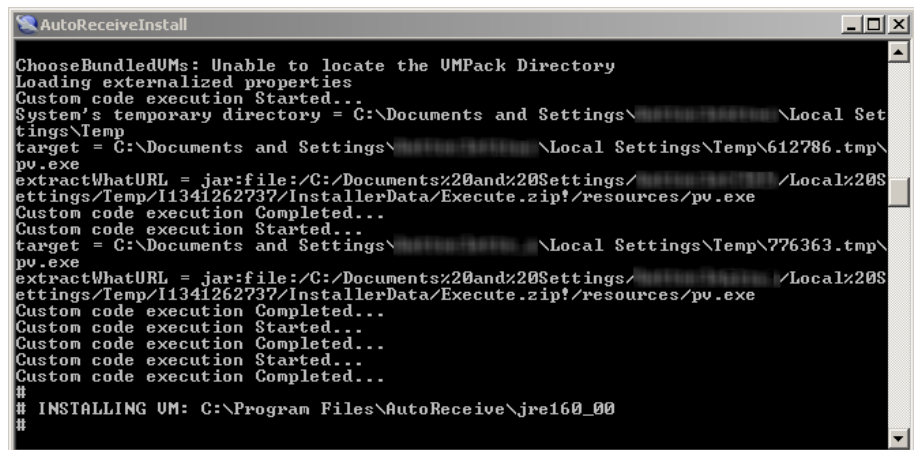
- **Footers on reports printed by AutoReceive.** Reports printed by AutoReceive have a footer on each page indicating that it was printed by AutoReceive. This can help when you are working with the support team to resolve printing issues by differentiating between AutoReceive reports and those printed from other applications.
- **Enhanced troubleshooting.** This release of AutoReceive includes the first phase of an enhancement that will improve the process of resolving system problems and diagnosing critical errors that occur during your use of AutoReceive. AutoReceive 2.0 will automatically collect information about your configuration and use of AutoReceive and save it to an Archive file on your computer. The purpose of the data collection is to capture significant reports, logs, and error information that can be evaluated by support personnel when a problem occurs.
- **Screen resolution.** AutoReceive configuration screen may be viewed on 800 x 600 resolution setting.
- **Subscription configuration.** Multiple changes have been made to allow the user the ability to better manage their subscriptions:
  - Allow multiple subscriptions per document type.
  - Retrieval times can be disabled for specific days of the week.
  - Allow HL7 subscriptions to sort by account name.
  - Allow the ability to download partial and final results, or final results only at specific schedule times.
- **HL7 files.** You can now specify the file name extension for HL7 files retrieved by AutoReceive.
- **Retry attempts.** If AutoReceive fails to retrieve results due to a communications error or any other interruption, it will automatically retry to retrieve the results after an interval of time.
- **AutoReceive user interface.** You can open only one instance of the AutoReceive console per computer.

## Known Issues

The following known issues and minor defects remain in release AutoReceive 8.1. Where possible, a workaround is included to mitigate the issue.

ID	Module	Problem and Workaround
SCR 56649	Install/Auto Update	<p><b>Problem.</b> After a successful FLEXnet Downgrade from AutoReceive 8.0 to 7.0, a message appears that an update is available</p> <p><b>Workaround.</b> This is existing behavior in AutoReceive 7.0. When a downgrade to 7.0 occurs, features and fixes in AutoReceive 8.0 are no longer available. Thus, for Windows 2008 the looping update behavior occurs, and for all other operating systems, the dual update behavior occurs.</p> <p>To eliminate this looping behavior, update the lastUpdate property in the app.properties file after the downgrade occurs (that is, after AutoReceive 7.0 is successfully installed) to the current date. Retain the same format, time, and version number, as in the example below.</p> <pre>lastUpdate=2012-10-31 10:36:53, Version=7.0.1000251</pre>

SCR 57185	Install/Auto Update	<p><b>Problem.</b> On rare occasions during the upgrade process, the Windows command prompt window appears in addition to the standard AutoReceive installation progress window. The command prompt window contains information about the AutoReceive installation, as in the example below. It has been observed on the Windows XP operating system on both lockdown and non-lockdown computers.</p>
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```

AutoReceiveInstall
ChooseBundledUMs: Unable to locate the UMPack Directory
Loading externalized properties
Custom code execution Started...
System's temporary directory = C:\Documents and Settings\... \Local Set
tings\Temp
target = C:\Documents and Settings\... \Local Settings\Temp\612786.tmp\
pv.exe
extractWhatURL = jar:file:/C:/Documents%20and%20Settings/... /Local%20S
ettings/Temp/I1341262737/InstallerData/Execute.zip!/resources/pv.exe
Custom code execution Completed...
Custom code execution Started...
target = C:\Documents and Settings\... \Local Settings\Temp\776363.tmp\
pv.exe
extractWhatURL = jar:file:/C:/Documents%20and%20Settings/... /Local%20S
ettings/Temp/I1341262737/InstallerData/Execute.zip!/resources/pv.exe
Custom code execution Completed...
Custom code execution Started...
Custom code execution Completed...
Custom code execution Started...
Custom code execution Completed...
#
# INSTALLING UM: C:\Program Files\AutoReceive\jre160_00
#

```

**Workaround.** No action is necessary. The command prompt window closes automatically when the installation process is complete.

ID	Module	Problem and Workaround
SCR 58543	Install/Auto Update	<p><b>Problem.</b> When the AutoReceive icon in the Windows notification area is flashing yellow () and you double-click it, the following message appears:</p> <p><i>Select 'Check for Update Now' from the menu to install the update.</i></p> <p>However, the message does not indicate which menu.</p> <p><b>Workaround.</b> Right-click the AutoReceive icon () in the Windows notification area, and select <i>Check For Update Now</i>. A dialog box appears asking if you want to install the update.</p>
SCR 58658	Install/Auto Update	<p><b>Problem.</b> On the 32-bit version of Windows 2008, the AutoReceive icon () does not appear along with the AutoReceive items in the Windows <i>Start</i> menu. Instead, the generic Windows icon appears.</p> <p><b>Workaround.</b> The AutoReceive items in the <i>Start</i> menu function as intended, so they can be used as they would normally be used.</p>
DE 1928	Configuration	<p><b>Problem.</b> When you select times on the <i>Select Time(s)</i> dialog box, clicking <i>Cancel</i> does not clear the selections. Instead, the selections are saved the same as if you clicked <i>OK</i>.</p> <p><b>Workaround.</b> Open the <i>Select Time(s)</i> dialog box, clear the unwanted selections, and click <i>OK</i>.</p>
SCR 57240	Error Recovery	<p><b>Problem.</b> If the target drive is out of disk space and you attempt to download and redownload printable results, an error message appears informing you that the download failed and to see the log file. The debug.log file contains "Abnormal condition found" and "Unexpected end of ZLIB input stream" Java Exception messages that indicate the failed activity. After making disk space available and selecting <i>Redownload Now</i>, the errors persist because the downloaded result .zip files are corrupt.</p> <p><b>Workaround.</b> Delete the corrupted files from the <i>bad_print</i> folder and requeue the result files for download.</p>
SCR 46186	Error Reporting	<p><b>Problem.</b> In the debug.log file, the provider account ID is treated as a numeral rather than a string, resulting in an ID of 12345 appearing as 12,345.</p> <p><b>Workaround.</b> N/A.</p>