



Restaurant Enterprise Solution (RES) Installation Guide

Version 5.0

General Information

About This Document

This document provides installation and setup instructions for the MICROS Restaurant Enterprise Solution (RES) Version 5.0 software. The process ensures the proper transfer and configuration of the files, programs, and databases required for the smooth operation of the applications.

The procedures described in this document are applicable to both new and upgraded systems.

*******IMPORTANT: New PreReq*******

As of RES 5.0 MR6, a new prerequisite patch is required. Be sure to read the RES 5 Generation 2 (RES 5 Gen2) Prerequisite Patch Installation instructions located in the RES5_Gen2_Prereq_Patch_MD.pdf prior to upgrading to 5.0 MR6 or any higher 5.0 MR patch.

*******REMINDER*******

It is recommended that custom applications be re-installed and tested after applying any upgrade to a RES system. This includes, SQL scripts that add or alter custom stored procedures.

Declarations

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Who Should be Reading this Document

This document is intended for the following audiences:

- ◆ MICROS Installers/Programmers
- ◆ MICROS Dealers
- ◆ MICROS Customer Service
- ◆ MICROS Training Personnel
- ◆ MIS Personnel

What the Reader Should Already Know

This document assumes that you have the following knowledge or expertise:

- ◆ Operational understanding of PCs
- ◆ Understanding of POS terminology and concepts
- ◆ Working knowledge of the Microsoft Windows interface

RES Setup Procedures

Before You Begin: Tips, Traps, and Precautions

Before running the RES Setup procedure, the following should be noted:

- ◆ Adding a new user to the Administrator Group is required to install RES and all other setup programs.
 - ◆ The existing administrator account should only be used to create a new user and add users to the Administrator Group.
 - ◆ The installation of RES 5.0 will fail unless the User Account Control (UAC) setting is set to the default level.
 - ◆ Follow these steps to verify the UAC setting:
 1. Navigate to *Start | Control Panel | User Accounts* and select '*Change User Account Control settings*'.
 2. Verify the description of the setting selected says '*Default*'.
 3. If not already set to Default, change it to Default and select *OK*.
- NOTE: An administrator password maybe needed.
4. Re-start the server for the new settings to take effect.
- ◆ All testing on RES 5.0 has been done with the User Account Control (UAC) set to '*Default*'. MICROS recommends keeping the server and Windows 7 clients at the '*Default*' UAC setting for daily POS Operations.
 - ◆ RES 5.0 must be installed to local drives only. Attempting to install RES to any mapped drive will fail, and is not supported.

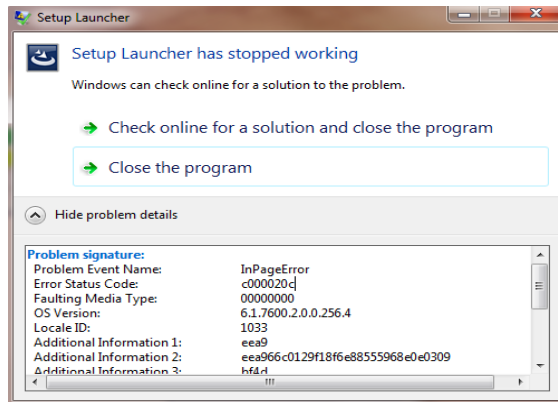
**Installing RES on
non-English
Operating System**

- ◆ RES 5.0 requires the group 'Users' for installation. Non-English operating systems must edit the name of 'Users' (the translation of user in non-English) to 'Users' (English translation). After RES 5.0 installation, the 'Users' group can be edited to the non-English translation.
 - ◆ Steps to change group name:
 1. Right click on 'My Computer' and select *Manage*.
 2. Navigate to *Local Users and Groups*.
 3. Select *Groups*.
 4. In the right panel, rename 'Users' to 'Users'.
 5. Install RES.
 6. Navigate to *Local Users and Groups* | *Groups* and change 'Users' back to the correct name.
 - ◆ RES 5.0 will require the user to install the shell database, or let RES install a user database on non-English operating systems. If user fails to install a database during setup, the following registry setting must be added prior to running the command `dm -u <path to db>`.
 1. From the run line enter, `regedit.exe` (Registry Editor). (An administrative password is required.)
 2. 64 Bit Users: Navigate to *Computer* / *HKEY_LOCAL_MACHINE* / *Software* / *Wow6432Node* / *MICROS* / *Common* / *DBMS*.
 3. 32 Bit Users: Navigate to *Computer* / *HKEY_LOCAL_MACHINE* / *Software* / *MICROS* / *Common* / *DBMS*.
 4. Right click to add new DWORD.
 5. Enter in 'Number Backups' as New Value #1.

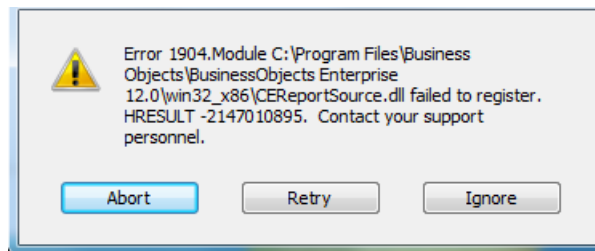
6. Highlight new DWORD and right click.
 7. Select *Modify*.
 8. Select Hexadecimal.
 9. Enter 1 and save.
- ◆ Servers with dual NIC cards must configure the MICROS RES Network Adaptor to be the first one in the binding order. This is to ensure that all software functions properly.
 - ◆ Perform the following steps to properly configure binding order:
 1. Navigate to *Start | Control Panel | All Control Panel Items | Network and Sharing Center | Change Adapter Settings | Advanced | Advanced Settings | Adapters and Bindings*.
 2. Change the binding order to have the MICROS RES Network Adaptor use the first NIC card.
 - ◆ Highlight the MICROS RES adapter and use the up arrow on the form to move it up to be the first one in the list.
 - ◆ RES 5.0 can be installed on the root of any drive. Installation cannot be performed on a folder off of the root of the drive.
 - ◆ For Example: Installing RES 5.0 on *C:\Program Files* will lead to application failures.
 - ◆ The Sybase ODBC service registry setting has been changed with the installation of RES 5.0. Setup will now ignore all broadcast responses to enhance security.
 - ◆ Some applications, such as delivery dispatch can cause the task bar to show in POS Operations on Windows 7 and Pos Ready clients. The solution for this issue is to enable 'Auto-Hide Task Bar' in the task bar properties.

- ◆ Error 1603 and error 1904 can occur if there are networking issues, or if the server is downloading updates during the RES installation. If this should occur, remove the server from the network and run RES setup and/or RES 5.0 Prerequisite from the local media CD.

Error 1603:



- ◆ **Error 1904:**



- ◆ When upgrading on a RES system where the MICROS Portal is installed, be sure to manually shut down the Micros Agent and Micros Watchdog services. Failure to shut down these Portal-related services can result in a system lockup during database conversion.
- ◆ MICROS recommends using NTFS partitions for both the Operating System and the MICROS drive. This is because the NTFS file system provides greater security than FAT partitions.
- ◆ No previous installations of RES should be present on the server when RES 5.0 is installed.

- ◆ The RES 5.0 shell and sample database will only have the following three users.
 1. MICROS
 2. DBA
 3. Fiscal

The following legacy users will no longer be installed with the RES 5.0 shell or sample DBs.

1. custom
2. dbsrpc
3. emrepl
4. eosapps
5. eoscfg
6. esd
7. general
8. gsscfg
9. gssserver
10. installer
11. kdserver
12. manager
13. procedures
14. reports
15. reportuser
16. setup
17. support

18. syscfg

If upgrading a 3.2 database to RES 5.0 then all legacy users will be deleted except for MICROS, DBA and Fiscal.

If upgrading a 4.x database to RES 5.0 then only the legacy users that do not have passwords will be deleted. The MICROS, DBA and Fiscal users will not be deleted.

If upgrading an existing 5.0 database then nothing will be deleted.

- ◆ Make sure that any OPOS devices and related software that need to be installed are compliant with the operating systems.
- ◆ When installing on a Win 2008 system, double-clicking on **Setup.exe** to run a full RES build will display the following warning:

“This type of file could harm your computer if it contains malicious code.”

Users then have the option of pressing **Open** (to continue with setup), **Cancel** (to exit), or a generic **More Info** button. This can be problematic, particularly with remote installations.

To avoid this, users can disable the warning message as follows:

1. Open Internet Explorer.
2. Go to *Tools / Internet Options / Security / Internet / custom level*.
3. Scroll down to **Launching Applications and unsafe files** and change the value from *Prompt* to *Enable*.

- ◆ Due to enhanced security in Windows 7 and 2008 R2, third party applications that attempt to write to protected locations will fail.
- ◆ Example:
 - ◆ If pms1.isl attempts to write to C:\ on a Server 2008 R2 system, it will fail. If run through POS Operations the error could be *'input/*

output error'. These applications will need to be adjusted to work with the new operating systems.

- ◆ In RES 5.0 Win32 clients will get .NET Framework 3.5 sp1 installed as part of the Win32RES setup.
- ◆ The command for database update has changed from DBUpdate.exe to DbUpdt.exe.
- ◆ If the proper steps to restore a database are not followed, the update could fail with a *'table in use'* message in the `Micros\common\etc\DM.log`.
 - ◆ Perform the following steps to restore a database from the command line:
 1. Navigate to MICROS Control Panel.
 2. Set the Restaurant to OFF.
 3. Close MICROS Control Panel.
NOTE: MICROS Control Panel must be closed and not minimized.
 4. Remove or rename the existing MICROS.DB and MICROS.log.
 5. Run `DM -U <path to.mbz>` from the command prompt.
- ◆ The following steps are required to change the IP address of the server with the installation of RES 5.0:
 1. Navigate to *POS Configurator / Network Node*, select the server from the node list.
 2. Change the IP address of the server.
 3. Click the *'Update Host File'* button in network node.
 4. Allow the change when prompted by User Account Control. User may need administrator password.
 5. Open the MICROS Control Panel and reload the database.

6. Take the Restaurant to off in MICROS Control Panel.
 7. Reboot the server.
 8. Reconfigure CAL on all clients.
- ◆ During RES 5.0 installation, both the Backup Server Service (**ResBSM.exe**) and the KDS Controller are installed to all Win 32 clients. Though installed, please note that the Backup Server Service and KDS Controller are not supported on POS Ready and WePOS.
 - ◆ MICROS recommends assigning no more than 8 print devices to a client. More than that may cause the print service to fail.
 - ◆ Rerunning RES Version 5.0 or higher for purposes of installing, modifying, or repairing any of the applications will reset all of the applications to their General Release versions. If you have already installed service packs to RES 5.0, you will need to rerun all service packs again. Failure to do so may prevent you from opening previously installed programs.
 - ◆ Powering off either the WS or the Server during an upgrade to a version of RES can cause the WS's compact flash to become corrupt. This can also occur if you pull the power cord out of the WS4 while it is writing to the compact flash. To correct the problem, the compact flash must be reformatted.
 - ◆ When updating the system's Time Zone setting, users must stop/start RES services before attempting to run POS Operations. This will resynchronize the RES application time zones (which are set on startup) with those on the updated POS clients.

Failure to do so, or to reboot the system, will cause errors when using the Future Order feature and may affect other time-related functionality.
 - ◆ Firewalls should be enabled prior to installing RES 5.0 on a Server. If the firewall is enabled after installation, the clients will not be able to communicate with the server and will continuously display prompts for Backup Server Mode (BSM) and Stand-alone Resiliency (SAR).

To fix the problem post installation, users should:

1. Start the firewall from *Control Panel / Windows Firewall*.
 2. Run **Micros\common\Bin\ConfigureICF.bat**. This will update the exceptions list that RES needs to successfully run with the firewall enabled.
- ◆ Certain Micros applications (e.g., KDS Controller, Backup Server, ILDS, IFS) can be configured to run on both the server or a client (XP, Windows 7 or 2008). When switching the configuration to run a service on a PC, users should do the following to ensure that the system updates properly:
 1. Make the necessary changes in POS Configurator to run the service on the PC.
 2. Open Micros Control Panel.
 3. Highlight *Restaurant* and click **Reload**. This will propagate all changes out to all clients.
 4. Reboot the Server.
 5. Reopen MICROS Control Panel. Highlight *Restaurant* and click **Reboot All** to reboot all of the clients.
 - ◆ There are conversion issues due to custom tables, triggers, stored procedures, etc. that Sybase 11 cannot handle. Therefore, every customer must upgrade their existing database on a lab system prior to installing at a live site. This serves to verify that the upgrade will be successful.
 - ◆ The LX Display Controller needs to be configured to use the correct touch screen driver when installed. If this is not done, the touch screen will still work, but the tool bar buttons may become depressed and will not come back up.

Follow these steps to configure the correct touch screen driver:

1. Go to *Start / Programs / Windows Explorer / Control Panel / Touch Display*.

2. Select the correct driver for your monitor.
Ex: Elo Touch
 3. Select the correct connection type.
Ex: USB
 4. Reboot the Display Controller.
- ◆ To avoid a possible disruption in network communications, set the following option on the server and any clients that are allowed to go into Standby mode.
 1. Open *Device Manager* and right-click on your Network Card.
 2. Select *Properties / Power Management* and then **Disable the Allow the computer to turn off this device to save power** option.
 - ◆ If the '*MICROS Autosequence Server*' service has been changed to '*allow service to interact with Desktop*' it can cause a COM object error to appear when running an autosequence. If a COM object error is seen do the following to correct it.
 1. Navigate to *Start / Control Panel / Administrative Tools / Services*.
 2. Highlight the service called '*MICROS Autosequence Server*'.
 3. Click on the '*LogOn*' tab.
 4. Under the option '*Local system account*', un check the box that says '*Allow service to interact with desktop*'.
 5. Restart the MICROS Autosequence Server after disabling this option.
 - ◆ Any external programs that are executed from the Autosequence Server should be configured to have a User Interface of "*None*".
 - ◆ To avoid Micros services being turned off when the server is inactive, perform the following steps to not allow the server to enter sleep mode:

1. Navigate to *Start | Control Panel | Power Options*.
 2. Select “*Change when the computer sleeps*”.
 3. Set the option “*Put the computer to sleep*” value to *Never*.
- ◆ Adobe version 9 or higher is required on any Win32 clients that will be used as a Manager PC. The Adobe reader installation is required to allow the following reporting applications to function properly:
 1. Autosequence & Reports
 2. Report Viewer
 3. Report Explorer
 - ◆ Custom report paths for report viewer cannot contain a space unless quotations are used.

The following are examples of a correct report viewer path:

- ◆ “C:\Custom Report\InvenCountLandscape.rpt”&Login=7
 - ◆ C:\CustomReport\InvenCountLandscape.rpt&Login=7
- ◆ To be able to use Manager Procedures and Report Viewer on Windows Server 2008 R2 PC, the following steps need to be completed:
 1. Navigate to *Windows Control Panel | Administrative Tools | SERVER MANAGER | Security Information options | Configure IE ESC*
 2. Turn “*OFF*” the IE Enhanced Security for Administrator and Standard User.
 - ◆ When using Adobe Version 10 or higher, the Adobe floating toolbar will be used as a default when viewing reports from Autosequences and Reports, as well as Report Viewer. Moving the mouse up into the report viewer form will activate the floating toolbar.

- ◆ The standard tool bar can be displayed by selecting the Adobe Icon. This will suppress the floating tool bar temporarily.
 - ◆ To toggle back to the floating toolbar, and suppress the standard toolbar, select the double arrow icon located to the far right.
- ◆ Perform the steps below to permanently disable the floating toolbar and only use the standard toolbar.
 1. Open Adobe Reader application.
 2. Navigate to the *File Control Menu*.
 3. Select *FILE / Edit / Preferences*.
 4. Select *Internet*.
 5. Under *Web Browser Options*, un check (disable) option “*Display in Read Mode by default.*”
 6. Select *Ok* to save.
 7. Close the Adobe Reader application.
- ◆ When using Adobe Version 9 or lower, the standard tool bar will display at the top of report viewer.
- ◆ When configuring object ranges in Report Viewer (*POS Configurator / Reporting / Report Viewer*), the user must:
 - ◆ Select and hold the shift + the arrow key to multi-select.
 - ◆ Select using the control key, to select one object at a time.
- ◆ Servers and Win32 Clients can preview and print reports from Report Viewer. CE clients can preview reports, but cannot print them.
 - ◆ Note: RES 4.x has the same limitation with Report Viewer on CE clients.

- ◆ RES version 5.0 will no longer support the VeriFone vx670, Pay at the Table device.
- ◆ RES version 5.0 does not support PM Procedures on HHT clients.
- ◆ RES version 5.0 does not support finger print scanners on the following operating systems:
 - ◆ Windows 7 64 Bit
 - ◆ Windows Server 2008
- ◆ RES version 5.0 does support finger print scanners on the following clients and operating systems:
 - ◆ Workstation 4
 - ◆ Workstation 4LX
 - ◆ Workstation 5
 - ◆ Workstation 5A
 - ◆ POS Ready 2009
 - ◆ Windows XP
 - ◆ Windows 7 32 Bit
- ◆ The following are the steps to install the DigitalPersona driver on a 32bit Windows 7 computer:
 1. Do NOT connect the Finger Print Scanner until AFTER the driver is installed.
 2. In POS Configurator | Devices | User Workstations | Peripherals, configure a Finger Print Scanner.
 3. On a Windows 7 32 bit system, go to Micros\DigitalPersona.
Note: If this is a RES server, take the Restaurant to off in the MICROS Control Panel as you will be prompted to reboot once the driver is installed.

4. Right click 'Setup.exe', and then left click 'Run as administrator'.
 5. Follow the on screen prompts and when asked for a key, click 'Default Key'.
 6. Allow reboot when prompted.
 7. Connect the Finger Print Scanner to the workstation.
 8. Start RES (POS Operations).
- ◆ For XP and POS Ready 2009 clients the steps are the same as above Except the MICROS\DigitalPersona\InstallOnly.bat should be used instead of Setup.exe.
 - ◆ For CE clients, just configuring a Finger Print Scanner as a peripheral and restarting POS Operations will load the driver.
 - ◆ RES 5.0 no longer supports the MICROS Secure Desktop. Due to enhanced security in the newer Microsoft operating systems the secure version of the MICROS Desktop is no longer needed. However, the MICROS Desktop without the added security is still supported.
 - ◆ The MICROS Desktop has the ability to add other items to the Desktop. The option 'Close with Desktop' will only support 32 Bit operating system applications. If a 64 Bit application is selected during setup a message will be displayed and the option to 'Close with Desktop' is greyed out.
 - ◆ In RES 5.0, the Manager Procedures Help button is only supported on Win32 client types, and is no longer supported on any CE clients.
 - ◆ A Microsoft update must be completed in order for context sensitive help to work on a Windows 7 or a Server 2008 R2 operating system.
 - ◆ Select the appropriate link below:
 - ◆ Windows 7:

- ♦ <http://www.microsoft.com/downloads/en/details.aspx?displaylang=en&FamilyID=258aa5ec-e3d9-4228-8844-008e02b32a2c>
- ♦ Server 2008 R2:
 - ♦ <http://www.microsoft.com/downloads/en/details.aspx?FamilyID=a83698ae-4ecb-4660-b402-2c5659dcb4ef>
- ♦ Financial Management Configuration cannot be opened from the '*Search programs and files*' tool. The user will be able to use the Run line and enter FM /cfg to open the configuration utility. A shortcut can be created and targeted to FM.exe /cfg to open the configuration utility as well.

Setname Utility

- ♦ Setname Utility (setname.cfg) will not function correctly if extra characters are added to the end of the existing name. The name should be completely changed.

Example:

- ♦ Changing from MyPC to MyPC1 will not update the server name.
 - ♦ The following steps are an example to achieve an update to the server name using the example above:
 - ♦ Use Setname to change from MyPC to Temp. Allow reboot when prompted.
 - ♦ Use Setname to change from Temp to MyPC1. Allow reboot when prompted.
- ♦ The Setname Utility is no longer supported on clients running RES versions 4.3 or higher. Setname of the servers is still supported. This will have no impact on functionality because when RES is installed on a Win32 client, CAL automatically changes the client's name and IP Address to match what is configured in the database.

- Delivery Dispatch**
- ◆ RES 5.0 now installs DeliveryDispatch.Ing in MICROS\RES\POS\Etc. Prior to RES 5.0, it was in MICROS\RES\POS\Bin.
- Kitchen Display System (KDS)**
- ◆ RES 5.0 now uses a version of KDS that is POS independent. Prior to RES 5.0 the KDS was dependent upon RES.
 - ◆ KDS features and functionality remain the same.
 - ◆ At the release of RES 5.0, the Independent KDS version is 2.1.0.458.
 - ◆ Restaurant Display Controllers (RDC) require .Net Compact Framework 2.0 to be compatible with RES 5.0.
 - ◆ RES 4.x and lower used .Net Compact Framework 1.0.
 - ◆ The following can be performed to check the version of .Net Compact Framework on a RDC.
 1. Navigate to *My Device / FS / Utilities / Regeditce.exe*
 - ◆ Note: This file may not be available on all RDC clients.
 2. Navigate to HKLM\Software\Microsoft\.NetCompactFramework
 - ◆ Steps to Upgrade RDC client to .Net Compact Framework 2.0. (2.0.7045.00)
 1. Determine which type of RDC client you have.
 - ◆ The GX model has Part No. 700876-200
 - ◆ The LX model has Part No. 700876-210
 2. Attach a USB device with the update package to your DC box.
 - ◆ Note: Those 2 packages are posted to the KDS Hardware tab on the Hardware Portal.

3. Go to *Start / Programs / Update* (*Swiss Army Knife icon*).
 - ◆ OR *Start / Settings / Control Panel / Update*.
 4. Select '*Local*'.
 5. Click Browse and then double click on Hard Disk.
 6. Select the correct update package (LX or GX).
 7. Highlight the .dtr file and click OK.
 8. Click Update.
 9. Allow Reboot when prompted for it by setup.
 10. Double click the Power Plug icon in bottom right corner of Task Bar and set as follows:
 - ◆ Switch state to user idle (screen off) = Never
 - ◆ Switch state to system idle = Never
-
- ◆ RES 5.0 no longer supports SEI KDS devices. If any SEI OASys or SEI Elite devices are configured and RES is upgraded to 5.0, these devices will be changed to PC-Based. Any KDS device configured to use an SEI display will no longer have a layout and a new chit type will have to be selected.

Credit Card

- ◆ Users must have full administrative privileges to install credit card drivers.
- ◆ When installing credit card drivers on a RES 5.0 Server, a Windows Program Compatibility Error dialog box appears: '*This program might not have installed properly*'. Select "This program installed correctly", to complete the driver installation.

Documentation

- ◆ Documentation is available from the MICROS website, on the RES Product page.

Site Requirements

In order to successfully install and enable a RES Setup system, the following requirements must be met:

Product	Version
Microsoft Windows 7 32 Bit and 64 Bit Ultimate, Enterprise, Professional	SP 1 or higher
Microsoft Server 2008 R2	SP1 or higher
Internet Information Services	7.5 or higher
Microsoft .NET Framework	4.0
Adobe Reader	9.0 or higher

Win32 Clients will require Microsoft. NET Framework 3.5 sp1.

Note: Microsoft. NET Framework 3.5 sp1 will automatically get installed during setup on Win32 RES clients.

Additional Software Requirements

The following third-party applications are used with RES Setup. These application versions must not be changed by the installation of other third-party software. Any changes to the software application will make the RES System unsupported.

Application	Version
Microsoft DCOM	6.1
ODBC	6.1
Sybase Adaptive Server	11
Crystal Reports Professional*	2008
Borland Delphi Engine	5.0

Application	Version
Sentinel Software Key Driver	7.5
Adobe Acrobat Reader	9.0 or higher
ADO	6.1

*Crystal Reports viewer is installed with RES. If report development is required, the installer must load a full version of Crystal Report Professional. If done, RES Setup must be reloaded afterwards. Reports developed in later versions of Crystal must be saved using Version 2008 format.

Hard-Drive Space Requirements

The space requirements listed below assume that the full range of options are to be installed:

RES Environment	2008/7 Server	Windows Client
Clean, no prior RES installation	4 GB + size of DB	1 GB

Prior to setup, the system calculates how much space is required for installation of the selected features. If the available disk space is inadequate, an error message is displayed.

Note *RES 5.0 and higher requires a minimum of 200 MB free space on the root drive, (usually C:). This is true even if choosing to install RES to a different drive.*

For optimum system performance, 30% of the root drive should be free space.

Server Requirements

Overview

This section provides guidelines for configuring a RES store system. Please refer to the Enterprise Management site survey and consult with MICROS Research & Development, Product Management when configuring the EM corporate server.

There are four computer resources that affect system performance:

- ◆ Memory (RAM)
- ◆ Hard-Disk Size
- ◆ Controller Type/Number
- ◆ Processor Speed

The demands placed on these resources by RES and Enterprise Office applications are a function of the database and the number of transactions posted in the system. Transactions may be posted from any one of the RES applications. These guidelines are predicated on the RES server being dedicated to RES applications only. If the RES server is to be used for other third-party applications, additional resources may be required. Please refer to third-party software source requirements when determining the configuration needs of your system.

The recommendations provided in this section are designed to yield an acceptable performance under average conditions and based on the current version of software. Every effort is made by the development group to prevent significant increases in server resource requirements as RES moves forward. However, because of our reliance on third-party components such as the Microsoft Operating System, Sybase ASA DBMS, and other tools, we cannot guarantee that the suggested minimum requirements will be suitable for future versions of RES, Sybase, and the Windows OS.

For increased performance, or if the customer is planning future upgrades, MICROS recommends increasing the hardware to the next level of server configuration. These recommendations are based on the current Personal Computer offerings.

Disclaimer

The MICROS Research & Development team has neither tested nor certified PCs from other manufacturers, nor does it keep current on their offerings.

As a rule, the MICROS Customer Service and Research & Development groups do not support PCs from other manufacturers. Non-MICROS PCs should be evaluated in terms of their equivalence to the Hewlett-Packard model. For example, a Dell Optiplex is an equivalent model for an HP Vectra, but NOT for an E60 or E800 Net Server.

MICROS neither recommends nor supports loading an operating system on a hardware platform that is not officially supported by the manufacturer.

Service and support for customers not using a MICROS-approved product will be the total responsibility of the end user. (Note: Performance testing and initial configuration of a third-party PC is available at prevailing rates.)

Further System Recommendations

Performance can be enhanced significantly by increasing RAM and by storing the database on a second hard drive, or moving to a RAID configuration with a caching RAID Controller.

- ◆ **Clients** — Windows 7 Pro Hard Drive clients provide better performance for larger configurations.
- ◆ **Network** — A 100MB flat network provides adequate performance for a 25-workstation configuration. Integrating into existing, non-MICROS networks requires special considerations.
- ◆ When determining system size, the total number of clients refers to all units, including POS Clients, KDS Clients, Hand-Held Terminals, and Backoffice Clients.

- ◆ **Resiliency** – Raid 5 is a resilient hard-drive configuration that will protect a site in the event of a single hard drive failure. Any sites that require additional operational and data resiliency should consider using a Raid 5 configuration on an appropriate server. It is always recommended to utilize raid configurations through the hardware controller and not recommended to use the raid features of the Operating System.
- ◆ **Dual Processors** – RES 5.0 and higher do support Dual Processors and Dual Core Servers, however RES applications will not take advantage of the dual-processor/core technology. This means that the user will not see a major performance improvement over a computer utilizing a single processor.
- ◆ For system purchases, RAM should be purchased in increments of 1 GB or greater. Not only is this the most cost effective option, it is the most efficient. Larger RAM means less slots are used and space is preserved for future expansion.
- ◆ A mass storage device is recommended when configuring your system. Make sure that this backup storage device has sufficient capacity to hold the MICROS database and all other critical files.

MICROS recommends backing up to the server's physical hard-drive or to another PC on the network (i.e., a 2015 workstation). Tape drives may still be used, but are no longer common. ZIP, Jazz, and CD Read/Write drives are not recommended as they do not have adequate capacity to backup a RES database.

RES 5.0 and higher installs an encrypted database. Sybase recommends that no compression be used when storing an encrypted database. This should be taken into consideration when selecting a backup storage device.

- ◆ Hard drives can be an important factor in selecting a PC. For maximum system performance, at least 33% of the hard-drive should be free during operations. This is true for each hard drive and each drive partition.

Disk defragmentation tools such as Diskeeper are recommended to

maintain hard drives at their most optimum performance.

System Configuration Types

System configuration is based on two factors: 1) number of clients, 2) volume of transactions.

For clarity, transaction levels are defined as follows:

- ♦ **Low Transaction volume** — Refers to a site where the volume of transactions rarely engages all workstations simultaneously. Hotels and some fine dining table-service restaurants (TSRs) are typically low-volume sites.
- ♦ **Medium Transaction volume** — Refers to a site where all workstations are often (but not always) engaged simultaneously. Family-style TSRs and moderately busy quick-service restaurants (QSRs) are examples of medium-volume sites.
- ♦ **High Transaction volume** — Refers to a site where all workstations are continually and simultaneously engaged. High transaction rates, during extended, peak meal periods are typical of QSRs. Also included in this category are TSRs and hotels with a busy bar, and stadiums and arenas where the transaction volume is concentrated during an event timeframe.

Recommended Configurations

System Purchases

This section provides a matrix of possible server configurations. To determine your optimum setup, match the letter in the Client/Volume table (top) with the corresponding column in the Server Configuration details table (below).

# of Clients	Low Volume	Medium Volume	High Volume
4	A	A	A
8	A	B	B

# of Clients	Low Volume	Medium Volume	High Volume
12	B	B	B
16	B	B	B
20	B	B	B

Note *Any system with more than 9 clients must automatically use Configuration B. Systems with more than 20 clients must use the Windows Server 2008 Operating System.*

Server Configuration	A (Less than 10 clients)	B (More than 10 clients)
Processor Speed	Pentium 4 3.2 GHz	Pentium 4 3.2 GHz
RAM	2GB	4 GB
HD Size	80 GB	80 GB
Network Card	10/100	10/100
CD Drive	DVD\CDRW Combo	DVD\CDRW Combo
OS	Windows 7 Pro, Enterprise, Ultimate	Windows Server 2008 R2, Windows 7 Pro ¹
KDS Controller OS requirements	Windows 7, XP, Server 2008	Windows Server 2008, Windows 7, XP

¹Windows 7 Pro supports up to 20 clients.

Client Requirements

RES Win 32 Client Requirements

The following table provides the minimum hardware requirements for RES user workstation clients:

Network	10/100 Interface Network
Processor	1.0 GHz
Random Access Memory (RAM) ¹	256 MB
Hard Drive	4 GB
Operating System	Windows XP Pro/WePOS/POS Ready/Win 7 (32 bit and 64 bit)
Virtual Registry Size	20 MB

¹RAM requirements for a specific operating system should be used when the minimum is higher than 256 MB.

RES Mobile MICROS Client Requirements

The following table provides the minimum hardware/software requirements for RES Mobile MICROS clients:

Network	802.11b Wireless Ethernet
Processor	ARM V4I - Compatibility
Random Access Memory (RAM)	128 MB
Operating System	Windows Mobile 5 or higher
Monitor	Monochrome or Color
Software	Windows Mobile Device Center

Pre Converting Databases for RES 5.0

RES databases version 3.1 and earlier cannot be upgraded to 5.0. They must first be upgraded to 3.2 or 4.x, and then pre converted and then upgraded to 5.0.

Pre Converting RES 3.2 Databases

Warning *RES 3.2 and 4.x databases that are pre converted for RES 5.0 will no longer work correctly in those earlier RES versions. Therefore all databases should be backed up prior to pre converting.*

- ◆ The pre convert script does not take the database to RES 5.0. It prepares the database to be upgraded to RES 5.0 later.
- ◆ Pre convert scripts are on the RES 5.0 CD in the support folder.
- ◆ All RES 3.2 databases must be pre converted prior to upgrading them to 5.0.
- ◆ After a 3.2 database has been pre converted, it can either be installed by RES 5.0 Setup, or restored from a command line after RES 5.0 is installed.

Steps to Pre Convert RES 3.2 Databases

1. Copy the "32PreConvertTo5x" folder onto your RES 3.2 server.
2. In MICROS Control Panel take Restaurant to 'OFF'.
3. Double click PreConvert32DB.bat.
 - ◆ The update should complete in 10-20 seconds.
4. Rename that Micros.DB to PreConverted32.DB (just for clarity), and copy it to the RES 5.0 Server.
5. If RES 5.0 has not yet been installed, you can run RES 5.0 Setup and select the PreConverted32.DB to be installed.

6. If RES 5.0 is already installed, see the 'Restoring Databases in RES 5.0' section on page 54.

Pre Converting RES 4.x Databases

Use the following list to determine what versions of RES 4.x databases can be upgraded to RES 5.0.

- ◆ 4.3 HF1 - This is the lowest Hotfix DB that can go to 5.0
- ◆ 4.3 HF2
- ◆ 4.3 MR3 - **CANNOT** be upgraded to 5.0
- ◆ 4.4
- ◆ 4.5 and 4.5 MR1
- ◆ 4.6 and 4.6 MR1
- ◆ 4.7 and 4.7 MR1, MR2, MR3
- ◆ 4.8 and 4.8 MR1 thru MR5
- ◆ 4.9 and 4.9 MR1

Warning *Any RES version not listed here cannot be upgraded to RES 5.0 or any 5.0 Maintenance Release.*

Warning *RES 3.2 and 4.x databases that are pre converted for RES 5.0 will no longer work correctly in those earlier RES versions. Therefore all databases should be backed up prior to pre converting.*

- ◆ The pre convert script does not take the database to RES 5.0. It prepares the database to be upgraded to RES 5.0 later.
- ◆ Pre convert scripts are on the RES 5.0 CD in the support folder.

All Enterprise Management databases, both corporate and store must be pre converted prior to upgrading to RES 5.0, regardless of RES version.

Note *For non EM databases:
A 4.8 Maintenance Release 4 database (or MR5), or
a 4.9 Maintenance Release 1 database, can be
upgraded directly to 5.0 without running a pre
convert script.*

*All other 4.3 HF 1 and higher database versions must
run the PreConvertRes4XTO50.mcs script prior to
upgrading to RES 5.0.*

Steps to Pre Convert RES 4.x Databases

1. Copy the 4xPreConvertTo5x.mcs to your 4.3 HF 1 or higher Server.
2. Have the 4.x DB to be converted running.
3. Open database manager with a user that has rights to do a database rebuild.
4. In database manager go to the Rebuild\Update tab.
5. Click the folder icon under Apply Scripts and browse to PreConvertRes4xTo50.mcs.
6. Select PreConvertRes4xTo50.mcs and click Apply Script.
 - ◆ In a few seconds database manager will show 'Successfully applied Micros Compressed Script to Database'.
7. Click the 'Backup Database' tab.

8. Enable '*Backup Database*' and click Run.
9. Rename the Database\Data\Backup\Archive\4x.MBZ file just created to PreConverted4x.MBZ (just for clarity), and copy it to the RES 5.0 server.
10. If RES 5.0 has not yet been installed, you can run RES 5.0 Setup and select the PreConverted4x.MBZ to be installed.
11. If RES 5.0 is already installed, see the '*Restoring Databases in RES 5.0*' section on page 54.

Running Server Setup

Before the RES 5.0 Prerequisites can be installed, the server must meet the minimum requirements for third-party applications that are integral to RES operations. A list of these programs is provided below.

Before Installing the RES 5.0 Prerequisites

This section covers the applications that must be installed on a RES Server prior to installing the RES 5.0 Prerequisites.

1. Internet Information Services (IIS)
2. Adobe Reader 9 or greater
3. .NET Framework 3.5 sp1 (already a part of Windows 7 operating system)
4. .NET Framework 4.0

Steps to install each of the applications listed above follows.

IIS Installation

Follow these steps to install Internet Information Services (IIS).

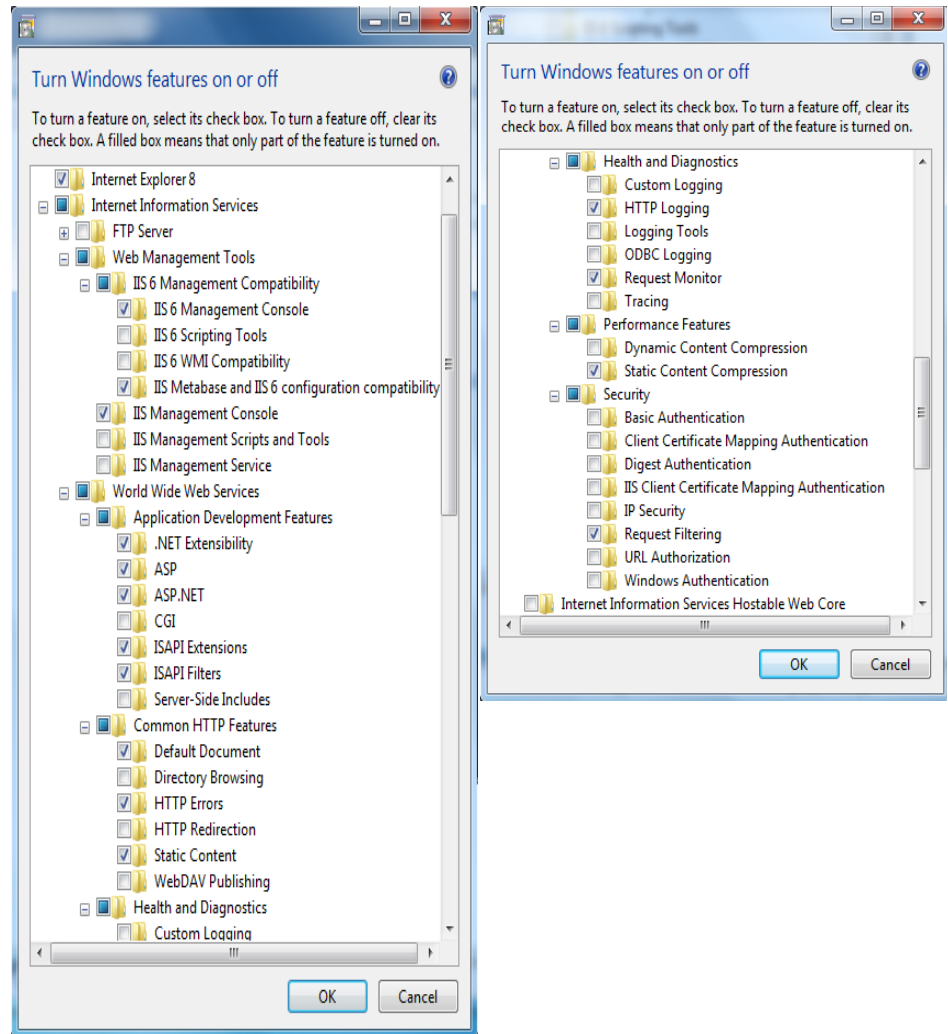
(Refer to Appendix C, for more information on the IIS program.)

On Windows 7

1. From the Windows Start menu, select *Control Panel / Programs and Features*.
2. Click '*Turn Windows features on or off*' located on the left side of the dialog box.
3. Check the box to enable *Internet Information Services (IIS)*.
4. Expand *Internet Information Services / Web Management tools / IIS 6 Management Compatibility*, and enable:
 - ◆ '*IIS 6 Management Console*'
 - ◆ '*IIS Metabase and IIS 6 Configuration compatibility*'
5. Enable *Web Management tools / IIS Management Console*.
6. Expand *World Wide Web Services / Application Development Features*, and enable:
 - ◆ ASP
 - ◆ ASP.net
 - ◆ This will enable a few other options.
7. Expand *Common HTTP Features* and enable:
 - ◆ Default Document
 - ◆ HTTP Errors
 - ◆ Static Content
8. Expand *Health and Diagnostic* and enable:
 - ◆ HTTP Logging
 - ◆ Request Monitor
9. Expand *Performance Features* and enable:

◆ Static Content Compression

10. Click OK.



On Windows Server 2008 R2

1. From the Windows Start menu, point to *Administrative Tools* and then click *Server Manager*.
2. In *Roles / Role Summary*, click *Add Roles*.
3. Click *Next*.
4. Enable *Web Server (IIS)*, click *Next*, and click *Next* again.
5. Enable *Asp.net*.
6. Click '*Add Required Role Services*'.
7. Enable *Asp*.
8. If prompted, click '*Add required role services*'. Under *Health and Diagnostics* enable:
 - ◆ *HTTP Logging*
 - ◆ *Request Monitor*
9. Enable *IIS Management Console*.
10. Scroll down and enable '*IIS 6 Management compatibility*'.
11. Click *Next*.
12. Click *Install*.

Adobe Reader

- ◆ Installation of Adobe 9 or higher will be required prior to installing RES 5.0 Prerequisite.

.Net Framework

- ◆ .Net Framework 3.5 sp1 and 4.0 is required prior to installing RES 5.0 Prerequisite.

Note: .Net Framework 3.5 sp1 is already installed on Windows 7 operating system.

Windows Server 2008 R2, 64 Bit

1. Click the Server Manager icon, located to the right of the start button.
2. Highlight '*Features*'.
3. Add Features.
4. Enable check box for .Net Framework 3.5 sp1.
5. Click '*Add Required features*'.
6. Click Next.
7. Click Install.
8. .Net Framework 4.0 can be installed by downloading it from Microsoft.
 - ◆ <http://www.microsoft.com/downloads/en/details.aspx?FamilyID=9cfb2d51-5ff4-4491-b0e5-b386f32c0992&displaylang=en>

Limitations

Please note the following caveats and limitations before running Setup for RES 5.0 or higher:

- ◆ Due to changes in setup processes, RES no longer supports Repairing or Modifying features. If a problem occurs, sites will have to reinstall the software.
- ◆ Removing software via the *Add/Remove* programs applet does not append to the **MICROSRESSETUP.LOG** on the server.

To assist the user, the MICROS setup process has been divided into two installation programs. A separate CD is provided for each:

- ◆ **Prerequisites** — Installs or upgrades all of the necessary third-party applications. This should be done first.

- ◆ **RES** — Installs or upgrades the selected RES application files and updates the MICROS database.

Please note that a successful installation requires the two setup programs to have compatible version/build numbers. In other words, to ensure that RES 5.0 installs properly, the user must first load the 5.0 Prerequisites.

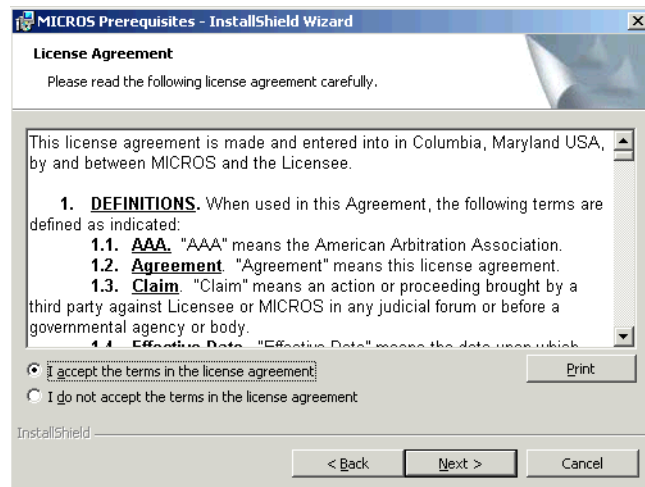
Follow the steps below to install the system software on a RES Server PC.

Installing the Prerequisites

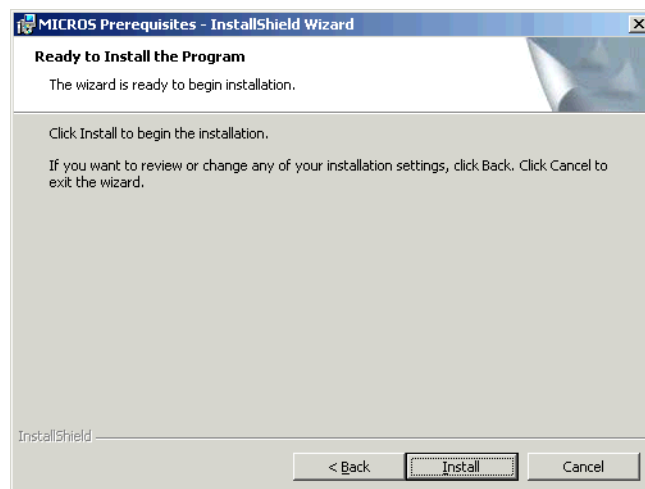
1. Log into windows as an administrative user, but not as the windows *'built -in'* administrator.
 2. In *Control Panel | User Accounts*, click *'change user account control settings'*.
 3. Verify the *'Default'* setting is selected.
- ◆ If not, then set it to *'Default'*, click OK, and reboot.
4. Insert the RES 5.0 Prerequisites CD in the PC's CD-ROM drive. If the welcome screen does not display automatically, then go to the root of the CD and double click the setup.exe.



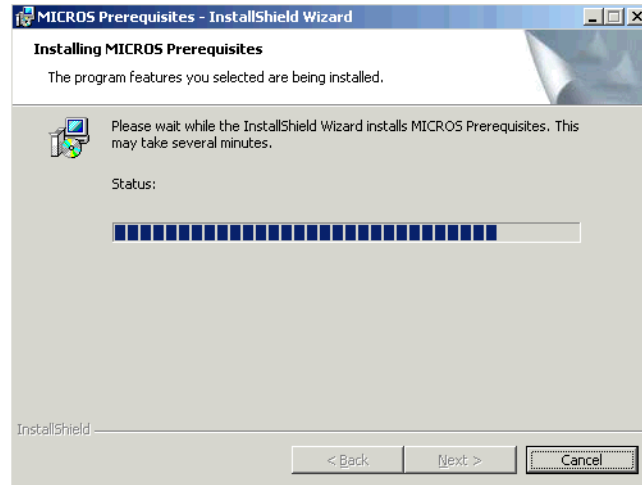
5. Click **Next** to continue the installation. The Licensing Agreement is displayed.



6. Scroll down to review or click **Print** to print the license agreement using the active printer. You must accept the license agreement before the **Next** button is enabled.
7. Click **Next** to accept terms of the license agreement. A confirmation screen is displayed.



- Click **Install** to continue. A status screen is provided to monitor the progress as the prerequisites are installed.



Note *When upgrading a previous 5.0 installation, a problem may arise with the previously installed prerequisite files. This is very rare.*

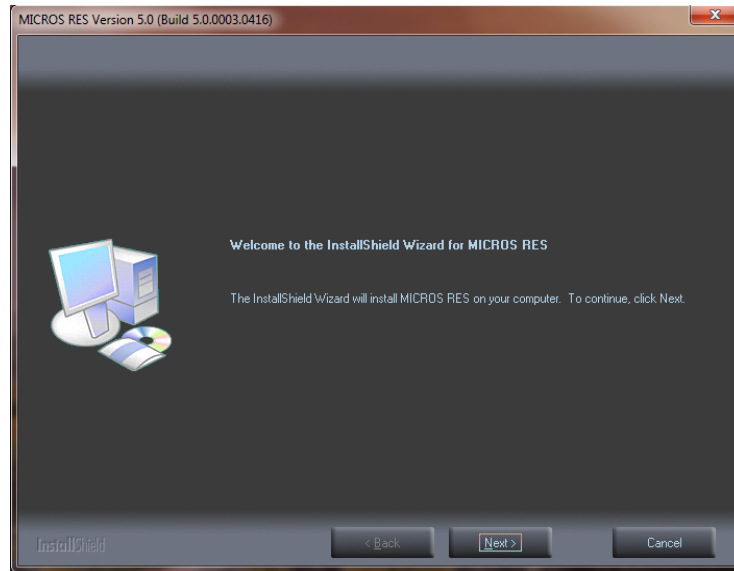
*If this occurs, the system will prompt you to remove and reinstall the prerequisites. To do this, you must uninstall the RES release **BEFORE** uninstalling the prerequisites. Once all files are removed, you can install the newer versions of each.*

- If no problems are encountered, the system will display a screen when the installation has been completed successfully. Press **Finish** to exit the setup program.

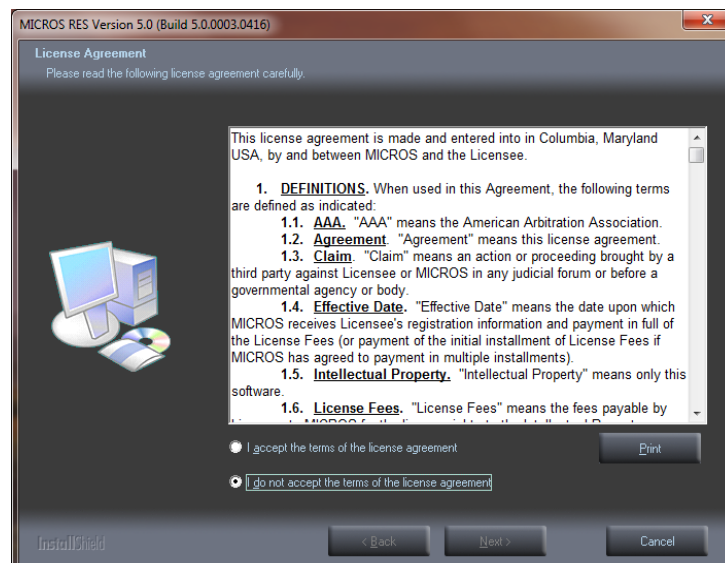
Installing RES

- Insert the RES Version 5.0 Program CD into the PC's CD-ROM drive.
- Go to the root of the CD and double click setup.exe.

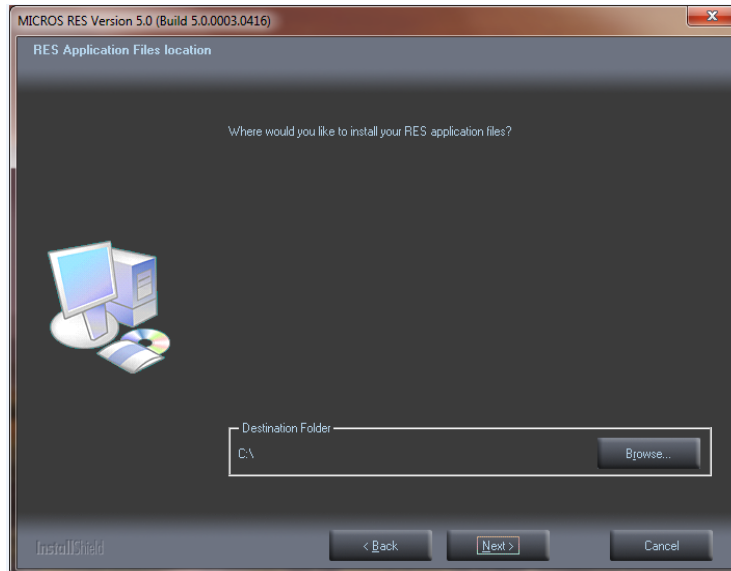
- When prompted about allowing changes to the computer, click 'yes'. The Welcome screen is displayed.



- Click **Next** to continue the installation. The Licensing Agreement is displayed.



5. Enable the “*I accept the terms of the license agreement.*”
6. Click **Next** to accept terms of the license agreement.

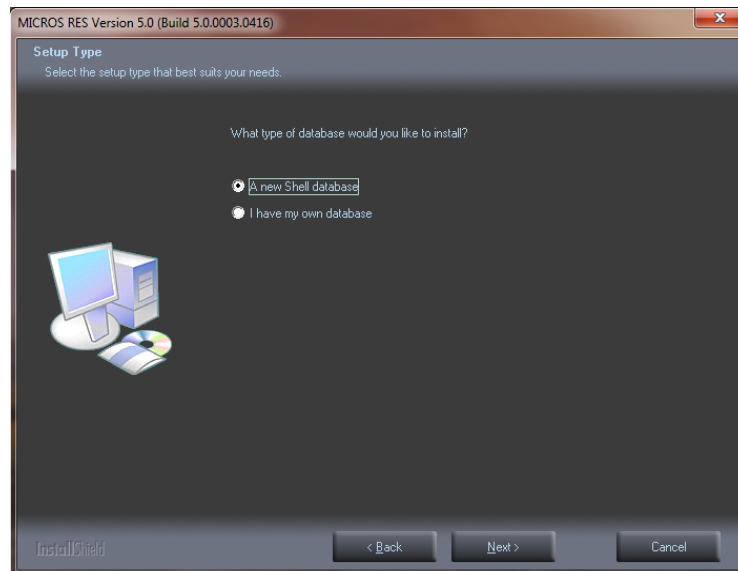


7. Use the **Browse** button to specify where you want the MICROS files installed. The default location is *C:*.

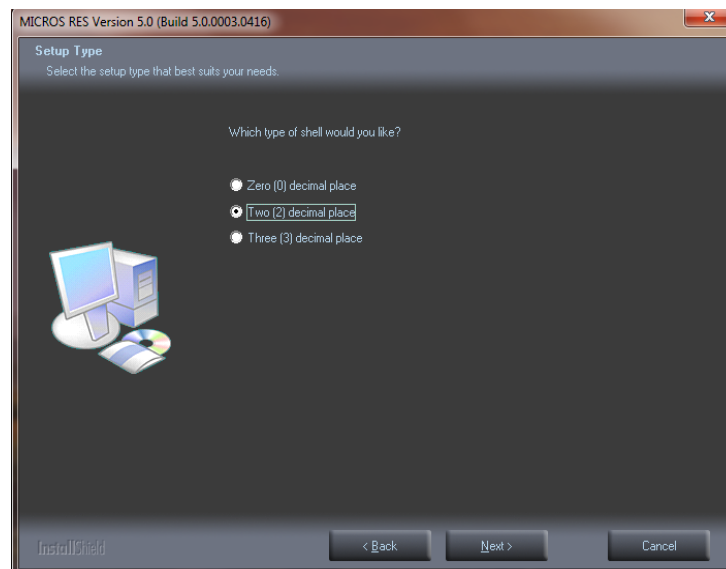
Note *RES can be installed to the root of any local drive. C: D: etc. RES should not be installed to any folders off the root.*

Once a drive is selected, the system will check to ensure that there is sufficient space available to continue the installation.

8. Press **Next** to continue. The database selection screen is displayed.



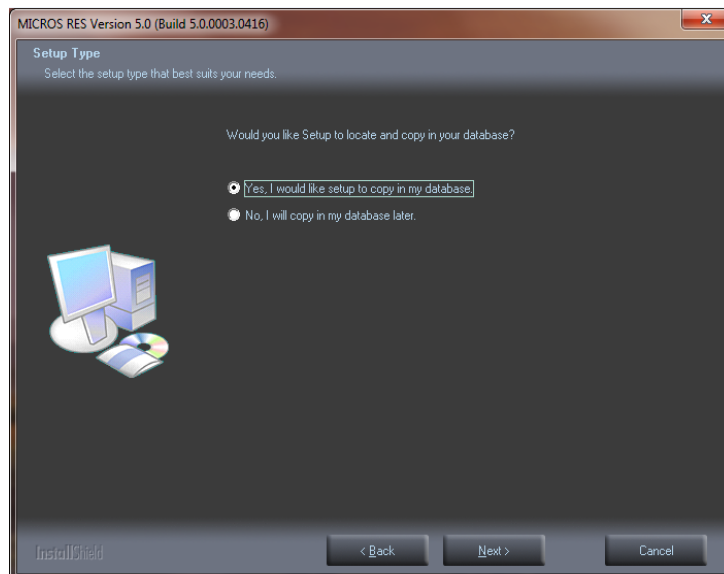
9. Select the appropriate radio button to install a database or upgrade an existing one.
 - ◆ If a shell database is selected, a follow-up screen is shown.



A shell database allows you to start programming from scratch with no preconfigured options or touchscreens. The number of decimal places selected depends on the currency used. For example, the US Dollar uses 2 decimal places and the Russian Ruble uses 3.

Select the appropriate option and click **Next** to continue.

- ◆ If updating an existing database, a different screen is displayed, asking if you want setup to copy your database in during installation or if you will do this manually at a later time.



- ◆ If **Yes** is selected, the Select User's database screen is displayed, asking for the database location. Use the **Browse** button to display a standard Open File dialog box and navigate to it.

Note *The database selected must be in the correct format for it's RES version.*
 3.2=.DB
 4.x=.MBZ
 5.0=.MBZ5

Note *If selecting a 3.2 or 4.x database, be sure to read the 'pre convert database' section on page 30.*

- ◆ If **No** is selected, setup will complete without installing a database.
10. Once the database is selected for installation, click next, and the system prompts for a destination folder. Use the **Browse** button to navigate to the preferred location.

Note *The database can be installed to the root of any local drive. It should not be installed to any folder off of the root.*

11. Click **Next** to continue. A summary of the selected options is provided for review.
12. Click **Next** when you are ready to proceed. Setup will run for approximately 10 minutes plus the time to update the database.
13. Reboot the system, when prompted.

Note *Once RES 5.0 is installed it is no longer necessary to log in as an administrator. A standard user account may be used.*

- ◆ MICROS recommends keeping the user account control set to the Default level.
- ◆ After RES setup completes and the server is allowed to reboot, the following steps should be taken to ensure proper configuration.
1. Open Micros Control panel and take Restaurant to Database level.

**Server
Configuration**

2. Open POS Configurator to *Sales / Network Node*.
 3. Fill in the correct Computer Name, IP Address, Subnet Mask and Workstation Type for all nodes, especially the server. Save changes.
 4. Click 'Update Host File'.
 - ♦ If prompted for administrator permission to allow Windows Command Processor to make changes, do allow the changes to be made. You may be required to provide the administrator password.
 5. Open Micros Control Panel, highlight Restaurant and click Reload DB. Wait for the Reload to complete.
 6. Take Restaurant to OFF.
 7. Reboot the server.
- ♦ Note: These same steps should be taken whenever a new database is restored.

Before Running POS Operations

If a 3.2 database was installed the encryption keys will need to be created before POS operations will run. To do this:

1. Setup an employee with access privileges for Database Manager (*POS Configurator / Employees / Employee Classes / Privileges / Privilege Options \ **Allow Encryption Key Change***).
2. From the Windows Start menu, select *All Programs / MICROS Applications / Utilities / Database / MICROS Database Manager* to launch the DM application.
3. Select the *Encryption Keys* form
4. Check the **Change Database Key**, **Change Data Key**, and **Change Transport Key** options and then press the **Change Encryption Keys** button.

From here, the system may be configured and run as usual.

MICROS RES Setup Log File

RES Setup creates a log file for both clients and servers. This file documents all events during setup in case some part of the installation is in question and the log is needed for reference. The following table specifies the name and location of this log by device type.

Type	Filename	Location
Server	MicrosPrerequisitesSetup.log MicrosResSetup.log MicrosResPatch.log	\Windows
Win32 Client	Setup_log.txt	\CALTemp\Packages\ Win32RES
WS4 Client	Setup_log.txt	\CF\CALTemp\Packag es\WS4RES
WS4 LX Client	Setup_log.txt	\CF\CALTemp\Packag es\WS4LXRES
WS5 Client	Setup_log.txt	\CF\CALTemp\Packag es\WS5RES
WS5A Client	Setup_log.txt	\CF\CALTemp\Packag es\WS5ARES
RDC Client	Setup_log.txt	\FS2\CALTemp\Packag es\DCRES
HHT Client (Symbol MC50)	Setup_log.txt	\Application\CALTemp\ Packages\PPCRES
HHT Client (Symbol MC70)	Setup_log.txt	\Application\CALTemp\ Packages\PPC70RES
HHT Client (Symbol MC55A)	Setup_log.txt	\Application\CALTemp\ Packages\PPCRES
HHT Client (Symbol MC75)	Setup_log.txt	\Application\CALTemp\ Packages\PPC75RES
HHT Client (DT 410)	Setup_log.txt	\Application\CALTemp\ Packages\DT410RES

Type	Filename	Location
HHT Client (DT 415)	Setup_log.txt	\Application\CALTemp\ Packages\DT415RES
HHT Client (DT430)	Setup_log.txt	\Application\CALTemp\ Packages\DT430RES

Running Client Setup

This section provides instructions for installing RES on both hard-drive, hand-held and CE clients.

Hard-Drive Client Installation

RES 5.0, hard-drive clients use the Client Application Loader (CAL) technology to locate, install, and maintain the most up-to-date programs implemented on the RES Server.

For Windows Clients

1. Verify that the appropriate version of Windows is installed.

Note *If installing to a Windows 7 client the user account control should be set to default.*

2. Verify that the appropriate version of CAL Client is installed.

Note *All Win32 clients should use CAL version 116 or higher.*

3. Verify that Internet Explorer 8.0 sp1 (or higher) is installed.
4. Verify that .NET Framework 3.5 sp1 is installed.

Since workstations typically do not have a keyboard connected, it is necessary to configure the system to perform an auto-admin logon. An administrative user should be used when running CAL. MICROS recommends that you DO NOT use the legacy microssvc user for this purpose.

5. Enable the Windows Autologon feature as a valid Windows user.
 - ◆ Select *Start / Run / Regedit*.
 - ◆ Go to *My Computer\HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\ Winlogon*.
 - ◆ Verify that the following three STRING values are added/modified:
 - ◆ AutoAdminLogon = 1
 - ◆ DefaultUserName = User name of your choice
 - ◆ DefaultPassword = Password of the user you choose
6. Close Regedit and reboot the workstation. This Windows client should automatically login after the above steps are completed.
7. Plug into the MICROS network and boot up the client.
8. Use the CAL configuration to link this client into the system. The client application loader should start downloading the RES software right after the configuration is complete.

Note *When configuring the CAL Client application path, the user can select the drive, but the path should not be specified. An error will occur if a non-root application path is entered (e.g. C:\MICROSAPPS).*

**Mobile MICROS
(MMH) Client
Installation**

RES supports the following handheld devices:

- ◆ Motorola MC55
- ◆ Symbol MC70
- ◆ Motorola MC55A
- ◆ Symbol MC75A
- ◆ DT Research WebDT 410

- ◆ DT Research WebDT 415
- ◆ DT Research WebDT 430

Perform the following steps to install handheld devices:

1. Configure your wireless network.
2. Run CAL.

Mobile MICROS General Information

Using a Static IP Address

Special consideration is required when using a Static IP address.

It has been determined that when using Windows Mobile 5.0 and higher, CAL has trouble setting a static IP address from within the “Choose a Client” window on a re-configuration. DHCP has no known CAL-related issues.

As a workaround, MICROS Systems, Inc. has developed a separate utility, StaticProfile.exe, to be used when implementing Static IP addresses with the Symbol MC55A/MC55 and MC75A/MC70. This utility is not necessary if you never plan to reconfigure the device once it is setup.

The StaticProfile.exe utility is located on the \Application folder of the Symbol MC55A/MC55 and MC75A/MC70. If StaticProfile.exe does not exist in the \Application folder of the MC55A/MC55 or MC75A/MC70 use an SD card or active Sync to copy it there. You may contact the MICROS Systems, Inc. help desk and request copy of the “StaticProfile.exe” utility via e-mail.

Follow the instructions below:

1. Once StaticProfile.exe is in the \Application folder, tap it to launch.

2. Tap the StaticProfile.exe. A message will display “This process will Reboot the Device.” Click OK.
3. The Application opens.
4. In the “Profile Name” box, enter the SSID of your Wireless Infrastructure. *Note: The profile name is case sensitive.*
5. In the “IP Address Box,” enter the static IP address of your MC55A/MC55 or MC75A/MC70.
 - ◆ The DT Reseach handhelds (410, 415, and 430) do not need the Static.Profile.exe.
6. In the “Subnet Mask” box, enter the subnet address of your network.
7. In the “Encryption” box, select the encryption method appropriate to your Wireless security.
8. If using a passphrase, enter the passphrase into the “Pass key” box.
9. If using a Hex Key, enter the hex key into the “Pass Key” box.
10. In the “Key Index” box, enter the key number.
11. If using the 802.11d internationalization standard, choose your “Country Code.”
12. Click [**Create**] and the StaticProfile utility will reboot the MC55A/MC55 or MC75A/MC70.
13. Once the new static Profile is created, proceed to use CAL, even when changing an IP address.

When the Access Point Becomes Out of Range

To ensure the Mobile MICROS device does not connect to unwanted access points when it is out of range of the access point, follow the steps below:

1. After configuring the wireless network, navigate to the MMH desktop and tap the network icon in the bottom right corner of the screen.

2. Select WAN Profiles.
3. Move your main profile to the top of the list.
4. Move any secondary profiles you may wish to use just below the Main profile.
5. Delete all WAN profiles that you do NOT wish to use.
As a secondary option, you could just Disable the other profiles, if you want to use them in the future.

Note *When reconfiguring CAL on hand held devices, in some cases it may be necessary to enter the Server's IP address as the client's Default Gateway.*

Workstation CAL Client Installation

This section covers the following CE clients:

- ◆ Workstation 4
- ◆ Workstation 4LX
- ◆ Workstation 5
- ◆ Workstation 5A

Note *For more information on the workstations, please refer to the Workstation (4, 4LX, 5, and WS5A) Setup Guide, available on the MICROS website under Products | Hardware Solutions | Documentation.*

Follow these steps to install a workstation:

1. Unpack the device and connect to the system LAN.
2. When the device is powered up for the first time, the CAL looks for and displays a list of CAL Servers on the network.

3. Select a CAL Server and click OK. A list of the Server's available workstations is displayed. Workstations configured but not assigned are placed at the top of the list.
4. Select an available workstation and click OK. The system will automatically load the workstation ID and network configuration fields. This may be changed manually, if desired.
5. Save the configuration. The system will automatically transfer the required application software.
6. Once all software has been downloaded, the 3700 POS and/or KDS applications will start.

RDC Client Installation

Note *RDC clients require .Net Compact Framework 2.0 to be compatible with RES 5.0. RES 4.x and lower used .NET Compact Framework 1.0. See Tips, Traps and Precautions | KDS section for details on how to upgrade an RDC to .NET Compact Framework 2.0.*

Follow these steps to install an RDC Client:

1. Unpack the device, attach a keyboard or bump bar, and connect to the system LAN.
2. When the device is powered up for the first time, the CAL looks for and displays a list of CAL Servers on the network.
3. Use the **Up/Down Arrows** on the bump bar or keyboard to scroll the list and highlight the required server. Click **OK** to accept the entry.

Once a server is identified, a list of the RDC workstations is displayed, along with their current status. To be included on the list, the device must have been added to the system through POS Configurator.

4. Use the **Up/Down Arrows** on the keyboard or bump bar to highlight a selection and press **Save/OK** to accept. The system will automatically load the workstation ID and network configuration fields. This may be changed manually, if desired.
5. Save the configuration. The system will automatically transfer the required application software.
6. Once all software has been downloaded, KDS applications will start.

Restoring Databases in RES 5.0

This section covers restoring databases to an existing RES 5.0 system.

If restoring a 3.2 or 4.x DB to a RES 5.0 system, you should first read the *'Pre Converting Databases'* section on page 30.

- ◆ Restoring from a Micros.DB and a MicrosKeyBackup.mbz or MicrosKeyBackup.MBZ5 is not supported.
- ◆ Restoring a 4.x database must be only from a complete Micros.MBZ.
- ◆ Restoring a 5.x database must be only from a complete Micros.MBZ5.
- ◆ Database Manager (DM) determines what type of database it is by the extension.
 - ◆ Micros.DB = 3.2
 - ◆ Micros.MBZ = 4.x
 - ◆ Micros.MBZ5 = 5.0
- ◆ If the database has the incorrect extension, DM will believe it is a different version than it actually is, and therefore any update actions taken will fail.

- ◆ A RES50.MBZ5 database can be restored from either the Database Manager GUI, or from a command line.
- ◆ RES 3.2 and 4.x databases can only be restored from the command line.
- ◆ When restoring a RES50.MBZ5 from the Database Manager GUI, it will save a copy of the existing 5.0 database as Data\Replaced.mbz5 just like it did in 4.x.
- ◆ But if restoring any version of a RES database from the command line, any existing micros.db and micros.log left in the Micros\Database\Data folder will be deleted.

Steps to Restore a 3.2 Database to a RES 5.0 Server

1. Copy your PreConverted32.DB to the RES 5.0 Server.
2. On the RES 5.0 Server open Micros Control Panel and take Restaurant to OFF.
3. Rename or remove any existing Micros\Database\Data\Micros.DB and Micros.log.
 - ◆ Warning: If you do not do this, they will be deleted.
4. From CMD line: DM -u <path to PreConverted32.DB>
 - ◆ Example: DM -u C:\Temp\PreConverted32.DB
5. If there are spaces in the path, then double quotes must be used.
 - ◆ Example: DM -u "C:\My DBs\PreConverted32.DB"
6. This will restore, rebuild and upgrade the database.
7. The server and database will use the 4.0 default encryption keys and DBA and Micros passwords.

8. Micros recommends changing the encryption keys and DBA and Micros passwords.

Steps to Restore a 4.x Database to a RES 5.0 Server

1. Copy your PreConverted4x.MBZ to the RES 5.0 Server.
2. On the RES 5.0 Server open Micros Control Panel and take Restaurant to OFF.
3. Rename or remove any existing Micros\Database\Data\Micros.DB and Micros.log.
 - ♦ Warning: If you do not do this, they will be deleted.
4. From CMD line: DM -u <path to PreConverted4x.MBZ>
 - ♦ Example: DM -u D:\Temp\PreConverted4x.MBZ
5. If there are spaces in the path, then double quotes must be used.
 - ♦ Example: DM -u "C:\My DBs\PreConverted4x.MBZ"
6. This will restore, rebuild and upgrade the database.
7. The server and database will use the encryption keys and passwords from the 4x.MBZ.

Appendix A: GSS Setup

Installing Caller ID with Rochelle Box

Use the following steps to install Caller ID with the Rochelle Box.

Note Before installing Caller ID with the Rochelle box, contact the phone company to have the phone line split so that one part goes to the phone and the other part goes to the Rochelle box.

Rochelle Model 2045

1. Add the following registry entry to the server:

Key Location	[HKEY_LOCAL_MACHINE\SOFTWARE\MICROS\GSS\CALLERID\ROCHELLE\PARAMETERS]
Name	ComPort
Data	COM1*

*COM1 is the default setting. If using Caller ID on a COM port other than COM1, be sure to set the value accordingly.

2. Attach the Rochelle Caller ID box to the correct COM port on the Server.
3. Start the MICROS Caller ID Service from the Windows Control Panel Services.

Note Visit www.rochelle.com for more information about installing your Caller ID device.

**Rochelle Model
2050**

1. Add the following registry entry to the server:

Key Location	[HKEY_LOCAL_MACHINE\SOFTWARE\MICROS\GSS\CALLERID\ROCHELLE]
Name	NumDevices
Data	1

The device registry settings for the first device are added at the key location shown below. Default parameters are provide:

Key Location	[HKEY_LOCAL_MACHINE\SOFTWARE\MICROS\GSS\CALLERID\ROCHELLE\PARAMETERS]
Name	ComPort
Data	COM1*
Name	ComParameters
Data	Baud = 2400 Parity = N Data = 8 Stop = 1
Name	InitString
Data	AT_F0\r\nAT_R0=0\r\n
Name	DeviceLines
Data	4

*COM1 is the default setting. If using Caller ID on a COM port other than COM1, be sure to set the value accordingly.

The device registry settings for each additional device are added at \SOFTWARE\MICROS\GSS\CALLERID\ROCHELLE\PARAMETERS[#], where [#] refers to the device number. The table below provides the default parameters for sample Device 2:

Key Location	[HKEY_LOCAL_MACHINE\SOFTWARE\MICROS\GSS\CALLERID\ROCHELLE\PARAMETERS2]
Name	ComPort
Data	COM3
Name	ComParameters
Data	Baud = 2400 Parity = N Data = 8 Stop = 1
Name	InitString
Data	AT_F0\r\nAT_R0=0\r\n
Name	DeviceLines
Data	4

2. Attach the Rochelle Caller ID box to the correct COM port on the Server.
3. Start the MICROS Caller ID Service from the Windows Control Panel Services.

Note Visit www.rochelle.com for more information about installing your Caller ID device.

Running Caller ID in Demo Mode

Use the following steps to run Caller ID in Demo Mode:

1. Add the following registry entry to the server:

Key Location	[HKEY_LOCAL_MACHINE\SOFTWARE\MICROS\GSS\CALLERID\ROCHELLE\PARAMETERS]
Name	ComPort
Data	COM1*

*COM1 is the default setting. If using Caller ID on a COM port other than COM1, be sure to set the value accordingly.

2. Attach a null model cable from COM1 to COM2 on the server.
3. Start the Rochelle Emulator.
4. Start the MICROS Caller ID Service from the Windows Control Panel Services.

Note *The Rochelle emulator can be found on the Guest Services Solution product page at www.micros.com.*

Appendix B: Firewall Setup

Firewall Setup

Firewalls should be enabled prior to installing RES 5.0 on a RES server or Win 32 client.

If the firewall is enabled after installation, the clients will not be able to communicate with the server and will continuously display prompts for Backup Server Mode (BSM) and Stand-alone Resiliency (SAR).

Once RES is installed, the problem can be corrected by running the batchfile %**MicrosDrive%**\Micros\common\Bin\ConfigureICF.bat. This will update the exceptions list that RES needs to successfully run with the firewall enabled.

Appendix C: Frequently Asked Questions (FAQs)

This section provides answers to the most frequently asked questions about RES.

RES 5.0 Issues

1. Why won't the image display after I replace the **res3700.bmp** file in \micros\res\pos\etc folder?

The **res3700.bmp** has been moved to the **Bitmaps** folder under MICROS. RES Setup automatically moves this file from its old location to the folder. If you wish to place your own **res3700.bmp** on the system, you must copy it to the appropriate folder location on each client, as indicated below:

***Note** A single .bmp file may be used on all three platforms. However, you may want to create a separate file for the Mobile MICROS due to its smaller screen size.*

- ◆ **Win32 Clients** — \MICROS\RES\POS\Bitmaps.
- ◆ **WS4 Clients** — \MICROS\Bitmaps:

To replace the file on the WS4:

1. Copy the **res3700.bmp** to the following folder on the RES Server: **\MICROS\RES\CAL\WS4\Files\CF\MICROS\Bitmaps**
2. Wait up to 30 seconds for the file to transfer to the WS4 Client.
3. Reboot the WS4 Client to load the image for POS Operations.

◆ **WS4 LX Clients — \MICROS\Bitmaps:**

To replace the file on the WS4 LX:

1. Copy the **res3700.bmp** to the following folder on the RES Server: **\MICROS\RES\CAL\WS4LX\Files\CF\MICROS\Bitmaps**
2. Wait up to 30 seconds for the file to transfer to the WS4 LX Client.
3. Reboot the WS4 LX Client to load the image for POS Operations.

◆ **WS5 Clients — \MICROS\Bitmaps:**

To replace the file on the WS5:

1. Copy the **res3700.bmp** to the following folder on the RES Server: **\MICROS\RES\CAL\WS5\Files\CF\MICROS\Bitmaps**
2. Wait up to 30 seconds for the file to transfer to the WS5 Client.
3. Reboot the WS5 Client to load the image for POS Operations.

◆ **Mobile MICROS — \MICROS\Bitmaps.**

To replace the file on the Mobile MICROS client:

1. Copy the **res3700.bmp** to the following folder on the RES Server: **\MICROS\RES\CAL\HHT\MICROS\Bitmaps**
2. Wait up to 30 seconds for the file to transfer to the Mobile MICROS Client.
3. Reboot the Mobile MICROS Client to load the image for POS Operations.

◆ **PPC Clients — \MICROS\Bitmaps:**

To replace the file on the PPC:

1. Copy the **res3700.bmp** to the following folder on the RES Server: **\MICROS\CAL\PPC\Files\MICROS\ Bitmaps**
2. Wait up to 30 seconds for the file to transfer to the PPC Client.
3. Reboot the PPC Client to load the image for POS Operations.

◆ **PPC70 Clients — \MICROS\Bitmaps:**

To replace the file on the PPC70:

1. Copy the **res3700.bmp** to the following folder on the RES Server: **\MICROS\CAL\PPC70\Files\MICROS\ Bitmaps**
2. Wait up to 30 seconds for the file to transfer to the PPC70 Client.
3. Reboot the PPC70 Client to load the image for POS Operations.

Note *Bitmaps used for POS touchscreen keys should also be placed in the \Bitmaps folder.*

2. Why are all client nodes listed in the POS Configurator (Devices | Network Nodes) displayed in the MICROS Control Panel even when they are not currently connected to the system?

With this release, MICROS Control Panel allows the user to specify whether all client nodes or just connected client nodes will be displayed. Previously (Version 3.1 and lower), only connected client nodes were shown. This remains the default behavior.

To display all clients:

1. From the Windows Start Menu, select **Programs | MICROS Applications | MICROS Control Panel**.

2. Go to the menu bar and select **View | Show All Clients**. The system tree is modified to display all clients.

3. After changing the computer name or IP address of the Server, why can't I start POS Operations on any of my clients?

Changes made to the Server identity are not automatically propagated out to the clients. To send these changes to the clients:

1. After making changes in network node, click the “*Update Host File*” button.
2. From the Windows Start Menu, select **Programs | MICROS Applications | MICROS Control Panel**.
3. Highlight the SQL Database Server node.
4. Go to the Status tab and click the **Reload** button.
5. Take Restaurant to ‘*OFF*’.
6. Reboot server.

Within a few minutes, the clients should be operational.

4. Is the host file still important to the system?

Yes, the host file is still used by the RES System and must be accurate. The RES System also uses a file called **MDSHosts.xml**. This file is automatically generated by the system and should not be manually copied or edited by the user. The location of the file depends on the platform, as indicated below:

- ♦ **Server** — \MICROS\Common\etc
- ♦ **Win32 Clients** — \MICROS\Common\etc

- ◆ **WS4, WS4 LX, WS5 Clients** — \CF\MICROS\etc
- ◆ **Mobile MICROS** — \MICROS\etc
- ◆ **RDC Clients** — \FS2\MICROS\etc

***Note** For troubleshooting purposes, this file may be read only.
Do not edit this file in any way.*

This file is generated by the system and is based on information from the MICROS database. The following POS Configurator forms need to have accurate client information in order for the file to be correct:

- ◆ *Devices / Network Node*
- ◆ *Devices / Devices*
- ◆ *Devices / User Workstations*
- ◆ *System / Restaurant*

Client Issues

1. Can I save the Compact Flash on a malfunctioning MICROS 3700 WS4?

Yes. If you have a WS4 Client that has gone bad, you simply remove the Compact Flash from that unit and install it into a good WS4.

***Note** For information and instructions on removing/installing the Compact Flash, please refer to the Workstation 4 Setup Guide, available on the MICROS website under Products / Hardware Solutions / Documentation.*

2. Can I move a WS4 from one system to another?

Yes. To do this, follow these steps to remove the MICROS folder from the Compact Flash of the WS4 before installing a unit into a RES System:

1. On the WS4, open the Windows Explorer and navigate to \CF.
2. Delete the \MICROS subfolder at this location.
3. Power up the WS4 Client and establish a network connection to the system.
4. Reconfigure CAL as follows:
 - ◆ Select Start | Programs | CAL | Reconfigure CAL.
 - ◆ Select the RES Server to which this WS4 will be connected. (Do not select the DHCP option.)
 - ◆ Select a name for this WS4 Client from the list of available nodes.
 - ◆ Save the configuration. CAL will update the unit with the system application software.

3. How do I map a drive to a WS4 client?

You don't. The WS4 does not allow files to be transferred to it using traditional Windows methods. Instead, files are transferred to the unit via the Client Application Loader (CAL). For information on setting up CAL packages and files, refer to *Client Application Loader (CAL) File Specification (MD0003.061)*.

On the other hand, the system Server and its hard-drive (Win32) clients may be accessed *from* the WS4 using a method similar to Windows mapping. To do this:

1. From the WS4, open the Windows Explorer.
2. In the location box, type the UNC path of the PC to be accessed.

For example, to access the **c:\micros\res\pos** share on a server with a computer name of “RESServer 5,” enter
\\RESServer5\micros\res\pos.

Once the appropriate share has been accessed, you may perform the required Windows operation.

4. How do I set up my custom icons to work on a Mobile MICROS and WS4 client?

The **customicons.dll** created for previous versions of RES will work only on hard-drive clients. Additional **customicons.dll** files were created for Mobile MICROS and WS4 devices. As before, you will need to load your own icons into these files using an Icon Editor.

All **customicons.dll** files are available in the **Support\CustomIcons** folder on the RES 5.0 CD and must be manually copied to the folder location for each client type:

- ◆ **Win32 Clients** — **\MICROS\RES\POS\Bin**
- ◆ **WS4 Clients** — **\MICROS\Bin**

To copy the file to the WS4:

1. Create a **\MICROS\RES\CAL\WS4\Files\CF\MICROS\Bin** folder on the RES Server:
2. Copy the WS4 **customicons.dll** to this folder.
3. Wait up to 30 seconds for the file to transfer to the WS4 Client.

- ◆ **Mobile MICROS** — **\MICROS\Bin**

To copy the file to the Mobile MICROS client:

1. Create a **\MICROS\RES\CAL\HHT\MICROS\Bin** folder on the RES Server:
2. Copy the Mobile MICROS **customicons.dll** to this folder.
3. Wait up to 30 seconds for the file to transfer to the Mobile

MICROS Client.

Note *You will need to reboot the clients in order for the images to take effect.*

5. How do I copy my OPSDisplayUser.cfg to all clients?

A single **OPSDisplayUser.cfg** file may be used on all three platforms. However, because it is not included in RES Setup, the file will not automatically copy during the installation. Instead, it must be manually copied to the following folder location for each client type:

- ♦ **Win32 Clients** — \MICROS\RES\POS\etc
- ♦ **WS4 Clients** — \MICROS\etc

To transfer the file to the WS4:

1. Copy the **OPSDisplayuser.cfg** file to the \MICROS\RES\CAL\WS4\Files\CF\MICROS\etc folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS4 Client.
3. Reboot the WS4 Client to load the settings for POS Operations.

- ♦ **WS4 LX Clients** — \MICROS\etc

To transfer the file to the WS4 LX:

1. Copy the **OPSDisplayuser.cfg** file to the \MICROS\RES\CAL\WS4LX\Files\CF\MICROS\etc folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS4 LX Client.
3. Reboot the WS4 LX Client to load the settings for POS Operations.

◆ **WS5 Clients — \MICROS\etc**

To transfer the file to the WS5:

1. Copy the **OPSDisplayuser.cfg** file to the **\MICROS\RES\CAL\WS5\Files\CF\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS5 Client.
3. Reboot the WS5 Client to load the settings for POS Operations.

◆ **WS5A Clients — \MICROS\etc**

To transfer the file to the WS5A:

1. Copy the **OPSDisplayuser.cfg** file to the **\MICROS\RES\CAL\WS5A\Files\CF\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS5A Client.
3. Reboot the WS5A Client to load the settings for POS Operations.

◆ **Mobile MICROS — \MICROS\etc**

To transfer the file to the Mobile MICROS:

1. Copy the **OPSDisplayuser.cfg** file to the **\MICROS\RES\CAL\HHT\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the Mobile MICROS Client.
3. Reboot the Mobile MICROS Client to load the settings for POS Operations.

6. How do I copy custom scripts to all clients?

Scripts are custom files, created by the installer to do a variety of tasks. They are not included during installation, but must be manually copied to the appropriate directory.

***Note** Because the WS4 and Mobile MICROS platforms are based on Windows CE, existing Win32 scripts may not work on those platforms. Be aware that compiled files may need to be recompiled in a development environment that supports this type of Operating System.*

Although scripts can reside anywhere on the system, MICROS recommends storing them together in the **Scripts** folder. The location of this folder will vary, depending on the client type:

- ♦ **Win32 Clients** — \MICROS\RES\POS\Scripts
- ♦ **WS4 Clients** — \MICROS\Scripts

To add scripts to the WS4:

1. Copy file(s) to the \MICROS\RES\CAL\WS4\Files\CF\MICROS\Scripts folder on the RES Server.
2. Wait up to 30 seconds for the file(s) to transfer to the WS4 Client.

- ♦ **WS4 LX Clients** — \MICROS\Scripts

To add scripts to the WS4 LX:

1. Copy file(s) to the \MICROS\RES\CAL\WS4LX\Files\CF\MICROS\Scripts folder on the RES Server.
2. Wait up to 30 seconds for the file(s) to transfer to the WS4 LX Client.

- ♦ **WS5 Clients** — \MICROS\Scripts

To add scripts to the WS5:

1. Copy file(s) to the \MICROS\RES\CAL\WS5\Files\CF\MICROS\Scripts folder on the RES Server.
2. Wait up to 30 seconds for the file(s) to transfer to the WS5 Client.

◆ **WS5A Clients** — \MICROS\Scripts

To add scripts to the WS5A:

1. Copy file(s) to the \MICROS\RES\CAL\WS5A\Files\CF\MICROS\Scripts folder on the RES Server.

Wait up to 30 seconds for the file(s) to transfer to the WS5A Client.

◆ **Mobile MICROS** — \MICROS\Scripts

The same method is used to add a file to any hand held device. Using the PPC 70 as an example:

1. Copy file(s) to the \MICROS\RES\CAL\PPC70\MICROS\Scripts folder on the RES Server.
2. Wait up to 30 seconds for the file(s) to transfer to the Mobile MICROS Client.

6. How do I copy SIM scripts to all clients?

A single SIM script (**pmsxxx.isl**) may be used on all three platforms. This file is not included during installation, but must be manually copied to the appropriate client directory.

***Note** Because the WS4 and Mobile MICROS platforms are based on Windows CE, existing Win32 scripts may not work on those platforms. For more information, refer to the RES 3.2 Read Me First (MD0003-057).*

- ◆ **Win32 Clients** — \MICROS\RES\POS\etc
- ◆ **WS4 Clients** — \MICROS\etc

To add SIM scripts to the WS4:

1. Copy the **pmsxxx.isl** file to the **\MICROS\RES\CAL\WS4\Files\CF\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS4 Client.

◆ **WS4 LX Clients — \MICROS\etc**

To add SIM scripts to the WS4 LX:

1. Copy the **pmsxxx.isl** file to the **\MICROS\RES\CAL\WS4LX\Files\CF\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS4 LX Client.

◆ **WS5 Clients — \MICROS\etc**

To add SIM scripts to the WS5:

1. Copy the **pmsxxx.isl** file to the **\MICROS\RES\CAL\WS5\Files\CF\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS5 Client.

◆ **WS5A Clients — \MICROS\etc**

To add SIM scripts to the WS5:

1. Copy the **pmsxxx.isl** file to the **\MICROS\RES\CAL\WS5A\Files\CF\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the WS5A Client.

◆ **Mobile MICROS — \MICROS\etc**

To add SIM scripts to the Mobile MICROS:

1. Copy the **pmsxxx.isl** file to the **\MICROS\RES\CAL\PPC70\MICROS\etc** folder on the RES Server.
2. Wait up to 30 seconds for the file to transfer to the Mobile

MICROS Client.

7. How do I open a file on a WS4, WS4 LX, WS5, WS5A or RDC Client?

Files can be opened on a WS4, WS4 LX, WS5, WS5A or RDC Client as follows:

- ◆ Using WordPad:
 - ◆ From the Windows Start Menu, select *Programs / Microsoft WordPad* to start the application.
 - ◆ From the menu bar, select *File / Open* to launch the dialog box.
 - ◆ Browse to the appropriate file and select. (You may need to change the **File Type** to *All Documents* to locate the desired file.)
 - ◆ Double-click to open the file.
- ◆ Opening a file directly:
 - ◆ Locate the required file in the Window Explorer.
 - ◆ Rename the file, giving it a .txt or .doc extension.
 - ◆ Double-click to open the file.

8. Where can I find MICROS Confidence Test on a WS4, WS4 LX, WS5 or WS5A Client?

This application can be launched from the Windows Start Menu by selecting *Programs / MICROS Applications / Confidence Test*.

Note *The WS4 comes with a built-in diagnostic utility for all hardware components. This utility may also be used. To access it:*

- ◆ *From the Desktop, touch the My Computer icon twice.*
- ◆ *Touch the DOC icon twice.*
- ◆ *Touch the Utilities folder twice.*
- ◆ *Touch the DiagUtility icon twice to start the WS4 diagnostic utility.*

If a shortcut for the MICROS Confidence test is not available, you can always access the program via Explorer using the following steps:

- ◆ From the Windows Start Menu, select *Programs / Windows Explorer*.
- ◆ Open `\CF\MICROS\bin`.
- ◆ Touch `microscfdtest.exe` twice.

9. How do I open the Windows Registry on a WS4, WS4 LX, WS5, or WS5A Client?

The registry on a WS4, WS4 LX, and WS5 is similar to a Win32 client registry. MICROS does not recommend editing the registry directly. However, should it be necessary, the following steps should be taken:

- ◆ From the Windows Start menu, select *Programs / Windows Explorer*.
- ◆ Open `\DOC\Utilities`.

- ◆ Touch the regeditWS4.exe twice to start the WS4 registry editor.

Note *Mobile MICROS Clients do not permit direct access to the registry.*

10. How do I open the Windows Registry on a RDC Client?

The registry on a RDC is similar to a Win32 client registry. MICROS does not recommend editing the registry directly. However, should it be necessary, the following steps should be taken:

- ◆ From the Windows Start menu, select *Programs / Windows Explorer*.
- ◆ Open \FS\Utilities.
- ◆ Touch the regeditCE.exe twice to start the RDC registry editor.

11. How do I start POS Operations on a WS4, WS4 LX, WS5 or WS5A Client?

If the Client is up, POS Operations should be running already. That is the default start position for this workstation. If it is not, you may start POS Operations by going to the Windows Start Menu and selecting *Programs / MICROS Applications / Start RES*.

If a shortcut is not available, you can always access the program via Explorer using the following steps:

- ◆ From the Windows Start Menu, select *Programs / Windows Explorer*.
- ◆ Open \CF\MICROS\bin.
- ◆ Touch **AppStarter.exe** twice.

12. Why does POS Operations say “System Closed” on a Client?

Although POS Operations should always be running on the clients, that does not guarantee the units will be operational (i.e., able to ring transactions).

In RES 4.0 or higher, clients are not individually controlled by the MICROS Control Panel. You cannot start and stop POS Operations on these devices.

All clients are considered unmanaged clients — they take on the state of the RES Server. Therefore, if the Server is set to Back of House in the MICROS Control Panel, then all unmanaged clients will display a “System Closed” screen.

To ring transactions on unmanaged clients, the MICROS Control Panel must set the entire RES System (i.e., the Restaurant) to Front of House.

13. How do I bring up the CE Task Manager on a WS4, WS4 LX, WS5, WS5A or RDC Client?

To start Task Manager on a WS4 Client, hold down the [Alt] key and press the [Tab] key on the keyboard.

14. How do I access other applications while POS Operations is running on a WS4, WS4 LX, WS5 or WS5A Client?

The CE Operating System does not provide a mechanism for minimizing POS Operations. You can still program a Minimize function key on a touchscreen, but be aware that when the key is pressed, it will bring up the Windows CE Start Bar. From here, you can access other applications, as necessary.

If a keyboard is attached to the Client, the Windows CE Start Bar may be accessed by holding down [Ctrl] and pressing the [Esc] key.

15. How do I shutdown POS Operations on a WS4, WS4 LX, WS5 or WS5A Client?

Although MICROS does not recommend shutting down POS Operations, we recognize that sometimes this is necessary for troubleshooting purposes.

To shutdown POS Operations, attach a keyboard to the Client and do the following:

- ◆ Bring up the Windows CE Start Bar by pressing the [Ctrl]-[Esc] key combination simultaneously.
- ◆ Hold down the [Alt] key and touch the POS Operations application that appears in the Task Bar. A **Close** option will display at the bottom of the screen.
- ◆ Press **Close** to shutdown POS Operations.

16. How do I turn off my WS4, WS4 LX, WS5 or WS5A Client?

The power switch is located on the front right of the unit, on the underside of the display screen. It is a small circular switch that protrudes very little and can be easily missed.

To turn off the unit, you must hold the power switch for at least five seconds. Make sure that the Operator LED changes from a solid green or blue to OFF. **This is critical.** Failure to properly turn off the power will place the unit in Suspend Mode, not OFF. For more information about the power switch and its different states, refer to the Workstation 4 Setup Guide, available from the MICROS Website under *Products / Hardware / Documentation*.

17. How do I create a screen capture on a Mobile MICROS HHT or a WS4, WS4 LX, WS5 or WS5A Client?

Microsoft provides a utility called “Remote Display Control” which may be used through ActiveSync® to capture HHT screens and save them as bitmap files.

Currently, there are no tools available to capture screens on a WS4, WS4 LX, or WS5.

18. Can I load other applications on a WS4, WS4 LX, WS5 or WS5A Client?

The WS4, WS4 LX, WS5 and WS5A are capable of running any CE-compatible application. However, the WS4, WS4 LX, WS5 and WS5A are each intended to be a POS appliance that allows the RES user to run POS Operations and Manager Procedures. By running other applications on the WS4, WS4 LX, WS5 or WS5A, you assume the responsibility for installation and testing on this platform.

The WS4, WS4 LX, WS5 and WS5A have a built-in Client Application Loader (CAL). Additional information can be found in the *Workstation 4 Setup Guide* and in the *Client Application Loader (CAL) File Specification (MD0003-061)*.

19. Do I need to translate POS Operations text for each client platform?

No. You can create one set of POS Operations’ translation files and copy them to all three platforms.

20. Why are my fonts different sizes since I upgraded?

Please refer to the document “Editing OPSDisplayUserConfig File,” located on the RES 5.0 CD under \Support\OPSDisplayUser\OPSDisplayUserCfg.pdf.

21. Is there a way to set the number of lines displayed in the database tables?

Yes. By default, when viewing any of the database tables through the Interactive SQL (DBISQL), there is a MICROS-imposed limit of 500 records. To change this:

1. Open ISQL by selecting *Start / MICROS Applications / Utilities / Database / Sybase Adaptive Server Anywhere / Interactive SQL*.
2. From the menu bar, select *Tools / Options* and click on the **Results** icon.
3. Change the **Maximum number of rows to display** to the desired value.

Appendix D: Wireless Workstation 4

This section describes procedures for setting up the Wireless Workstation 4 (WS4).

Before You Begin

Before installing the Cisco Wireless Card in the WS4, follow these steps to confirm that the system has been upgraded to RC5.1 or higher. To do this:

1. From the WS4, click *Start / Programs / Windows Explorer / Doc / Utilities / DiagUtility* to open the utility program.

The screenshot shows the 'Diagnostic Utility' window with a menu bar at the top containing: System Info, LCD Display, MSR, Cust Disp, Cash Drawer, Watch Dog, LED, RS232 Loop, RS232 Print, RS232, IDN Loop, and IDN Print. The main title is 'WS4 Diagnostic Utility'. Below the title is a table of system and software information:

Diagnostic Version	1.84	UWS4.DLL Version	1.06
Hardware Revision	G	UWS4Power.DLL Version	1.05
CPU Type	National Geode	PRD.DLL Version	1.00
RAM Space Available	24981504 Bytes	LED.DLL Version	1.00
CPLD Version	10	EEPROM.DLL Version	1.01
Boot Loader Version	2.09	WS4Beep.DLL Version	1.02
CF Space Available	31950848 Bytes	WinCE Version	4.10.908
CF Serial Number	493229531	MICROS Build Version	8.0
DOC Space Available	3426304 Bytes	CAL Version	1.0.2.27
Physical Address	00a0a4061134	DHCP Server Address	134.28.196.19
Motherboard Serial	GS0325B2802G0D00D71	IP Address (Dynamic)	134.28.213.13

At the bottom of the window, there are two buttons: 'View Counters' on the left and 'Next >>' on the right.

2. Check to make sure that the following versions of the software are running:
 - ◆ Diagnostic Version 1.84
 - ◆ CAL Version 1.0.2.26 or higher

If these versions are not installed on the workstation(s), you will need to upgrade the system through the Client Application Loader (CAL), using a hard-wired network cable. This must be done before configuring the wireless network card.

Encryption

The wireless Cisco card does not support 128-bit encryption. If you are using 128-bit encryption on your wireless access point, you will need to downgrade it to 40-bit encryption.

Configuring the Workstation

Once the workstation is running the correct versions of the software, follow these steps to configure for wireless communication:

1. In the MICROS Control Panel, set the Restaurant level to **Off** or **Database**.
2. Power off the WS4.
3. Disconnect any LAN cables.
4. Insert the Cisco wireless card into the card slot on the bottom of the WS4.
5. Power on the WS4.
6. After the system restarts (the first 1-2 seconds), press **[Ctrl]-[Shift]-[End]** to exit CAL.
7. Configure the wireless card:
 - ◆ From the Windows Start menu, click *Settings / Control Panel / Network and Dial-up Connections*.
 - ◆ Select CISCO1. A dialog window is displayed.
 - ◆ On the *IP Address* tab, select one of the radio buttons to either manually enter an IP Address or use DHCP to assign one automatically.

- ◆ Skip the *Name Servers* tab.
- ◆ Go to the *Wireless Networks* tab).
- ◆ Select an access point from the list of **Available Networks** and click the **Configure** button to define encryption that will allow the workstation and access point to communicate.

An example of 40-bit encryption would be:

1. Enable only the **Data encryption (WEP enabled)** option.
2. Disable all other options.
3. Click **Modify WEB KEY**.
4. Input the network key (e.g., 1011121314). The access key should be the same value/number you selected when you configured your wireless access point for encryption. If you are using a Symbol device, you have the ability to insert your own values or select one of four predefined values.
5. In the **Key Format** box, choose *Hexadecimal* digits.
6. Select a **Key Length** of *40-bit* (10 digits).
7. The **Key Index** can remain at *0*.
8. Click **OK** to exit.
9. Click **OK** again.
10. Verify that your selected network is in the **Preferred networks** list. If not, highlight it and click the **Add** button.

Other Security Considerations

While configuring the CISCO card, users may define the **Network to Access**. This is done through the Windows Start Menu by selecting *Settings / Control Panel / Cisco1 / Wireless Networks* and clicking the **Advanced** button.

The following options are presented:

1. Any available Network (access point preferred).
2. Access point (Infrastructure) networks only.
3. Computer-to-Computer (Ad hoc) networks only.

For greater security, MICROS recommends using option 2, allowing communications with the defined access point only.

8. Exit all forms.
9. From the ICON tray (bottom right corner of the task bar), double-click on the Cisco1 network icon. The icon looks like 2 computer screens.
10. Go to the *IP Information* tab and confirm the information.
11. Go to the *Wireless Information* tab. Confirm the connection to the access point and signal strength.
12. Reboot the WS4.

Once the unit comes back up, the error message “Network Cable is not connected. Please reconnect.” may be displayed. Click **OK** to continue. This message is triggered by a timeout condition and does not affect operation. It will be addressed in the next version of CAL.

Be advised that the message may display every time the workstation is rebooted. In addition, the system may ask if you want to disable CAL. If this occurs, select **No**.

At this point, the system should be on the network and CAL should be looking for updates. If not, retrace your steps and try again.

Note *If you are changing the IP Address or the Name of either the Client or Server, you will need to configure the POS Configurator accordingly.*

In addition, you will need to point the workstation to the Server by going to the Windows Start Menu and selecting Programs / Reconfigure CAL.

Known Issues

The following issues have been noted while configuring the Wireless Workstation 4:

1. Location and antenna positions are very fragile. Moving the antenna six inches can cause the WS4 to lose its connection and create a system-closed message until the signal is reacquired. When this happens, the WS4 should go to SAR Mode, provided that the feature is enabled.
2. Side-by-side WS4 units displayed different characteristics in their ability to get a signal, and in the degree of signal strength going to the same access point.

Appendix E: SwitchTo.exe

Description

SwitchTo.exe is a Windows application that allows users to change the system's focus (i.e., the active, foreground window) from one application to another using a command-line prompt.

Platforms

Win32, CE-WS4

File Location:

%RESROOTDIR%\Bin

Usage

SwitchTo.exe is a command line application with 4 possible arguments:

Note *Using the Switchto.exe command without a command line parameter will display a short message box describing the available switches.*

-w WindowTitle

The -w switch tells the application to bring the window with the specified windows title to the foreground.

Example

```
C:\MICROS\res\pos\bin>SwitchTo.exe -w 3700 POS Operations  
(Brings POS Operations to the foreground)
```

-c Class Name

The -c switch tells the application to bring the window with the specified windows class to the foreground.

Example

```
C:\MICROS\res\pos\bin>SwitchTo.exe -c 3700OPSAPP
```

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-s StartCommand

The -s command is to start an application if the window with the windows title or class name cannot be found.

Example

```
C:\MICROS\res\pos\bin>SwitchTo.exe -w 3700 POS Operations  
-s Ops.exe
```

(Starts OPS.exe if the Windows title cannot be found.)

Common Name

The common name allows windows that have different class names and Windows titles across platforms to be unified under a single, logical name. At this time, the only common name supported by the application is KDS.

Example

```
C:\MICROS\res\pos\bin>SwitchTo.exe KDS
```

Configuring a Logical Name

Optional logical names can be added using the Windows registry. The optional logical names only operate on the windows title.

To add another logical name to the registry:

1. Make sure that following Key has been added:

```
HKEY_LOCAL_MACHINE\SOFTWARE\MICROS\Common\  
SwitchTo
```

2. Add a String Value to this registry key and enter the logical name as the string value identifier. Add the desired window title as the actual string value.

Example

String Name: OPS

String Value: 3700 POS Operations

Sample Command: C:\MICROS\res\pos\bin>SwitchTo.exe OPS
(changes focus to POS Operations)

Appendix F: Order Confirmation Board (OCB)

This section contains instructions for installing, configuring, and using the 3700 POS Interface to the Texas Digital AccuView Order Confirmation Board (OCB), the Texas Digital Wenview OCB, and the MICROS OCB.

The OCB Interface supports output from the following POS Clients to the OCB device:

- ◆ RES Server
- ◆ Win32 Client
- ◆ WS4 Client
- ◆ WS4 LX Client
- ◆ WS5 Client
- ◆ WS5A Client

Installation

In RES 5.05.0, OCB files are installed with RES Setup. Some editing, renaming and copying of the appropriate files is necessary to configure the system for use.

Procedures

Follow these steps to configure the OCB Interface software:

1. Configure the files on the RES Server. After RES Setup has been run, all files are located in the \micros\res\pos\scripts folder.

Confirm that the folders listed below exist on your server. If not, create them.

- **OCBClient.isl**
- Rename and copy to the following folders:
 - **%microsdrive%\micros\res\cal\win32\files\micros\res\pos\etc**
 - **%microsdrive% \micros\res\cal\ws4\files\cf\micros\etc**

- %microdrive% \micros\res\cal\ws4LX\files\cf\micros\etc
 - %microdrive% \micros\res\cal\ws5\files\cf\micros\etc
 - %microdrive% \micros\res\cal\ws5A\files\cf\micros\etc
 - **OCBClient.ini**
 - Copy to the following folders:
 - %microdrive%\micros\res\cal\win32\files\micros\res\pos\scripts
 - %microdrive%\micros\res\cal\ws4\files\cf\micros\scripts
 - %microdrive%\micros\res\cal\ws4LX\files\cf\micros\scripts
 - %microdrive%\micros\res\cal\ws5\files\cf\micros\scripts
 - %microdrive%\micros\res\cal\ws5A\files\cf\micros\scripts
2. The MICROS OCB Server service is automatically installed with RES 5.0.

Note *The OCBClient.isl file must be renamed to match the Interface Configuration.*

Note *The installation of the client files to the CAL folder structure is all that is needed to install the OCB Interface software on a client. Once the files have been downloaded to the client, they may be deleted from the server and edited at the client level. This optional procedure allows you to create a unique configuration at any of the clients.*

Configuration

Configuring the OCBServer.ini File

Most configuration is done at the Server in the **OCBServer.ini** file. This file defines the OCB devices attached to the system and the device-specific settings for each.

With the release of RES v. 4.9, a new MICROS OCB has been introduced that uses a new file (**OCB.ini**) located on the OCB. With this additional file, only some of the settings in the OCBServer.ini file are used, including [OCB1 Device], [OCB2 Device], [OCB1 Display Options], and [OCB2 Display Options]. For more information on the OCB.ini file, see “Configuring the MICROS OCB Device” on page 99.

Server Setup for the OCBServer.ini File

Each OCB device entry contains the following set of configuration items:

[Device] — Defines the device type and communication parameters.	
DeviceType	0 = None 1 = Texas Digital AccuVIEW 2 = Texas Digital WenVIEW 3 = Texas Digital AccuVIEW CE 4 = Everbrite SNS OCS 5 = MICROS OCB
ConnectType	1 = COM Port 2 = TCP/IP [Currently supported for MICROS OCB only]
ComPort	1 = COM1 2 = COM2 ...etc.

**Appendix F: Order Confirmation Board (OCB)
Configuration**

[Device] — Defines the device type and communication parameters.	
BaudRate	<p>1 = 1200 2 = 9600 3 = 19200 (Suggested Baud Rate for AccuVIEW OCB devices) 4 = 38400 5 = 57600 6 = 115200</p> <p>NOTE: If the site encounters display issues set the baud rate to 19200 (3 in the OCBServer.ini file).</p>
IpAddress	<p>IP Address [ipaddr:port] of the OCB device [MICROS OCB only]</p> <p>NOTE: The IP address is the IP address of the OCB device and the port value is found in the OCB.ini file, listed as the Listen Port value.</p>
[Labels] — Defines the labels for various display elements.	
TotalLabel	Label displayed at the bottom of the OCB display immediately before the total due value.
TaxLabel	Label displayed at the bottom of the OCB display immediately before the tax value.
TotalScreenLine1	Line 1 of the text displayed on the total screen. The total screen is displayed after an order has been completed and the associated check on the POS has been service totaled or final tendered.
TotalScreenLine2	Line 2 of the text displayed on the total screen.

[Default Message] — Defines the default message displayed on WenVIEW OCB devices.	
This text is displayed whenever the OCB is idle and not taking an order.	
Line1, Line2, ...	Defines each line of the default Message. Can add or delete lines as necessary (Line3, Line4, etc.).

[Scroll Text] — Defines the set of messages scrolled at the bottom of the OCB display.	
AccuVIEW devices can display an unlimited number of scroll messages. WenVIEW devices can display only 1 scroll message.	
ScrollText1, ScrollText2, ...	Defines the text of each scrolling message. Can add/delete scroll messages as necessary (ScrollText3, ScrollText4, etc.).

[Display Options] — Contains the display options available for the device.	
DisplayMenuItems, DisplayDiscounts, DisplayTenders, DisplayServiceCharges	Determines whether or not the specified detail type will be displayed on the OCB. 0 = Do not display 1 = Display
DisplayVoids	This configuration option bit is no longer supported in OCBServer. If this option is set to '1', within the OCBSERVER.INI file, a message will be logged (at verbosity 4 or higher) to indicate that the option is no longer supported. NOTE: Direct voids always display.

**Appendix F: Order Confirmation Board (OCB)
Configuration**

[Display Options] — Contains the display options available for the device.	
DisplayMenuLevelPrefix	<p>Determines whether or not menu level prefixes will be displayed.</p> <p>This option has no effect if the menu item is not configured to display the menu level prefix using the Menu level name menu item class option. The main or sub level prefix is selected based on the Use sub menu level for pricing menu level class option.</p>
DisplayMenuItemDefaults	<p>Determines whether or not default condiments will be displayed. this option only applies in Conversational Ordering Mode where default condiments are used.</p> <p>0 = Do not display 1 = Display</p>
DisplayTaxAndTotalLine	<p>Determines whether or not a running tax and total line will be shown at the bottom of the OCB display when an order is taken.</p> <p>0 = Do not display 1 = Display</p>
DisplayTotalScreen	<p>Determines whether or not the total screen will be displayed. The total screen is displayed after an order has been completed and the associated check on the POS has been service totaled or final tendered. If set to 0, the total screen will be skipped and the display will go directly to the default message screen (WenVIEW) or slide show (AccuVIEW).</p> <p>0 = Do not display 1 = Display</p>
DisplayAllCondimentQty	<p>Determines whether or not the condiment quantity will display even if it is a single item. This can be added but it not included in the installed version.</p> <p>0 = Do not display 1 = Display</p>

In addition to the device-specific options, the following set of global options are system-wide and are available in the **OCBServer.ini**.

[Global Options].	
CurrencySymbol	Defines the currency symbol displayed with the total due on the total screen. If blank, defaults to '\$'.

Example OCBServer.ini

```
[Global Options]
CurrencySymbol = '$'

;
; OCB Device Configuration
;
; DeviceType : 0 = None
;           1 = Texas Digital AccuVIEW
;           2 = Texas Digital WenVIEW
;           3 = Texas Digital AccuVIEWCE
;           4 = Everbrite SNS OCS
;           5 = Micros OCB
;
; ConnectType : 1 = COMPort
;             2 = TCP/IP (Currently supported for Micros OCB only)
;
; IPAddress : IP address [ipaddr:port] of OCB (Micros OCB only)
; ComPort : 1 = COM1, 2 = COM2, etc..
; BaudRate : 1 = 1200, 2 = 9600, 3 = 19200, 4 = 38400, 5 = 57600, 6 = 115200
```

**Appendix F: Order Confirmation Board (OCB)
Configuration**

[OCB1 Device]

DeviceType = 0

ConnectType = 0

ComPort = 0

BaudRate = 0

IpAddress = ''

[OCB2 Device]

DeviceType = 0

ConnectType = 0

ComPort = 0

BaudRate = 0

IpAddress = ''

;

; Label Defintions

;

[OCB1 Labels]

TotalLabel = 'Total: '

TaxLabel = : 'Tax: '

TotalScreenLine1 = 'YOUR'

TotalScreenLine2 = 'TOTAL IS'

[OCB2 Labels]

TotalLabel = 'TTL: '

TaxLabel = 'TX:'
TotalScreenLine1 = 'YOUR TOTAL'
TotalScreenLine2 = 'IS'

;
; Display Options
;

[OCB1 Display Options]
DisplayMenuItems = 1
DisplayDiscounts = 1
DisplayServiceCharges = 1
DisplayTenders = 1
DisplayVoids = 0
DisplayMenuLevelPrefix = 0
DisplayMenuItemDefaults = 0
DisplayTaxAndTotalLine = 1
DisplayTotalScreen = 1

[OCB2 Display Options]
DisplayMenuItems = 1
DisplayDiscounts = 1
DisplayServiceCharges = 1
DisplayTenders = 1
DisplayVoids = 0
DisplayMenuLevelPrefix = 0
DisplayMenuItemDefaults = 0

**Appendix F: Order Confirmation Board (OCB)
Configuration**

DisplayTaxAndTotalLine = 1

DisplayTotalScreen = 1

;

; Default Message Definitions

;

; Currently only applies for a WenView device

; Can add/delete lines as necessary (Line3, Line4,...)

[OCB1 Default Message]

; N/A

[OCB2 Default Message]

Line1 = ''

Line2 = ' Welcome To'

Line3 = ' the OCB'

;

; Scroll Text Defintions

;

; AccuView supports unlimited scroll lines, WenView supports only one.

; Can add/delete lines as necessary (ScrollText5, ScrollText6, ..)

[OCB1 Scroll Text]

ScrollText1 = 'Todays Specials : '

ScrollText2 = 'Hamburger Combo only \$2.00'

ScrollText3 = 'Chicken Nuggets only \$1.00'

ScrollText4 = 'Chicken Filet Sandwich only \$2.00'

[OCB2 Scroll Text]

ScrollText1 = 'Try our Famous Bacon Cheezeburger Combo for only \$2.00!!'

Configuring the MICROS OCB Device

Use the information below to configure the new MICROS OCB Device.

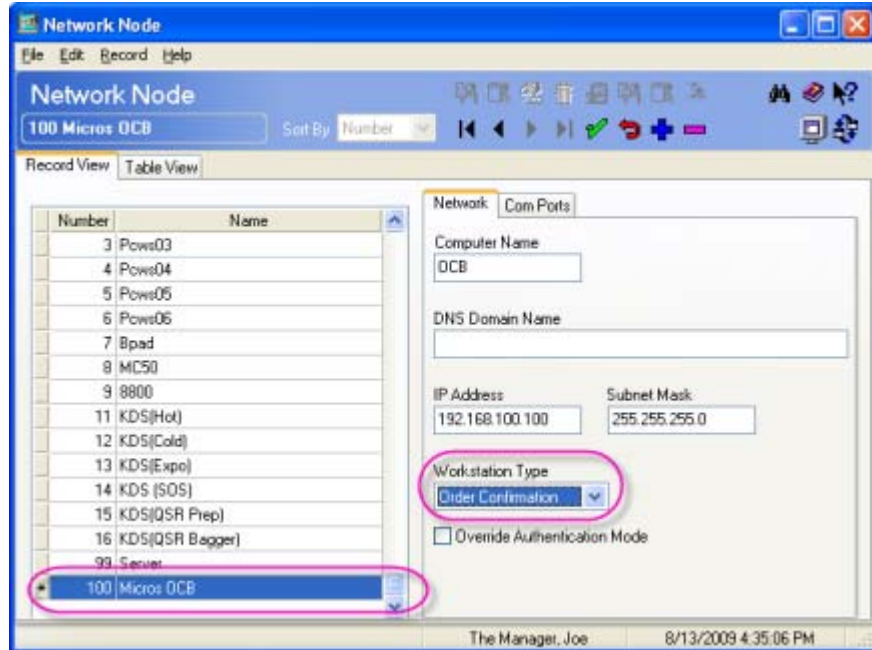
Server Setup

The files needed for the MICROS OCB device are installed with RES 5.0. They are located on the server in the %microdrive%\micros\res\CAL\OrderConfirmation.

A network node will need to be added by following the instructions below.

1. Open *POS Configurator / Devices / Network Node*.
2. Select the blue plus icon to add a record.

3. Complete the form by entering the Name, Computer Name, IP Address, Subnet Mask, and by selecting 'Order Confirmation' as the Workstation Type.



4. Save the changes.

MICROS OCB Device Setup

MICROS OCB devices use the Client Application Loader (CAL) technology to locate, install, and maintain the most up-to-date software programs implemented on the server.

Many settings can be configured in the OCB.ini file. It is installed to %microsdrive%\micros\res\CAL\OrderConfirmation\Packages\OrderConf\Micros\ETC.

To change a setting, simply uncomment it by removing the semicolon ';' and change the data. After saving the file, copy it to the %microsdrive%\micros\res\CAL\OrderConfirmation\Files\CF\Micros\ETC folder.

;; OCB.ini

::

:: Standard Colors (HTML Standard)

:: #000000 black #C0C0C0 silver #808080 gray #FFFFFF white

:: #800000 maroon #FF0000 red #800080 purple #FF00FF fuchsia

:: #008000 green #00FF00 lime #808000 olive #FFFF00 yellow

:: #000080 navy #0000FF blue #008080 teal #00FFFF aqua

::

:: Font Names

:: Arial, Arial Black, Comic Sans MS, Courier New, Tahoma, Times New Roman, Verdana

::

:: Font Styles

:: Regular, Bold, Italic, Underline, Strikeout

::

[General]

; Listen Port = 13001

; Display Update = 500

[Logging]

; Verbosity = 0

[Total Screen]

**Appendix F: Order Confirmation Board (OCB)
Configuration**

;; Number of seconds to display the Total screen before going to the Idle screen

; Timeout = 5

;; The information to display with the total price

; Line 1 = Your total

; Line 2 = is \$

; Line 3 = Please drive through

;; The color of the total text and background color of the Total screen

; Line 1 Color = #FFFFFF

; Line 2 Color = #FFFFFF

; Line 3 Color = #FFFF00

; Background Color = #000080

; Font Name = Verdana

; Font Size = 68

[Detail Screen]

;; Text colors for items on the Detail screen

; Quantity Text Color = #FFFFFF

; Description Text Color = #FFFFFF

; Price Text Color = #FFFFFF

; Tax Text Color = #FFFF00

; Total Text Color = #FFFF00

; Background Color = #000080

;; The text to display on the Detail screen

; Tax Prompt = Tax \$

; Total Prompt = Total \$

;; Details about how the detail list is displayed, affects quantity, description,
and price

; Font Name = Verdana

; Font Size = 32

; Font Style = Bold

;; Font style for descriptions only, does not affect quantity or price font style

; Combo Font Style = Regular

; Condiment Font Style = Italic

;; Controls degree of indentation for condiments and combo items

;; Set to 0 for no indentation, higher for more indentation

; Indent Level = 2;

; Total Font Name = Verdana

**Appendix F: Order Confirmation Board (OCB)
Configuration**

; Total Font Size = 42
; Total Font Style = Bold

[Idle Screen]

:: A web page to display during the Idle screen

; url = \cf\micros\ocb\index.htm

url = about:blank

; Background Color = #FFFFFF

Client Setup

The Client-side configuration is done in the **OCBClient.ini** located on the POS Operations client. All Clients that are going to output to the OCB need the following configuration setup:

[Options]	
ServerIP	Defines the IP address of the server hosting the OCB Service. In most cases, this will be the IP address of the 3700 RES Server. Change the default ServerIP from 127.0.0.1 to the server's IP address.
OCBToClaimOnStartup	Defines the OCB device to claim on Startup. This can one of the following values: 0 = Do not claim any device on startup. 1 = Claim OCB device 1 on startup. 2 = Claim OCB device 2 on startup. NOTE: When using the new MICROS OCB, we recommend a setting of '0' for this option.

[Example of OCBClient.ini](#)

[Options]

ServerIP = "127.0.0.1" ---> Change to the server's IP address

OCBToClaimOnStartup = 0 ; 0 = NONE, 1 = OCB1, 2 = OCB2

Touchscreens and Macros

To control the functionality of the OCB Interface, most installations will need to have touchscreen buttons and/or macros configured. This section provides a reference list of common configurations. Information provided here is for reference only. Actual selections will vary (and may be modified) based on a site's requirements.

Touchscreens

User Touchscreen Buttons

1. **"Start Lane 1" / "Start Lane 2"** — Linked to the Macros defined below or linked directly to the PMS/SIM inquiry.
2. **"Claim Lane 1" / "Claim Lane 2"** — Linked to the SIM Inquiry Event "Perm. Claim OCB1" (3) or "Perm. Claim OCB2" (4).
3. **"Temp Claim Lane 1" / "Temp Claim Lane 2"**
Linked to the SIM Inquiry Event Temp Claim OCB1 (5) or Temp Claim OCB2 (6)

Manager Touchscreen Buttons

1. **"Stop OCB"** — Linked to the SIM Inquiry Event "OCB Stop" (2).
2. **"Start OCB"** — Linked to the SIM Inquiry Event "OCB Start" (1).
3. **"Release Lane 1" / "Release Lane 2"** — Linked to the SIM Inquiry Event "Release OCB1" (7) or "Release OCB2" (8).

POS Configuration

1. In *POS Configurator / Devices / Interfaces*
 - ◆ Name OCB
 - ◆ Check box SIM Interface

Macros

1. **“Start Lane 1” / “Start Lane 2”** — Sends one order to a particular OCB device.
 - ◆ Call SIM Inquiry Event “Temp Claim OCB1” (5) or “Temp Claim OCB2” (6).
 - ◆ Begin Check (by Table, ID, etc.) — Not required for fast transaction environments.
2. **“Send Order”** — Replaces the standard SEND key.
 - ◆ Call SIM Inquiry Event “Set SEND flag” (9).
 - ◆ Tender/Media Number of the ‘Send’ tender.

SIM Inquiry List

Inquiry Number	Summary	Details
1	OCB Start	<p>Loads the OCBClient.dll, establishes a connection to the OCB Server, and claims the startup OCB device, if configured.</p> <p>This operation is automatically performed by the SIM script when POS starts up. This event can be used to restart the OCB Interface if it has been previously stopped using the OCB Stop Inquiry event.</p>
2	OCB Stop	<p>Releases the currently claimed OCB device, shuts down the connection to the Server, and unloads the OCBClient.dll.</p> <p>This operation is automatically performed by the SIM script when POS is shut down. If the OCB Server is currently down or unreachable, this operation can be used to completely bypass all OCB functionality preventing any delays associated with trying to reconnect to the OCB Server.</p>
3	Perm. Claim OCB1	Will Permanently Claim OCB device #1. An informational message box will be displayed to the user indicating the result of the claim request (except when claiming a device on Startup).
4	Perm.Claim OCB2	Same as above, except for OCB device #2.

**Appendix F: Order Confirmation Board (OCB)
Configuration**

Inquiry Number	Summary	Details
5	Temp. Claim OCB1	<p>Will Temporarily Claim OCB device #1. If successful, no message box will be displayed. If unsuccessful, the name of the owning workstation will be displayed in a formatted message box.</p> <p>The Temporary claim will be automatically released when one of the following operations is performed in POS Operations:</p> <p>Transaction Cancel Cancel Order Service Total Suspend Check Final Tender</p>
6	Temp. Claim OCB2	Same as above, except for OCB device #2.
7	Release OCB1	<p>Will Release OCB device #1, even if the current workstation does not currently have the device claimed.</p> <p>This operation must be used with caution as it may disrupt another user's operation of the OCB device.</p>

Inquiry Number	Summary	Details
8	Release OCB2	Same as above, except for OCB device #2.
9	Set SEND flag	<p>This flag is used to indicate that a SEND ORDER tender/media key is about to be used.</p> <p>Currently, SIM has no way to distinguish between a SEND ORDER key and a regular service total key. This flag is a work around and should be used to indicate that the next service total event is a SEND ORDER. It is intended to be used in a macro that calls this Inquiry event and then performs the actual SEND ORDER.</p> <p>When the SIM receives the next service total event, the processing of the END ORDER request is skipped and the flag is reset.</p> <p>For proper SEND ORDER functionality, all touchscreen keys linked to the SEND ORDER tender/media should be replaced with keys that call this macro.</p>

Appendix G: Customized Installation Procedures

Introduction

This section provides information for sites with complicated Client/Server setups that require customized installation.

Registry Settings

There are two registry settings that affect the RES patch. They are:

- ◆ HKLM\Software\Micros\Patch\BypassDBUpdate (True) :STRING
- ◆ HKLM\Software\Micros\Patch\BypassReboot (True) :STRING

These values must be set to True in order for them to work.

BypassDBUpdate

The existence of this registry value will cause the RES patch to bypass the database update portion of the patch.

BypassReboot

The existence of this value will cause the RES patch to bypass the execution of **Shutdown.exe**. The patch will simply stop. The Server will not reboot.

If running MICROS Desktop, the BypassReboot setting should NOT be used as this will leave the system on but disabled. The only recourse at that point is to reboot the server using the power button.

Appendix H: Pre and Post Custom Installation Procedures

A custom pre and post update hook has been added to allow an integrator to add their own install processes to the patch installation process.

When running a patch upgrade on the RES Server, the system can be setup to execute a batch file before the patch is started or before the patch is finished. These batch files cannot be used to reboot the system. They can be used to stop third party services that affect the RES system.

Follow these steps to create a custom file that can be called while a MICROS patch is running:

1. In the server's registry, go to *HKLM\Software\Micros* and add a key called **Patch**.
2. Create a string value for this key and name it either **CustomPreUpdate** or **CustomPostUpdate**, depending on when it will be executed.

CustomPreUpdate will occur at the beginning of the patch. Use this key to shut down non-Micros services at this time (see Step 3).

CustomPostUpdate will run after all files have been updated, but before the database is updated.

3. Set the value of CustomPreUpdate to the location of the file you want to call (e.g., *C:\Temp\StopService.bat*).
4. Set the value of CustomPostUpdate to the location of the file you want to call (e.g., *C:\temp\InstallCustomReports.bat*).