Sabre Java Printing Module (SJPM)

User's Guide

Sabre Travel Network Edition

This document provides detailed information for the Install/Uninstall, Configuration/Operation and Troubleshooting/Support of SJPM in the Sabre Travel Network environment.

USER'S GUIDE

14 March 2017

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Contents

General Information 1

1.1 Purpose 1
1.2 Certified and Supported Operating Systems 2

Installing SJPM 3

2.1 Installing SJPM 3
2.1.1 SJPM's Java Utilization 3
2.1.2 SJPM's Installation Options 3
2.1.3 SJPM's Upgrade Functionality 3
2.1.4 Running the SJPM Installation as an Administrator 4
2.1.5 Typical Installation 5
2.1.6 Custom Installation 10
2.1.7 SJPM's Modify Installation 17
2.1.8 SJPM's Repair Installation 24

Uninstalling SJPM 29

3.1 Uninstalling SJPM 29
3.1.1 Uninstalling SJPM from the Windows Start Menu 29
3.1.2 Uninstalling SJPM from the SJPM Executable File 31

Running SJPM 36

4.1 Running SJPM 36
4.1.1 SJPM Windows System Tray Icon 36
4.1.2 SJPM Windows System Tray Icon Menu Items 37
4.1.2.1 About SJPM 37
4.1.2.2 Restore 38
4.1.2.3 Restart Server 38
4.1.2.4 Server Mode 39
4.1.2.5 Configure SJPM Server 39
4.1.2.6 Language 40
4.1.2.7 Client Logging 40
4.1.2.8 Server Logging 41
4.1.2.9 Exit 41
4.1.3 Running SJPM as an Application 42
4.1.4 Running SJPM as a Service 46

4.1.5 Running the SJPM Client GUI Manually 50
4.1.5.1 Windows 7 50
4.1.5.2 Windows 8 51
4.1.5.3 Windows 8.1 51
4.1.5.4 Windows 10 51
4.2 Starting and Stopping the SJPM Server 52
4.2.1 Starting / Stopping the SJPM Server - Windows “Start” Menu 53
4.2.1.1 Start the SJPM Server (as a service) – Windows 7 53
4.2.1.2 Start the SJPM Server (as a service) – Windows 8 54
4.2.1.3 Start the SJPM Server (as a service) – Windows 8.1 55
4.2.1.4 Start the SJPM Server (as a service) – Windows 10 57
4.2.1.5 Start the SJPM Server (as an application) – Windows 7 58
4.2.1.6 Start the SJPM Server (as an application) – Windows 8 59
4.2.1.7 Start the SJPM Server (as an application) – Windows 8.1 60
4.2.1.8 Start the SJPM Server (as an application) – Windows 10 61
4.2.1.9 Stop the SJPM Server – Windows 7 62
4.2.1.10 Stop the SJPM Server – Windows 8 64
4.2.1.11 Stop the SJPM Server – Windows 8.1 64
4.2.1.12 Stop the SJPM Server – Windows 10 66
4.3 Starting and Stopping the SJPM Client 67
4.3.1 Starting the SJPM Client 67
4.3.2 Stopping the SJPM Client 67
4.4 Restarting SJPM 69
4.4.1 Restarting SJPM – Client GUI 69
4.4.2 Restarting SJPM – SJPM Windows System Tray Icon Menu 72
4.5 Running SJPM on Linux 74
4.5.1 Prerequisites 74
4.5.2 Install/Setup/Operate SJPM on Linux – Browse SJPM from Linux 74
4.5.3 Install/Setup/Operate SJPM on Linux – Browse SJPM from Windows 75

SJPM Client GUI 76

5.1 SJPM Client GUI Component Descriptions 76
5.1.1 Device Line Fields 77
5.1.2 GUI Buttons 78
5.1.3 Adding and Deleting Devices 81
5.1.3.1 Adding Devices 81
5.1.3.2 Deleting Devices 84
5.1.4 Disabling and Enabling Devices 87
5.1.4.1 Disabling Devices 87
5.1.4.2 Enabling Devices 91
5.1.5 Editing a Device 94
5.1.5.1 Editing a Device 94

5.1.6 Grouping Devices 97
5.1.6.1 Grouping Devices 97
5.1.7 Importing and Exporting Devices 99
5.1.7.1 Importing Devices 99
5.1.7.2 Exporting Devices 103
5.1.8 Copying a Device 105
5.1.9 Renaming a Device 107
5.1.10 Utilize Device 109

Configurations and Drivers 112

6.1 Configurations 112
6.1.1 Supplemental Hosts Configuration – Applies to All Drivers 112
6.1.1.1 Adding Supplemental Hosts – Applies to All Drivers 113
6.1.1.2 Deleting Supplemental Hosts – Applies to All Drivers 114
6.1.2 SJPM STP Configuration – STP Drivers Only 115
6.1.2.1 Configure a Modem 117
6.1.2.2 Add a Modem Pool 121
6.1.2.3 Edit a Modem 127
6.1.2.4 Edit a Modem Pool 129
6.1.2.5 Delete a Modem 131
6.1.2.6 Delete a Modem Pool 132
6.1.3 Device Backup and Restore 133
6.1.3.1 Device Backup – Manual Process 133
6.1.3.2 Device Backup – Automated Process 135
6.1.3.3 Device Restore – Manual Process 137
6.1.3.4 Device Restore – Automated Process 141
6.1.4 SJPM Failsafe Configurations 144
6.1.4.1 Failsafe Scenario One – Running Two SJPM Installs 144
6.1.4.2 Failsafe Scenario Two – Running One SJPM Install 145
6.1.5 Printing to a Mapped Network Drive Folder – ATB2File, File, and IFQ Drivers 146
6.1.6 Allow User Rights – Queue and System Drivers 148
6.1.7 Installing SJPM to an Alternate Hard Drive 151
6.2 SJPM Drivers 152
6.2.1 ATB2File Driver 153
6.2.2 ATB2LPR Driver 162
6.2.3 ATB2System Driver 167
6.2.4 ATB2TN Driver 173
6.2.5 ATB2TNProxy Driver 178
6.2.6 File Driver 181
6.2.7 Group Driver 191
6.2.7.1 Single Output to Multiple Devices 194
6.2.8 IFQ Driver 196
6.2.9 LPR Driver 200

6.2.10 MQJMS Driver 211
6.2.11 Printer Driver 213
6.2.12 Proxy Driver 223
6.2.13 Queue Driver 226
6.2.14 RawIP Driver 229
6.2.15 STPATB1 Driver 238
6.2.16 STPATB1INI Driver 240
6.2.17 STPATB2 Driver 242
6.2.18 STPATB2INI Driver 244
6.2.19 System Driver 246
6.2.19.1 System Driver Generic Text Only Font Selection 250

Troubleshooting 257

7.1 Enabling SJPM Logging 257
7.1.1 Enabling SJPM Server Logging – System Tray Icon Menu 257
7.1.1.1 Increasing the Server Log Files Size to “20000KB” – File Edit 259
7.1.2 Enabling SJPM Server Logging – File Edit 259
7.1.3 Enabling SJPM Client Logging – System Tray Icon Menu 262
7.1.5 Enabling SJPM Client Logging – File Edit 263
7.2 Disabling SJPM Logging 265
7.2.1 Disabling SJPM Server Logging – System Tray Icon Menu 265
7.2.2 Disabling SJPM Server Logging – File Edit 266
7.2.3 Disabling SJPM Client Logging – System Tray Icon Menu 267
7.2.4 Disabling SJPM Client Logging – File Edit 268

Appendix 269

A. SJPM Recommended Requirements 269
B. SJPM Minimum Requirements 270
C. SJPM Frequently Asked Questions 271
D. Connecting to Sabre with SJPM Using SCVPN 276
E. Compatibility with Sabre Customer Virtual Private Network (SCVPN) 277
F. File Encryption and Decryption – ATB2File and File Drivers 277
F.a Encryption – Source Code 277
F.b Decryption – Source Code 279
G. Licensing 280
G.a. QJson 280
G.b. Log4QT 287
G.c. QtSingleApplication 289
G.d. com.sun.media 290
H. Creating and Loading ATB2 Virtual Stock 291

I. LPR vs System vs RawIP Drivers 292
I.a. LPR Driver 293
I.b. System Driver 293
I.c. RawIP Driver 293
J. ATB2LPR vs ATB2System Drivers 293
J.a. ATB2LPR Driver 293
J.b. ATB2System Driver 294
K. Remote File Services Terminology 294
L. Print Data Request 295
M. LPR/LPD Printing (SJPM "**ATB2LPR**" and "**LPR**" Drivers) 298
N. USB to Serial Port Converter Use with SJPM 298
O. SJPM International Character Capability 299
O.a. International Unicode data originating from a Sabre Printer LNIATA 299
O.b. International Unicode data originating from the SJPM printData RESTful Web Service300
P. Automatic Check for Updates / Manual Check for Updates 302

General Information 1

1.1 Purpose

This document (**SJPMTNUsersGuide.docx**) is a detailed guide for the install, uninstall, operation, configuration, and support of **Sabre Java Printing Module** (SJPM) and includes detailed information on the (**19**) SJPM Drivers listed below.

Driver	Description
"ATB2File"	Printing ATB2 data (**PECTAB protocol**) to file(s) (**BMP, JPG, PDF, PNG, or PostScript formats**).
"ATB2LPR"	Printing ATB2 data (**PECTAB protocol**) to non-ATB2 printers.
"ATB2Sysem"	Printing ATB2 data (**PECTAB protocol**) to Microsoft Windows configured printers using the Microsoft Windows printer spooler.
"ATB2TN"	Printing ATB2 data (**PECTAB protocol**) to physical ATB2 printers.
"ATB2TNProxy"	Printing ATB2 data (**PECTAB protocol**) from multiple LNIATAs to a single "**ATB2TN**" device (**Multiple to One**).
"File"	Printing to file(s) (**Text, PDF, or PostScript formats**).
"Group"	Printing data from a single device to multiple devices (**Replication**).
"IFQ"	Interface Queue back office printing to file(s) (**Text format**).
"LPR"	Printing hardcopy data for both textual and graphical modes to a TCP/IP Network printer using the LPR, Line Printer Remote, protocol.
"MQJMS"	IBM MQ data delivery.
"Printer"	Printing data to Hardcopy, Invoice/Itinerary, ATB1 printers and to file(s) (**Serial and Parallel interfaces**).
"Proxy"	Printing data from multiple LNIATAs to a single device (**Multiple to One**).
"Queue"	Printing data to a Network printer for back office printing.
"RawIP"	Printing data to IP printers and to file(s).
"STPATB1"	STP ATB1 document printing.
"STPATB1INI"	STP ATB1 non-ATB1 Invoice/Itinerary document printing.
"STPATB2"	STP ATB2 document printing.
"STPATB2INI"	STP ATB2 non-ATB2 Invoice/Itinerary document printing.
"System"	Printing hardcopy data to Microsoft Windows configured printers using the Microsoft Windows printer spooler.

1.2 Certified and Supported Operating Systems

Sabre Java Printing Module (SJPM) has been regression tested and certified for use with the Operating Systems listed below. If the Operating System is not listed below then it **IS NOT** certified nor supported at this time for use with SJPM.

However, since SJPM is Java based it should function on any Operating System even though not certified. SJPM has also been spot tested on Operating Systems such as **Windows Server 2008-R2** and **2008-R3** with no reported issues.

Certified and Supported Operating Systems:

- **Windows 7-64Bit**
- **Windows 8.1-64 Bit**
- **Windows 10-64 Bit**
- **Linux**

Installing SJPM

2

2.1 Installing SJPM

2.1.1 SJPM's Java Utilization

The Sabre Java Printing Module (SJPM) installation includes Java. The use of SJPM's installed Java is dependent on the Windows "**SJPM_JAVA_HOME**" **environment variable** setting.

SJPM uses the "SJPM_JAVA_HOME" environment variable's Java:

- If the "**SJPM_JAVA_HOME**" environment variable is set and configured in Windows; the Java.exe that is in "**%SJPM_JAVA_HOME%/bin**" will be used.

Possible Error Condition:

- If the "**SJPM_JAVA_HOME**" environment variable is pointing to a java version which is older than Java version **1.8**. SJPM requires a minimum of Java version **1.8**.

2.1.2 SJPM's Installation Options

SJPM can be installed using one of the two methods listed below:

Typical:

The "**Typical**" method installs the SJPM Client, Server and all drivers.

Custom:

The "**Custom**" method allows for custom component selection and installation. This method should be used to install only the SJPM drivers you want to be visible and available for use in the SJPM device driver type drop down list in the "**SJPM – Add Device**" popup window (displays when the "**New**" button in the SJPM Client GUI is clicked).

2.1.3 SJPM's Upgrade Functionality

When installing a newer version of SJPM; SJPM's automatic upgrade functionality eliminates the need to uninstall the previous version of SJPM or re-configure SJPM after an upgrade. All devices and configurations are copied and migrated to the new SJPM installation automatically.

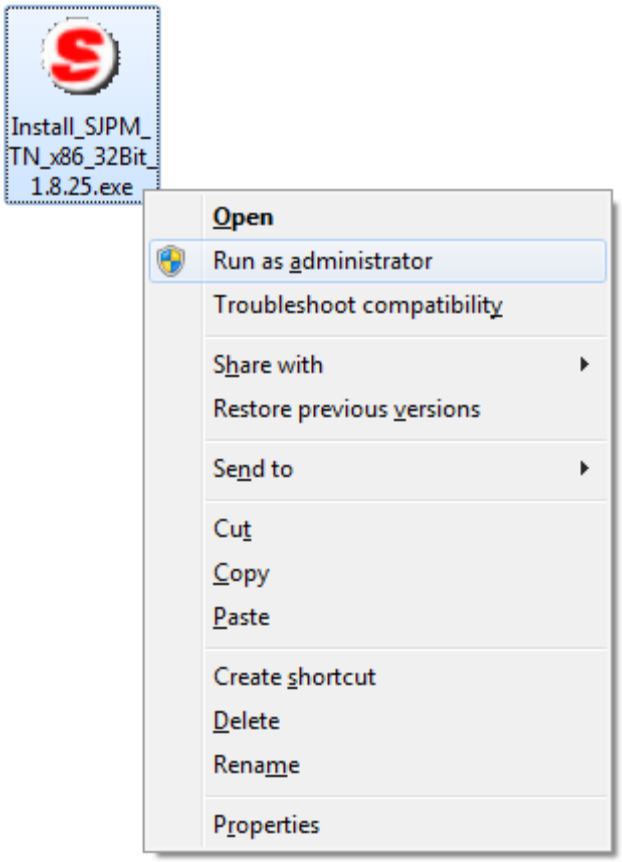
For SJPM Device backup and restore procedures see section **6.1.3 Device Backup and Restore**.

2.1.4 Running the SJPM Installation as an Administrator

In certain cases, e.g. when the SJPM user is not logged in as Administrator, SJPM must be installed as Administrator using the Windows "**Run as administrator**" feature. This section describes the procedure for **Windows 7** 32 Bit / 64 Bit, **Windows 8** 64 Bit and **Windows 10**.

To run the SJPM installation exe (**Example:** "Install_SJPM_TN_x86_32Bit_x.x.x.exe") as an Administrator on **Windows 7** 32 Bit / 64 Bit, **Windows 8** 64 Bit and **Windows** 10, perform the following step:

1. Right click on the SJPM installation exe file and then left click on the "**Run as administrator**" menu item.



2.1.5 Typical Installation

This section describes SJPM's "**Typical**" installation. The "**Typical**" installation method of the SJPM installer installs the **SJPM Client**, **SJPM Server** and the following (**19**) **SJPM Drivers**:

ATB2File

ATB2LPR

ATB2System

ATB2TN

ATB2TNProxy

File

Group

IFQ

LPR

MQJMS

Printer

Proxy

Queue

RawIP

STPATB1

STPATB1INI

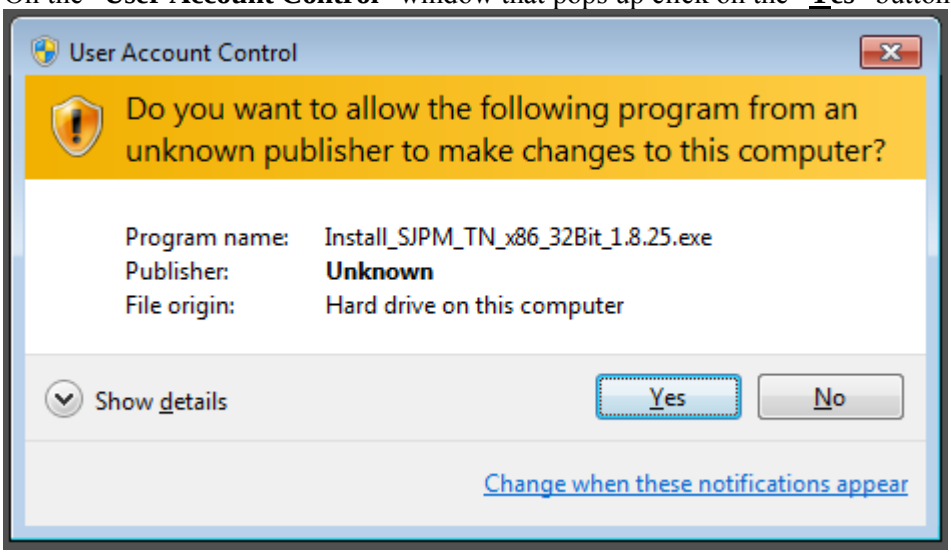
STPATB2

STPATB2INI

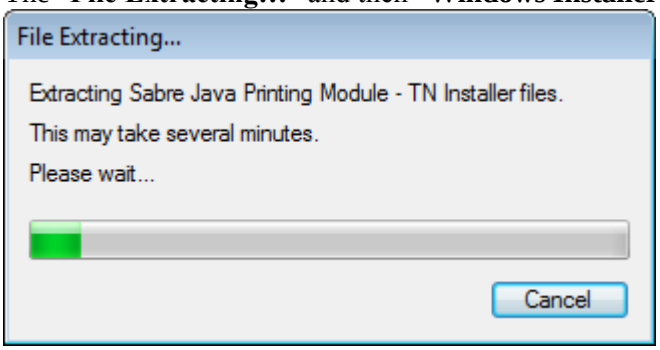
System

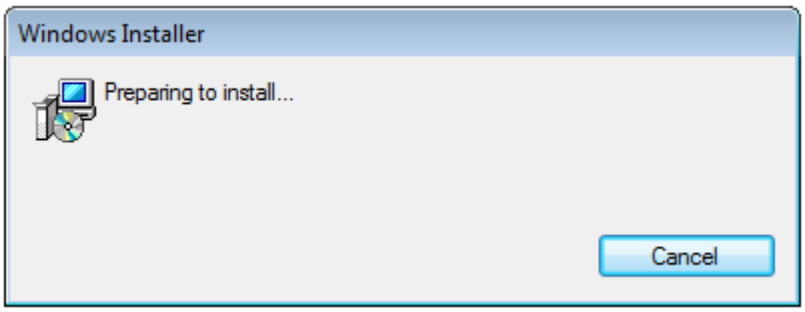
1. Right click on the Sabre Java Printing Module (SJPM) installation executable file (**Example:** "Install_SJPM_TN_x86_32Bit_x.x.x.exe") and then left click on the "**Run as administrator**" menu item.

2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.

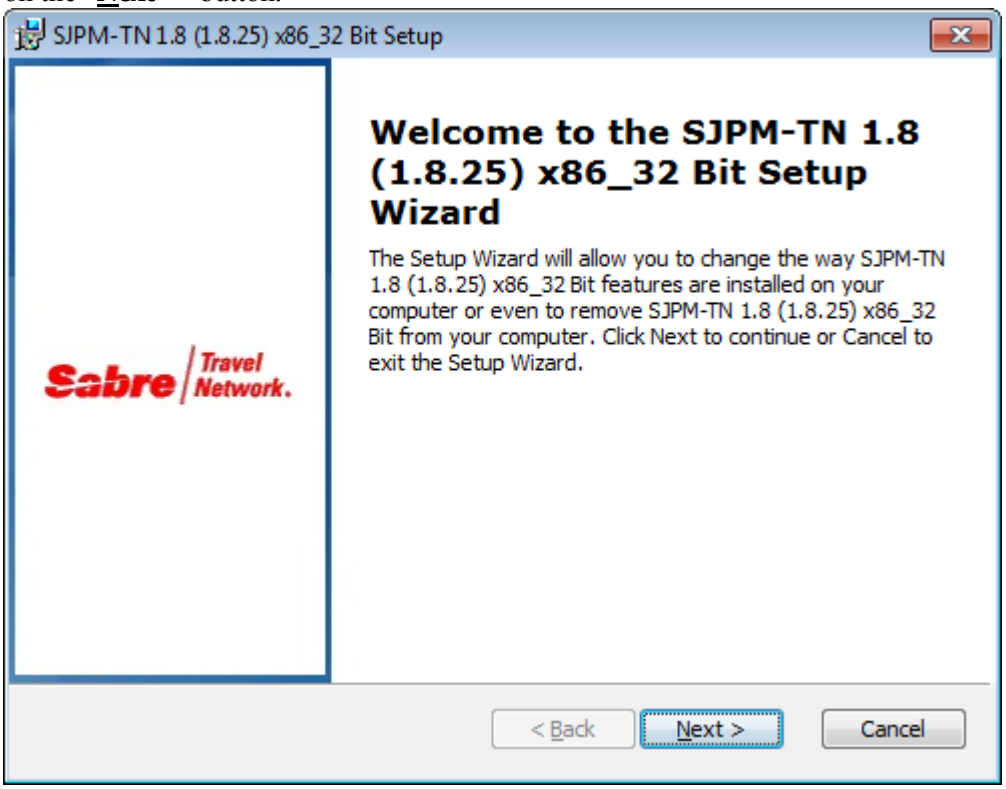


The "**File Extracting…**" and then "**Windows Installer**" windows will appear.

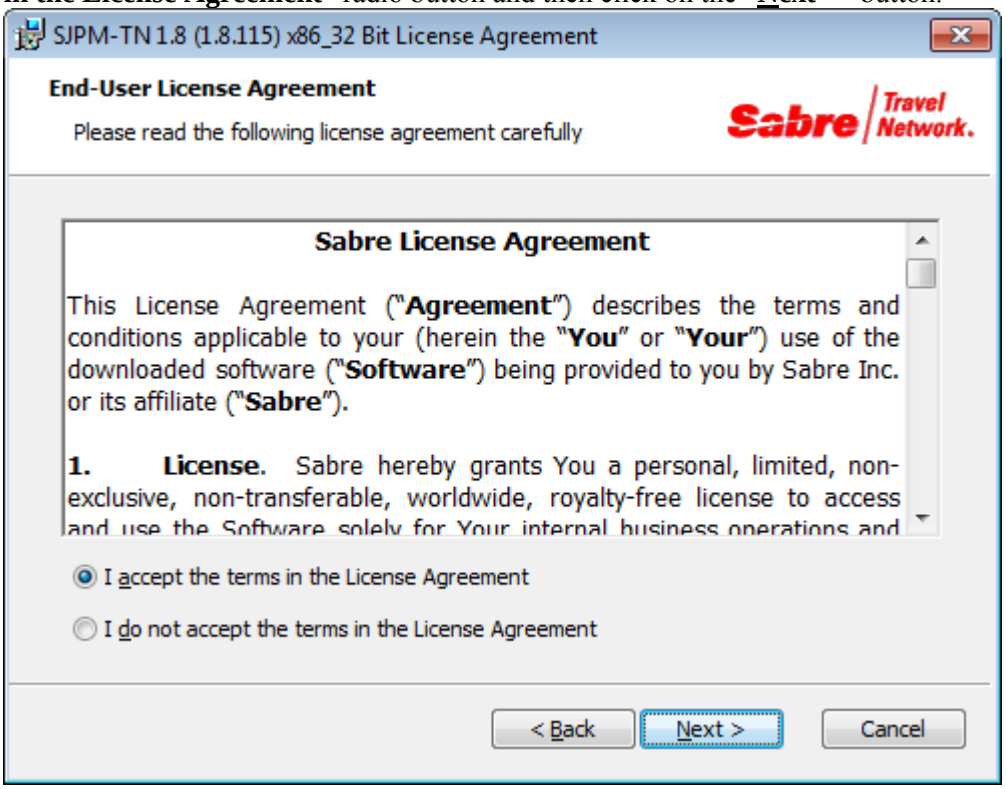




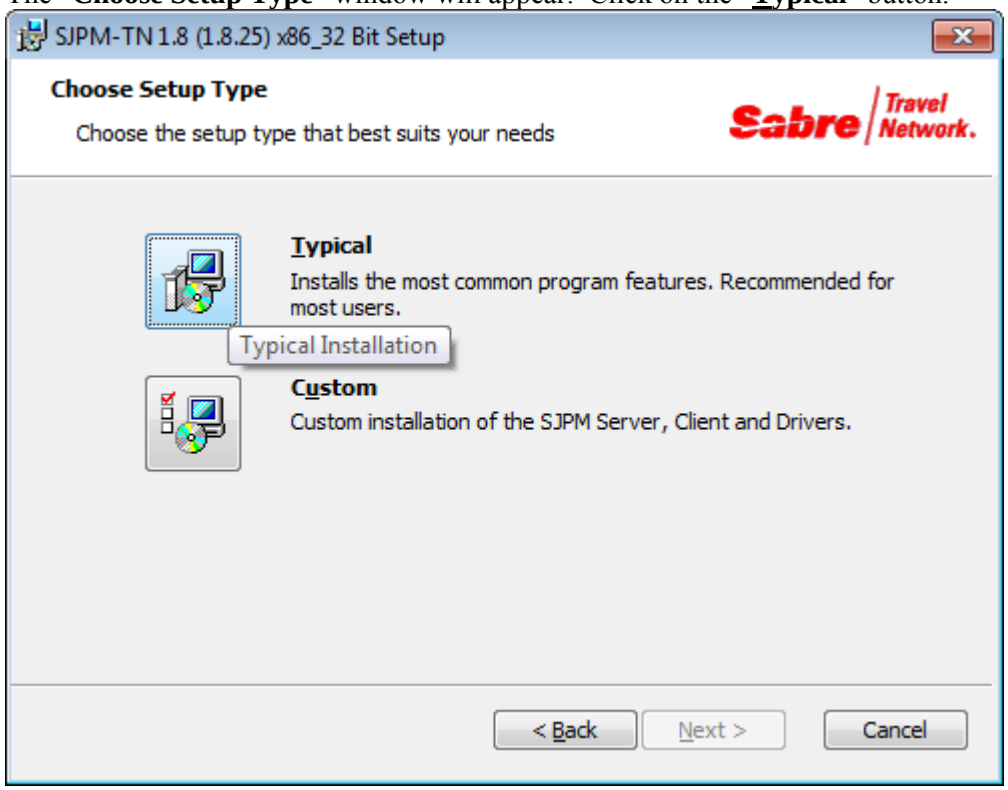
3. After file extraction and installation preparation the SJPM "**Setup**" window will appear. Click on the "**Next >**" button.



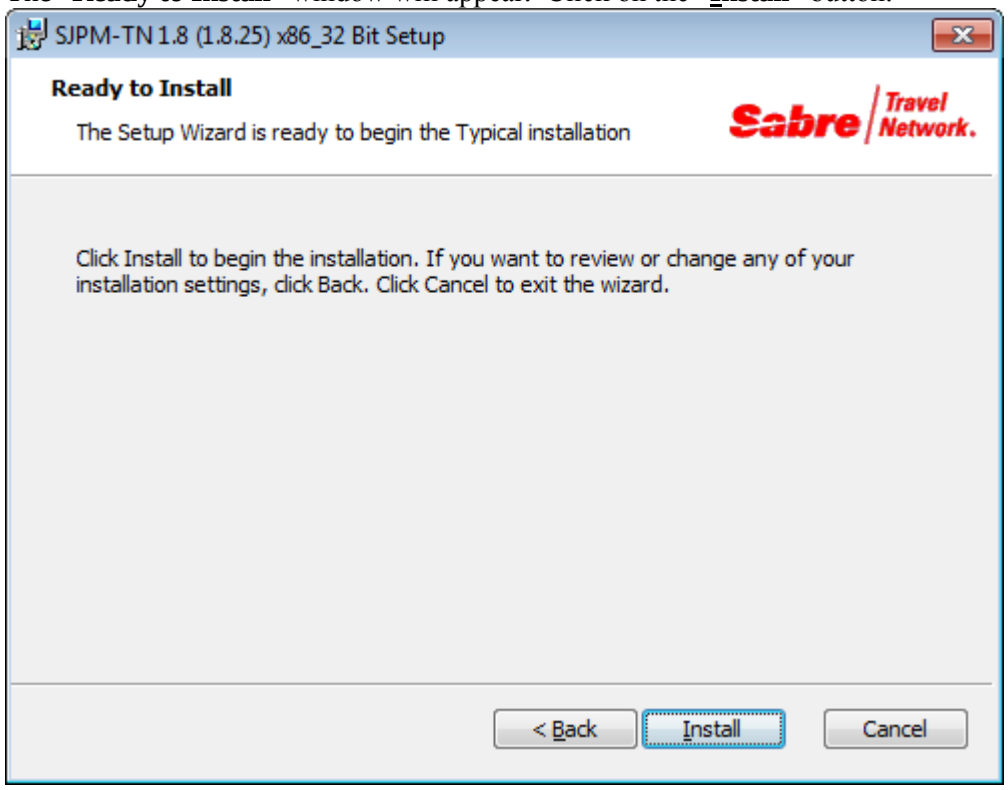
4. The "**End-User License Agreement**" window will appear. Click on the "**I accept the terms in the License Agreement**" radio button and then click on the "**Next >**" button.



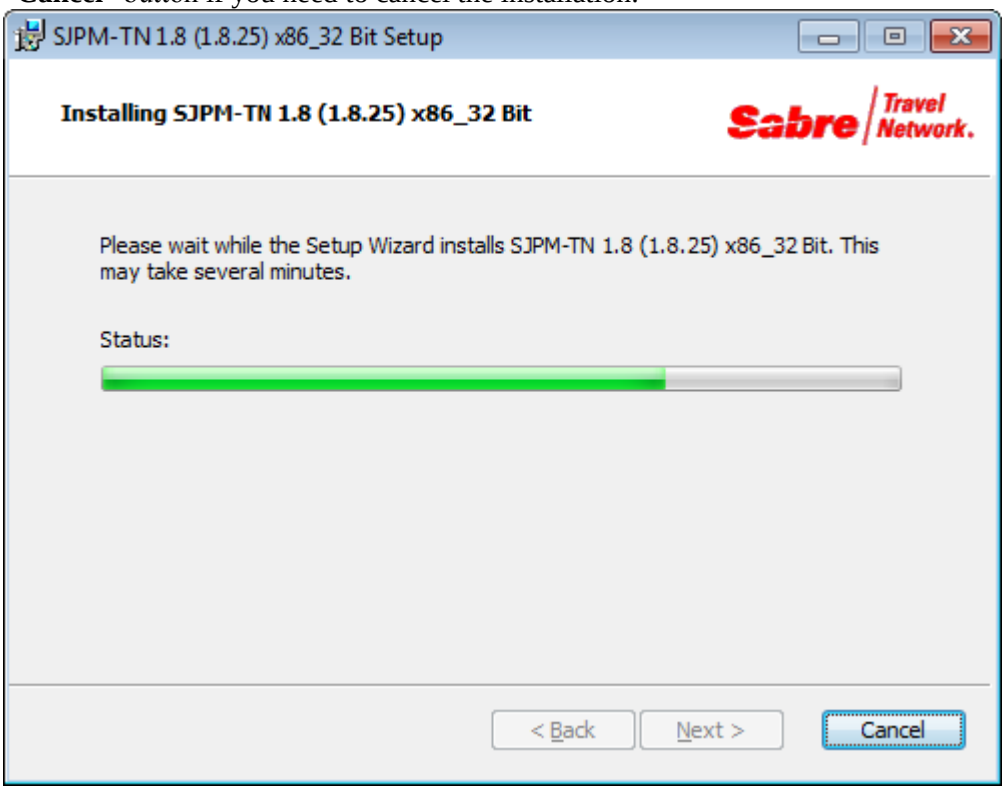
5. The "**Choose Setup Type**" window will appear. Click on the "**Typical**" button.



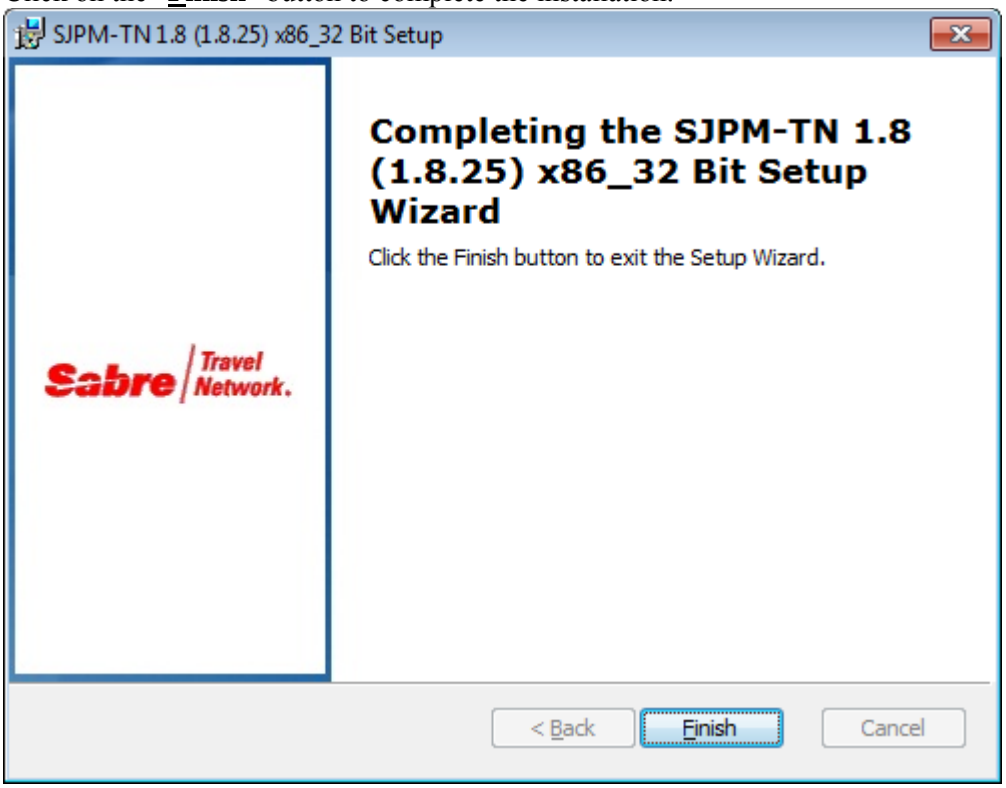
6. The "**Ready to Install**" window will appear. Click on the "**Install**" button.



7. The "**Installing SJPM-TN x.x (x.x.x) x86_32 Bit**" window will appear. Click on the "**Cancel**" button if you need to cancel the installation.



8. Click on the "**Finish**" button to complete the installation.



2.1.6 Custom Installation

This section describes SJPM's "**Custom**" installation method. The "**Custom**" installation method of the SJPM installer allows for the selection of the "**Client**", "**Server**" and the following (**19**) **SJPM Drivers**.

ATB2File

ATB2LPR

ATB2System

ATB2TN

ATB2TNProxy

File

Group

IFQ

LPR

MQJMS

Printer

Proxy

Queue

RawIP

STPATB1

STPATB1INI

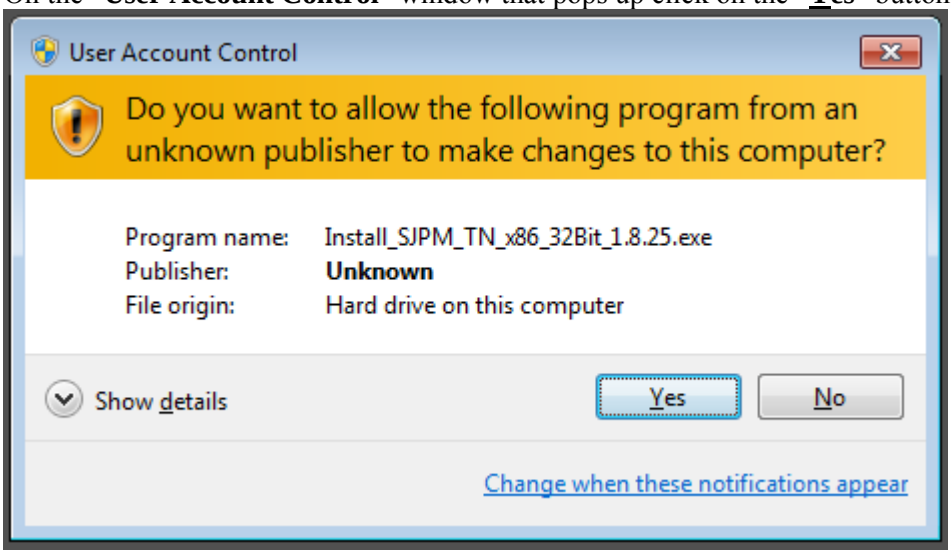
STPATB2

STPATB2INI

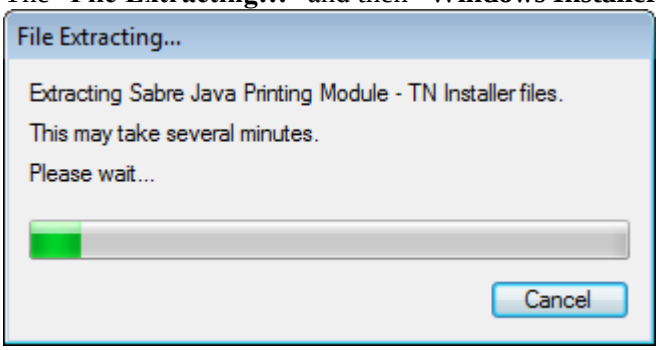
System

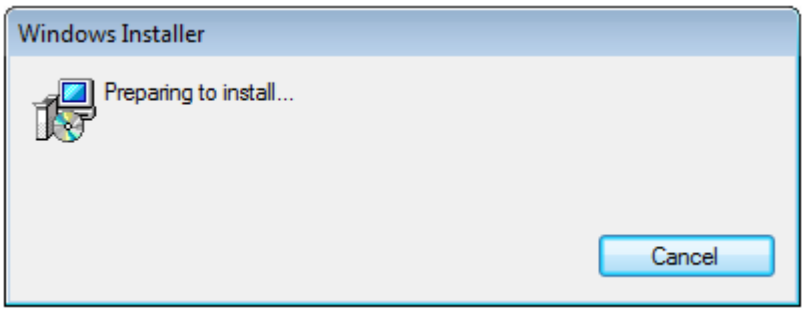
1. Right click on the Sabre Java Printing Module (SJPM) installation executable file (**Example:** "Install_SJPM_TN_x86_32Bit_x.x.x.exe") and then left click on the "**Run as administrator**" menu item.

2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.

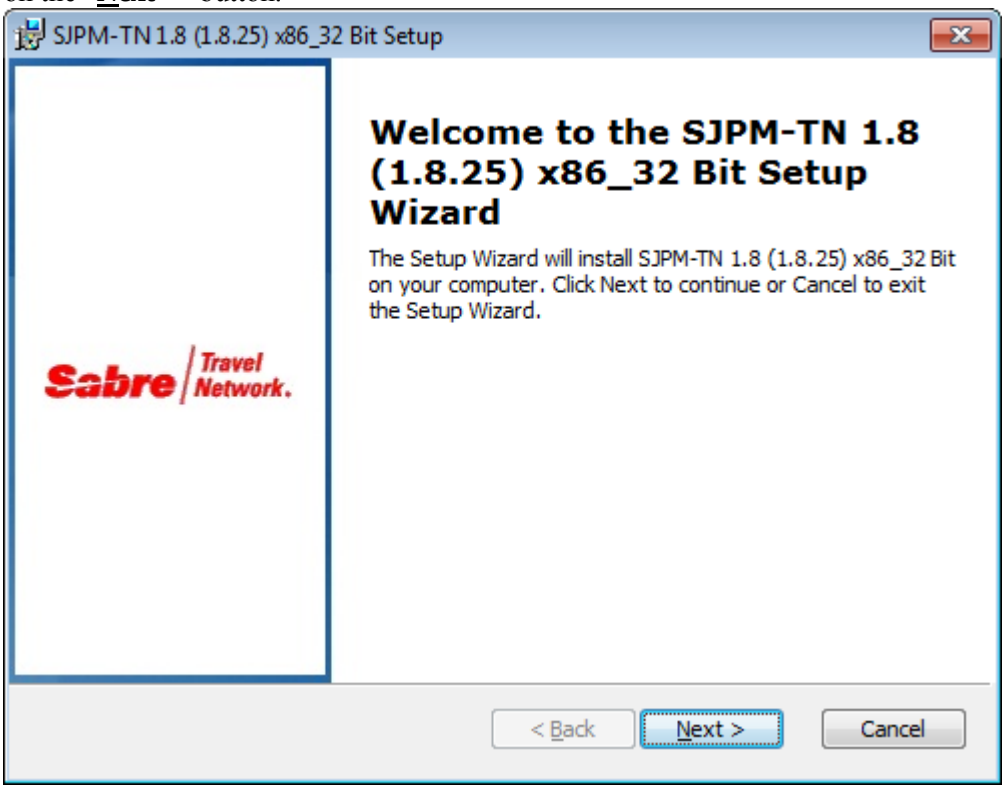


The "**File Extracting…**" and then "**Windows Installer**" windows will appear.

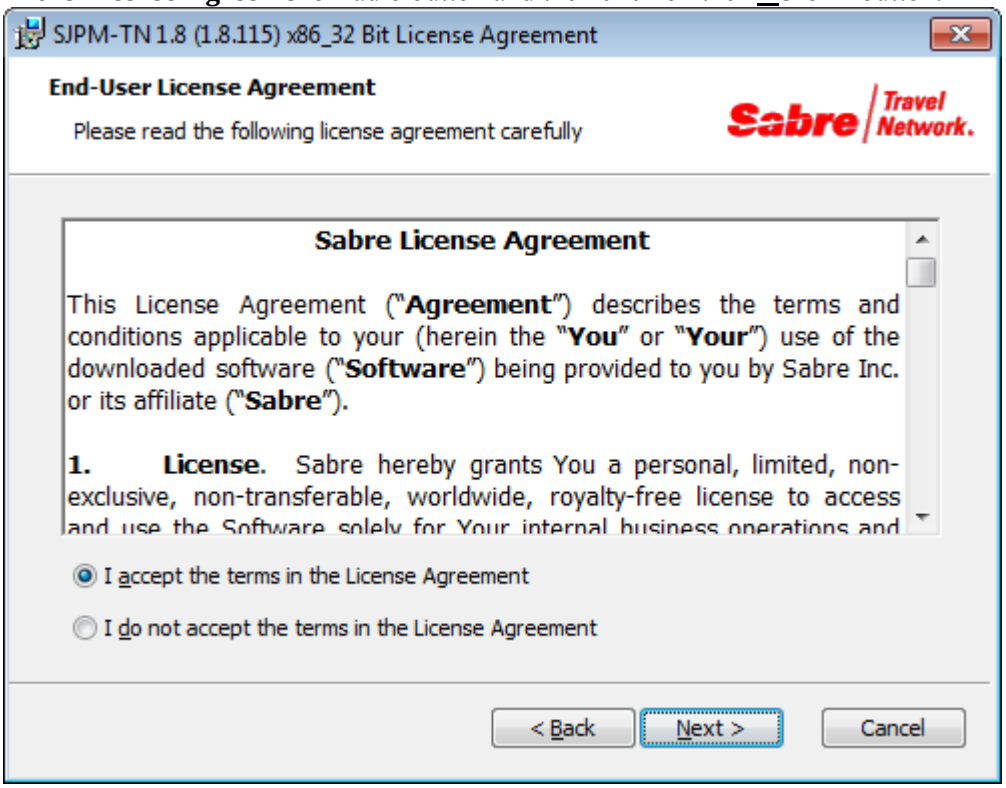




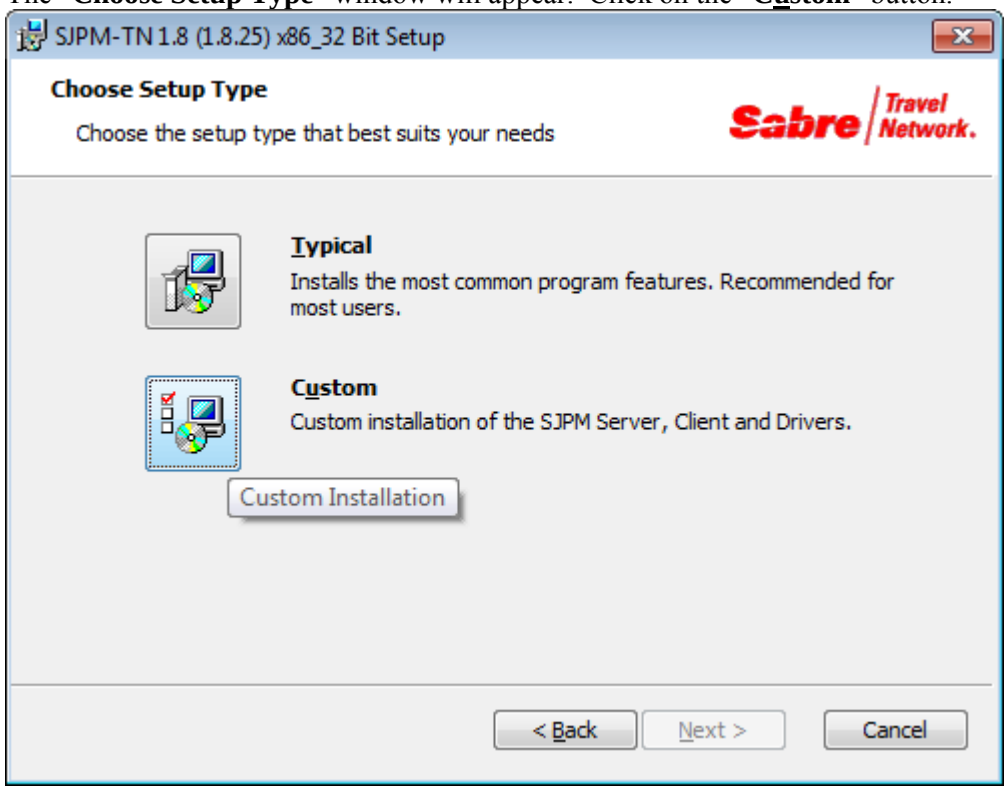
3. After file extraction and installation preparation the SJPM "**Setup**" window will appear. Click on the "**Next** >" button.



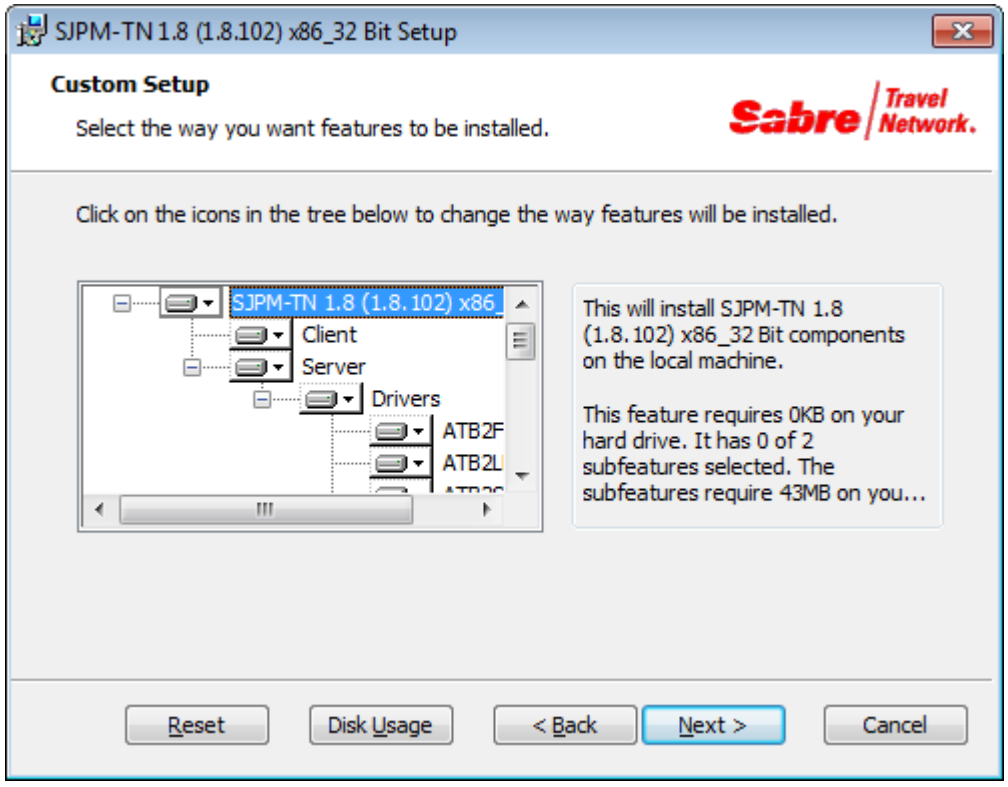
4. The "**End-User License Agreement**" window will appear. Click on the "**I accept the terms in the License Agreement**" radio button and then click on the "**Next** >" button.



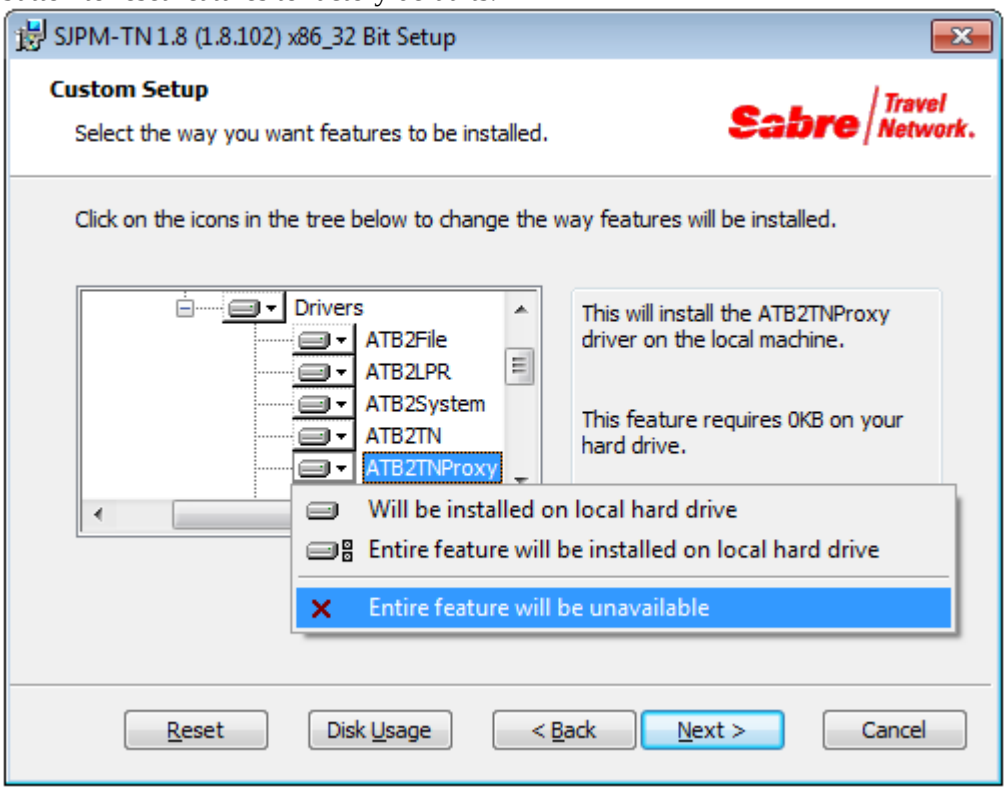
5. The "**Choose Setup Type**" window will appear. Click on the "**Custom**" button.



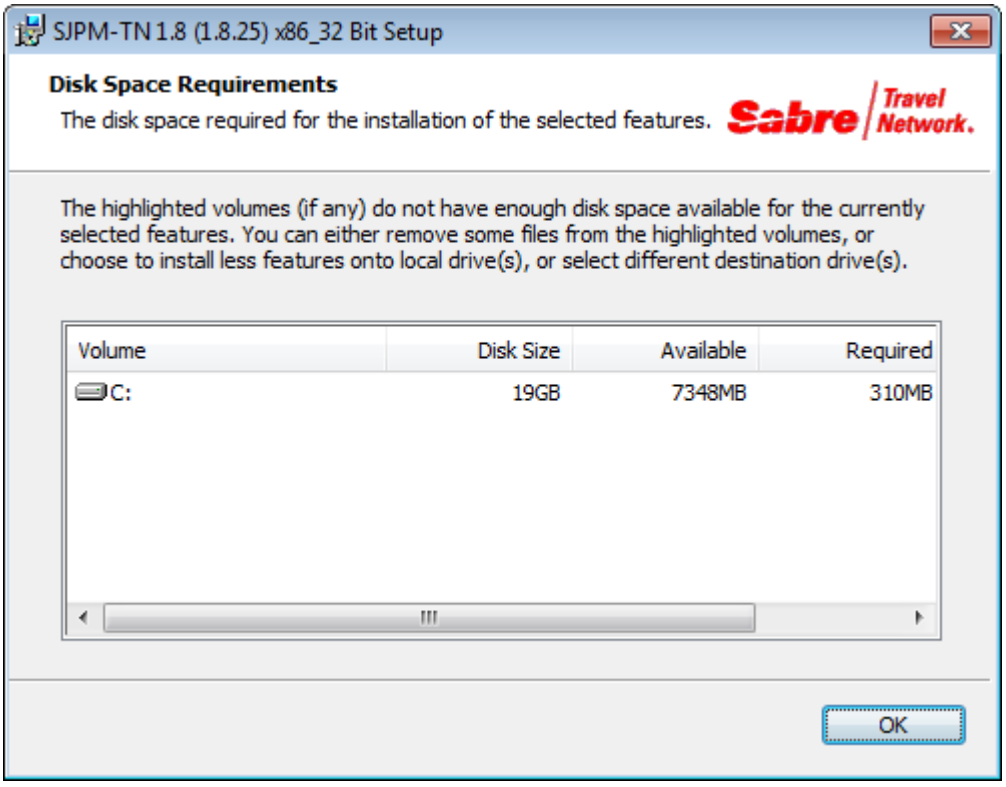
6. The "**Custom Setup**" window will appear. Click on the "**plus signs**" to see all of the available items that can be installed. Click on the "**Reset**" button to reset features to factory defaults.



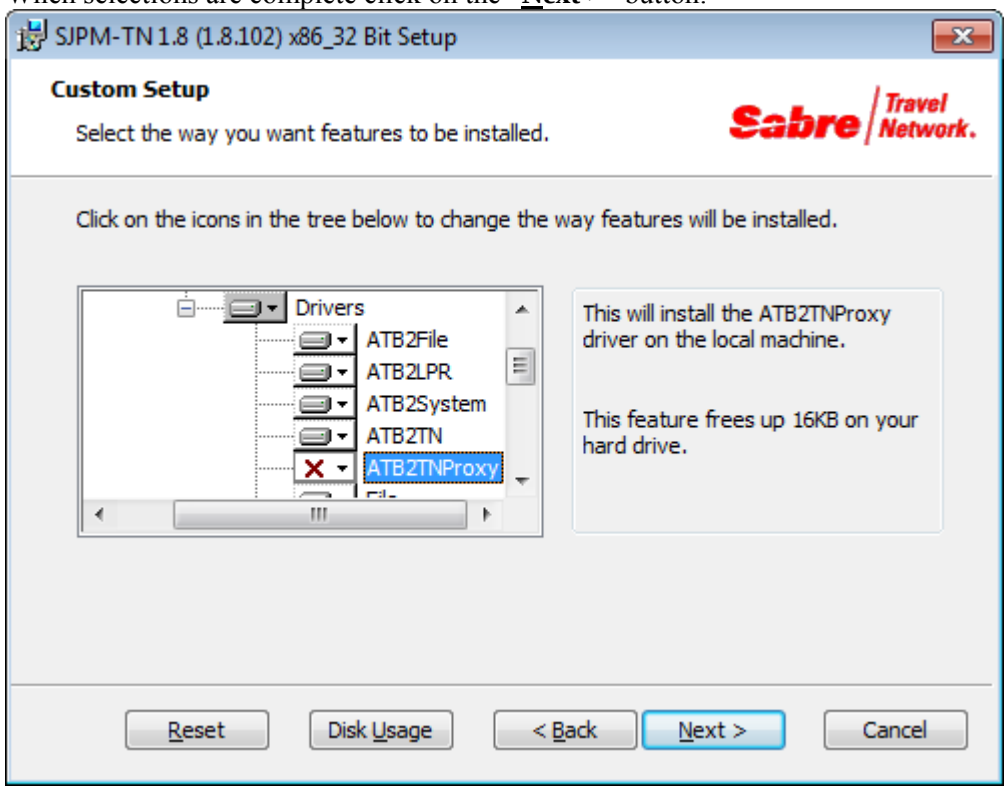
7. Click on the icons in the tree to select which items will be installed. Click on the "**Reset**" button to reset features to factory defaults.



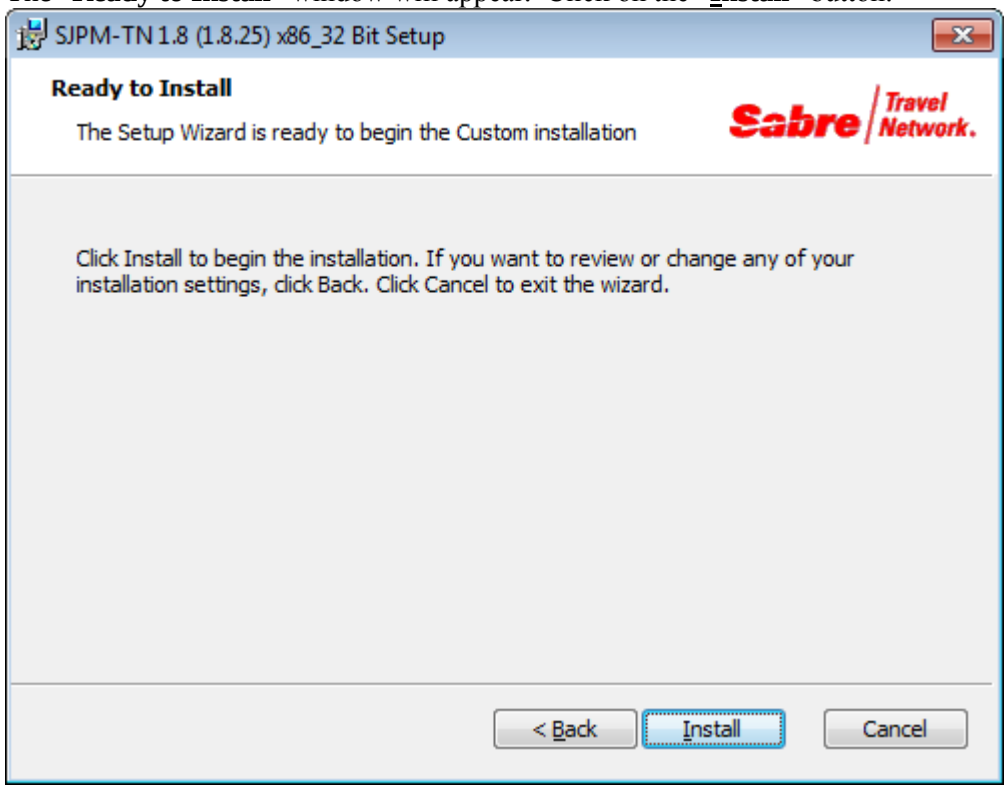
Click on the "**Disk Usage**" button to view disk space for installation (**Optional**). Click on the "**OK**" button to return to the installation.



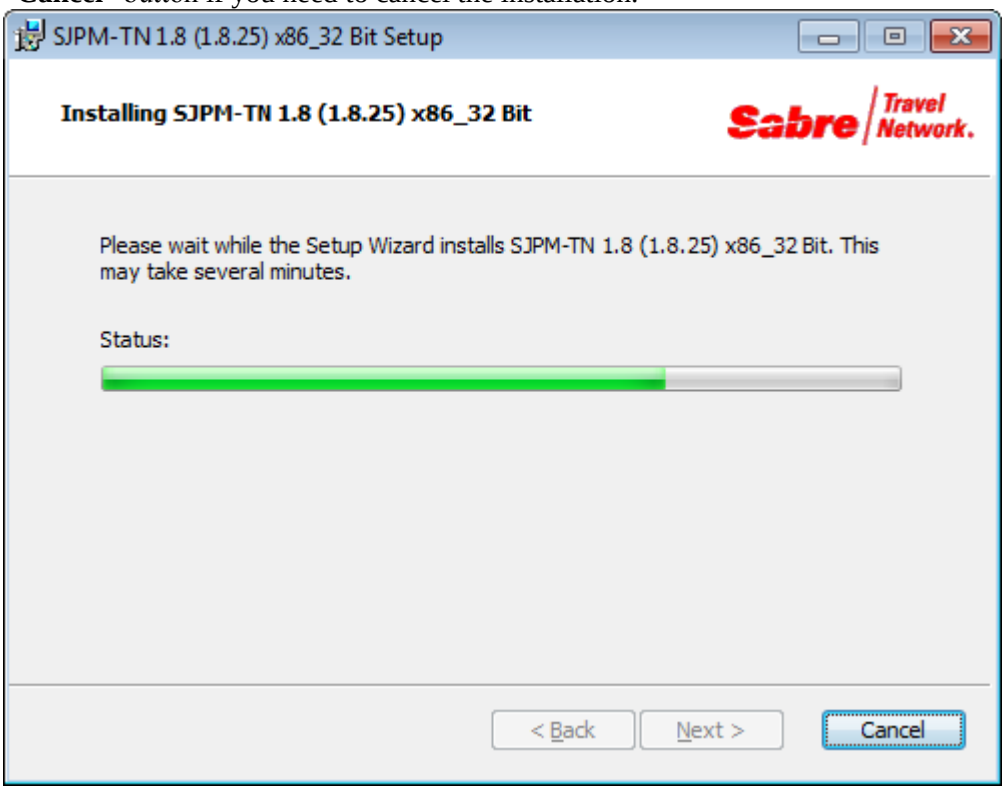
8. When selections are complete click on the "**Next** >" button.



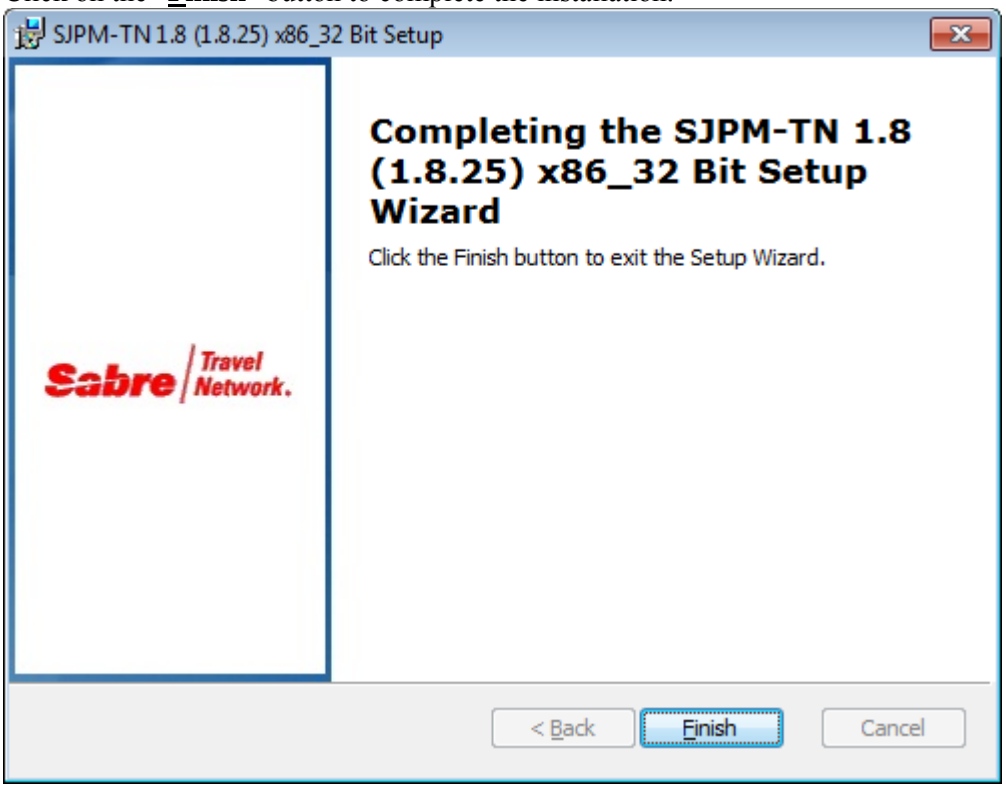
9. The "**Ready to Install**" window will appear. Click on the "**Install**" button.



10. The "**Installing SJPM-TN x.x (x.x.x) x86_32 Bit**" window will appear. Click on the "**Cancel**" button if you need to cancel the installation.



11. Click on the "**Finish**" button to complete the installation.

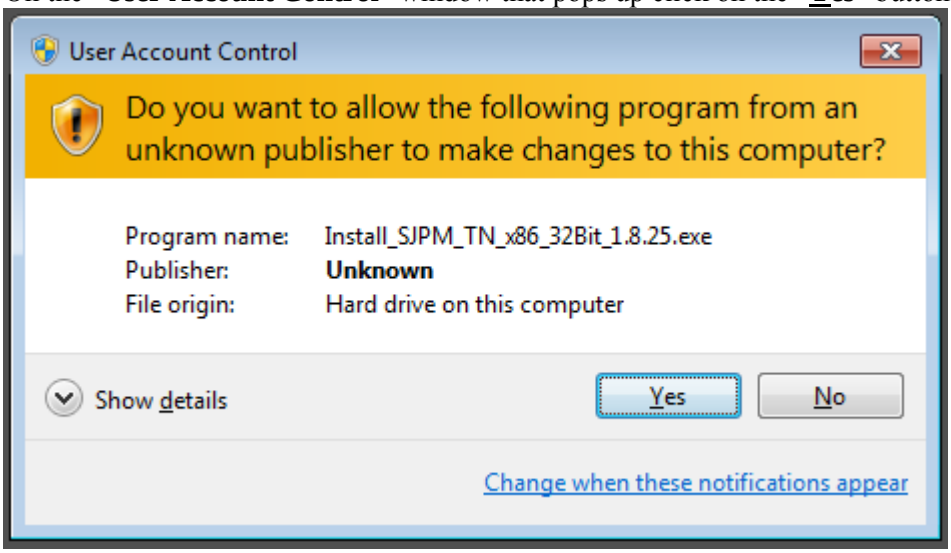


2.1.7 SJPM's Modify Installation

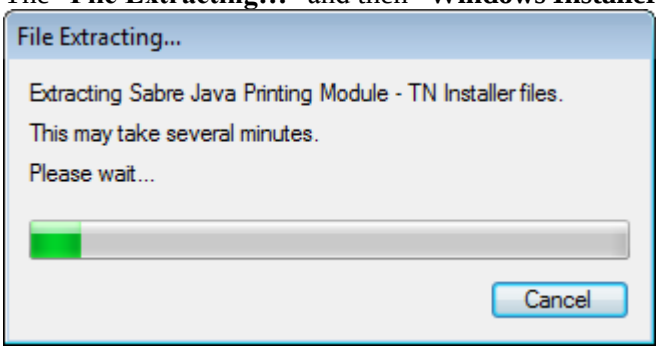
The SJPM's installation package includes a feature to modify the SJPM installation. This feature can be used to modify the SJPM installation, adding and/or removing drivers.

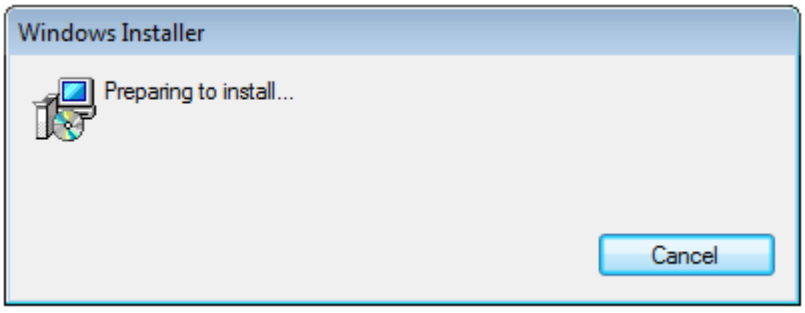
1. Right click on the Sabre Java Printing Module (SJPM) installation executable file (**Example:** "Install_SJPM_TN_x86_32Bit_x.x.x.exe") and then left click on the "**Run as administrator**" menu item.

2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.

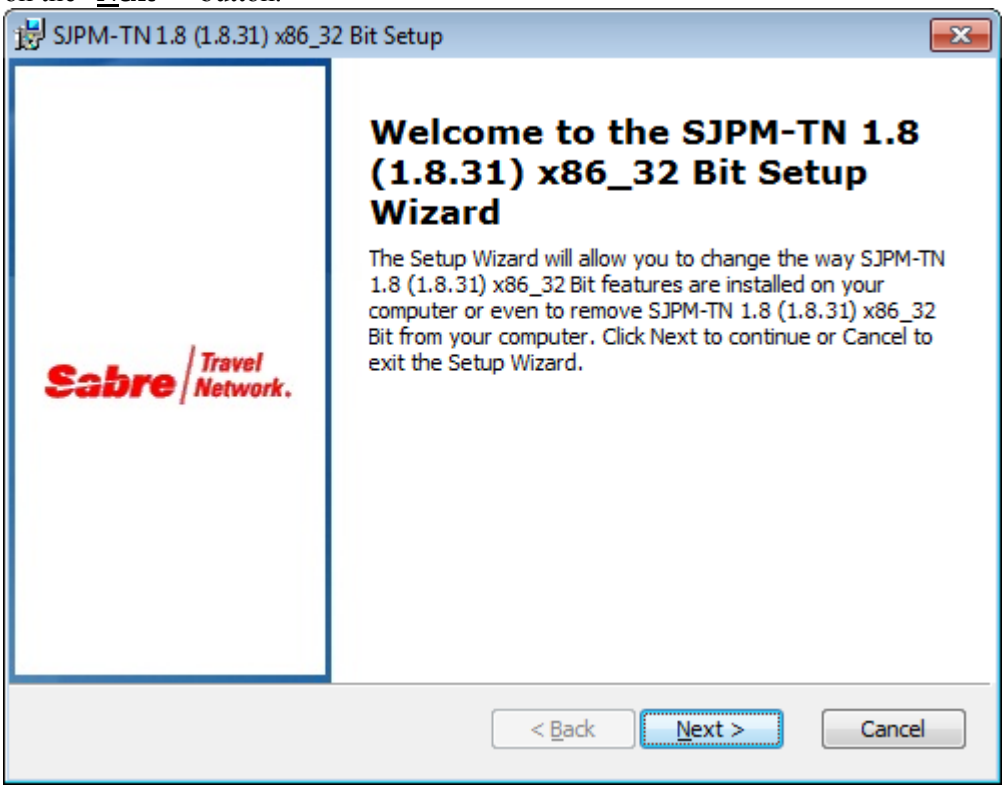


The "**File Extracting…**" and then "**Windows Installer**" windows will appear:

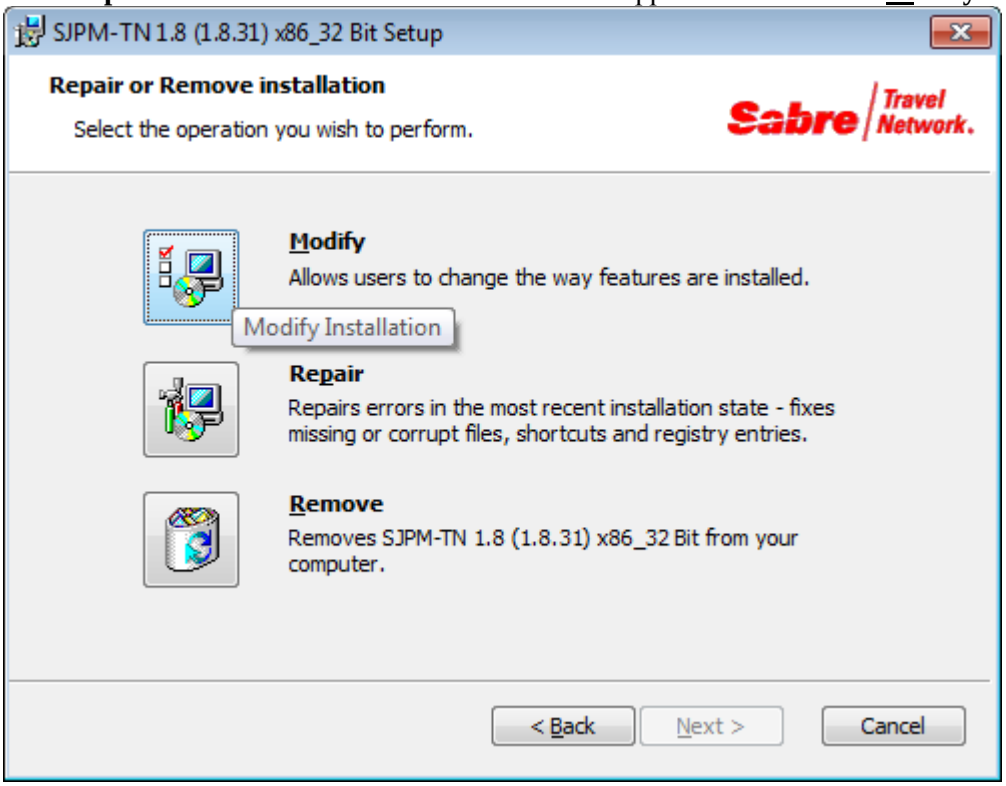




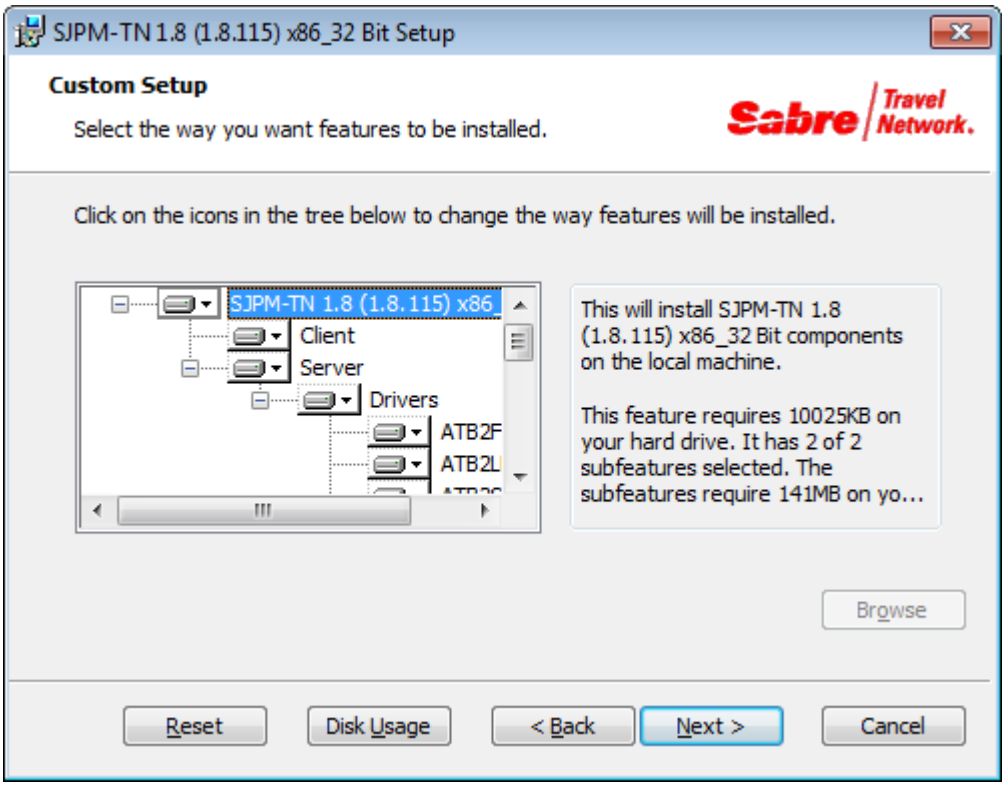
3. After file extraction and installation preparation the SJPM "**Setup**" window will appear. Click on the "**Next** >" button.



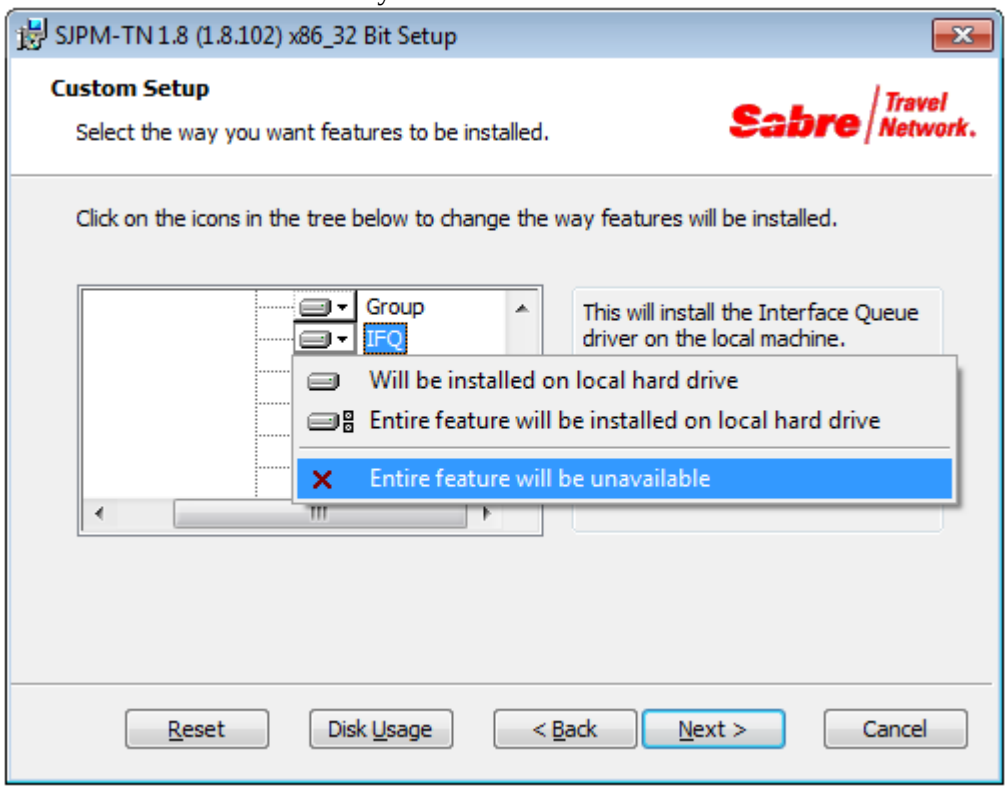
4. The "**Repair or Remove installation**" window will appear. Click on the "**Modify**" button.



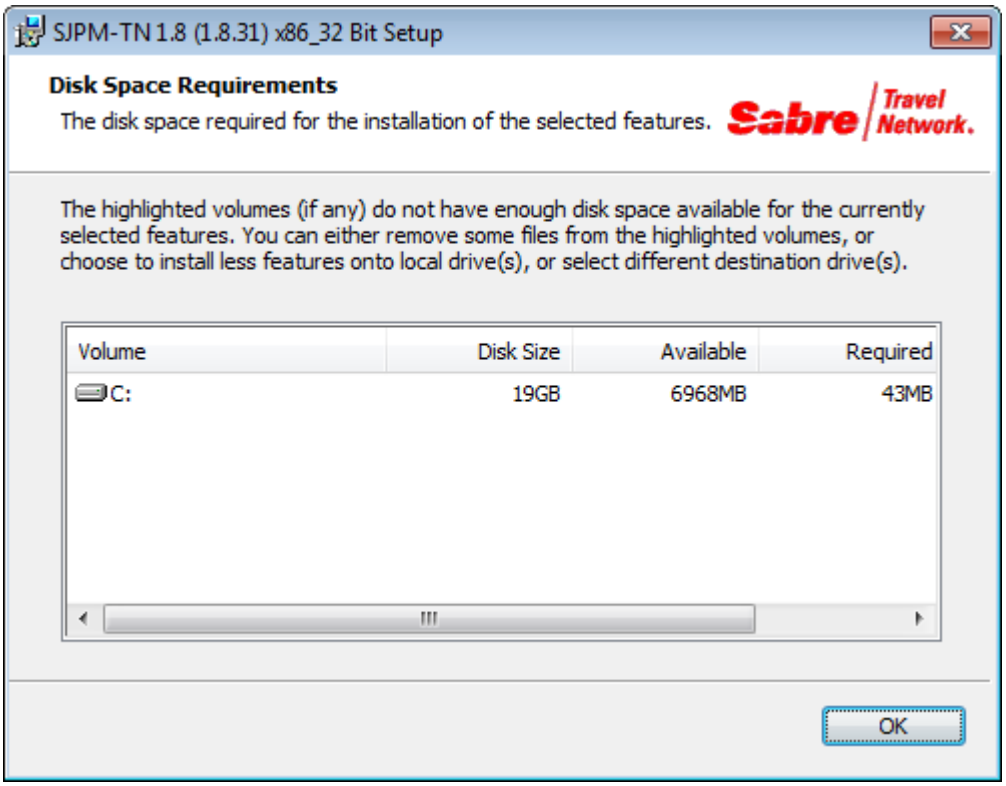
5. The "**Custom Setup**" window will appear. Click on the "**plus signs**" to see all of the available items that can be installed. Click on the "**Reset**" button to reset features to factory defaults.



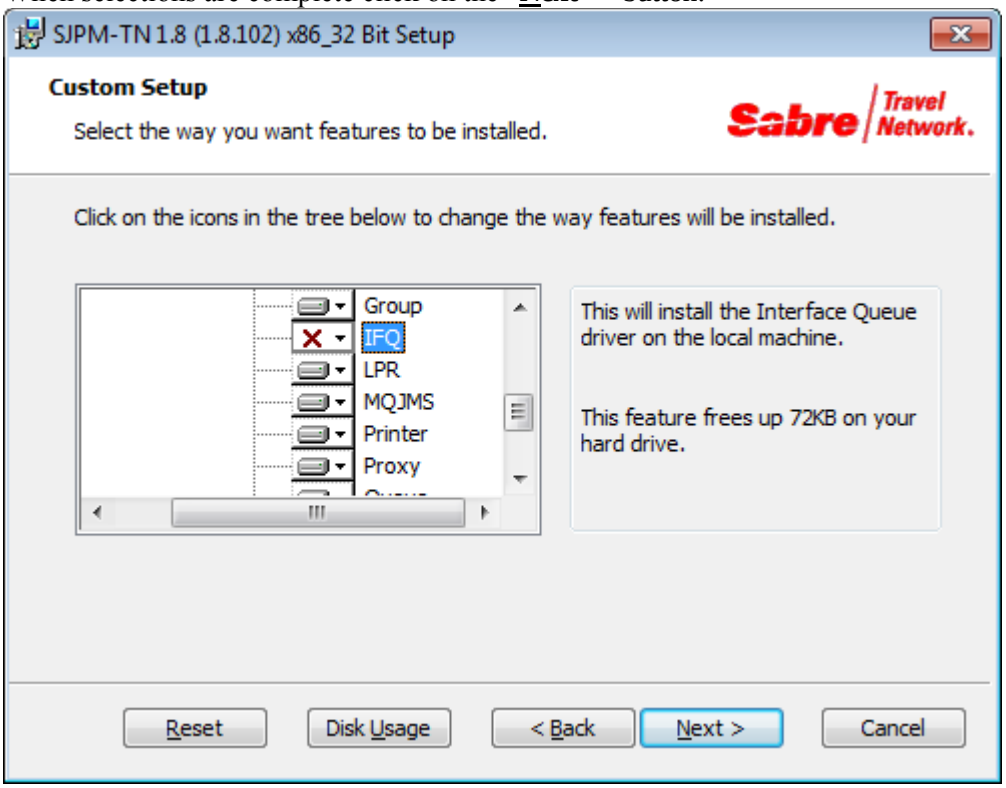
6. Click on the icons in the tree to select which items will be installed. Click on the "**Reset**" button to reset features to factory defaults.



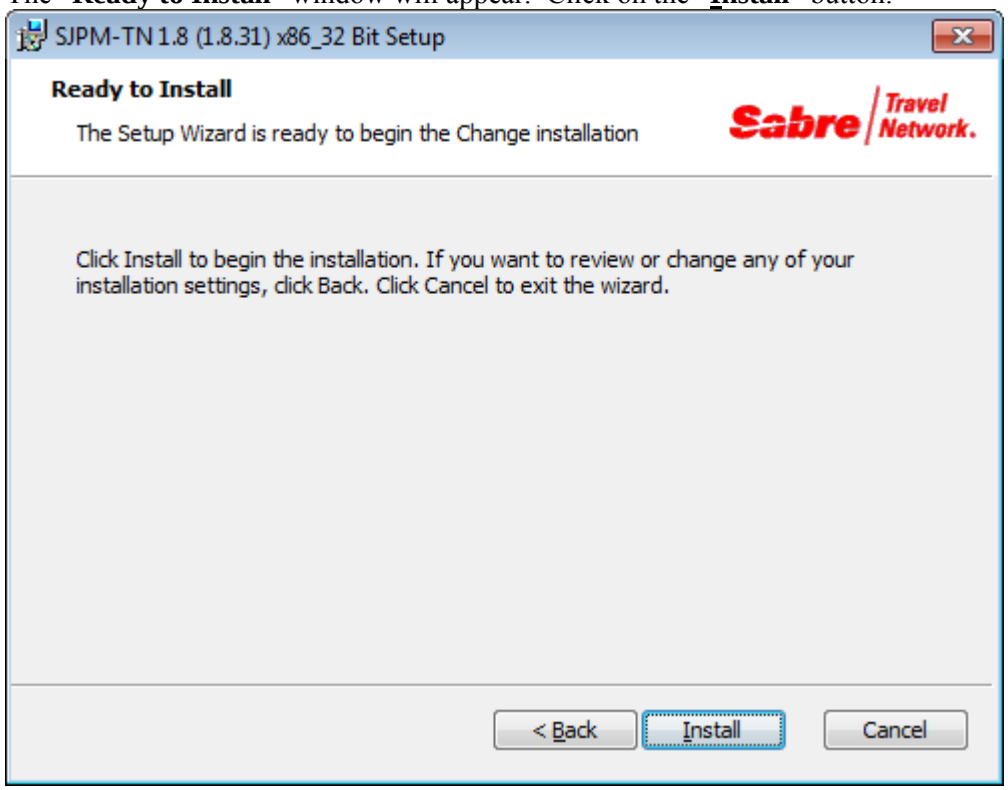
Click on the "**Disk Usage**" button to view disk space for installation (**Optional**). Click on the "**OK**" button to return to the installation.



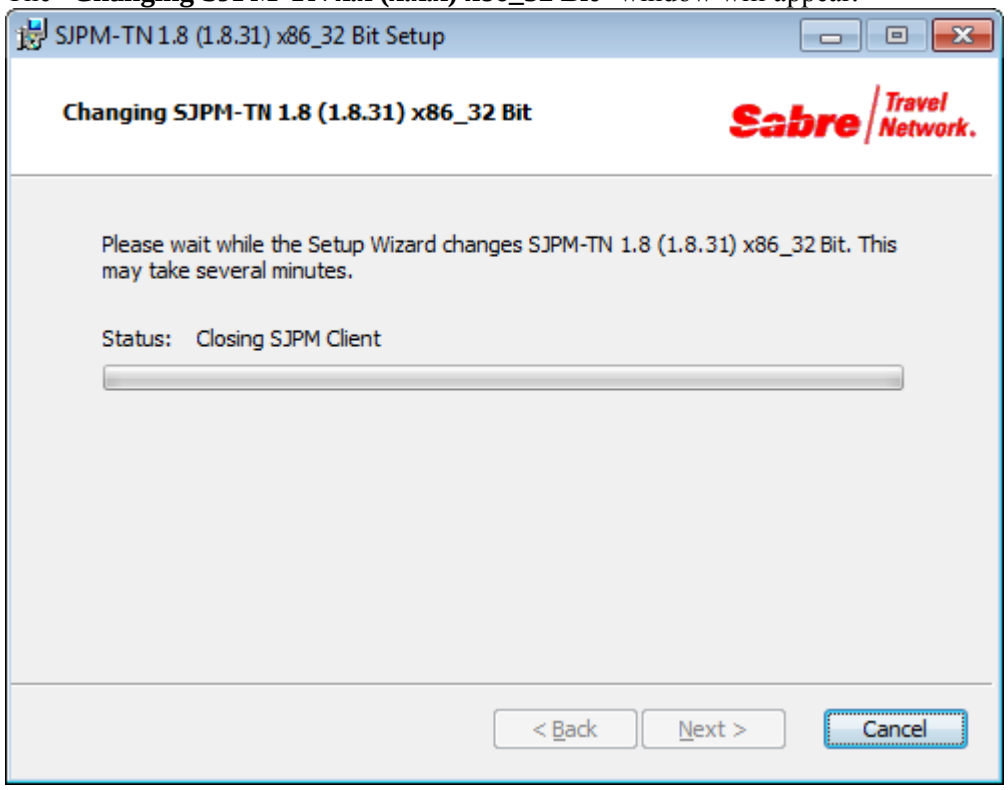
7. When selections are complete click on the "**Next** >" button.



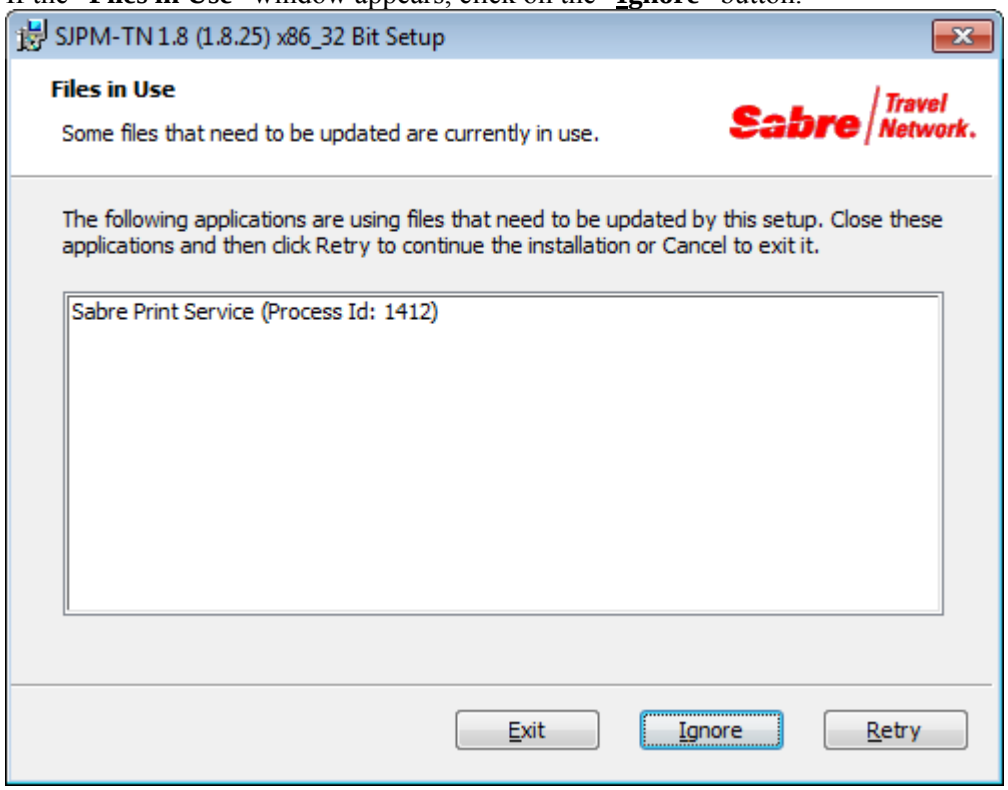
8. The "**Ready to Install**" window will appear. Click on the "**Install**" button.



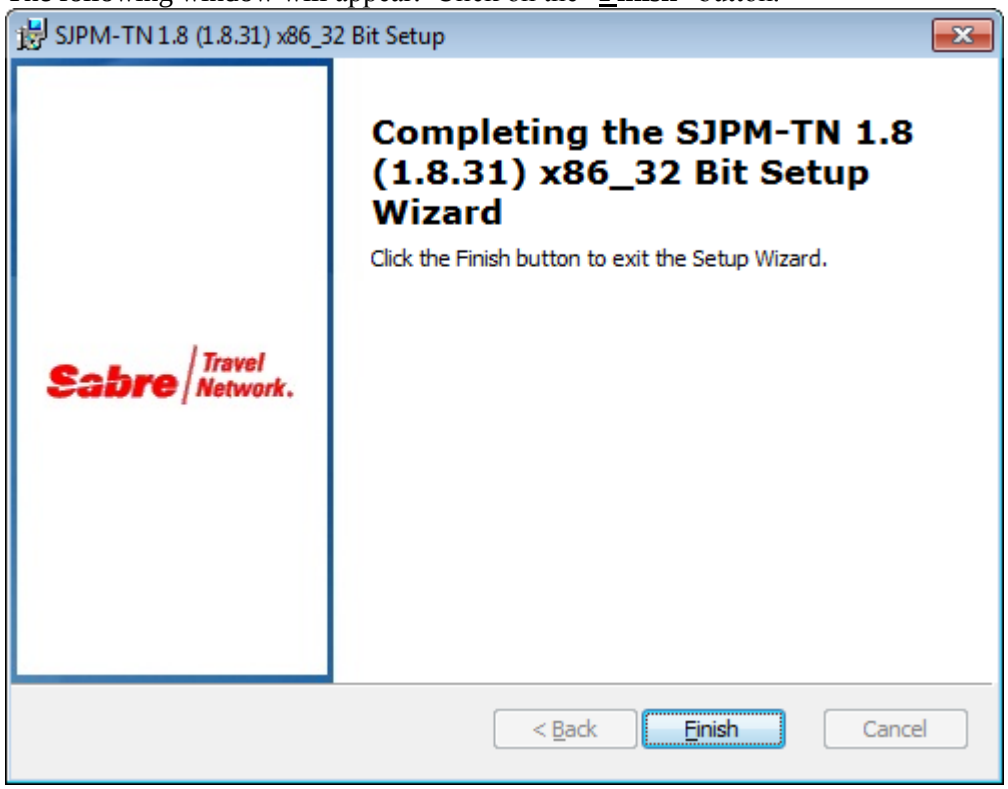
9. The "**Changing SJPM-TN x.x (x.x.x) x86_32 Bit**" window will appear.



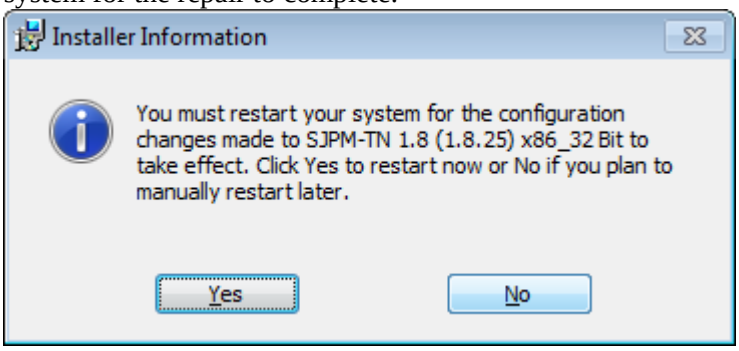
If the "**Files in Use**" window appears, click on the "**Ignore**" button.



10. The following window will appear. Click on the "**Finish**" button.



If the "**Installer Information**" window appears, click on the "**Yes**" button to restart the system for the repair to complete.

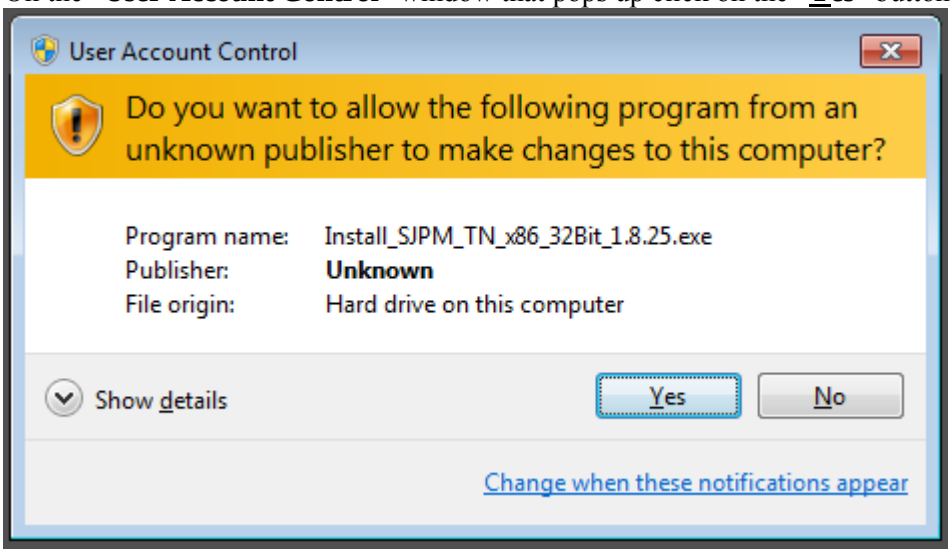


2.1.8 SJPM's Repair Installation

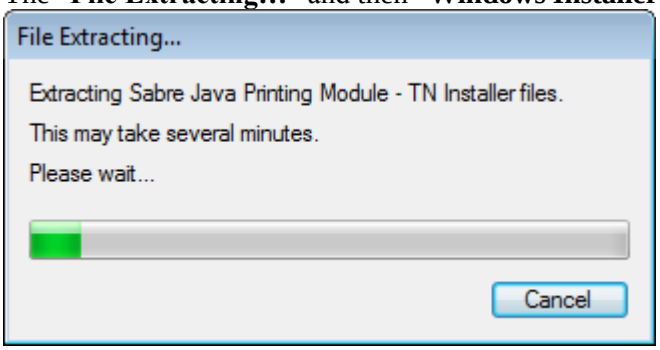
The SJPM's installation package includes an installation repair feature that can be used, in cases where SJPM is not operating properly, to repair SJPM to a functional state.

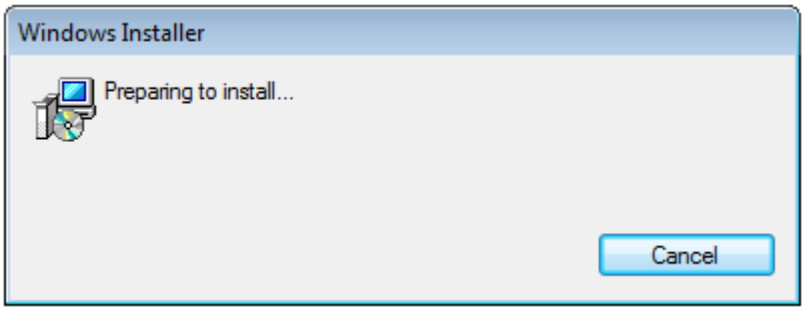
1. Right click on the Sabre Java Printing Module (SJPM) installation executable file (**Example:** "Install_SJPM_TN_x86_32Bit_x.x.x.exe") and then left click on the "**Run as administrator**" menu item.

2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.

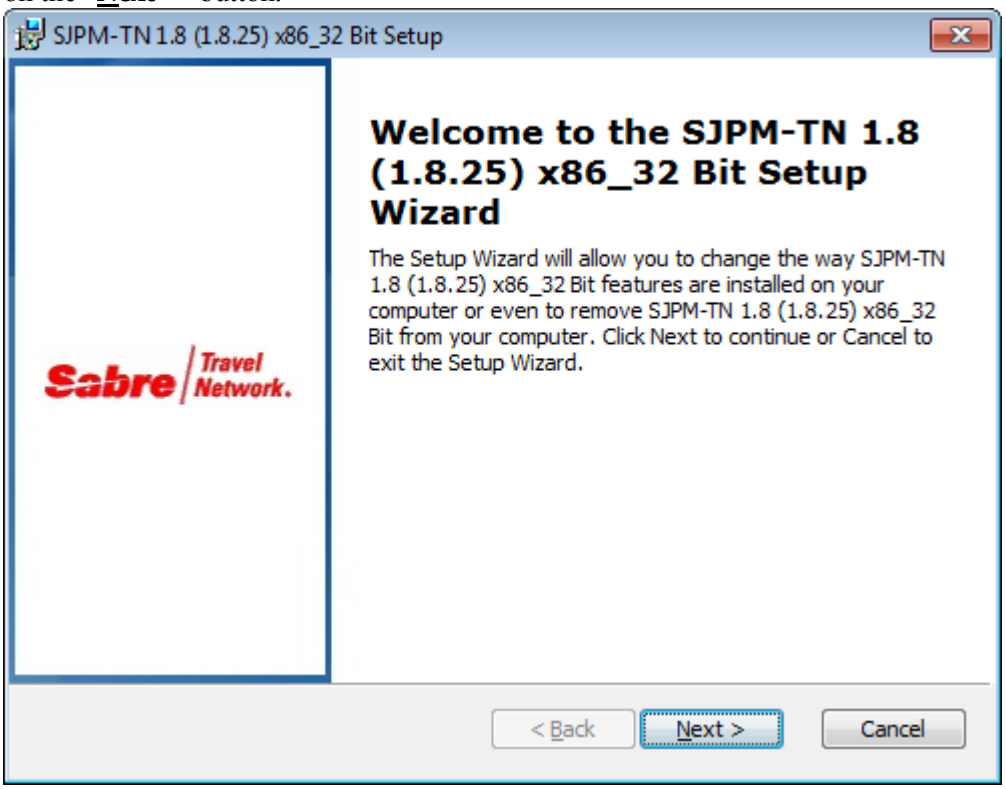


The "**File Extracting…**" and then "**Windows Installer**" windows will appear:

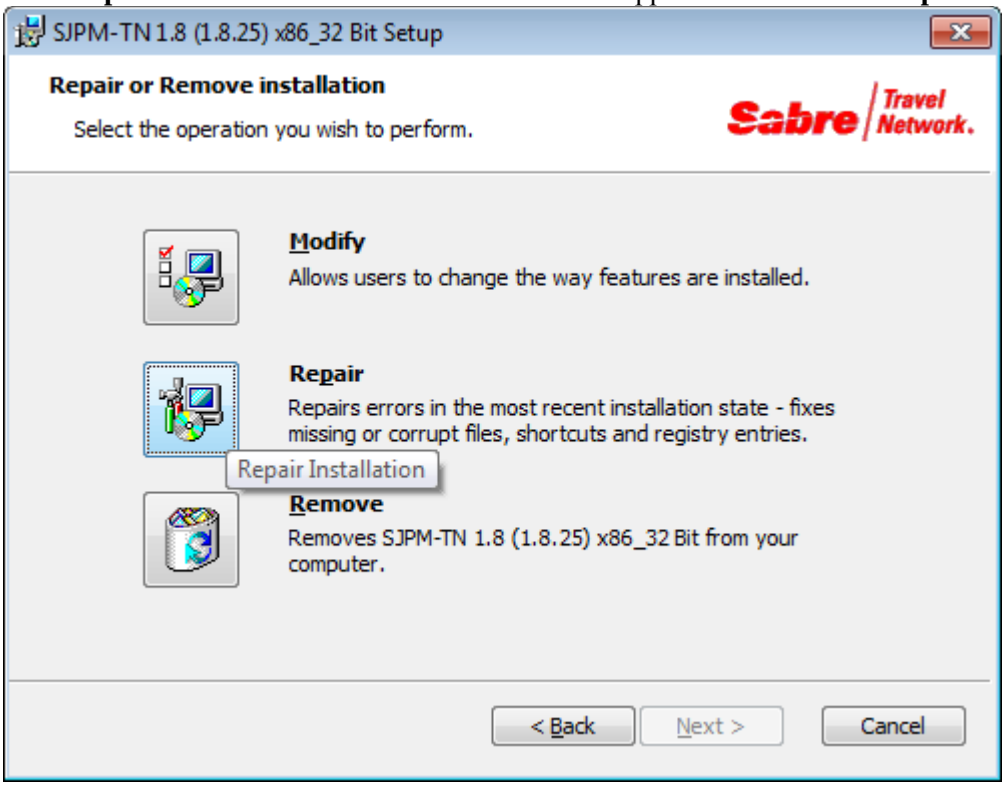




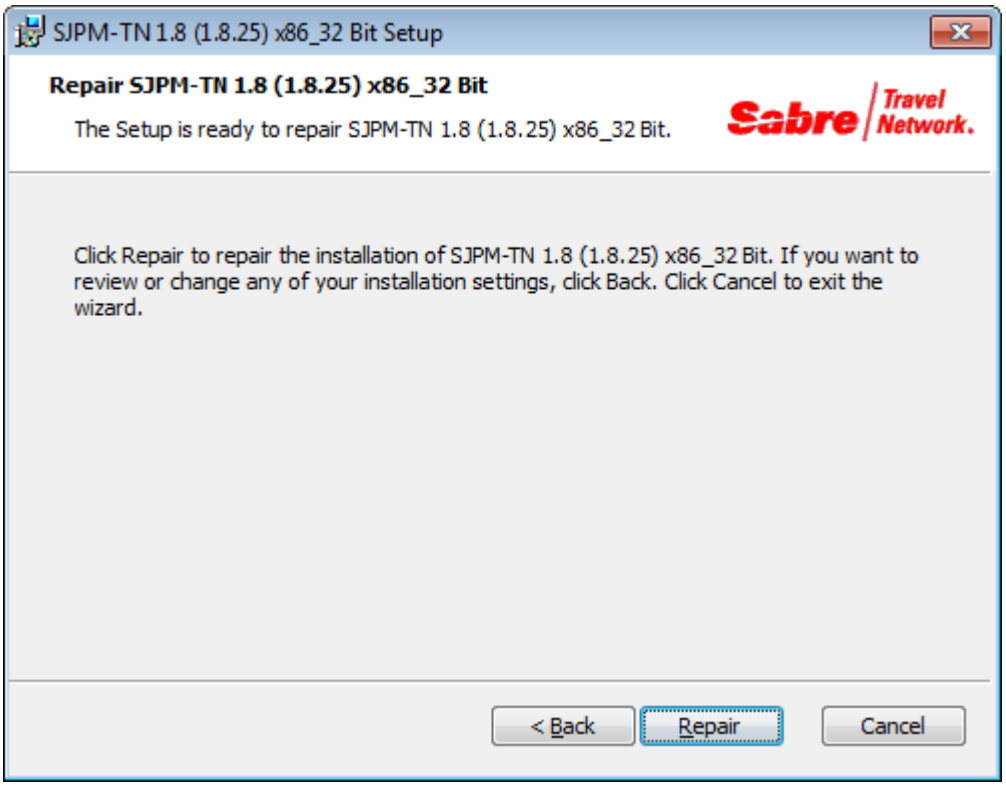
3. After file extraction and installation preparation the SJPM "**Setup**" window will appear. Click on the "**Next >**" button.



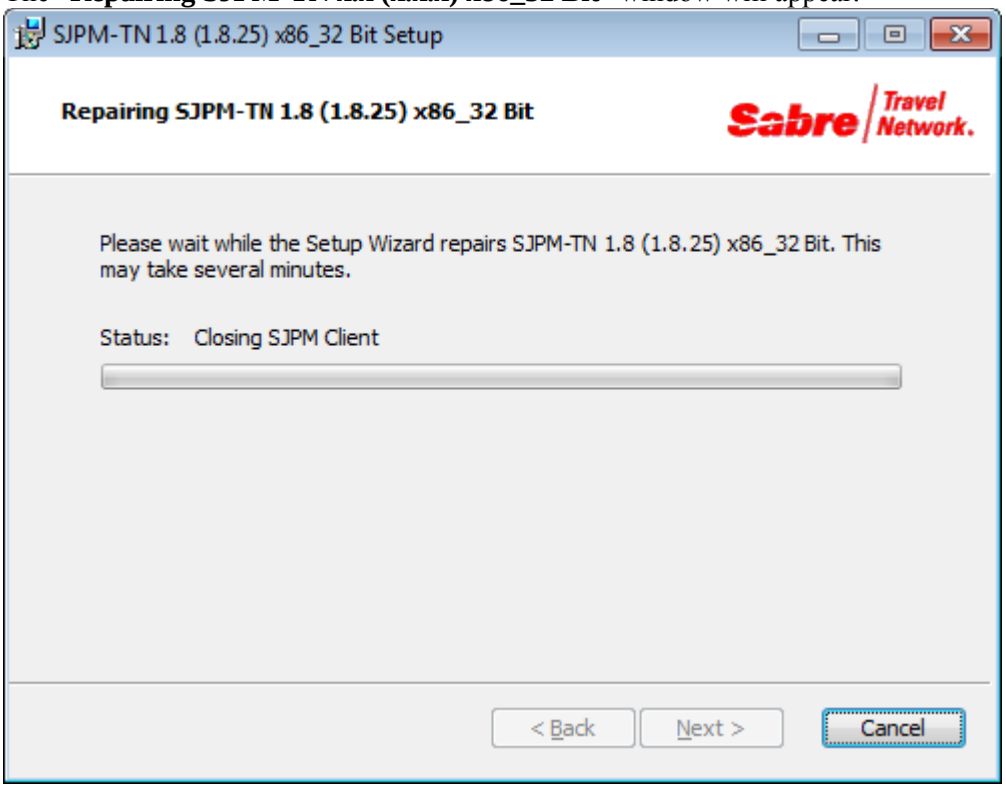
4. The "**Repair or Remove installation**" window will appear. Click on the "**Repair**" button.



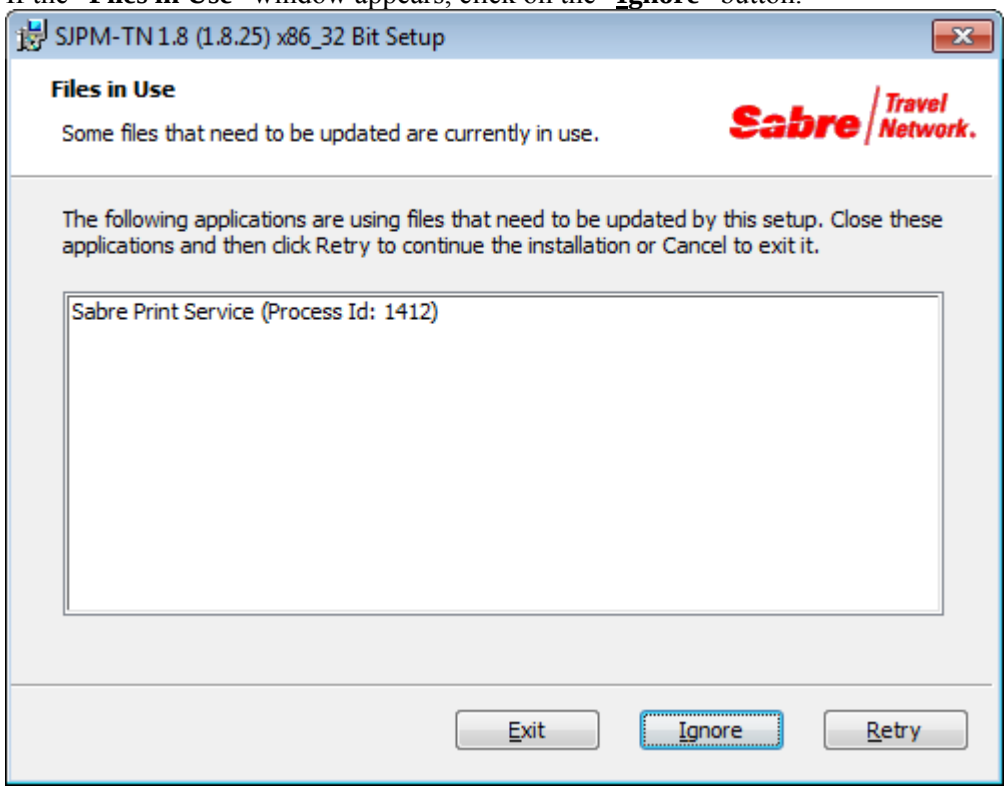
5. The "**Repair SJPM-TN x.x (x.x.x) x86_32 Bit**" window will appear. Click on the "**Repair**" button.



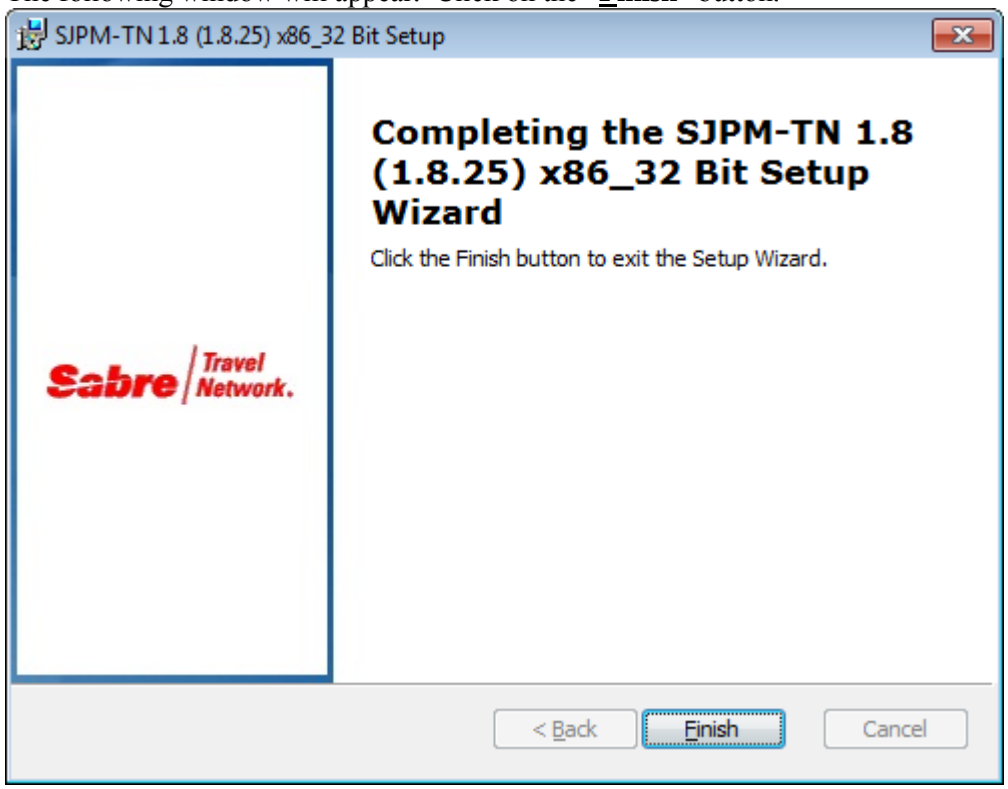
6. The "**Repairing SJPM-TN x.x (x.x.x) x86_32 Bit**" window will appear.



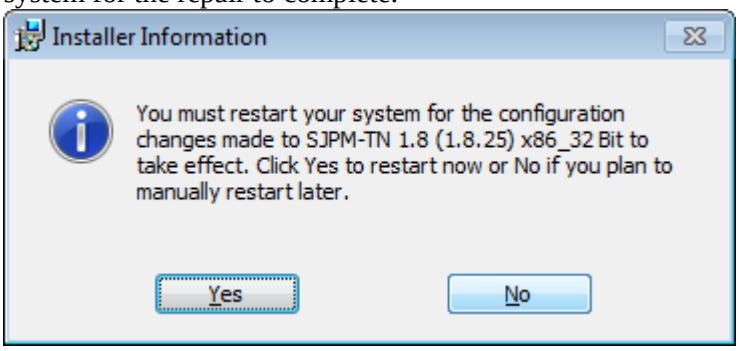
If the "**Files in Use**" window appears, click on the "**Ignore**" button.



7. The following window will appear. Click on the "**Finish**" button.



If the "**Installer Information**" window appears, click on the "**Yes**" button to restart the system for the repair to complete.



Uninstalling SJPM

3

3.1 Uninstalling SJPM

SJPM can be uninstalled one of two (2) ways. SJPM can be uninstalled from the **Windows Start Menu** or from the **SJPM installation executable file (Example:** "Install_SJPM_TN_x86_32Bit_x.x.x.exe"**).**

3.1.1 Uninstalling SJPM from the Windows Start Menu

This section describes the procedures for uninstalling SJPM from the Windows "**Start**" Menu for **Windows 7**, **Window 8**, **Windows 8.1** and **Windows 10**.

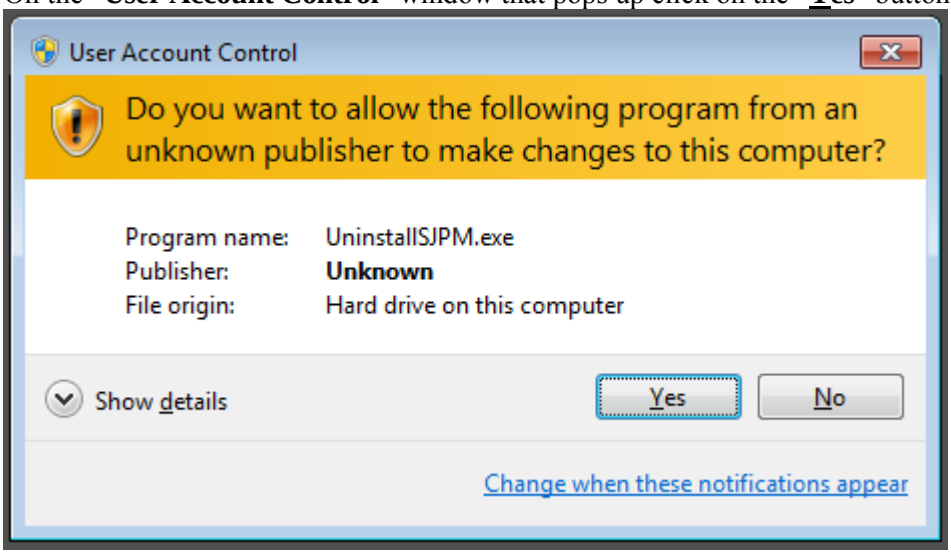
1. **Windows 7:**
   Click on the Windows "**Start**" button on the Windows Taskbar. Click on "**All Programs**" and then scroll down and click on the "**SJPM**" folder. Right click on the "**Uninstall SJPM**" menu item and then left click on the "**Run as administrator**" menu item.

   Windows 8:
   Click on Windows "**Start**", and then right click on the "**Uninstall SJPM**" icon, and then click on the "**Run as administrator**" icon on the menu bar.

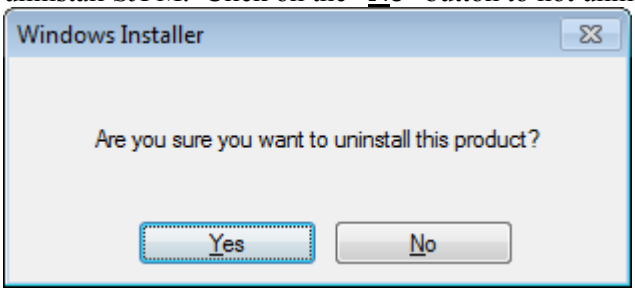
   Windows 8.1:
   Click on the Windows "**Start**" button on the Windows Taskbar. Click on the "**Circled Down Arrow**" icon on the Windows desktop. Right click on the "**Uninstall SJPM**" icon on the Windows desktop. Click on the "**Run as administrator**" icon on the menu bar.

   Windows 10:
   Click on the Windows "**Start**" button on the Windows Taskbar. Click on the "**All apps**" and then scroll down and click on the SJPM folder. Right click on the "**Uninstall SJPM**" menu item and then left click on the "**Run as administrator**" menu item.

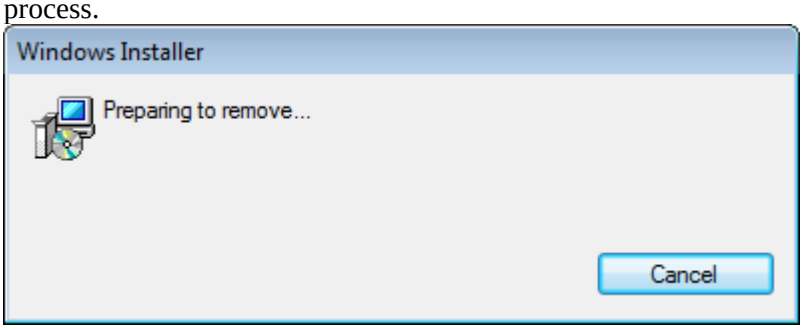
2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.

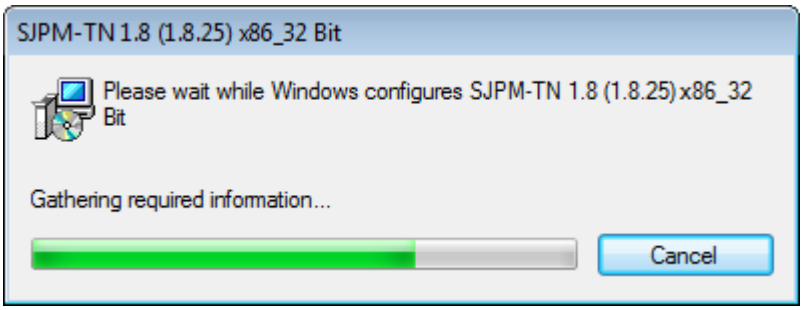


3. The "**Windows Installer**" window will appear. Click on the "**Yes**" button to continue and uninstall SJPM. Click on the "**No**" button to not uninstall SJPM.

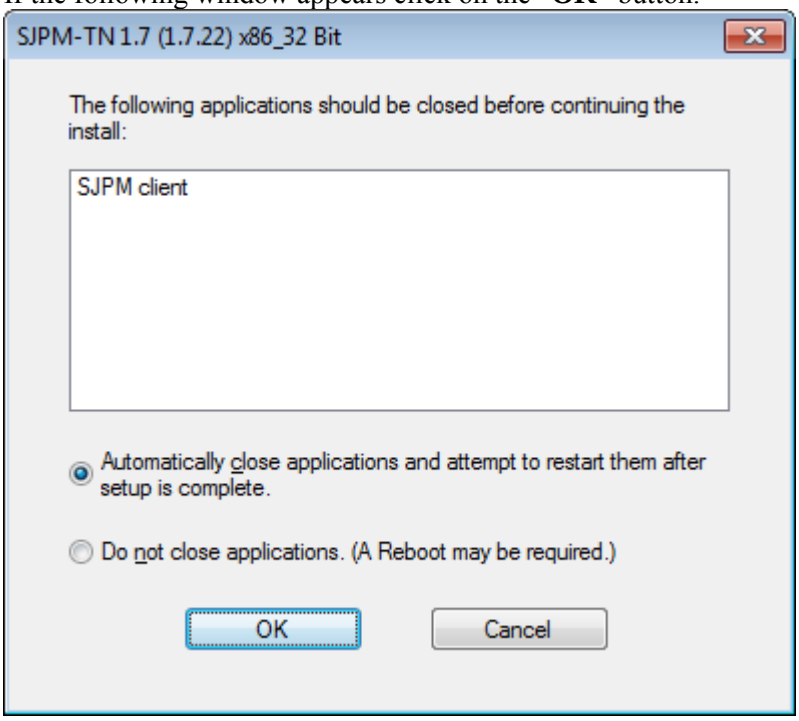


4. The "**Windows Installer**' and then "**SJPM-TN x.x (x.x.x) x86_32 Bit**" windows will appear if "**Yes**" was clicked. Click on the "**Cancel**" button if you need to cancel the uninstall process.





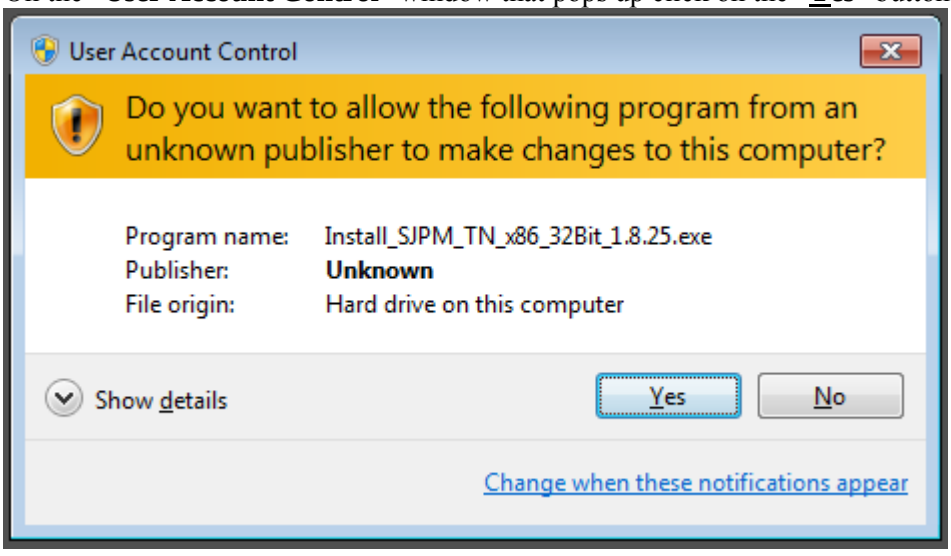
If the following window appears click on the "**OK**" button:



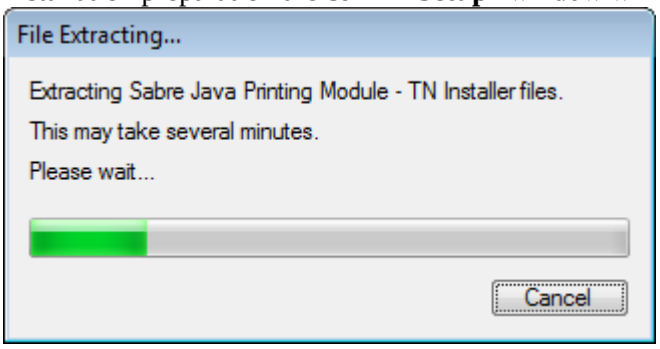
3.1.2 Uninstalling SJPM from the SJPM Executable File

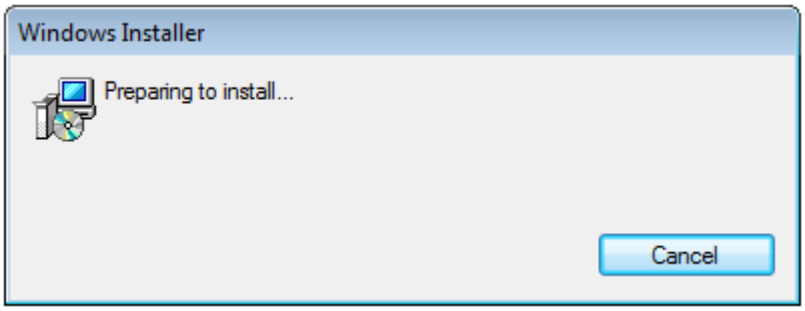
This section describes the procedures for uninstalling SJPM using the SJPM installation executable file. The procedures are the same for **Windows 7**, **Windows 8**, **Windows 8.1** and **Windows 10**.

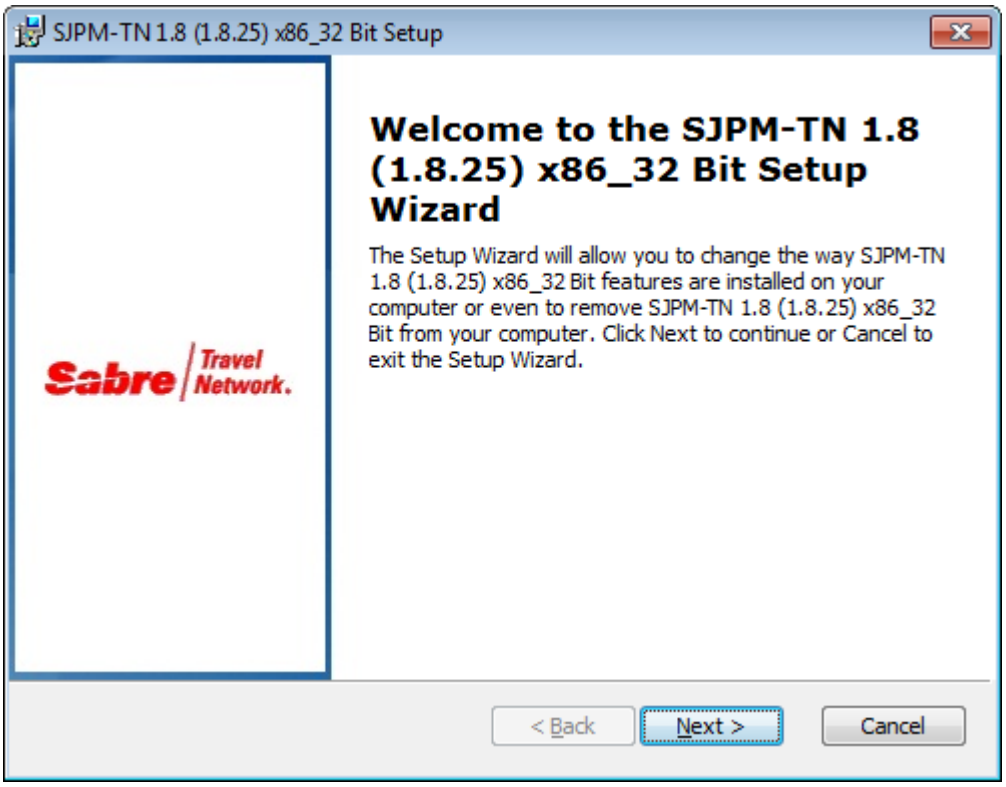
1. Right click on the Sabre Java Printing Module (SJPM) installation executable file (**Example:** "Install_SJPM_TN_x86_32Bit_x.x.x.exe") and then left click on the "**Run as administrator**" menu item.
2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



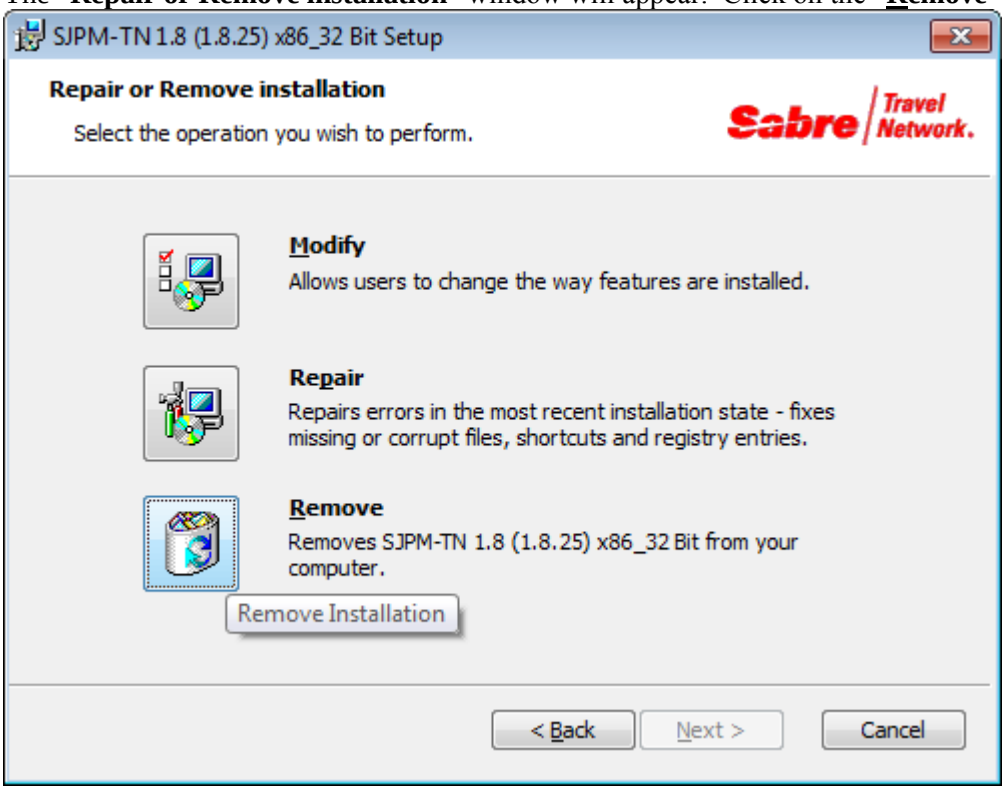
3. The "**File Extracting…**" and then "**Windows Installer**" windows will appear. Click on the "**Cancel**" button if you need to cancel the uninstall process. After file extraction and installation preparation the SJPM "**Setup**" window will appear. Click on the "**Next >**" button.



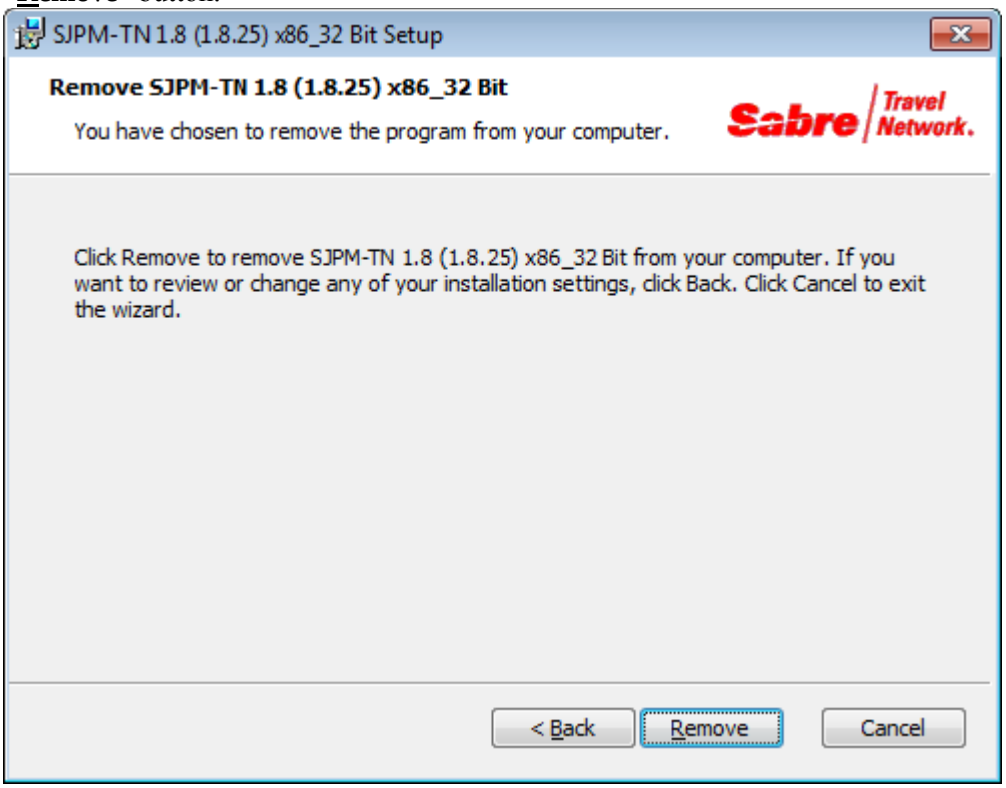




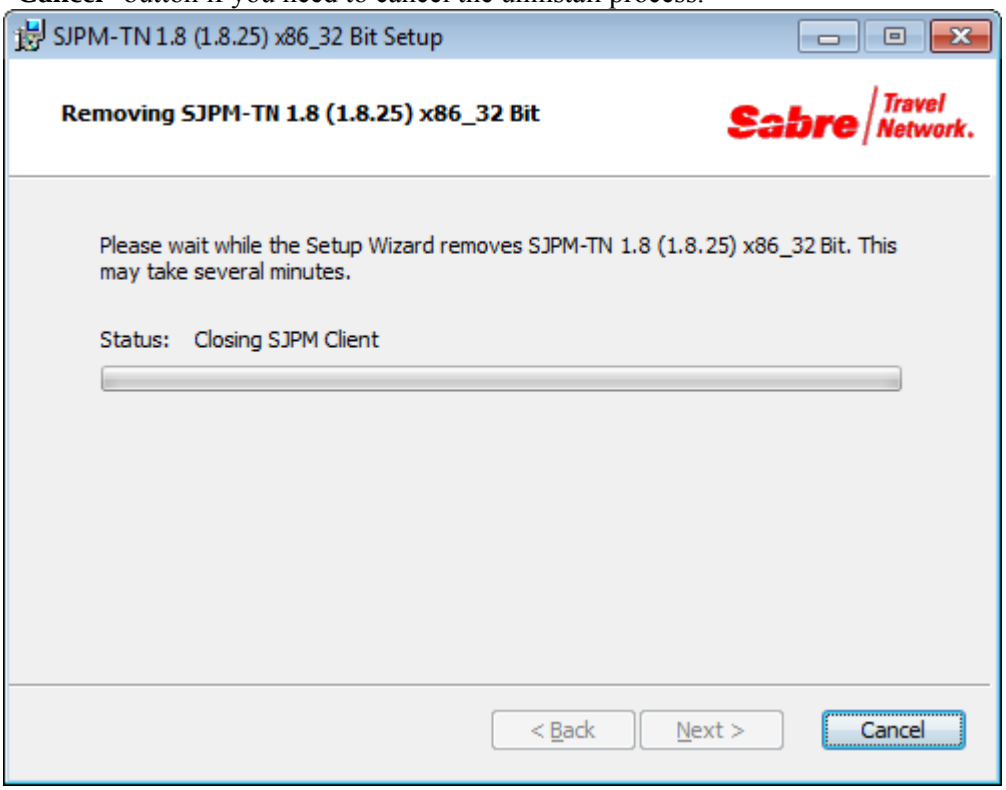
4. The "**Repair or Remove installation**" window will appear. Click on the "**Remove**" button.



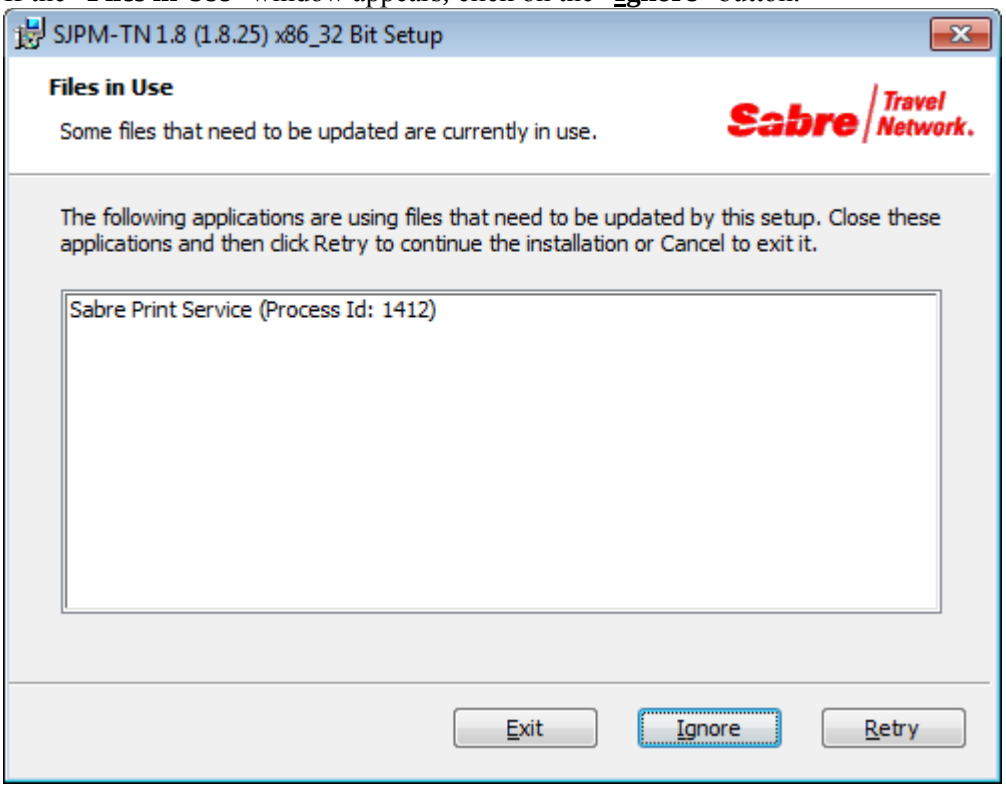
5. The "**Remove SJPM-TN x.x (x.x.x) x86_32 Bit**" window will appear. Click on the "**Remove**" button.



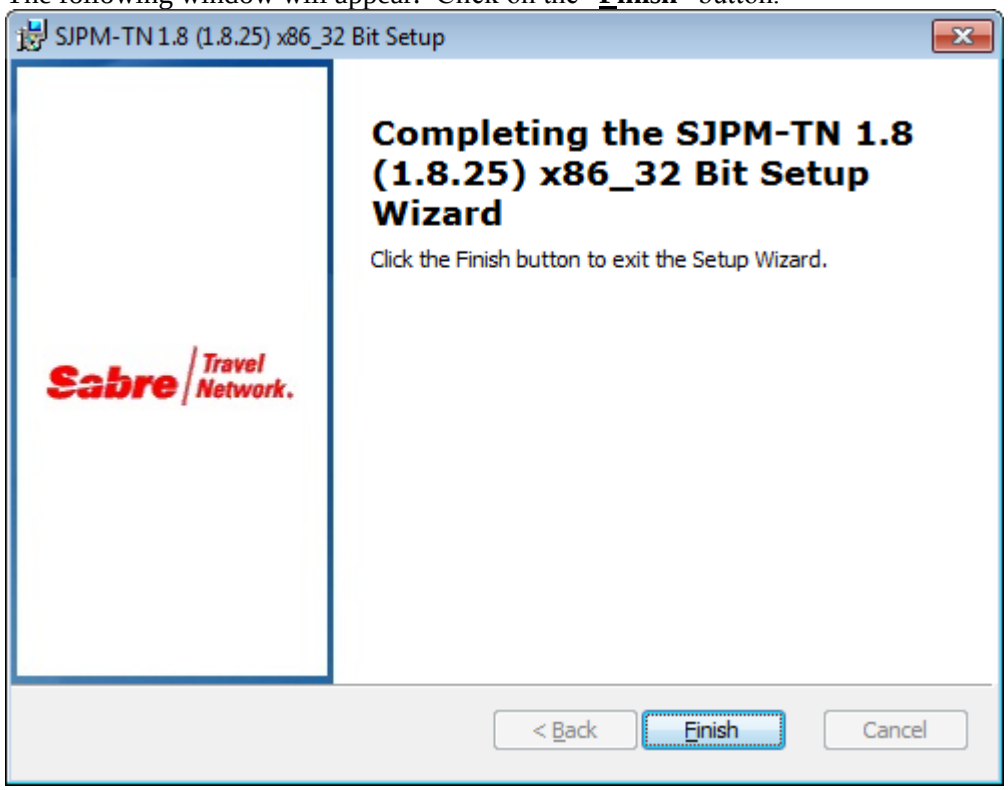
6. The "**Removing SJPM-TN x.x (x.x.x) x86_32 Bit**" window will appear. Click on the "**Cancel**" button if you need to cancel the uninstall process.



If the "**Files in Use**" window appears, click on the "**Ignore**" button.



7. The following window will appear. Click on the "**Finish**" button.



Running SJPM

4

4.1 Running SJPM

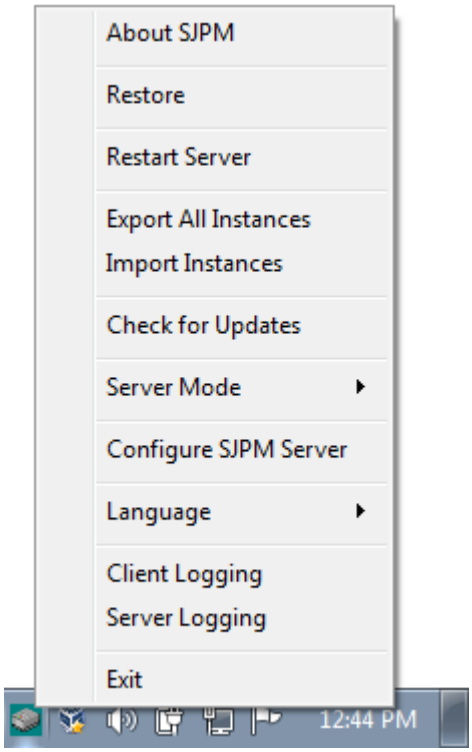
Sabre Java Printing Module (SJPM) consists of three (3) main components (**Client**, **Server**, and **SJPM Drivers**). Upon SJPM installation the "**Client**" and '**Server**" will run automatically if installed and the SJPM "**Server**" will run as a **Service** by default.

Note: The SJPM "**Server**" must be installed and running for the SJPM "**Client**" and "**SJPM Drivers**" to function.

4.1.1 SJPM Windows System Tray Icon

After SJPM installation the SJPM "**Client**" will automatically run in the Windows System Tray with an icon. The SJPM "**Client**" will also automatically run in the Windows System Tray with an icon upon boot-up of the host PC.

To display the SJPM Windows System Tray Icon Menu, right click on the SJPM Windows System Tray Icon.



4.1.2 SJPM Windows System Tray Icon Menu Items

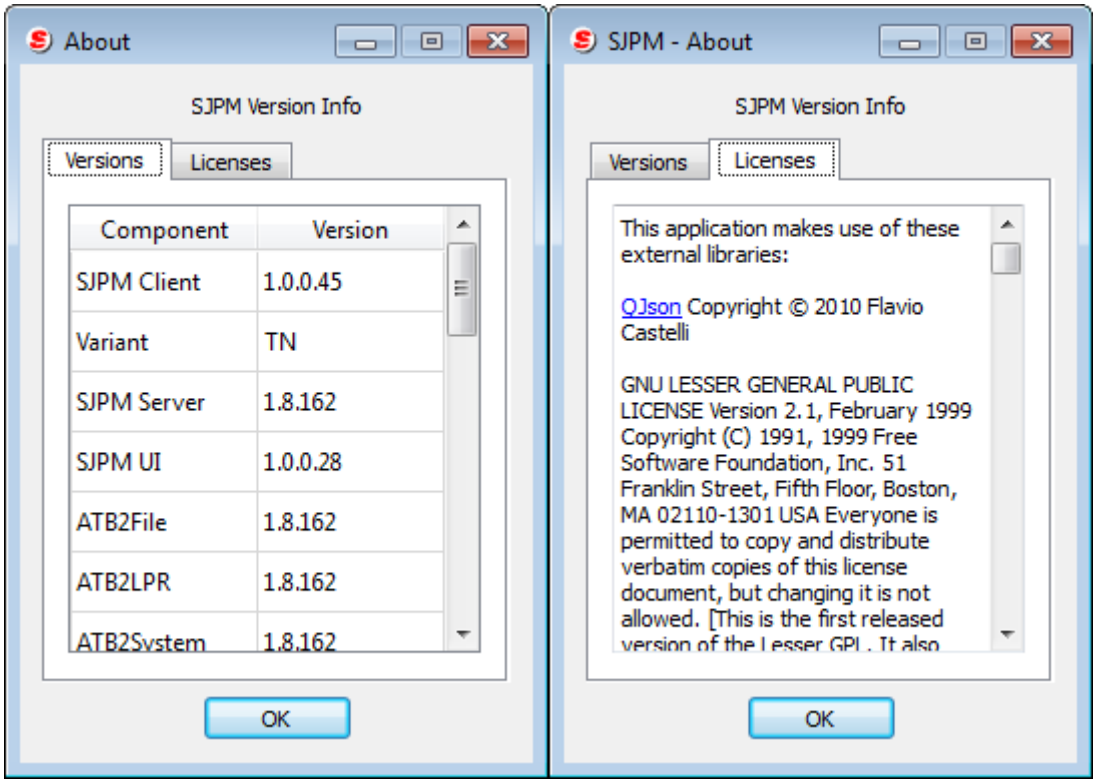
This section provides detailed descriptions for the menu items of the SJPM Windows System Tray Icon.

4.1.2.1 About SJPM

The "**About SJPM**" menu item opens the "**SJPM - About**" window that provides two informational tabs ("**Versions**" and "**Licenses**").

"**Versions**" This tab provides version information for the installed SJPM "**Client**", "**Server**", and "**SJPM Drivers**".

"**Licenses**" This tab provides License information for the SJPM components. Also see Appendix G.



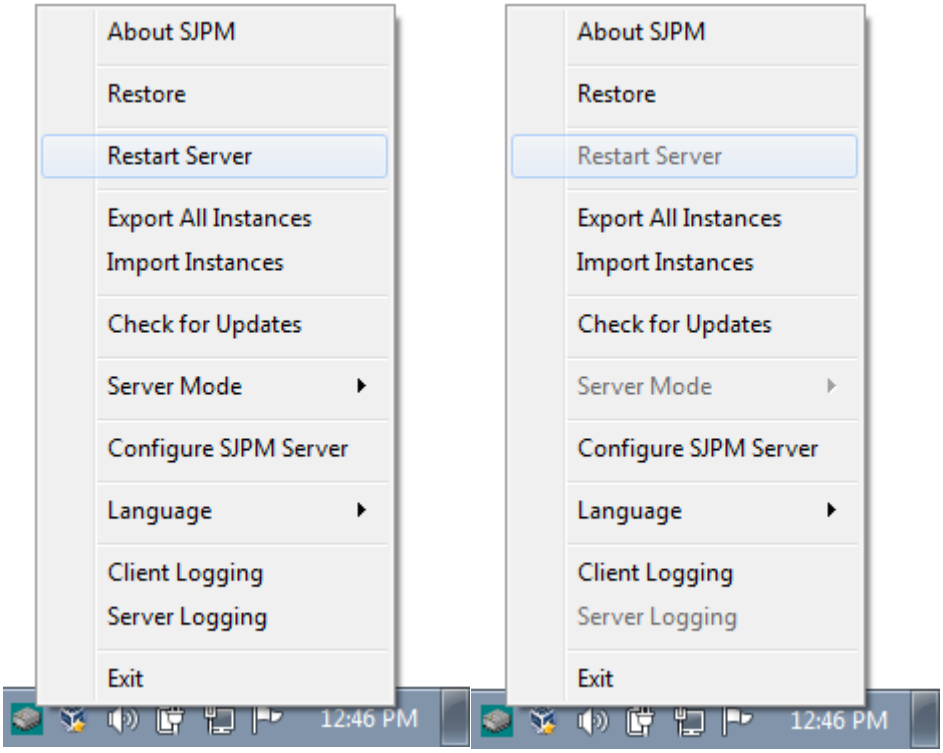
4.1.2.2 Restore

The "**Restore**" menu item restores (opens) the SJPM Client GUI.

Note: If the SJPM Client GUI does not appear check the Windows Taskbar for the SJPM Icon and click on it to bring it to the front.

4.1.2.3 Restart Server

The "**Restart Server**" menu item restarts the SJPM "**Server**". If the SJPM Client GUI is open it will close and SJPM will restart. The SJPM Windows System Tray icon menu items "**Restart Server**", "**Server Mode**", and "**Server Logging**" will be disabled until the restart has completed.

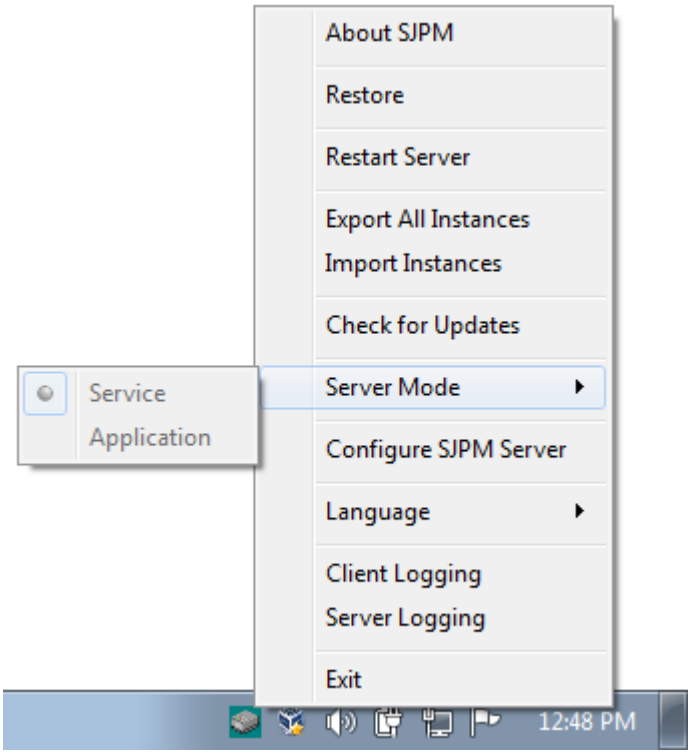


After the SJPM restart has completed device configurations will take effect and devices will connect and be ready for use.

4.1.2.4 Server Mode

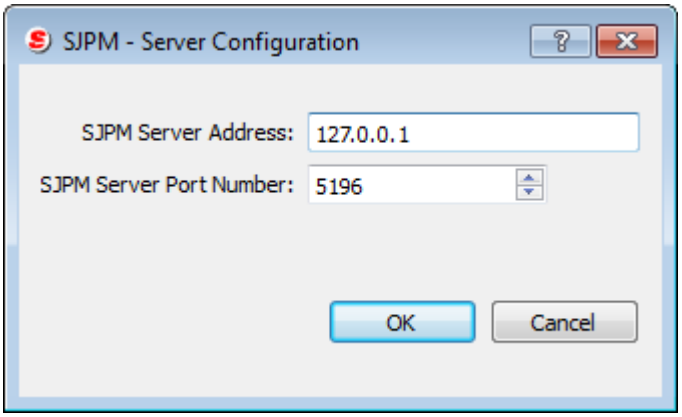
The "**Server Mode**" menu item displays the current SJPM mode of operation. The available modes are "**Service**" and "**Application**".

The "**Server Mode**" menu item and sub-menu items do not change the mode of operation; to change the mode of operation refer to sections **4.1.3 Running SJPM as an Application** and **4.1.4 Running SJPM as a Service**.



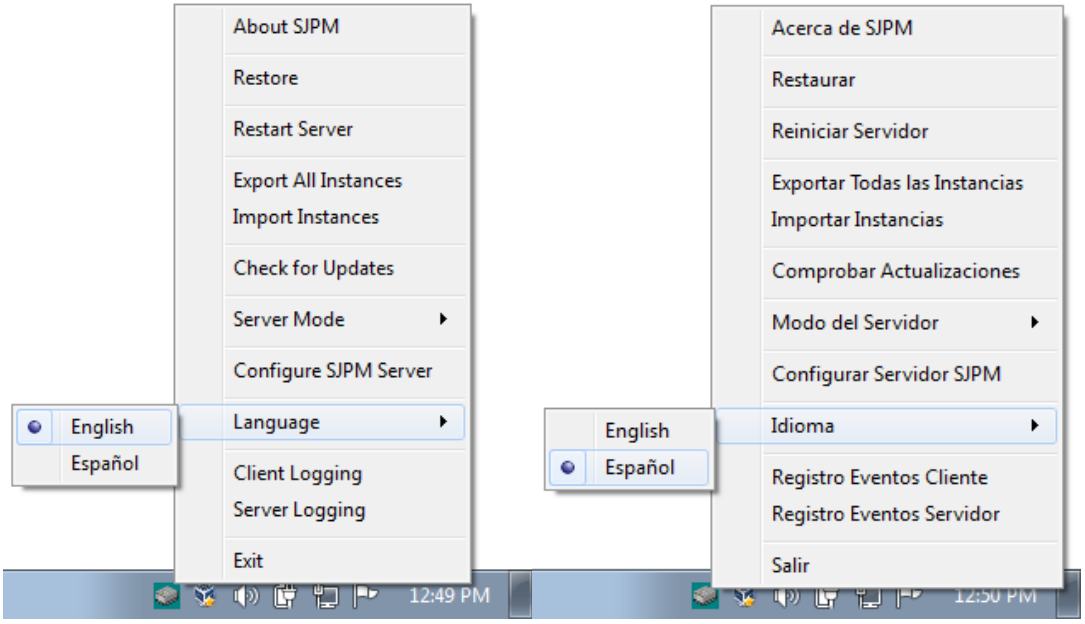
4.1.2.5 Configure SJPM Server

The "**Configure SJPM Server**" menu item opens the "**SJPM - Server Configuration**" window. The "**SJPM – Server Configuration**" window provides options to change the "**SJPM Server Address**" and "**SJPM Server Port Number**" configurations.



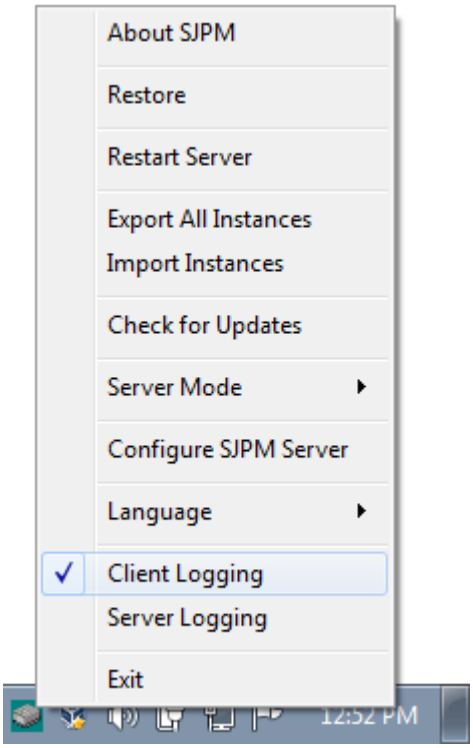
4.1.2.6 Language

The "**Language**" menu item displays the currently selected language and changes the SJPM language. The current languages available in SJPM are "**English**" and "**Spanish**".



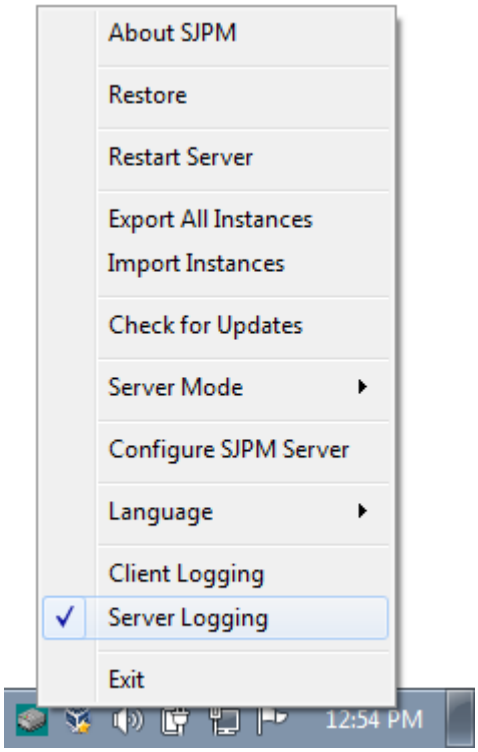
4.1.2.7 Client Logging

The "**Client Logging**" menu item, when selected, will turn on/off SJPM "**Client Logging**". Selection will be noted on the menu item with a check mark. Refer to Sections **7.1 Enabling SJPM Logging** and **7.2 Disabling SJPM Logging**.



4.1.2.8 Server Logging

The "**Server Logging**" menu item, when selected, will turn on/off SJPM "**Server Logging**". The SJPM Server will restart for the logging to take effect. Selection will be noted on the menu item with a check mark. Refer to Sections **7.1 Enabling SJPM Logging** and **7.2 Disabling SJPM Logging**.



4.1.2.9 Exit

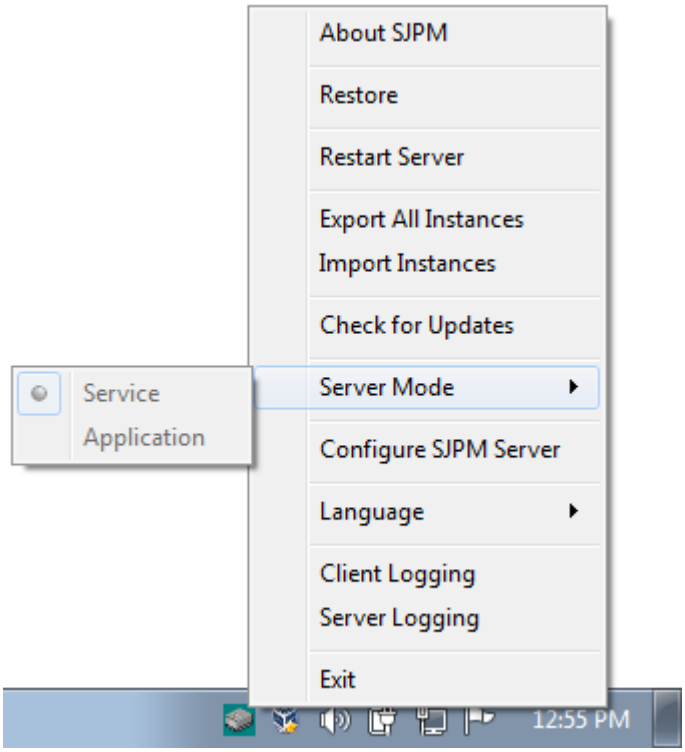
The "**Exit**" menu item closes the SJPM Client GUI. The SJPM Client GUI can be restarted from the Windows "**Start**" menu. Refer to section **4.1.5 Running the SJPM Client GUI Manually**.

4.1.3 Running SJPM as an Application

By default SJPM installs to run as a **Service**. Use the Windows "**Start**" menu to change SJPM to run as an **Application**. Steps will vary slightly for **Windows 8**, **Windows 8.1** and **Windows 10**. See Section **4.2 Starting and Stopping the SJPM Server**.

To check the current SJPM Server Mode state:

1. Right click on the SJPM Windows System Tray Icon to display the menu, and then click on the "**Server Mode**" menu item to see what mode SJPM is currently running in.



Important Note:

When running SJPM as an **Application** it will be necessary to run "**Start SJPM Server (as an application)**", as the administrator, from the Windows "**Start**" button each time after a system reboot or startup.

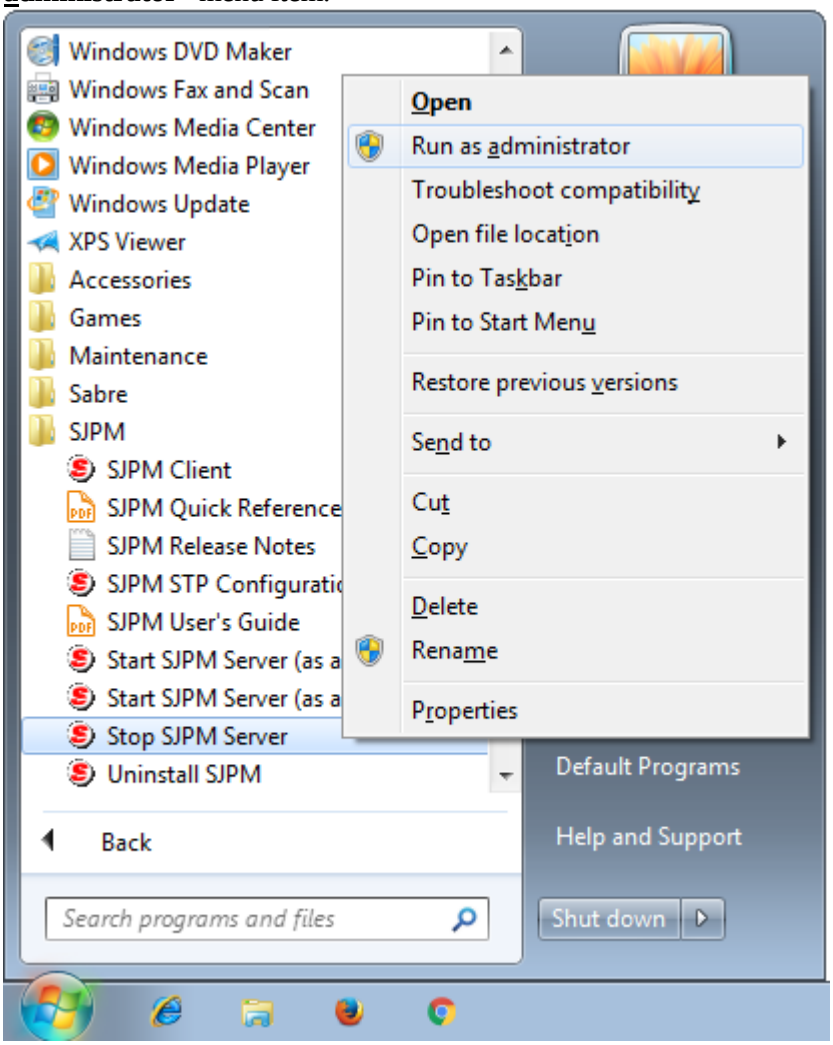
To configure SJPM's service to run manually:

Before running SJPM as an application perform the steps below to configure the SJPM service's "**Startup Type**" to "**Manual**".

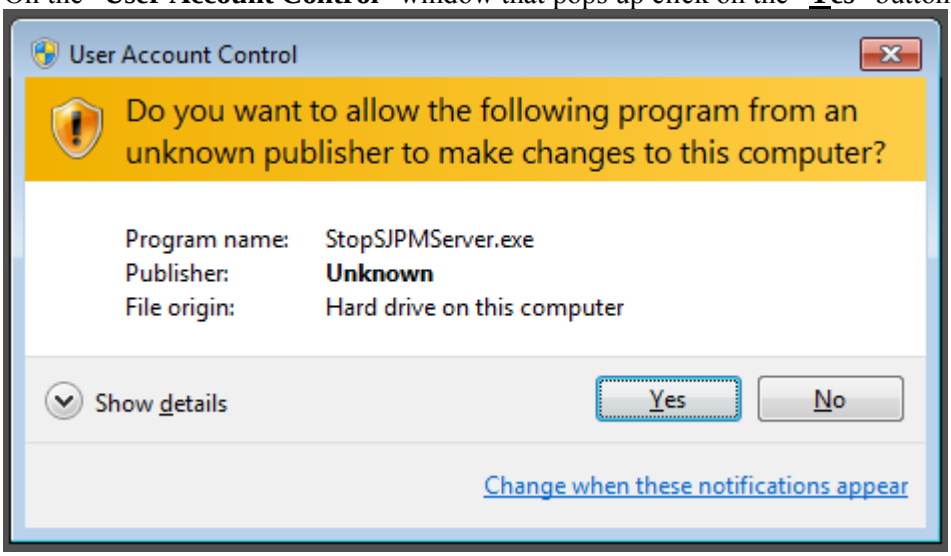
1. Click on the Windows "**Start**" button.
2. In the "**Search programs and files**" field type in "**services**".
3. Click on the "**Services**" program.
4. Scroll to the "**Sabre Java Printing Module (SJPM)**" service, then right click on it and then click on the "**Properties**" menu item.
5. Click on the "**Startup type:**" drop down menu, then select "**Manual**", then click on the "**Apply**" button and then click on the "**OK**" button.
6. Close the "**Services**" window.

To change SJPM to run as an Application:

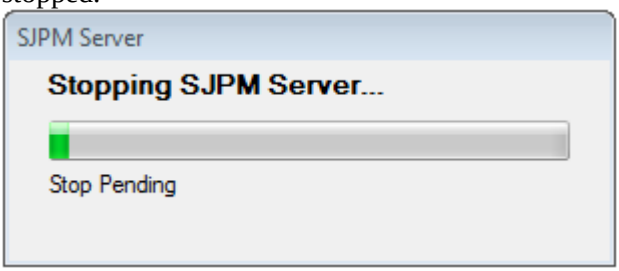
1. Click on the Windows "**Start**" button.
2. Click on the "**All Programs**" ("**All apps**" for Windows 10) menu item.
3. Click on the "**SJPM**" folder.
4. Right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item.

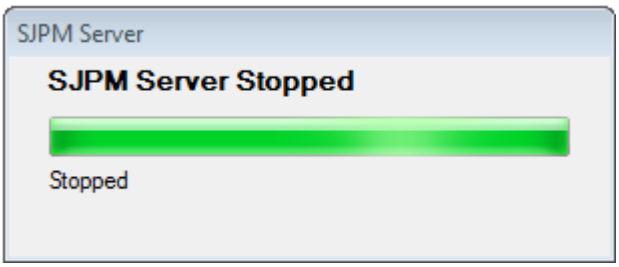


5. On the "**User Account Control**" window that pops up click on the "**Yes**" button.

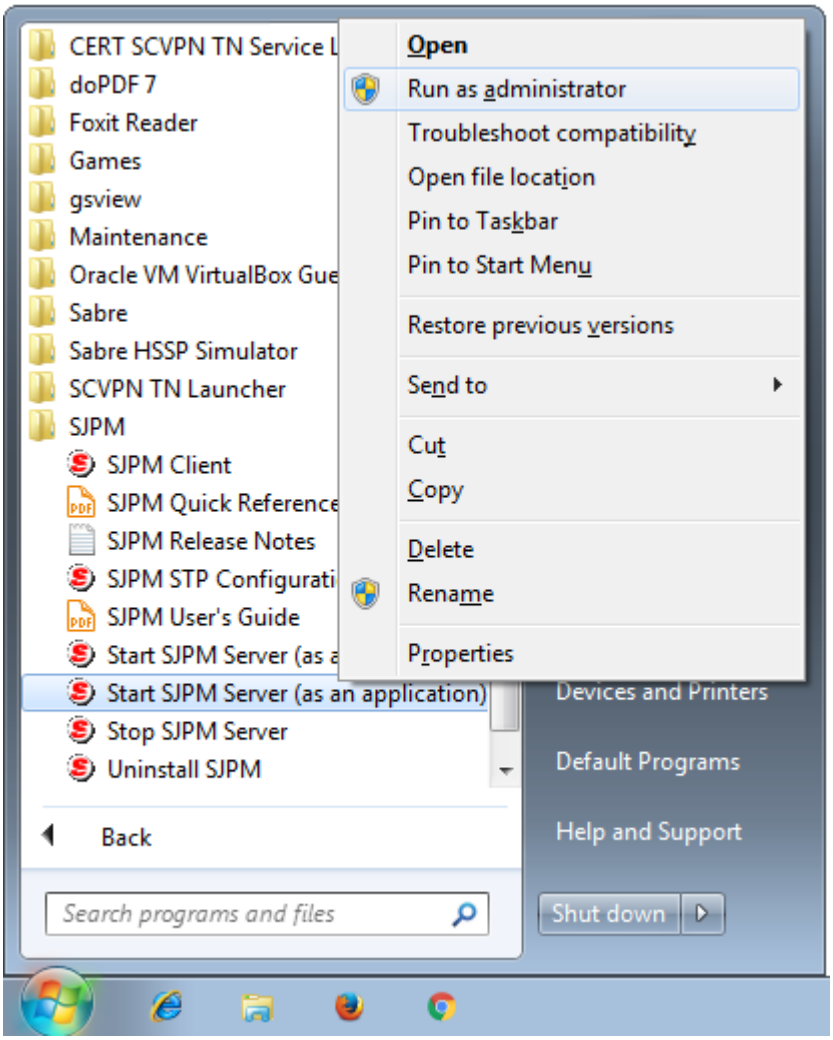


Next you will see the "**SJPM Server**" window showing the server is stopping and then stopped.

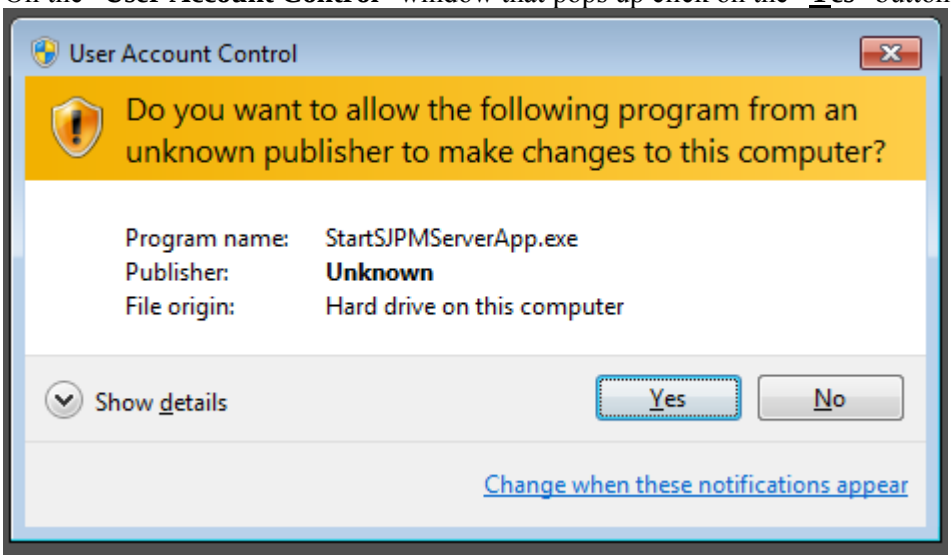




6. Right click on the "**Start SJPM Server (as an application)**" menu item and then left click on the "**Run as administrator**" menu item.



7. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



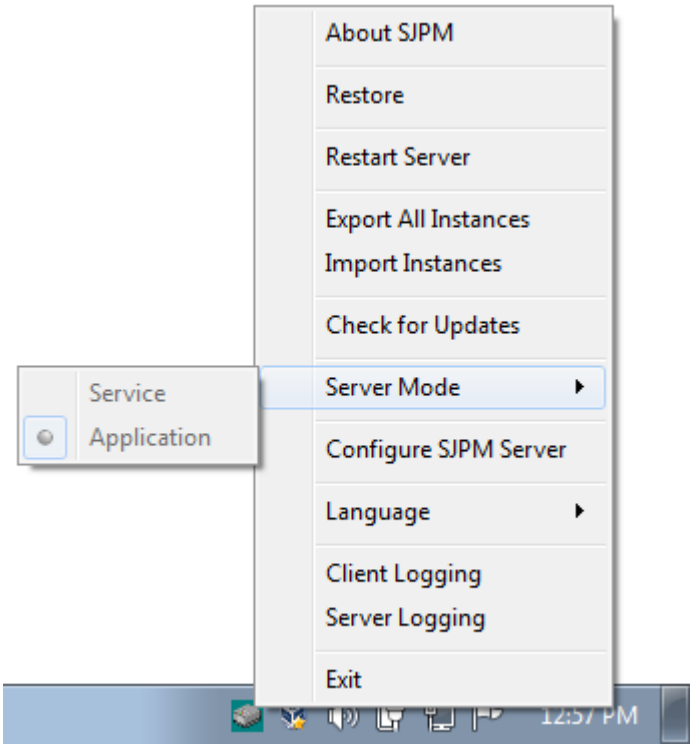
Note: Step 6 runs SJPM as the Administrator user, not the System user.

4.1.4 Running SJPM as a Service

By default SJPM installs to run as a **Service**. If SJPM has been changed to run as an **Application**; use the Windows "**Start**" menu to change SJPM to run as a **Service**. Steps will vary slightly for **Windows 8**, **Windows 8.1** and **Windows 10**. See Section **4.2 Starting and Stopping the SJPM Server**.

To check the current SJPM Server Mode state:

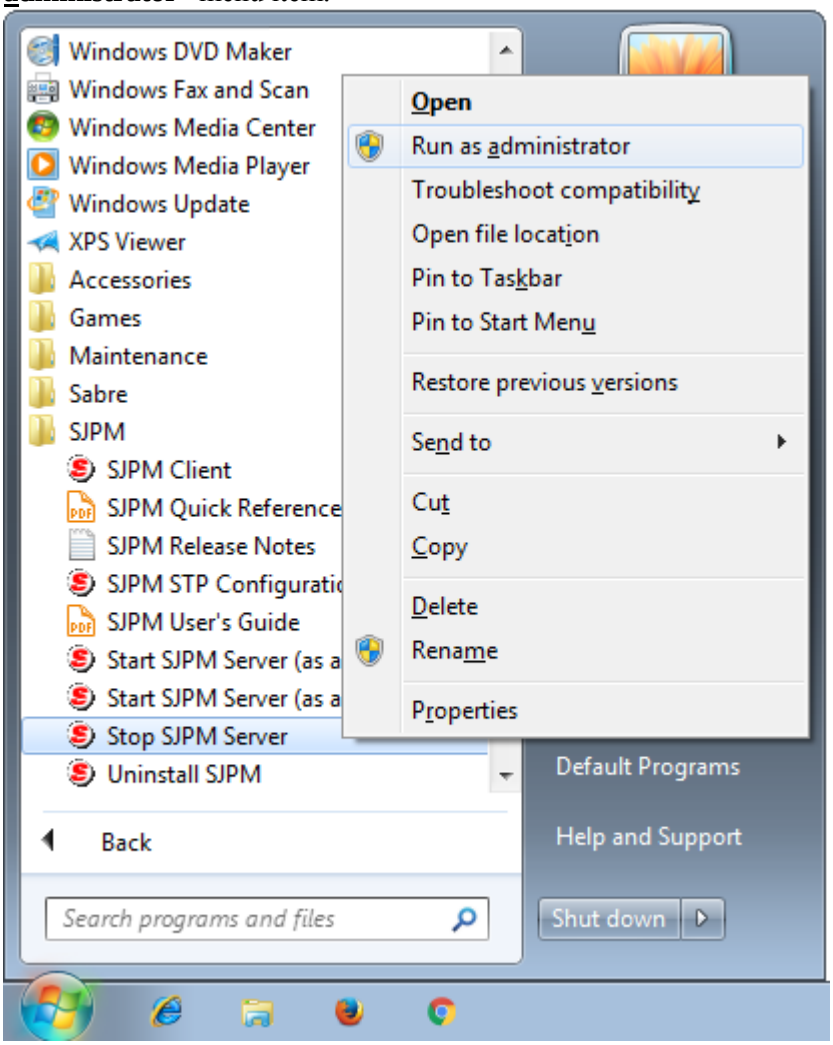
1. Right click on the SJPM Windows System Tray Icon to display the menu, and then click on the "**Server Mode**" menu item to see what mode SJPM is currently running in.



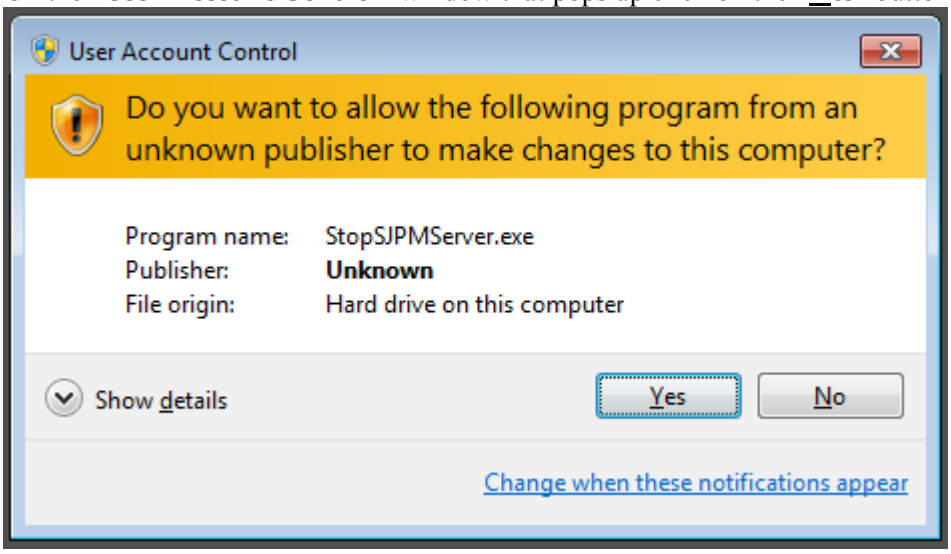
To change SJPM to run as a Service:

1. Click on the Windows "**Start**" button.
2. Click on the "**All Programs**" ("**All apps**" for Windows 10) menu item.
3. Click on the "**SJPM**" folder.

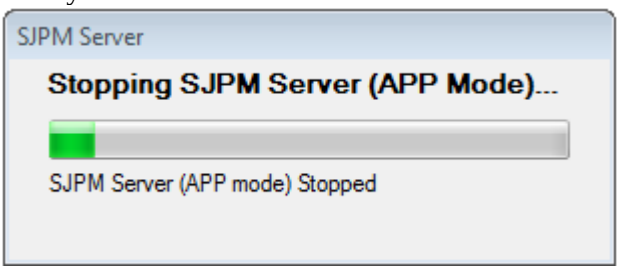
4. Right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item.



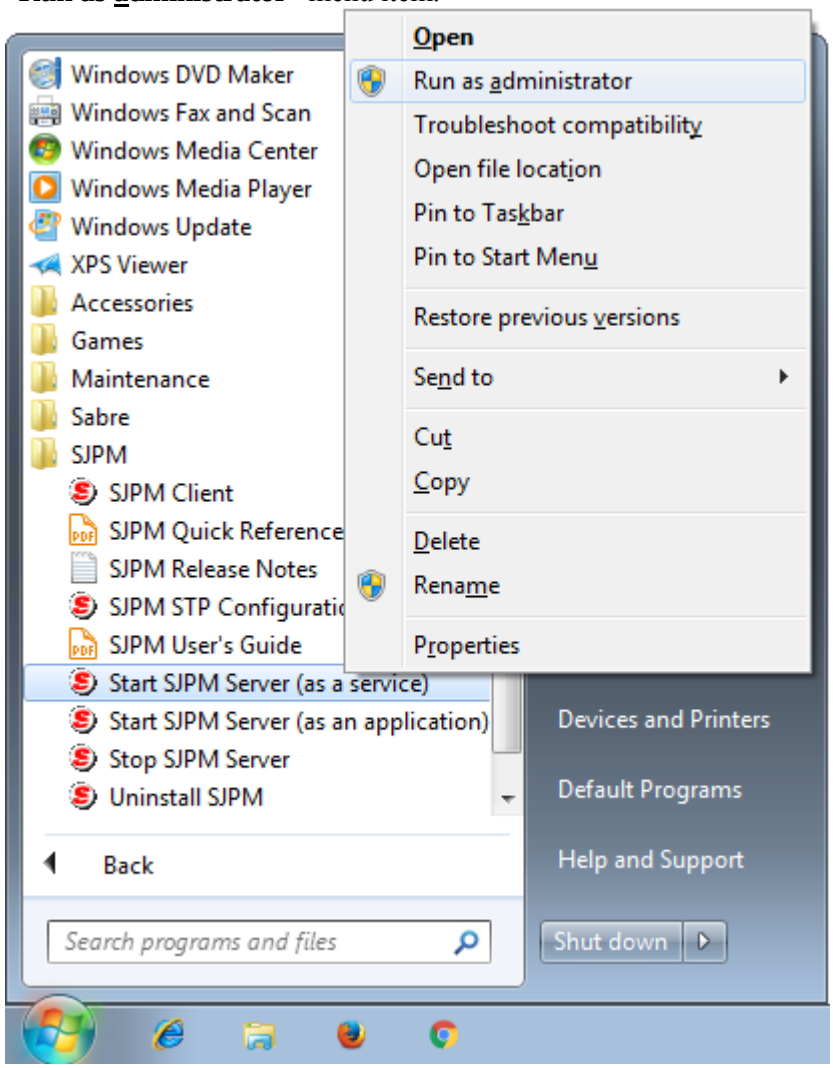
5. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



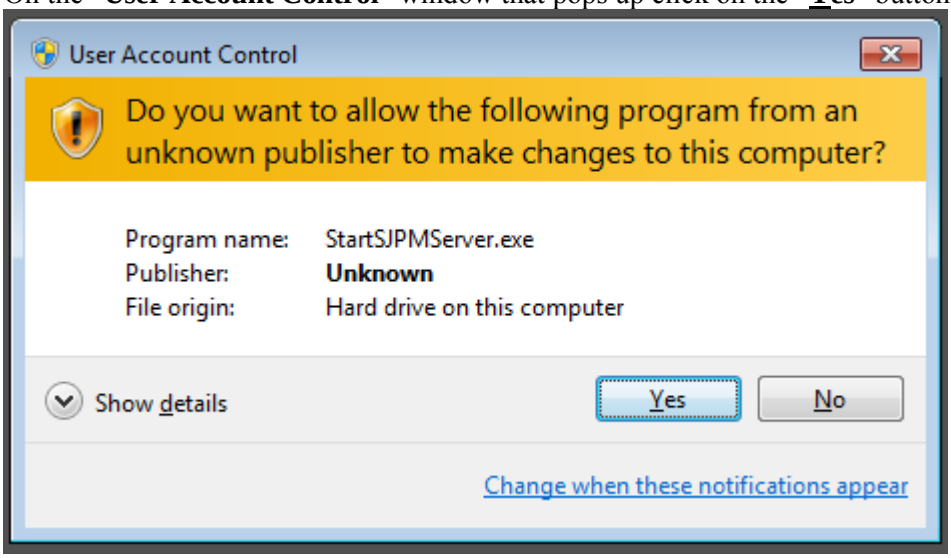
Next you will see the "**SJPM Server**" window showing the server is stopping.



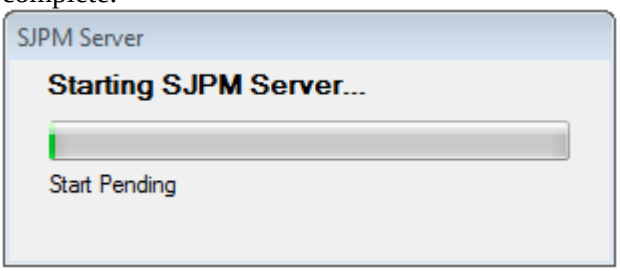
6. Right click on the "**Start SJPM Server (as a service)**" menu item and then left click on the "**Run as administrator**" menu item.

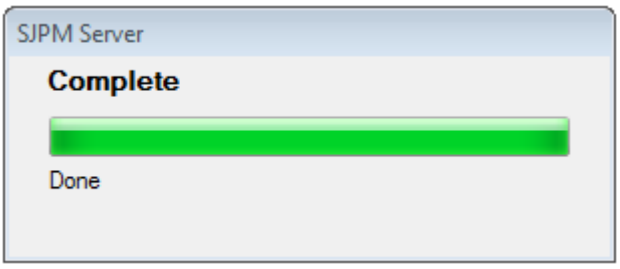


7. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



Next you will see the "**SJPM Server**" window showing the server is starting and then complete.





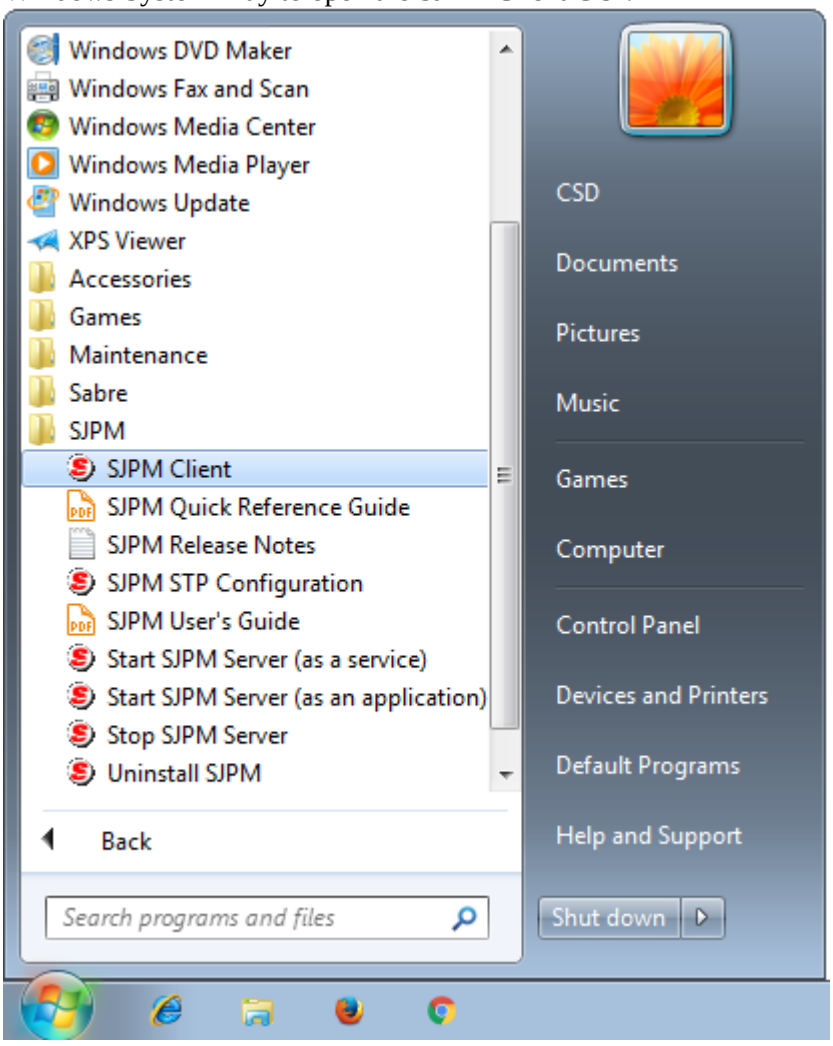
Note: Step 6 runs SJPM as the Administrator user, not the System user.

4.1.5 Running the SJPM Client GUI Manually

If the SJPM Icon is not displayed in the Windows System Tray and the SJPM Client GUI is not running you can start it manually using the steps in the sections below:

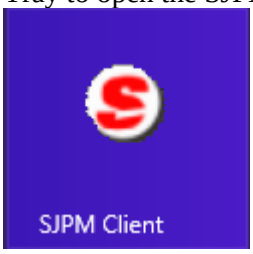
4.1.5.1 Windows 7

1. Click on the Windows "**Start**" button on the Windows Taskbar. Click on "**All Programs**" and then scroll down and click on the "**SJPM**" folder. Left click on the "**SJPM Client**" menu item. This will start the SJPM Client GUI and the SJPM icon will appear in the Windows System Tray. Double click on the SJPM icon in the Windows System Tray to open the SJPM Client GUI.



4.1.5.2 Windows 8

1. Move the mouse pointer to the bottom left corner of the screen. Click on Windows "**Start**", and then click on the "**SJPM Client**" icon on the Windows desktop (if needed scroll to the right). This will start the SJPM Client GUI and the SJPM icon will appear in the Windows System Tray. Double click on the SJPM icon in the Windows System Tray to open the SJPM Client GUI.

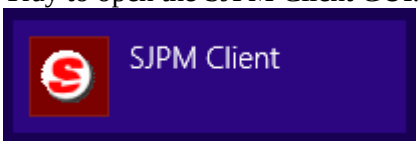


4.1.5.3 Windows 8.1

1. Click on the Windows "**Start**" button on the Windows Taskbar.

2. Click on the "**Circled Down Arrow**" icon on the Windows desktop.

3. Click on the "**SJPM Client**" icon on the Windows desktop (if needed scroll to the right to find the icon). This will start the SJPM Client GUI and the SJPM icon will appear in the Windows System Tray. Double click on the SJPM icon in the Windows System Tray to open the SJPM Client GUI.



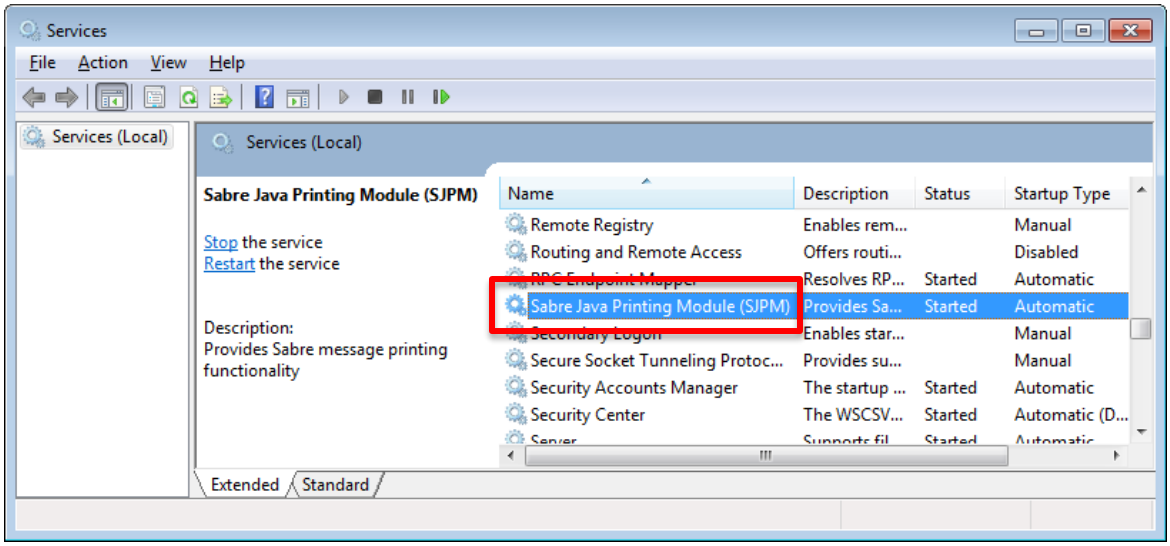
4.1.5.4 Windows 10

1. Click on the Windows "**Start**" button on the Windows Taskbar. Click on the "**All apps**" menu item and then scroll down and click on the "**SJPM**" folder. Left click on the "**SJPM Client**" menu item.

4.2 Starting and Stopping the SJPM Server

Upon installation SJPM will install to start as a **Service** by default and the SJPM Server will run automatically in Windows "**Services**". The SJPM service name is "**Sabre Java Printing Module (SJPM)**".

Note: The SJPM Server must be installed on one computer in the office that has Sabre connectivity in order to make the connection to the Sabre Host.

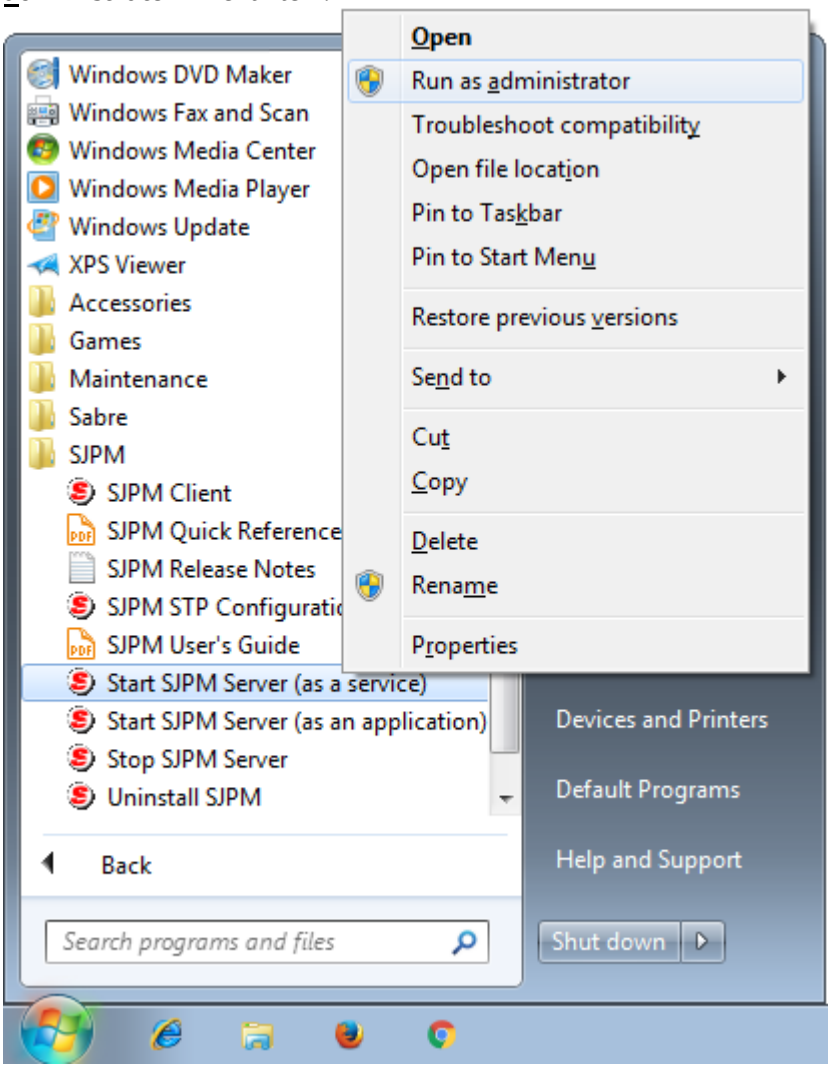


4.2.1 Starting / Stopping the SJPM Server - Windows "Start" Menu

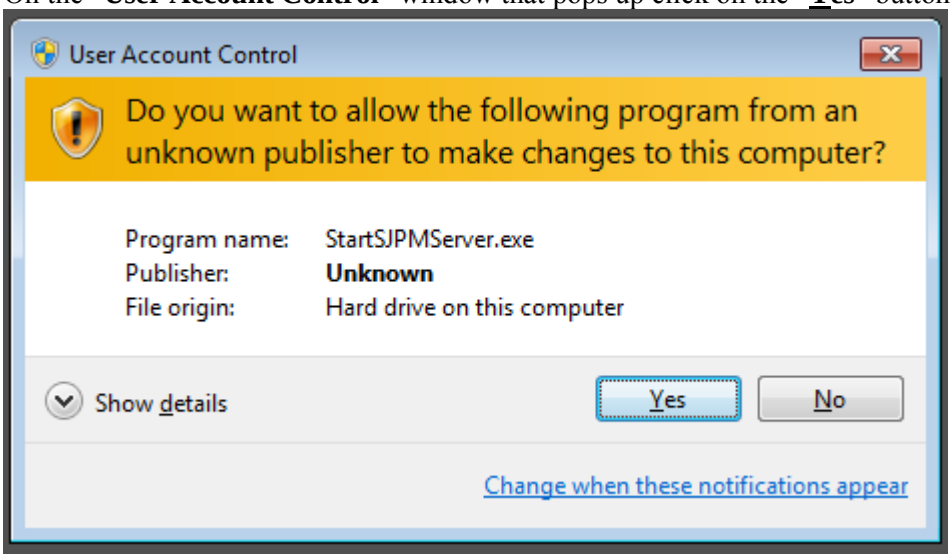
This section describes the procedures for starting and stopping the SJPM Server as a service and as an application in **Windows 7**, **Windows 8**, **Windows 8.1**, and **Windows 10**.

4.2.1.1 Start the SJPM Server (as a service) – Windows 7

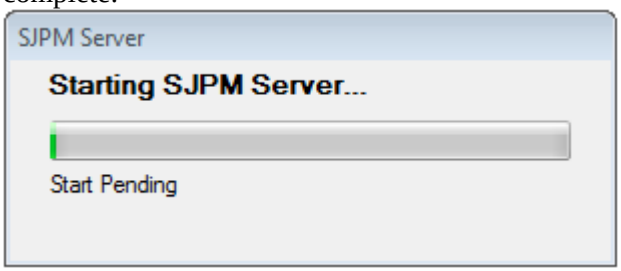
1. Click on the Windows "**Start**" button on the Windows Taskbar. Click on "**All Programs**" and then scroll down and click on the "**SJPM**" folder. Right click on the "**Start SJPM Server (as a service)**" menu item and then left click on the "**Run as administrator**" menu item.

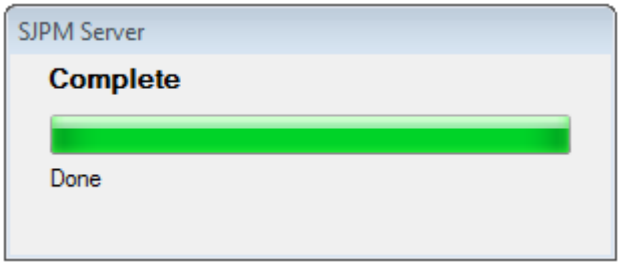


2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



Next you will see the "**SJPM Server**" window showing the server is starting and then complete.

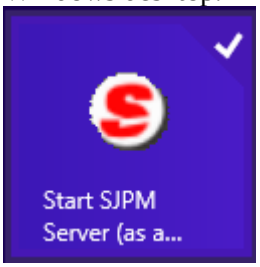




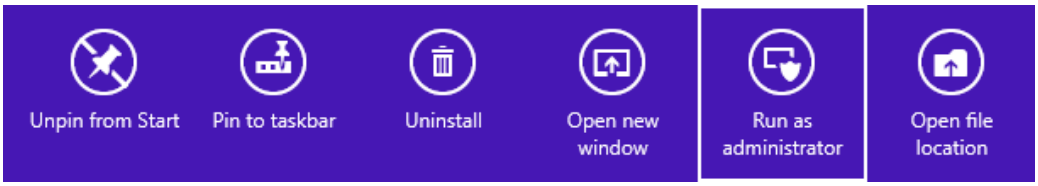
4.2.1.2 Start the SJPM Server (as a service) – Windows 8

Windows 8

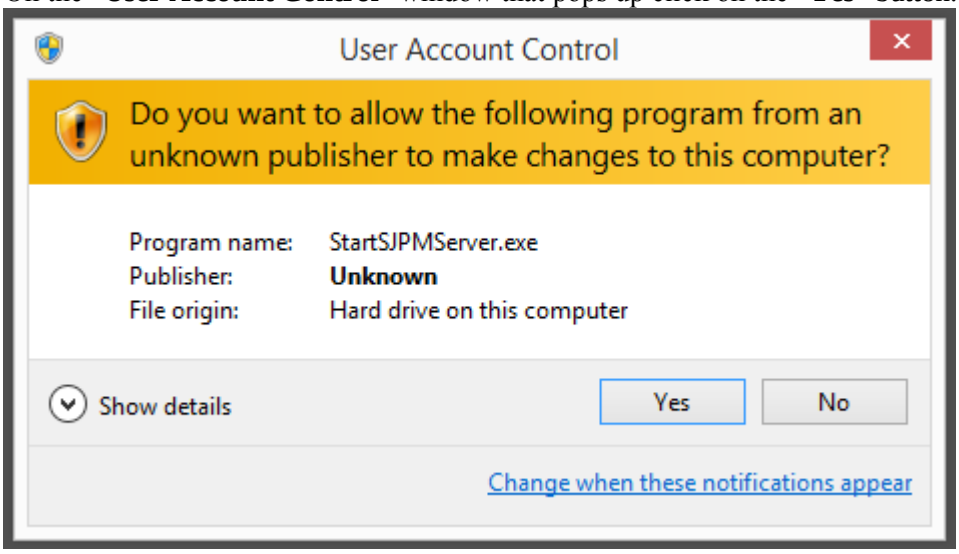
1. Move the mouse pointer to the bottom left corner of the screen. Click on Windows "**Start**", and then right click on the "**Start SJPM Server (as a service)**" icon on the Windows desktop.



2. Click on the "**Run as administrator**" icon on the menu bar.



3. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



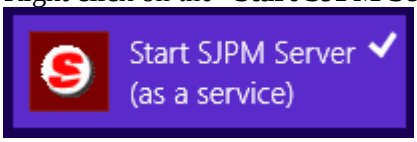
4.2.1.3 Start the SJPM Server (as a service) – Windows 8.1

Windows 8.1

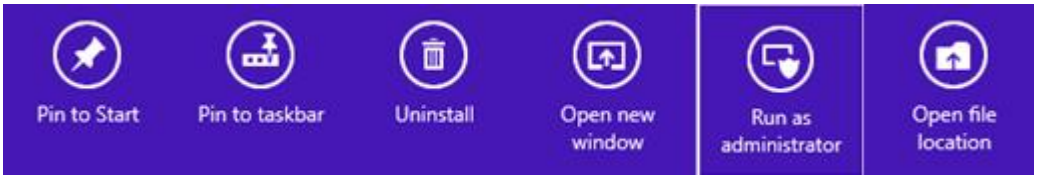
1. Click on the Windows "**Start**" button on the Windows Taskbar.

2. Click on the "**Circled Down Arrow**" icon on the Windows desktop (if needed scroll to the right).

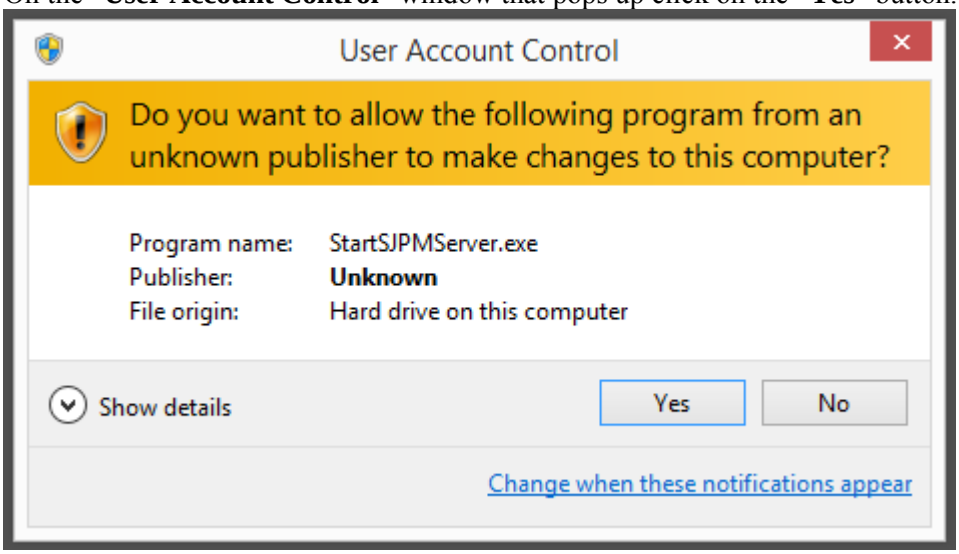
3. Right click on the "**Start SJPM Server (as a service)**" icon on the Windows desktop.



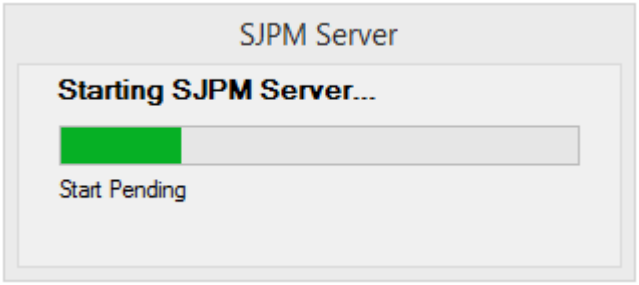
4. Click on the "**Run as administrator**" icon on the menu bar.

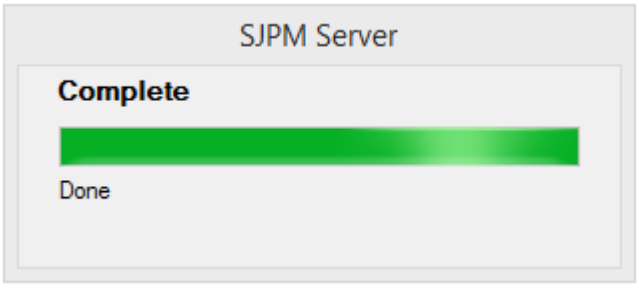


5. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



Next you will see the "**SJPM Server**" window showing the server is starting and then complete.

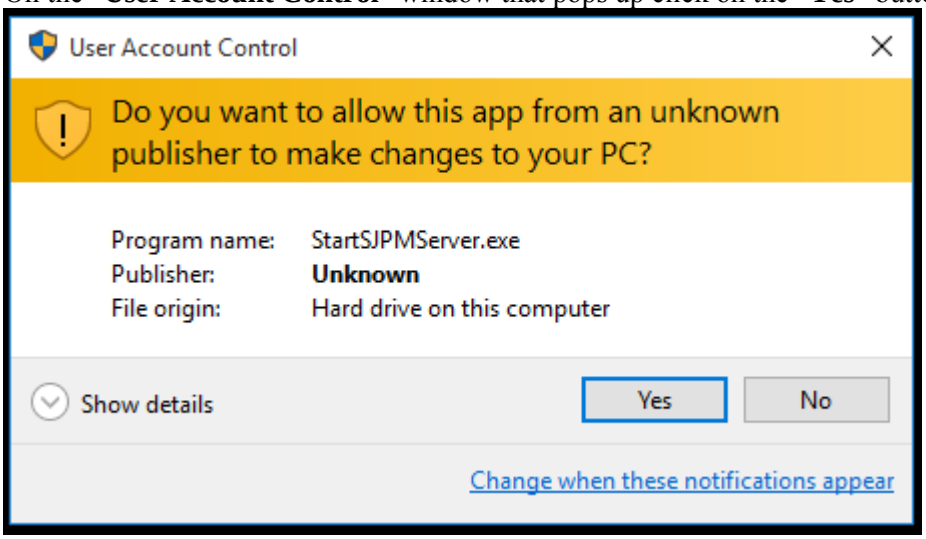




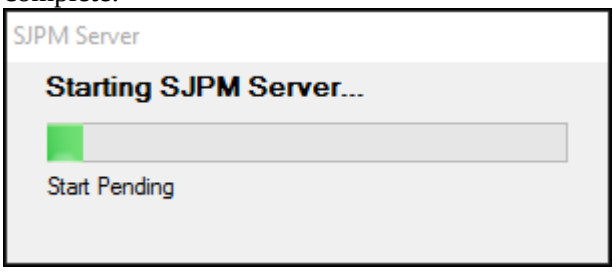
Windows 10

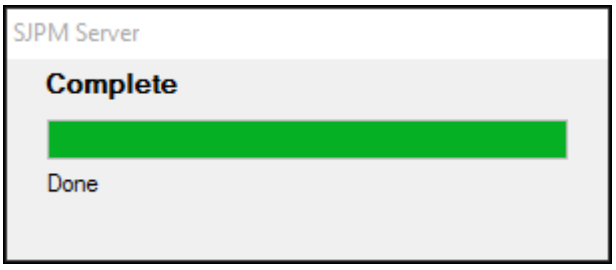
1. Click on the Windows "**Start**" button on the Windows Taskbar, then click on the "**All apps**" menu item, then scroll down and click on the "**SJPM**" folder. Right click on the "**Start SJPM Server (as a service)**" menu item and then left click on the "**Run as administrator**" menu item.

2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



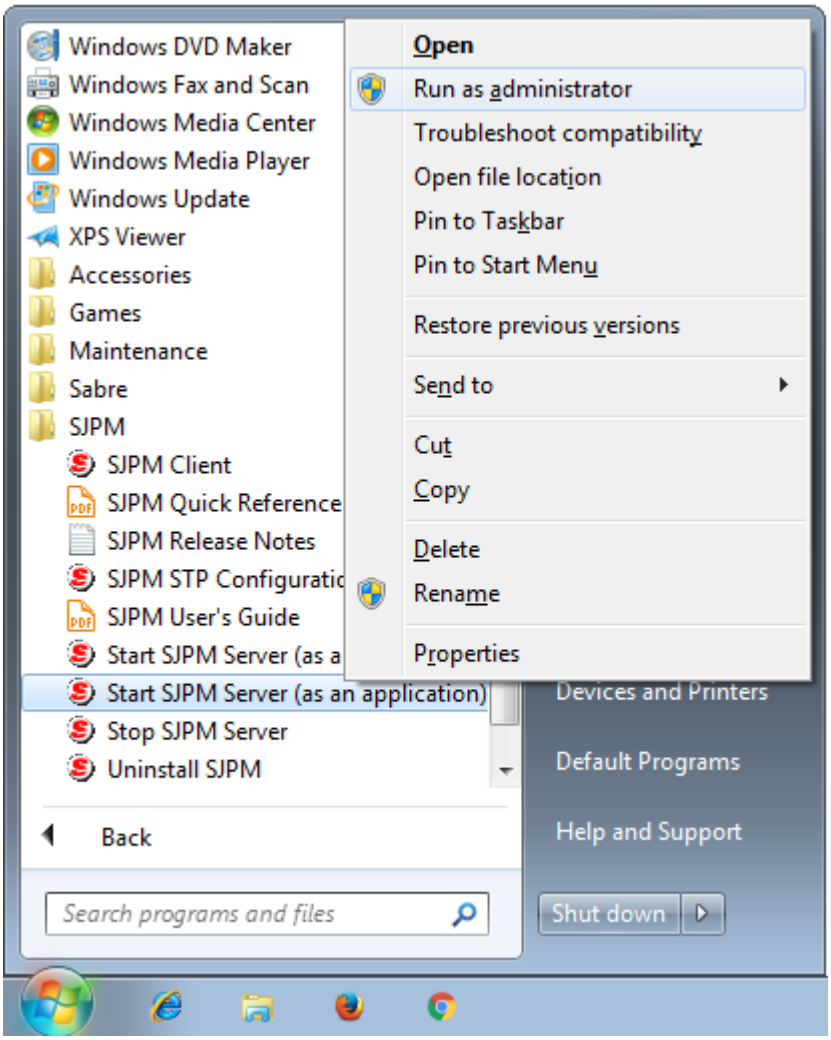
Next you will see the "**SJPM Server**" window showing the server is starting and then complete.



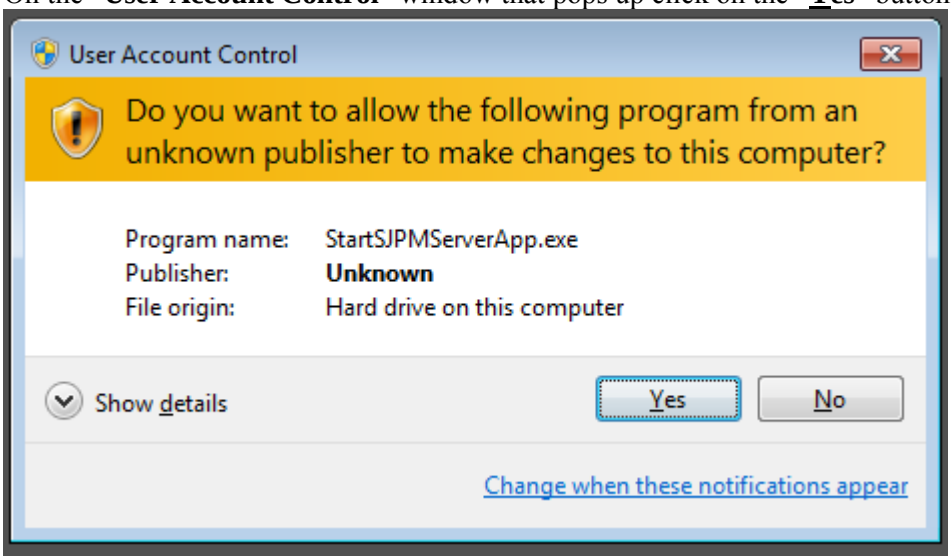


4.2.1.5 Start the SJPM Server (as an application) – Windows 7

1. Click on the Windows "**Start**" button on the Windows Taskbar, then click on "**All Programs**", then scroll down and click on the "**SJPM**" folder. Right click on the "**Start SJPM Server (as an application)**" menu item and then left click on the "**Run as administrator**" menu item.



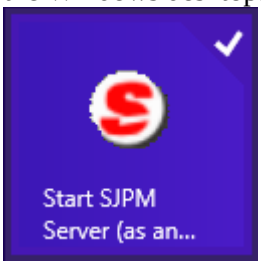
2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



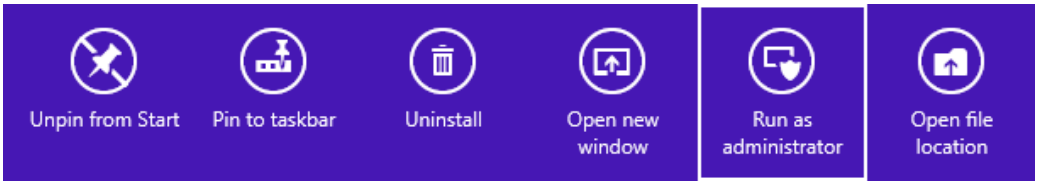
4.2.1.6 Start the SJPM Server (as an application) – Windows 8

Windows 8

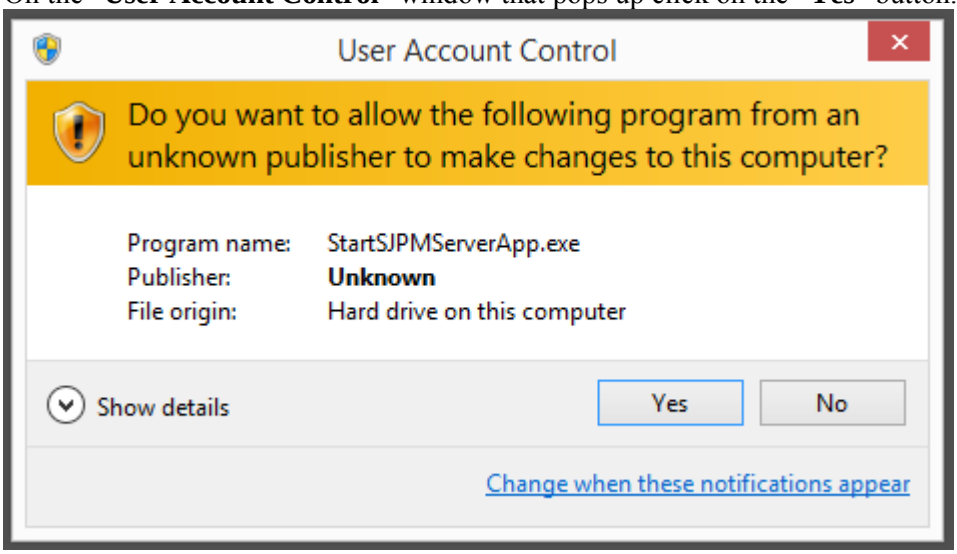
1. Move the mouse pointer to the bottom left corner of the screen. Click on Windows "**Start**", and then right click on the "**Start SJPM Server (as an application)**" icon on the Windows desktop.



2. Click on the "**Run as administrator**" icon on the menu bar.



3. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



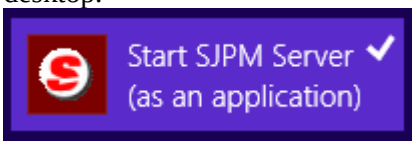
4.2.1.7 Start the SJPM Server (as an application) – Windows 8.1

Windows 8.1

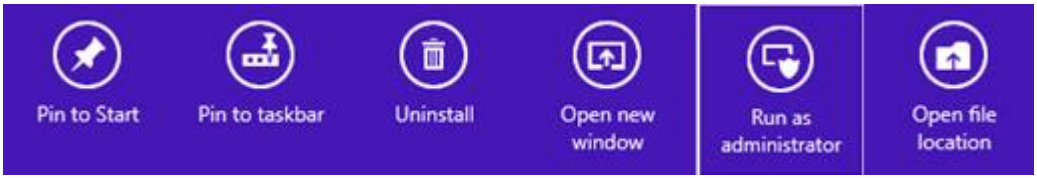
1. Click on the Windows "**Start**" button on the Windows Taskbar.

2. Click on the "**Circled Down Arrow**" icon on the Windows desktop (if needed scroll to the right).

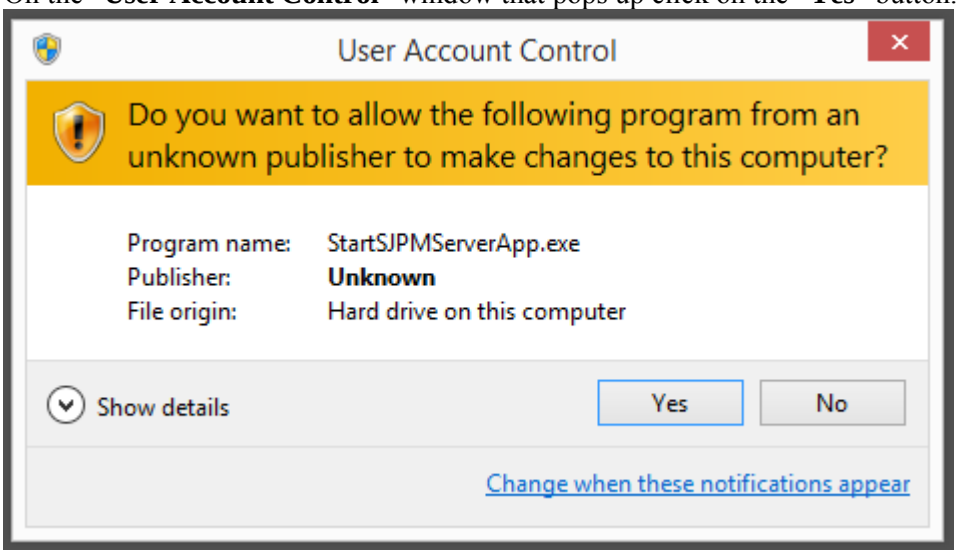
3. Right click on the "**Start SJPM Server (as an application)**" icon on the Windows desktop.



4. Click on the "**Run as administrator**" icon on the menu bar.



5. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



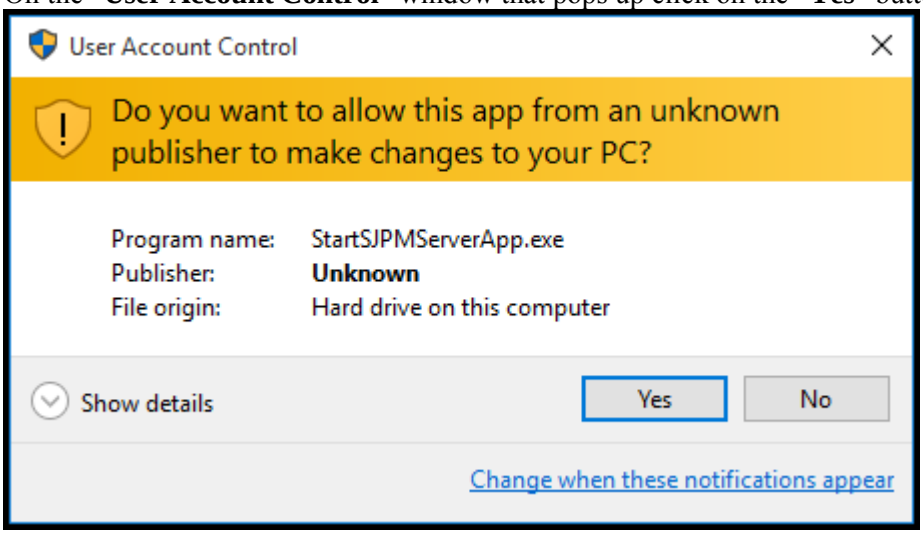
4.2.1.8 Start the SJPM Server (as an application) – Windows 10

Windows 10

1. Click on the Windows "**Start**" button on the Windows Taskbar, then click on the "**All apps**" menu item, then scroll down and click on the "**SJPM**" folder.

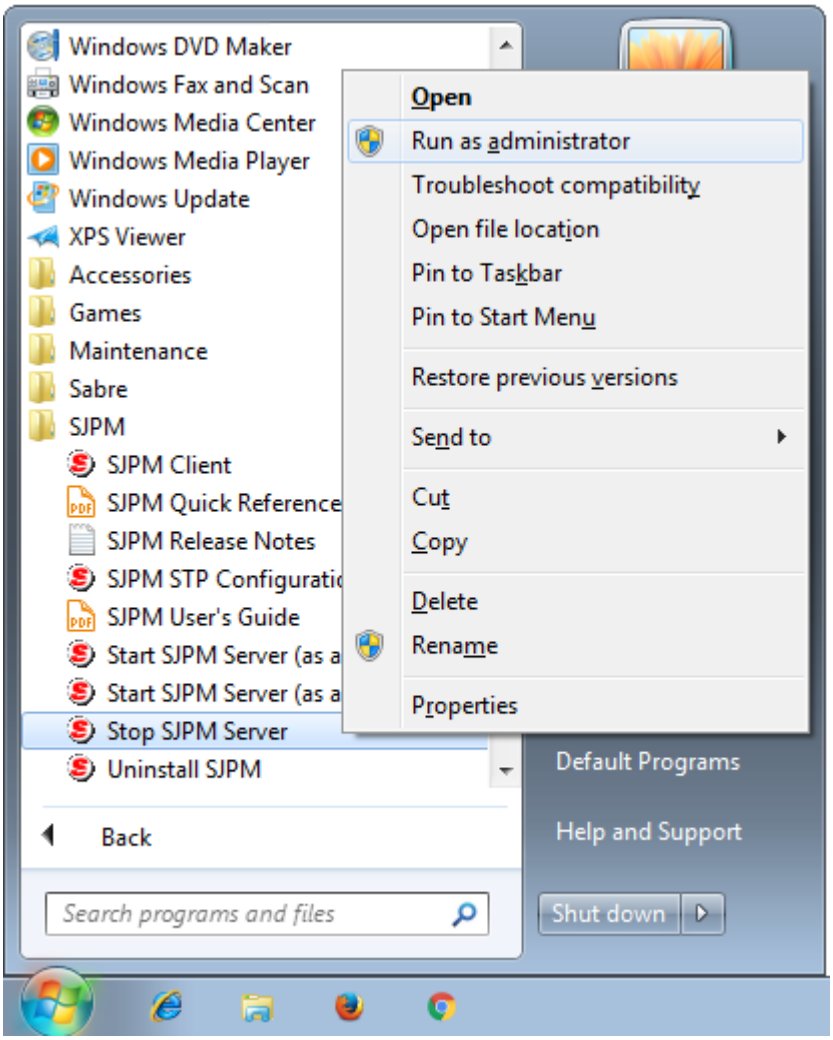
2. Right click on the "**Start SJPM Server (as an application)**" menu item and then left click on the "**Run as administrator**" menu item.

3. On the "**User Account Control**" window that pops up click on the "**Yes**" button.

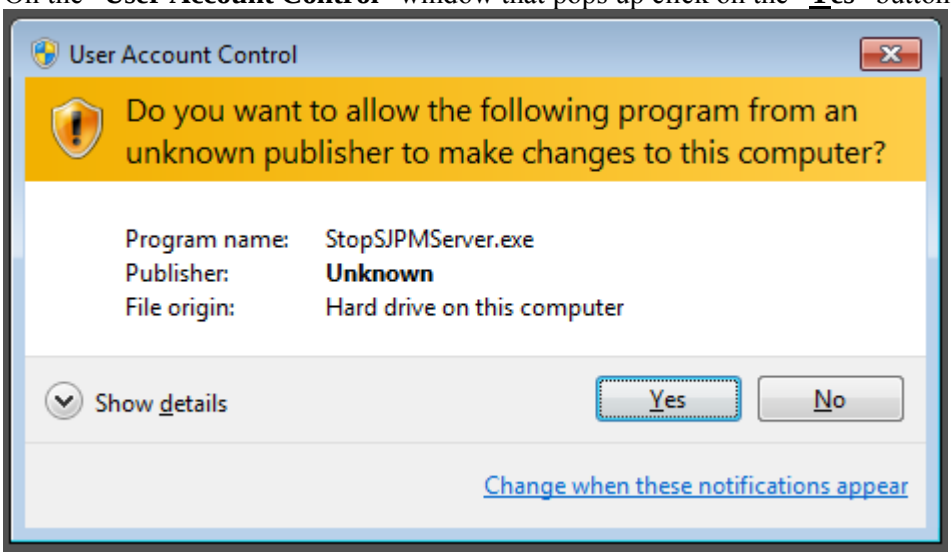


4.2.1.9 Stop the SJPM Server – Windows 7

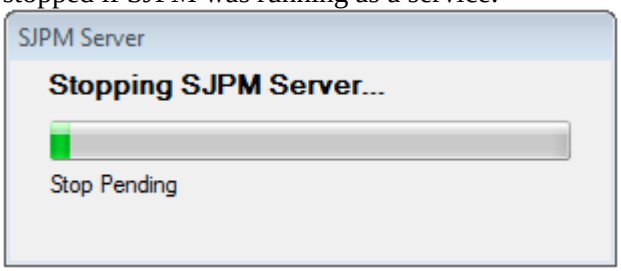
1. Click on the Windows "**Start**" button on the Windows Taskbar, then click on "**All Programs**", then scroll down and click on the "**SJPM**" folder. Right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item.

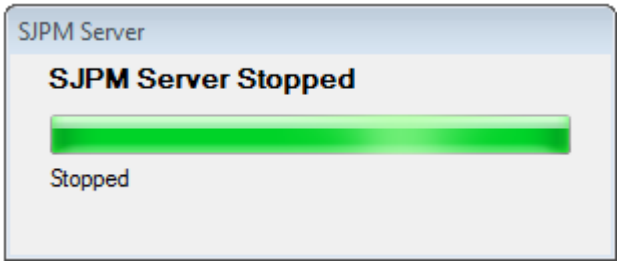


2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



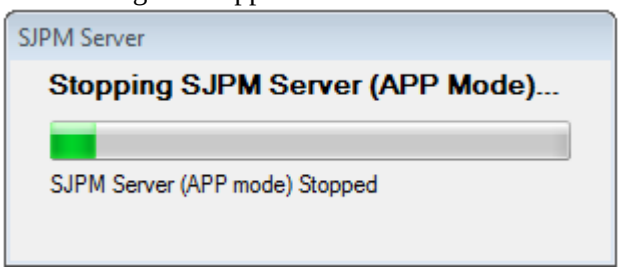
Next you will see the "**SJPM Server**" window showing the server is stopping and then stopped if SJPM was running as a service.





Or

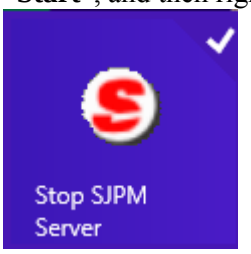
Next you will see the "**SJPM Server**" window showing the server is stopping if SJPM was running as an application.



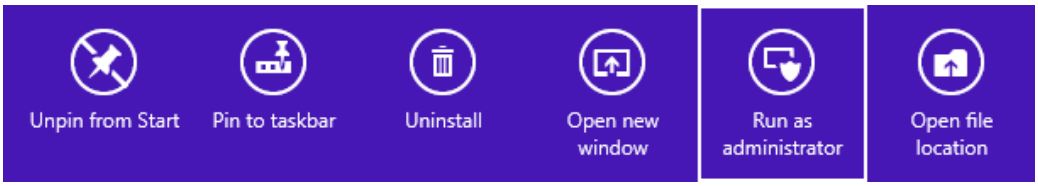
4.2.1.10 Stop the SJPM Server – Windows 8

Windows 8

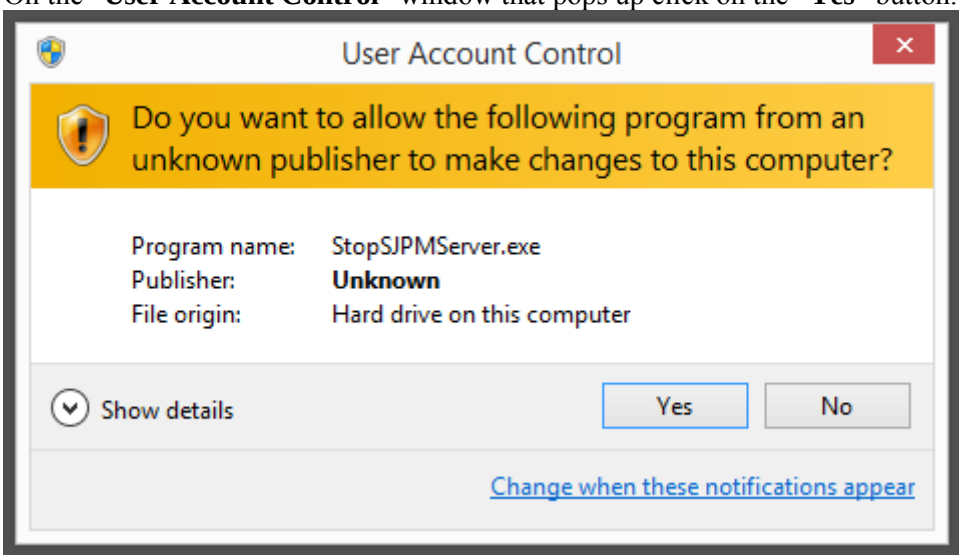
1. Move the mouse pointer to the bottom left corner of the screen. Click on Windows "**Start**", and then right click on the "**Stop SJPM Server**" icon on the Windows desktop.



2. Click on the "**Run as administrator**" icon on the menu bar.



3. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



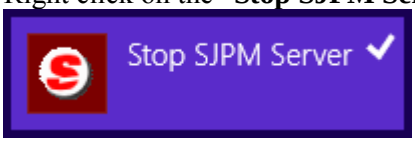
4.2.1.11 Stop the SJPM Server – Windows 8.1

Windows 8.1

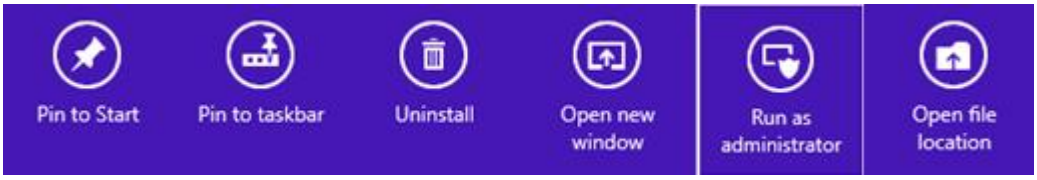
1. Click on the Windows "**Start**" button on the Windows Taskbar.

2. Click on the "**Circled Down Arrow**" icon on the Windows desktop.

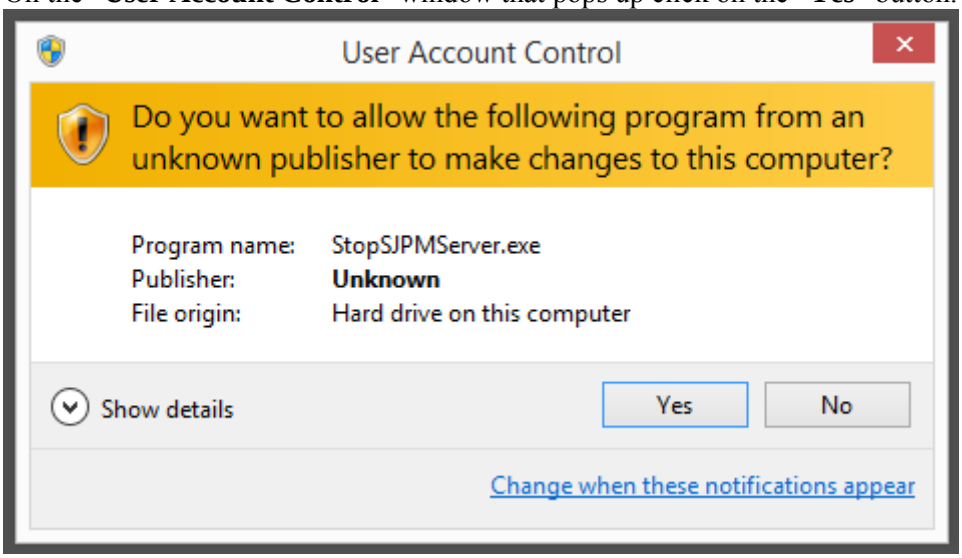
3. Right click on the "**Stop SJPM Server**" icon on the Windows desktop.



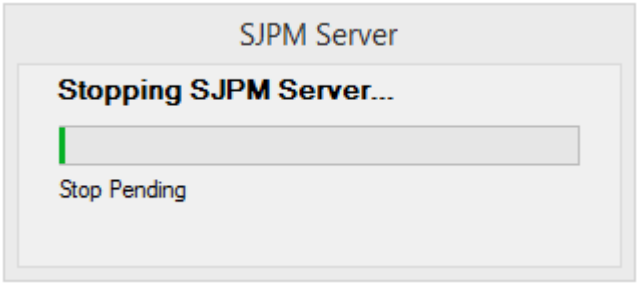
4. Click on the "**Run as administrator**" icon on the menu bar.

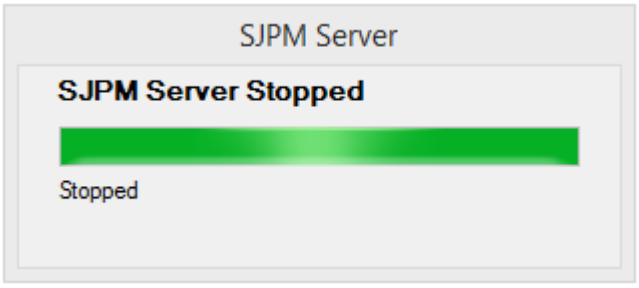


5. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



Next you will see the "**SJPM Server**" window showing the server is stopping and stopped.



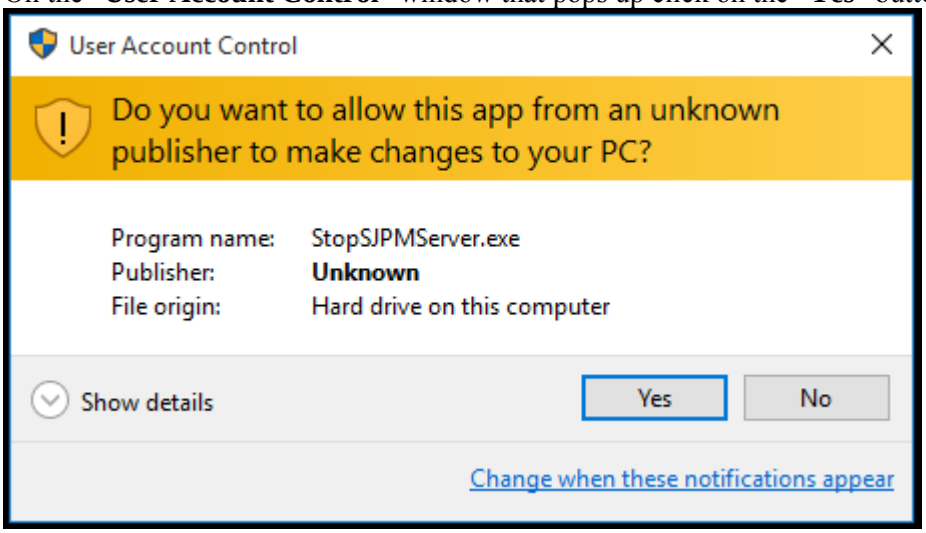


Windows 10

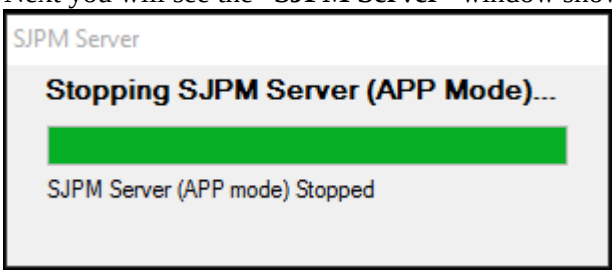
1. Click on the Windows "**Start**" button on the Windows Taskbar, then click on the "**All apps**" menu item, then scroll down and click on the "**SJPM**" folder.

2. Right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item.

3. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



Next you will see the "**SJPM Server**" window showing the server is stopped.



4.3 Starting and Stopping the SJPM Client

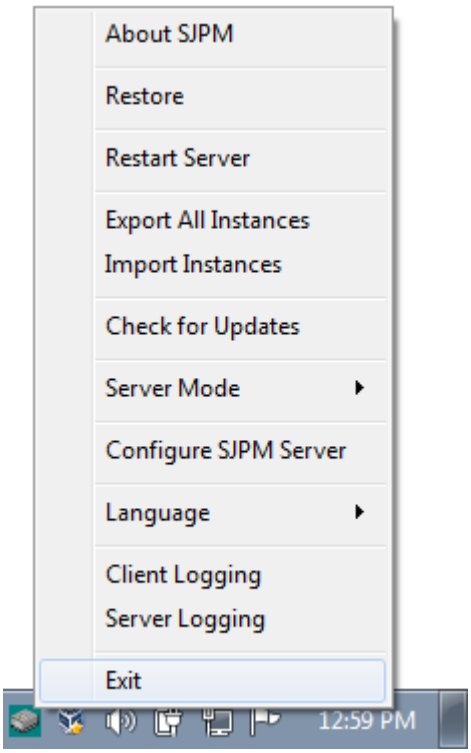
This section describes the procedures for starting and stopping the SJPM Client. The SJPM Client runs automatically when the PC starts. If the SJPM icon does not appear in the Windows System Tray it will be necessary to start the SJPM Client in order to view the SJPM Client GUI.

4.3.1 Starting the SJPM Client

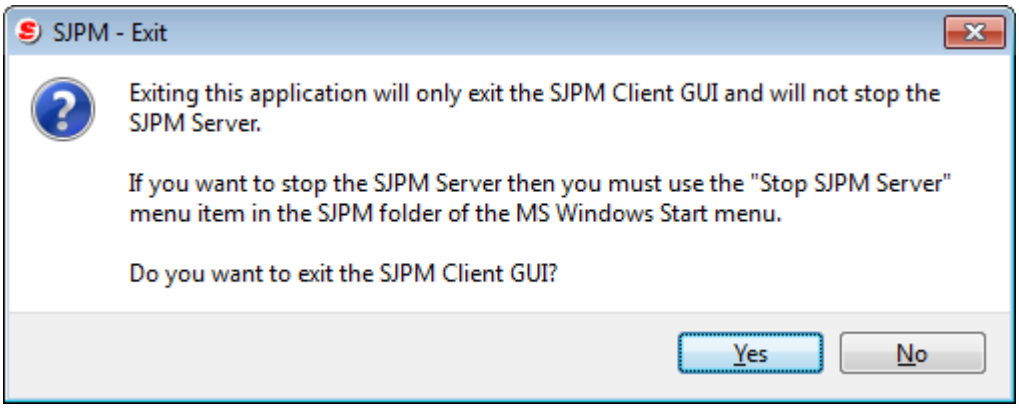
1. Click on the Windows "**Start**" button on the Windows Taskbar, then click on "**All Programs**", then scroll down and click on the "**SJPM**" folder. Right click on the "**SJPM Client**" menu item and then left click on the "**Run as administrator**" menu item.

4.3.2 Stopping the SJPM Client

1. Right click on the SJPM Windows System Tray Icon, and then click on the "**Exit**" menu item.



2. The "**SJPM – Exit**" window will appear. Click on the "**Yes**" button.



3. The SJPM icon will disappear from the Windows System Tray.

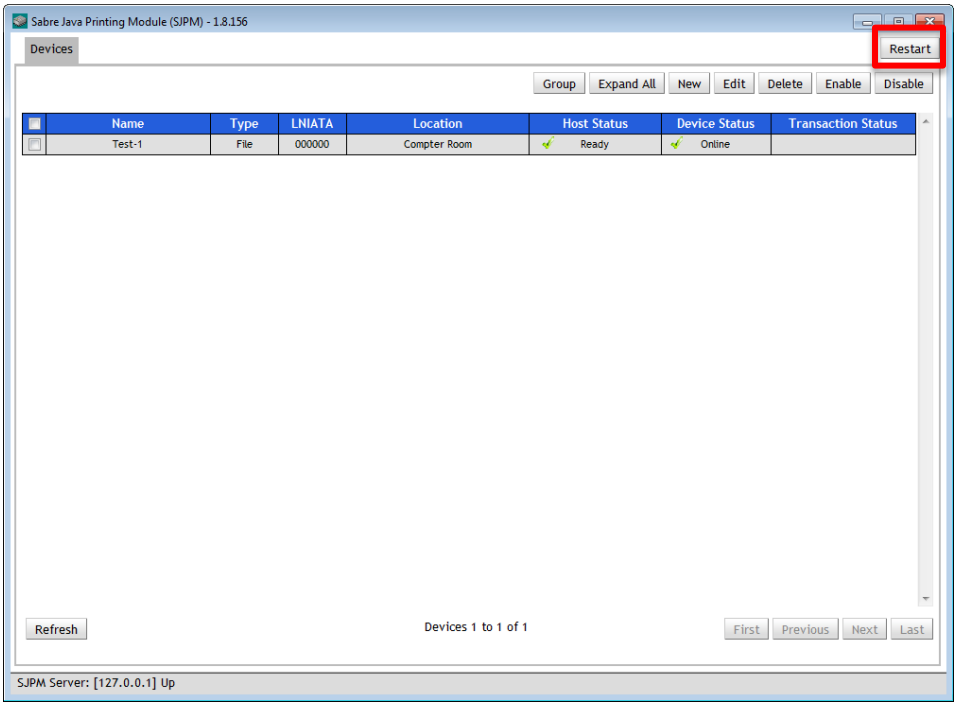
4.4 Restarting SJPM

This section describes the procedures for restarting SJPM. Restarting SJPM is required after configuring devices for the changes to take effect or to clear error conditions. The two methods by which SJPM can be restarted are from the **SJPM Client GUI** and **SJPM Windows System Tray Icon Menu**.

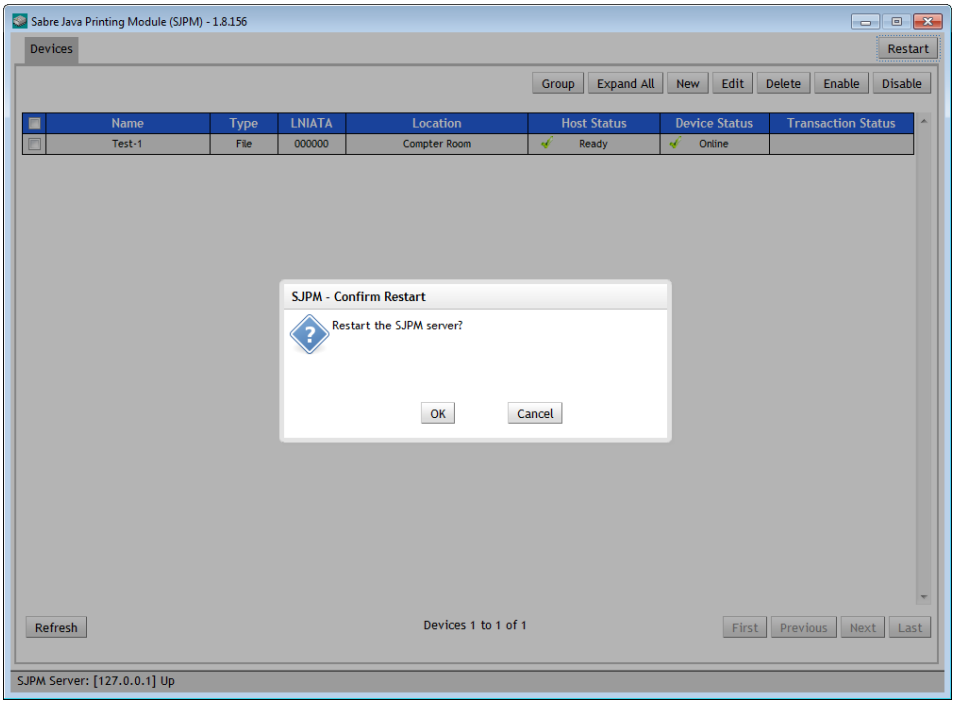
4.4.1 Restarting SJPM – Client GUI

1. Open the SJPM Client GUI by double clicking on the SJPM Windows System Tray Icon.

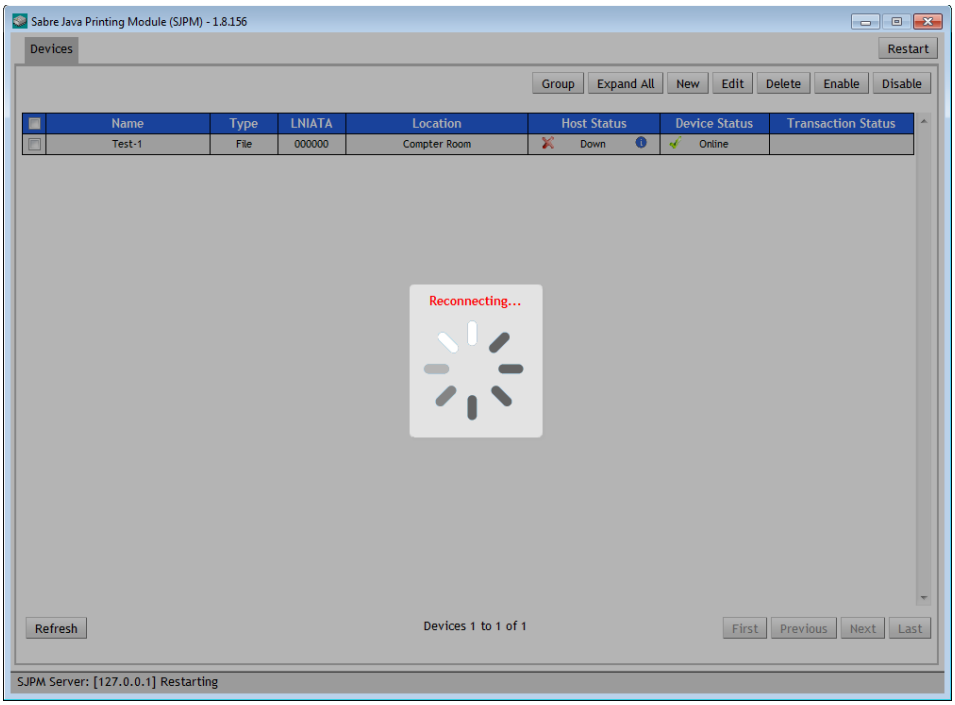
2. Click on the "**Restart**" button.



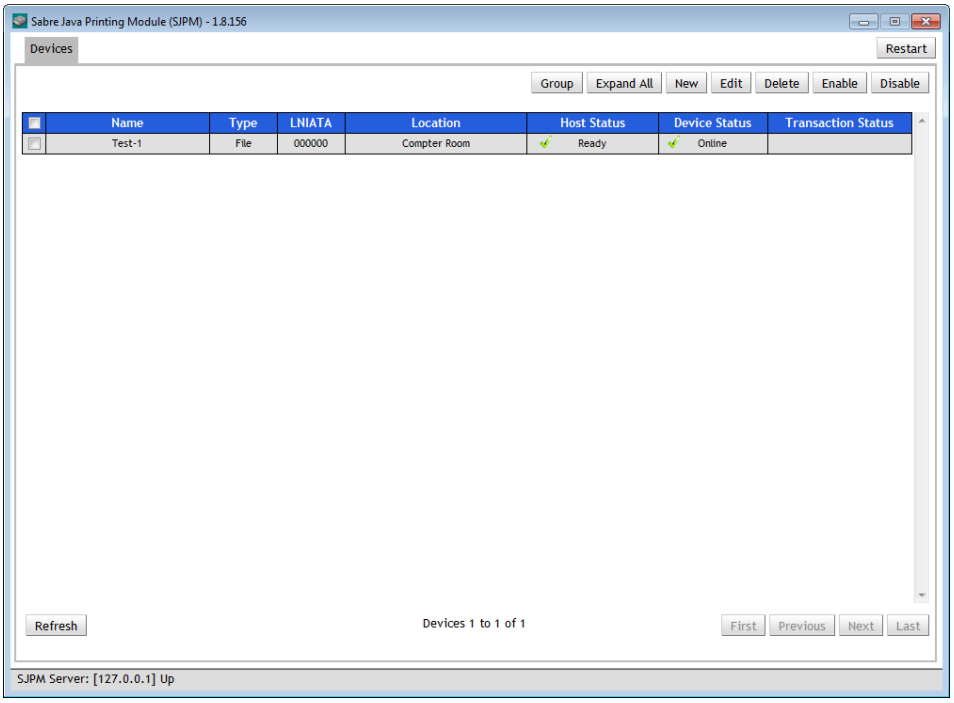
3. The "**SJPM – Confirm Restart**' popup window will appear.



4. Click on the "**OK**" button to restart SJPM.

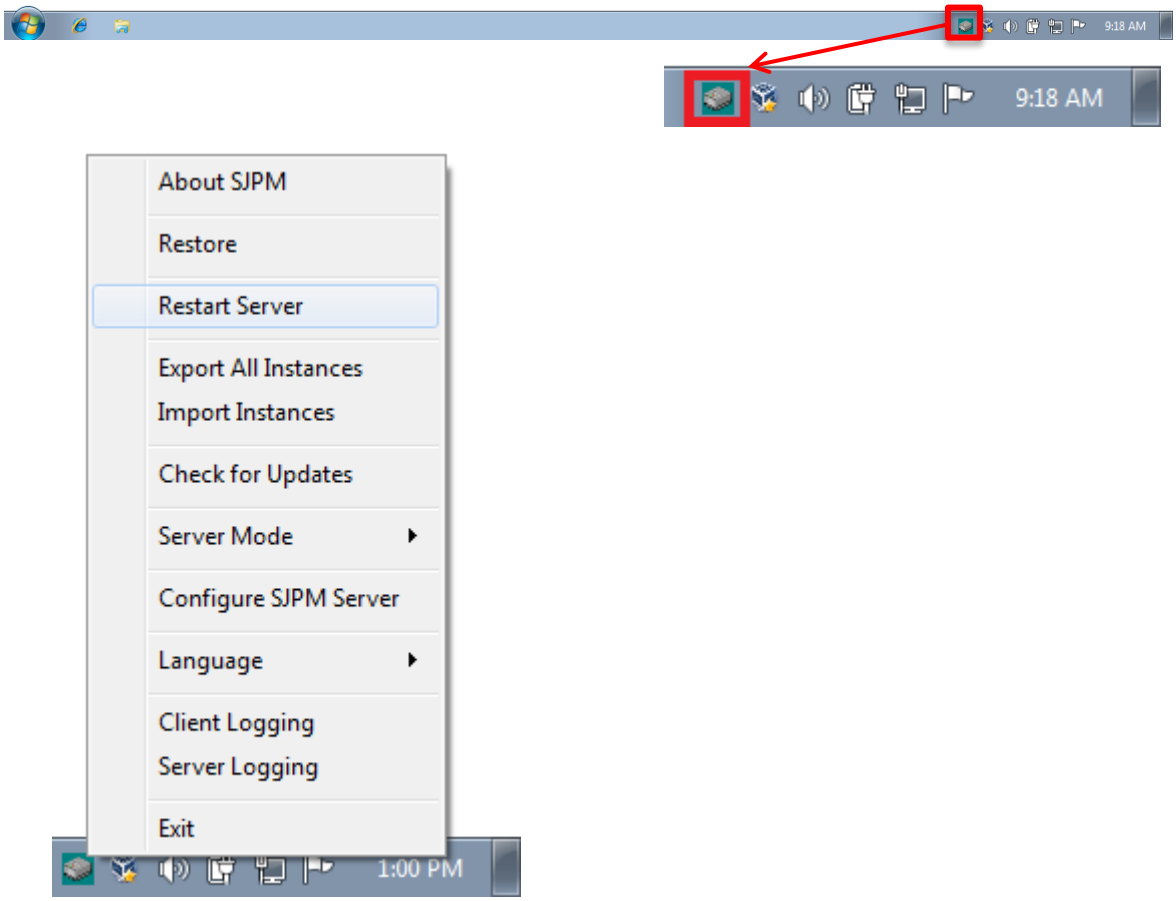


5. After the SJPM restart has completed, device configurations will take effect and devices will connect and be ready for use.

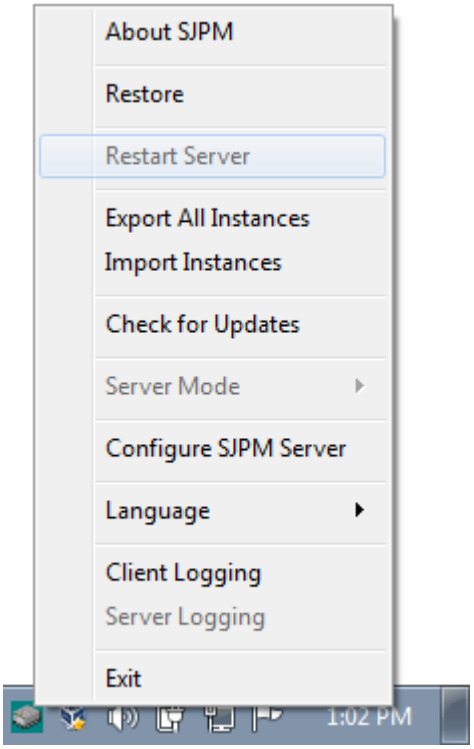


4.4.2 Restarting SJPM – SJPM Windows System Tray Icon Menu

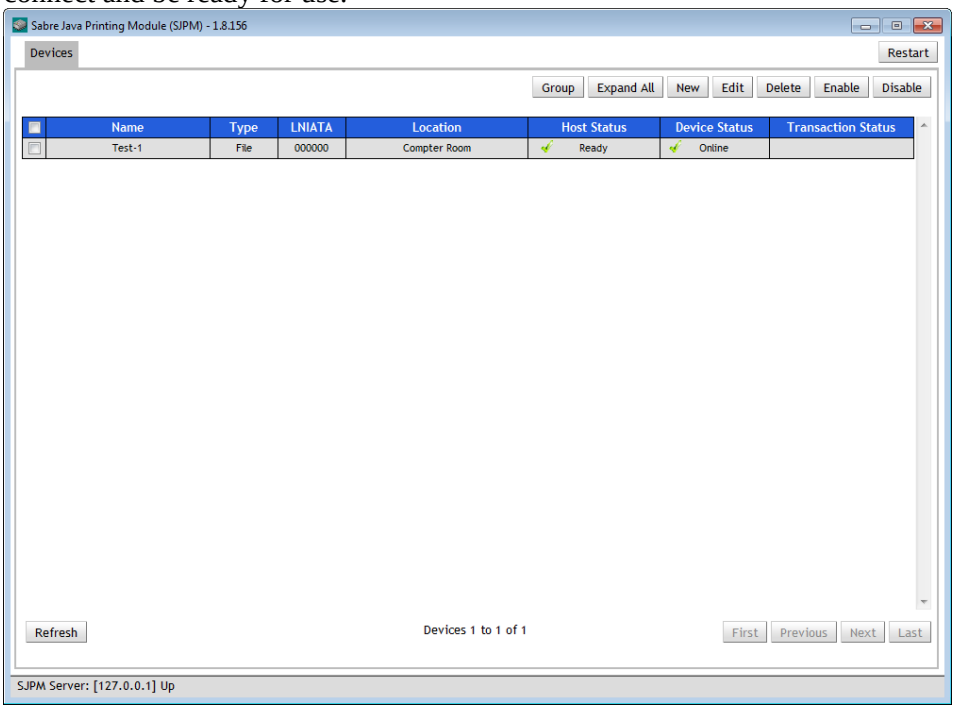
1. Right click on the SJPM Windows System Tray Icon and then click on the "**Restart Server**" menu item.



2. If the SJPM Client GUI is open it will close and SJPM will restart. The SJPM Windows System Tray Icon menu items for "**Restart Server**", "**Server Mode**", and "**Server Logging**" will be disabled until the restart has completed.



3. After the SJPM restart has completed device configurations will take effect and devices will connect and be ready for use.



4.5 Running SJPM on Linux

This section provides information on SJPM Linux installation, setup and operation in a Linux environment.

Note: These sections assume the operator has technical knowledge of Linux operations.

4.5.1 Prerequisites

Prerequisite:

Software:

a) SJPM zip (**Example:** SJPM x.x.xx.sabre.zip).

4.5.2 Install/Setup/Operate SJPM on Linux – Browse SJPM from Linux

This section describes the procedure for running SJPM in a browser from a Linux PC.

1. Copy the SJPM zip file (**Example:** SJPM x.x.xx.sabre.zip) to the Linux PC and then unzip it. This will create the following folders and files:
   client - folder
   jre - folder
   server - folder
   ReleaseNotes.txt - file
   SJPMUsersGuide.pdf - file

2. In the folder where you unzipped SJPM, go into the "**server**" folder.

3. Open the "**server.properties**" file.

   Set the "**sjpm.drivers=**" property value to "**AEAIERIP,File,IFQ,MQJMS**".
   The **AEAIERIP**, **File**, **IFQ**, and **MQJMS** Drivers are the only supported drivers on Linux.
   (**Example:** sjpm.drivers= AEAIERIP,File,IFQ,MQJMS)

4. Save and close the "**server.properties**" file.

5. Run the command "**chmod +x RunSJPM.sh**".

6. Then run the command "**./RunSJPM.sh**".

7. Open a browser on the Linux PC and then browse to the following address:
   http://127.0.0.1:5196/

4.5.3 Install/Setup/Operate SJPM on Linux – Browse SJPM from Windows

This section describes the procedure for running SJPM in a browser from a Windows PC.

1. Copy the SJPM zip file (**Example:** SJPM x.x.xx.sabre.zip) to the Linux PC and then unzip it. This will create the following folders and files:
   client - folder
   jre - folder
   server - folder
   ReleaseNotes.txt - file
   SJPMUsersGuide.pdf - file

2. In the folder where you unzipped SJPM, go into the "**server**" folder.

3. Open the "**server.properties**" file.

   Set the "**sjpm.drivers=**" property value to "**AEAIERIP,File,IFQ,MQJMS**".
   The **AEAIERIP**, **File**, **IFQ**, and **MQJMS** Drivers are the only supported drivers on Linux.
   (**Example:** sjpm.drivers= AEAIERIP,File,IFQ,MQJMS)

4. Uncomment the "**sjpm.server.hostAddr=127.0.0.1**" property by deleting the "**#**" sign before it. Change the IP address to the IP address of the Linux PC where SJPM is running.

5. Save and close the "**server.properties**" file.

6. Run the command "**chmod +x RunSJPM.sh**".

7. Then run the command "**./RunSJPM.sh**".

8. Open a browser on a Windows PC and then browse to the following address:
   http://x.x.x.x:5196/

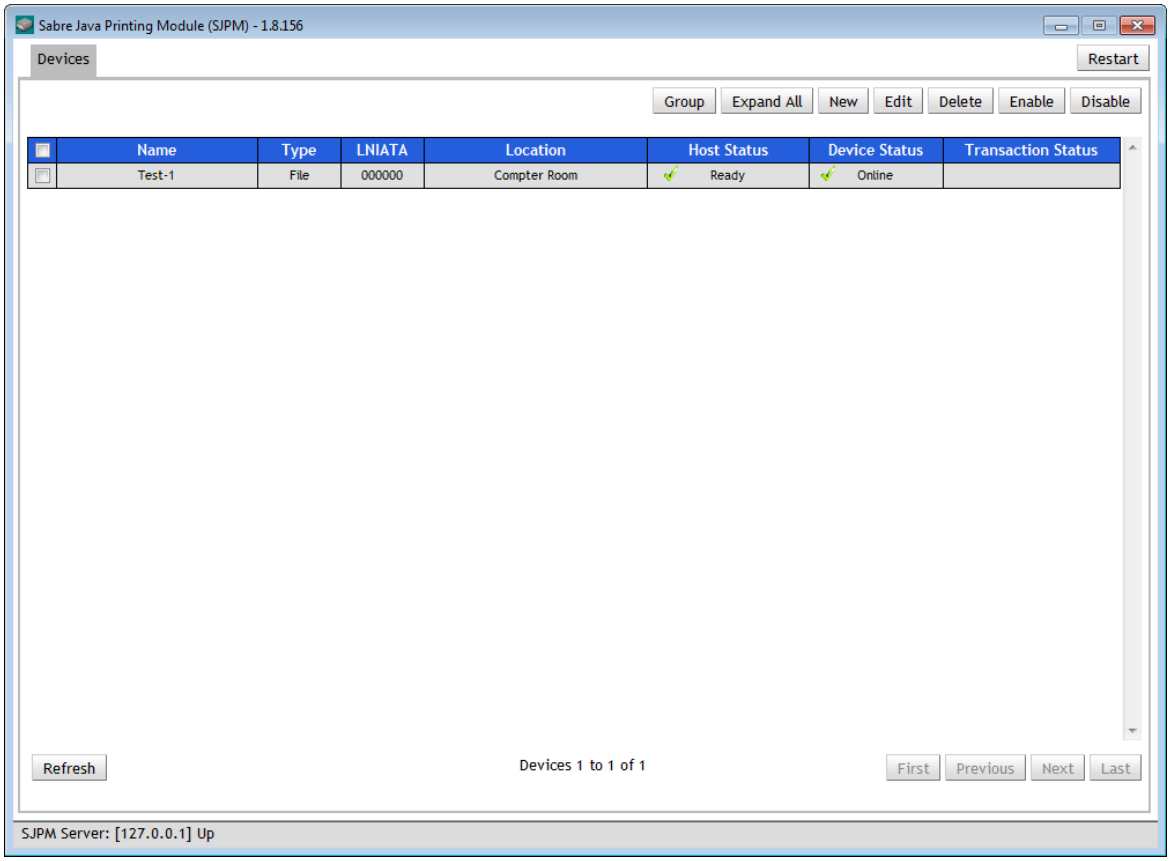
   x.x.x.x = IP address of the Linux PC where SJPM is running.

SJPM Client GUI

5

5.1 SJPM Client GUI Component Descriptions

This section describes the components of the SJPM Client GUI.



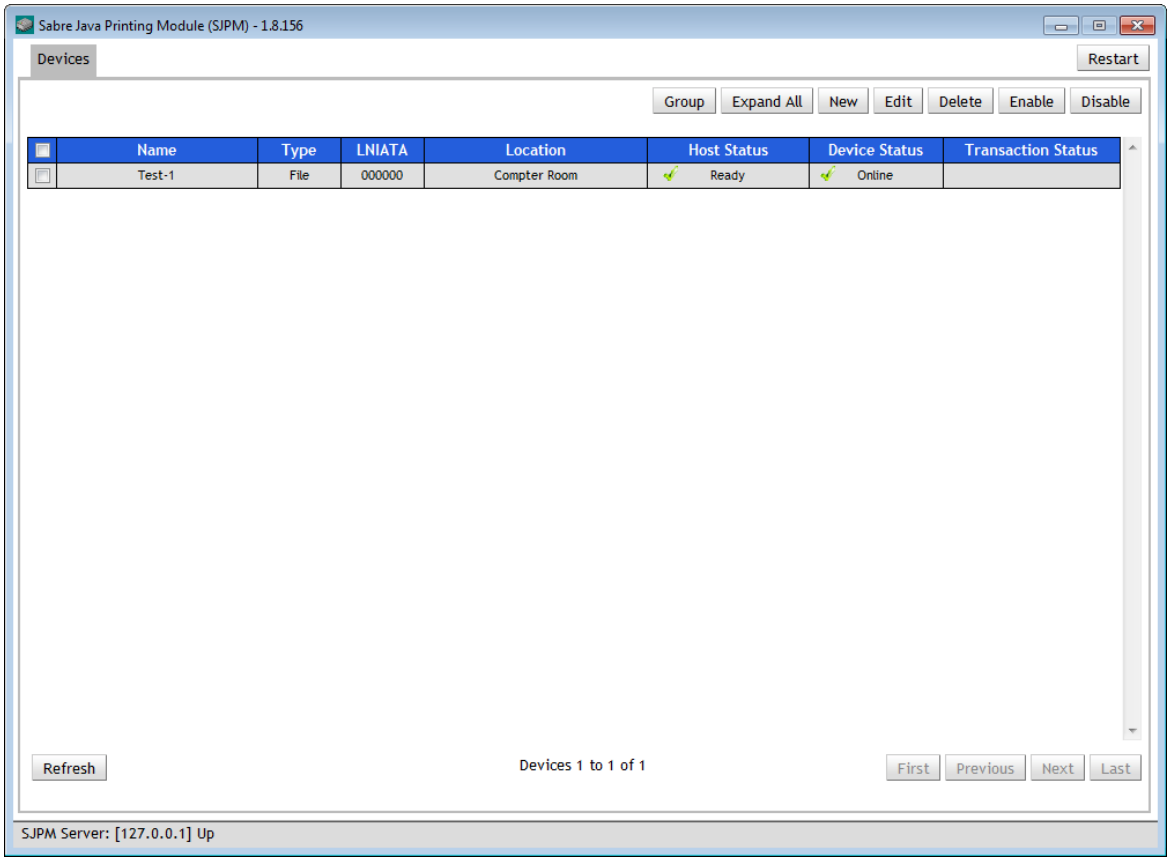
5.1.1 Device Line Fields

This section describes the SJPM Client GUI device line column fields.

Field Name	Description	Example(s)
Name	This column field displays the name identifying the configured device. This is entered during "**New**" device creation and it is not editable after creation.	**Test-1**
Type	This column field displays the device driver's name. This can only be selected during "**New**" device creation and is not editable after creation.	**File**
LNIATA	This column field displays the device's configured LNIATA. This is configured during "**New**" device creation and can be edited after device creation.	**000000**
Location	This column field displays the pseudo name or a physical location of the receiving device. This is configured during "**New**" device creation and can be edited after device creation.	**Computer Room**
Host Status	This column field displays the current state of the SJPM's connection to the Sabre Host.	**Connecting** **Ready** **Down**
Device Status	This column field displays the current state of the SJPM's connection to the receiving device.	**Online** **Disconnected**
Transaction Status	This column field displays the last state of the last transaction sent to the receiving device.	**Sending to Device** **Last Send Successful** **Last Send Failed**

5.1.2 GUI Buttons

This section describes the SJPM Client GUI buttons.



Restart Button

The "**Restart**" button is located in the upper right corner of the SJPM Client GUI window. The "**Restart**" button restarts the SJPM Server. This action (**Restart**) is required after all device additions, device deletions, device disable, device enable, device edit and to enable/disable the Server Logging.

Group/Ungroup Buttons

The "**Group**" and "**Ungroup**" buttons are located in the upper right corner of the SJPM Client GUI, inside the "**Devices**" tab, under the "**Restart**" button and display between the "**Import**" and "**Expand All**" buttons when device(s) are present. The "**Group**" button groups together like device lines based on the "**Location**" column field of the device lines. The "**Ungroup**" button ungroups grouped device lines.

Expand All/Collapse All Buttons

The "**Expand All**" and "**Collapse All**" buttons are located in the upper right corner of the SJPM Client GUI, in the "**Devices**" tab, under the "**Restart**" button and display between the "**Group**" and "**New**" buttons when device(s) are present. The "**Expand All**" button expands all device lines to show their status in more detail. The "**Collapse All**" button collapses all device lines to show the device status in a single line. A device line can also be clicked on to expand and collapse the individual device's view.

New Button

The "**New**" button is located in the upper right corner of the SJPM Client GUI, in the "**Devices**" tab, under the "**Restart**" button when no devices are present and between the "**Expand All**" and "**Edit**" buttons when device(s) are present. The "**New**" button is used to create a new device in the SJPM Client GUI.

Edit Button

The "**Edit**" button is located in the upper right corner of the SJPM Client GUI, in the "**Devices**" tab, under the "**Restart**" button between the "**New**" and "**Delete**" buttons when device(s) are present. The "**Edit**" button is used to edit selected device lines.

Delete Button

The "**Delete**" button is located in the upper right corner of the SJPM Client GUI, in the "**Devices**" tab, under the "**Restart**" button between the "**Edit**" and "**Enable**" buttons when device(s) are present. The "**Delete**" button is used to delete selected device lines.

Enable Button

The "**Enable**" button is located in the upper right corner of the SJPM Client GUI, in the "**Devices**" tab, under the "**Restart**" button between the "**Delete**" and "**Disable**" buttons when device(s) are present. The "**Enable**" button is used to enable selected device lines.

Disable Button

The "**Disable**" button is located in the upper right corner of the SJPM Client GUI, in the "**Devices**" tab, under the "**Restart**" button to the right of the "**Enable**" button when device(s) are present. The "**Disable**" button is used to disable selected device lines.

Refresh Button

The "**Refresh**" button is located in the lower left corner of the SJPM Client GUI. The "**Refresh**" button is used to manually update the SJPM Client GUI to the most current state.

Pagination Buttons

The **Pagination** buttons, "**First**", "**Previous**", "**Next**" and "**Last**" are located in the bottom right corner of the SJPM Client GUI. The **Pagination** buttons are used to navigate through devices.

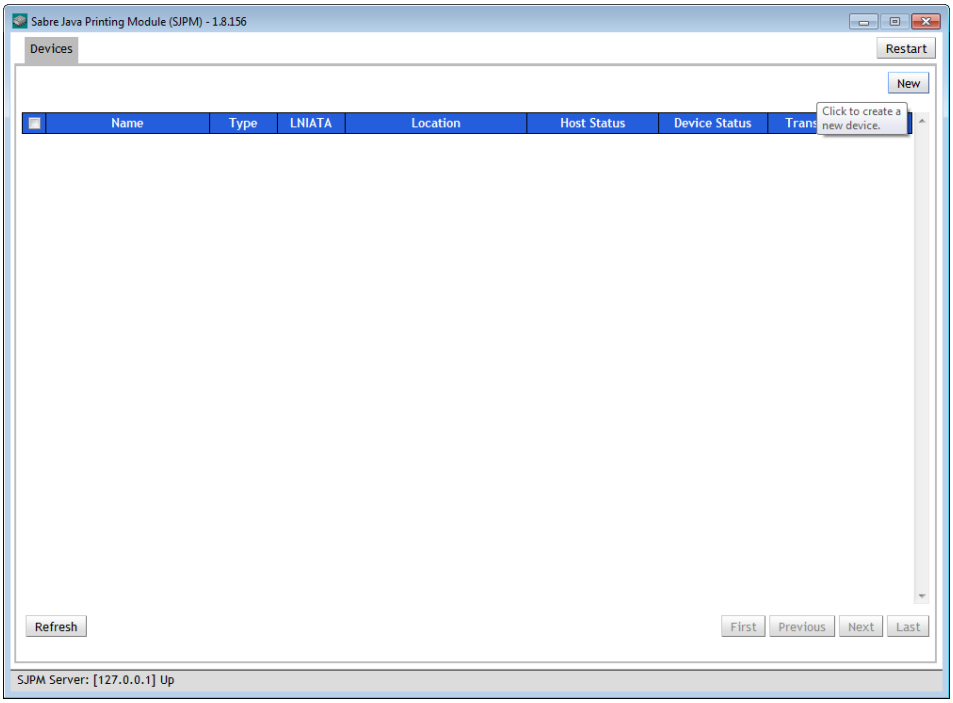
The SJPM Client GUI will display up to 15 devices per page and will activate pagination if there are more than 15 devices. The "**Next**", and "**Last**" buttons will be active when on the first page. The "**First**" and "**Previous**" buttons will be active when on the second page. If there are more than two pages of devices then all four buttons will be active on the second page.

5.1.3 Adding and Deleting Devices

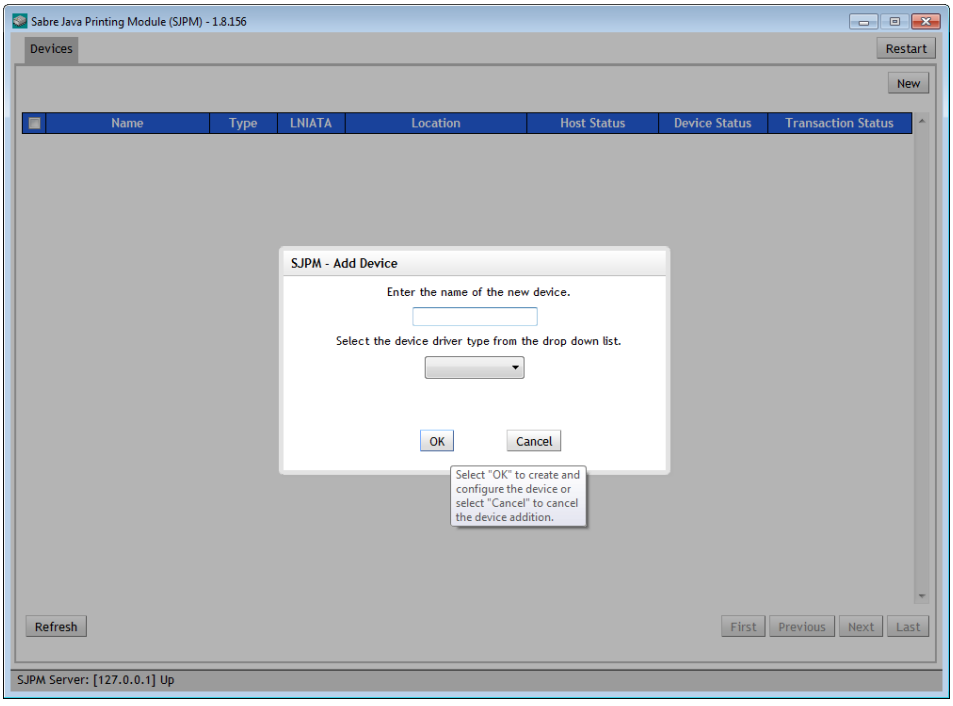
This section describes the procedures for adding and deleting a device in the SJPM Client GUI.

5.1.3.1 Adding Devices

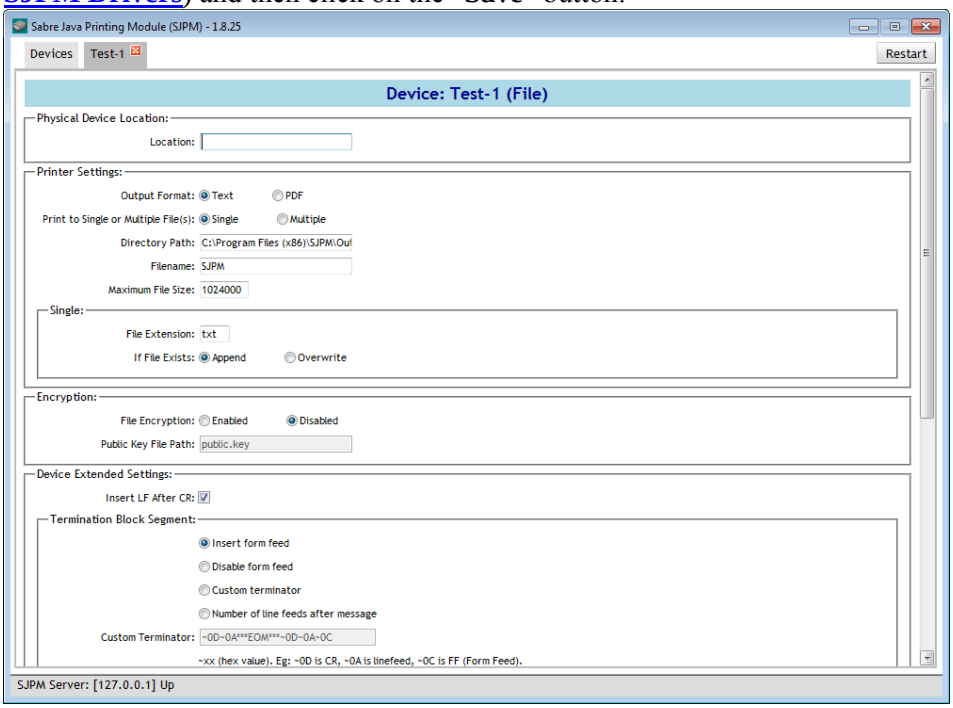
1. Click on the "**New**" button.



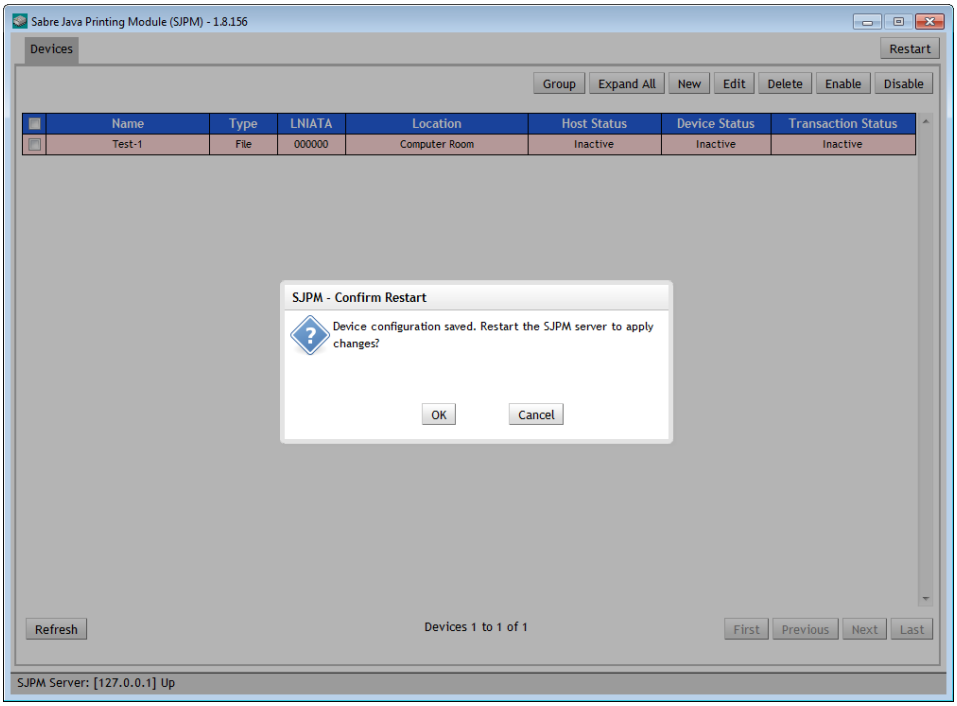
2. The "**SJPM – Add Device**" popup window will appear. Type in a device name in the field and then click on the device driver drop down list and select a driver. Click on the "**OK**" button.



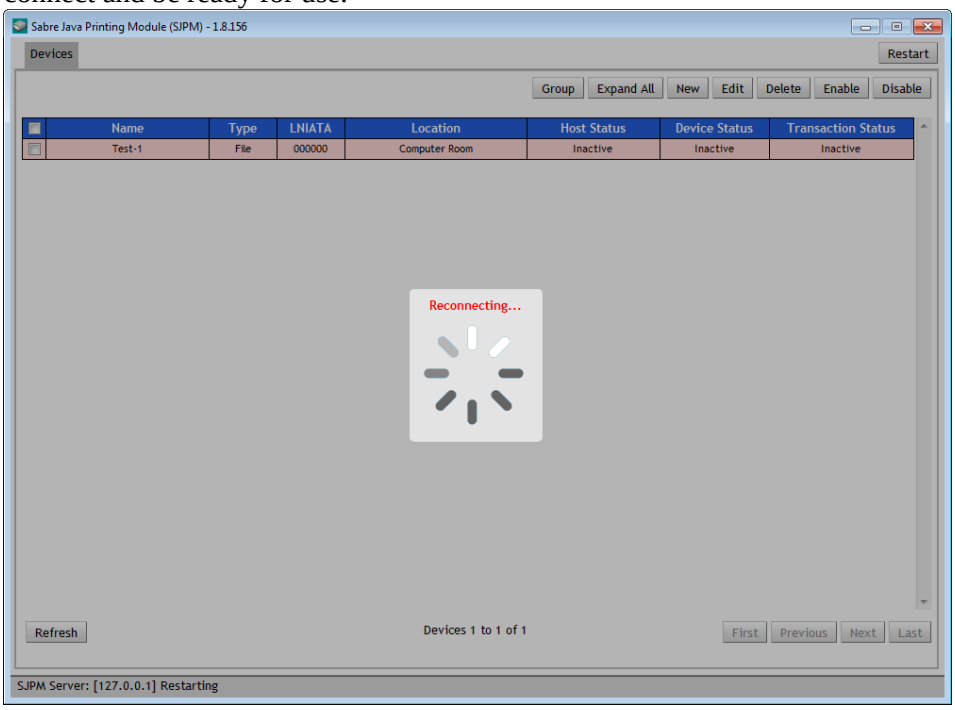
3. The device's configuration tab will appear. Configure the device (Refer to section **6.2 SJPM Drivers**) and then click on the "**Save**" button.

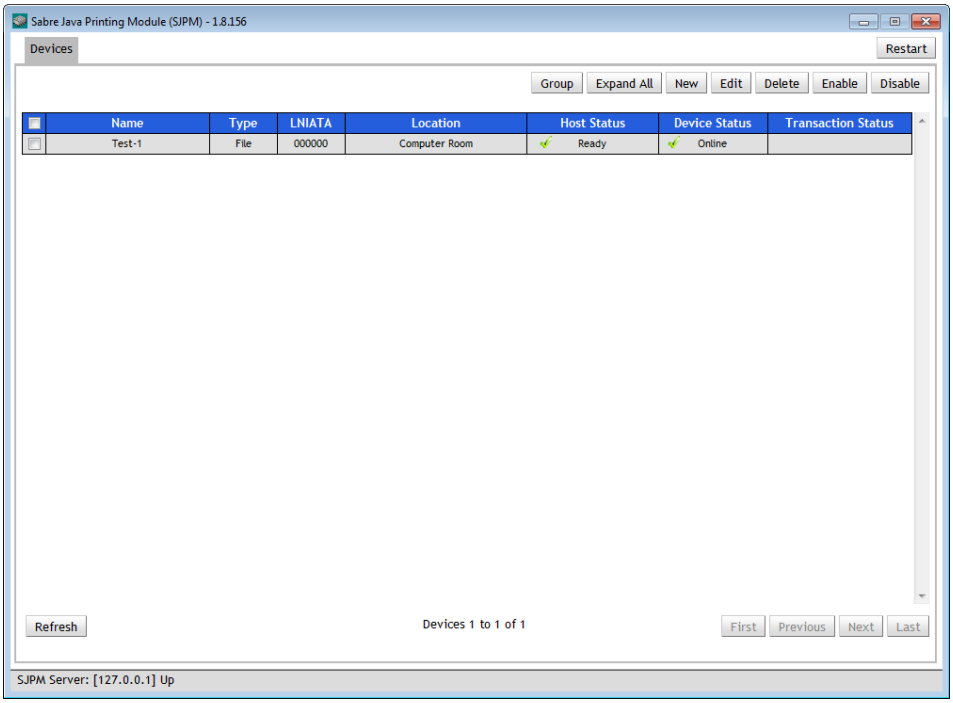


4. The "**SJPM – Confirm Restart**" popup window will appear. Click on the "**OK**" button.



5. SJPM will restart, the device line will appear in the SJPM GUI and the device will connect and be ready for use.

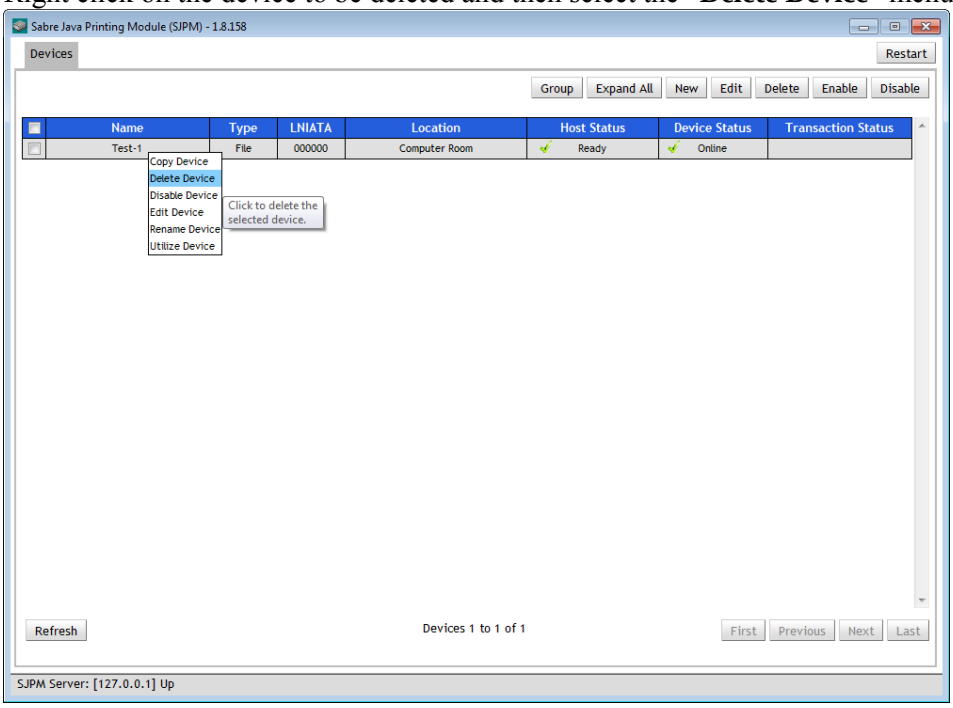




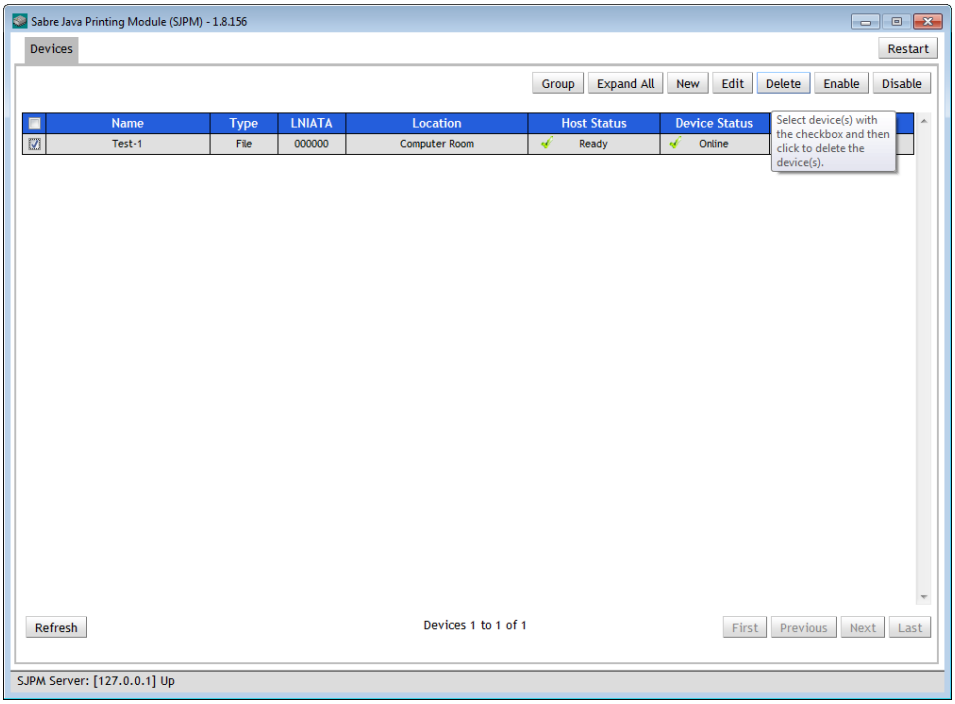
5.1.3.2 Deleting Devices

1. There are various methods in SJPM for deleting devices.

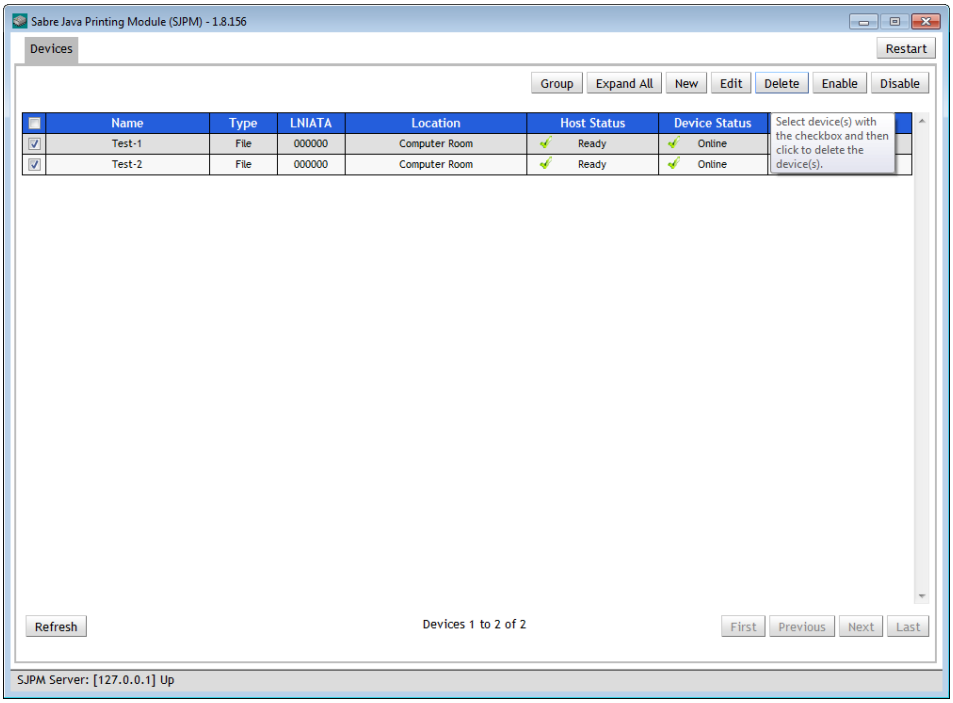
Method One (1):
Right click on the device to be deleted and then select the "**Delete Device**" menu item.



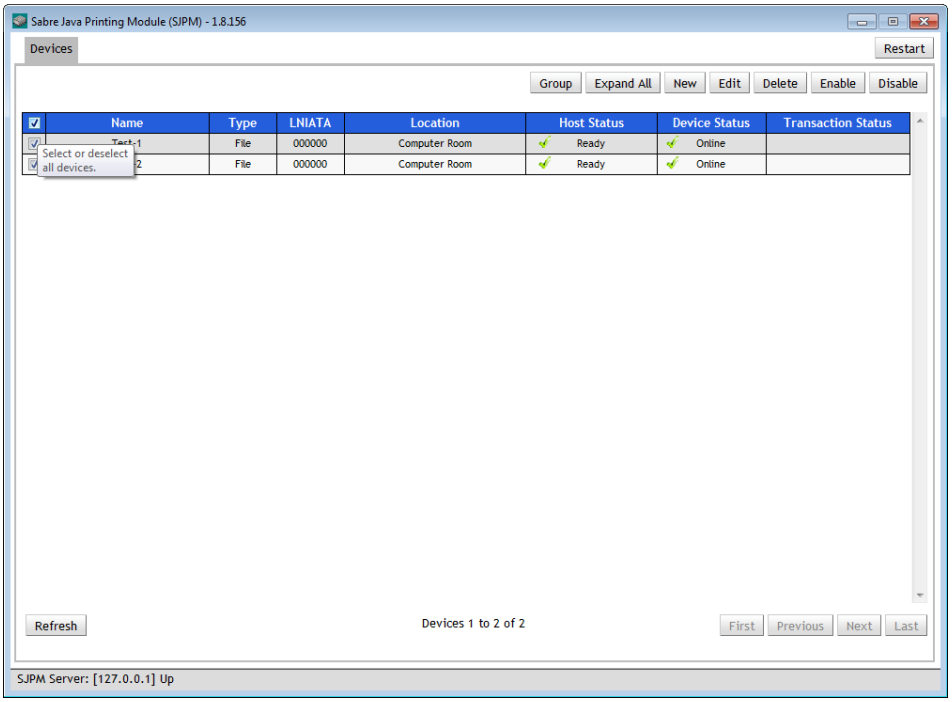
Method Two (2):
Click on the checkbox for the device to be deleted and then click on the "**Delete**" button.



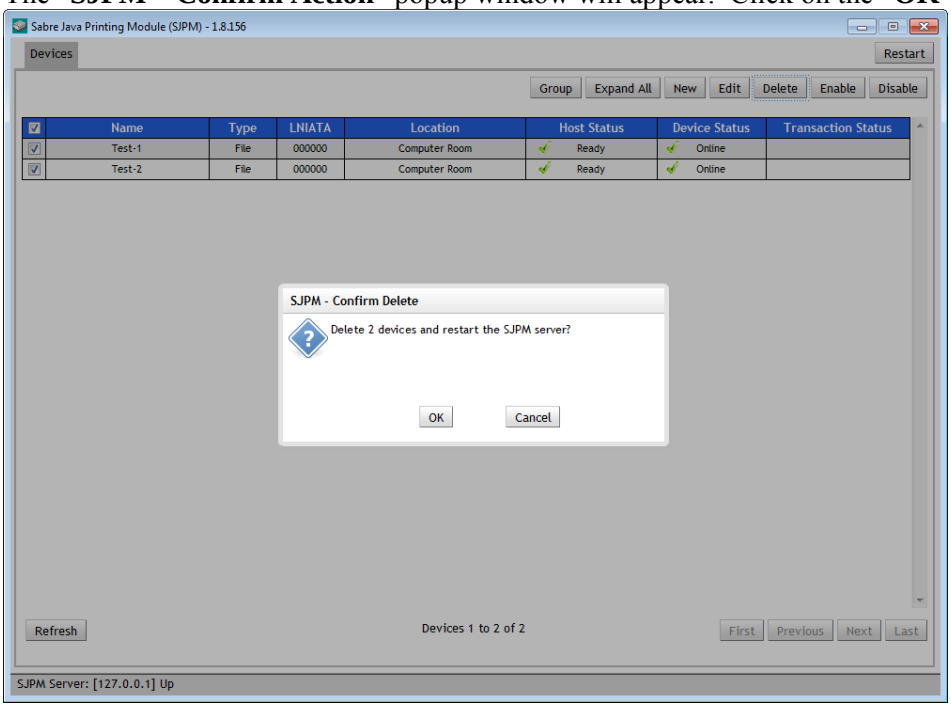
Method Three (3):
To delete multiple devices click on the checkbox for each device to be deleted and then click on the "**Delete**" button.



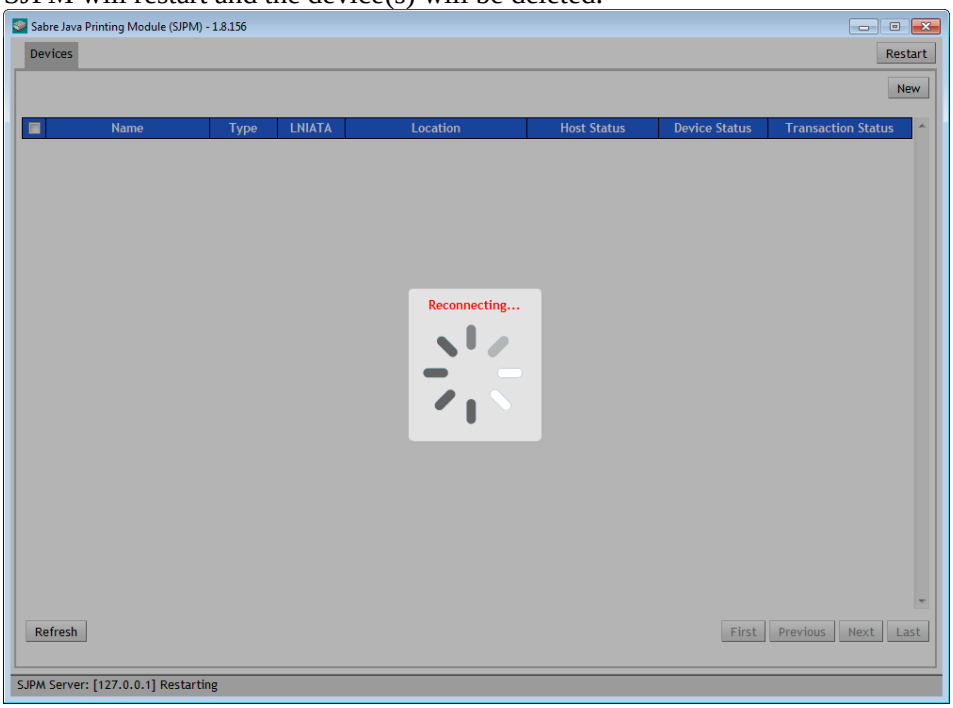
Method Four (4):
To delete all devices click on the checkbox in the header to select all devices and then click on the "**Delete**" button.



2. The "**SJPM – Confirm Action**" popup window will appear. Click on the "**OK**" button.



3. SJPM will restart and the device(s) will be deleted.



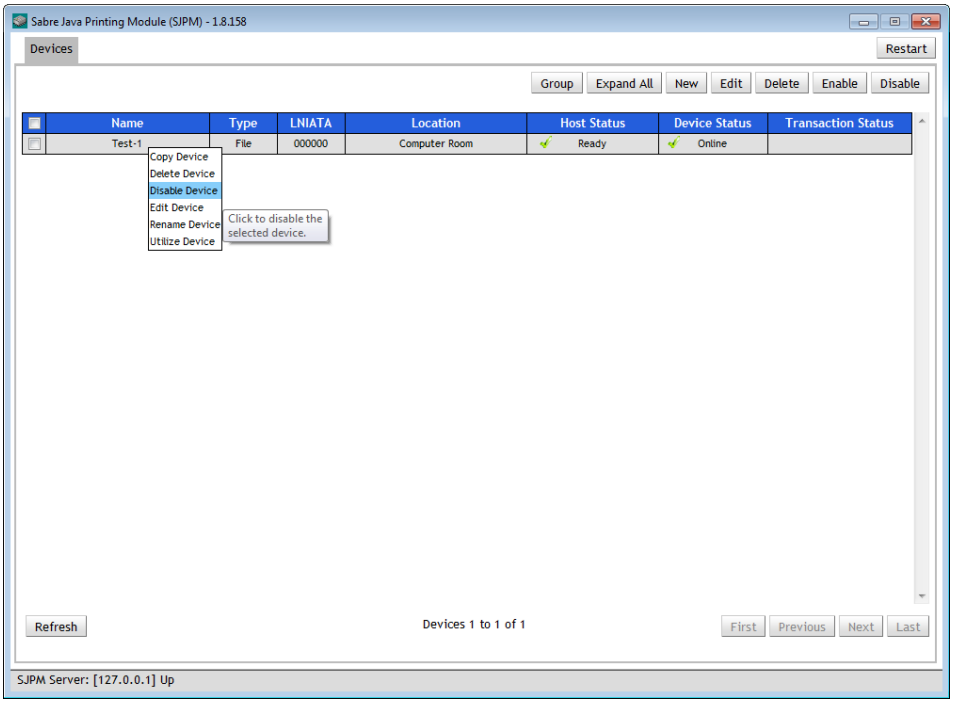
5.1.4 Disabling and Enabling Devices

This section describes the procedures for disabling and enabling devices in the SJPM Client GUI. Disabling a device is an alternative to device deletion, making the device inactive for testing or failover purposes while retaining the device and its configuration in the SJPM Client GUI.

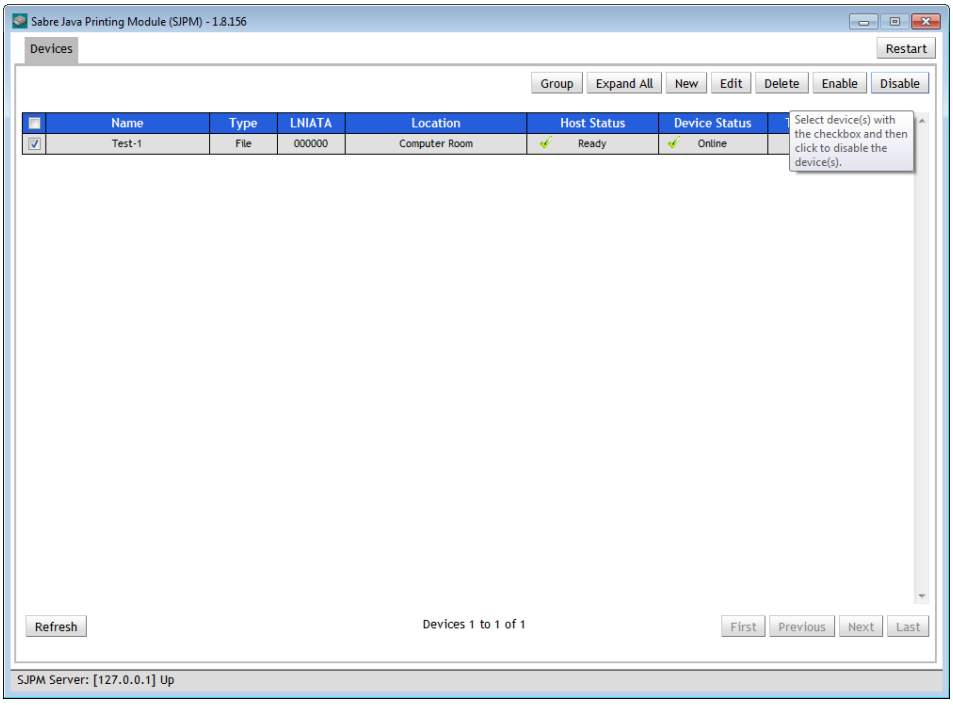
5.1.4.1 Disabling Devices

1. There are various methods in SJPM for disabling devices.

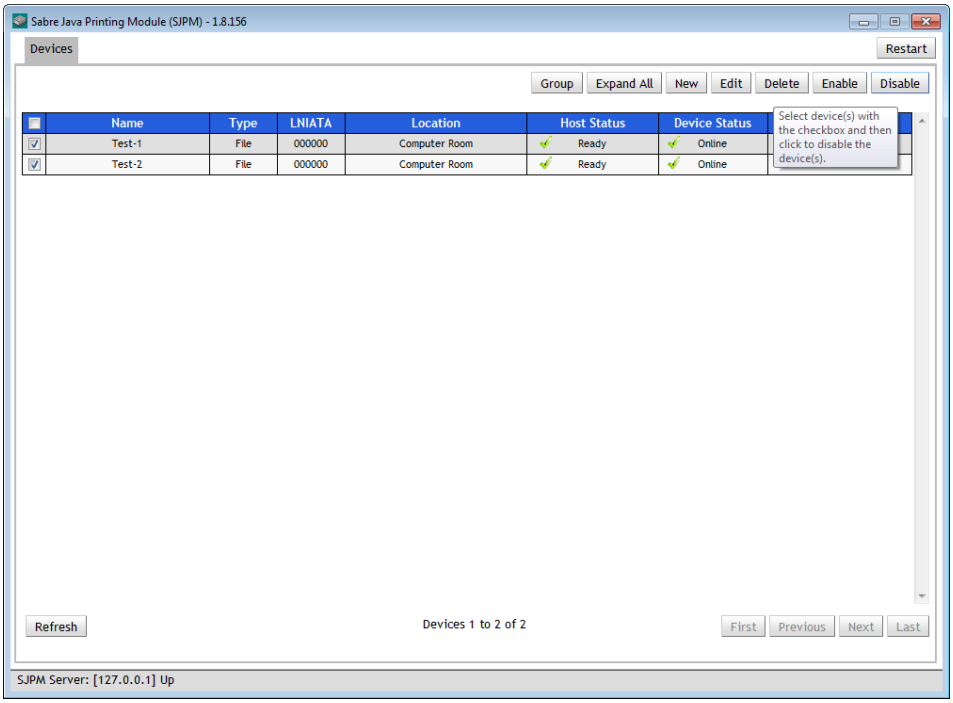
   Method One (1):
   Right click on the device to be disabled and then select the "**Disable Device**" menu item.



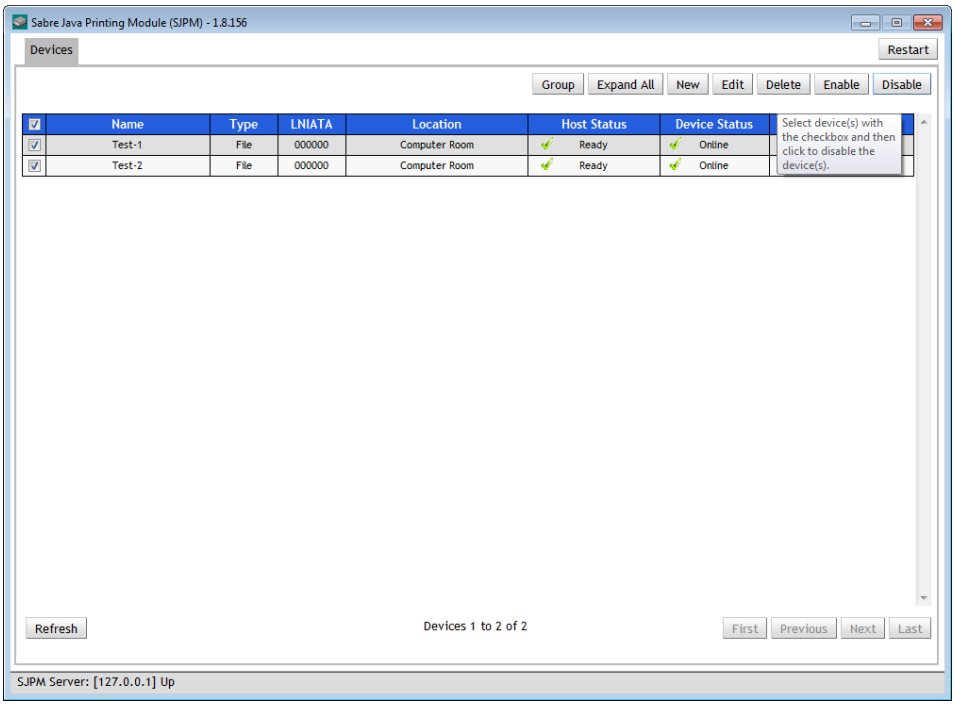
Method Two (2):
Click on the checkbox for the device to be disabled and then click on the "**Disable**" button.



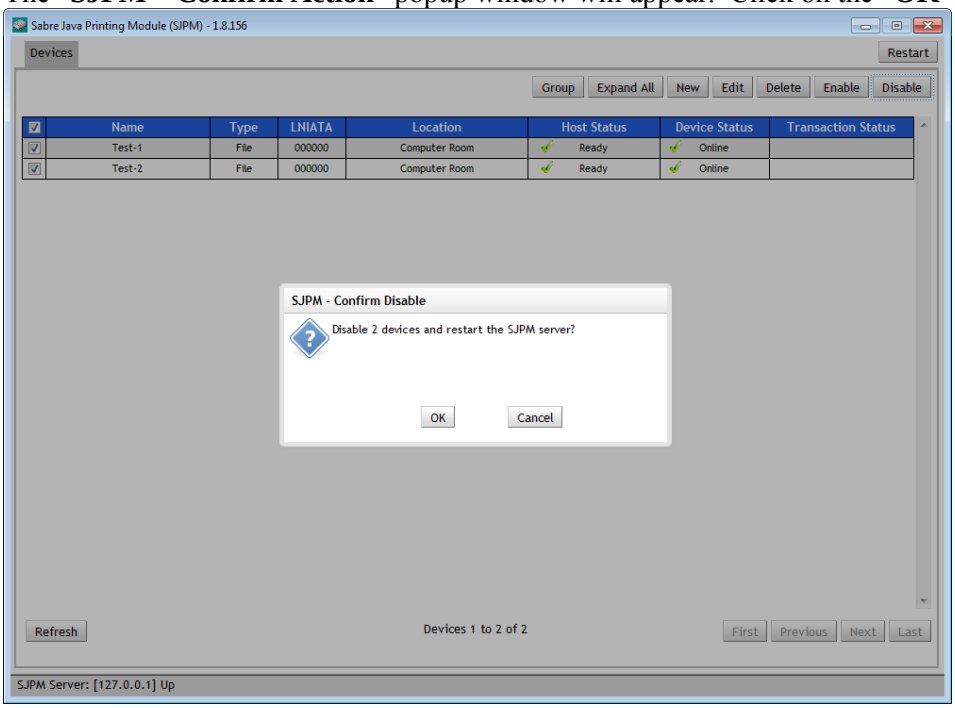
Method Three (3):
To disable multiple devices click on the checkbox for each device to be disabled and then click on the "**Disable**" button.



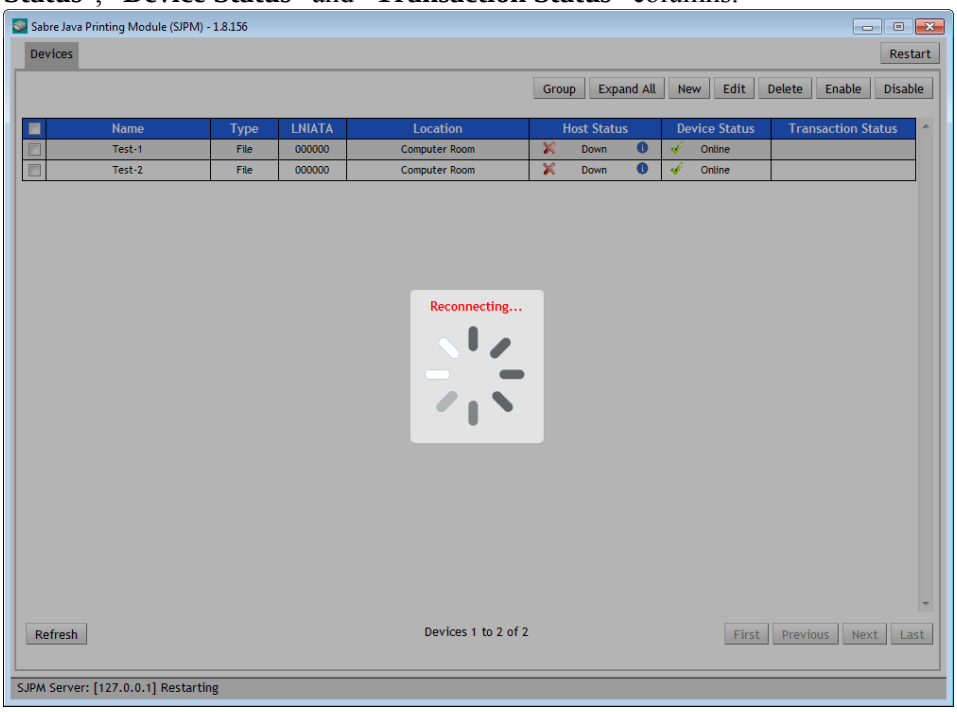
Method Four (4):
To disable all devices click on the checkbox in the header to select all devices and then click on the "**Disable**" button.

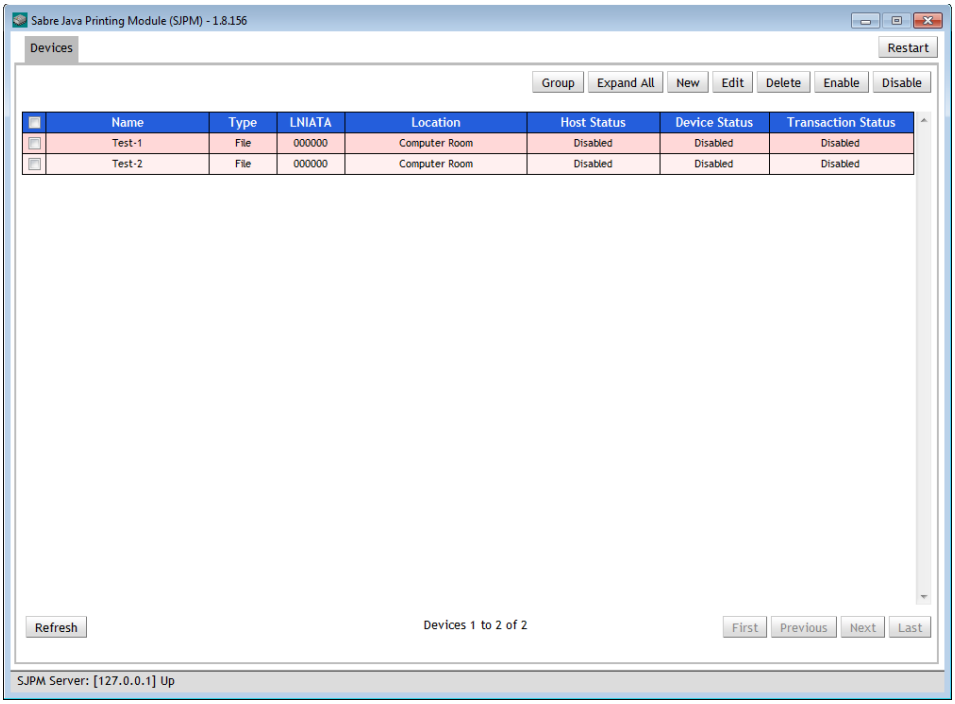


2. The "**SJPM – Confirm Action**" popup window will appear. Click on the "**OK**" button.



3. SJPM will restart and the device line will appear in red with "**Disabled**" in the "**Host Status**", "**Device Status**" and "**Transaction Status**" columns.

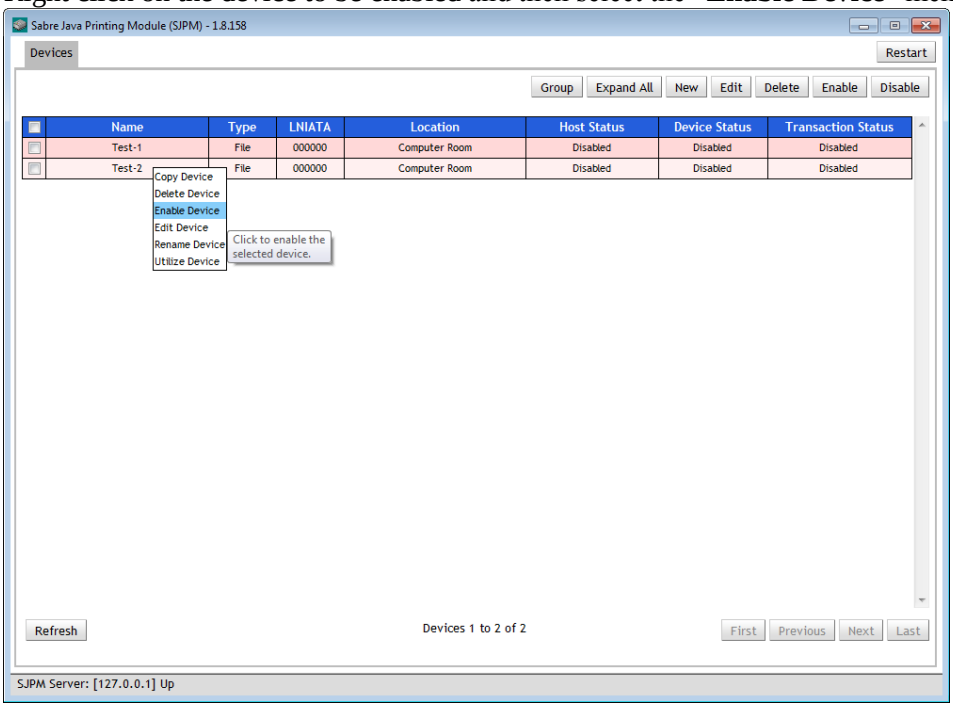




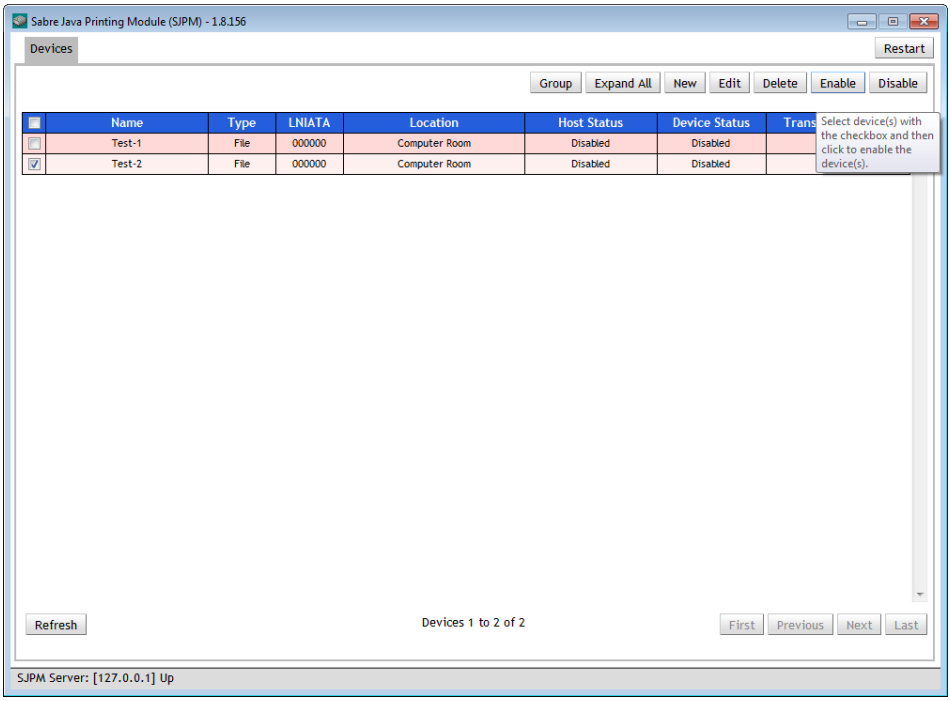
5.1.4.2 Enabling Devices

1. Disabled device lines will appear in red with "**Disabled**" in the "**Host Status**", "**Device Status**" and "**Transaction Status**" columns. There are various methods in SJPM for enabling devices.

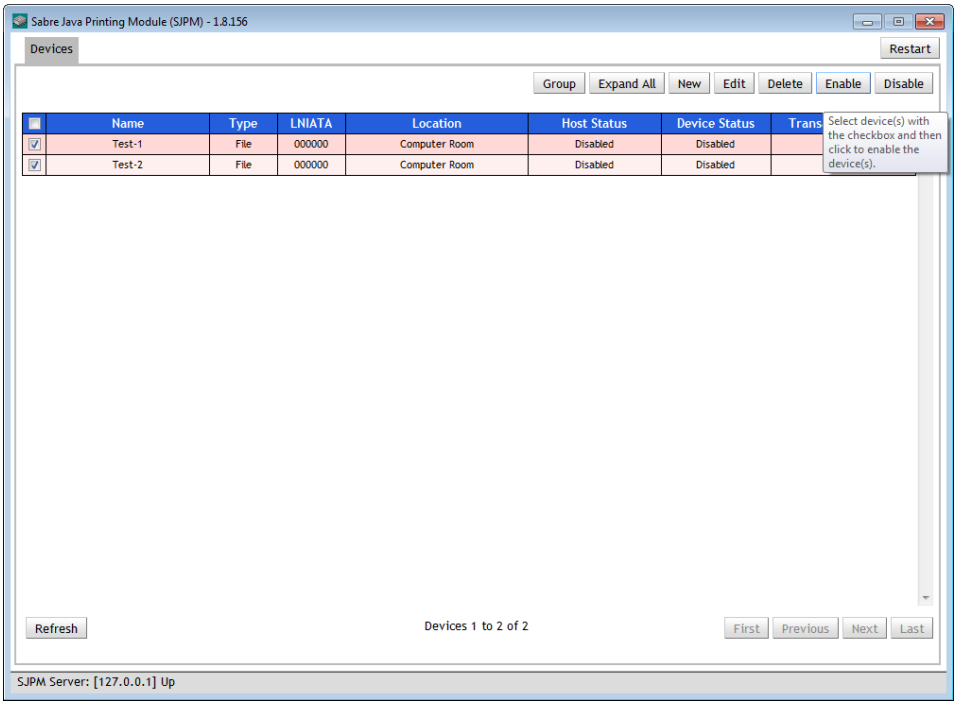
Method One (1):
Right click on the device to be enabled and then select the "**Enable Device**" menu item.



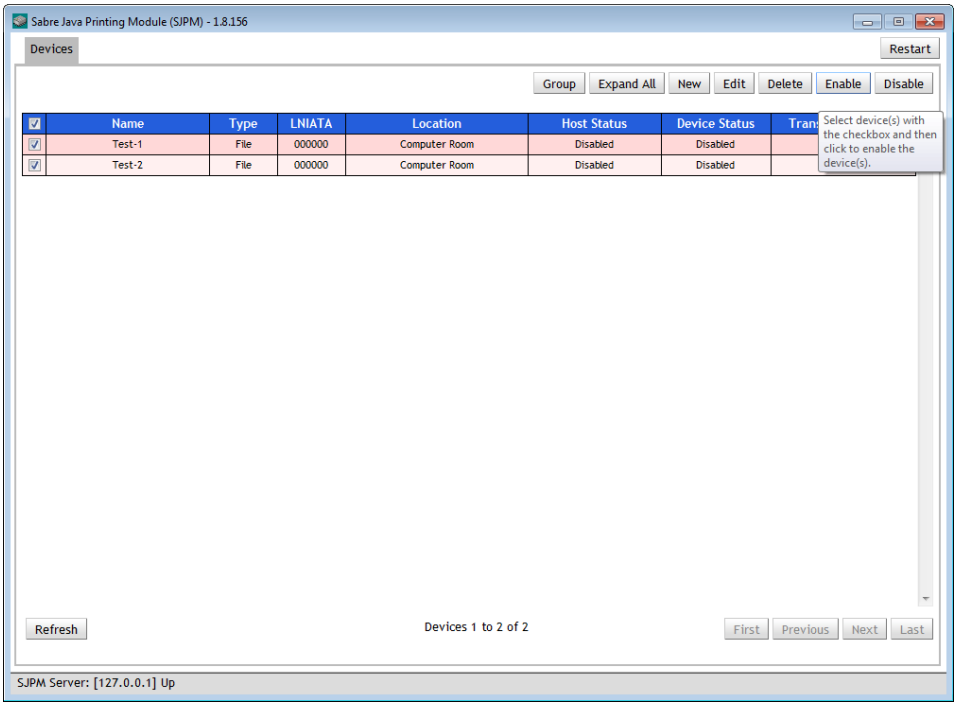
Method Two (2):
Click on the checkbox for the device to be enabled and then click on the "**Enable**" button.



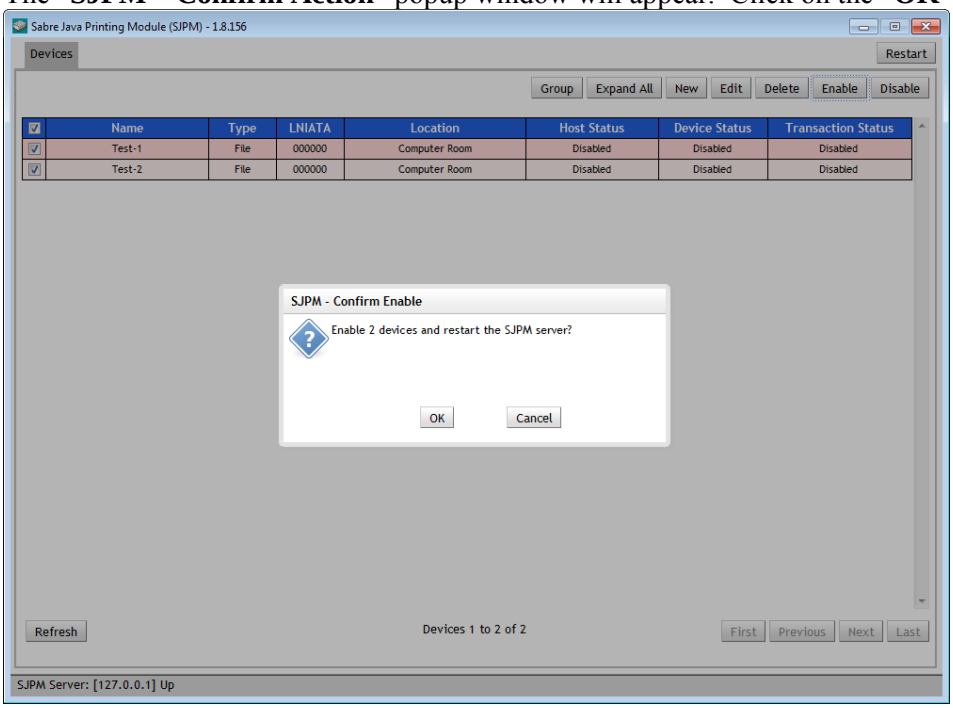
Method Three (3):
To enable multiple devices click on the checkbox for each device to be enabled and then click on the "**Enable**" button.



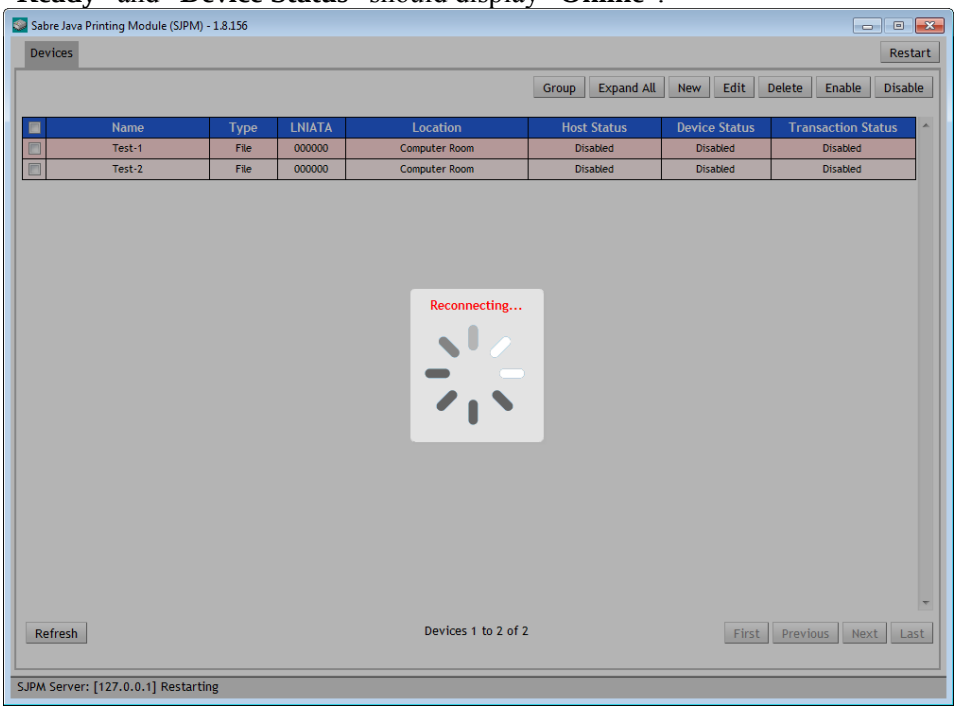
Method Four (4):
To enable all devices click on the checkbox in the header to select all devices and then click on the "**Enable**" button.

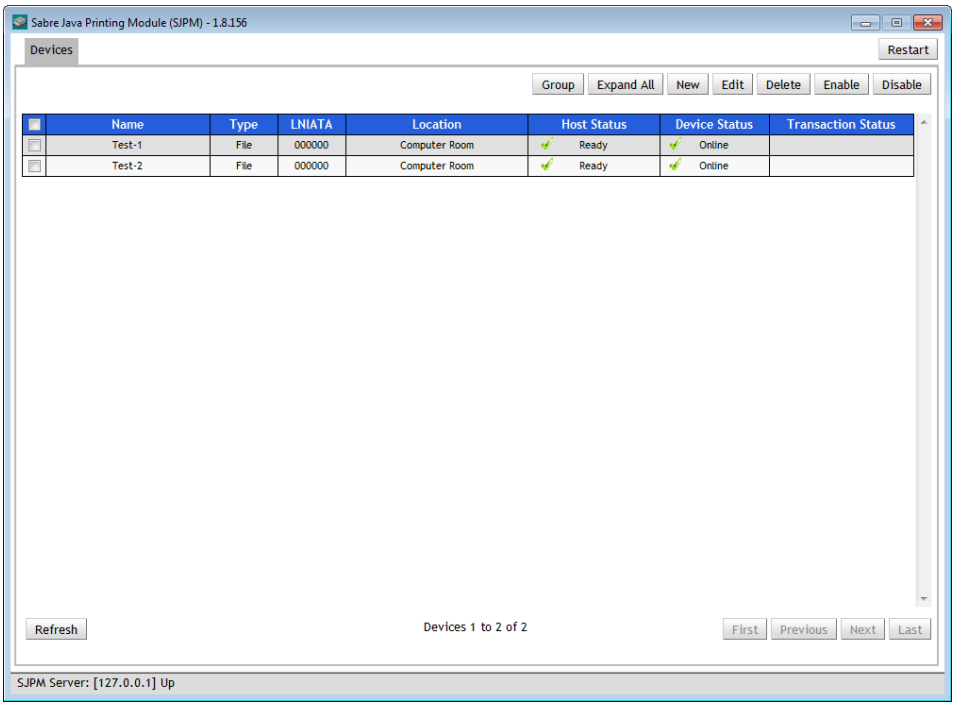


2. The "**SJPM – Confirm Action**" popup window will appear. Click on the "**OK**" button.



3. SJPM will restart and the device will be enabled. "**Host Status**" should display "**Ready**" and "**Device Status**" should display "**Online**".



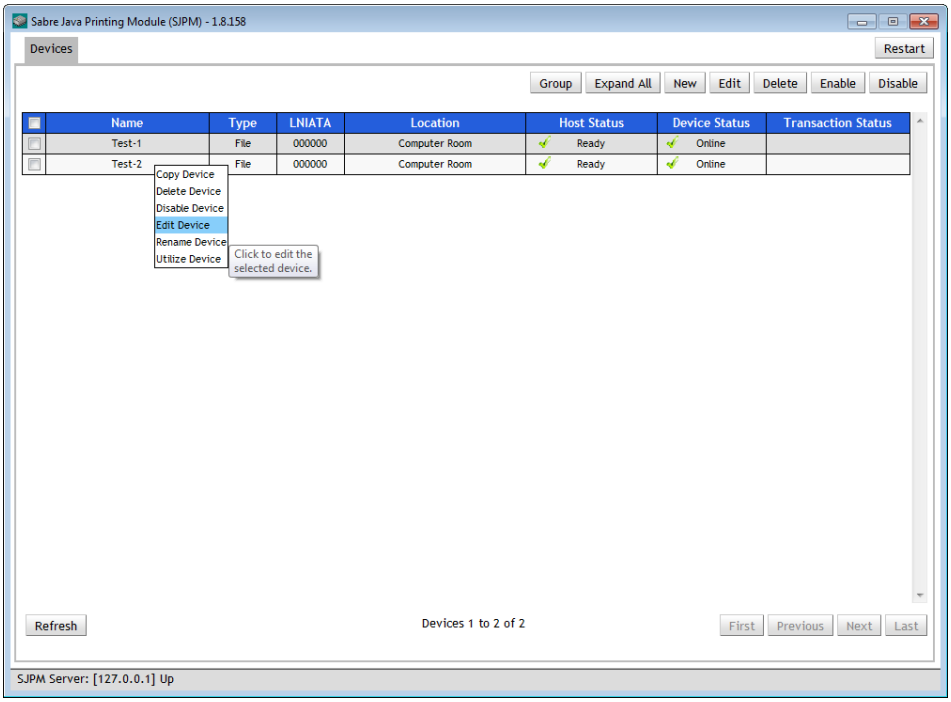


5.1.5 Editing a Device

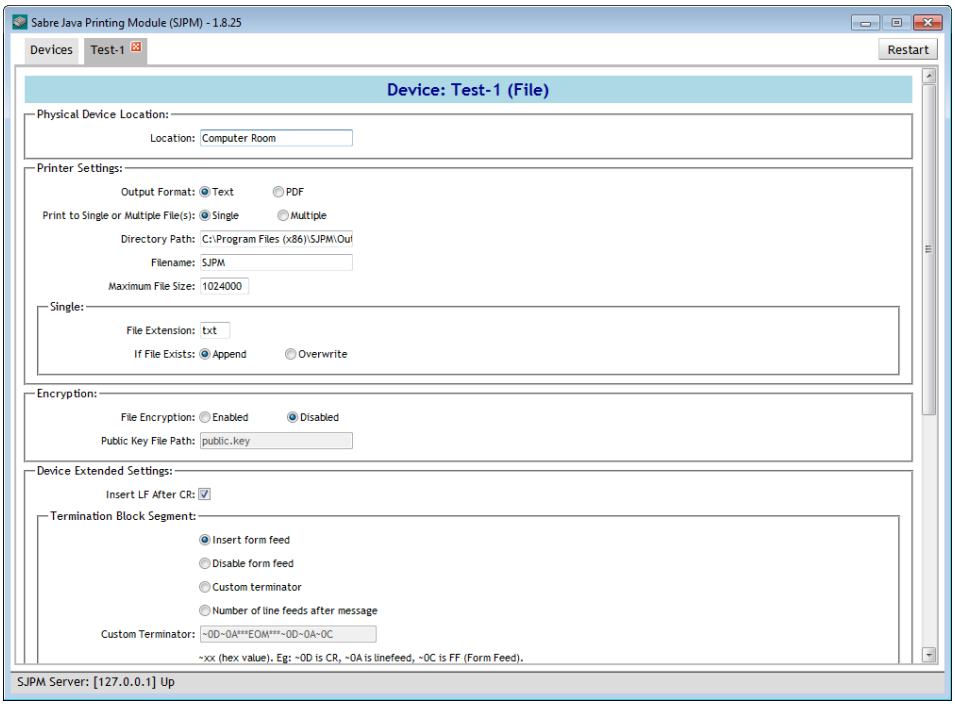
This section describes the procedure for editing a device in the SJPM Client GUI.

5.1.5.1 Editing a Device

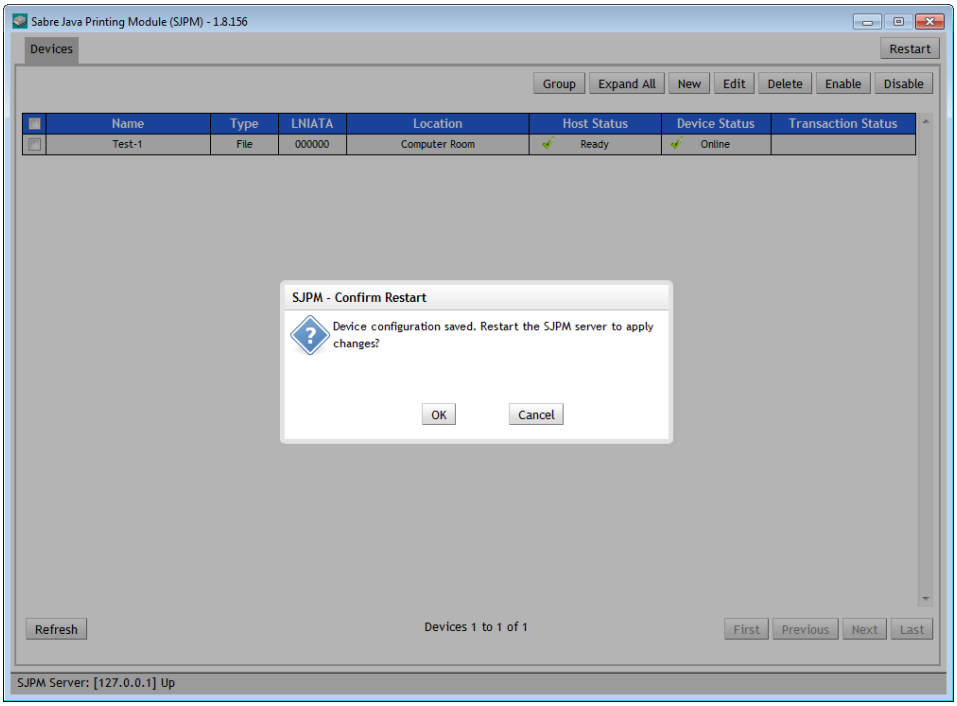
1. Click on the checkbox for the device line to be edited and then click on the "**Edit**" button or right click on the device line to be edited and then select the "**Edit Device**" menu item.



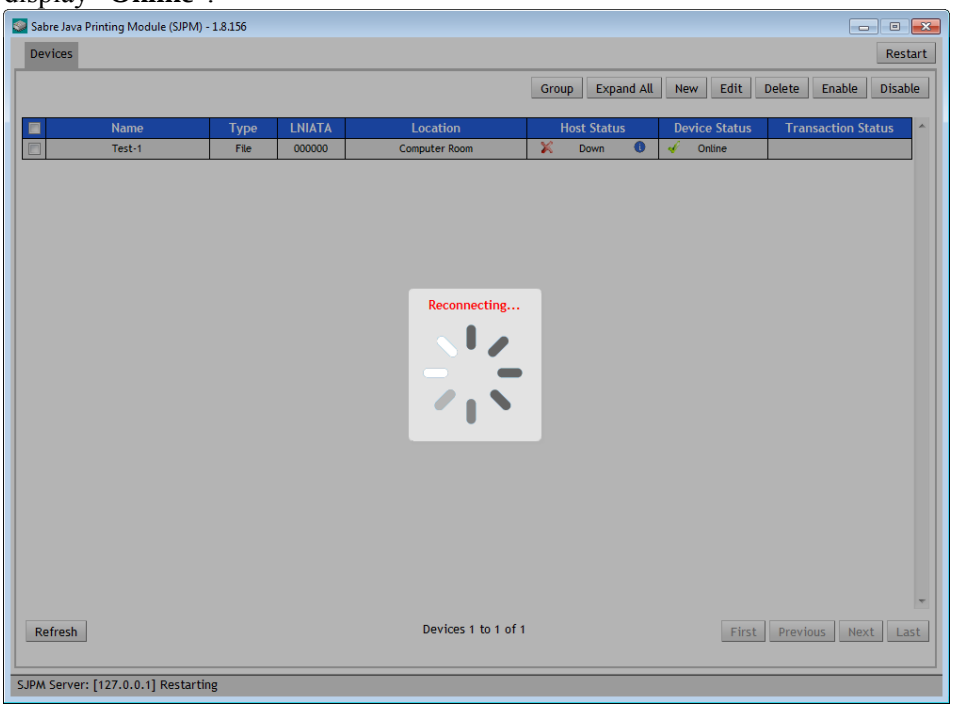
2. The device's configuration tab will appear. Edit the device (Refer to section **6.2**) and then click on the "**Save**" button.

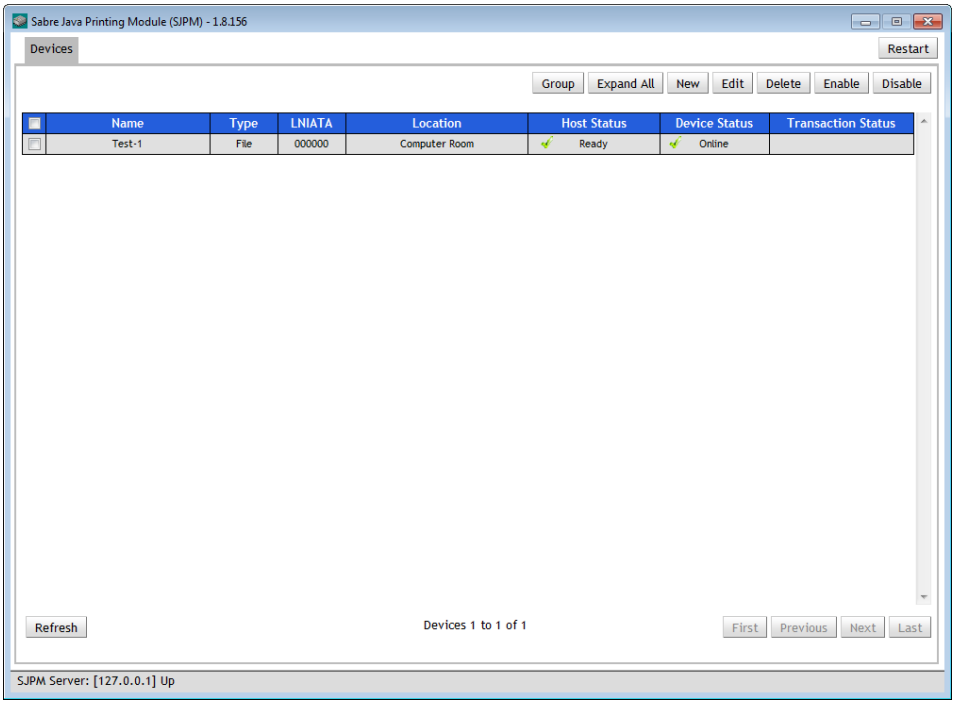


3. The "**SJPM – Confirm Restart**" popup window will appear. Click on the "**OK**" button.



4. SJPM will restart. "**Host Status**" should display "**Ready**" and "**Device Status**" should display "**Online**".





5.1.6 Grouping Devices

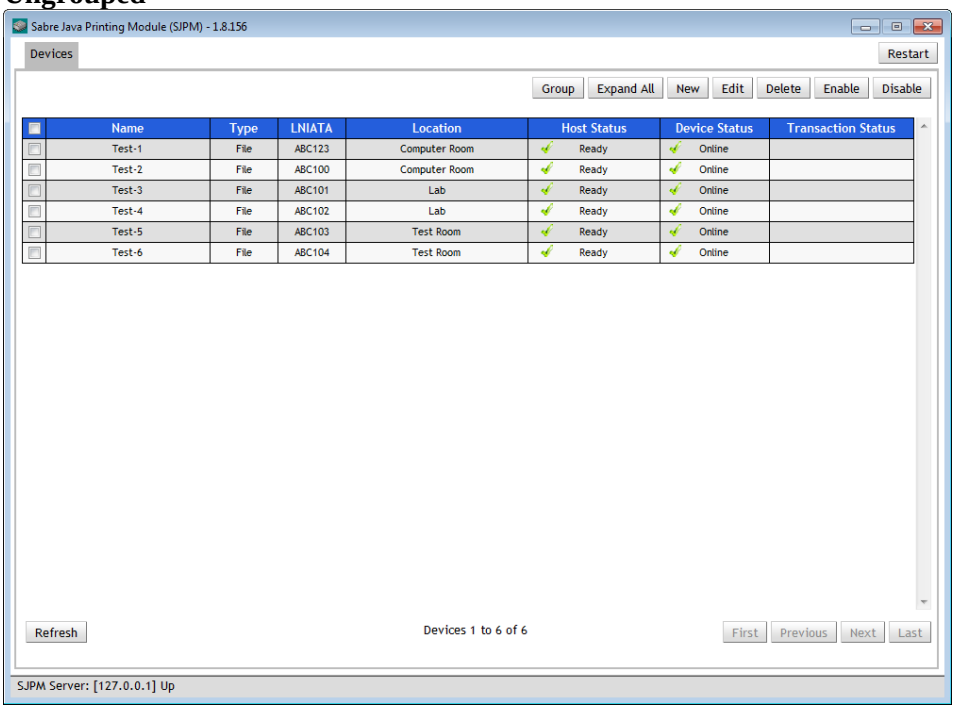
This section describes the procedure for grouping devices in the SJPM Client GUI. The "**Group**" and "**Ungroup**" buttons are located in the upper right corner of the SJPM Client GUI, inside the "**Devices**" tab, under the "**Restart**" button when device(s) are present.

The "**Group**" button groups together like device lines based on the "**Location**" field of the device lines. The "**Ungroup**" button ungroups grouped device lines. Grouping can be used to group similar devices, devices for specific functionality, or devices for specific offices.

5.1.6.1 Grouping Devices

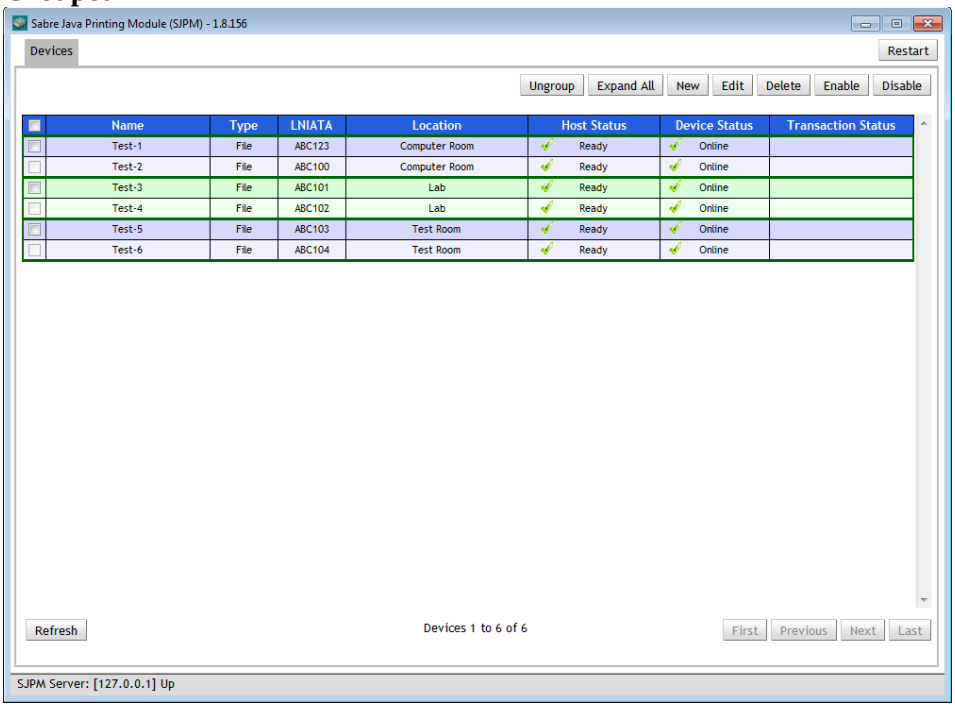
1. When you add or edit your devices make the "**Location**" the same for all of the devices you want to be grouped together. The example below shows three (3) different groupings ("**Computer Room**", "**Lab**", and "**Test Room**").

Ungrouped



2. Click on the "**Group**" button to group the device lines. Click on the "**Ungroup**" button to ungroup the device lines.

Grouped



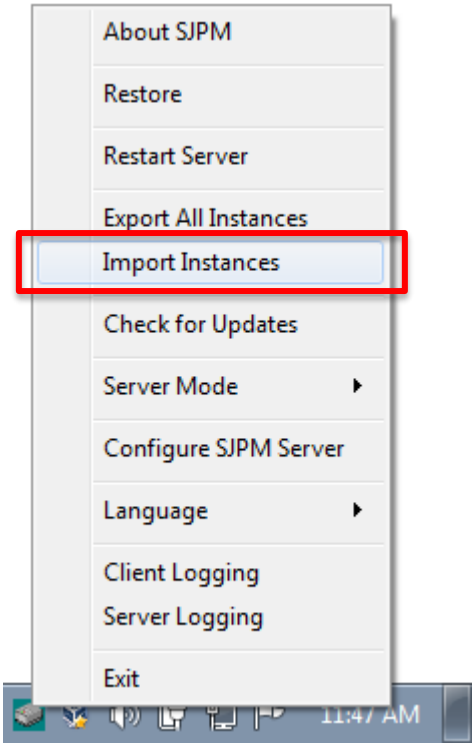
5.1.7 Importing and Exporting Devices

This section describes the procedures for importing and exporting devices in the SJPM Client GUI.

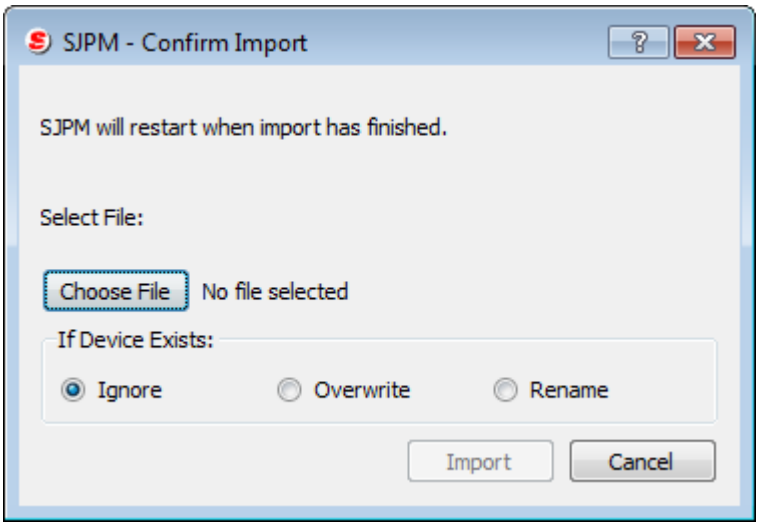
5.1.7.1 Importing Devices

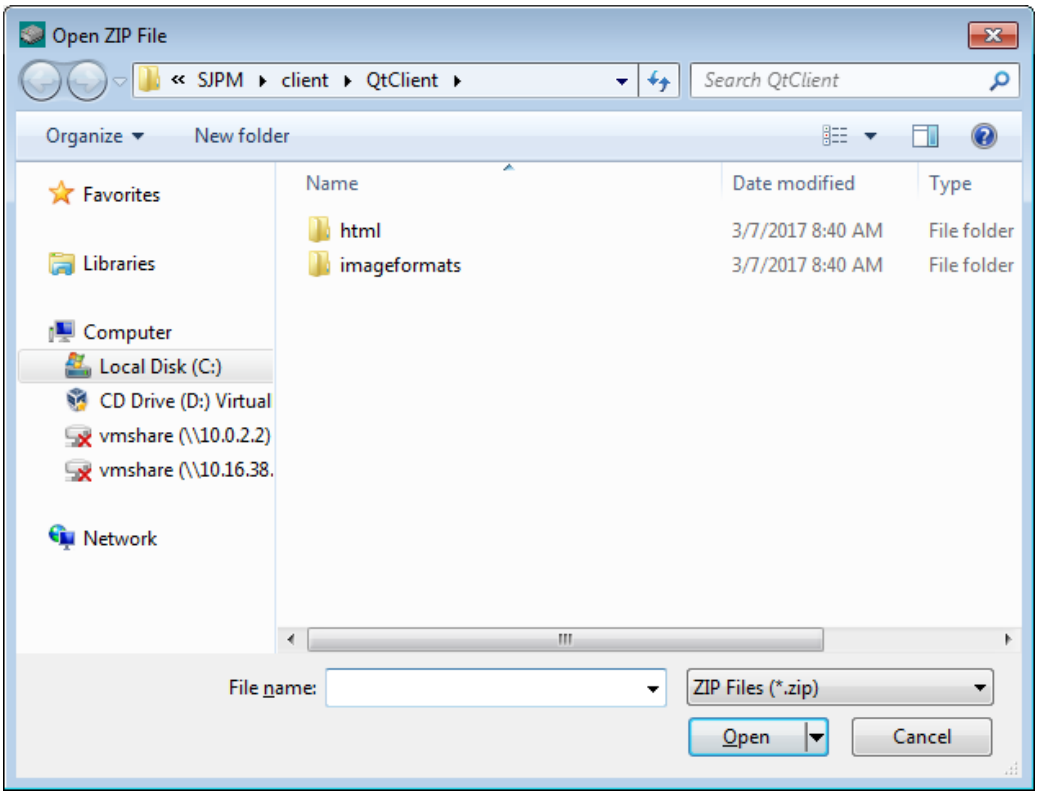
Device files must be zipped with an extension of "**.zip**" and no sub-folders for use with the import function of SJPM (**Example:** SJPM_instances_20170131140127636.zip). Follow the steps below to restore your backup of SJPM devices and configurations.

1. Right click on the "**SJPM Windows System Tray Icon**" and then click on the "**Import Instances**" menu item.

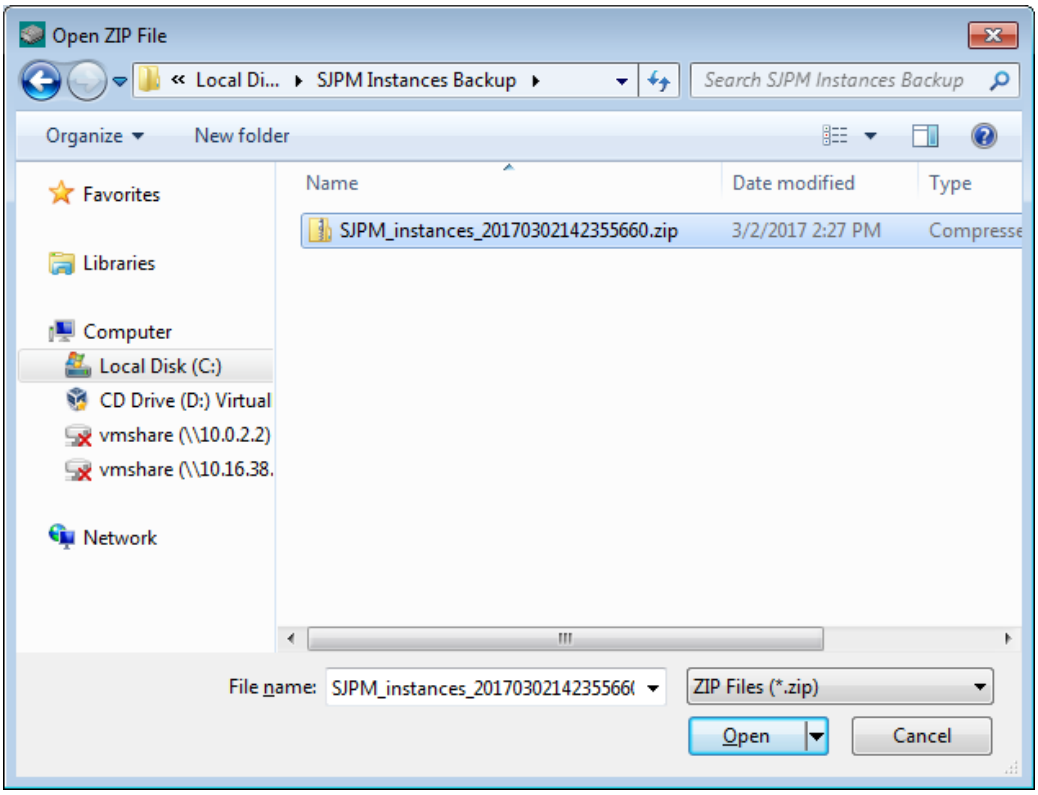


2. The "**SJPM TN – Confirm Import**" popup window will appear. Click on the "**Choose File**" button. The "**Open ZIP File**" window will appear.

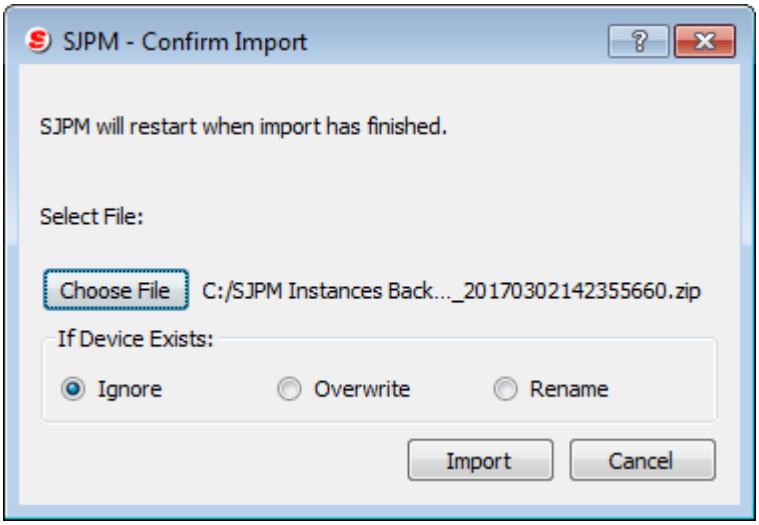




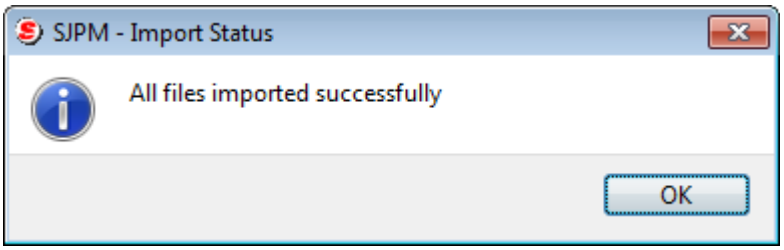
3. Navigate to the location of your instances zip file and select it. Then click on the "**Open**" button.



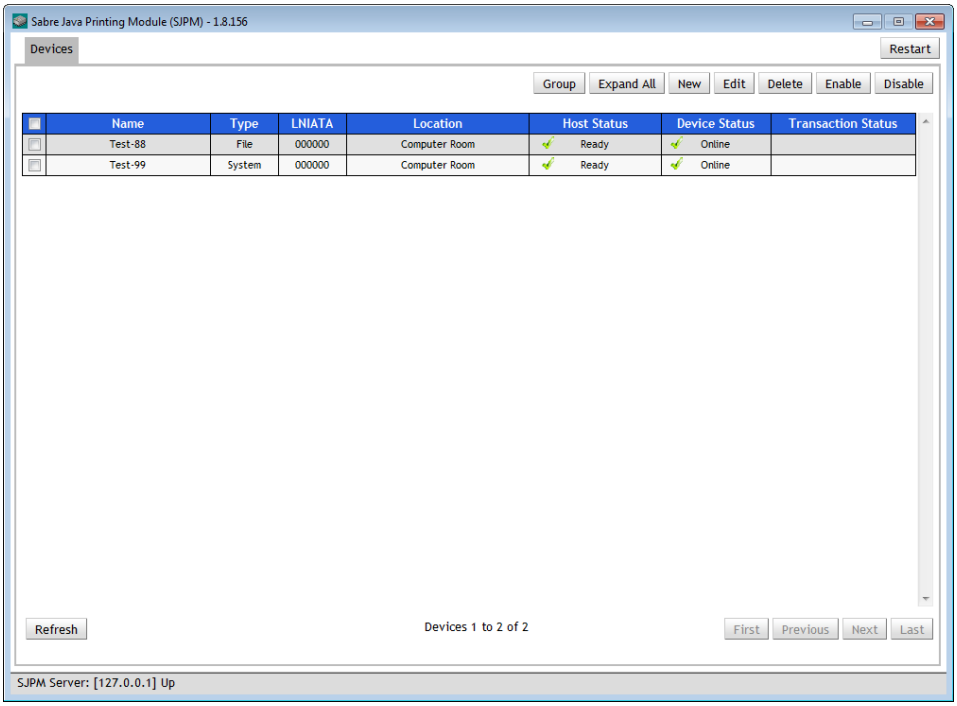
4. Then on the "**SJPM TN – Confirm Import**" popup window click on the "**Import**" button.



5. Then on the "**SJPM TN – Import Status**" popup window click on the "**OK**" button.

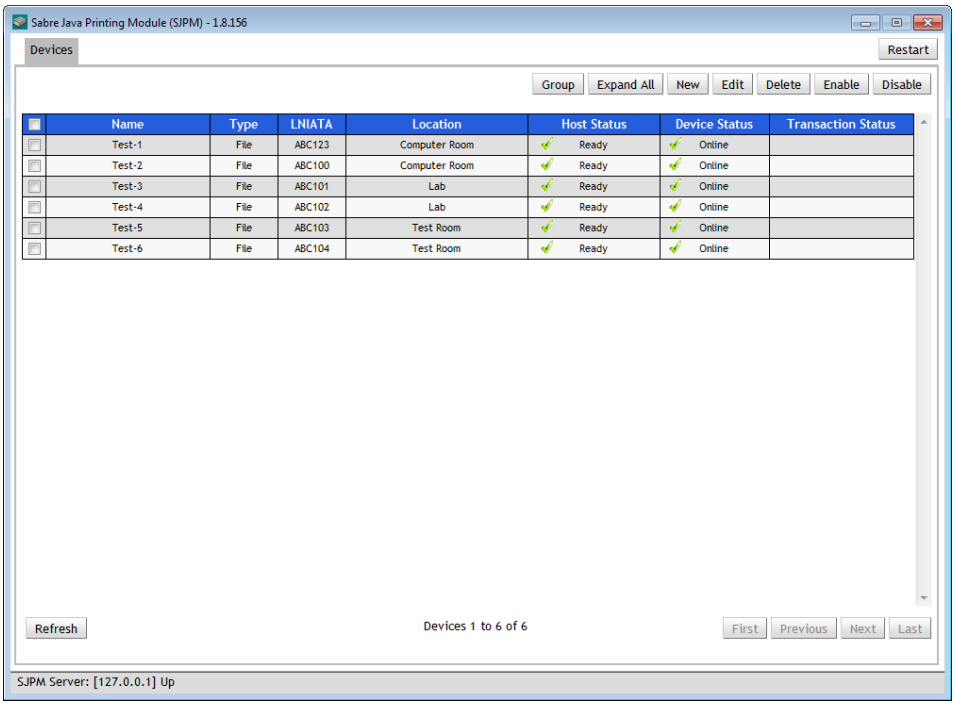


SJPM will restart and the imported devices will display in the SJPM Client GUI.

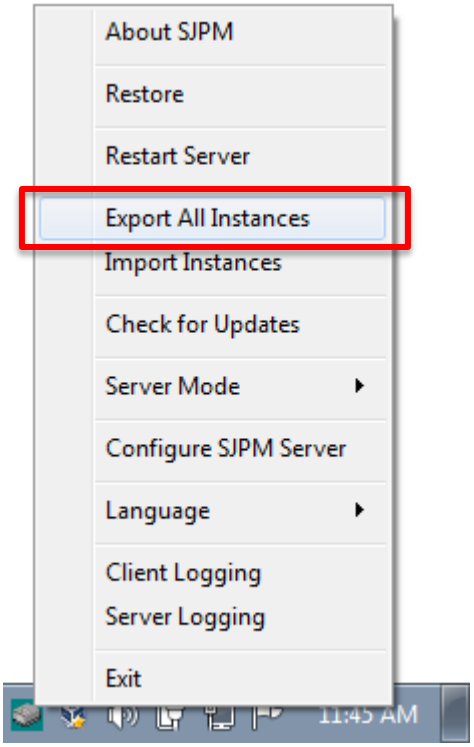


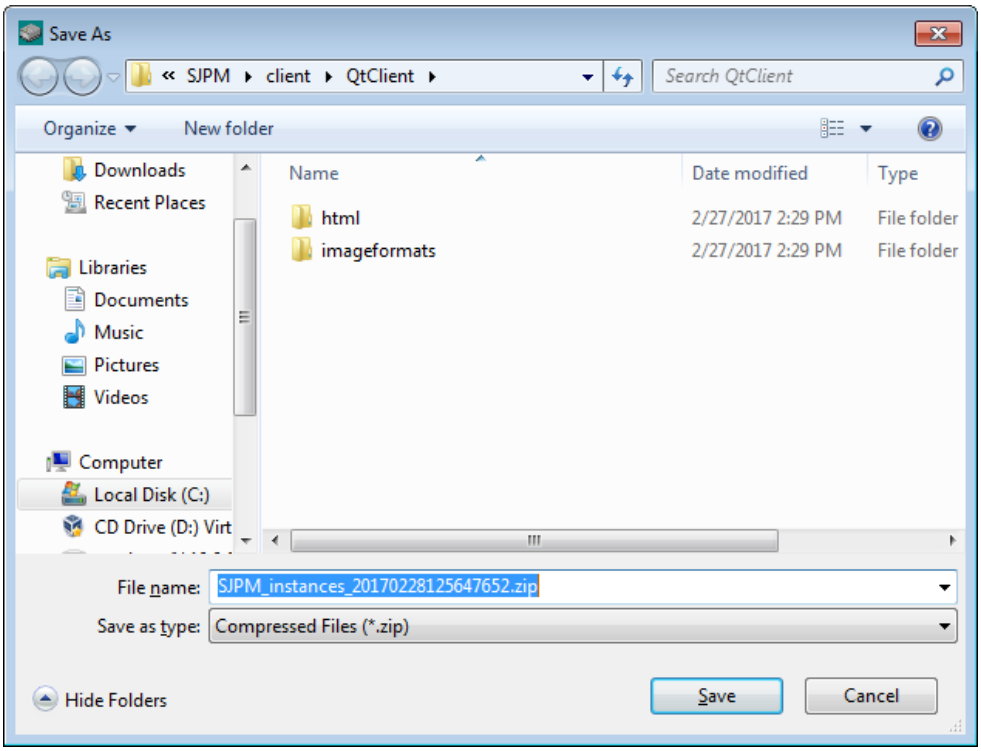
5.1.7.2 Exporting Devices

1. Once you have added and configured all of your devices follow these steps to make a backup copy that can be used to restore your SJPM devices and configurations.

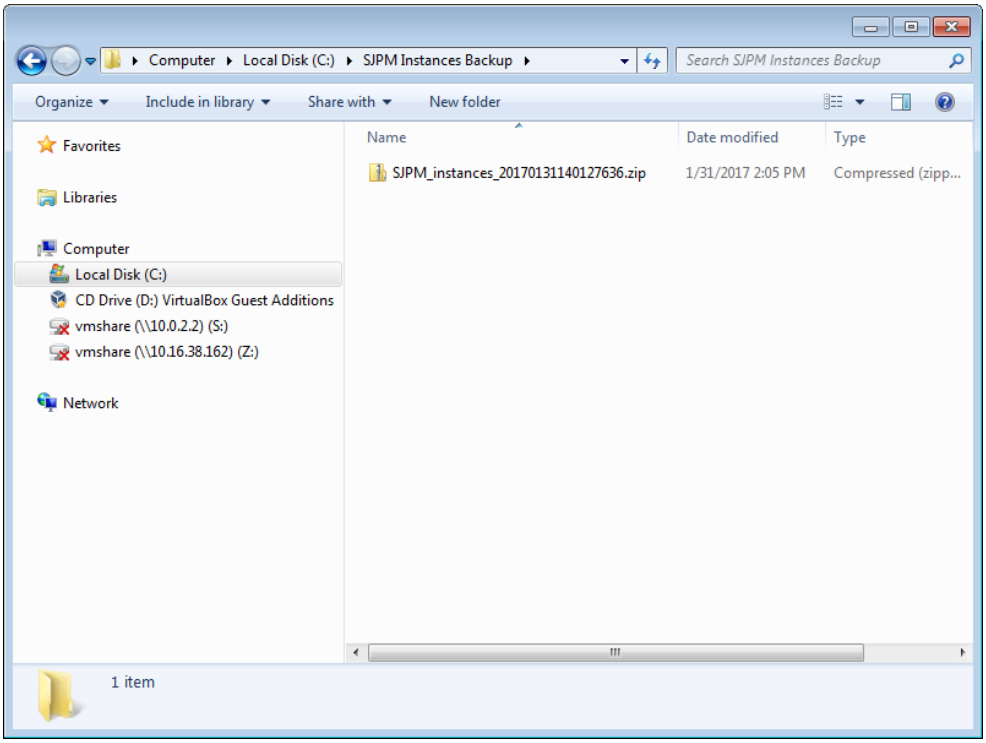


2. Right click on the "**SJPM Windows System Tray Icon**" and then click on the "**Export All Instances**" menu item. The "**Save As**" window will appear.





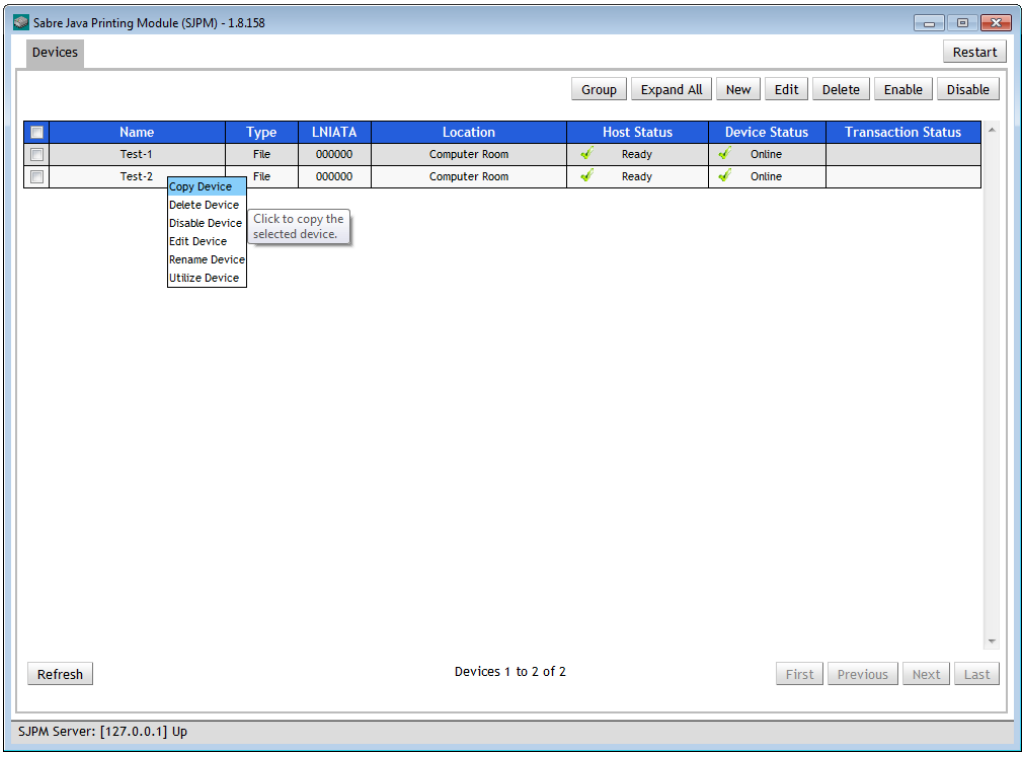
3. Browse to a location on the hard drive and create a folder to save the instances zip file into and then click on the "**Save**" button.



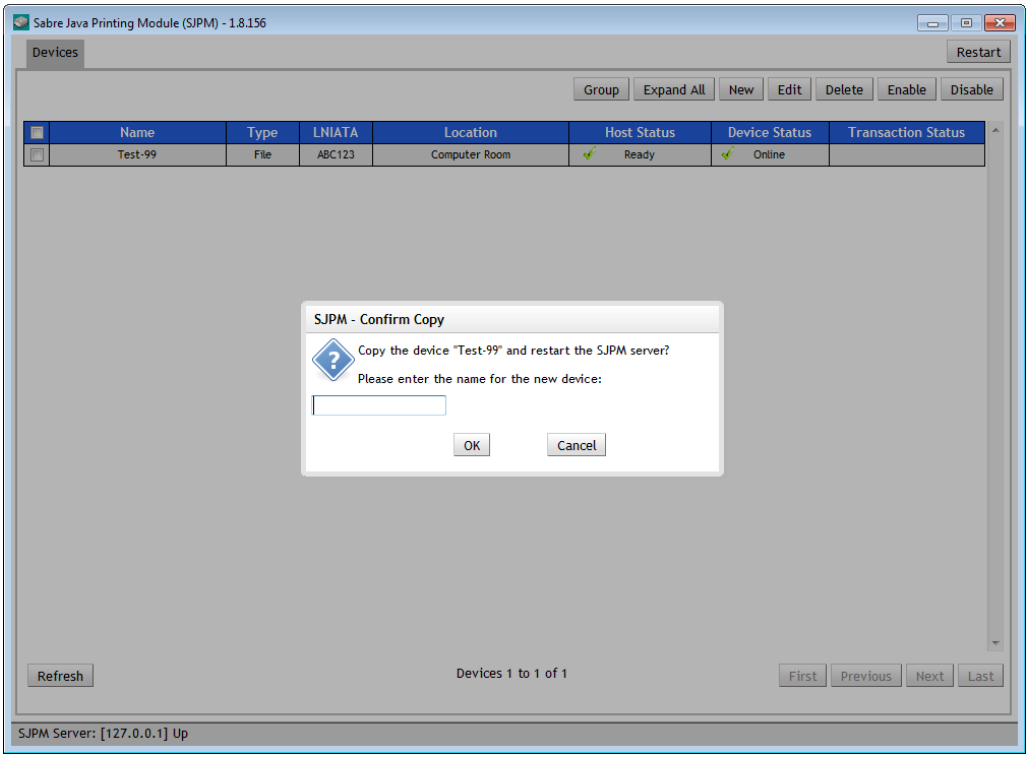
5.1.8 Copying a Device

This section describes the procedure for copying a device in the SJPM Client GUI.

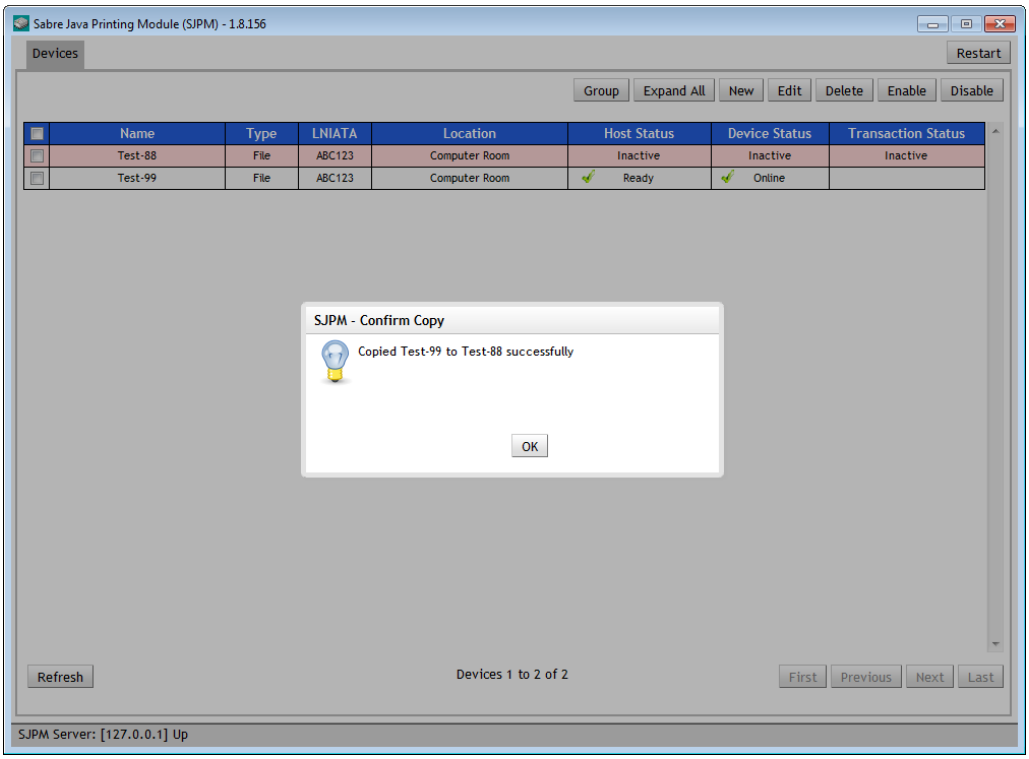
1. Right click on the device line to be copied and then select the "**Copy Device**" menu item.



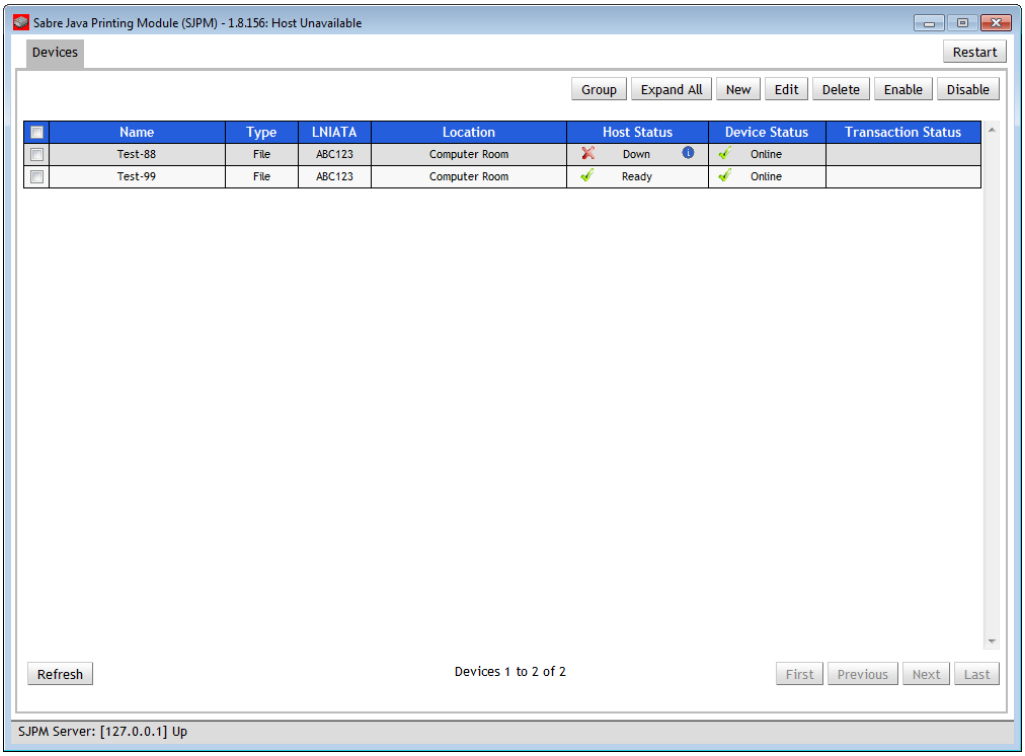
2. The "**SJPM – Confirm Copy**" pop up window will appear. Type in the name of the new device and then click on the "**OK**" button to copy or the "**Cancel**" button to cancel the copy.



3. On the "**SJPM – Confirm Copy**" pop up window, a confirmation message will be displayed. Click on the "**OK**" button to restart SJPM.



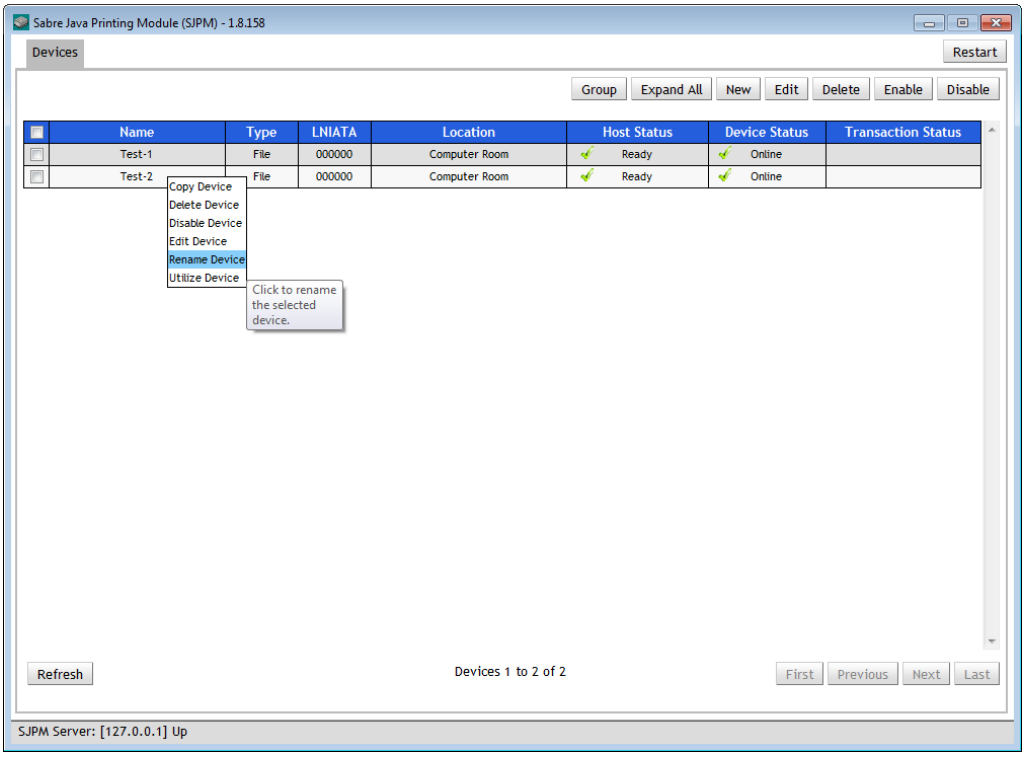
4. Edit, configure and save the new device **making sure to assign the new device with its own LNIATA**.



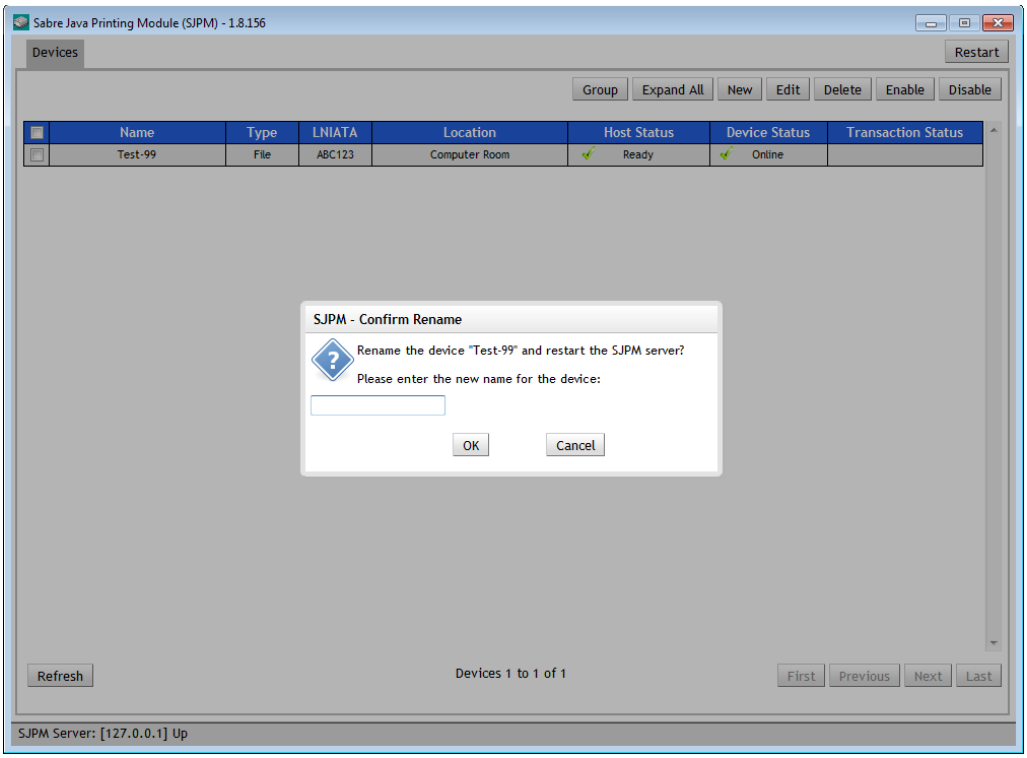
5.1.9 Renaming a Device

This section describes the procedure for renaming a device in the SJPM Client GUI.

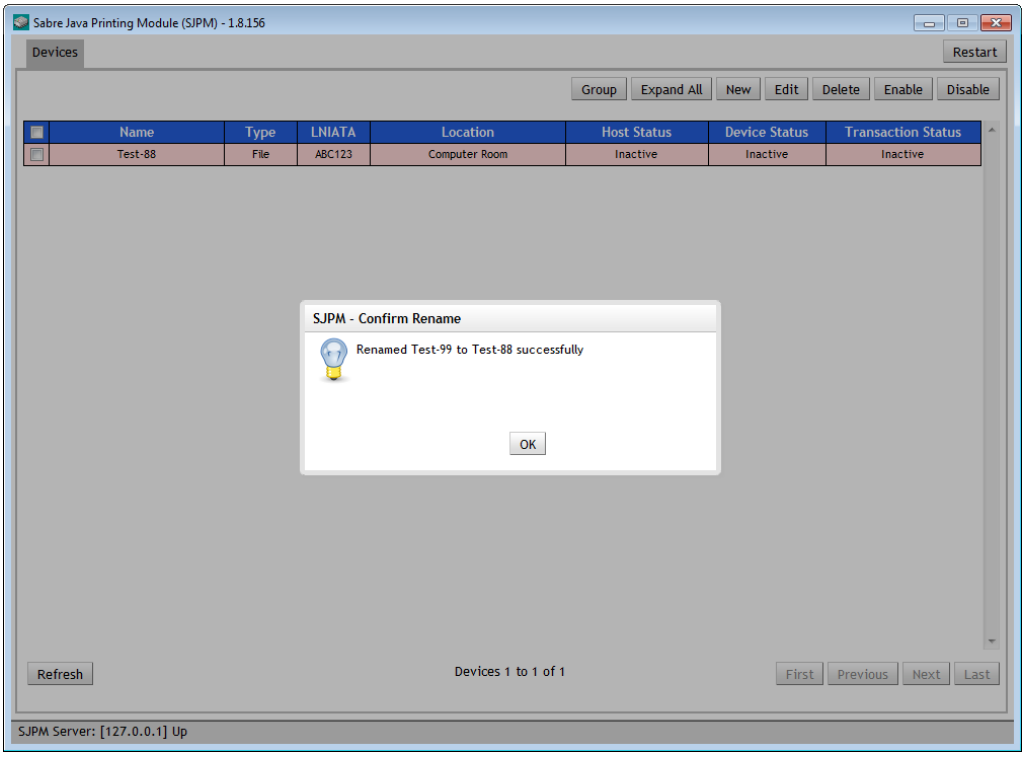
1. Right click on the device line to be renamed and then select the "**Rename Device**" menu item.



2. The "**SJPM – Confirm Rename**" pop up window will appear. Type in the new name for the device and then click on the "**OK**" button to rename or the "**Cancel**" button to cancel the rename.



3. On the "**SJPM – Confirm Rename**" pop up window, a confirmation message will be displayed. Click on the "**OK**" button to restart SJPM.



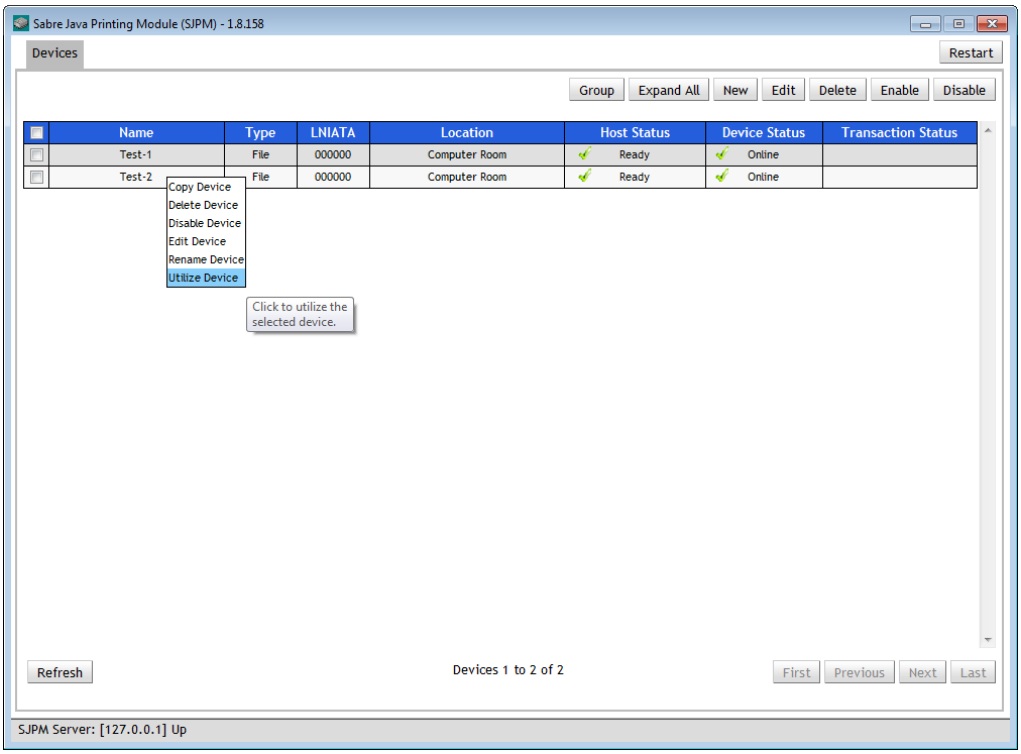
5.1.10 Utilize Device

This section describes the procedure to "**Utilize**" a device for printing from the device line in the SJPM Client GUI. The "**Utilize Device**" feature is capable of printing **International Unicode Character** data in various languages such as English, Spanish, French, Japanese (which is the same a Simplified Chinese), Chinese Traditional, and Korean.

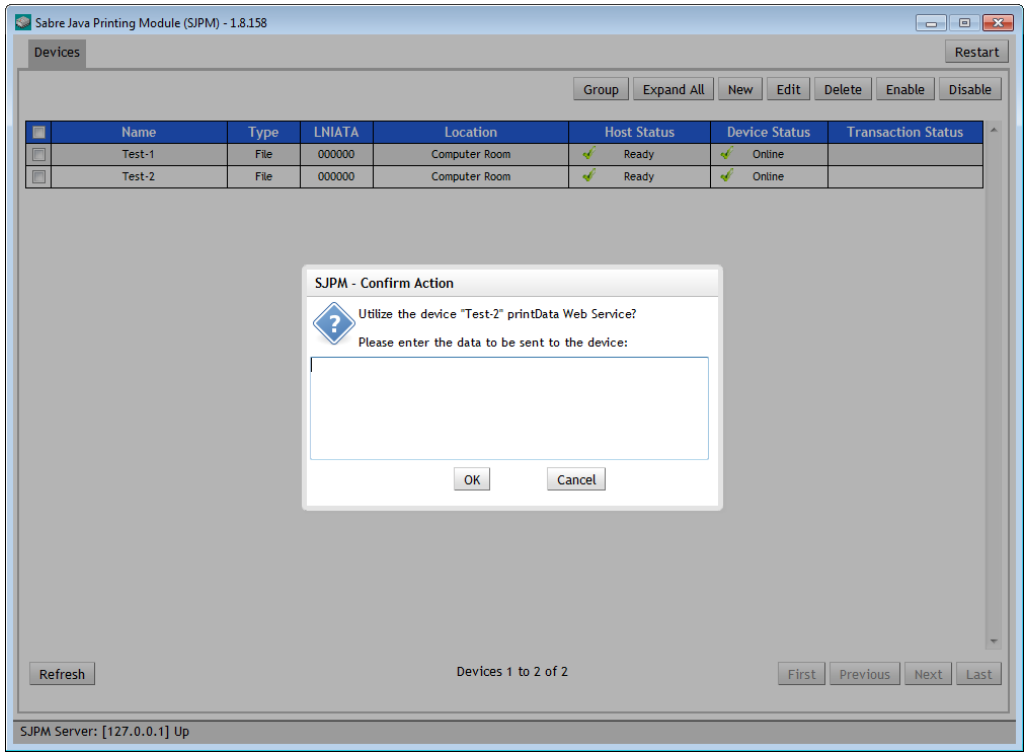
SJPM is capable of printing International Unicode Characters both to hardcopy and ATB2 devices.

Note: Not all SJPM devices are capable of printing International Unicode data. Device types that are capable of printing International Unicode data include hardcopy devices ("**File**", "**LPR**", and "**System**") and ATB2 devices ("**ATB2File**", "**ATB2LPR**", and "**ATB2System**"). ATB2 devices will require the data to be ATB2 formatted. The "**Group**" and "**Proxy**" drivers can also be used with the above devices.

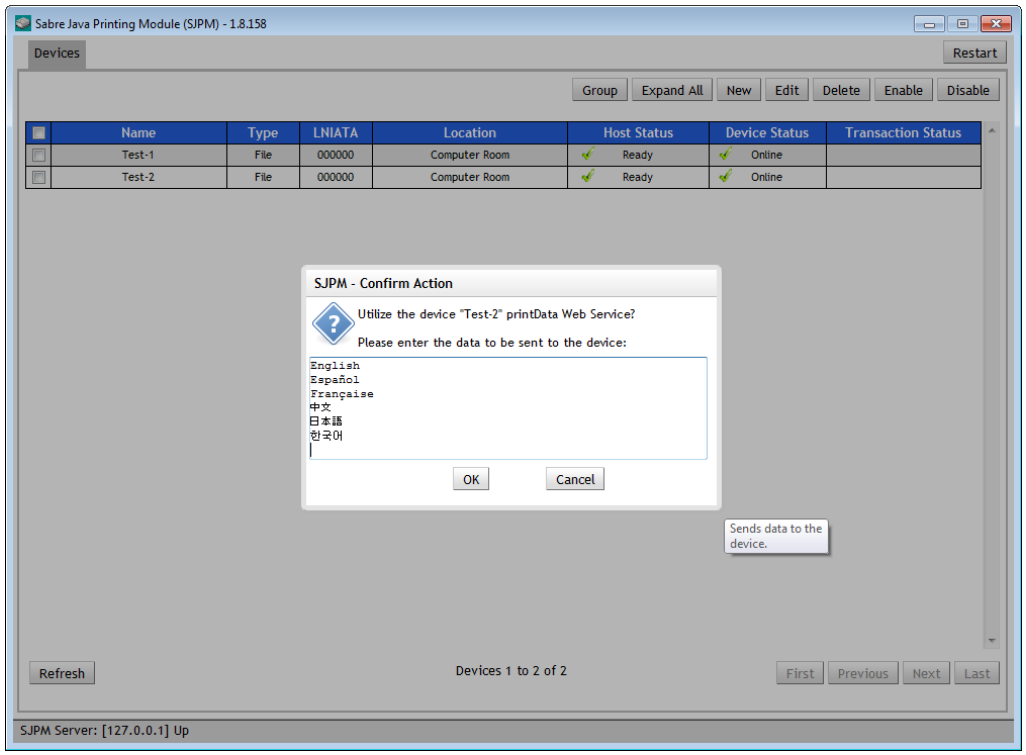
1. Right click on the device line to print to and then select the "**Utilize Device**" menu item.



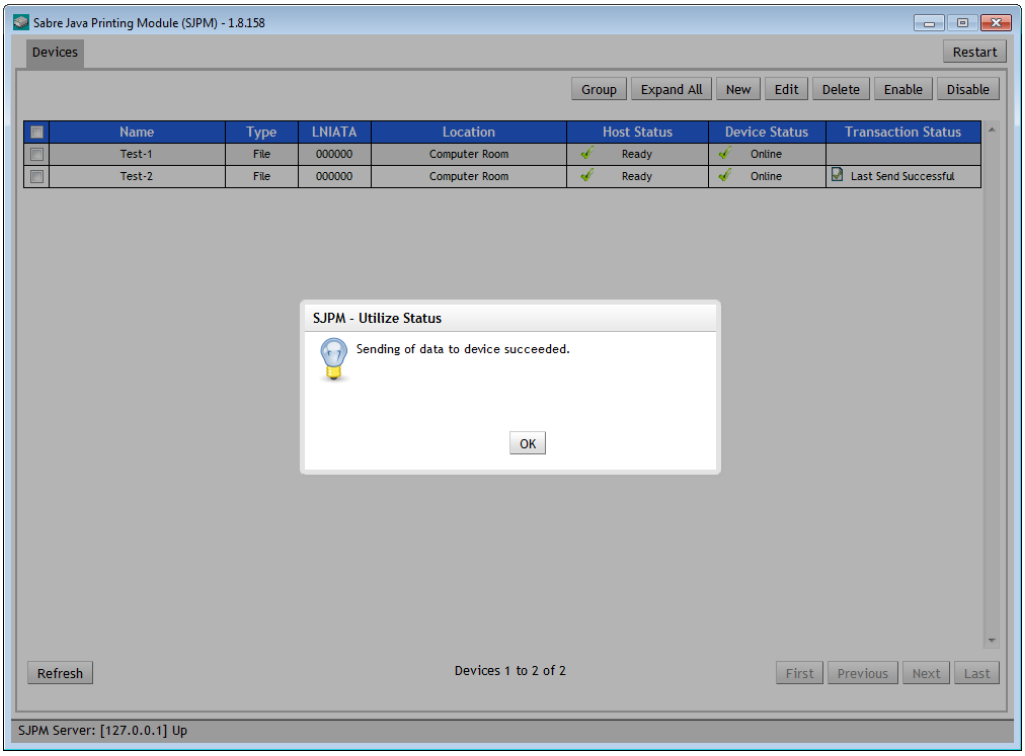
2. The "**SJPM – Confirm Action**" popup window will appear.



3. Paste the data to be sent to the device into the box and then click on the "**OK**" button to send the data to the device or "**Cancel**" to cancel sending the data.



4. The "**SJPM – Utilize Status**" popup window will appear with the status. Click on the "**OK**" button.



Configurations and Drivers

6

6.1 Configurations

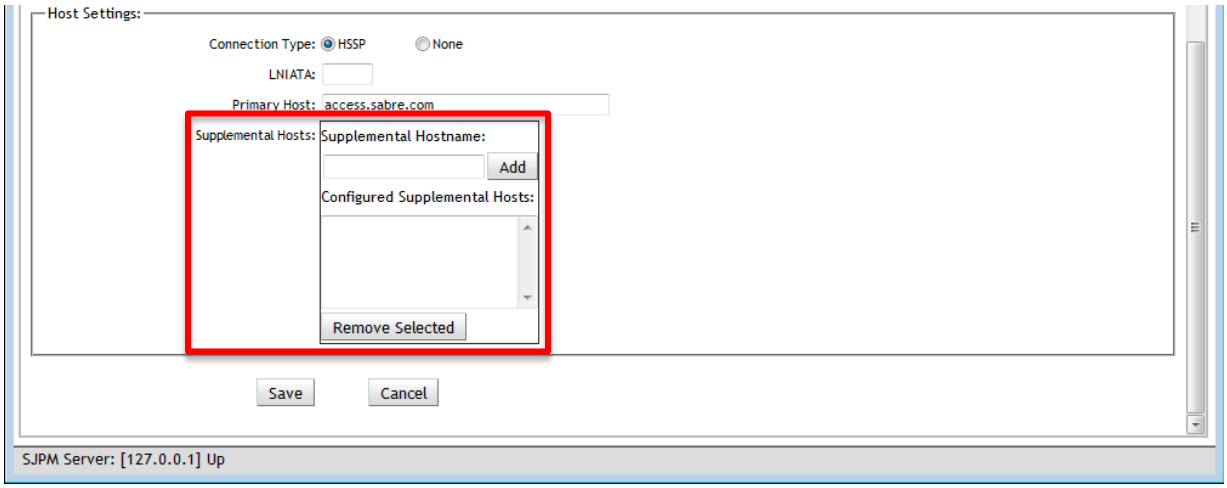
This section describes configuration and setup procedures for SJPM and Microsoft Windows that are applicable to SJPM and specific SJPM Drivers.

Note: See "**Appendix N**" for information on USB to Serial Port converter use with SJPM.

6.1.1 Supplemental Hosts Configuration – Applies to All Drivers

Each device configuration tab has a "**Supplemental Hosts:**" text box in the "**Host Settings:**" section. "**Supplemental Hosts:**" is used to specify host connections in addition to the host connection configured in the "**Primary Host:**" field. This provides the ability to print from multiple hosts using the same device.

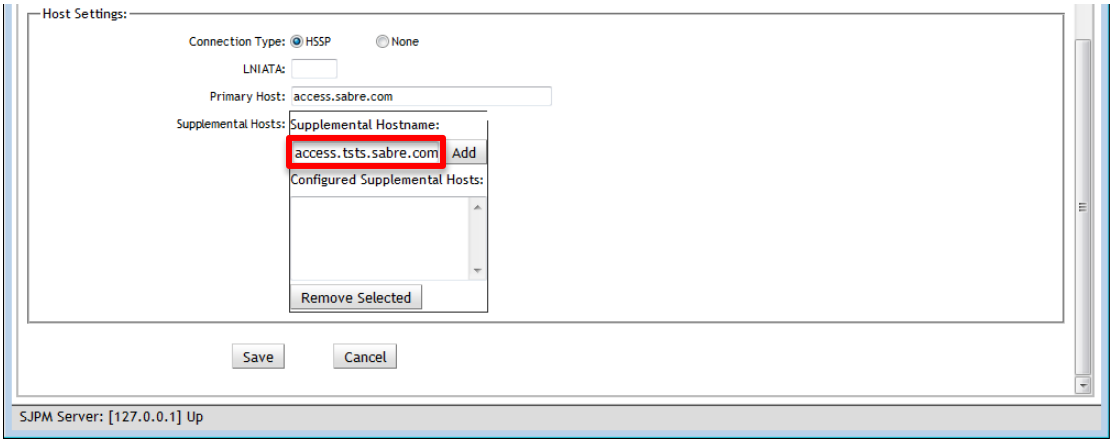
To add or delete hosts from the "**Configured Supplemental Hosts**" list, follow the steps detailed in sections **6.1.1.1 Adding Supplemental Hosts – Applies to All Drivers** and **6.1.1.2 Deleting Supplemental Hosts – Applies to All Drivers**.



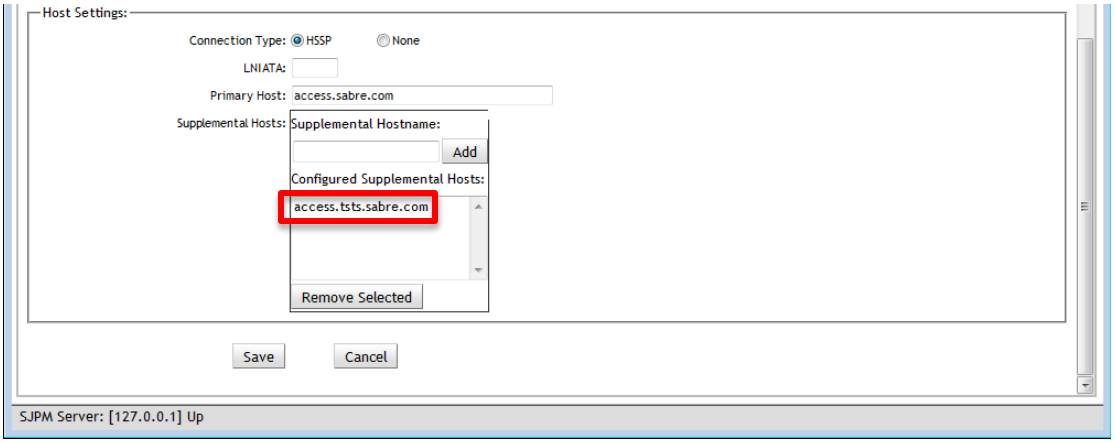
6.1.1.1 Adding Supplemental Hosts – Applies to All Drivers

This section describes the procedure to add supplemental hosts (concurrent connections) to the "**Configured Supplemental Hosts:**" list.

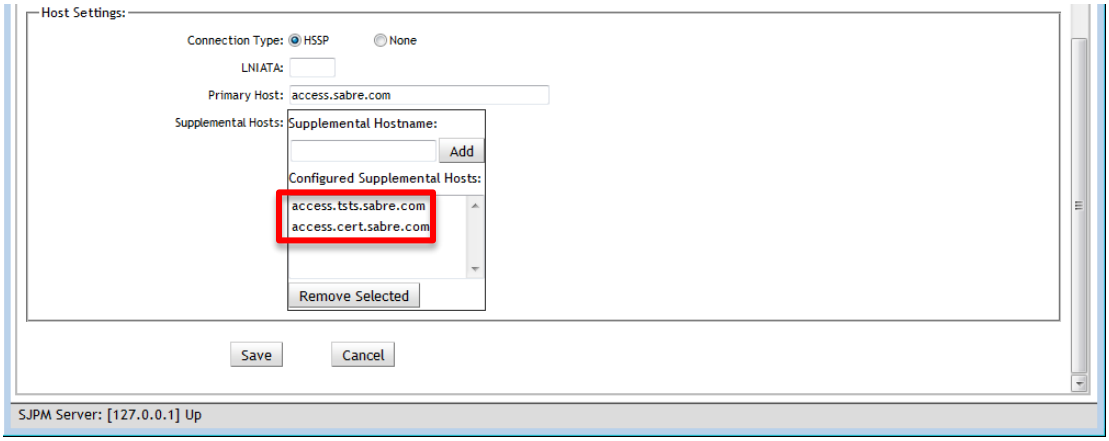
1. Type in a host address in the "**Supplemental Hostname:**" text box.



2. Click on the "**Add**" button to add the supplemental host to the "**Configured Supplemental Hosts:**" list.



3. Repeat steps **1** and **2** for each additional host connection to be added.

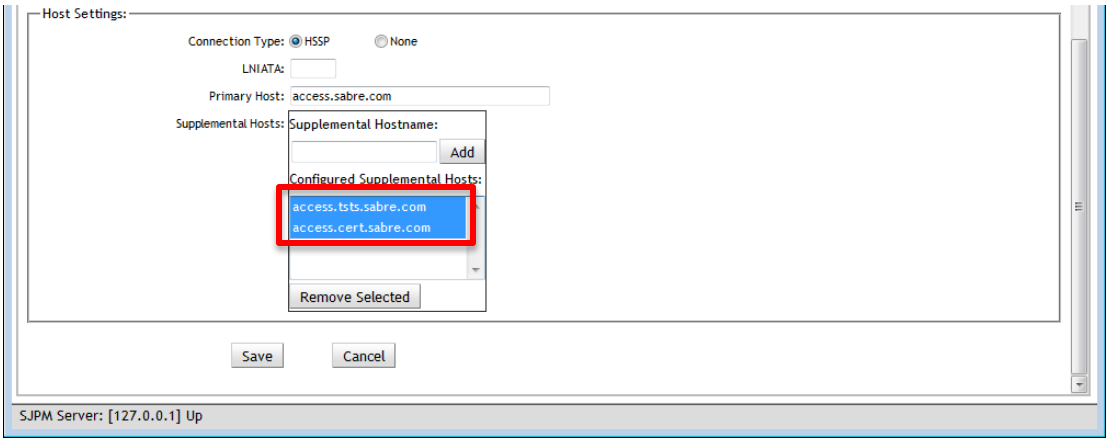


4. When all changes have been made click on the **"Save"** button. Then click on the "**OK**" button on the "**SJPM – Confirm Restart**" popup window to restart SJPM and for the changes to take effect.

6.1.1.2 Deleting Supplemental Hosts – Applies to All Drivers

This section describes the procedure to delete supplemental hosts (concurrent connections) from the "**Configured Supplemental Hosts:**" list.

1. Highlight the host(s) you wish to remove from the "**Configured Supplemental Hosts:**" list (Hold down the "**Ctrl**" key and click the Left Mouse Button to select more than one.).



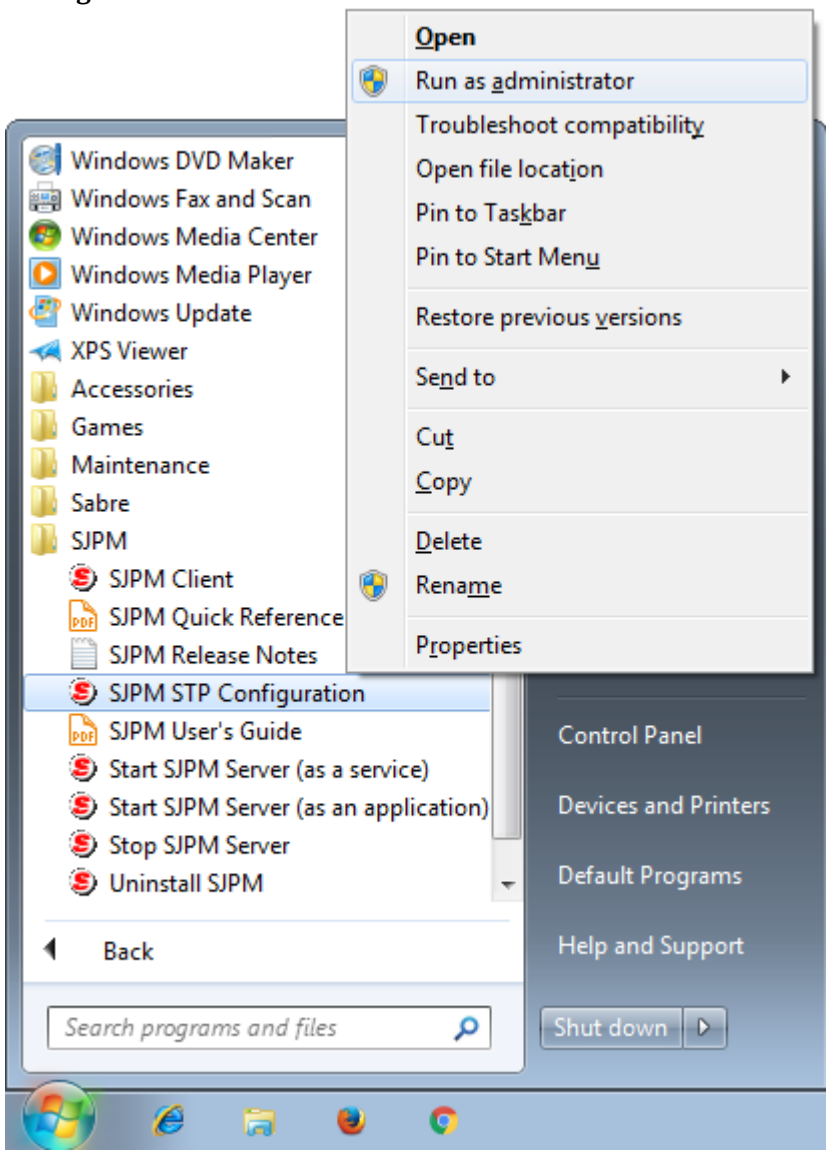
2. Click on the "**Remove Selected**" button.
3. When all changes have been made click on the **"Save"** button. Then click on the "**OK**" button on the "**SJPM – Confirm Restart**" popup window to restart SJPM and for the changes to take effect.

6.1.2 SJPM STP Configuration – STP Drivers Only

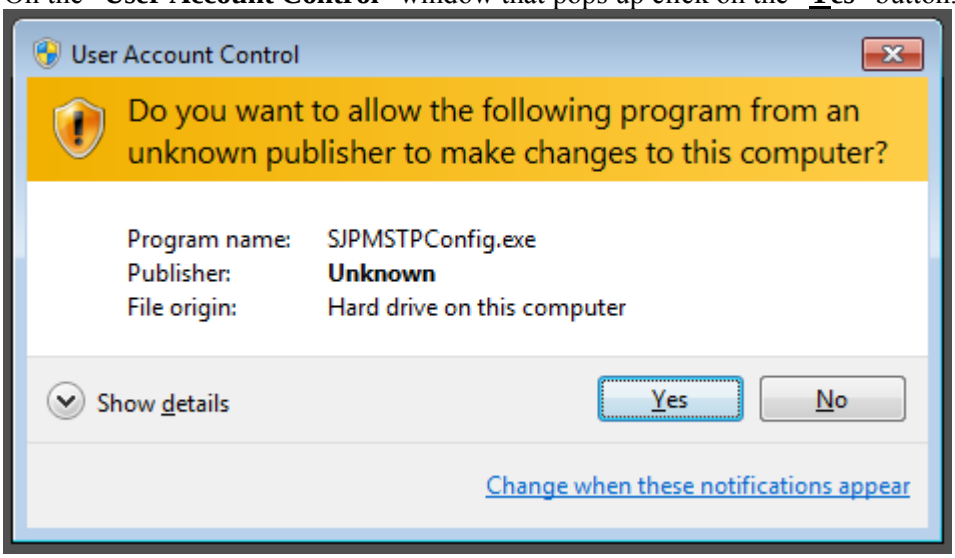
This section describes configuration procedures that are only applicable to the configuration of STP Drivers in SJPM. This section applies to the **STPATB1**, **STPATB1INI**, **STPATB2**, and **STPATB2INI** Drivers only.

Note: If using any of the STP Drivers, SJPM must be run as a Service.

1. Click on the Windows "**Start**" button on the windows Taskbar, then click on "**All Programs**", then scroll down and click on the "**SJPM**" folder. Right click on the "**SJPM STP Configuration**" menu item and then left click on the "**Run as administrator**" menu item.



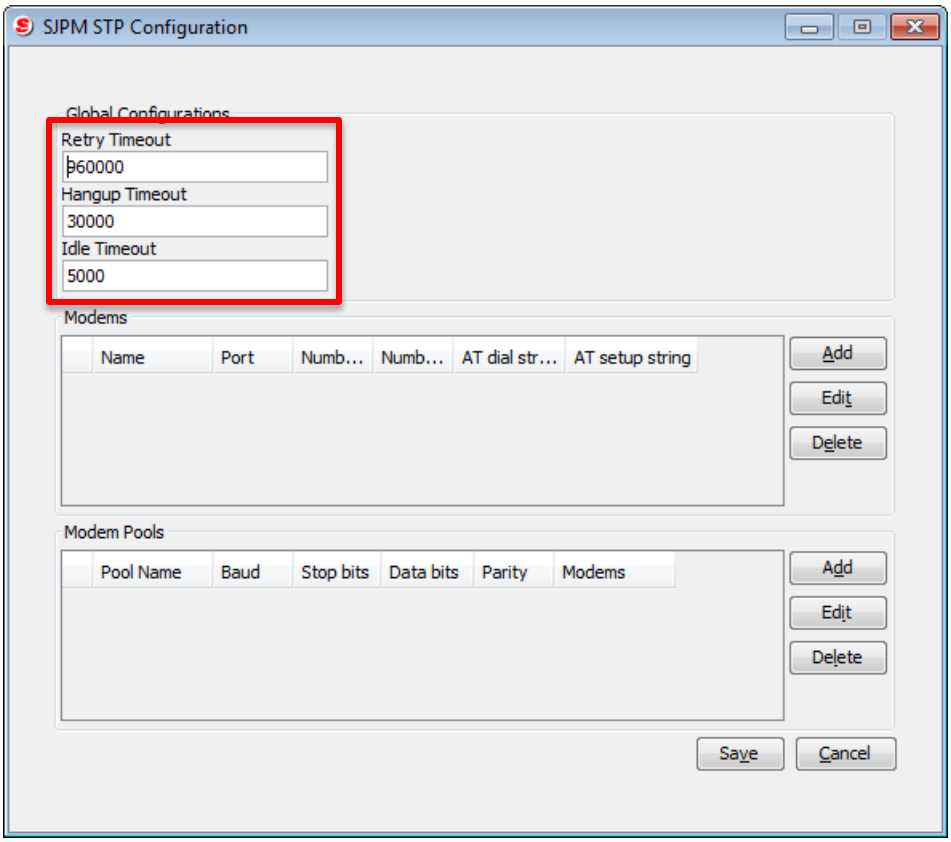
2. On the "**User Account Control**" window that pops up click on the "**Yes**" button.



3. The "**SJPM STP Configuration**" window will appear.
The "**Retry Timeout**" is a required field. The default setting is: "**960000**". Enter a different "**Retry Timeout**" only if needed.

The "**Hangup Timeout**" is a required field. The default setting is: "**30000**". Enter a different "**Hangup Timeout**" only if needed.

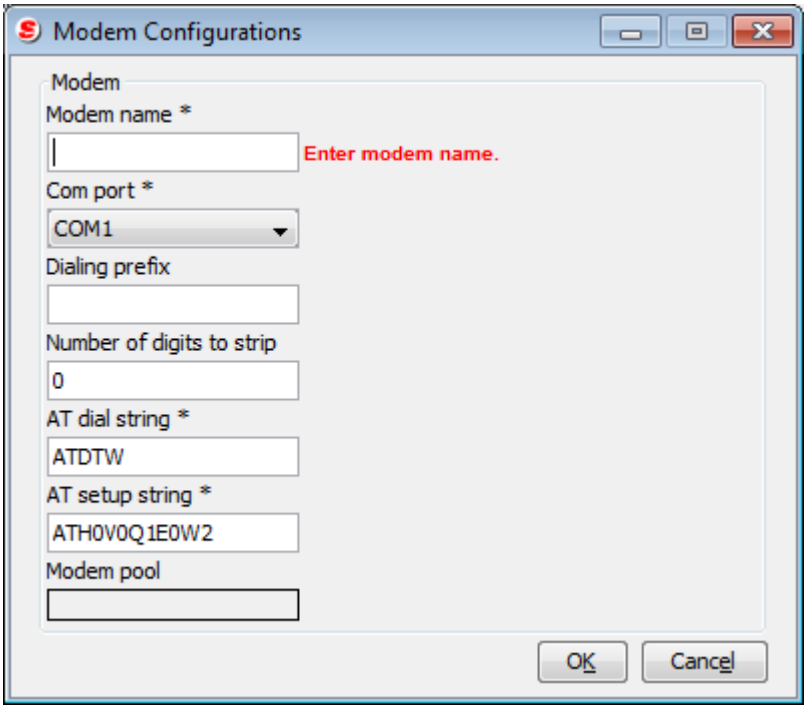
The "**Idle Timeout**" is a required field. The default setting is: "**5000**". Enter a different "**Idle Timeout**" only if needed.



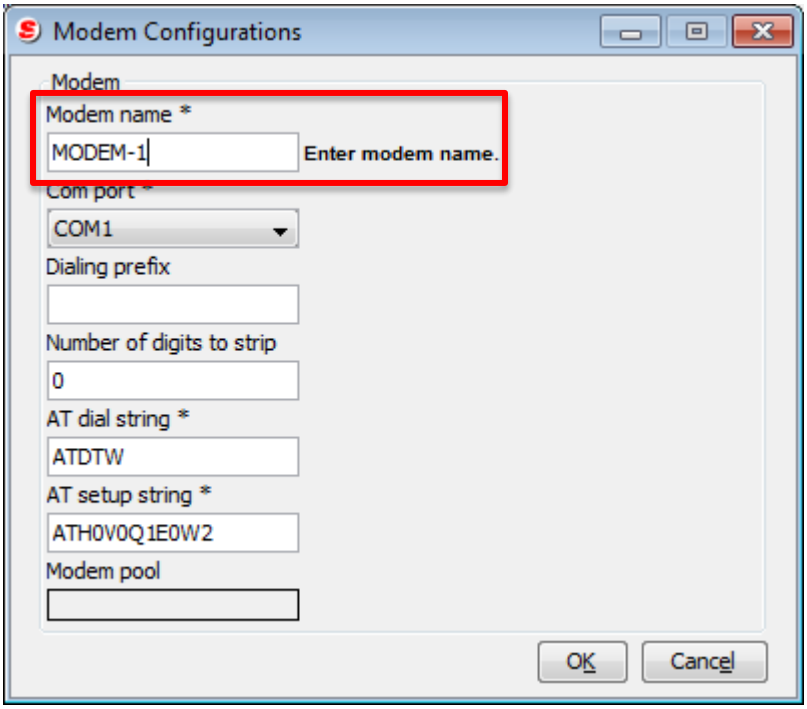
6.1.2.1 Configure a Modem

This section describes the procedure for configuring a modem for use with STP device(s).

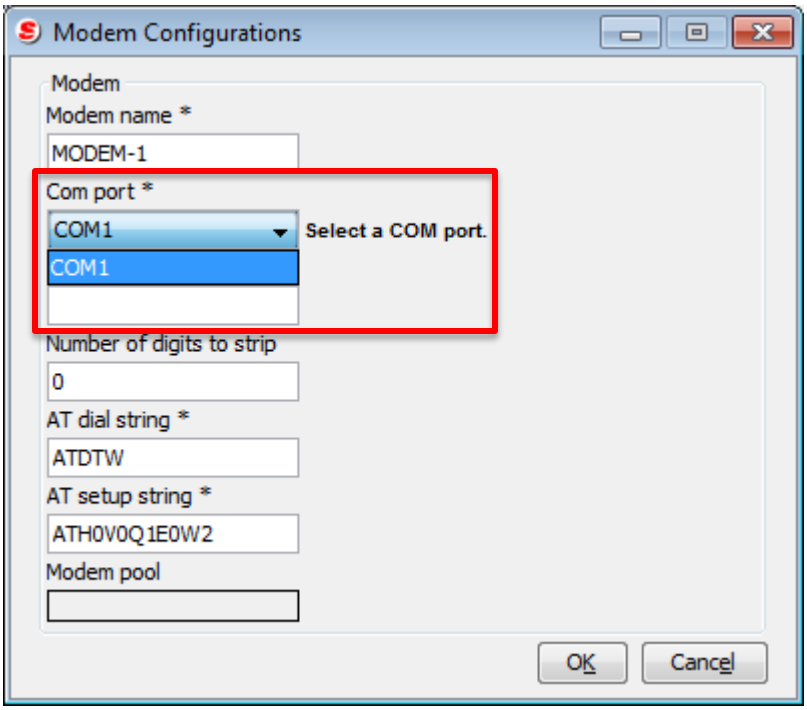
1. Click on the "**Add**" button in the "**Modems**" box of the "**SJPM STP Configuration**" window to add a Modem. The "**Modem Configurations**" window will appear.



2. The "**Modem name ***" is a required field. Default is blank. Type in a name for the modem you are adding in the "**Modem name ***" field.

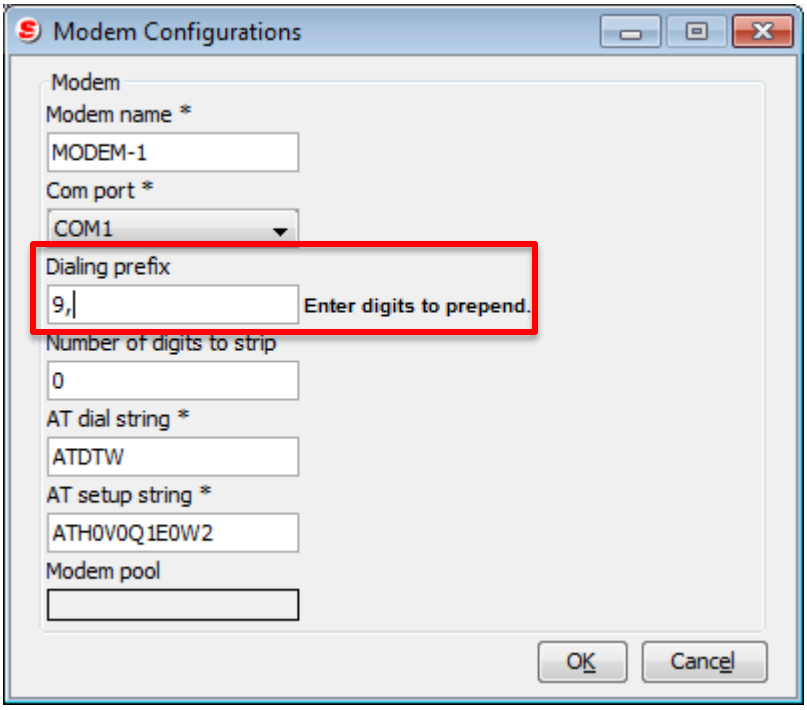


3. The "**Com port ***" is a required field. Default setting is "**The First available COM port on the PC**". Select a COM port from the "**Com port ***" drop down list.



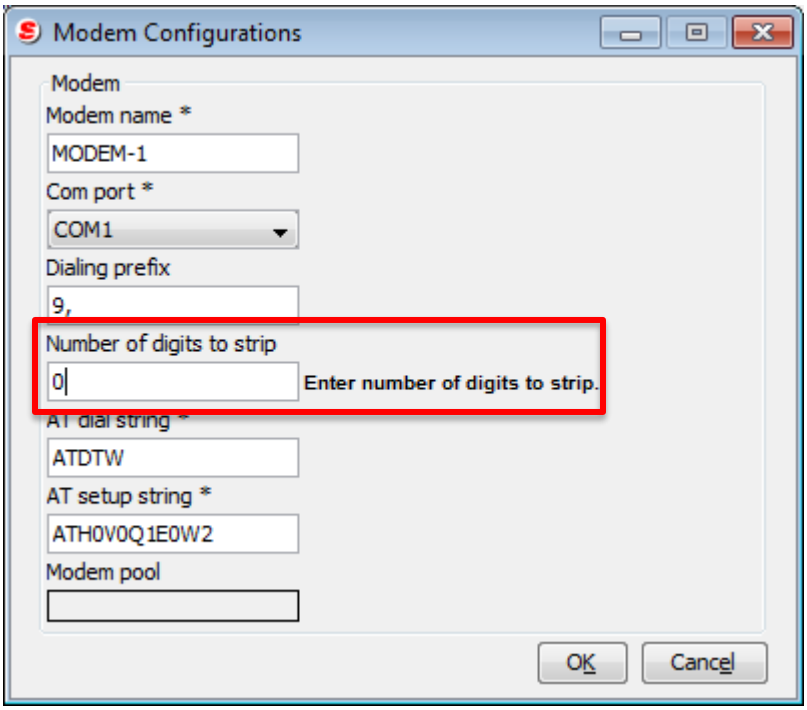
4. The "**Dialing prefix**" is an optional field. Default is blank. Enter a dialing prefix in the "**Dialing prefix**" field if required.

   The dialing prefix is needed if a digit is required to access an outside line. (e.g. "**9,**" where 9 is the digit required to access the outside line and a comma "**,**" puts a pause between dialing 9 and rest of the phone number.)

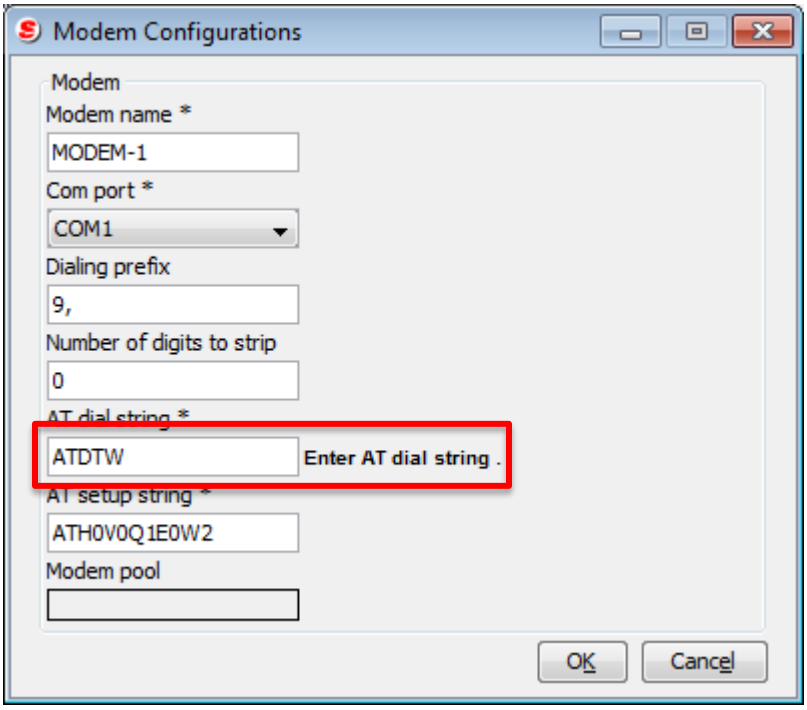


5. The "**Number of digits to strip**" is a required field. Default setting is "**0**". Enter the number of digits to strip if required.

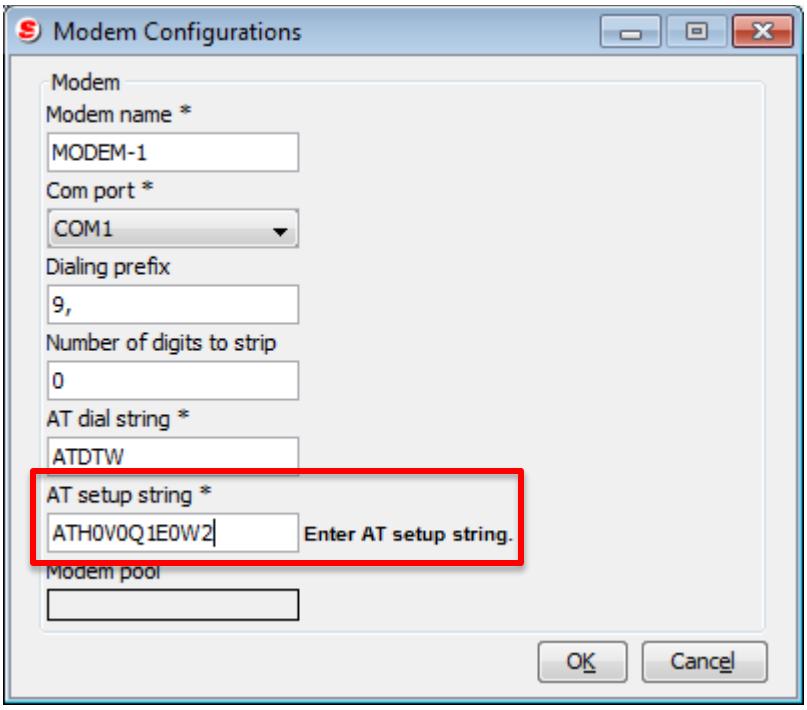
   This setting is required when a user wants to strip digits before dialing the number. (e.g. if "**Number of digits to strip**" is 3 and the phone number entered is 1112223333, the application will strip the first 3 numbers i.e. "**111**" when making a call).



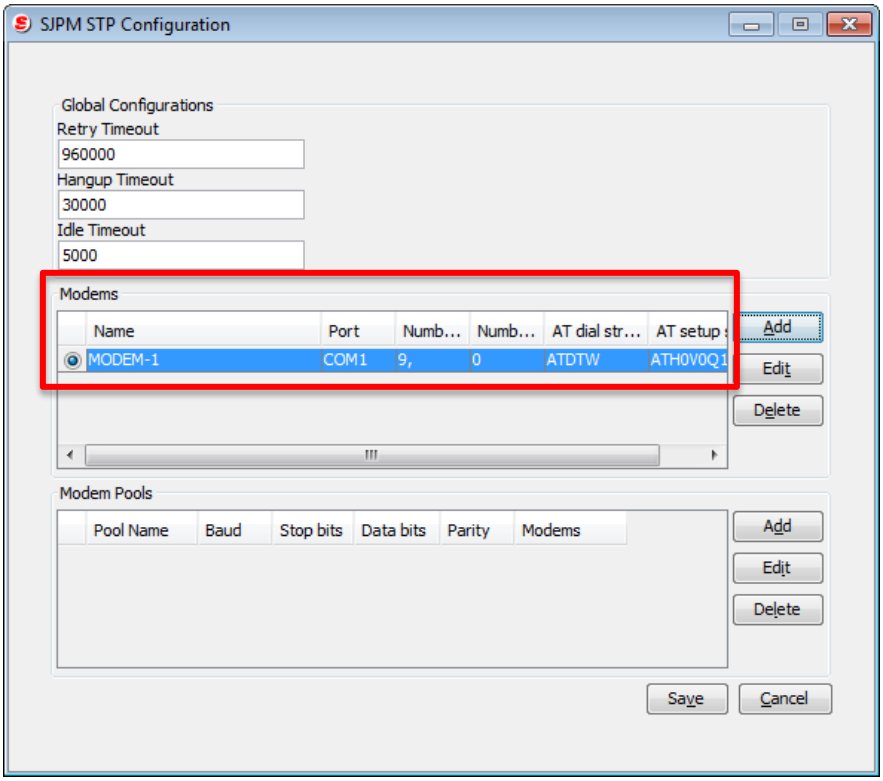
6. The "**AT dial string ***" is a required field. Default setting is "**ATDTW**". Refer to your modem manual before making any changes to this option and only change if required.



7. The "**AT setup string ***" is a required field. Default setting is "**ATV0Q1E0W2**". Refer to your modem manual before making any changes to this option and only change if required.



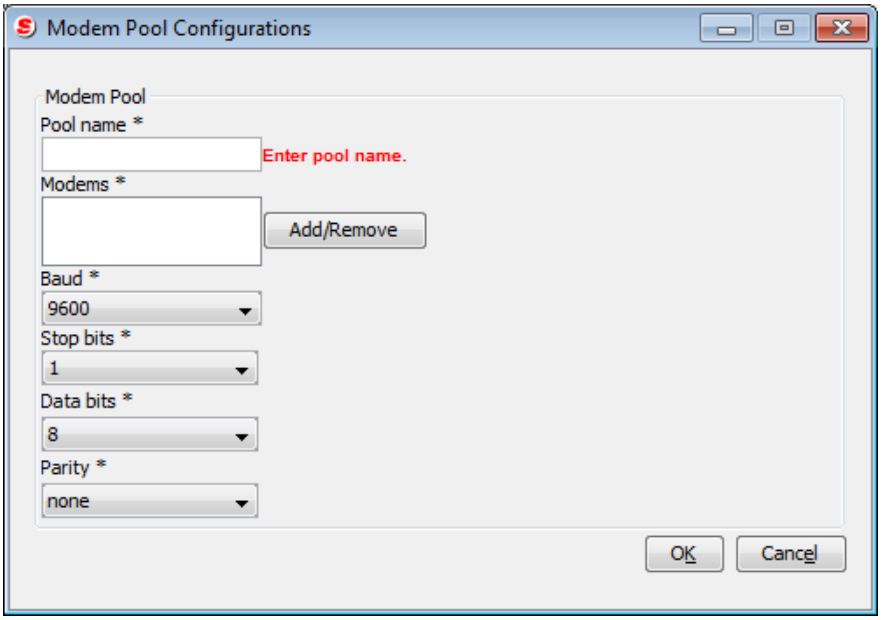
8. The "**Modem pool**" field displays the pool to which the modem belongs. Click on the "**OK**" button when all configuration changes are complete. The modem will now be displayed in the "**Modems**" list. Click on the "**Save**" button to save the configuration.



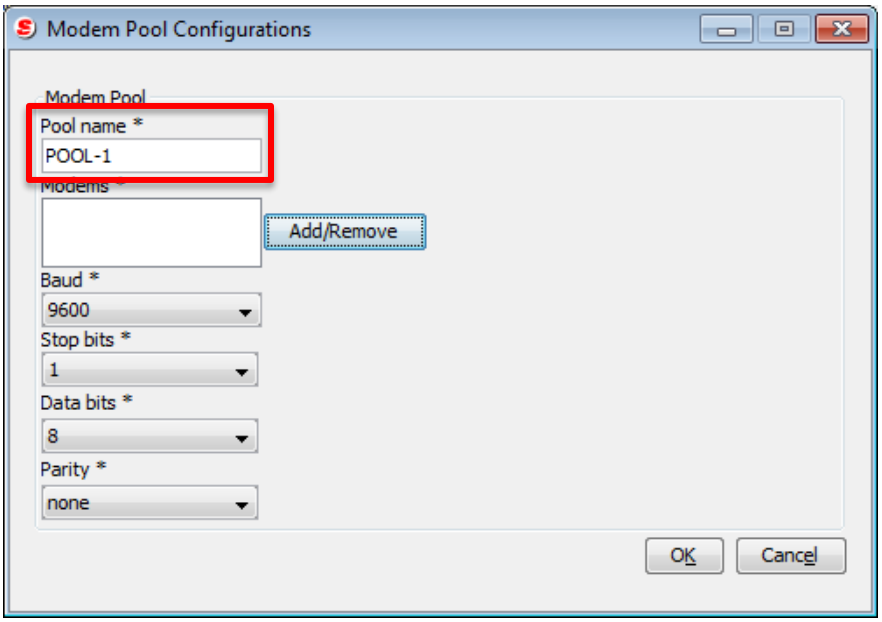
6.1.2.2 Add a Modem Pool

This section describes the procedure for configuring a modem pool for use with STP device(s).

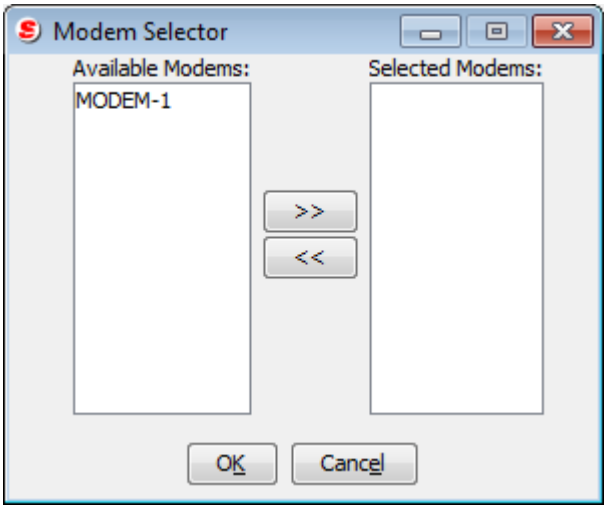
1. From Windows "**Start**" open the "**SJPM STP Configuration**" window (Refer to **Number 1** in section **6.1.2 SJPM STP Configuration – STP Drivers Only**). Click on the "**Add**" button in the "**Modem Pools**" box of the "**SJPM STP Configuration**" window to add a modem pool. The "**Modem Pool Configurations**" window will appear.



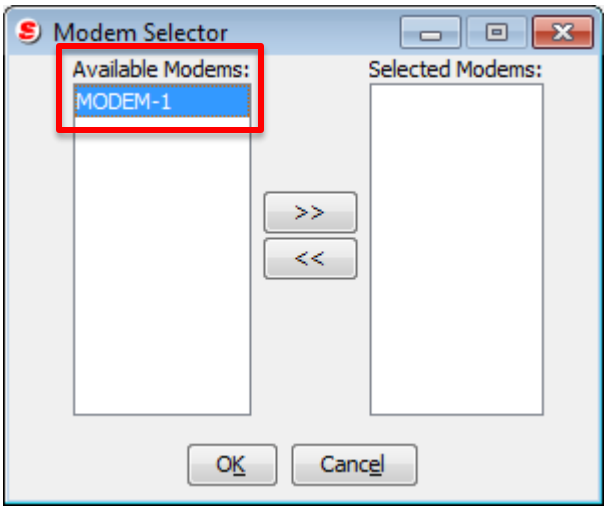
2. The "**Pool name ***" is a required field. Default is blank. Type in a pool name in the "**Pool name ***" field and then click on the "**Add/Remove**" button.



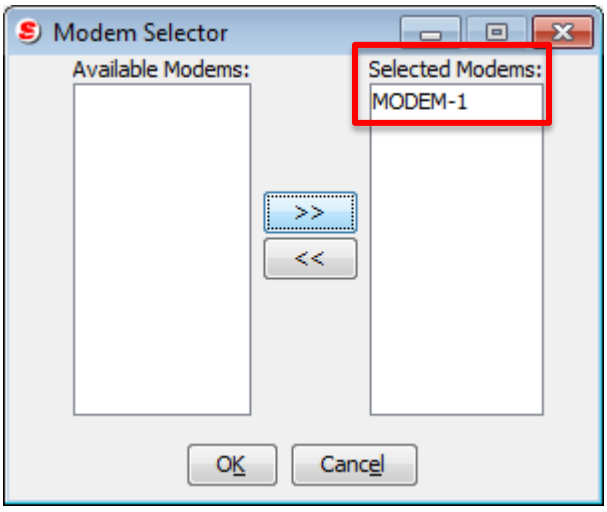
3. The "**Modem Selector**" window will appear.



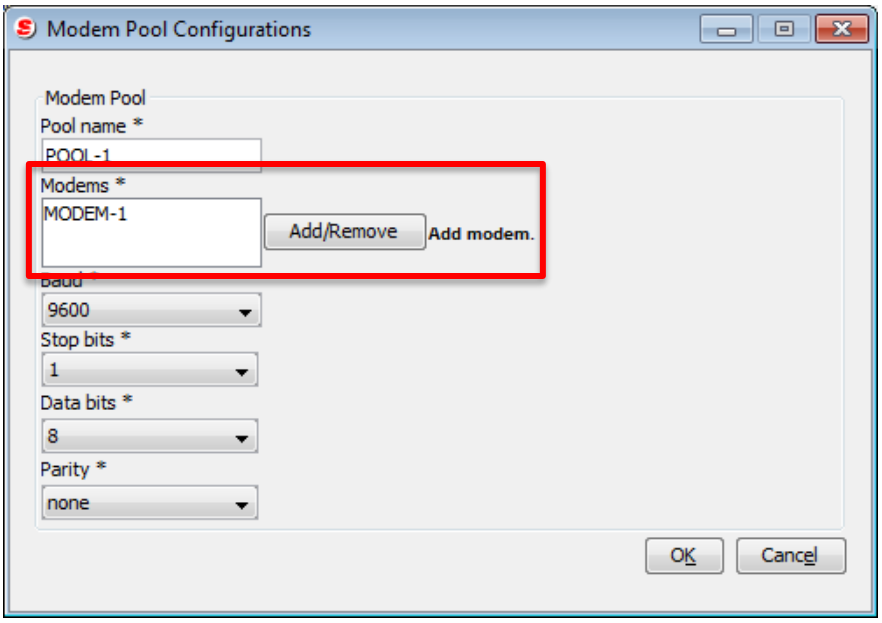
4. Select a modem by clicking on the modem name in the "**Available Modems:**" list.



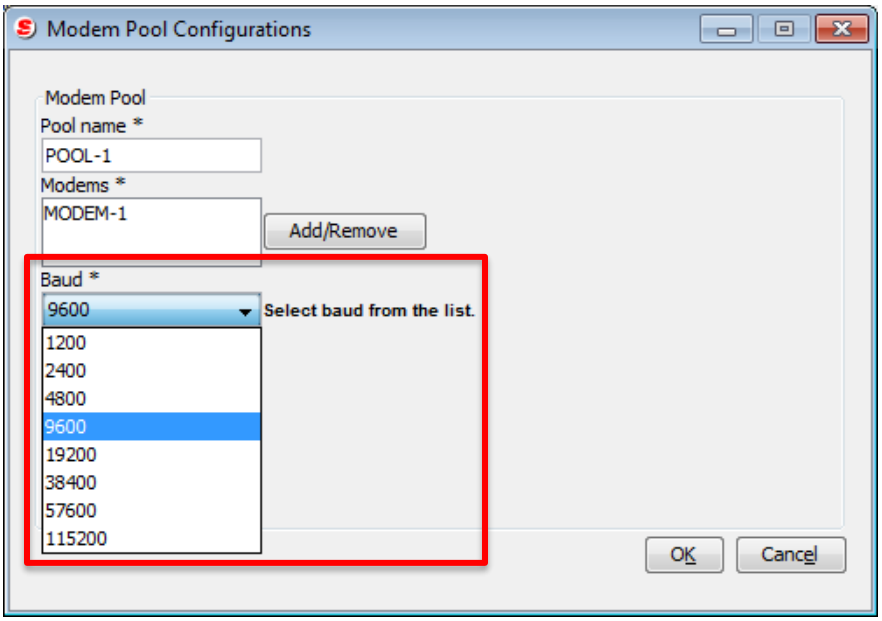
5. Click on the ">>" button to add the modem to the "**Selected Modems:**" list. Click on the "**OK**" button.



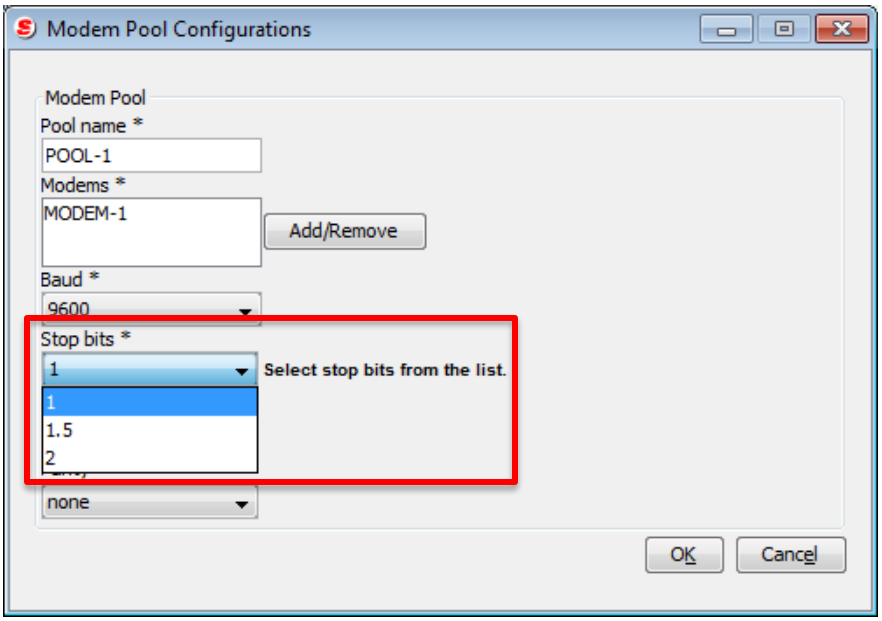
6. The modem will now appear in the "**Modems ***" list.



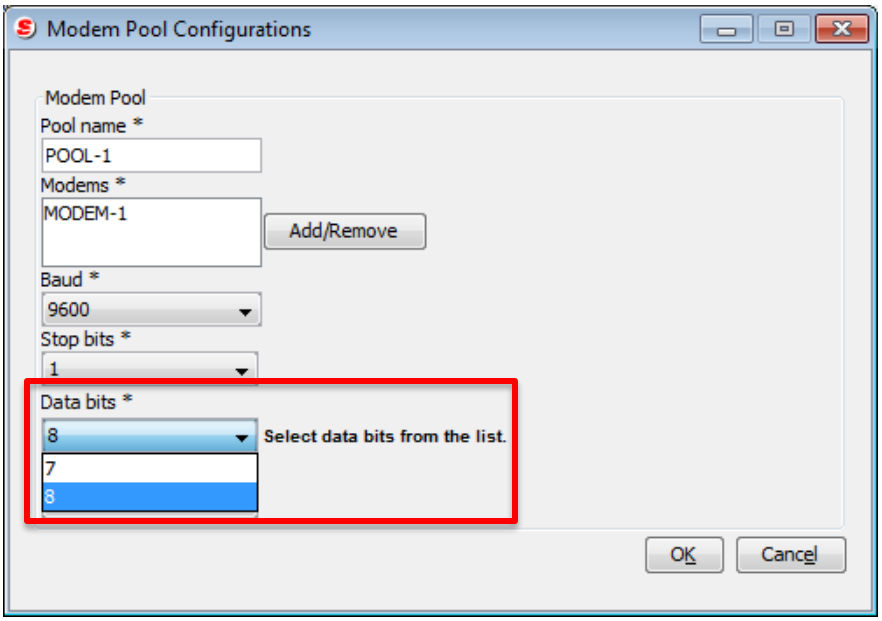
7. The "**Baud ***" is a required field. Default setting is "**9600**". Click on the "**Baud ***" drop down list to select a different baud if required.



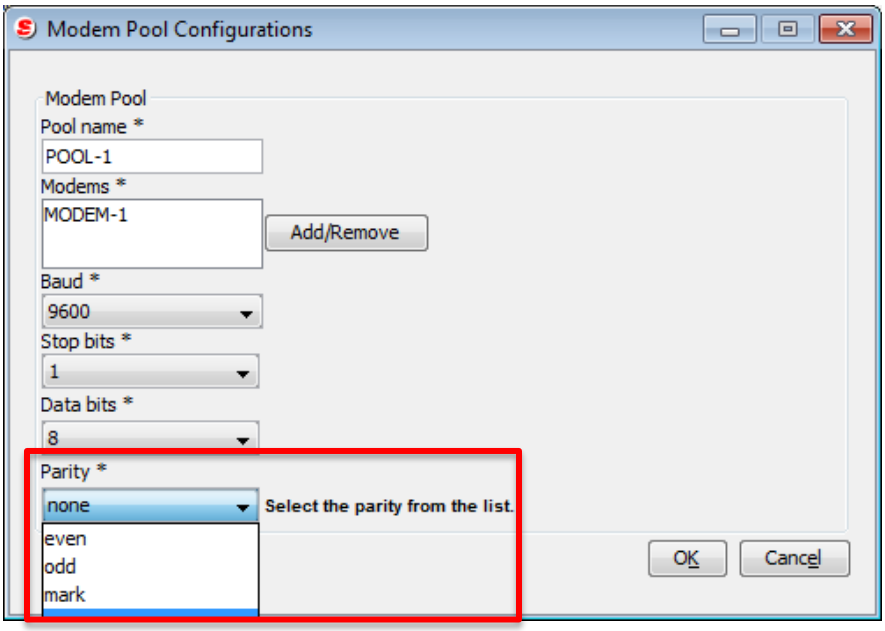
8. The "**Stop Bits ***"is a required field. Default setting is "**1**". Click on the "**Stop bits ***" drop down list to select different Stop bits if required.



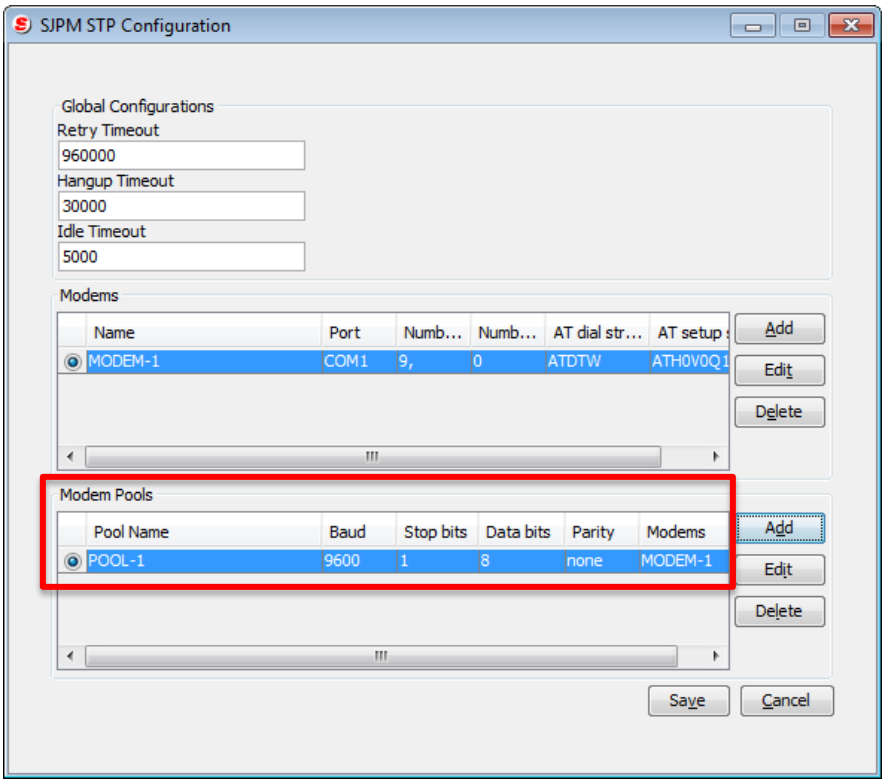
9. The "**Data Bits ***" is a required field. Default setting is "**8**". Click on the "**Data bits ***" drop down list to select different Data bits if required.



10. The "**Parity ***" is a required field. Default setting is "**none**". Click on the "**Parity ***" drop down list to select a different Parity if required. Click on the "**OK**" button when done.



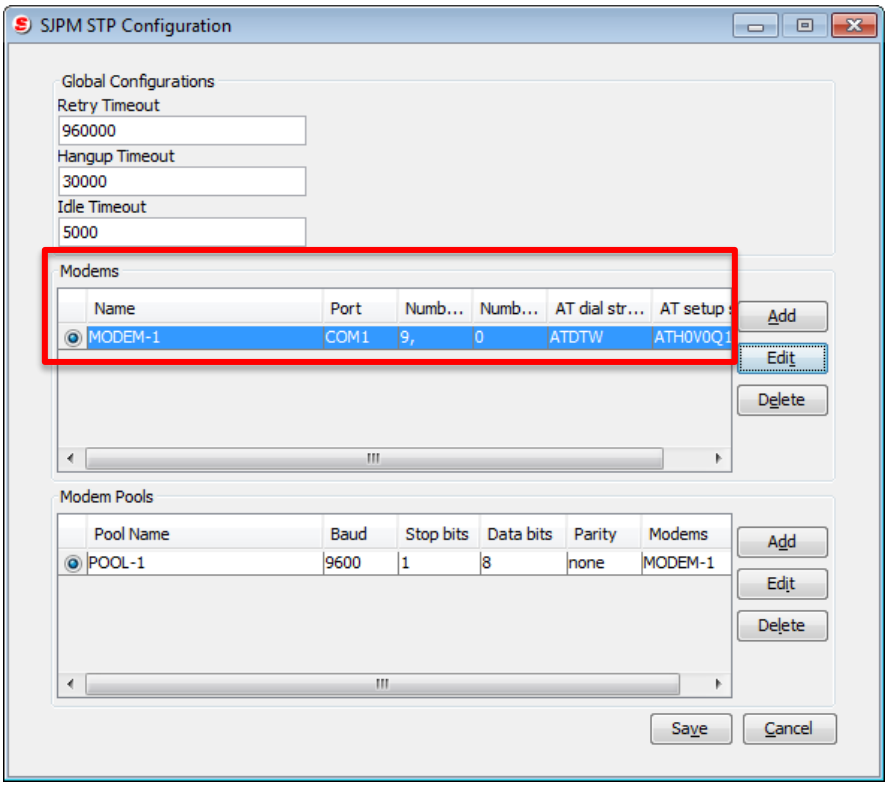
11. The modem pool will now be displayed in the "**Modem Pools**" list. Click on the "**Save**" button to save the configuration.



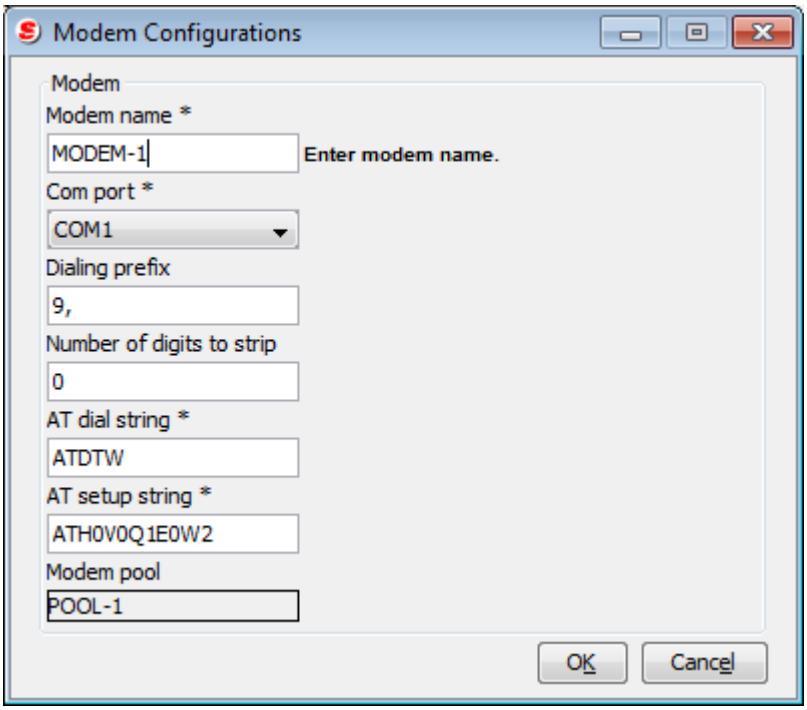
6.1.2.3 Edit a Modem

This section describes the procedure for editing a modem for use with STP device(s).

1. From Windows "**Start**" open the "**SJPM STP Configuration**" window (Refer to **Number 1** in section **6.1.2 SJPM STP Configuration – STP Drivers Only**). Select a modem in the "**Modems**" box and then click on the "**Edit**" button in the "**Modems**" box.



2. The "**Modem Configurations**" window will appear with the selected modem's configuration.



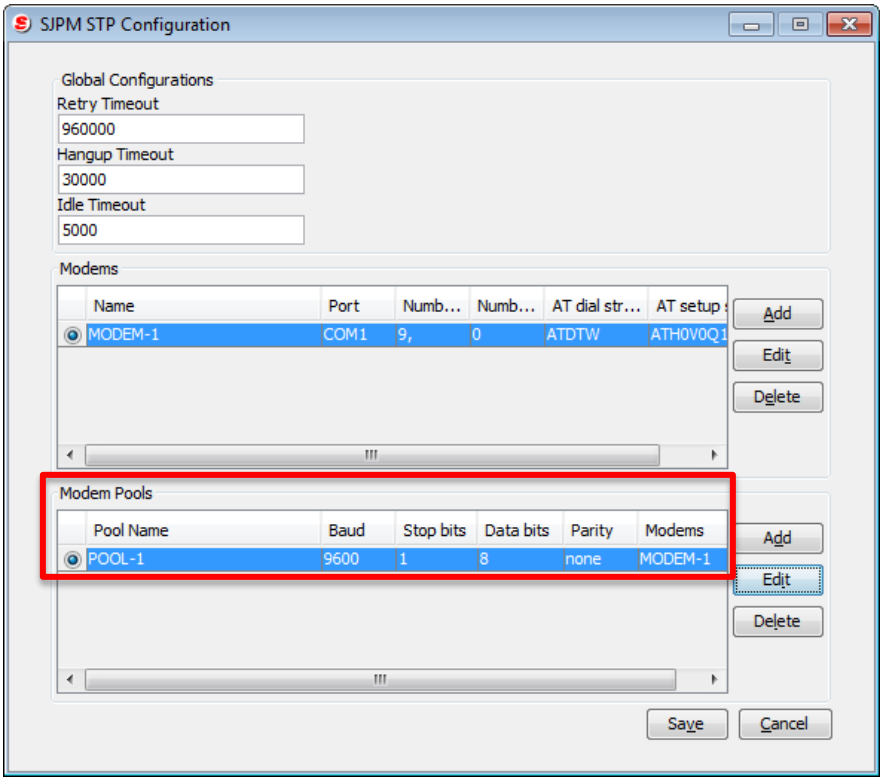
3. Make the required changes to the configuration and then click on the "**OK**" button. The window will close and the edited modem row will reflect the changes.

4. Click on the "**Save**" button on the "**SJPM STP Configuration**" window to save the changes.

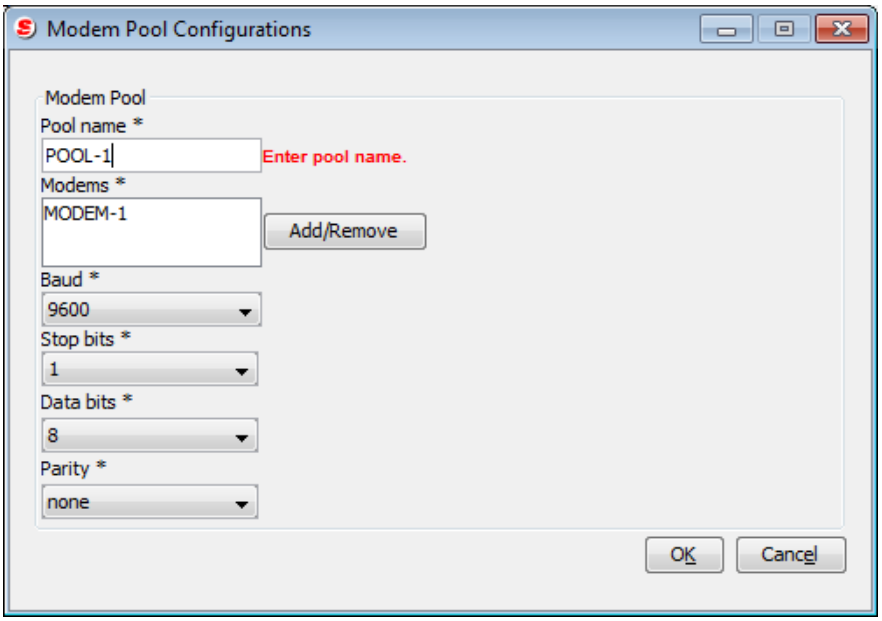
6.1.2.4 Edit a Modem Pool

This section describes the procedure for editing a modem pool for use with STP device(s).

1. From Windows "**Start**" open the "**SJPM STP Configuration**" window (Refer to **Number 1** in section **6.1.2 SJPM STP Configuration – STP Drivers Only**). Select a pool in the "**Modem Pools**" box and then click on the "**Edit**" button in the "**Modem Pools**" box.



2. The "**Modem Pool Configurations**" window will appear with the selected modem pool's configuration.



3. Make the required changes in the configuration and click on the "**OK**" button. The window will close and the edited modem pool row will reflect the changes.

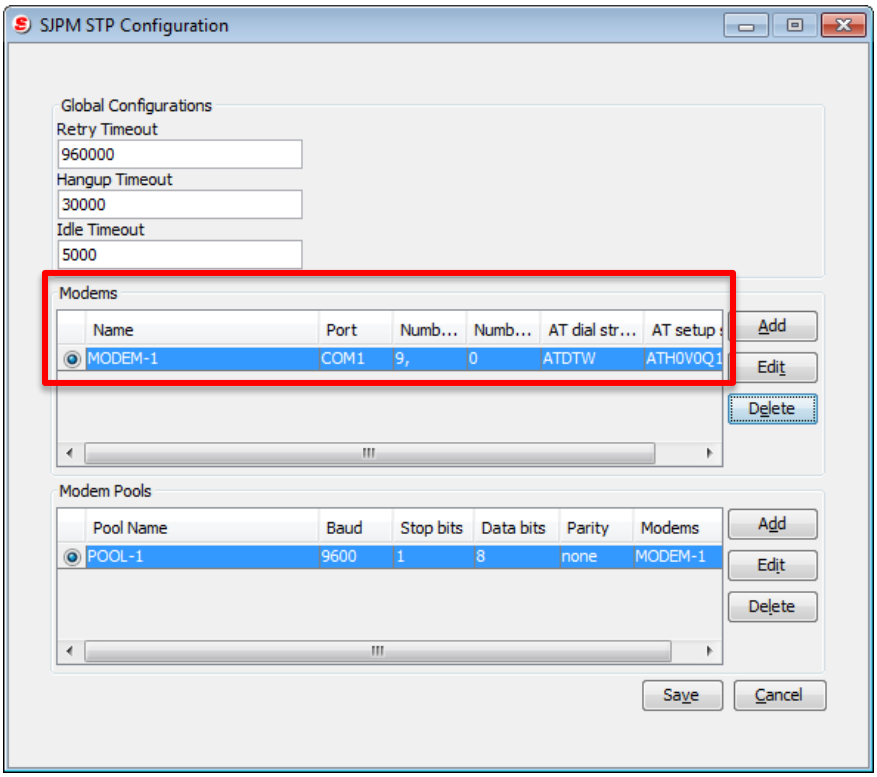
4. Click on the "**Save**" button on the "**SJPM STP Configuration**" window to save the changes.

6.1.2.5 Delete a Modem

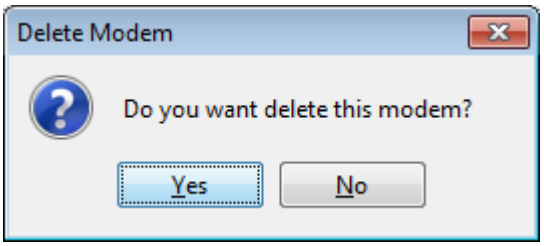
This section describes the procedure for deleting a modem.

1. From Windows "**Start**" open the "**SJPM STP Configuration**" window (Refer to **Number 1** in section **6.1.2 SJPM STP Configuration – STP Drivers Only**).

2. Select a modem in the "**Modems**" box and then click on the "**Delete**" button in the "**Modems**" box.



3. The "**Delete Modem**" window will appear. Click on the "**Yes**" button to delete the Modem.

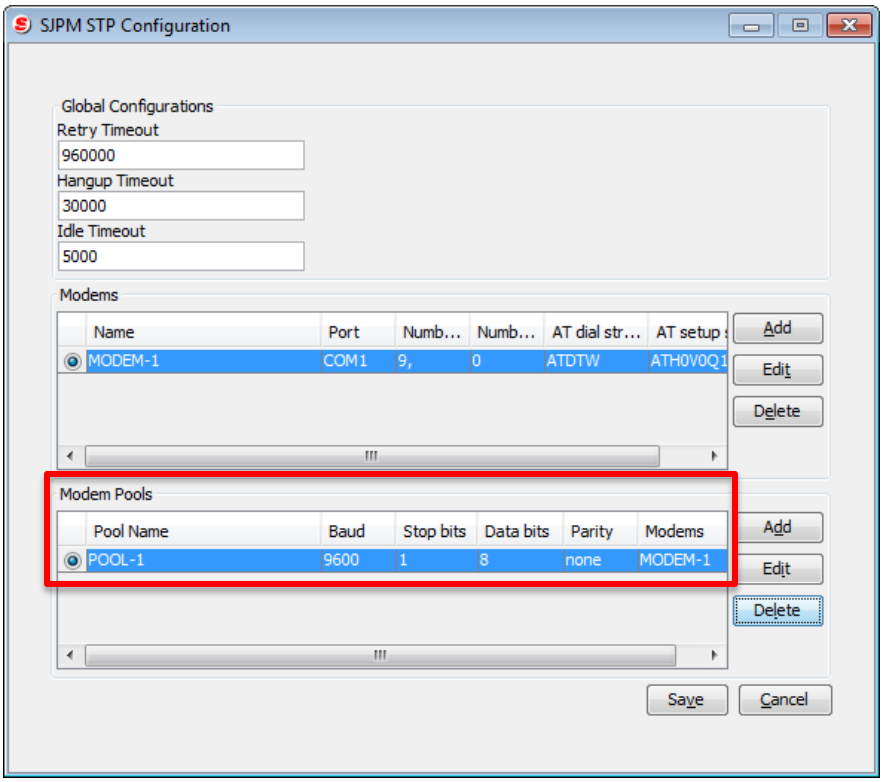


6.1.2.6 Delete a Modem Pool

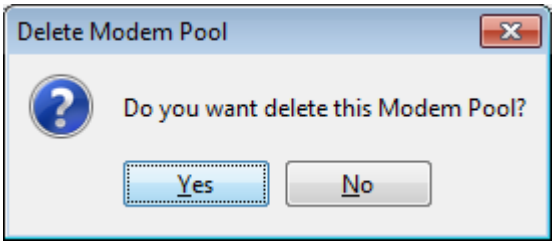
This section describes the procedure for deleting a modem pool.

1. From Windows "**Start**" open the "**SJPM STP Configuration**" window (Refer to **Number 1** in section **6.1.2 SJPM STP Configuration – STP Drivers Only**).

2. Select a modem pool in the "**Modem Pools**" box and then click on the "**Delete**" button in the "**Modem Pools**" box.



3. The "**Delete Modem Pool**" window will appear. Click on the "**Yes**" button to delete the Modem Pool.

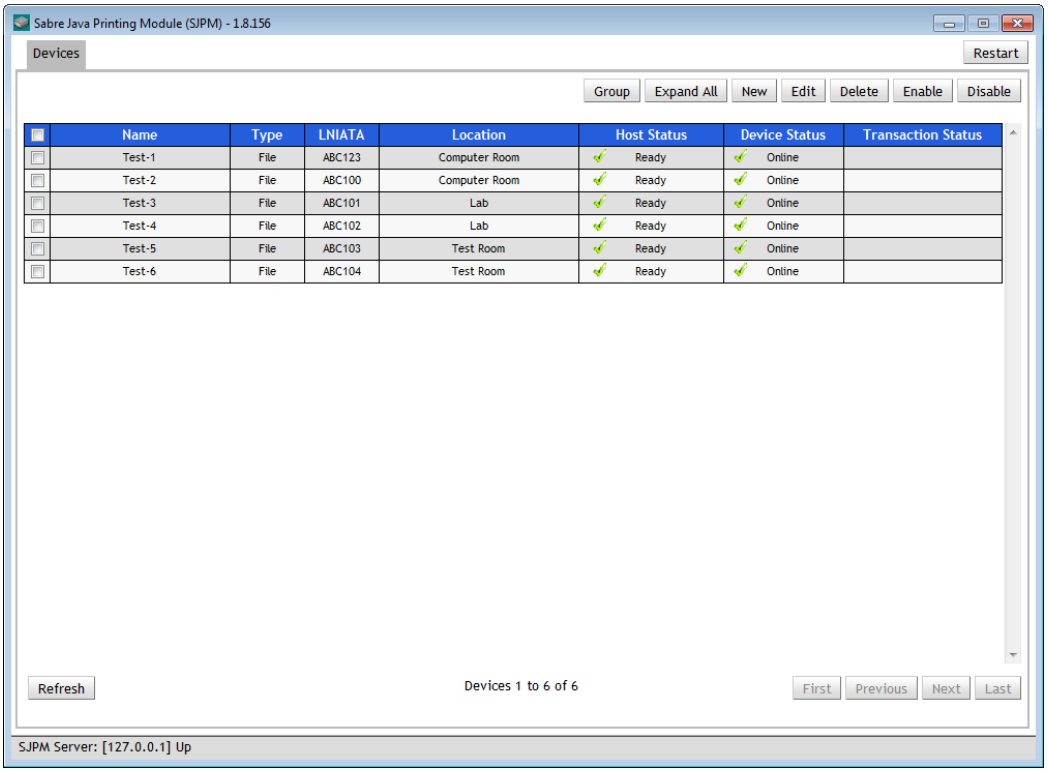


6.1.3 Device Backup and Restore

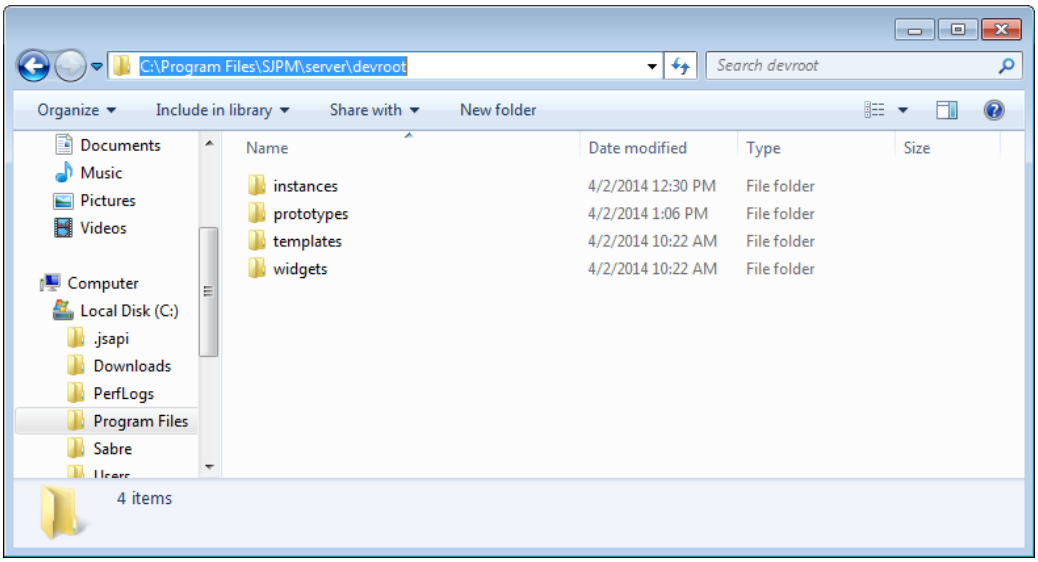
This section describes the procedures for backing up and restoring devices in SJPM. The device backup files should be zipped and stored in a safe location, on a thumb drive or other media, off of the PC that is running SJPM.

6.1.3.1 Device Backup – Manual Process

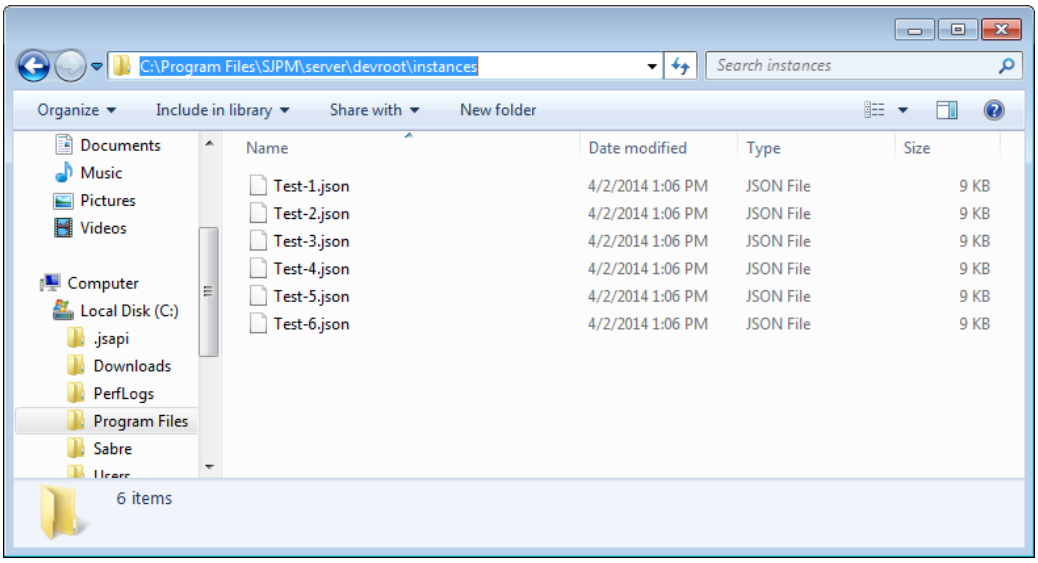
1. Once you have added and configured all of your devices follow these steps to make a backup copy that can be used to restore your SJPM devices and configurations.



2. Open Windows Explorer and then navigate to "**C:\Program Files (x86)\SJPM\server\devroot**".

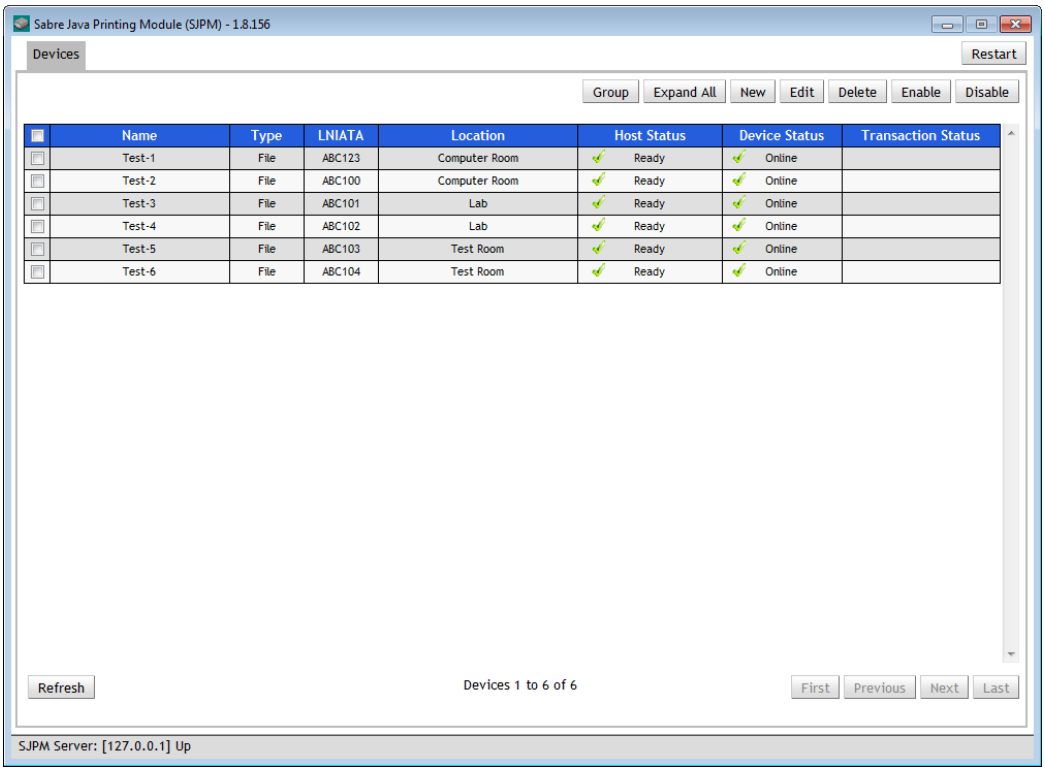


3. Copy and save the "**instances**" folder to a secure location. The "**instances**" folder contains the files and information for all of your configured devices and will be used for restoring your devices.

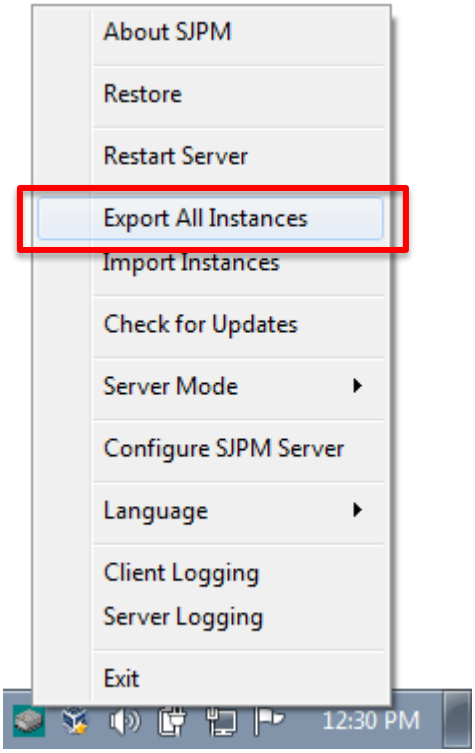


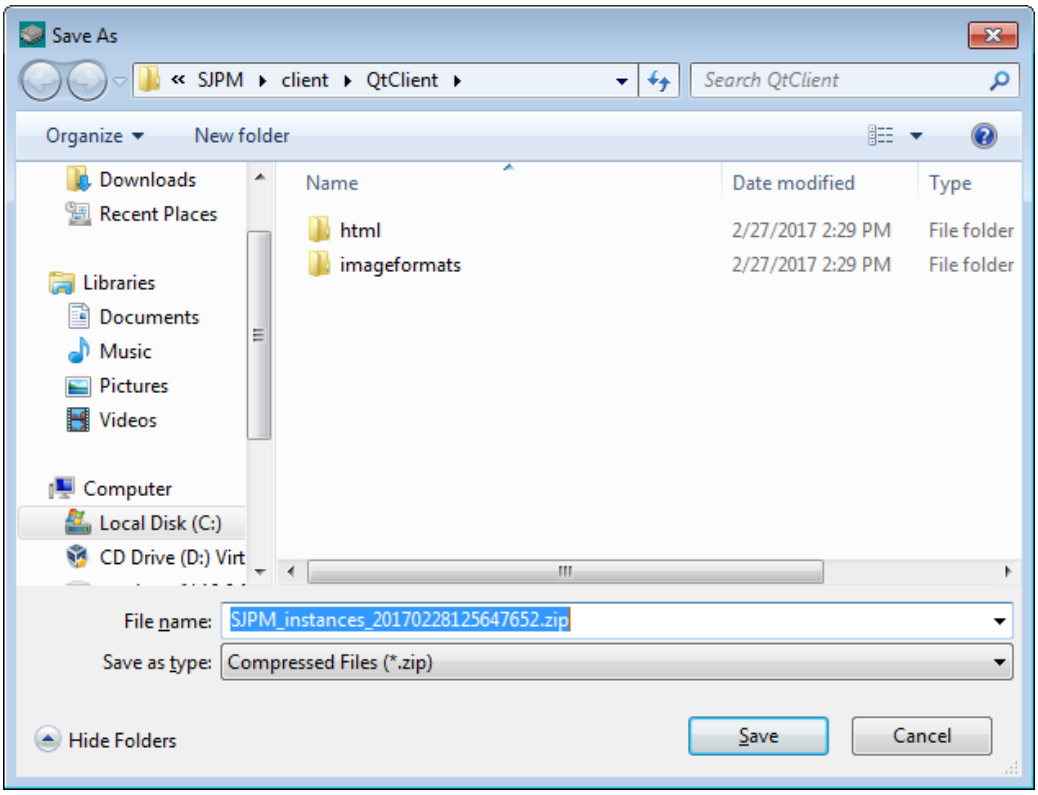
6.1.3.2 Device Backup – Automated Process

1. Once you have added and configured all of your devices follow these steps to make a backup copy that can be used to restore your SJPM devices and configurations.

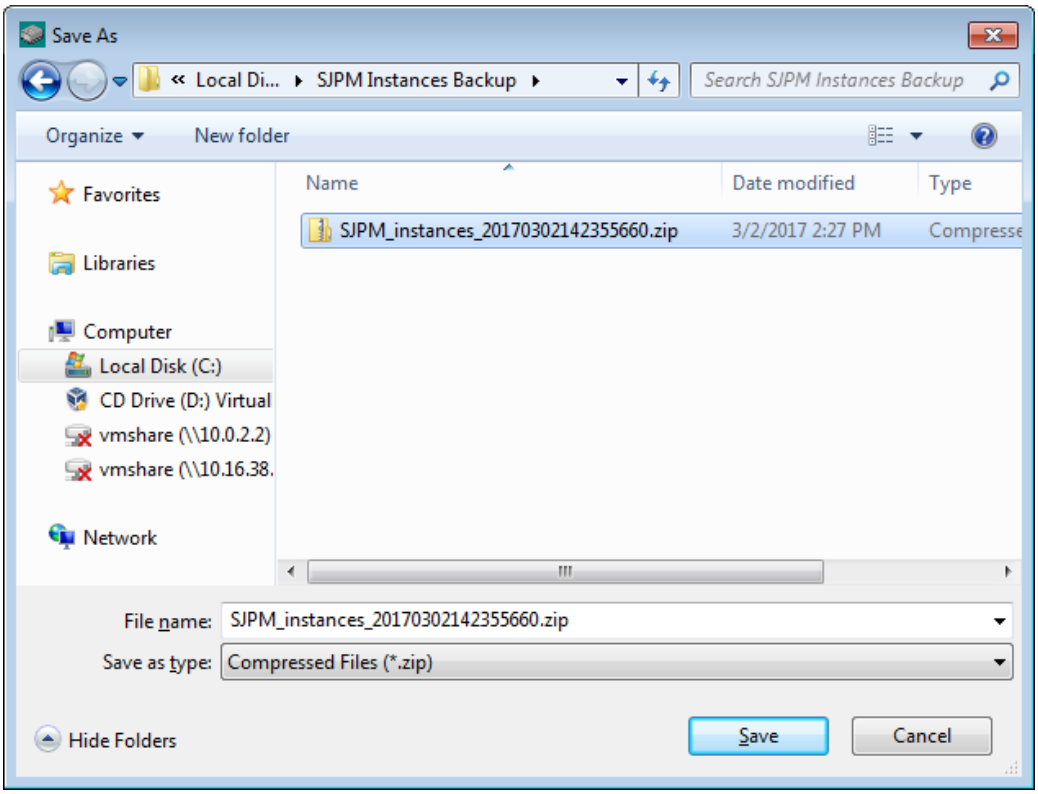


2. Right click on the "**SJPM Windows System Tray Icon**" and then click on the "**Export All Instances**" menu item. The "**Save As**" window will appear.



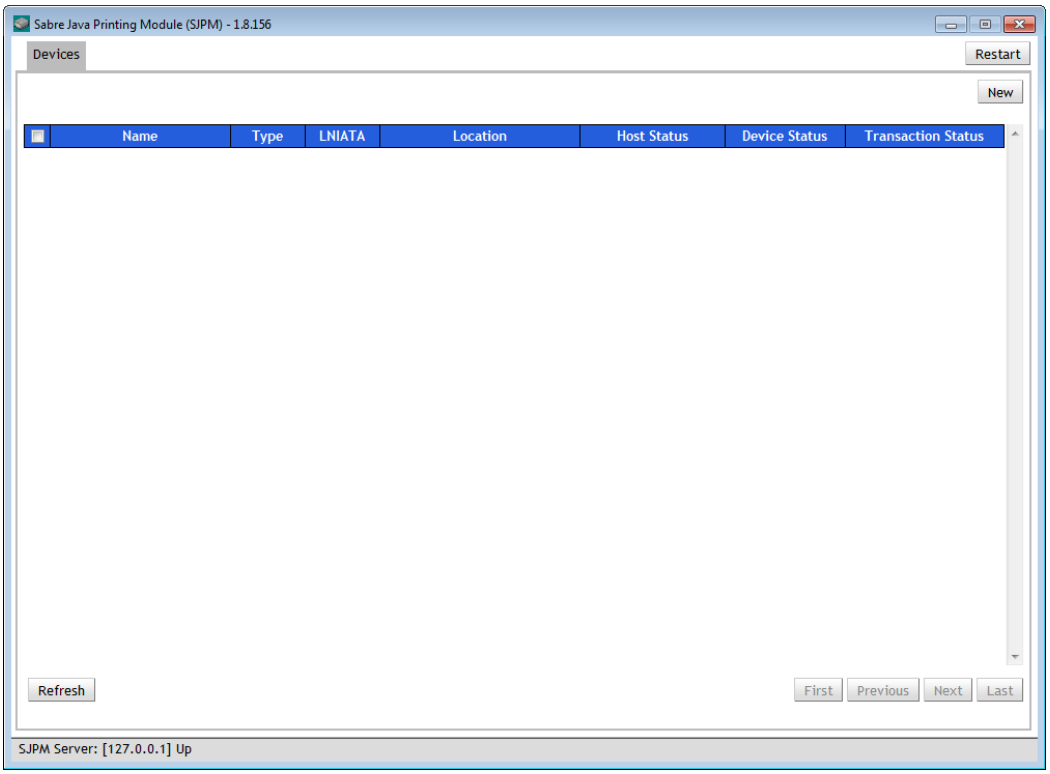


3. Browse to a location on the hard drive and create a folder to save the instances zip file into and then click on the "**Save**" button.

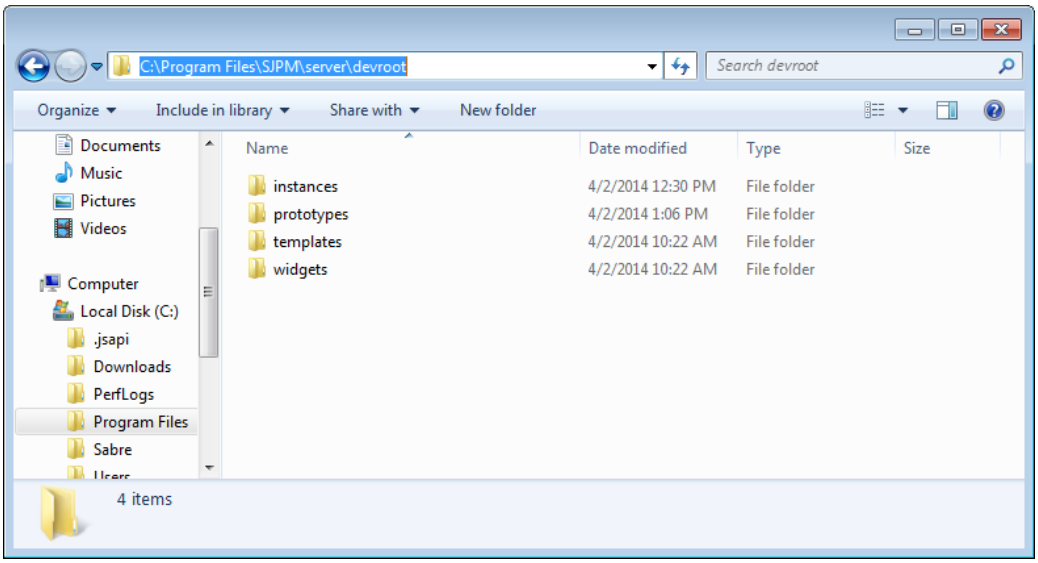


6.1.3.3 Device Restore – Manual Process

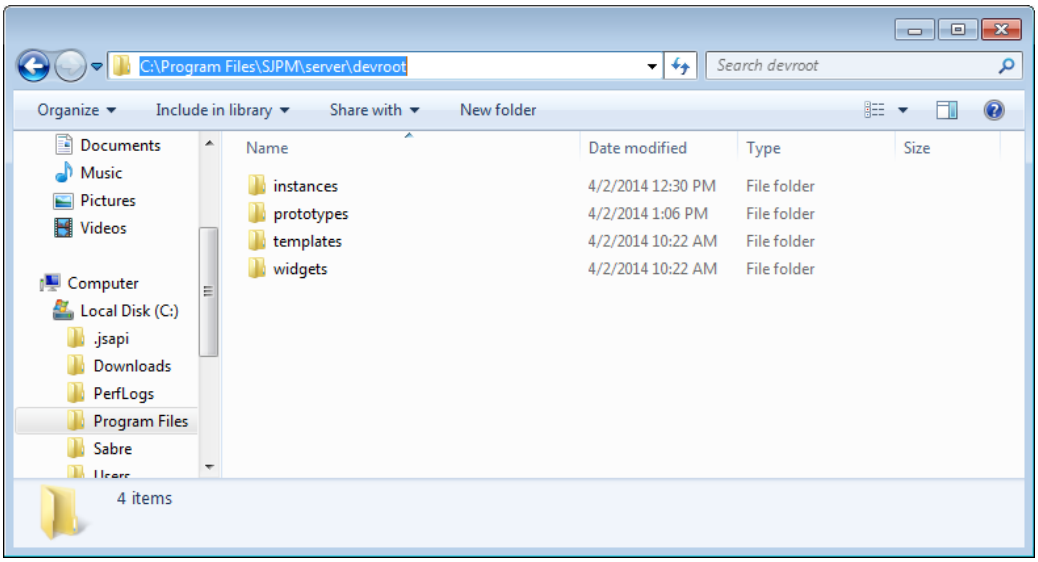
1. Once you have installed SJPM follow these steps to restore your SJPM backup of devices and configurations.



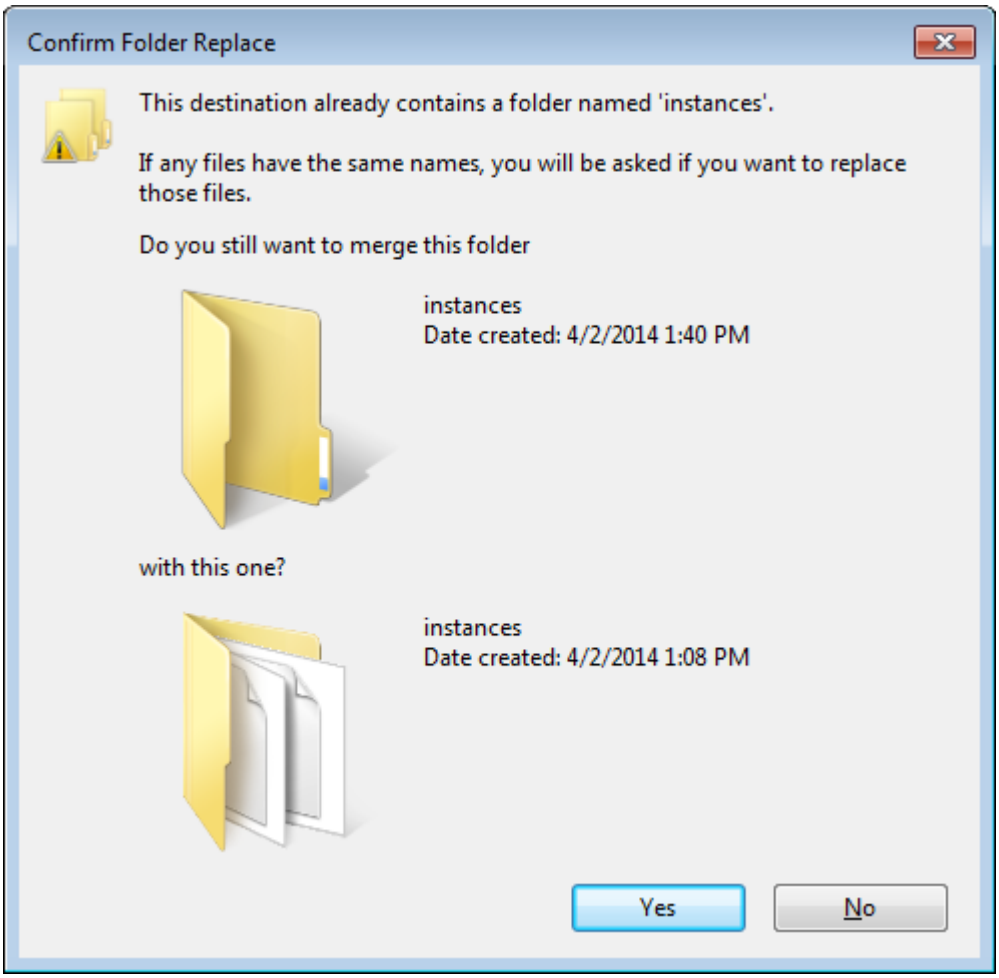
2. Open Windows Explorer and then navigate to the location where you have stored your SJPM backup copy. Right click on the "**instances**" folder and then left click on the "**Copy**" menu item. Then navigate to "**C:\Program Files (x86)\SJPM\server\devroot**".



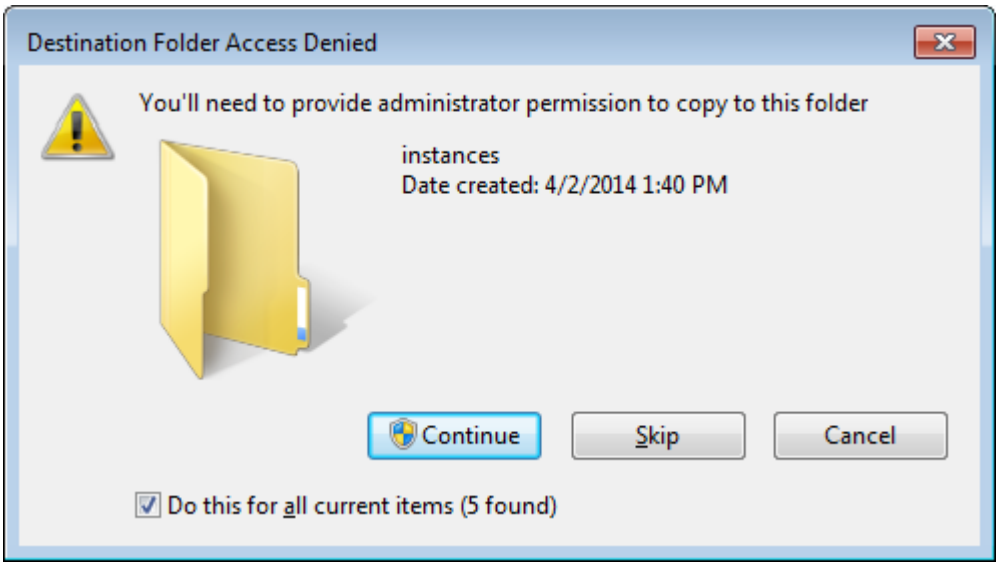
3. Right click in the right pane in Windows Explorer and then left click on the "**Paste**" menu item.



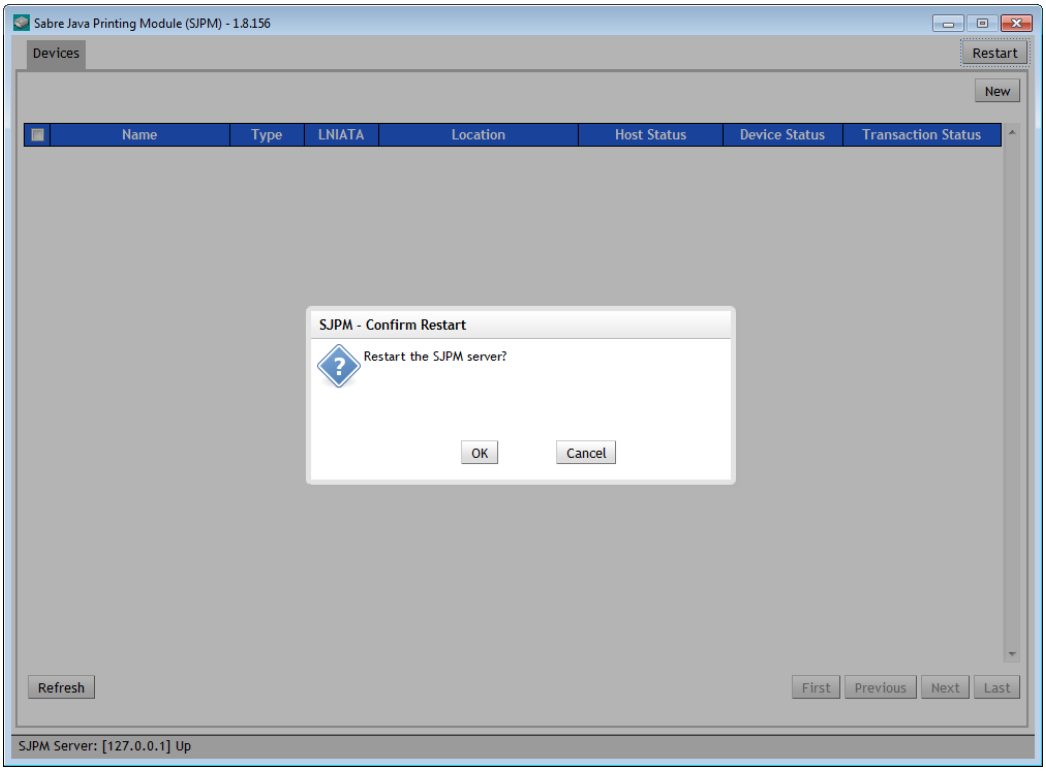
4. The "**Confirm Folder Replace**" window will appear. Click on the "**Yes**" button.



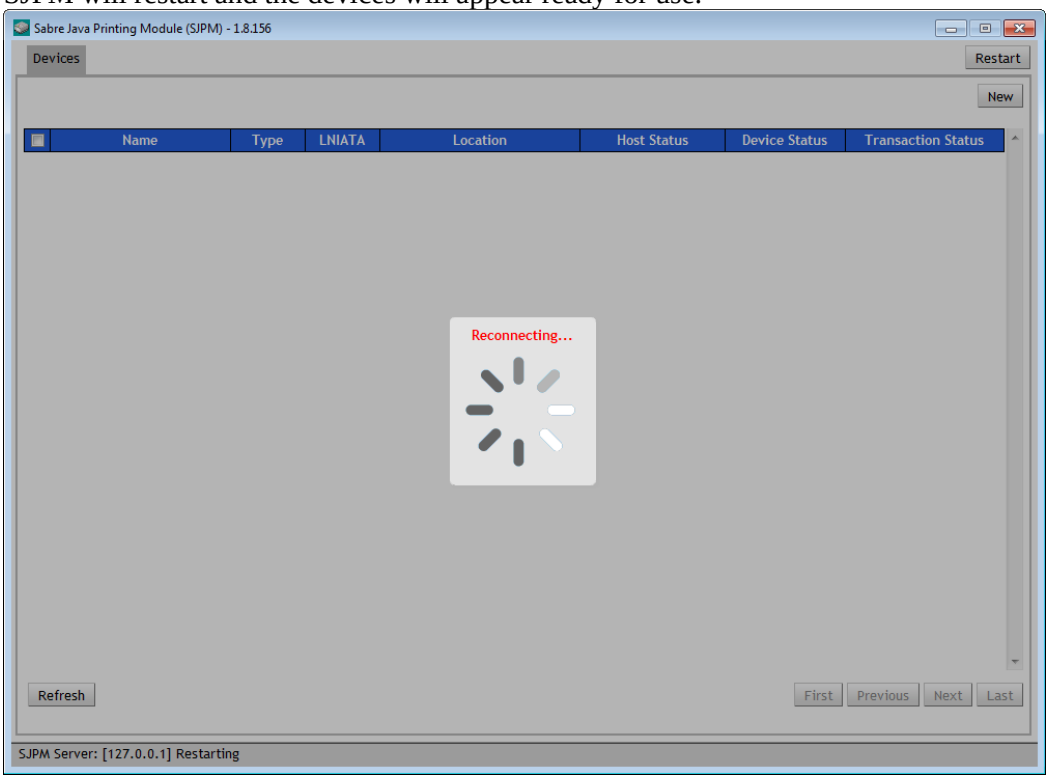
5. If the "**Destination Folder Access Denied**" window appears. Click on the "**Continue**" button.

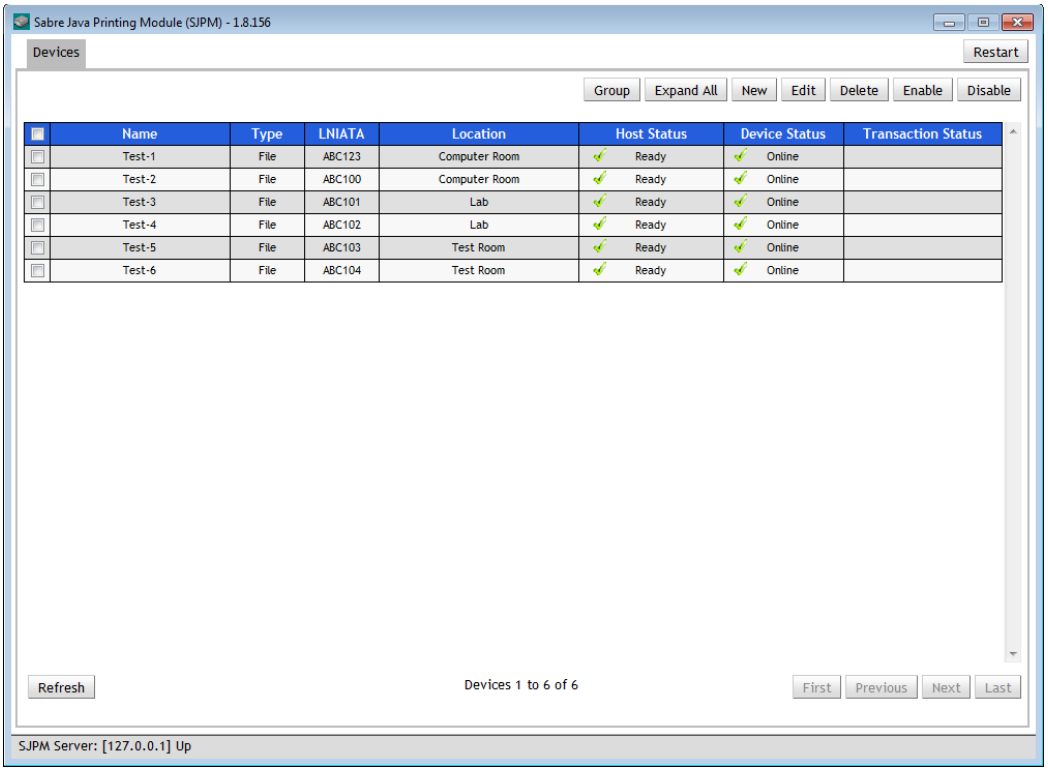


6. In the SJPM Client GUI click on the "**Restart**" button. The "**SJPM – Confirm Restart**" popup window will appear. Click on the "**OK**" button.



7. SJPM will restart and the devices will appear ready for use.

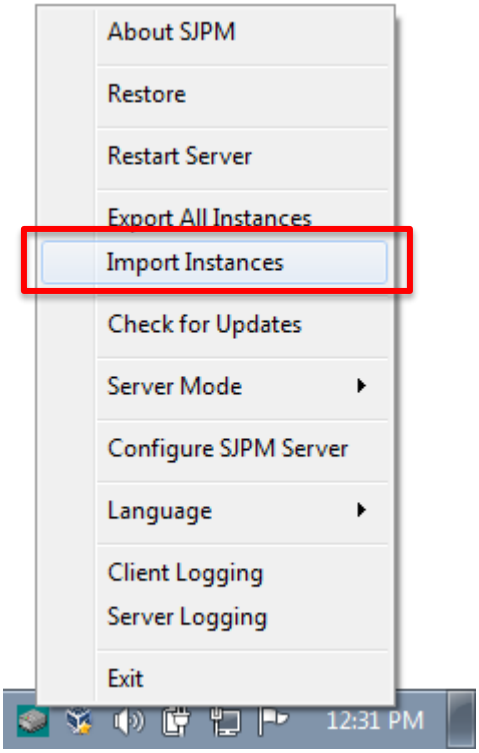




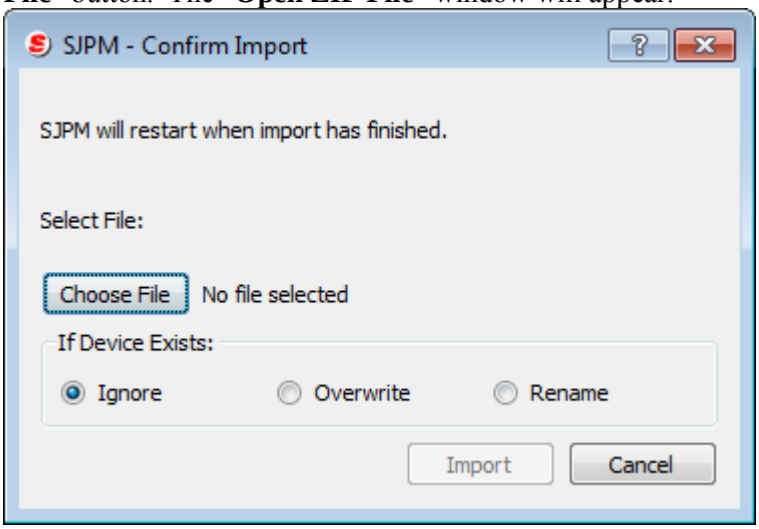
6.1.3.4 Device Restore – Automated Process

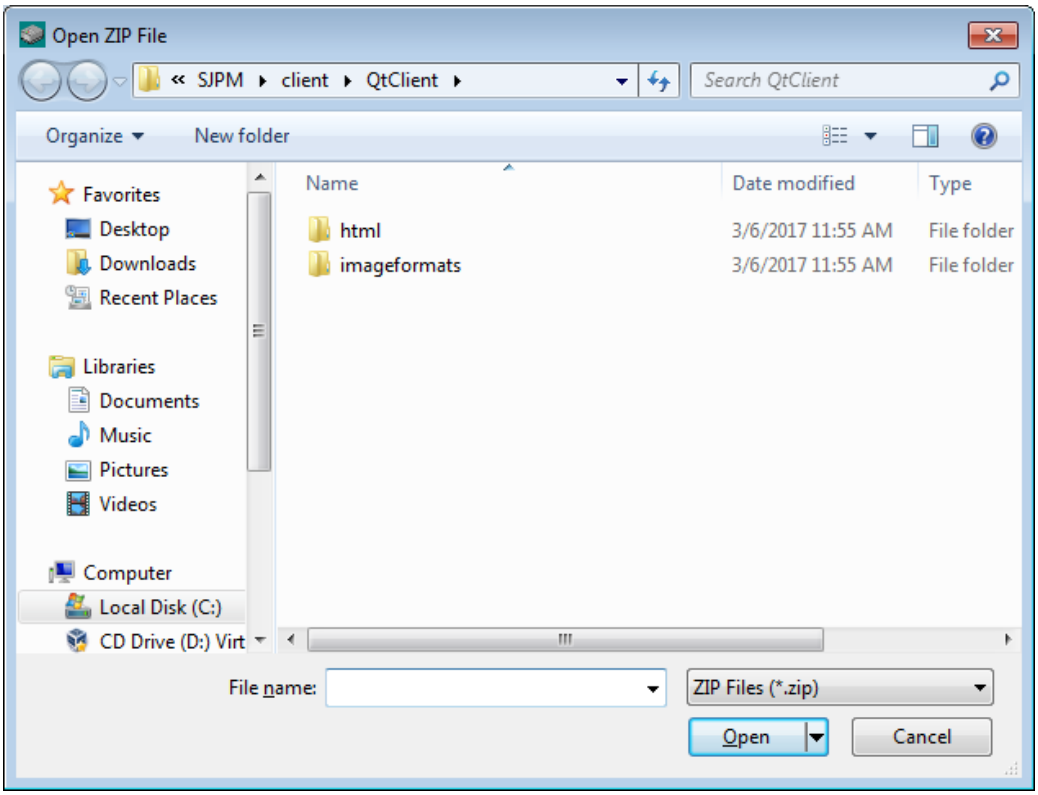
Device files must be zipped with an extension of "**.zip**" and no sub-folders for use with the import function of SJPM (**Example:** SJPM_instances_20170131140127636.zip). Follow the steps below to restore your backup of SJPM devices and configurations.

1. Right click on the "**SJPM Windows System Tray Icon**" and then click on the "**Import Instances**" menu item.

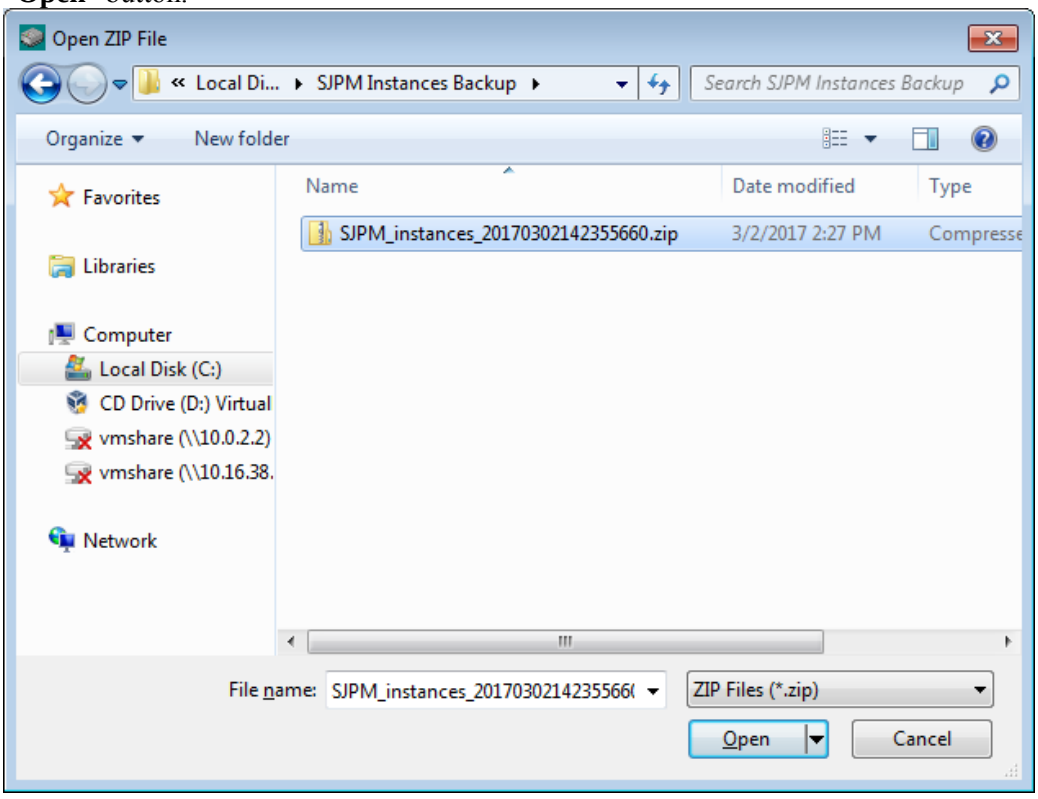


2. The "**SJPM TN – Confirm Import**" popup window will appear. Click on the "**Choose File**" button. The "**Open ZIP File**" window will appear.

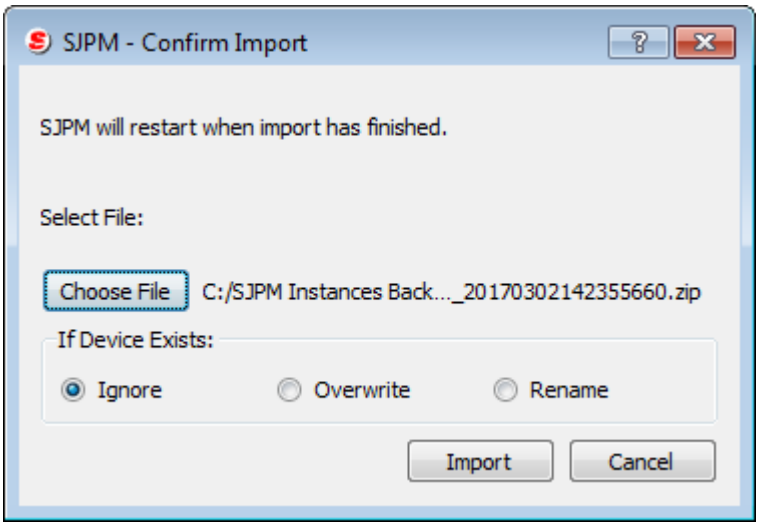




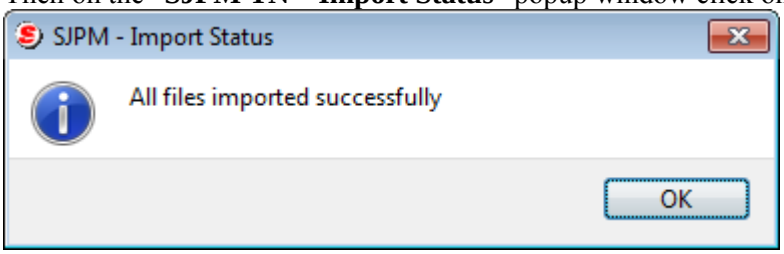
3. Navigate to the location of your instances zip file and select it. Then click on the "**Open**" button.



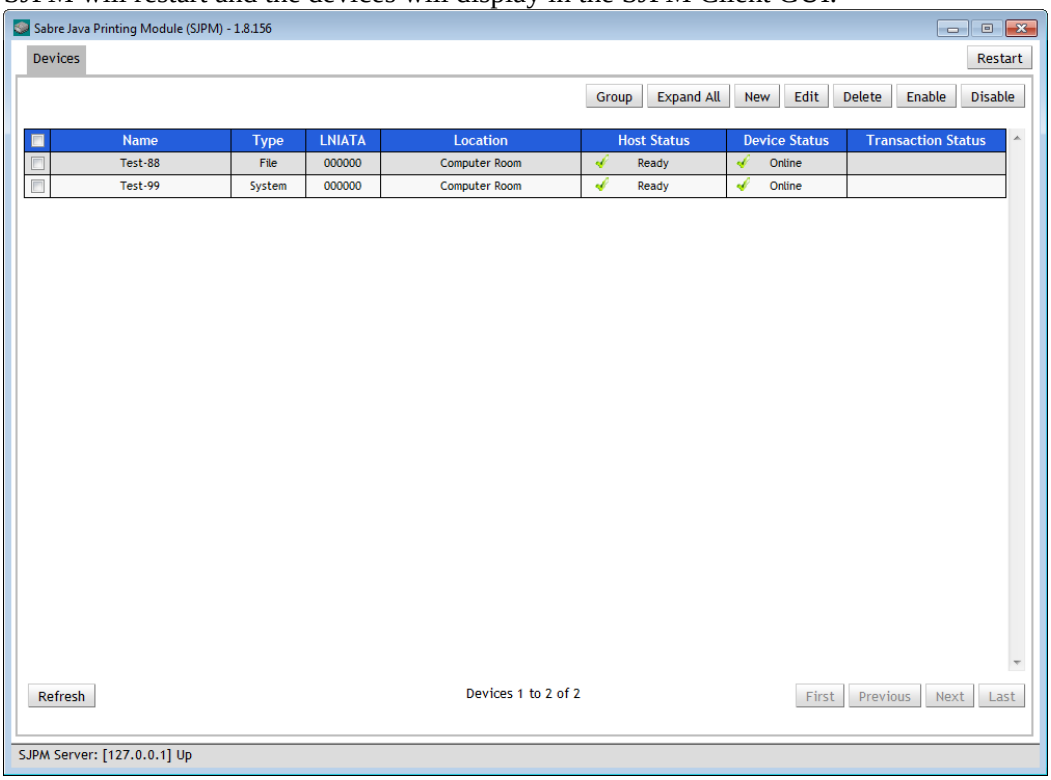
4. Then on the "**SJPM TN – Confirm Import**" popup window click on the "**Import**" button.



5. Then on the "**SJPM TN – Import Status**" popup window click on the "**OK**" button.



SJPM will restart and the devices will display in the SJPM Client GUI.



6.1.4 SJPM Failsafe Configurations

This section describes the procedures for setting up SJPM failsafe Scenarios. There are two possible failsafe scenarios (**Running Two SJPM installs** and **Running One SJPM install**).

6.1.4.1 Failsafe Scenario One – Running Two SJPM Installs

In **Failsafe Scenario One** install SJPM on two (2) different operationally ready PCs in your office (**both PCs will require Sabre connectivity**). Each of the PCs will run SJPM simultaneously and will be configured with all of the devices. However, each PC will have only half of the devices enabled as described below.

- **PC One (1)** will have the first half of the devices enabled (the disabled second half of the devices are enabled on PC 2).

- **PC Two (2)** will have the second half of the devices enabled (the disabled first half of the devices are enabled on PC 1).

In the case of a failure situation follow the step described below in the "**Activation:**" section. After the failure has been resolved, restore the failsafe scenario.

Configuration:

1. On **PC One (1)** add and configure all of your devices and then ensure that they are all connecting and working properly (Refer to Section **5.1.3.1 Adding Devices**). If you have instances files from a previous SJPM installation you can use them to add the devices (Refer to sections **6.1.3.3 Device Restore – Manual Process** and **6.1.3.4 Device Restore – Automated Process**).

2. On **PC One (1)** open Windows Explorer and then go to the "**C:\Program Files (x86)\SJPM\server\devroot\instances**" directory. Copy all of the instances files in the directory to a thumb drive (Refer to Section **6.1.3.1 Device Backup – Manual Process** and **6.1.3.2 Device Backup – Automated Process**).

3. On **PC Two (2)** open Windows Explorer and then go to the "**C:\Program Files (x86)\SJPM\server\devroot\instances**" directory. Copy all of the instances files collected from **PC One (1)** in step 2 into the directory (Refer to sections **6.1.3.3 Device Restore – Manual Process** and **6.1.3.4 Device Restore – Automated Process**).

4. On **PC One (1)** disable the second half of the total number of devices (**Example:** If you have 10 total devices configured disable devices 6 through 10) (Refer to Section **5.1.4.1 Disabling Devices**).

5. On **PC Two (2)** disable the first half of the total number of devices (**Example:** If you have 10 total devices configured disable devices 1 through 5) (Refer to Section **5.1.4.1 Disabling Devices**.).

Activation:

1. On the PC that has not failed enable all of the devices that are disabled (Refer to Section **5.1.4.2 Enabling Devices**).

6.1.4.2 Failsafe Scenario Two – Running One SJPM Install

In **Failsafe Scenario Two** install SJPM on two (2) different operationally ready PCs in your office (**both PCs will require Sabre connectivity**). Each of the PCs will run SJPM simultaneously and will be configured with all of the devices. However, only one PC will have the devices enabled as described below.

- **PC One (1)** will be the Primary PC with all of the devices enabled.
- **PC Two (2)** will be the Secondary PC with all of the devices disabled.

In the case of a failure situation follow the step described below in the "**Activation:**" section. After the failure has been resolved, restore the failsafe scenario.

Configuration:

1. On **PC One (1)** add and configure all of your devices and then ensure they are all connecting and working properly (Refer to Section **5.1.3.1 Adding Devices**). If you have instances files from a previous SJPM installation you can use them to add the devices (Refer to sections **6.1.3.3 Device Restore – Manual Process** and **6.1.3.4 Device Restore – Automated Process**).

2. On **PC One (1)** open Windows Explorer and then go to the "**C:\Program Files (x86)\SJPM\server\devroot\instances**" directory. Copy all of the instances files in the directory to a thumb drive (Refer to Section **6.1.3.1 Device Backup – Manual Process** and **6.1.3.2 Device Backup – Automated Process**).

3. On **PC Two (2)** open Windows Explorer and then go to the "**C:\Program Files (x86)\SJPM\server\devroot\instances**" directory. Copy all of the instances files collected from **PC One (1)** in step 2 into the directory (Refer to sections **6.1.3.3 Device Restore – Manual Process** and **6.1.3.4 Device Restore – Automated Process**).

4. On **PC One (1)** enable all of the devices (**Example:** If you have 10 total devices configured enable all 10 devices) (Refer to Section **5.1.4.1 Disabling Devices**).

5. On **PC Two (2)** disable all of the devices (**Example:** If you have 10 total devices configured disable all 10 devices) (Refer to Section **5.1.4.1 Disabling Devices**).

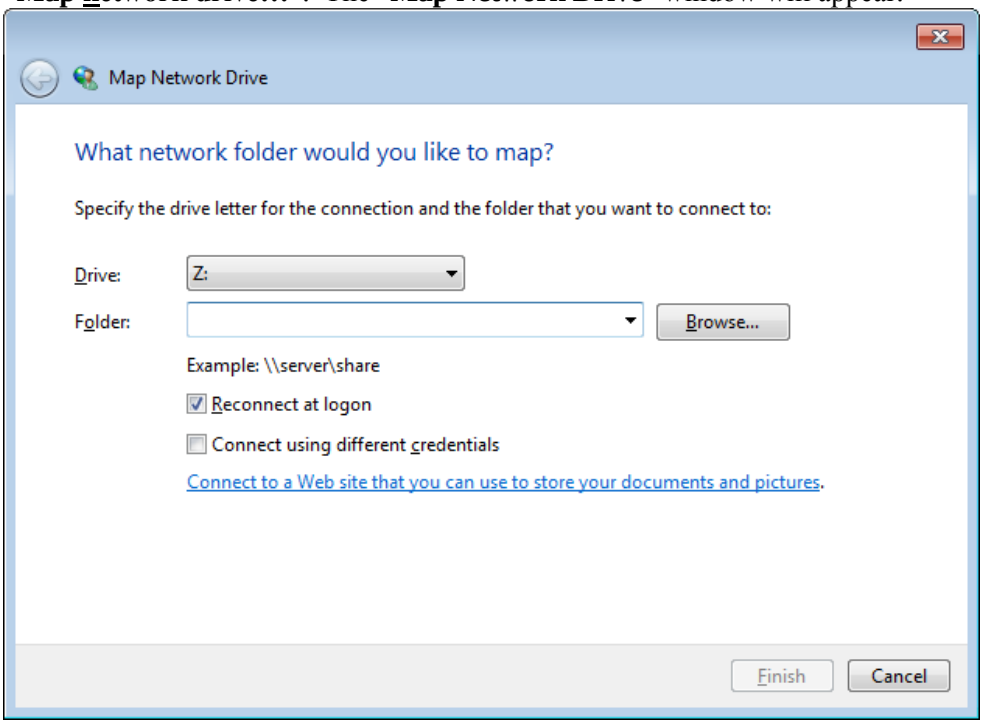
Activation:

1. On **PC Two (2)** enable all of the devices (Refer to Section **5.1.4.2 Enabling Devices**).

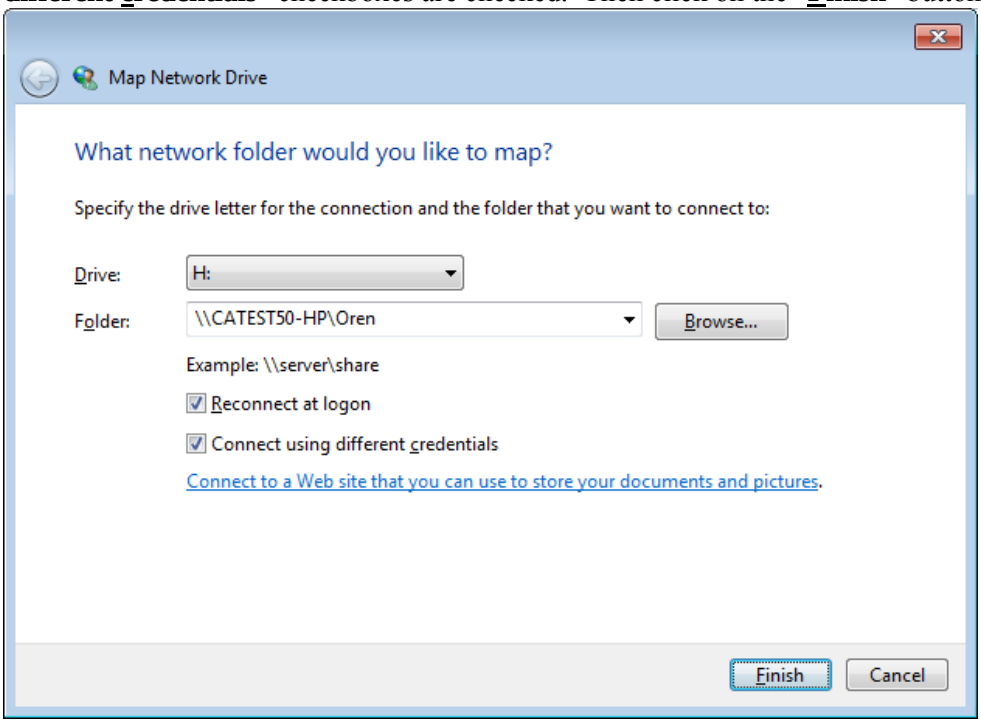
6.1.5 Printing to a Mapped Network Drive Folder – ATB2File, File, and IFQ Drivers

This section describes the procedure for printing to a mapped network drive folder for the "**ATB2File**", "**File**", and "**IFQ**" Drivers. SJPM must be running as an application for this functionality to work (Refer to section **4.1.3 Running SJPM as an Application**).

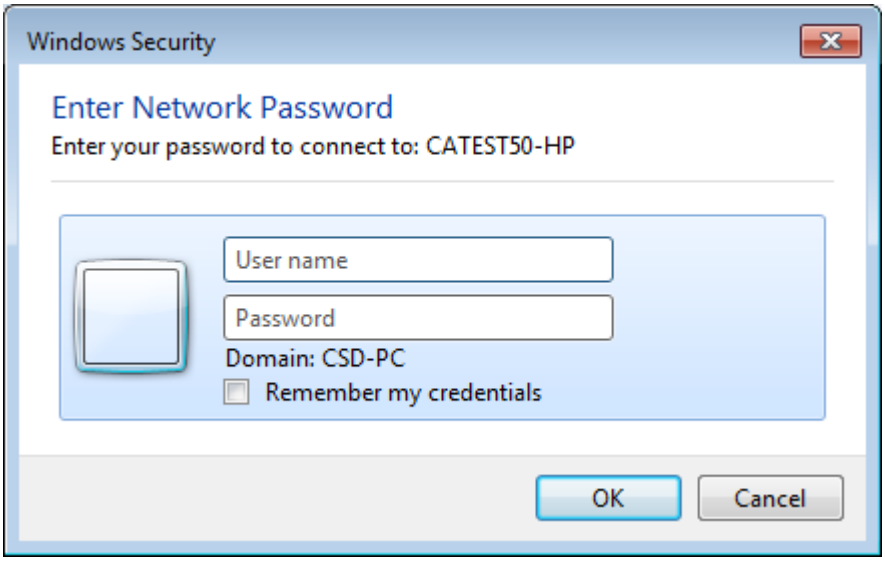
1. In Windows open Windows Explorer and then right click on "**Computer**" and then click on "**Map network drive…**". The "**Map Network Drive**" window will appear.

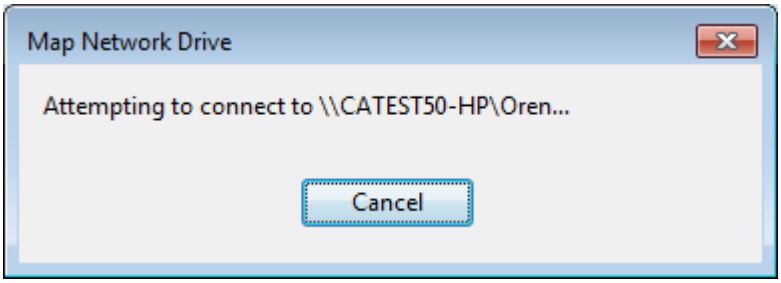


2. Select a drive letter from the "**Drive:**" drop down list and then type in the folder path in the "**Folder:**" field. Also make sure that the "**Reconnect at logon**" and "**Connect using different credentials**" checkboxes are checked. Then click on the "**Finish**" button.

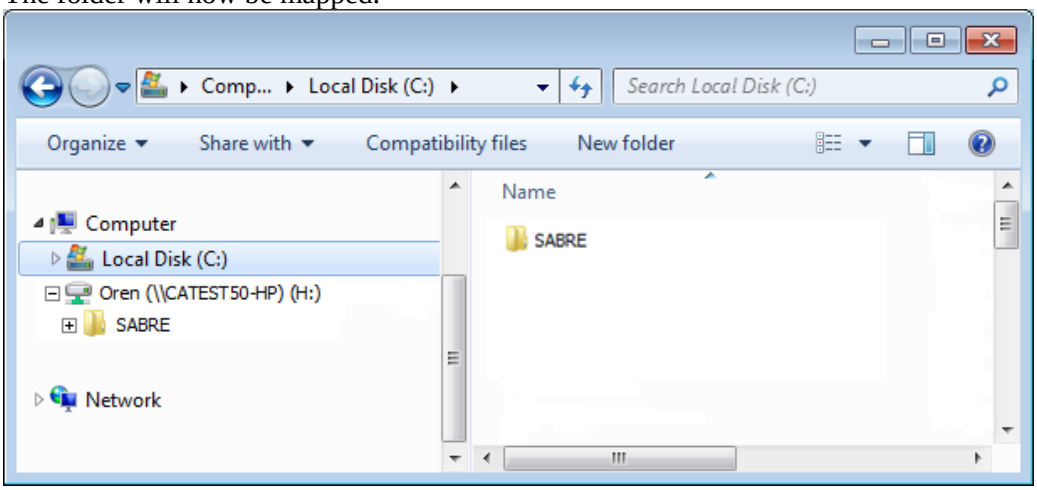


3. The "**Windows Security**" window will appear. Type in the password and then click on the "**OK**" button.





4. The folder will now be mapped.



IMPORTANT:

For the SJPM Server to recognize the mapped folder right click on the "**Notepad**" icon in the "**Start**" menu and select "**Run as administrator**". Then using this Notepad try to save a text file on the H drive (mapped drive). Notepad takes a few seconds to change its H drive icon from red to green when you try to save the file there but once the H drive icon is green SJPM will also be able to write its output files to the H drive.

Note: You do not need to save a file into the H drive, just clicking on the red H drive icon in Notepad's file browse dialog box should be sufficient to trigger Windows to do what it needs to do to turn the H drive icon from red to green.

6.1.6 Allow User Rights – Queue and System Drivers

Allow user rights to "Queue" and "System" Drivers:

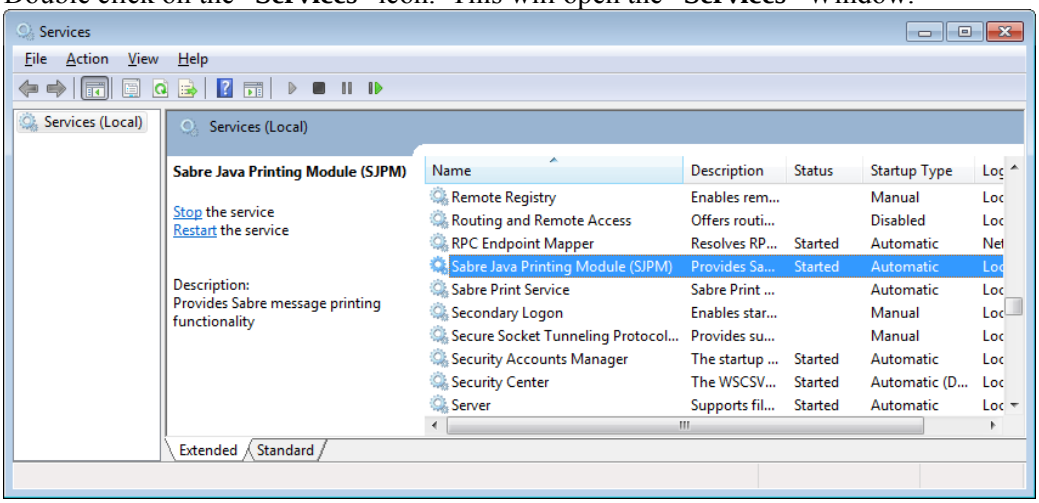
Setup of the Sabre Java Printing Module (SJPM) Service User is required to allow SJPM access rights to print to any system printers that are configured to be owned by a non-Administrative user and make them visible for configuration in the SJPM "**Queue**" and/or "**System**" Driver's configuration tab.

The following procedure should be completed before addition and configuration of a "**Queue**" or "**System**" device in SJPM if the SJPM user needs to print to system printers configured to be owned by a non-Administrative user.

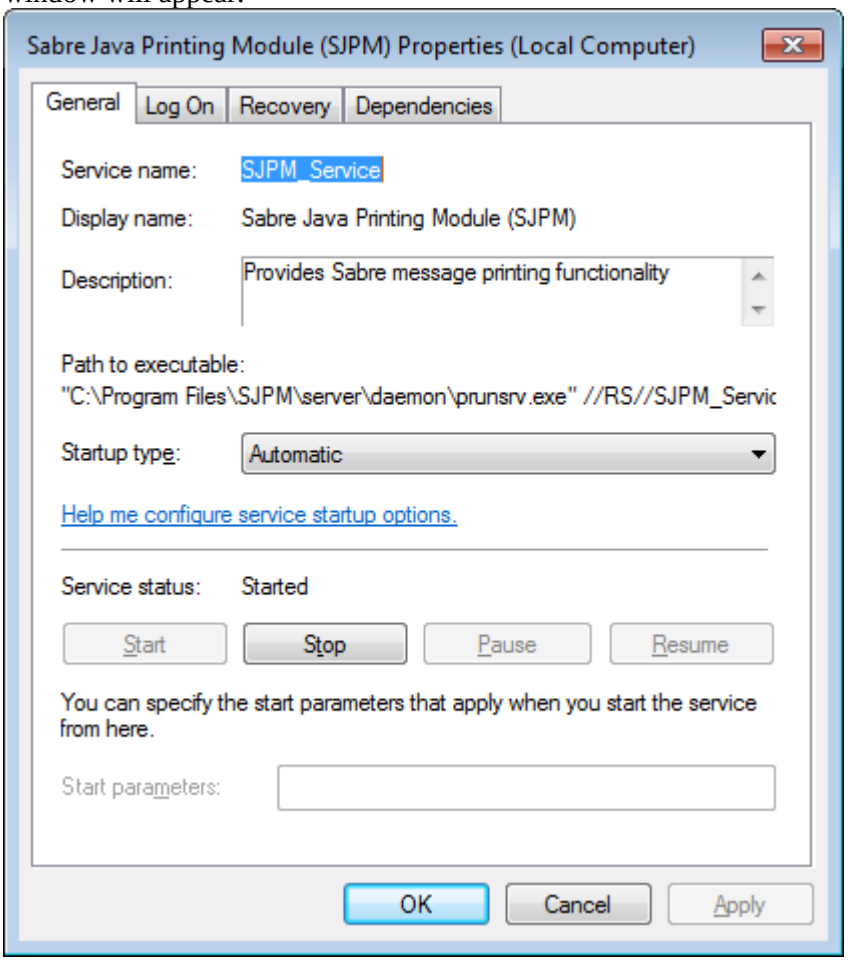
1. In Windows 7 and Windows 8 click on the "**Start**" button and then click on "**Control Panel**" (Windows 10 click on the "**Start**" button, then click on "**All apps**", then click on "**Windows System**", and then click on "**Control Panel**".).

2. Click on the "**Administrative Tools**" icon.

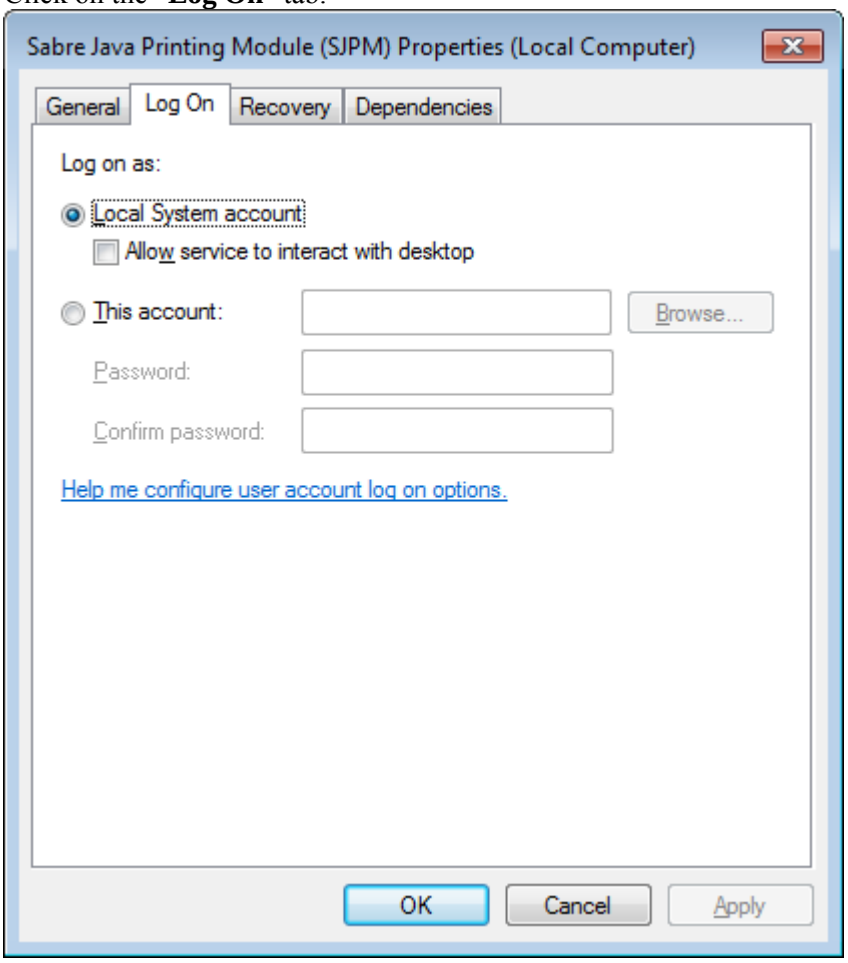
3. Double click on the "**Services**" icon. This will open the "**Services**" Window.



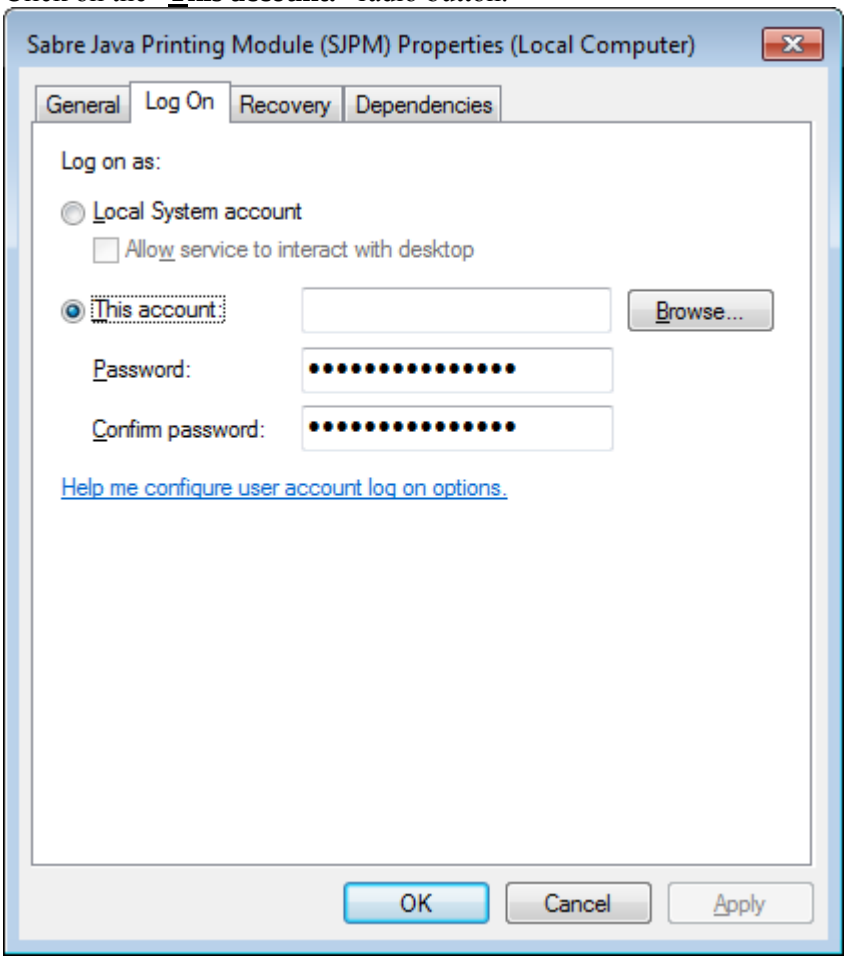
4. Right click on the "**Sabre Java Printing Module (SJPM)**" service and then click on "**Properties**". The "**Sabre Java Printing Module (SJPM) Properties (Local Computer)**" window will appear.



5. Click on the "**Log On**" tab.



6. Click on the "**This account:**" radio button.



7. In the "**This account:**" field type in your Windows User name.
   In the "**Password:**" field type in your Windows Password.
   In the "**Confirm password:**" field type in your Windows Password again.
   Click on the "**OK**" button.

8. Close the "**Services**" windows and Control Panel and then continue with the SJPM Queue or System device configuration.

6.1.7 Installing SJPM to an Alternate Hard Drive

This section describes the procedure for installing SJPM to an alternate hard drive other than the default (**C:\Program Files (x86)\SJPM**).

1. Run Command Prompt as the administrator.

2. From Command Prompt change to the directory where the SJPM installation executable is located.

3. From Command Prompt type in "**Install_SJPM_TN_x86_32Bit_x.x.xx.exe INSTALLDIR="Z:\TTT"**".
   Where "**x.x.xx**" is the version of SJPM you are installing.
   Where "**Z:\TTT**" is the hard drive and directory where SJPM will be installed.

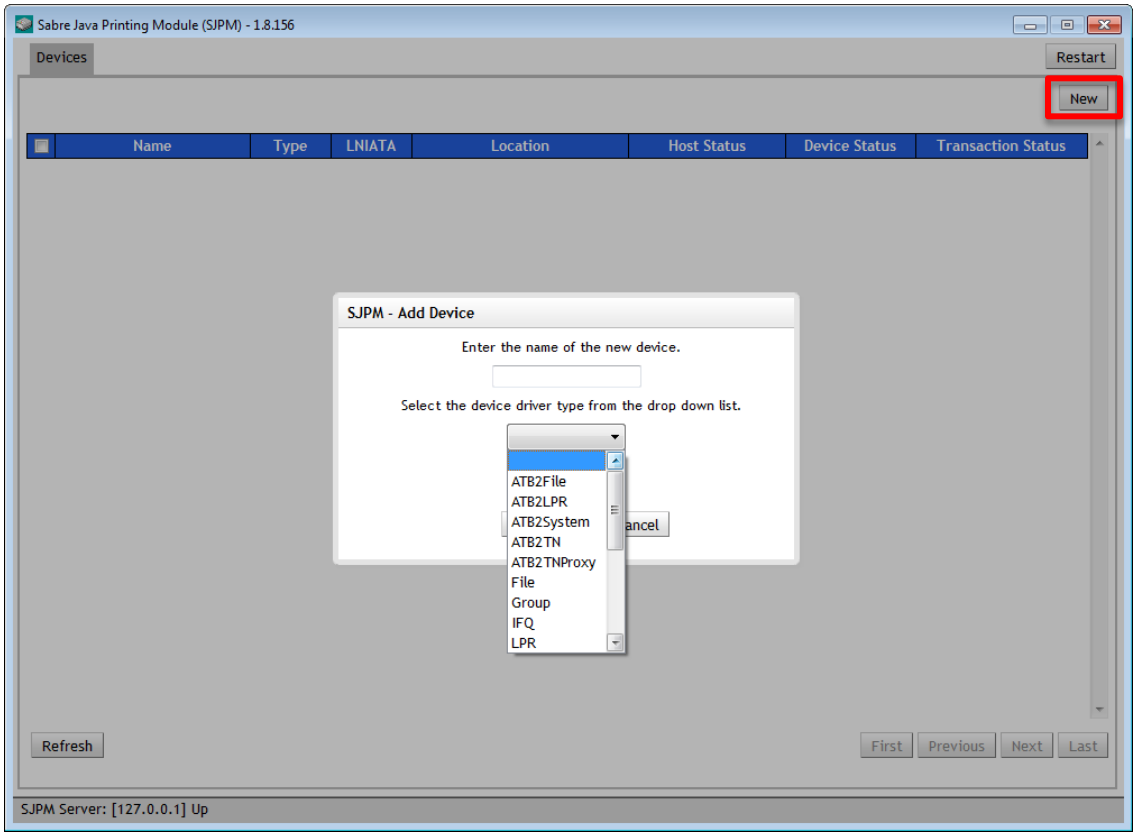
6.2 SJPM Drivers

SJPM comes with **Nineteen** (**19**) Drivers to choose from that handle various and specific data delivery requirements.

SJPM Drivers:

ATB2File, ATB2LPR, ATB2TN, ATB2System, ATB2TNPProxy, File, Group, IFQ, LPR, MQJMS, Printer, Proxy, Queue, RawIP, STPATB1, STPATBINI, STPATB2, STPATB2INI, and System

SJPM Drivers can be selected from the drop down list in the "**SJPM – Add Device**" popup window which is opened by clicking on the "**New**" button in the SJPM Client GUI.



SJPM also provides "**Print Data Request**" for its drivers that is used to pass data, either URL encoded, as JSON or as XML document, to a device for printing. The format of the data in the request body should be specified by means of the HTTP header "**Content-Type**".

Note: This is a **POST** request, not a GET.

Refer to **Appendix L. Print Data Request** for details on print data request.

6.2.1 ATB2File Driver

The "**ATB2File**" Driver allows the user to send data from the Sabre Host to file with various configuration options. The "**ATB2File**" device emulates the physical ATB2 printer. PECTABS for the "**ATB2File**" device are stored in a similar way as they are in the physical ATB2 printer and the same printing management will apply as it did with the physical ATB2 printer.

For example; if the PECTABs are lost in the "**ATB2File**" device (**SJPM PECTABs missing Error:** "An error occurred during printing: ATB2 Message Handler Exception; PECTAB "T" needed to process Document not found; ATB2 PECTAB T not found") then it will be necessary to resend the PECTABs from Sabre to the "**ATB2File**" device using the "**W*ATLNIATA/RESTORE**" command where **LNIATA** is the ATB2 printer's LNIATA.

Refer to **Appendix F** for details on file Encryption and Decryption.

Refer to Section **6.1.5 Printing to a Mapped Network Drive Folder – ATB2File, File, and IFQ Drivers** for details on printing to a mapped network drive.

Refer to **Appendix H. Creating and Loading ATB2 Virtual Stock** for details on ATB2 Virtual Stock.

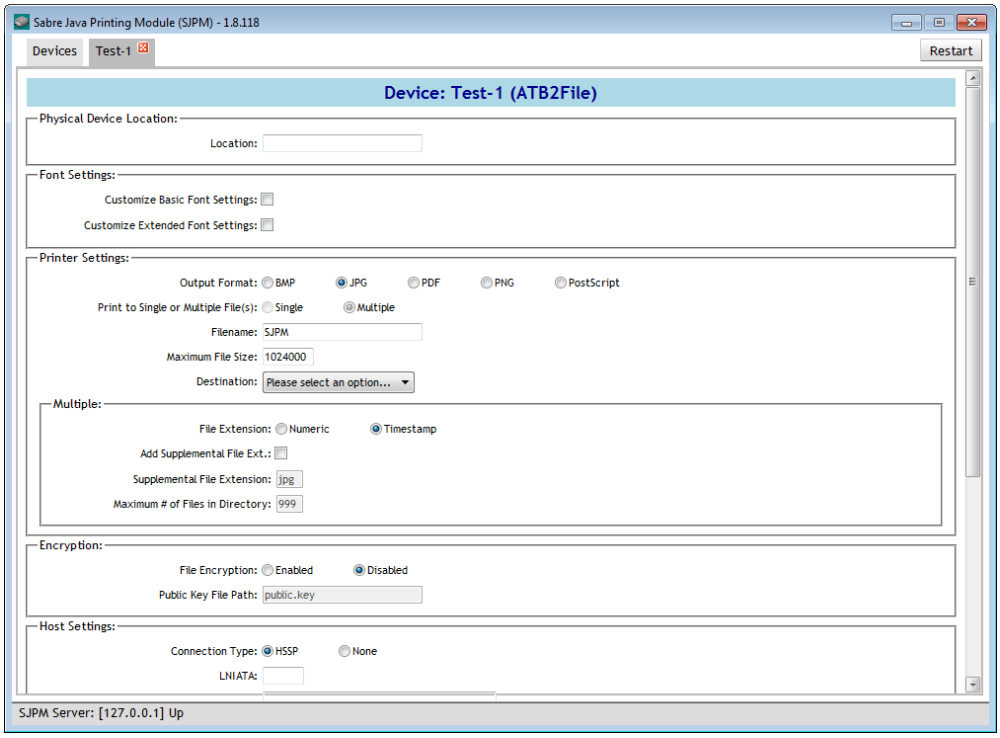
Refer to **Appendix K** for terminology on **Remote File Services** that are available in the destination selection.

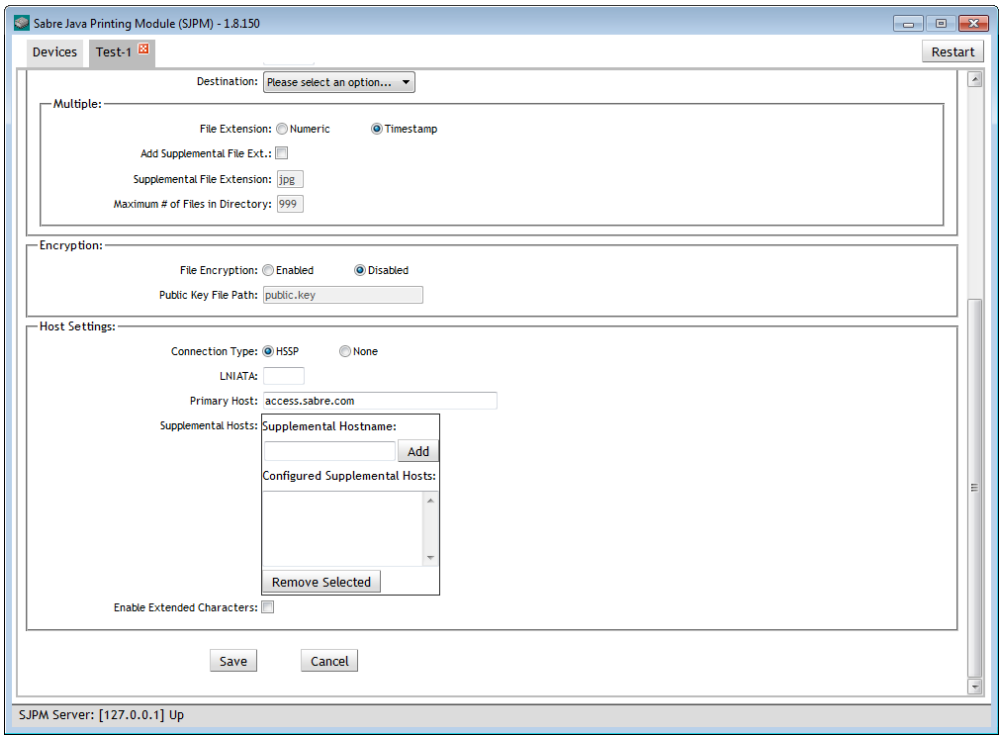
Usage:

The "**ATB2File**" Driver should be used if the user needs to send ATB2 data from the Sabre Host to a file and no ticket coupons are required; or for coupon archive purposes. Users can also create their own custom stock to use with the "**ATB2File**" Driver. The "**ATB2File**" device's output is a file on the PC's hard drive. The "**ATB2File**" Driver supports various output file types; **BMP**, **JPG (default)**, **PDF**, **PNG**, and **Postscript**. The output files can be configured with a filename and Numeric or Timestamp naming conventions with the extension of the selected output file format. The "**Multiple**" selection configuration has also been enhanced with the addition of "**Add Supplemental File Ext.**" and "**Supplemental File Extension**" to provide common, configurable extensions for the "**Numeric**" and "**Timestamp**" selections. The "**ATB2File**" driver also provides remote network file delivery and, file encryption for security purposes.

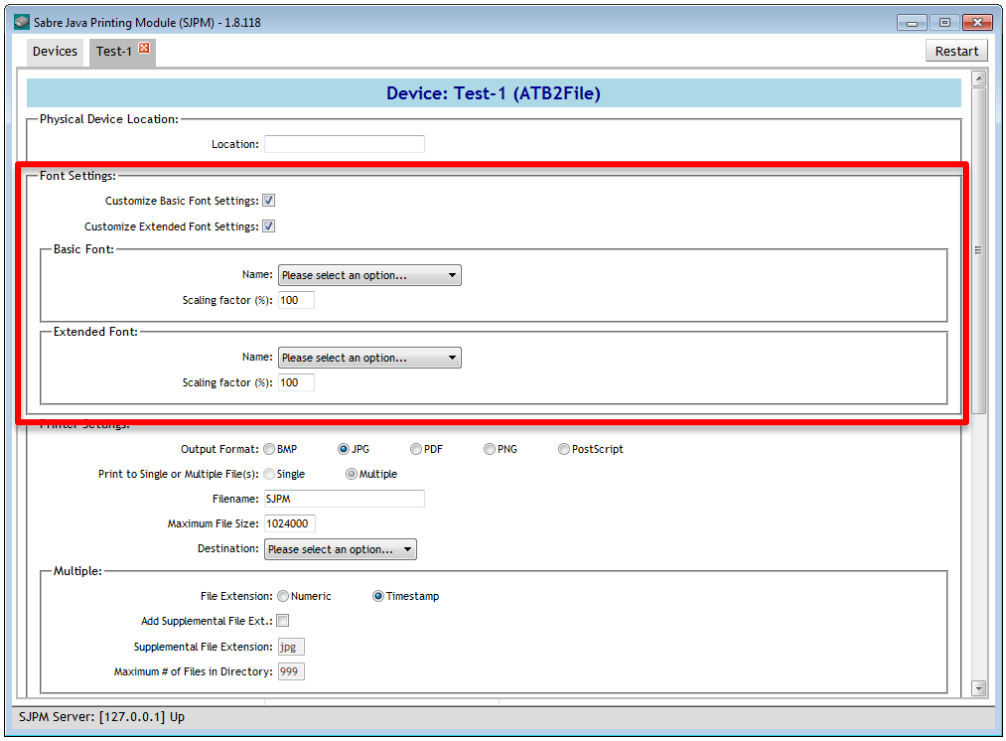
The screenshots below show the "**ATB2File**" Driver's configuration tab.

“ATB2File” configuration tab – Default Settings:

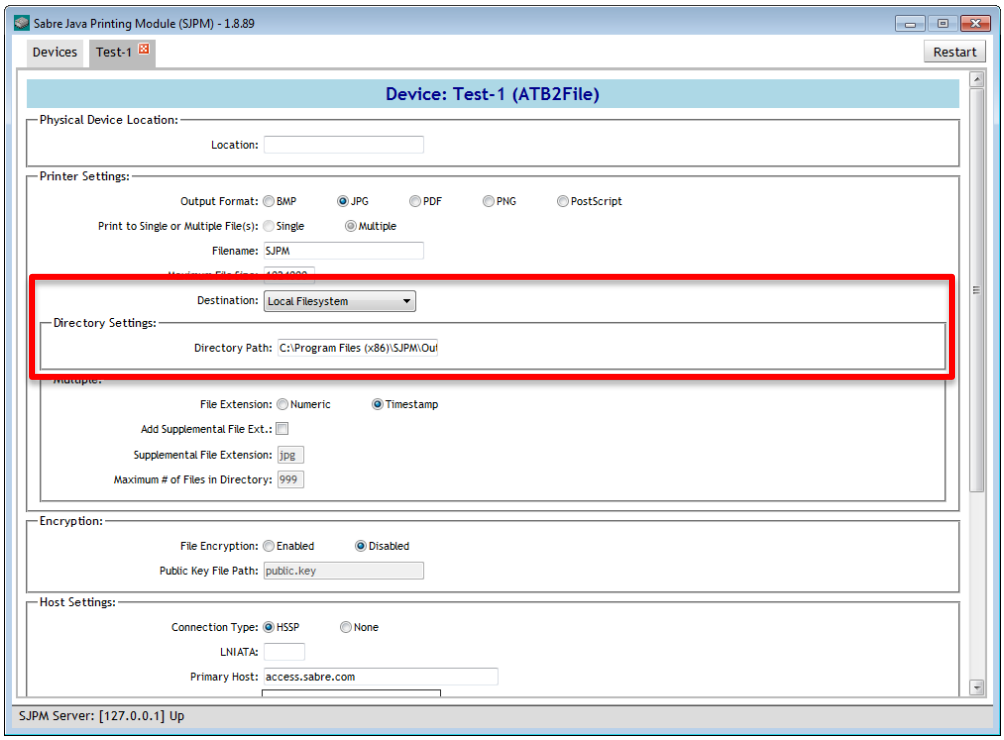




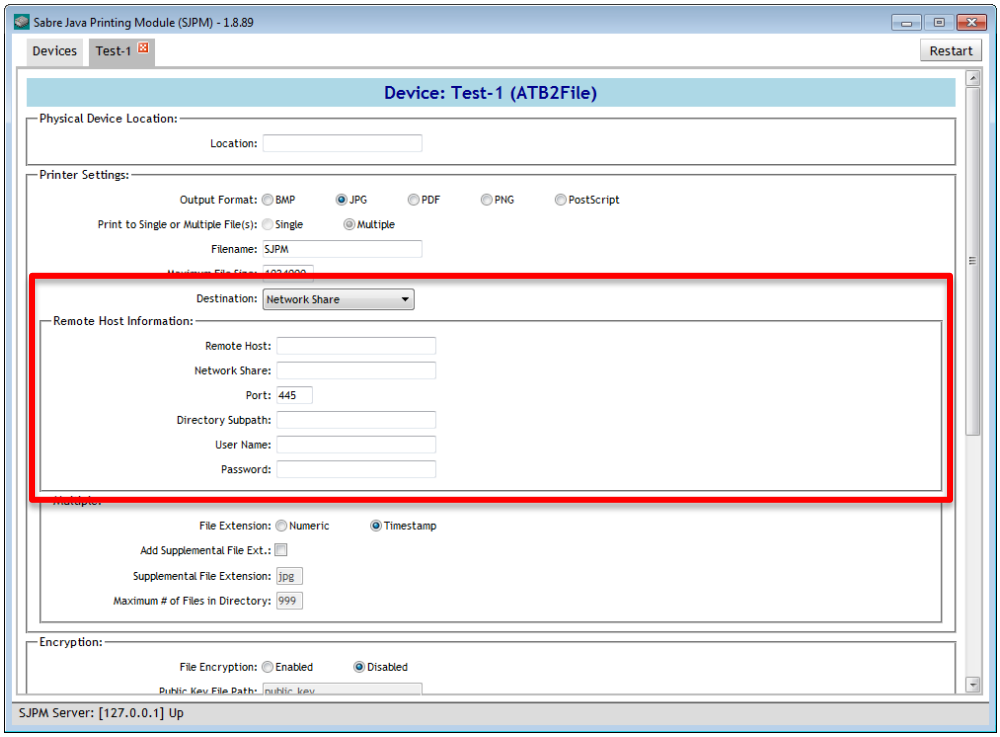
"ATB2File" configuration tab with "Customize Basic Font Settings" and Customize Extended Font Settings" selected – Default Settings:



"ATB2File" configuration tab with "Local Filesystem" selected – Default Settings:



"ATB2File" configuration tab with "Network Share, FTP, FTPS, FTPES, SCP, SFTP, CIFS/SMB1, or SMB2/SMB3" selected – Default Settings:



"ATB2File" Driver Configuration Options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Font Settings:"

"Customize Basic Font Settings:"

The "**Customize Basic Font Settings**" selection, when selected, will display the "**Basic Font**" box. The default is unchecked.

"Customize Extended Font Settings:"

The "**Customize Extended Font Settings**" selection, when selected, will display the "**Extended Font**" box. The default is unchecked.

"Basic Font:"

The "**Basic Font**" box will display when "**Customize Basic Font Settings**" is selected from the "**Font Settings**" box.

"**Font:**"

The "**Font**" selection sets the font to use with the "**ATB2File**" Device. The default is set to "**Please select an option…**".

"**Scaling Factor (%):**"

The "**Scaling Factor (%)**" configuration sets the percentage to scale the selected font. The default is set to "**Please select an option…**".

"Extended Font:"

The "**Extended Font**" box will display when "**Customize Extended Font Settings**" is selected from the "**Font Settings**" box.

"**Font:**"

The "**Font**" selection sets the font to use with the "**ATB2File**" Device. The default is set to "**Please select an option…**".

"**Scaling Factor (%):**"

The "**Scaling Factor (%)**" configuration sets the percentage to scale the selected font. The default is set to "**Please select an option…**".

"Printer Settings:"

"**Output Format:**"

The "**Output Format**" selection sets the output file type. The default is set to "**JPG**".

Available selections are:

"**BMP**"

"**JPG**"

"**PDF**"

"**PNG**"

"**PostScript**"

"**Print to Single or Multiple File(s):**"

The "**Print to Single or Multiple File(s)**" selection is disabled in the "**ATB2File**" Driver and is defaulted to "**Multiple**". This selection cannot be changed for the "**ATB2File**" Driver.

"**Multiple**"

- For multiple file creation. With this option selected SJPM will generate a unique filename for each file created based on configuration settings in the "**Multiple**" box.

"**Filename:**"

The "**Filename**" configuration is for the name that will be used to name the files when they are created. This field should not include a file extension. The default is set to "**SJPM**".

"**Maximum File Size:**"

The "**Maximum File Size**" configuration is for the maximum file size limit that will be used when writing to each file. The default is set to "**1024000**". If this configuration is set lower you could receive an error in SJPM for the device. For example; "**An error occurred during printing: Maximum file size limit exceeded**".

"**Destination:**"

The "**Destination**" selection sets the destination of the output files. The default is set to "**Please select an option…**".

Refer to **Appendix K** for terminology on **Remote File Services** that are available in the destination selection.

Available selections are:

"**Local Filesystem**"

"**Network Share**"

"**FTP**"

"**FTPS**"

"**FTPES**"

"**SCP**"

"**SFTP**"

"**CIFS/SMB1**"

"**SMB2/SMB3**"

"**Directory Settings:**"

The "**Directory Settings**" box will display when "**Local Filesystem**" is selected from the "**Destination**" drop down list.

"**Directory Path:**"

The "**Directory Path**" configuration is for the location where the files will be created (**Example:** "**C:\Test**"). The default is set to "**C:\Program Files\SJPM\Output**" for 32bit operating systems and "**C:\Program Files (x86)\SJPM\Output**" 64bit operating systems.

"**Remote Host Information:**"

The "**Remote Host Information**" box will be displayed when "**Network Share**", "**FTP**", "**FTPS**", '**FTPES**", "**SCP**", "**SFTP**", "**CIFS/SMB1**", or "**SMB2/SMB3**" is selected from the "**Destination**" drop down list.

"**Remote Host:**"

The "**Remote Host**" configuration sets the IP address, hostname, or computer name of the machine where the share exists. The default is blank.

"**Network Share:**"

The "**Network Share**" configuration sets the name of the network share. The default is blank.

"**Port:**"

The "**Port**" configuration sets the remote host's port that will be connected.

Defaults are:

Network Share, CIFS/SMB1 and **SMB2/SMB3** = **445**

(By default port 445 is used, which uses the SMB protocol. If this is changed to another value, the Network Share will connect using the WebDav protocol.**)**

FTP and **FTPES** = **21**

FTPS = **990**

SCP and **SFTP** = **22**

"**Directory Subpath:**"

The "**Directory Subpath**" configuration sets the **optional** directory subpath under the network share where files will be written. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets user name connecting to the network share. The default is blank.

"**Password:**"

The "**Password**" configuration sets the password of the user connecting to the network share. The default is blank.

"**Multiple:**"

"**File Extension:**"

The "**File Extension**" selection is for the output files extension.

Available selections are:

"**Numeric**"

- For setting the filename for BMP, JPG, PDF, PNG, and PostScript output file formats to be the name configured in the "**Filename**" configuration plus a three digit extension starting at "**.000**".

  For example, for "**JPG**" output format, the filename will be "**SJPM.000**".

"**Timestamp**"

- For setting the file name for BMP, JPG, PDF, PNG, and PostScript output file formats to be the name configured in the "**Filename**" configuration plus the current ***yeardatetime***. This selection is set as default.

  For example, for "**JPG**" output format, the filename will be "**SJPM20130329165816397.jpg**".

"**Add Supplemental File Ext.:**"

The "**Add Supplemental File Ext.**" selection activates the "**Supplemental File Extension**" field and adds the configured extension to the output files. The default is unchecked.

"**Supplemental File Extension:**"

The "**Supplemental File Extension**" field is activated by the "**Add Supplemental File Ext.**" checkbox. The default is set to that of the file type selected in the "**Output Format**" option. The configured extension will be added to the end of the output files.

For example, for "**JPG**" output format and "**Numeric**" file extension, the filename will be "**SJPM.000.jpg**".

"**Maximum # of Files in Directory:**"

The "**Maximum # of Files in Directory**" configuration is for the maximum number of files allowed to be created in the Directory Path. This field is defaulted to "**999**", the maximum setting allowed. This configuration is only available when the "**Numeric**" file extension radio button is selected. If you require more than 999 files to be stored in the Directory Path then use the "**Timestamp**" selection. If this configuration is set low or the configured value is met, you will receive an error in SJPM for the device. For example; "**An error occurred during printing: Maximum output file limit reached**".

Note: If the number of files in the directory equals the set limit (**999**) SJPM will receive an error, stop sending data and the Sabre Queue will go on hold after the Host retries are completed. If this occurs then clear the directory path of its files and restart the Sabre Queue.

"Encryption:"

Refer to **Appendix F** for details on file Encryption and Decryption.

"**File Encryption:**"

The "**File Encryption**" selection sets file encryption.

Available selections are:

"**Enabled**"

- For setting file encryption to be enabled. This selection will encrypt all files written by SJPM for this device and decryption will be necessary to read them.

"**Disabled**"

- For setting file encryption to be disabled. This selection is set as default.

"**Public Key File Path:**"

The "**Public Key File Path**" configuration is for the location where the public key file will be located. This configuration is only available when the "**File Encryption**" "**Enabled**" radio button is selected.

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host. This selection is set as default.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.2 ATB2LPR Driver

The "**ATB2LPR**" Driver allows the user to send ATB2 data from the Sabre Host as an image to a non-ATB2 printer with various configuration options.

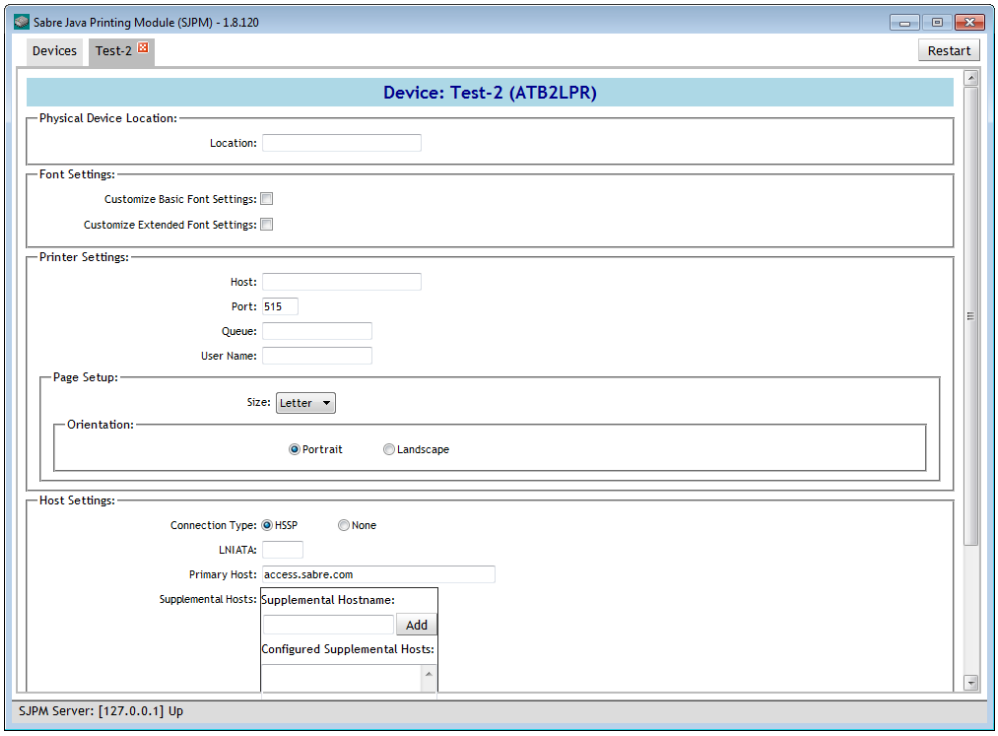
Refer to **Appendix M. LPR/LPD Printing (SJPM "ATB2LPR" and "LPR" Drivers)** for a detailed explanation.

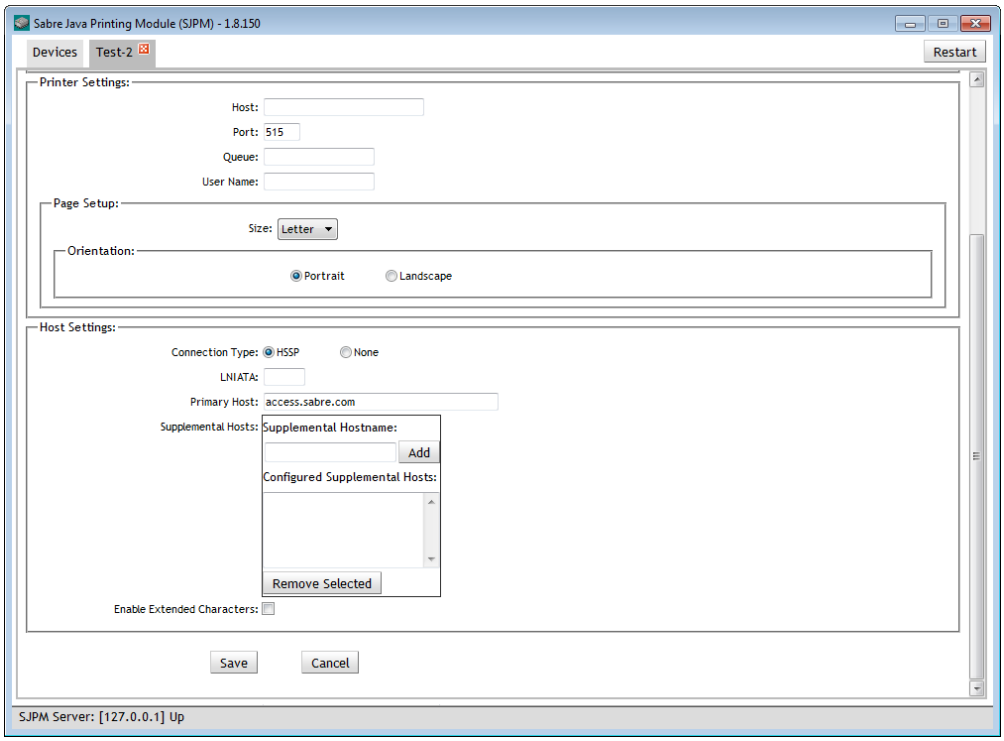
Usage:

The "**ATB2LPR**" Driver should be used if the user needs to send ATB2 data from the Sabre Host to a non-ATB2 printer and no ticket coupons are required. This driver creates an image of the output similar to the "**ATB2File**" driver but instead of sending it to file it sends the ATB2 data directly to a network printer via IP eliminating any possible issues with user rights.

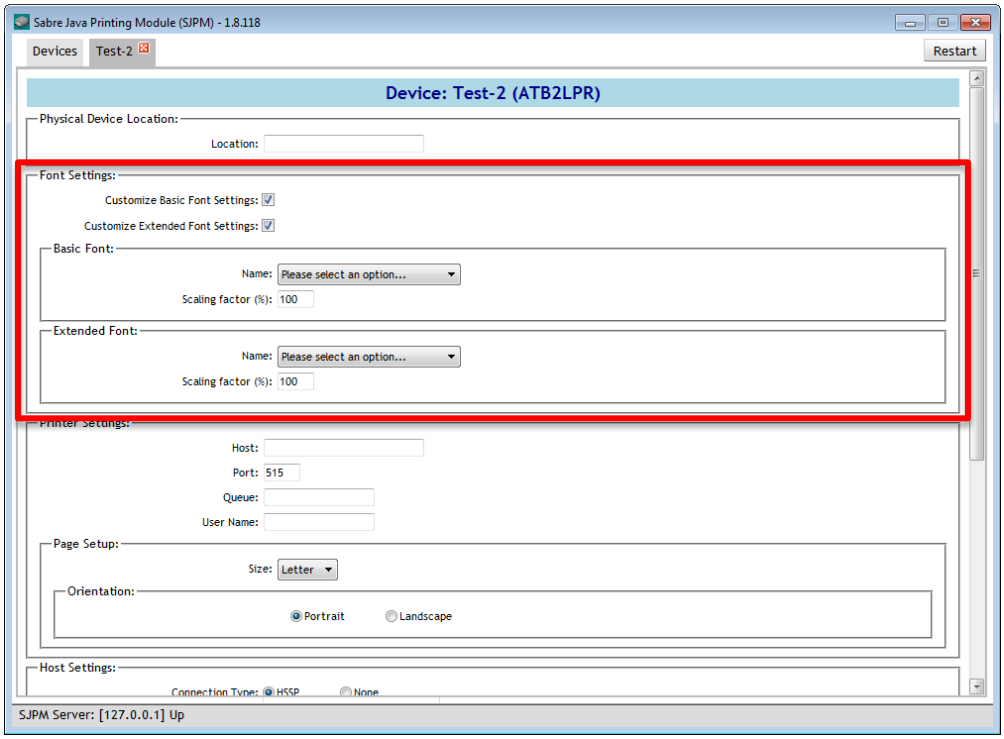
The screenshots below show the "**ATB2LPR**" Driver's configuration tab.

"ATB2LPR" configuration tab – Default Settings:





"ATB2LPR" configuration tab with "Customize Basic Font Settings" and Customize Extended Font Settings" selected – Default Settings:



"ATB2LPR" Driver Configuration Options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Font Settings:"

"**Customize Basic Font Settings:**"

The "**Customize Basic Font Settings**" selection when selected will display the "**Basic Font**" box. The default is unchecked.

"**Customize Extended Font Settings:**"

The "**Customize Extended Font Settings**" selection when selected will display the "**Extended Font**" box. The default is unchecked.

"Basic Font:"

The "**Basic Font**" box will display when "**Customize Basic Font Settings**" is selected from the "**Font Settings**" box.

"**Font**"

The "**Font**" selection is for the Font to use with the "**ATB2LPR**" Device. The default is set to "**Please select an option…**".

"**Scaling Factor (%)**"

The "**Scaling Factor (%)**" configuration is for setting the percentage to scale the selected Font. The default is set to "**Please select an option…**".

"Extended Font:"

The "**Extended Font**" box will display when "**Customize Extended Font Settings**" is selected from the "**Font Settings**" box.

"**Font**"

The "**Font**" selection is for the Font to use with the "**ATB2LPR**" Device. The default is set to "**Please select an option…**".

"**Scaling Factor (%)**"

The "**Scaling Factor (%)**" configuration is for setting the percentage to scale the selected Font. The default is set to "**Please select an option…**".

"Printer Settings:"

"**Host:**"

The "**Host**" configuration sets the LPR printer's hostname/IP. The default is blank.

"**Port:**"

The "**Port**" configuration sets the LPR printer's port to connect to. The default is "**515**".

"**Queue:**"

The "**Queue**" configuration option sets the LPR printer's queue. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets the LPR printer's user name connecting to the printer. The default is blank.

"**Page Setup:**"

"**Size:**"

The "**Size**" is for the selection of the Paper Size. The default is set to "**Letter**".

Available selections are:

"**Letter**"

"**A0**"

"**A1**"

"**A2**"

"**A3**"

"**A4**"

"**Orientation:**"

The "**Orientation**" selection sets the page orientation. The default is set to "**Portrait**".

Available selections are:

"**Portrait**"

- For the Portrait orientation.

"**Landscape**"

- For the Landscape orientation.

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.3 ATB2System Driver

The "**ATB2System**" Driver allows the user to send data from the Sabre Host to a Network printer with various configuration options. The "**ATB2System**" device emulates the physical ATB2 printer. PECTABS for the "**ATB2System**" device are stored in a similar way as they are in the physical ATB2 printer and the same printing management will apply as it did with the physical ATB2 printer.

For example; if the PECTABs are lost in the "**ATB2System**" device (**SJPM PECTABs missing Error:** "An error occurred during printing: ATB2 Message Handler Exception; PECTAB "T" needed to process Document not found; ATB2 PECTAB T not found") then it will be necessary to resend the PECTABs from Sabre to the "**ATB2System**" device using the "**W*ATLNIATA/RESTORE**" command where **LNIATA** is the ATB2 printer's LNIATA.

Note 1: To ensure proper functionality with the SJPM "**ATB2System**" Driver, the driver for the Network printer you plan to print to should be downloaded from the manufacturer's website and installed. **Do not use the driver for the printer that comes with Windows**.

Note 2: Due to a limitation with the way that Java's print service library is implemented, both the paper **Size** and **Source** cannot be specified and provided to the printer at the same time. Furthermore, any print job generated with the **Source** selection results in the page **Size** being set to the default of your locale (for example: NA Letter for North America). If the selected tray has any other media besides the default, the print job will fail to print. If printing to a specific media **Size** is required, use the **Size** selection and configure the printer to print from a specific bin using that size. The SJPM Team is hoping that future Java updates will provide more features that allow both **Size** and **Source** selections for a specific printer.

Refer to Section **6.1.6 Allow User Rights – Queue and System Drivers** for details on user rights configurations.

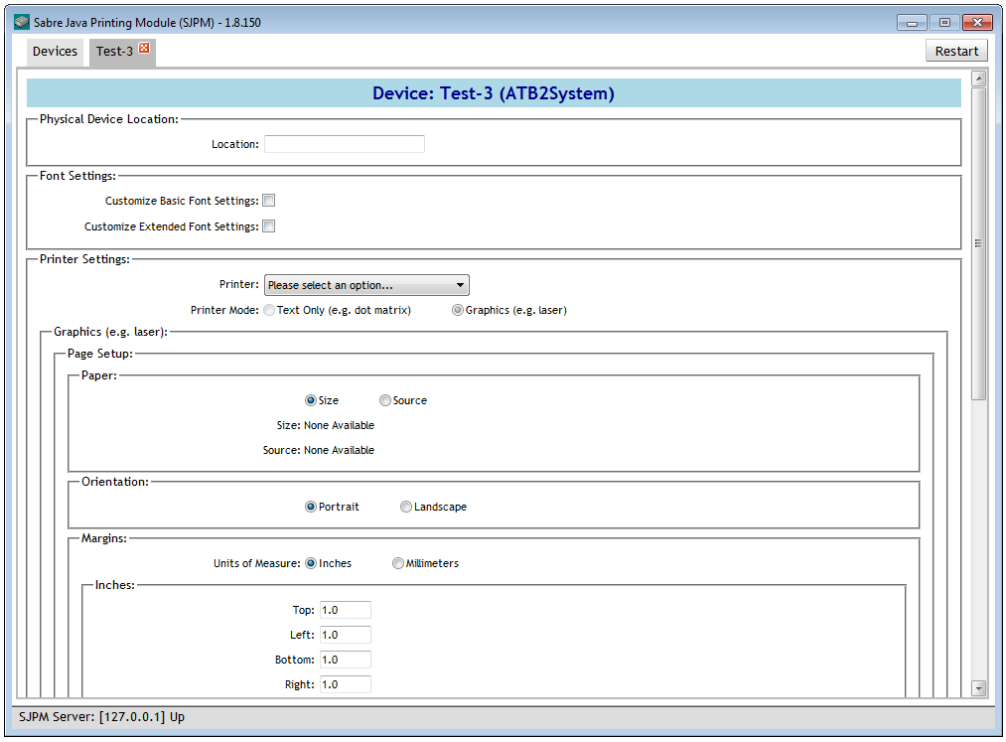
Refer to **Appendix H. Creating and Loading ATB2 Virtual Stock** for details on ATB2 Virtual Stock.

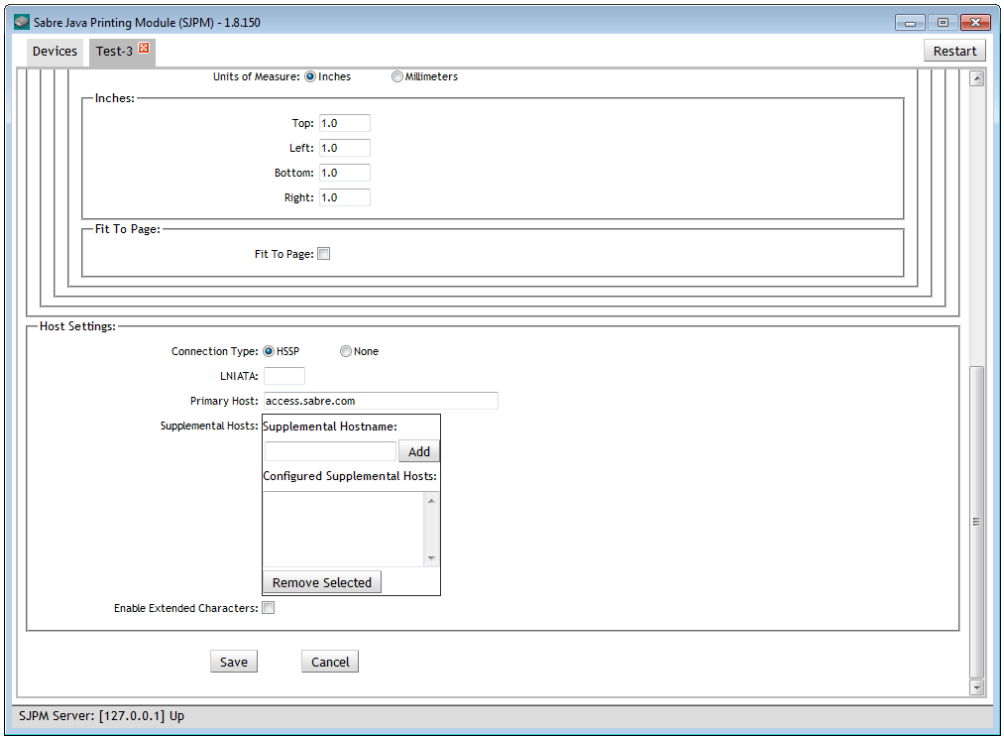
Usage:

The "**ATB2System**" Driver should be used if the user needs to send ATB2 data to a non-ATB2 system printer and no ticket coupons are required. This driver creates an image of the output similar to the "**ATB2File**" driver but instead of sending it to file it sends the ATB2 data directly to a system printer.

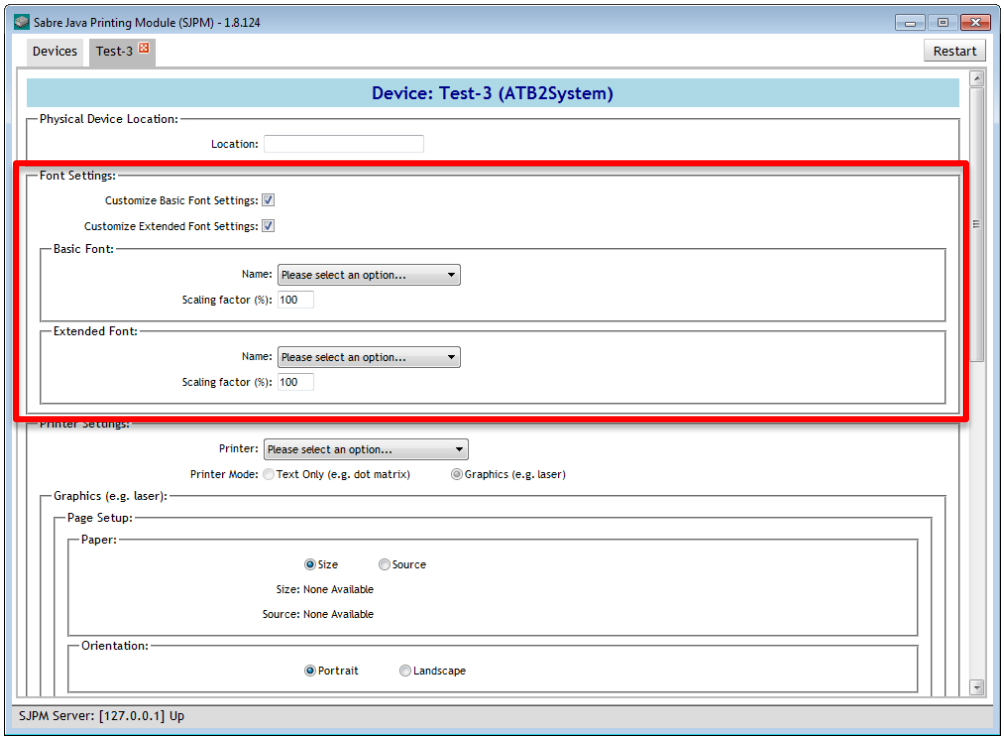
The screenshots below show the "**ATB2System**" Driver's configuration tab.

“ATB2System” configuration tab – Default Settings:

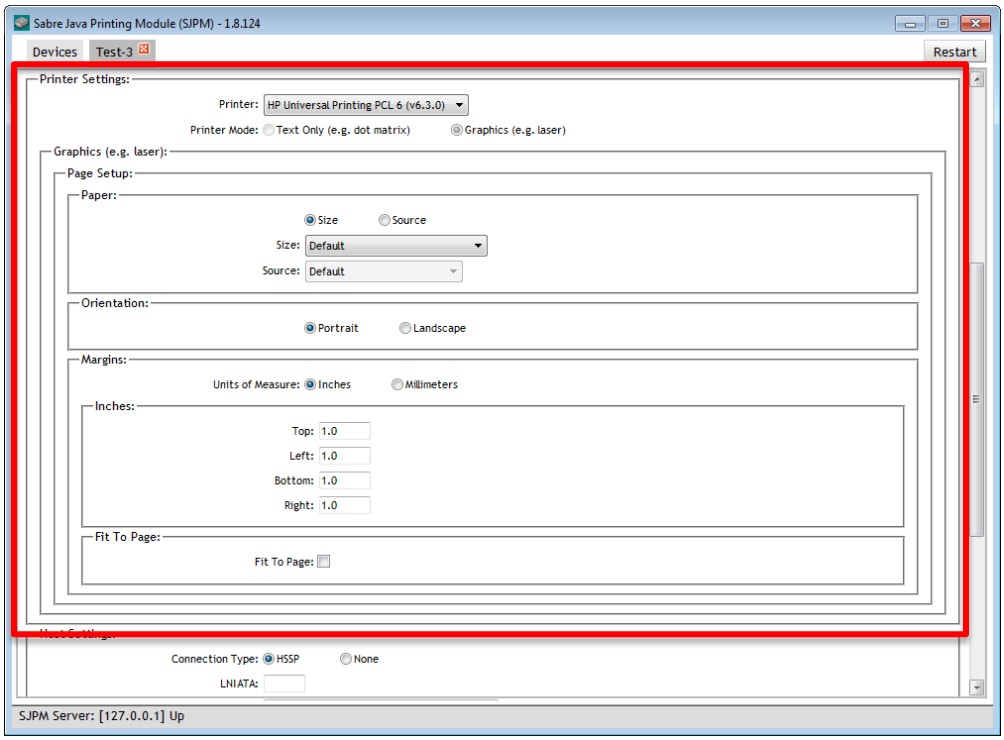




“ATB2System” configuration tab with “Customize Basic Font Settings” and Customize Extended Font Settings” selected – Default Settings:



“ATB2System” configuration tab with a printer selected – Default Settings:



"ATB2System" Driver Configuration Options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Font Settings:"

"**Customize Basic Font Settings:**"

The "**Customize Basic Font Settings**" selection when selected will display the "**Basic Font**" box. The default is unchecked.

"**Customize Extended Font Settings:**"

The "**Customize Extended Font Settings**" selection when selected will display the "**Extended Font**" box. The default is unchecked.

"Basic Font:"

The "**Basic Font**" box will display when "**Customize Basic Font Settings**" is selected from the "**Font Settings**" box.

"**Font**"

The "**Font**" selection is for the Font to use with the "**ATB2File**" Device. The default is set to "**Please select an option…**".

"**Scaling Factor (%)**"

The "**Scaling Factor (%)**" configuration is for setting the percentage to scale the selected Font. The default is set to "**Please select an option…**".

"Extended Font:"

The "**Extended Font**" box will display when "**Customize Extended Font Settings**" is selected from the "**Font Settings**" box.

"**Font**"

The "**Font**" selection is for the Font to use with the "**ATB2File**" Device. The default is set to "**Please select an option…**".

"**Scaling Factor (%)**"

The "**Scaling Factor (%)**" configuration is for setting the percentage to scale the selected Font. The default is set to "**Please select an option…**".

"Printer Settings:"

"**Printer**"

The "**Printer**" selection is for selection of the system printer you want to use to print to. The default is set to "**Please select an option…**".

"**Printer Mode:**"

The "**Printer Mode**" selection sets the print mode. The default is set to "**Graphics Only (e.g. laser)**" and cannot be changed for the "**ATB2System**" Driver. The "**ATB2System**" Driver only provides graphics printing not text only.

"**Graphics (e.g. laser):**"

"**Page Setup:**"

"**Paper:**"

The "**Paper**" selection sets the paper size or source. The default is set to "**Size**".

Available selections are:

"**Size**"

- For the paper size. This selection activates the "**Size**" option to set the paper size.

"**Source**"

- For the paper source. This selection activates the "**Source**" option to set the paper source.

"**Orientation:**"

The "**Orientation**" selection sets the page orientation. The default is set to "**Portrait**".

Available selections are:

"**Portrait**"

- For the Portrait orientation.

"**Landscape**"

- For the Landscape orientation.

"**Margins:**"

The "**Margins**" configuration sets the Top, Left, Bottom, and Right Margin size.

"**Units of Measure:**"

The "**Units of Measure**" selection sets the margins units of measure. The default is set to "**Inches**" and "**1.0**" for all margins.

Available selections are:

"**Inches**"

- For measure in inches.

"**Millimeters**"

- For measure in millimeters.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.4 ATB2TN Driver

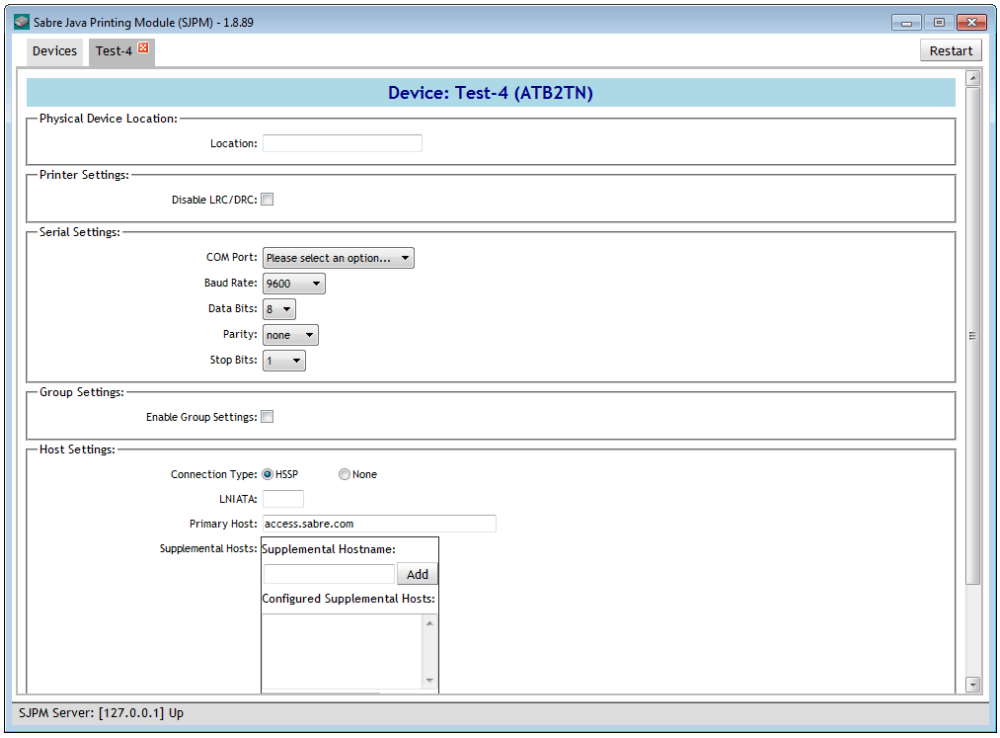
The "**ATB2TN**" Driver allows the user to send ATB2 data from the Sabre Host to a "**Sabre Certified**" ATB2 printer with various configuration options.

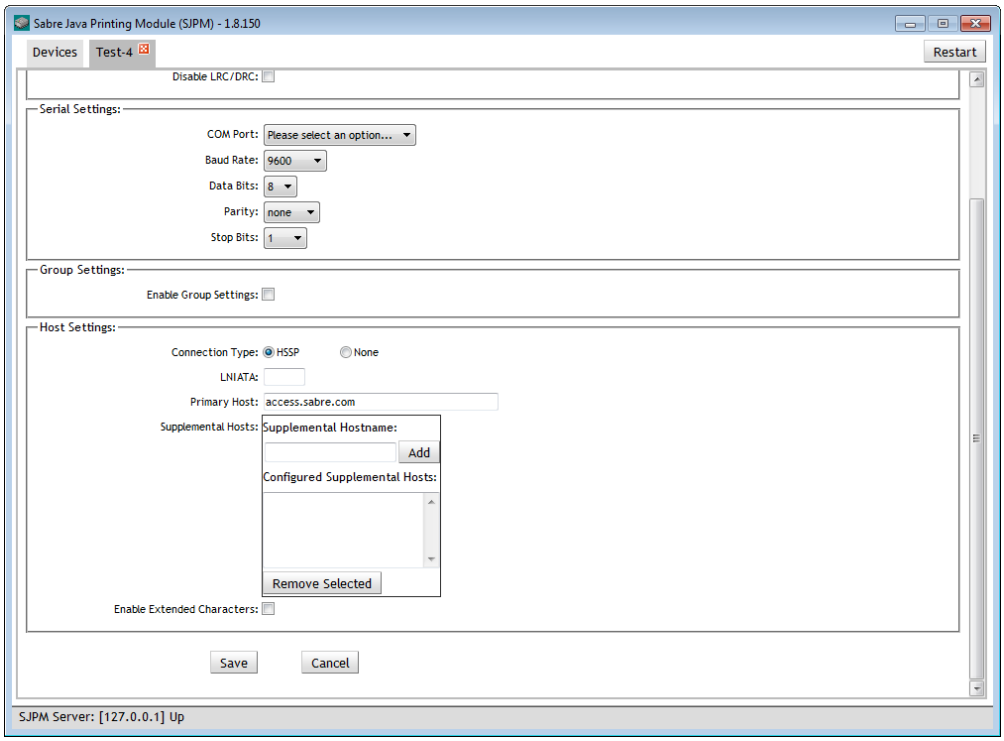
Usage:

The "**ATB2TN**" Driver should be used if the user needs to send ATB2 data from the Sabre Host to a physical, "**Sabre Certified**", ATB2 printer such as the IER577 or Journey printer.

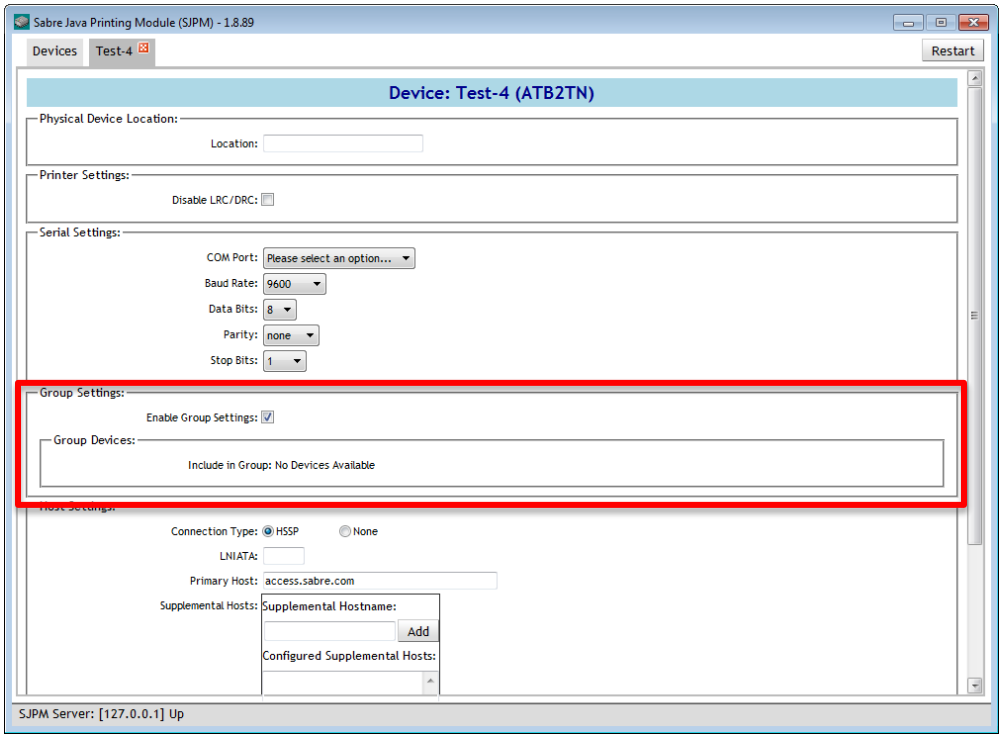
The screenshots below show the "**ATB2TN**" Driver's configuration tab.

"ATB2TN" configuration tab – Default Settings:

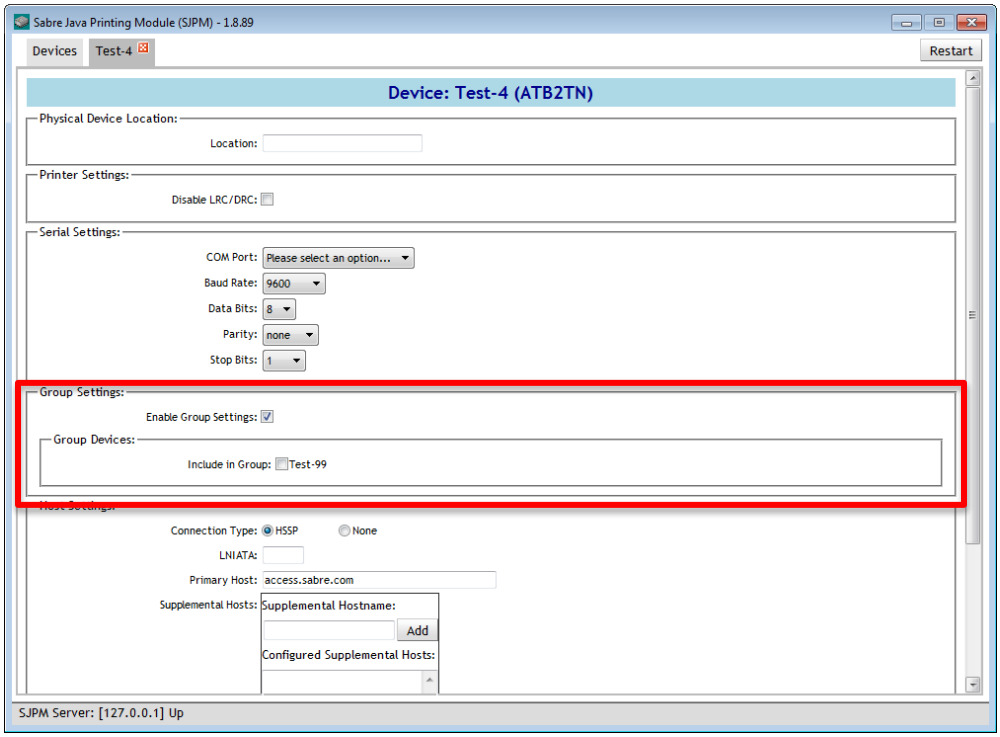




"ATB2TN" configuration tab with "Enable Group Settings" selected with no device(s) available – Default Settings:



"ATB2TN" configuration tab with "Enable Group Settings" selected with device(s) available – Default Settings:



"ATB2TN" Driver Configuration Options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"Disable LRC/DRC:"

The "**Disable LRC/DRC**" selection sets the option to disable the LRC/DRC validation. This selection is unchecked as default.

"Serial Settings:"

"COM Port:"

The "**COM Port**" selection sets the COM port. Select the COM port that the printer is connected to on the PC running SJPM. The default is set to "**Please select an option...**".

Available selections will vary by PC according to their hardware configuration.

"**Baud Rate:**"

The "**Baud Rate**" selection sets the baud rate for communications with the printer. The default is set to "**9600**". This setting must match the baud rate setting configured in the connected printer.

Available selections are:

1200, **2400**, **4800**, **9600**, **19200**, **38400**, **57600** and **115200**

"**Data Bits:**"

The "**Data Bits**" selection sets the data bits for communications with the printer. The default is set to "**8**". This setting must match the data bits setting configured in the connected printer.

Available selections are:

7 and **8**

"**Parity:**"

The "**Parity**" selection sets the parity for communications with the printer. The default is set to "**none**". This setting must match the parity setting configured in the connected printer.

Available selections are:

even, **odd**, **mark**, **none** and **space**

"**Stop Bits:**"

The "**Stop Bits**" selection sets the stop bits for communications with the printer. The default is set to "**1**". This setting must match the stop bits setting configured in the connected printer.

Available selections are:

1, **1.5** and **2**

"**Group Settings:**"

"**Enable Group Settings:**"

The "**Enable Group Settings**" selection enables and displays the "**Group Devices**" box and displays within it the available device(s) that can be selected for this device to print to.

"**Group Devices:**"

The "**Group Devices**" box will display when "**Enable Group Settings**" is selected from the "**Group Settings**" box.

"**Include in Group:**"

The "**Include in Group**" selection(s) lists the available device(s) that can be selected for this device to print to. If "**Enable Group Settings**" is selected at least one device must be selected from the "**Include in Group**" list in order to save the device.

Refer to sections **6.2.7 Group Driver** and **6.2.7.1 Single Output to Multiple Devices**.

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.5 ATB2TNProxy Driver

The "**ATB2TNProxy**" Driver allows the user to send ATB2 data, from the Sabre Host, from multiple LNIATAs to a single "**ATB2TN**" device (**Multiple to One**); for example, multiple "**ATB2TNProxy**" devices directing their LNIATA's output to a single "**ATB2TN**" device.

IMPORTANT NOTE: Devices to be added to the "**ATB2TNProxy**" device must already exist in SJPM or be created before the "**ATB2TNProxy**" device is created and its configuration can be saved. "**ATB2TN**" devices to be used must have a host connection type of "**None**" selected.

Supported Drivers are as follows:

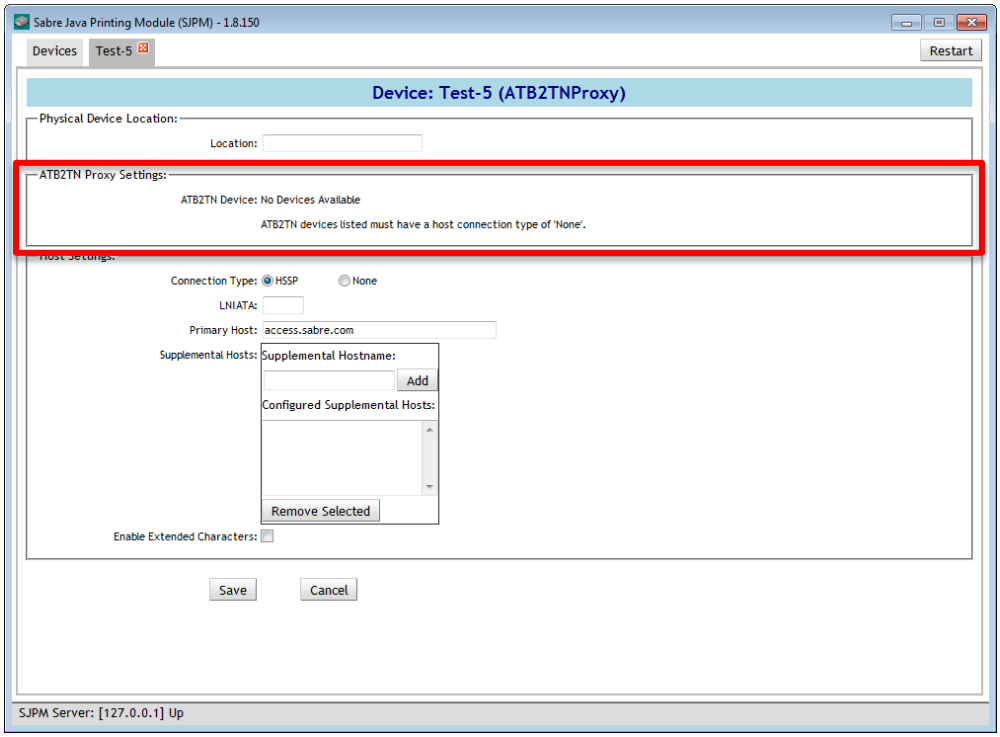
"**ATB2TN**" ("**ATB2TN**" devices used must have a connection type of "**None**" selected.)

Usage:

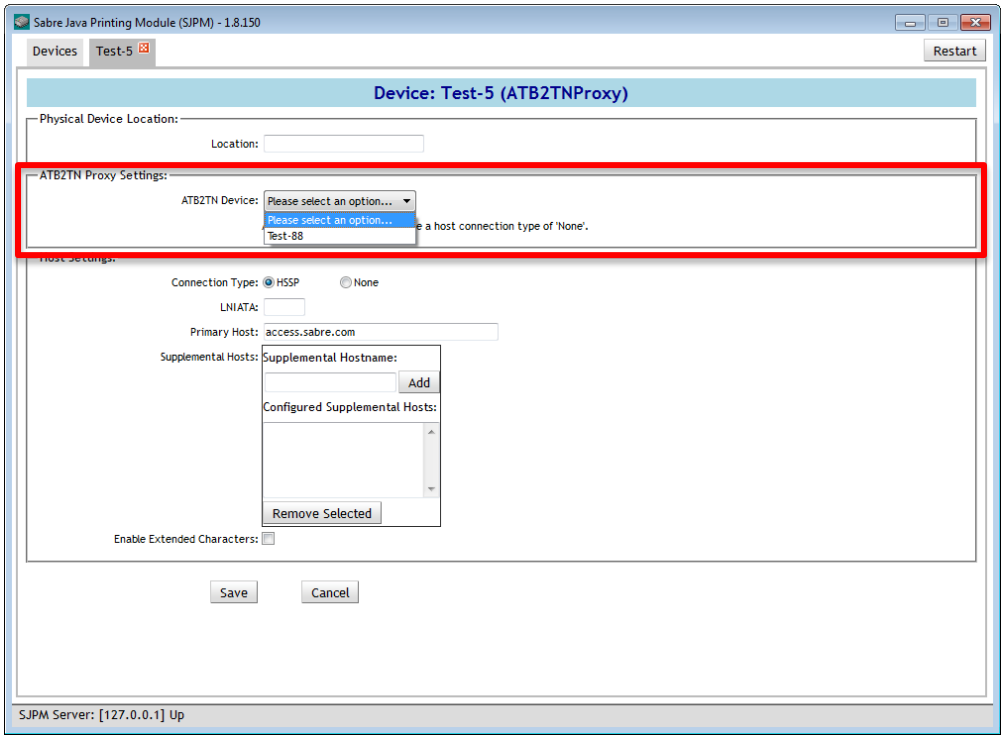
The "**ATB2TNProxy**" Driver should be used if the user needs to send ATB2 data, from the Sabre Host, from multiple LNIATAs to a single "**ATB2TN**" device (**Multiple to One**).

The screenshots below show the "**ATB2TNProxy**" Driver's configuration tab.

"ATB2TNProxy" configuration tab with no device(s) available – Default Settings:



"ATB2TNProxy" configuration tab with device(s) available – Default Settings:



"ATB2TNProxy" Driver Configuration Options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"ATB2TN Proxy Settings:"

"ATB2TN Device:"

The "**ATB2TN Device**" selection sets the device you want to use to print to. The default is set to "**Please select an option…**" when "**ATB2TN**" devices are available in SJPM. If there are no "**ATB2TN**" devices available in SJPM then it will display "**No Devices Available**". "**ATB2TN**" devices to be used must have a host connection type of "**None**" selected.

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.6 File Driver

The "**File**" Driver allows the user to send data from the Sabre Host to file(s) in various output formats, to various destinations, and with various configuration options.

Note: In order for the "**File**" Driver to use different fonts other than the standard ones listed, the TrueType font file must be placed into the "**SJPM/server/devroot/fonts**" directory. Only TrueType fonts with the "**.ttf**" extension will be loaded and show in the available fonts list.

Refer to **Appendix F** for details on file Encryption and Decryption.

Refer to Section **6.1.5 Printing to a Mapped Network Drive Folder – ATB2File, File, and IFQ Drivers** for details on printing to a mapped network drive.

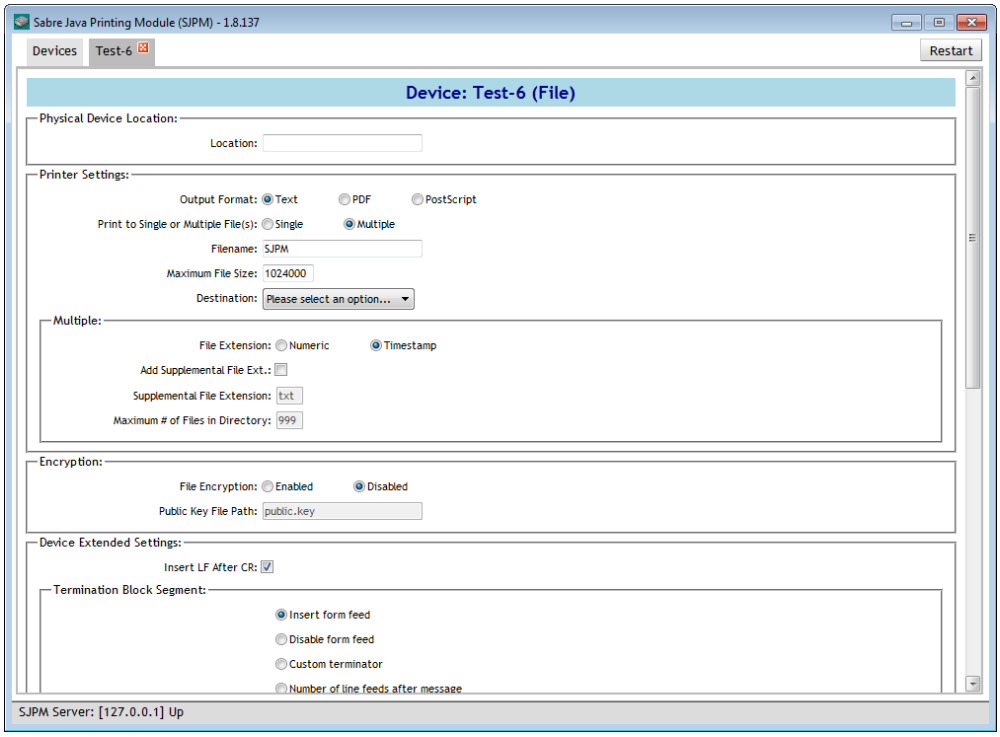
Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

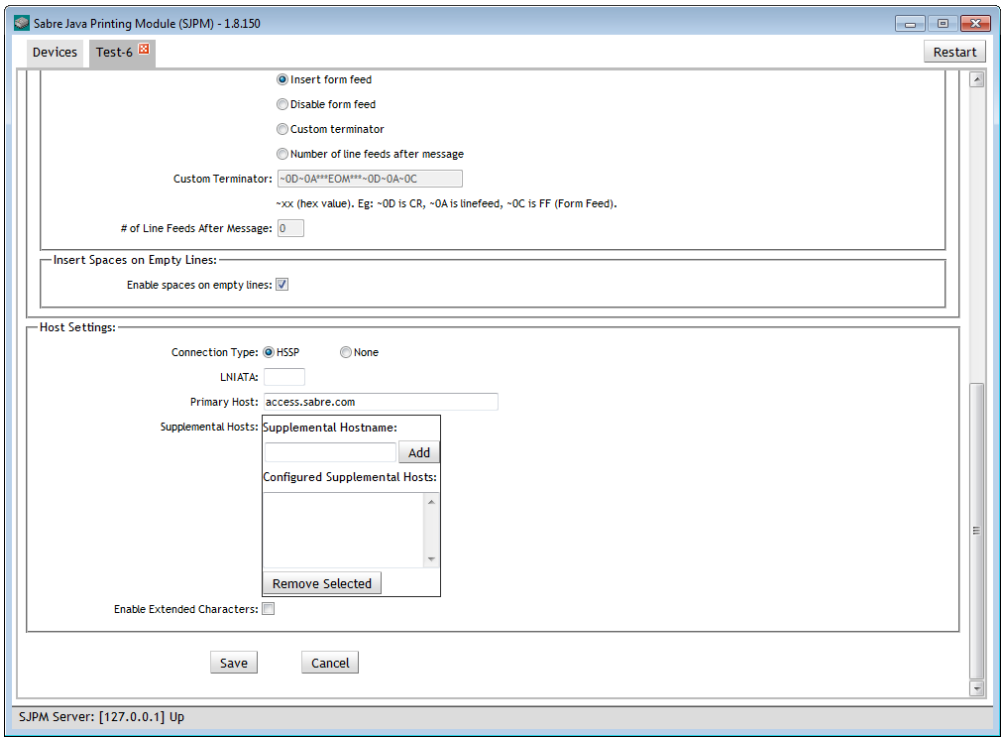
Usage:

The "**File**" Driver should be used if the user needs to send data from the Sabre host to file(s) in the output format of TXT, PDF, or PostScript. These file output formats can also be sent via the "**File**" Driver to remote network locations using the "**Destination**" selections. The output files can also be encrypted for security purposes.

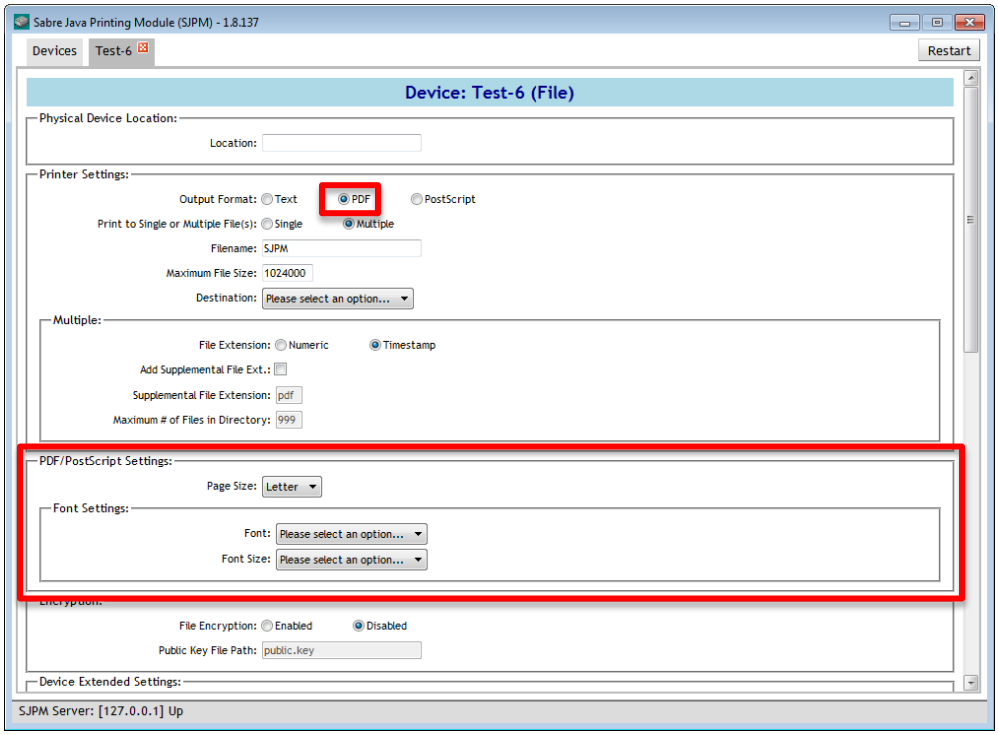
The screenshots below show the "**File**" Driver's configuration tab.

"File" configuration tab – Default Settings:

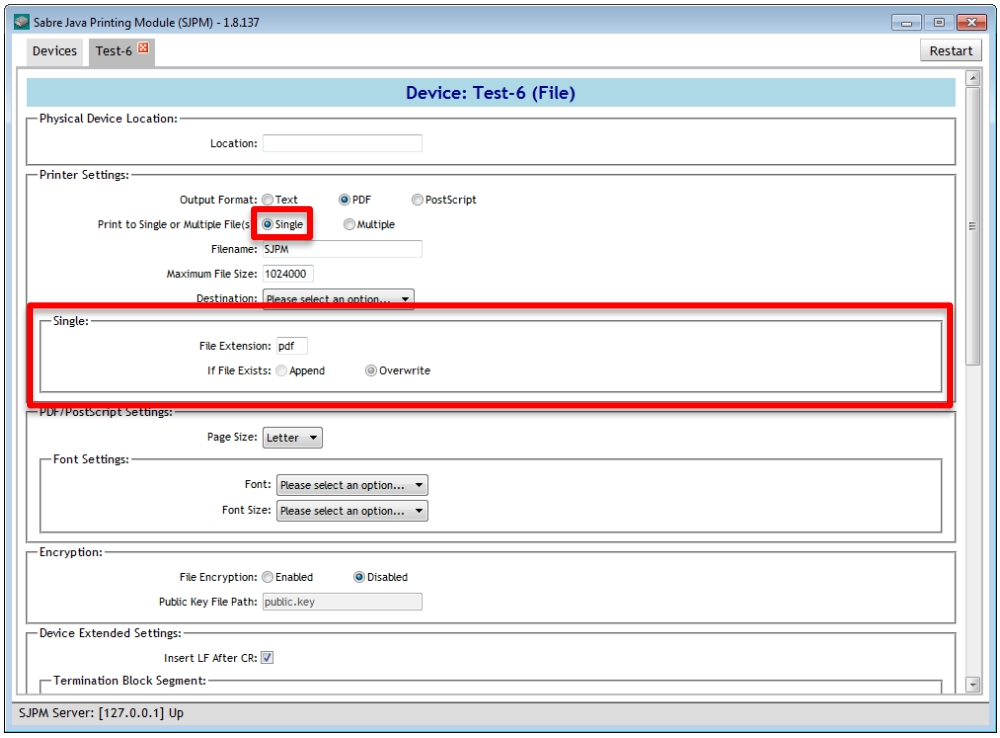




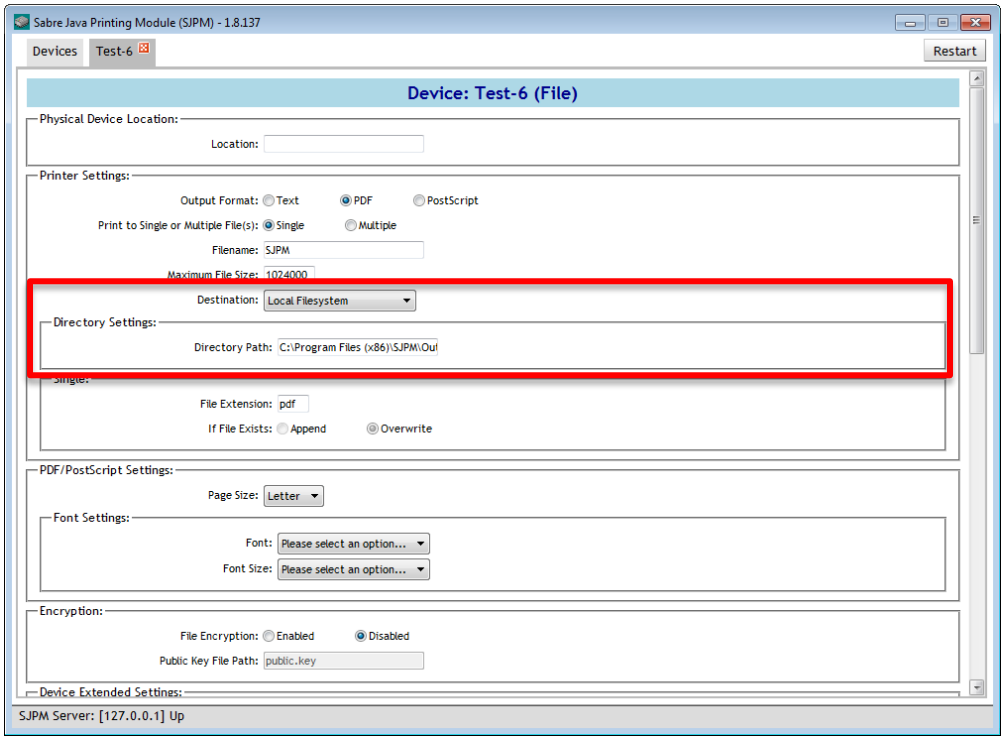
"File" configuration tab with "PDF" selected – Default Settings:



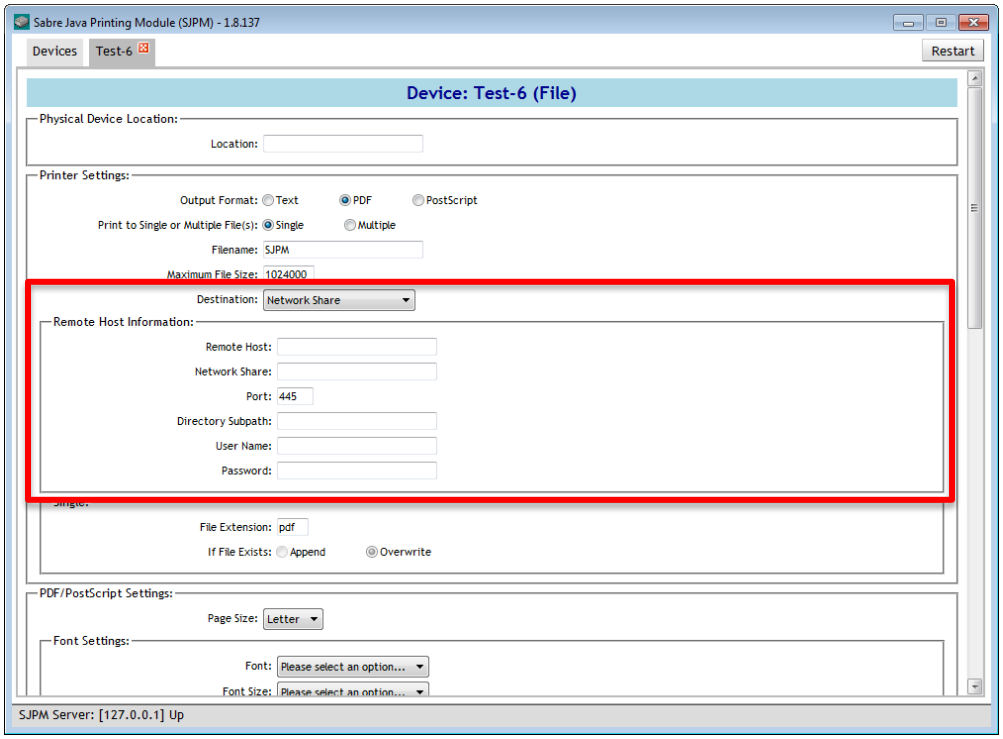
“File” configuration tab with “Single” selected – Default Settings:



“File” configuration tab with “Local Filesystem” selected – Default Settings:



"File" configuration tab with "Network Share, FTP, FTPS, FTPES SCP, SFTP, CIFS/SMB1, or SMB2/SMB3" selected – Default Settings:



"File" Driver Configuration Options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"Output Format:"

The "**Output Format**" selection sets the output format. The default is set to "**Text**".

Available selections are:

"**Text**"

- For text file format.

"**PDF**"

- For PDF file format.

"**PostScript**"

- For PostScript file format.

"**Print to Single or Multiple Files(s):**"

The "**Print to Single or Multiple File(s)**" selection sets printing to a "**Single**" file or "**Multiple**" files. The default is set to "**Multiple**".

Available selections are:

"**Single**"

- For single file creation.

"**Multiple**"

- For multiple file creation. With this option selected SJPM will generate a unique filename for each file created.

"**Filename:**"

The "**Filename**" configuration is for the name that will be used to name the file(s) when they are created. This field should not include a file extension. The default is set to "**SJPM**".

"**Maximum File Size:**"

The "**Maximum File Size**" configuration is for the maximum file size limit that will be used when writing to each file. The default is set to "**1024000**".

"**Destination:**"

The "**Destination**" selection sets the destination of the output files. The default is set to "**Please select an option…**".

Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

Available selections are:

"**Local Filesystem**"

"**Network Share**"

"**FTP**"

"**FTPS**"

"**FTPES**"

"**SCP**"

"**SFTP**"

"**CIFS/SMB1**"

"**SMB2/SMB3**"

"**Multiple:**"

"**File Extension:**"

The "**File Extension**" selection is for the output file's extension.

Available selections are:

"**Numeric**"

- For setting the file extension for Text, PDF, and PostScript output file formats to be the configured filename plus a three digit numeric extension starting at "**.000**".

  For example, for "**Text**" output format, the filename will be "**SJPM.000**".

"**Timestamp**"

- For setting the file name for Text, PDF, and PostScript output file formats to be the configured filename plus the current *yeardatetime*. This selection is set as default.

  For example, for "**Text**" output format, the filename will be "**SJPM20130329165816397.txt**".

"**Add Supplemental File Ext.:**"

The "**Add Supplemental File Ext.**" selection activates the "**Supplemental File Extension**" field and adds the configured extension to the output files.

"**Supplemental File Extension:**"

The "**Supplemental File Extension**" field is activated by the "**Add Supplemental File Ext.**" checkbox. The default is set to that of the file type selected in the "**Output Format**" option. The configured extension will be added to the output files.

For example, for "**Text**" output format and "**Numeric**" file extension, the filename will be "**SJPM.000.txt**".

"**Maximum # of Files in Directory:**"

The "**Maximum # of Files in Directory**" configuration is for the maximum number of files allowed to be created in the Directory Path. This field is defaulted to "**999**", the maximum setting allowed. This configuration is only available when the "**Numeric**" file extension radio button is selected. If you require more than 999 files to be stored in the Directory Path then use the "**Timestamp**" selection. If the configured value is met, you will receive an error in SJPM for the device. For example; "**An error occurred during printing: Maximum output file limit reached**".

Note: If the number of files in the directory equals the set limit (**999**) SJPM will get an error, stop sending data and the Sabre Queue will go on hold after the Host retries are completed. If this occurs then clear the directory path of its files and restart the Sabre Queue.

"PDF/PostScript Settings:"

The "**PDF/PostScript Settings**" box will be displayed when "**PDF**" or "**PostScript**" is selected from the "**Output Format**" configuration.

"**Page Size:**"

The "**Page Size**" selection sets the Page Size to be used for the PDF or PostScript output file. The default is set to "**Letter**".

"Font Settings:"

The "**Font Settings**" box displays the selections for the Font and Font Size to be used for the PDF or PostScript output file.

"**Font:**"

The "**Font**" selection sets the Font to be used for the PDF or PostScript output file. The default is set to "**Please select an option…**".

"**Font Size:**"

The "**Font Size**" selection sets the Font Size to be used for the PDF or PostScript output file. The default is set to "**Please select an option…**".

"Single:"

The "**Single**" box will be displayed when "**Single**" is selected from the "**Print to Single or Multiple File(s)**" configuration.

"**File Extension:**"

The "**File Extension**" configuration is for the output file extension. The default for "**Text**" output format is "**txt**". The default for "**PDF**" output format is "**pdf**". The default for "**PostScript**" output format is "**ps**".

"**If File Exists:**"

The "**If File Exists**" selection is for the output file creation method. When "**PDF**" or "**PostScript**" output formats are selected from the "**Output Format**" configuration, this selection is defaulted to "**Overwrite**" and cannot be changed.

Available selections are:

"**Append**"

- This selection appends data to a single file. This selection is set as default when "**Text**" is selected from the "**Output Format**" configuration.

"**Overwrite**"

- This selection overwrites the data in a single file each time a new message is received.

"Directory Settings:"

The "**Directory Settings**" box will be displayed when "**Local Filesystem**" is selected from the "**Destination**" option.

"**Directory Path:**"

The "**Directory Path**" configuration is for the location where the files will be created (**Example:** "**C:\Test**"). The default is set to "**C:\Program Files\SJPM\Output**" for 32bit operating systems and "**C:\Program Files (x86)\SJPM\Output**" 64bit operating systems.

"Remote Host Information:"

The "**Remote Host Information**" box will be displayed when "**Network Share**", "**FTP**", "**FTPS**", '**FTPES**", "**SCP**", "**SFTP**", "**CIFS/SMB1**", or "**SMB2/SMB3**" is selected from the "**Destination**" option.

"**Remote Host:**"

The "**Remote Host**" configuration sets the IP address, hostname, or computer name of the machine where the share exists. The default is blank.

"**Network Share:**"

The "**Network Share**" configuration sets the name of the network share. The default is blank.

"**Port:**"

The "**Port**" configuration sets the remote host's port that will be connected.

Defaults are:

Network Share, CIFS/SMB1 and **SMB2/SMB3** = **445**

(By default port 445 is used, which uses the SMB protocol. If this is changed to another value, the Network Share will connect using the WebDav protocol.**)**

FTP and **FTPES** = **21**

FTPS = **990**

SCP and **SFTP** = **22**

"**Directory Subpath:**"

The "**Directory Subpath**" configuration sets the **optional** directory subpath under the network share where files will be written. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets user name connecting to the network share. The default is blank.

"**Password:**"

The "**Password**" configuration sets the password of the user connecting to the network share. The default is blank.

"Encryption:"

Refer to **Appendix F** for details on file Encryption and Decryption.

"**File Encryption:**"

The "**File Encryption**" selection sets file encryption.

Available selections are:

"**Enabled**"

- For setting file encryption to be enabled.

"**Disabled**"

- For setting file encryption to be disabled. This selection is set as default.

"**Public Key File Path:**"

The "**Public Key File Path**" configuration is for the location where the "**Public Key File**" will be located. This configuration is only available when the "**Enabled**" radio button is selected from the "**File Encryption**" option.

"Device Extended Settings:"

"**Insert LF After CR:**"

The "**Insert LF After CR**" selection, if checked, inserts a Line Feed after a Carriage Return. The "**Insert LF After CR**" checkbox is checked by default.

"Termination Block Segment:"

"**Insert form feed**"

The "**Insert form feed**" selection, if selected, inserts a Form Feed at the end of the message data. The "**Insert form feed**" selection is selected by default.

"**Disable form feed**"

The "**Disable form feed**" selection, if selected, disables Form Feed.

"**Custom terminator:**"

The "**Custom terminator**" selection, if selected, inserts a custom terminator that can be user edited. The default custom terminator is set to "**~0D~0A***EOM***~0D~0A~0C**".

~xx (hex value). Eg: ~0D is CR, ~0A is linefeed, ~0C is FF (Form Feed).

"**Number of line feeds after message**"

The "**Number of line feeds after message**" selection, if selected, inserts the number of line feeds entered in the "**# of Line Feeds After Message:**" field to the end of the message data if selected. The default is set to "**0**".

"Insert Spaces on Empty Lines:"

"**Enable spaces on empty lines**"

The "**Enable spaces on empty lines**" selection, if checked, inserts spaces on empty lines. The "**Enable spaces on empty lines**" selection is checked by default.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.7 Group Driver

The "**Group**" Driver provides data pass-through capabilities for printing from a single device to multiple devices (**Replication**). This allows the user to send data from the Sabre Host to multiple printers and/or files based on the receiving device and its device options.

IMPORTANT NOTE: Devices to be added to the "**Group**" device must already exist in SJPM or be created before the "**Group**" device is created and its configuration can be saved.

Supported (Groupable) Drivers are as follows:

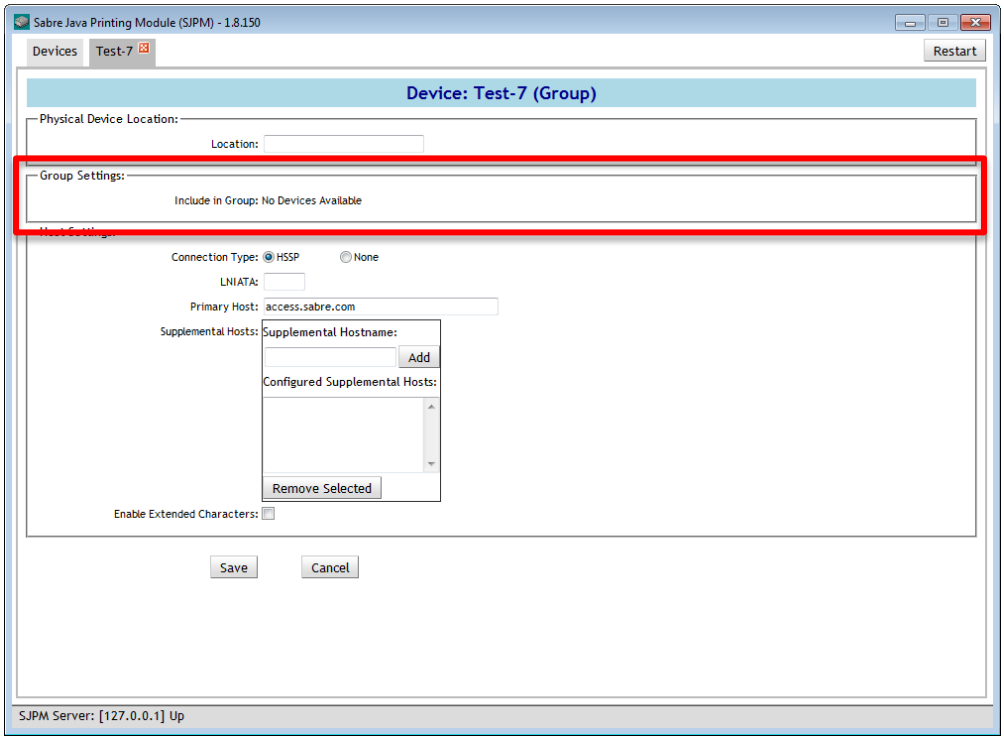
"**ATB2File**", "**ATB2LPR**", "**ATB2System**", "**File**", "**IFQ**", "**LPR**", "**MQJMS**", "**Printer**", "**Queue**", "**RawIP**", "**STPATB1**", "**STPATB1INI**", and "**System**"

Usage:

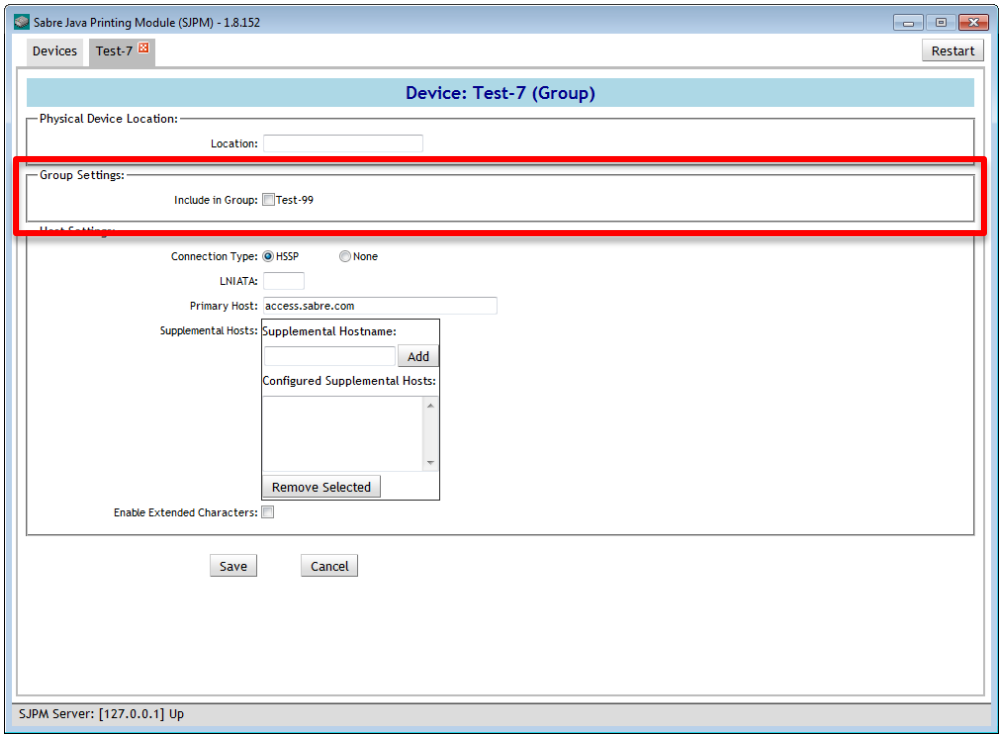
The "**Group**" Driver should be used if the user needs to send Sabre Host data from a single device to multiple printers and/or files (**Replication**) based on the receiving device and its device options.

The screenshots below show the "**Group**" Driver's configuration tab.

"Group" configuration tab with no device(s) present – Default Settings:



"Group" configuration tab with device(s) present – Default Settings:



"Group" Driver Configuration Options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Group Settings:"

"Include in Group:"

The "**Include in Group**" selection(s) lists the available device(s) that can be selected for this device to send data to. At least one device must be selected in order to save the "**Group**" device's configuration.

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.7.1 Single Output to Multiple Devices

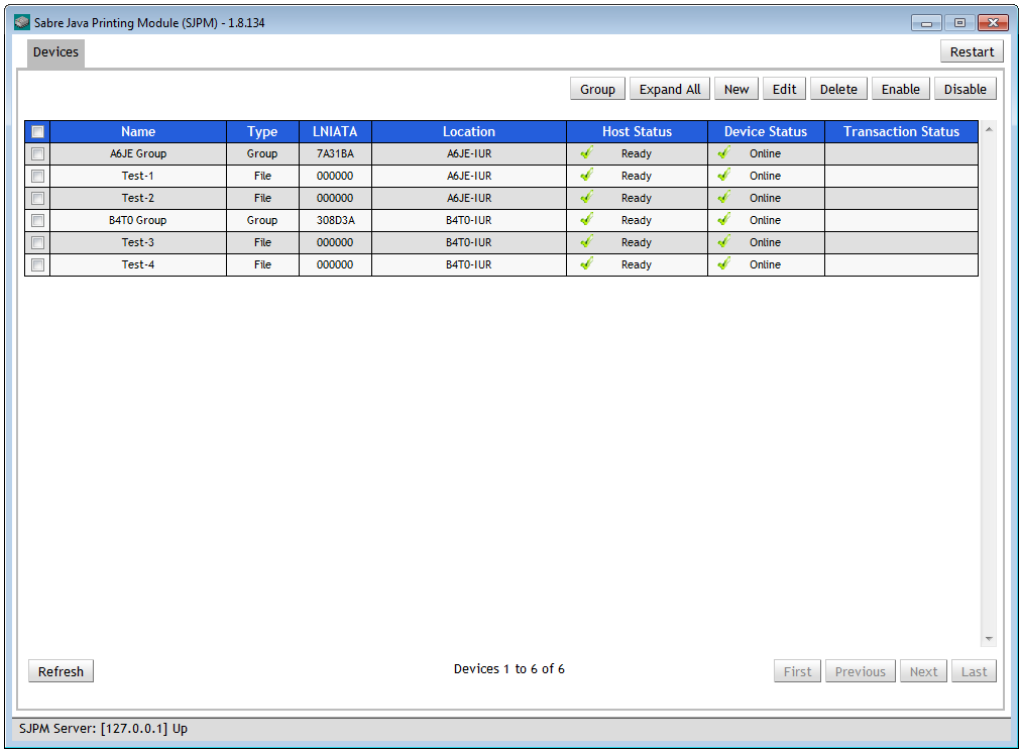
The section describes the procedure for using the "**Group**" Driver to send data to multiple devices. The "**Group**" Driver provides the functionality to deliver data from the Sabre Host (from a LNIATA) to many devices.

IMPORTANT NOTE: Devices to be added to the "**Group**" device must already exist in SJPM or be created before the "**Group**" device is created and its configuration can be saved.

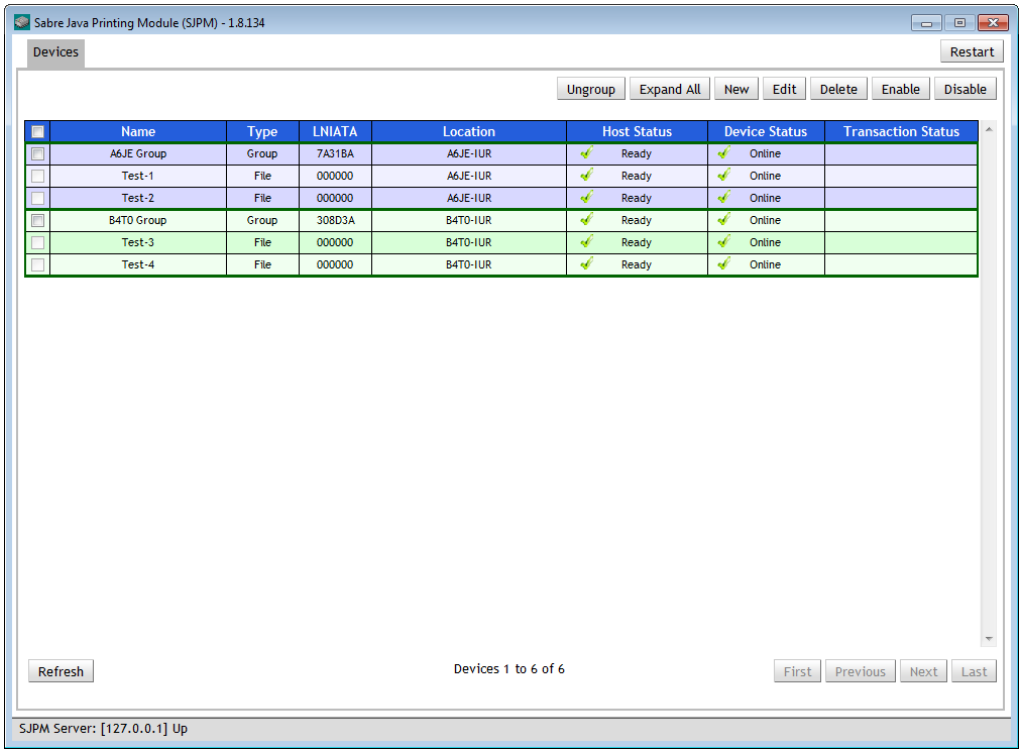
The best practice is to use the "**Location**" field in the devices to associate the "**Group**" device and children devices by making the "**Location**" the same for them. Then the SJPM grouping feature ("**Group**" button) can be used to group them together.

The screenshots below show examples of various groups setup in SJPM to send a single output of data to multiple "**File**" devices. Also shown is the grouping functionality that will show all associated devices.

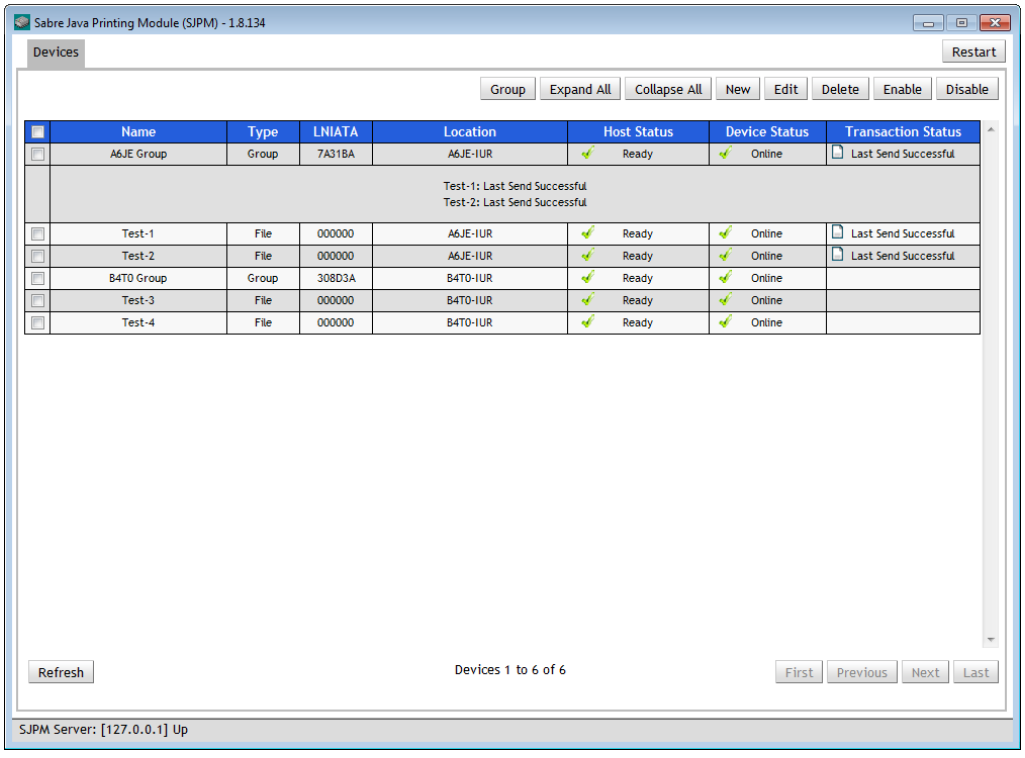
Configured Groups Example:



Grouping Functionality Example:



Group Printing Example:



6.2.8 IFQ Driver

The "**IFQ**" Driver allows the user to send data from the Sabre Host to a file with various configuration options.

Refer to **Appendix F** for details on file Encryption and Decryption.

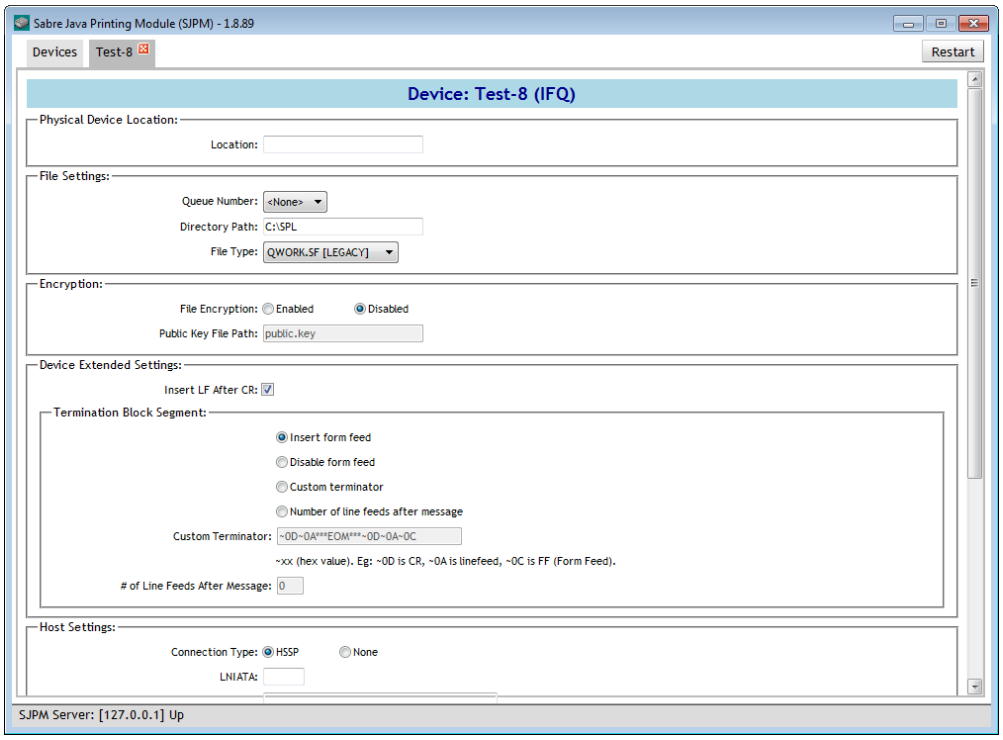
Refer to Section **6.1.5 Printing to a Mapped Network Drive Folder – ATB2File, File, and IFQ Drivers** for details on printing to a mapped network drive.

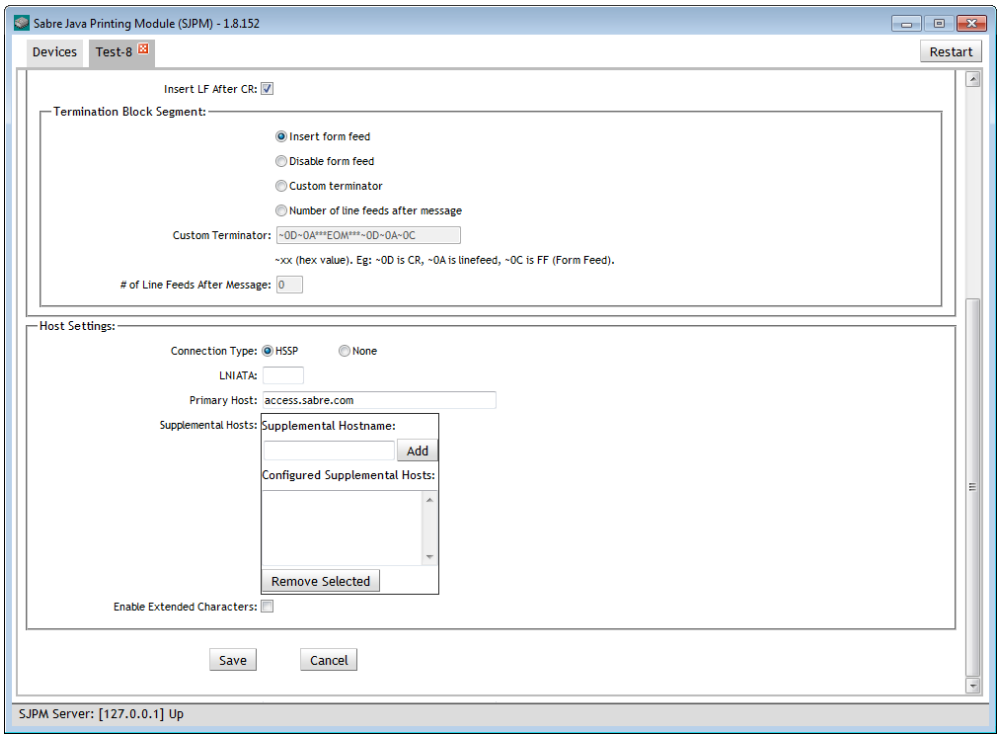
Usage:

The "**IFQ**" Driver should be used if the user needs to send data from the Sabre Host to a file with various configuration options. The "**IFQ**" Driver is used for sending IUR data from the Sabre Host to files providing various output types including file naming with PNR number.

The screenshots below show the "**IFQ**" Driver's configuration tab.

"IFQ" configuration tab – Default Settings:





"IFQ" Driver Configuration Options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"File Settings:"

"Queue Number:"

The "**Queue Number**" selection sets the Queue Number. Using "**<None>**" will use Queue "**0**" (Zero). Other Queue options are: "**30**" and "**27**". The default is set to "**<None>**".

"Directory Path:"

The "**Directory Path**" configuration is for the location where the file(s) will be created for the device (**Example:** "**C:\Test**"). The default is set to "**C:\SPL**".

"**File Type:**"

The "**File Type**" selection sets the file type. The default is set to "**QWORK.SF [LEGACY]**".

Available selections are

"**QWORK.SF [LEGACY]**"

"***.PNR [IUR]**"

"***.FIL [IUR w/CRLF]**"

"**INP.FIL [PRONTO]**"

"**INP.FIL [SABRE Quick]**"

"Encryption:"

Refer to **Appendix F** for details on file Encryption and Decryption.

"**File Encryption:**"

The "**File Encryption**" selection sets file encryption.

Available selections are:

"**Enabled**"

- For setting file encryption to be enabled.

"**Disabled**"

- For setting file encryption to be disabled. This option is set as default.

"**Public Key File Path:**"

The "**Public Key File Path**" configuration is for the location where the "**Public Key File**" will be located. This configuration is only available when the "**Enabled**" radio button is selected.

"Device Extended Settings:"

"**Insert LF After CR:**"

The "**Insert LF After CR**" selection, if checked, inserts a Line Feed after a Carriage Return. The "**Insert LF After CR**" checkbox is checked by default.

"Termination Block Segment:"

"**Insert form feed**"

The "**Insert form feed**" selection, if selected, inserts a Form Feed at the end of the message data. The "**Insert form feed**" selection is selected by default.

"**Disable form feed**"

The "**Disable form feed**" selection, if selected, disables Form Feed.

"**Custom terminator:**"

The "**Custom terminator**" selection, if selected, inserts a custom terminator that can be user edited. The default custom terminator is set to "**~0D~0A***EOM***~0D~0A~0C**".

~xx (hex value). Eg: ~0D is CR, ~0A is linefeed, ~0C is FF (Form Feed).

"**Number of line feeds after message**"

The "**Number of line feeds after message**" selection, if selected, inserts the number of line feeds entered in the "**# of Line Feeds After Message:**" field to the end of the message data if selected. The default is set to "**0**".

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.9 LPR Driver

The "**LPR**" Driver allows the user to send data from the Sabre Host to a network IP printer or file with various configuration options.

Note: In order for the "**LPR**" Driver to use different fonts other than the standard ones listed, the TrueType font file must be placed into the "**SJPM/server/devroot/fonts**" directory. Only TrueType fonts with the "**.ttf**" extension will be loaded and show in the available fonts list.

Refer to **Appendix M. LPR/LPD Printing (SJPM "ATB2LPR" and "LPR" Drivers)** for a detailed explanation.

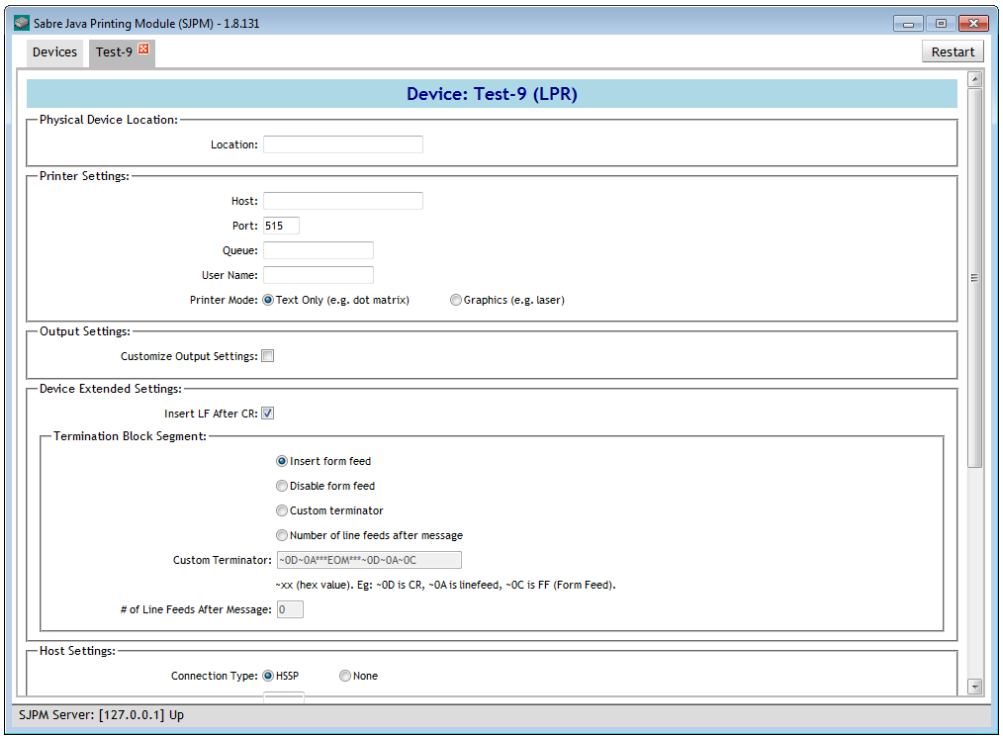
Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

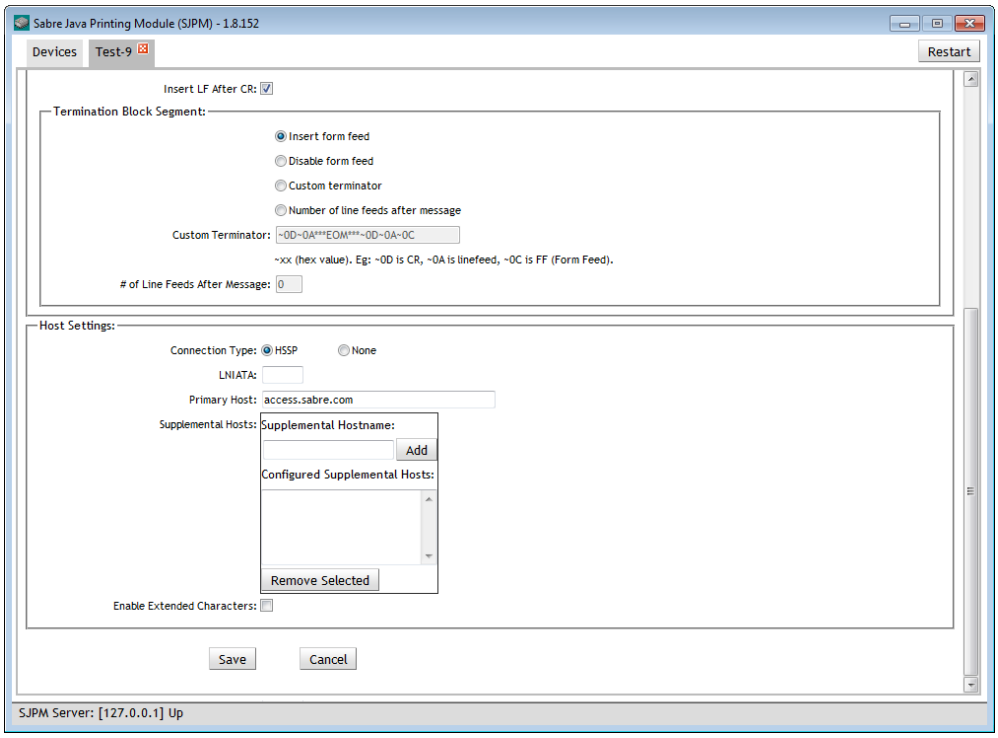
Usage:

The "**LPR**" Driver should be used if the user needs to send data from the Sabre Host to a network IP printer or file. This driver sends the data directly to a network printer via IP eliminating any possible issues with user rights.

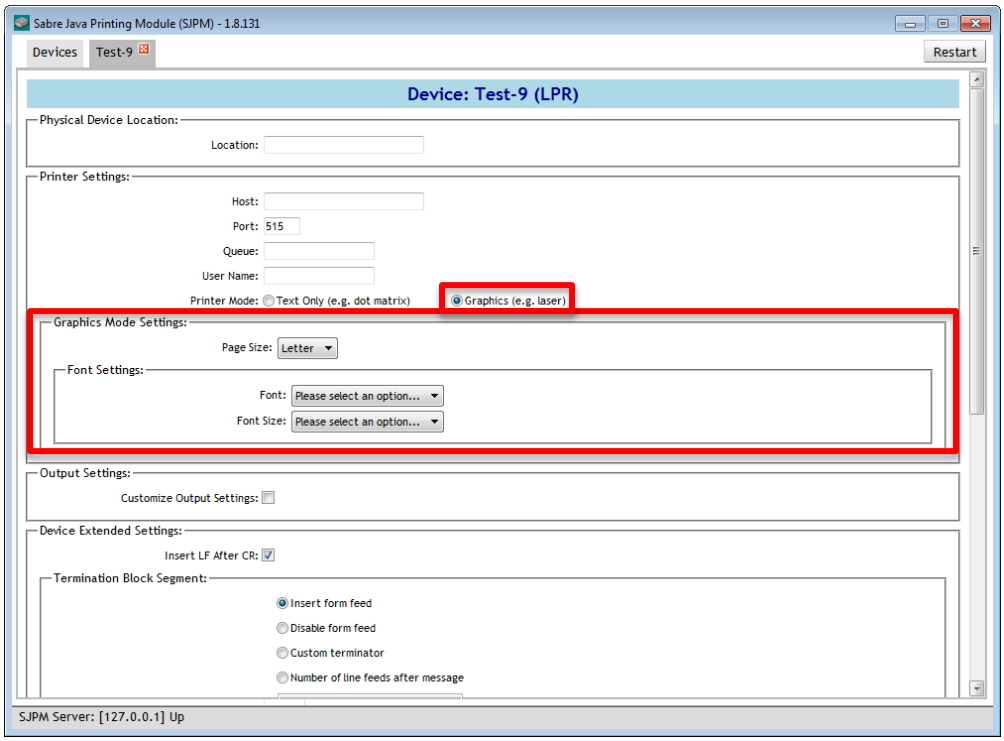
The screenshots below show the "**LPR**" Driver's configuration tab.

"LPR" configuration tab – Default Settings:

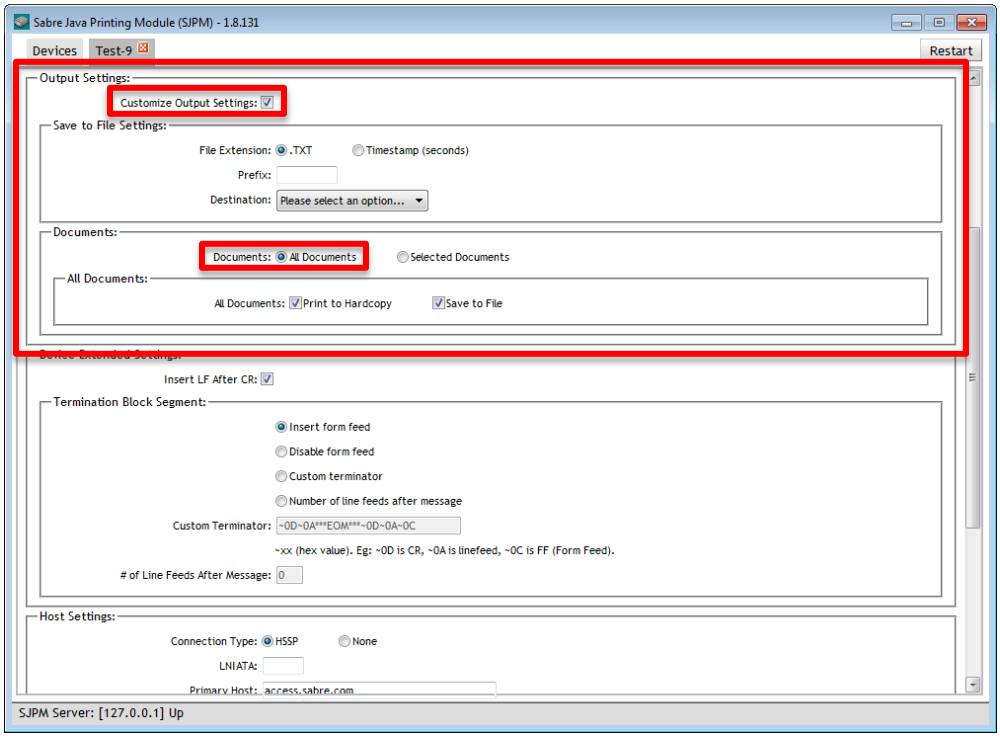




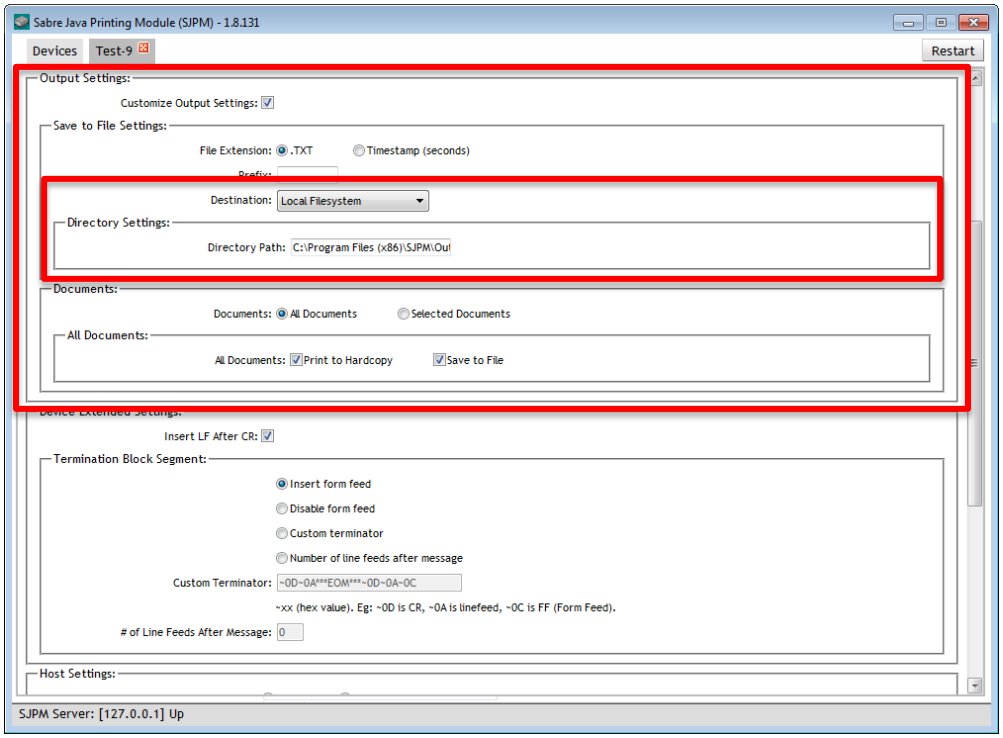
"LPR" configuration tab with "Graphics (e.g. laser)" selected – Default Settings:



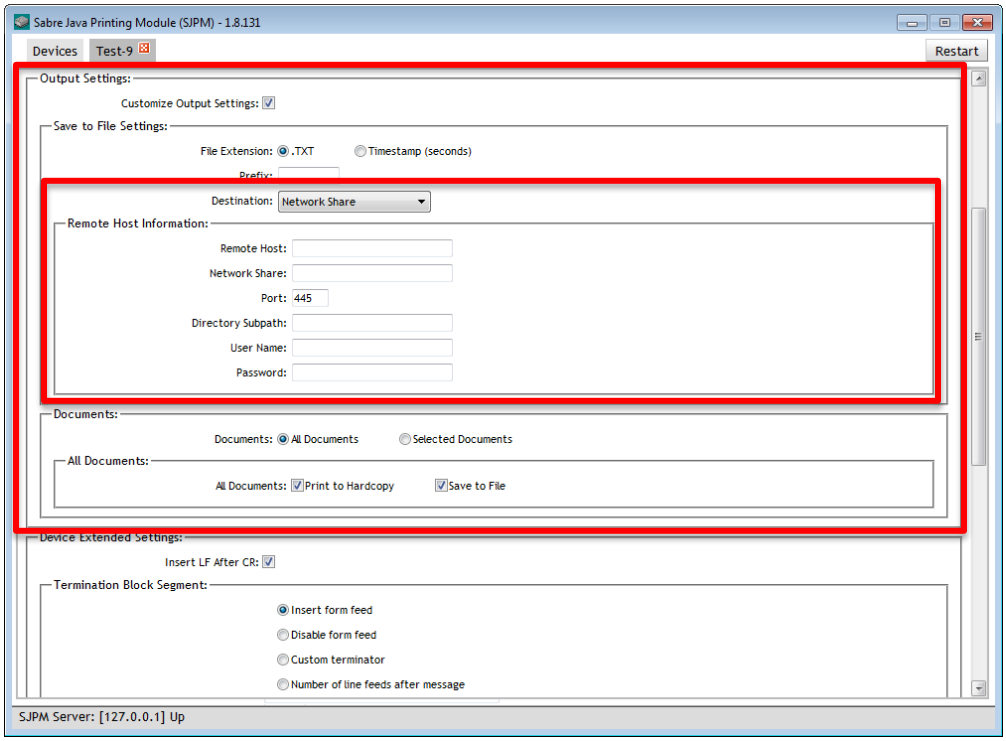
“LPR” configuration tab with “Customize Output Settings” selected and “All Documents” selected – Default Settings:



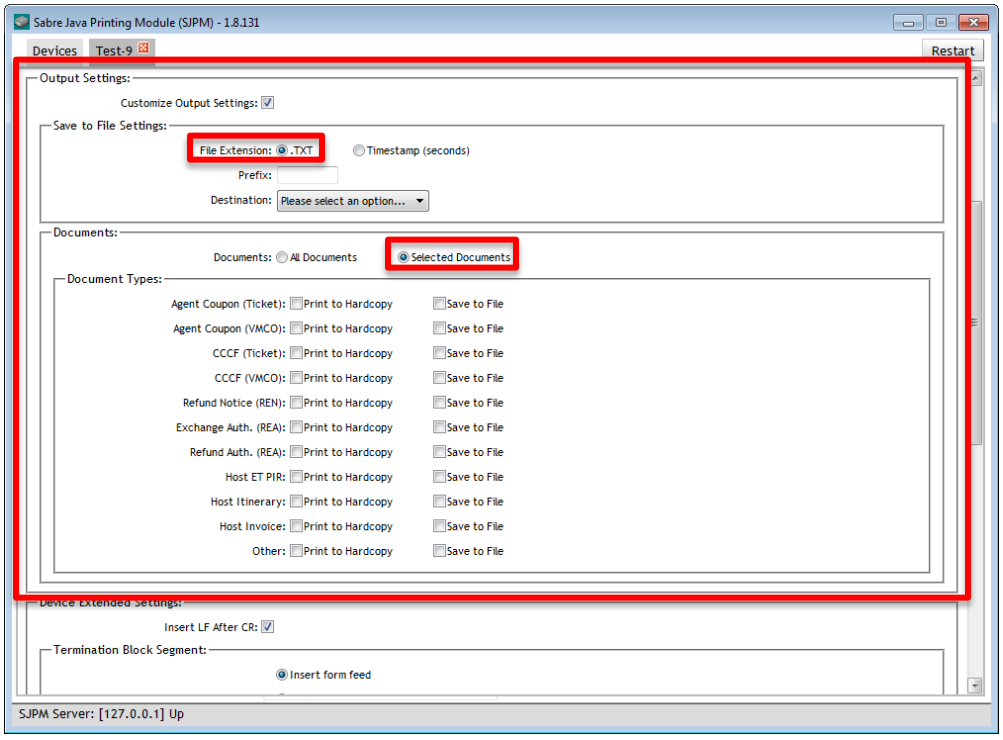
“LPR” configuration tab with “Customize Output Settings” selected and “Local Filesystem” selected – Default Settings:



“LPR” configuration tab with “Customize Output Settings” selected and “Network Share” selected – Default Settings:



“LPR” configuration tab with “Customize Output Settings” selected and “Selected Documents” selected – Default Settings:



"LPR" Driver Configuration Options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"**Host:**"

The "**Host**" configuration sets the LPR printer's hostname/IP. The default is blank.

"**Port:**"

The "**Port**" configuration sets the LPR printer's port to connect to. The default is "**515**".

"**Queue:**"

The "**Queue**" configuration option sets the LPR printer's queue. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets the LPR printer's user name connecting to the printer. The default is blank.

"**Printer Mode:**"

The "**Printer Mode**" selection sets the print mode. The default is set to "**Text Only (e.g. dot matrix)**".

Available selections are:

"**Text Only (e.g. dot matrix)**"

- For text only print such as used with dot matrix printers.

"**Graphics (e.g. laser)**"

- For graphics print such as used with laser printers.

"**Graphics Mode Settings:**"

The "**Graphics Mode Settings**" box will display when "**Graphics (e.g. laser)**" is selected from the "**Printer Mode**" option.

"**Page Size:**"

The "**Page Size**" selection sets the page size. The default is set to "**Letter**".

Available selections are:

"**Letter**"

"**A0**"

"**A1**"

"**A2**"

"**A3**"

"**A4**"

"**A5**"

"**A6**"

"**Font Settings:**"

"**Font:**"

The "**Font**" selection sets the font. The default is set to "**Please select an option…**".

"**Font Size:**"

The "**Font Size**" selection sets the font size. The default is set to "**Please select an option…**".

"**Output Settings:**"

Note: The configurations and functionality of the options contained within the "**Output Settings**" box (displayed when the "**Customize Output Settings**" checkbox is selected) are regional for the Asia Pacific (APAC) market and should be used with caution in other markets.

"**Customize Output Settings:**"

The "**Customize Output Settings**" selection, if checked, provides additional output settings that can be configured for the device. The "**Customize Output Settings**" checkbox is un-checked by default.

"**Save to File Settings:**"

The "**Save to File Settings**" box will display when the "**Customize Output Settings**" checkbox is checked.

"**File Extension:**"

The "**File Extension**" selection sets the file extension to use when sending data to file.

Available selections are:

"**.TXT**"

- Sets the output file extension to "**.TXT**". This option is set as default. File output format will be timestamp with a .txt extension. For example, with "**.TXT**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105045016.txt**".

"**Timestamp (seconds)**"

- Sets the output file extension to "**Timestamp (seconds)**". For example, with "**Timestamp (seconds)**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105720577.20**".

"**Prefix:**"

The "**Prefix**" configuration sets the prefix that will be prepended to the output filename. The default is blank.

"**Destination:**"

The "**Destination**" selection sets the destination of the output files. The default is set to "**Please select an option…**".

Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

Available selections are:

"**Local Filesystem**"

"**FTP**"

"**FTPS**"

"**FTPES**"

"**SCP**"

"**SFTP**"

"**CIFS/SMB1**"

"**SMB2/SMB3**"

"**Directory Settings:**"

The "**Directory Settings**" box will display when "**Local Filesystem**" is selected from the "**Destination**" drop down list.

"**Directory Path:**"

The "**Directory Path**" configuration is for the location where the files will be created (**Example:** "**C:\Test**"). The default is set to "**C:\Program Files\SJPM\Output**" for 32bit operating systems and "**C:\Program Files (x86)\SJPM\Output**" 64bit operating systems.

"**Remote Host Information:**"

The "**Remote Host Information**" box will be displayed when "**Network Share**", "**FTP**", "**FTPS**", "**FTPES**", "**SCP**", "**SFTP**", "**CIFS/SMB1**", or "**SMB2/SMB3**" is selected from the "**Destination**" drop down list.

"**Remote Host:**"

The "**Remote Host**" configuration sets the IP address, hostname, or computer name of the machine where the share exists. The default is blank.

"**Network Share:**"

The "**Network Share**" configuration sets the name of the network share. The default is blank.

"**Port:**"

The "**Port**" configuration sets the remote host's port to connect to.

Defaults are:

Network Share, CIFS/SMB1 and **SMB2/SMB3** = **445**

(By default port 445 is used, which uses the SMB protocol. If this is changed to another value, the Network Share will connect using the WebDav protocol.**)**

FTP and **FTPES** = **21**

FTPS = **990**

SCP and **SFTP** = **22**

"**Directory Subpath:**"

The "**Directory Subpath**" configuration sets the optional directory subpath under the network share where files will be written. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets user name connecting to the network share. The default is blank.

"**Password:**"

The "**Password**" configuration sets the password of the user connecting to the network share. The default is blank.

"Documents:"

"**Documents:**"

The "**Documents**" selection sets the document type(s) to use when printing. The default is set to "**All Documents**".

Available selections are:

"**All Documents**"

- The "**All Documents**" selection sets the data output to all documents with options.

"**Selected Documents**"

- The "**Selected Documents**" selection displays the "**Document Types**" box with the document types that can be selected (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list).

"All Documents:"

"**All Documents:**"

The "**All Documents**" selection sets the data output type.

Available selections are:

"**Print to Hardcopy**"

- The "**Print to Hardcopy**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to hardcopy. The "**Print to Hardcopy**" checkbox is selected by default.

"**Save to File**"

- The "**Save to File**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to file. The "**Save to File**" checkbox is selected by default.

"Document Types:"

The "**Document Types**" box will display when "**Selected Documents**" is selected from the "**Documents**" option.

See the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list.

"Device Extended Settings:"

"**Insert LF After CR:**"

The "**Insert LF After CR**" selection, if checked, inserts a Line Feed after a Carriage Return. The "**Insert LF After CR**" checkbox is checked by default.

"Termination Block Segment:"

"**Insert form feed**"

The "**Insert form feed**" selection, if selected, inserts a Form Feed at the end of the message data. The "**Insert form feed**" selection is selected by default.

"**Disable form feed**"

The "**Disable form feed**" selection, if selected, disables Form Feed.

"**Custom terminator:**"

The "**Custom terminator**" selection, if selected, inserts a custom terminator that can be user edited. The default custom terminator is set to "**~0D~0A***EOM***~0D~0A~0C**".

~xx (hex value). Eg: ~0D is CR, ~0A is linefeed, ~0C is FF (Form Feed).

"**Number of line feeds after message**"

The "**Number of line feeds after message**" selection, if selected, inserts the number of line feeds entered in the "**# of Line Feeds After Message:**" field to the end of the message data if selected. The default is set to "**0**".

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.10 MQJMS Driver

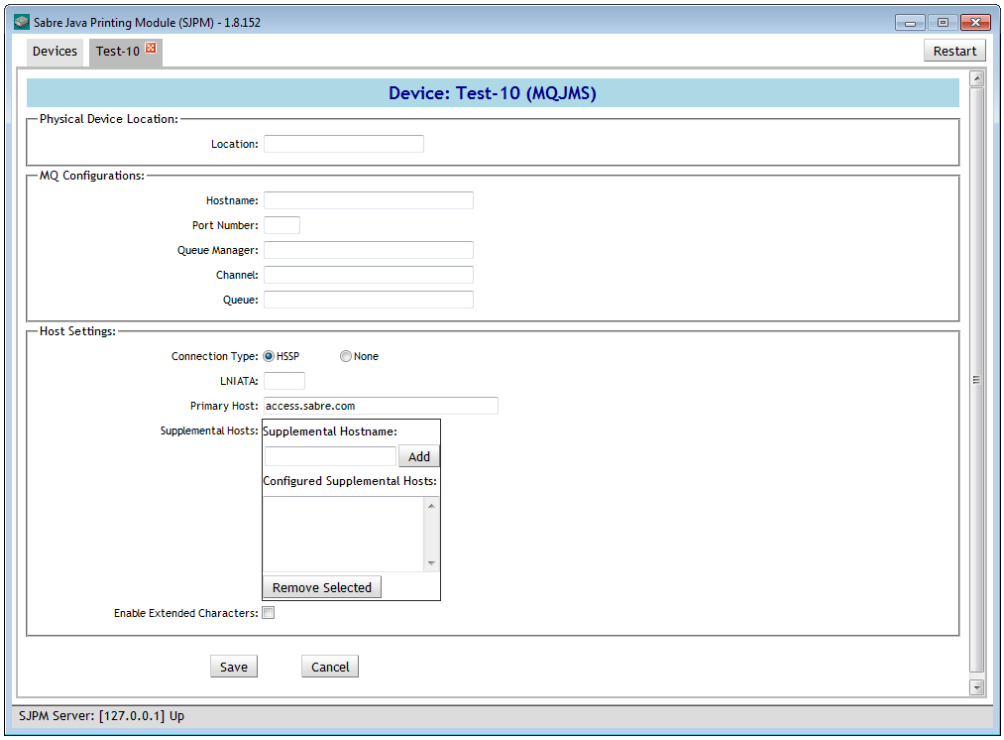
The "**MQJMS**" Driver allows the user to send data from the Sabre Host to a MQ JMS Server Queue with various configuration options.

Usage:

The "**MQJMS**" Driver should be used if the user needs to send data from the Sabre Host to a MQ JMS Server Queue.

The screenshot below shows the "**MQJMS**" Driver's configuration tab.

"MQJMS" configuration tab – Default Settings:



"MQJMS" Driver Configuration Options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"MQ Configurations:"

"**Hostname:**"

The "**Hostname**" configuration is for setting the hostname of the MQ Server. The default is blank.

"**Port Number:**"

The "**Port Number**" configuration is for setting the port number of the MQ Server. The default is blank.

"**Queue Manager:**"

The "**Queue Manager**" configuration is for setting the queue manager name on the configured MQ Server. The default is blank.

"**Channel:**"

The "**Channel**" configuration is for setting the channel for the MQ Manager. The default is blank.

"**Queue:**"

The "**Queue**" configuration is for setting the queue name where the messages will be delivered. The default is blank.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.11 Printer Driver

The "**Printer**" Driver allows the user to send data from the Sabre Host to a printer using Serial or Parallel interface and also to a file with various configuration options.

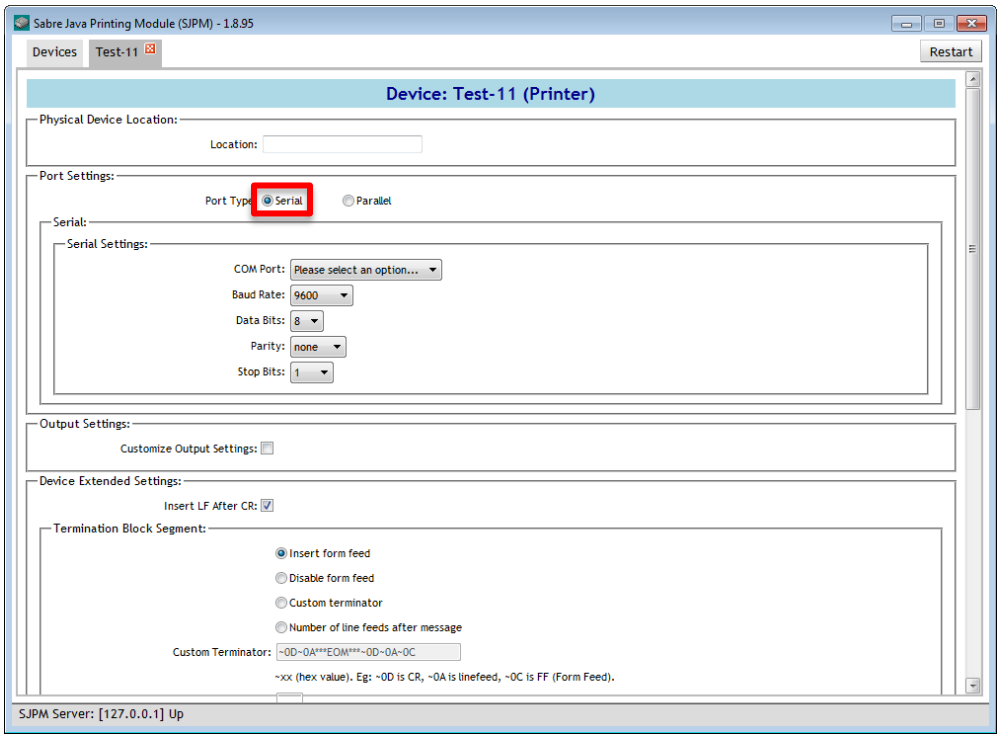
Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

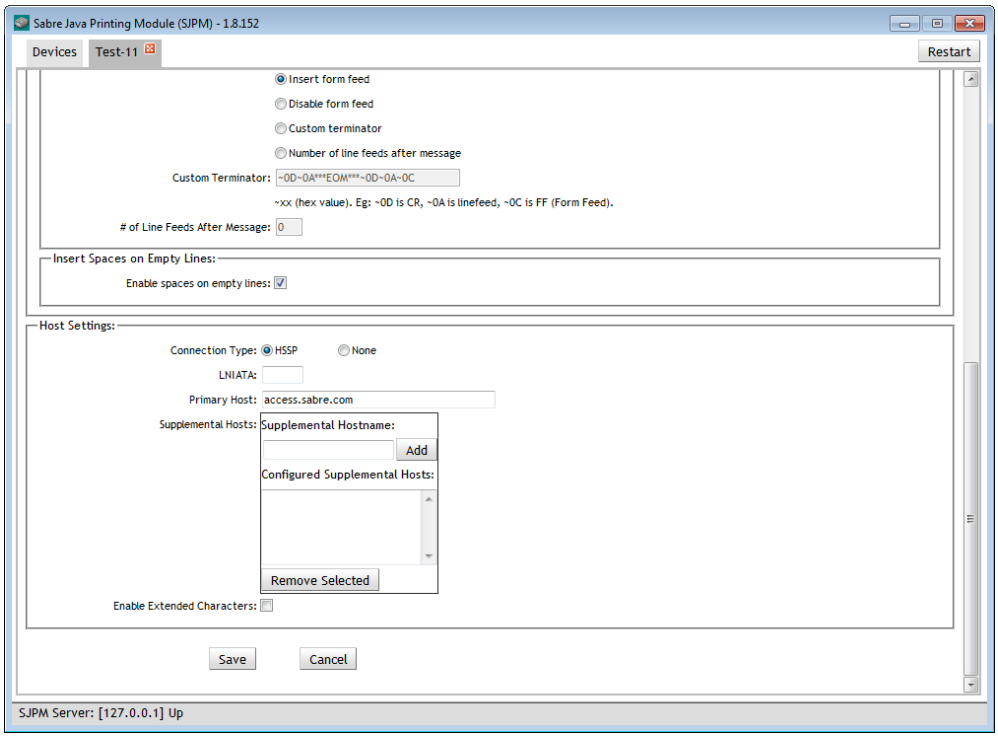
Usage:

The "**Printer**" Driver should be used if the user needs to send data from the Sabre Host to a physical printer that is connected to the PC where SJPM is running either via Serial or Parallel interface.

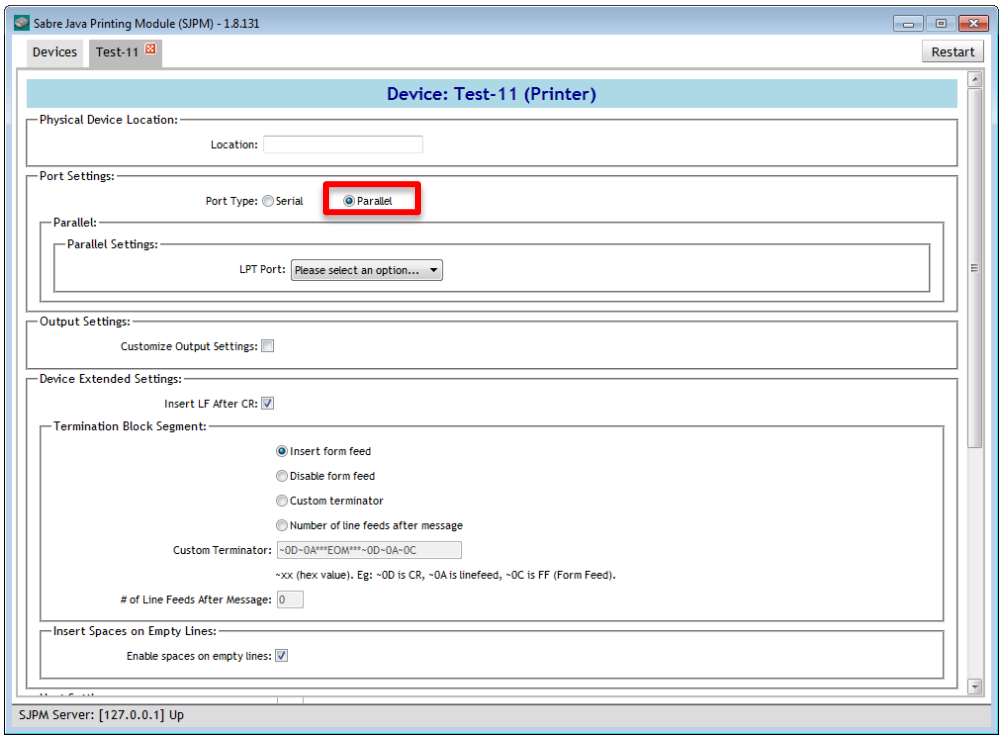
The screenshots below show the "**Printer**" Driver's configuration tab with various options selected.

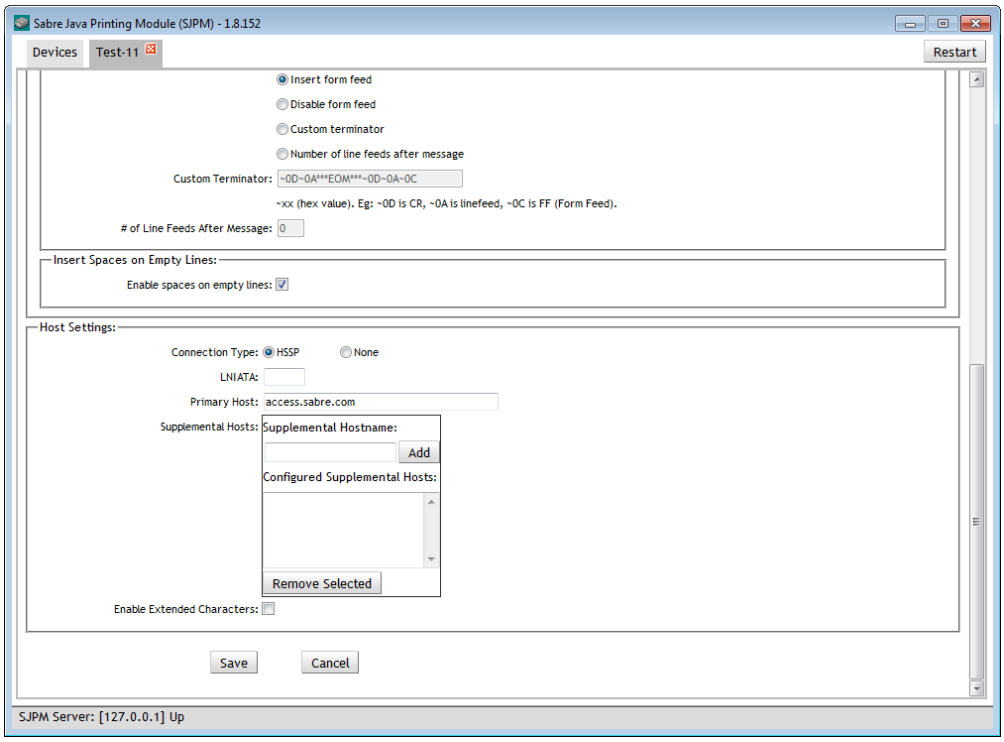
"Printer" configuration tab with "Serial" selected – Default Settings:



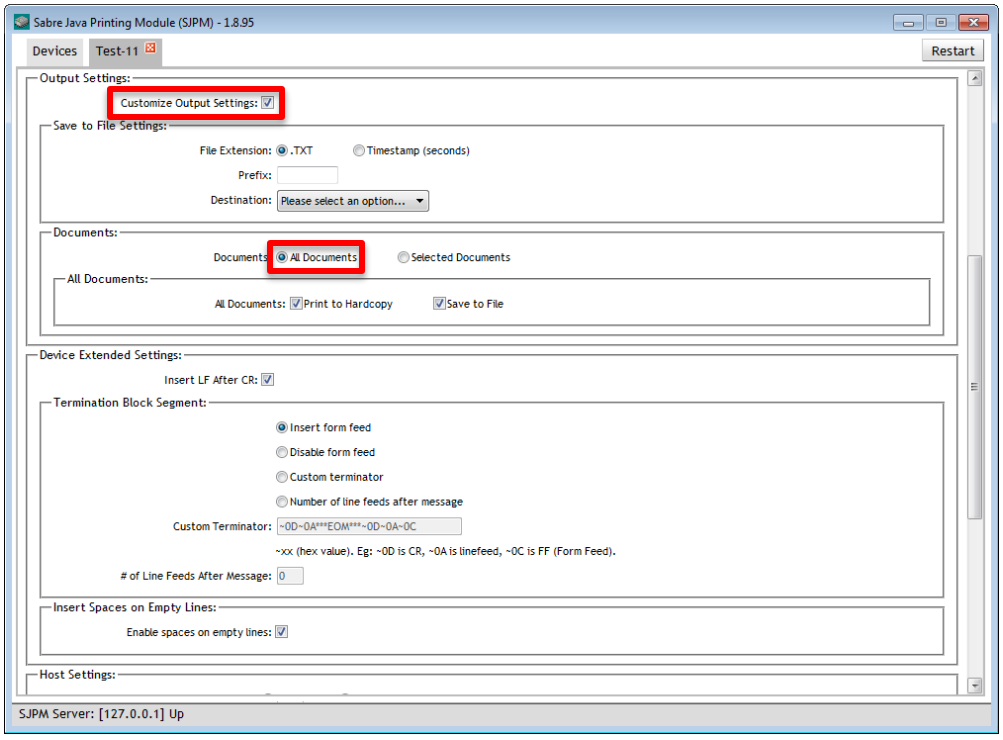


"Printer" configuration tab with "Parallel" selected – Default Settings:

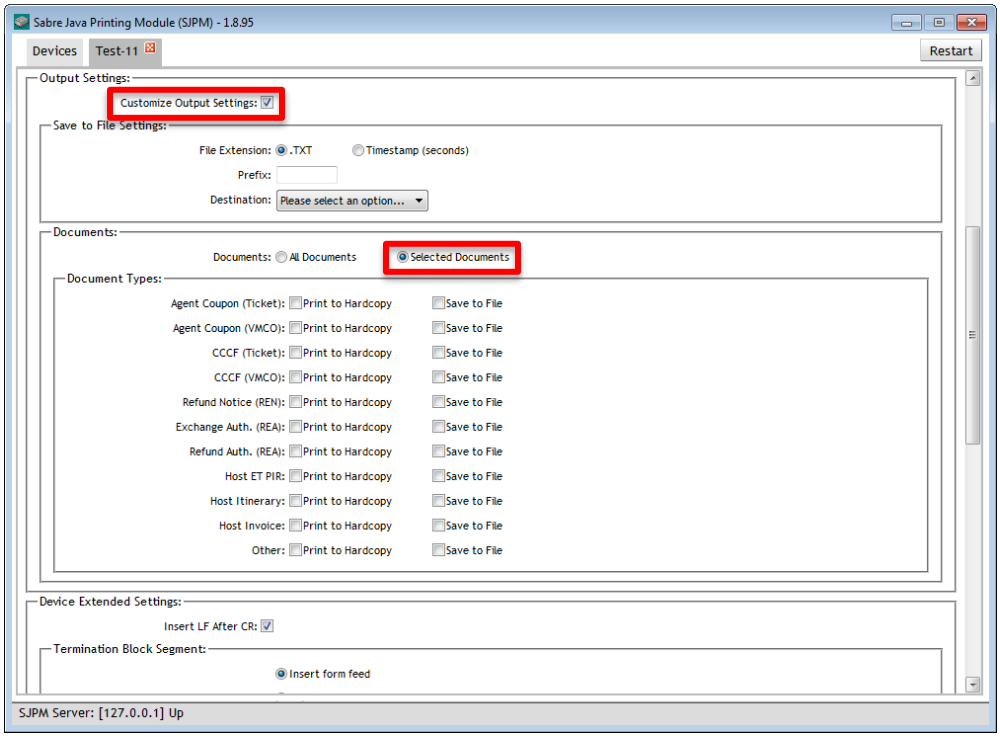




"Printer" configuration tab with "Customize Output Settings" selected and "All Documents" selected – Default Settings:



“Printer” configuration tab with “Customize Output Settings” selected and ‘Selected Documents” selected – Default Settings:



“Printer” Driver Configuration Options:

“Physical Device Location:”

“Location:”

The “**Location**” configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device’s output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the “**Location**” field.

“Port Settings:”

“Port Type:”

The “**Port Type**” selection sets the interface type to use when printing.

Available selections are:

“**Serial**”

- For Serial Interface printing. This option is set as default.

“**Parallel**”

- For Parallel Interface printing.

"**Serial:**"

The "**Serial**" box will display when "**Serial**" is selected from the "**Port Type**" option.

"**Serial Settings:**"

"**COM Port:**"

The "**COM Port**" selection sets the COM port. Select the COM port that the printer is connected to on the PC running SJPM. The default is set to "**Please select an option...**". Available "**COM Port**" selections will vary by PC.

"**Baud Rate:**"

The "**Baud Rate**" selection sets the baud rate for communications with the printer. The default is set to "**9600**". This setting must match the baud rate setting configured in the connected printer.

Available "**Baud Rate**" selections are:

1200, **2400**, **4800**, **9600**, **19200**, **38400**, **57600** and **115200**

"**Data Bits:**"

The "**Data Bits**" selection sets the data bits for communications with the printer. The default is set to "**8**". This setting must match the data bits setting configured in the connected printer.

Available "**Data Bits**" selections are:

7 and **8**

"**Parity:**"

The "**Parity**" selection sets the parity for communications with the printer. The default is set to "**none**". This setting must match the parity setting configured in the connected printer.

Available "**Parity**" selections are:

even, **odd**, **mark**, **none** and **space**

"**Stop Bits:**"

The "**Stop Bits**" selection sets the stop bits for communications with the printer. The default is set to "**1**". This setting must match the stop bits setting configured in the connected printer.

Available "**Stop Bits**" selections are:

1, **1.5** and **2**

"**Parallel:**"

The "**Parallel**" box will display when "**Parallel**" is selected from the "**Port Type**" option.

"**Parallel Settings:**"

"**LPT Port:**"

The "**LPT Port**" selection sets the LPT port. Select the LPT port that the printer is connected to on the PC running SJPM. The default is set to "**Please select an option...**". Available "**LPT Port**" selections will vary by PC.

"**Output Settings:**"

Note: The configurations and functionality of the options contained within the "**Output Settings**" box (displayed when the "**Customize Output Settings**" checkbox is selected) are regional for the Asia Pacific (APAC) market and should be used with caution in other markets.

"**Customize Output Settings:**"

The "**Customize Output Settings**" selection, when checked, provides additional output settings that can be configured for the device. The "**Customize Output Settings**" checkbox is un-checked by default.

"**Save to File Settings:**"

"**File Extension:**"

The "**File Extension**" selection sets the file extension to use when sending data to file.

Available selections are:

"**.TXT**"

- Sets the output file extension to "**.TXT**". This option is set as default. File output format will be timestamp with a .txt extension. For example, with "**.TXT**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105045016.txt**".

"**Timestamp (seconds)**"

- Sets the output file extension to "**Timestamp (seconds)**". For example, with "**Timestamp (seconds)**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105720577.20**".

"**Prefix:**"

The "**Prefix**" configuration sets the prefix that will be prepended to the output filename. The default is blank.

"**Destination:**"

The "**Destination**" selection sets the destination of the output files. The default is set to "**Please select an option…**".

Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

Available selections are:

"**Local Filesystem**"

"**Network Share**"

"**FTP**"

"**FTPS**"

"**FTPES**"

"**SCP**"

"**SFTP**"

"**CIFS/SMB1**"

"**SMB2/SMB3**"

"**Directory Settings:**"

The "**Directory Settings**" box will display when "**Local Filesystem**" is selected from the "**Destination**" option.

"**Directory Path:**"

The "**Directory Path**" configuration is for the location where the files will be created (**Example:** "**C:\Test**"). The default is set to "**C:\Program Files\SJPM\Output**" for 32bit operating systems and "**C:\Program Files (x86)\SJPM\Output**" 64bit operating systems.

"**Remote Host Information:**"

The "**Remote Host Information**" box will be displayed when **Network Share**, **FTP**, **FTPS**, **FTPES**, **SCP**, **SFTP**, **CIFS/SMB1**, or **SMB2/SMB3** is selected from the "**Destination**" option.

"**Remote Host:**"

The "**Remote Host**" configuration sets the IP address, hostname, or computer name of the machine where the share exists. The default is blank.

"**Network Share:**"

The "**Network Share**" configuration sets the name of the network share. The default is blank.

"**Port:**"

The "**Port**" configuration sets the remote host's port to connect to.

Defaults are:

Network Share, CIFS/SMB1 and **SMB2/SMB3** = **445**

(By default port 445 is used, which uses the SMB protocol. If this is changed to another value, the Network Share will connect using the WebDav protocol.**)**

FTP and **FTPES** = **21**

FTPS = **990**

SCP and **SFTP** = **22**

"**Directory Subpath:**"

The "**Directory Subpath**" configuration sets the optional directory subpath under the network share where files will be written. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets user name connecting to the network share. The default is blank.

"**Password:**"

The "**Password**" configuration sets the password of the user connecting to the network share. The default is blank.

"**Documents:**"

"**Documents:**"

The "**Documents**" selection sets the document type(s) to use when printing. The default is set to "**All Documents**".

Available selections are:

"**All Documents**"

- The "**All Documents**" selection sets the data output to all documents with options.

"**Selected Documents**"

- The "**Selected Documents**" selection displays the "**Document Types:**" field set with the document types that can be selected (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list).

"All Documents:"

"**All Documents:**"

The "**All Documents**" selection sets the data output type.

Available selections are:

"**Print to Hardcopy**"

- The "**Print to Hardcopy**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to hardcopy. The "**Print to Hardcopy**" checkbox is selected by default.

"**Save to File**"

- The "**Save to File**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to file. The "**Save to File**" checkbox is selected by default.

"Document Types:"

The "**Document Types**" box will display when "**Selected Documents**" is selected from the "**Documents**" configuration.

See the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list.

"Device Extended Settings:"

"**Insert LF After CR:**"

The "**Insert LF After CR**" selection, if checked, inserts a Line Feed after a Carriage Return. The "**Insert LF After CR**" checkbox is checked by default.

"Termination Block Segment:"

"**Insert form feed**"

The "**Insert form feed**" selection, if selected, inserts a Form Feed at the end of the message data. The "**Insert form feed**" selection is selected by default.

"**Disable form feed**"

The "**Disable form feed**" selection, if selected, disables Form Feed.

"**Custom terminator:**"

The "**Custom terminator**" selection, if selected, inserts a custom terminator that can be user edited. The default custom terminator is set to "**~0D~0A***EOM***~0D~0A~0C**".

~xx (hex value). Eg: ~0D is CR, ~0A is linefeed, ~0C is FF (Form Feed).

"**Number of line feeds after message**"

The "**Number of line feeds after message**" selection, if selected, inserts the number of line feeds entered in the "**# of Line Feeds After Message:**" field to the end of the message data if selected. The default is set to "**0**".

"Insert Spaces on Empty Lines:"

"**Enable spaces on empty lines**"

The "**Enable spaces on empty lines**" selection, if checked, inserts spaces on empty lines. The "**Enable spaces on empty lines**" selection is checked by default.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.12 Proxy Driver

The "**Proxy**" Driver allows the user to send data from the Sabre Host, from multiple LNIATAs, to a single device (**Multiple to One**); for example, multiple "**Proxy**" devices directing their LNIATA's data output to a single "**Printer**" device.

IMPORTANT NOTE: Devices to be added to the "**Proxy**" device must already exist in SJPM or be created before the "**Proxy**" device is created and its configuration can be saved.

Supported Drivers are as follows:

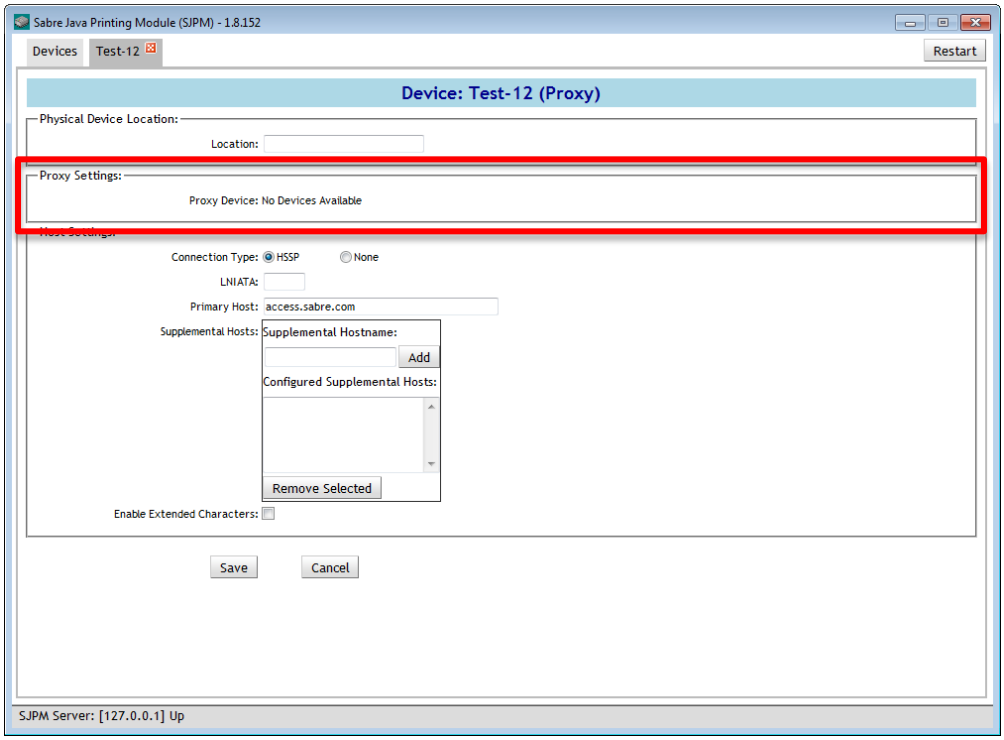
"**ATB2File**", "**ATB2LPR**", "**ATB2System**", "**File**", "**IFQ**", "**LPR**", "**MQJMS**", "**Printer**", "**Queue**", "**RawIP**", "**STPATB1**", "**STPATB1INI**", and "**System**"

Usage:

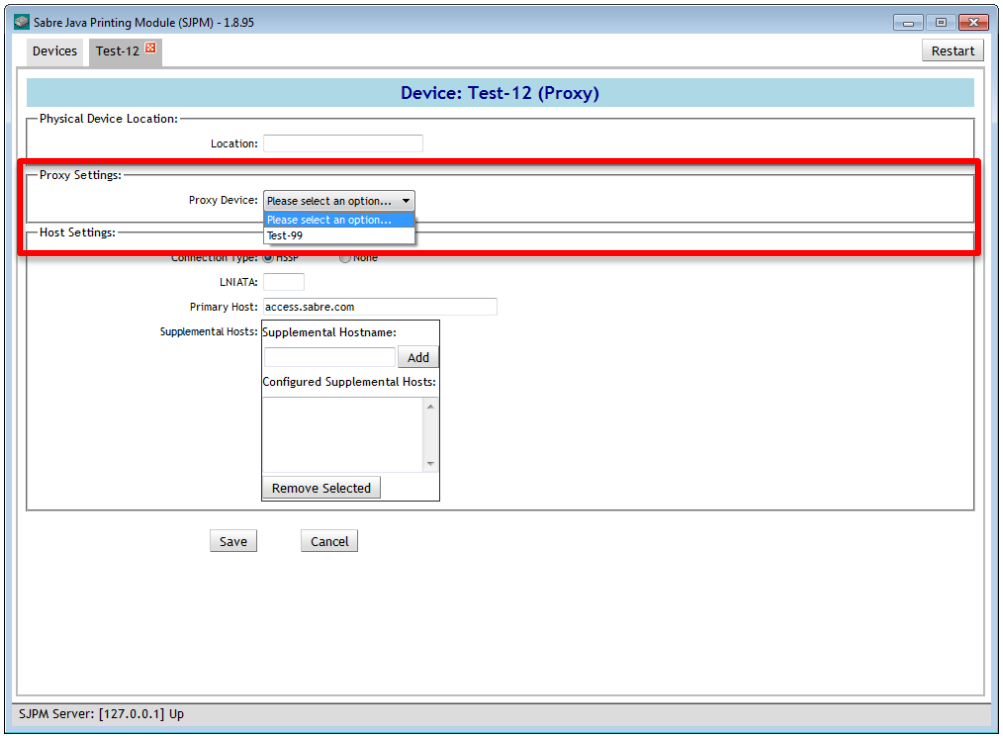
The "**Proxy**" Driver should be used if the user needs to send data from the Sabre Host, from multiple LNIATAs to a single SJPM device (**Multiple to One**); for example, multiple "**Proxy**" devices directing their LNIATA's data output to a single "**Printer**" device.

The screenshots below show the "**Proxy**" Driver's configuration tab.

"Proxy" configuration tab with no device(s) present – Default Settings:



"Proxy" configuration tab with device(s) present – Default Settings:



"Proxy" driver configuration options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Proxy Settings:"

"Proxy Device:"

The "**Proxy Device**" selection sets the device to use to print to. The default is set to "**Please select an option…**".

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.13 Queue Driver

The "**Queue**" Driver allows the user to send data from the Sabre Host to a Network printer with various configuration options.

Note: To ensure proper functionality with the SJPM "**Queue**" Driver, the driver for the printer you plan to print to should be downloaded from the manufacturer's website and installed. **Do not use the driver for the printer that comes with Windows.**

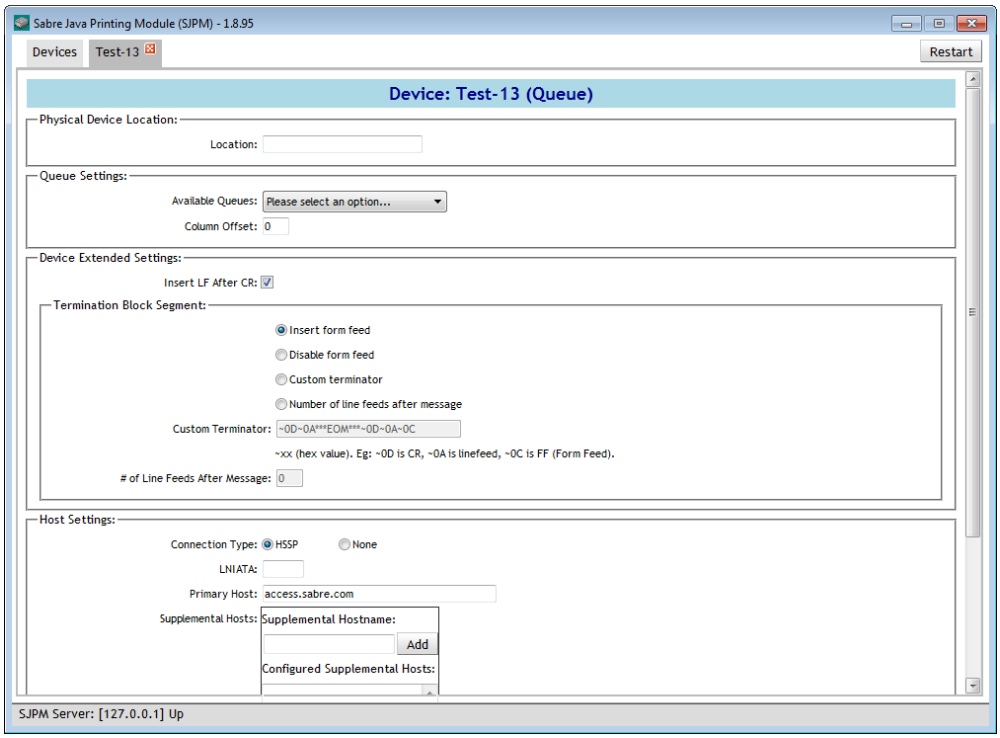
Refer to Section **6.1.6 Allow User Rights – Queue and System Drivers** for details on user rights configurations.

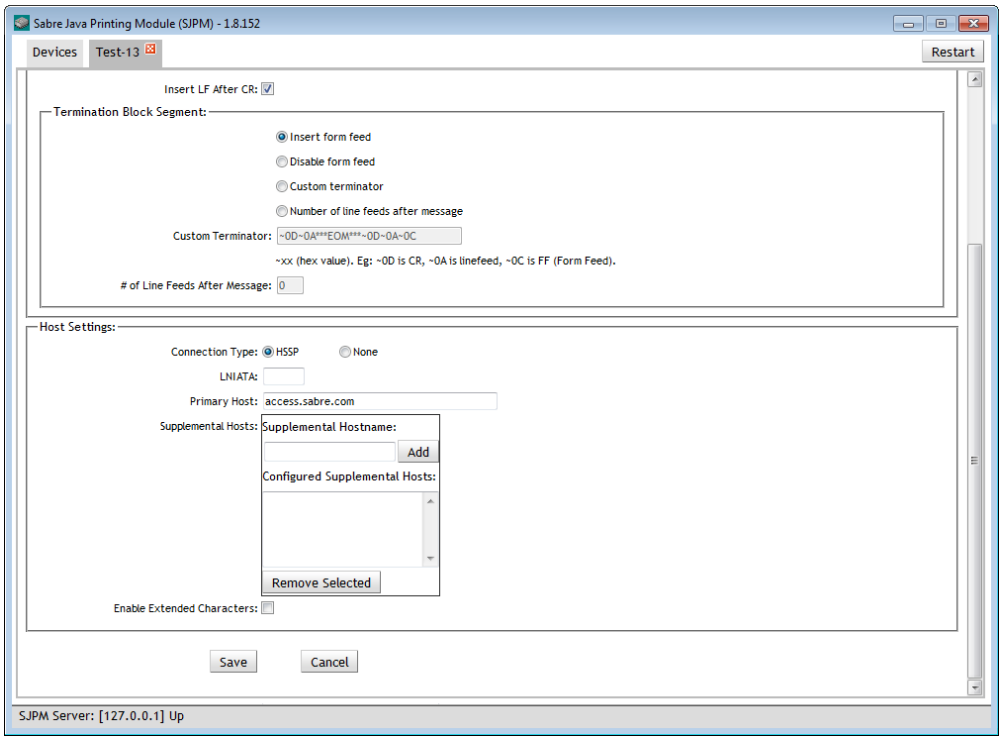
Usage:

The "**Queue**" Driver should be used if the user needs to send data from the Sabre Host to a Network printer with various configuration options.

The screenshots below show the "**Queue**" Driver's configuration tab.

"Queue" configuration tab – Default Settings:





"Queue" driver configuration options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Queue Settings:"

"Available Queues:"

The "**Available Queues**" selection sets the Network printer you want to use to print to. The default is set to "**Please select an option…**".

"Column Offset:"

The "**Column Offset**" configuration sets the number of characters to indent the data from the left margin. The default is set to "**0**".

"Device Extended Settings:"

"Insert LF After CR:"

The "**Insert LF After CR**" selection, if checked, inserts a Line Feed after a Carriage Return. The "**Insert LF After CR**" checkbox is checked by default.

"Termination Block Segment:"

"Insert form feed"

The "**Insert form feed**" selection, if selected, inserts a Form Feed at the end of the message data. The "**Insert form feed**" selection is selected by default.

"**Disable form feed**"

The "**Disable form feed**" selection, if selected, disables Form Feed.

"**Custom terminator:**"

The "**Custom terminator**" selection, if selected, inserts a custom terminator that can be user edited. The default custom terminator is set to "**~0D~0A***EOM***~0D~0A~0C**".

~xx (hex value). Eg: ~0D is CR, ~0A is linefeed, ~0C is FF (Form Feed).

"**Number of line feeds after message**"

The "**Number of line feeds after message**" selection, if selected, inserts the number of line feeds entered in the "**# of Line Feeds After Message:**" field to the end of the message data if selected. The default is set to "**0**".

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.14 RawIP Driver

The "**RawIP**" Driver allows the user to send data from the Sabre Host to an IP printer and to a file with various configuration options.

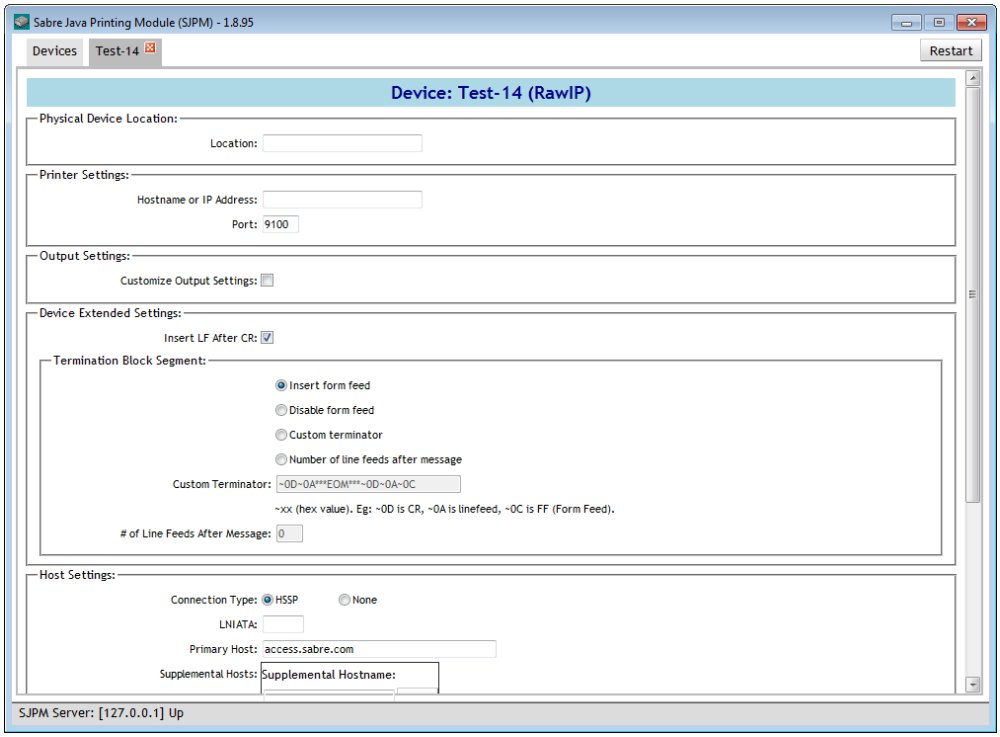
Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

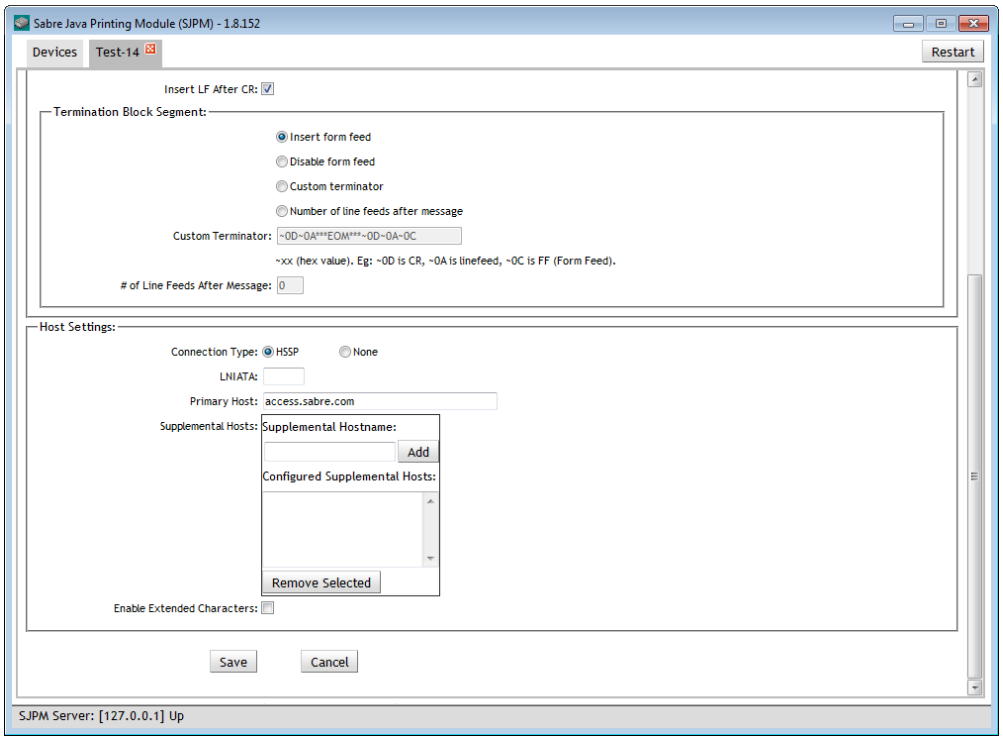
Usage:

The "**RawIP**" Driver should be used if the user needs to send data from the Sabre Host directly to an IP printer or file. This driver sends the data directly to a network printer via IP eliminating any possible issues with user rights.

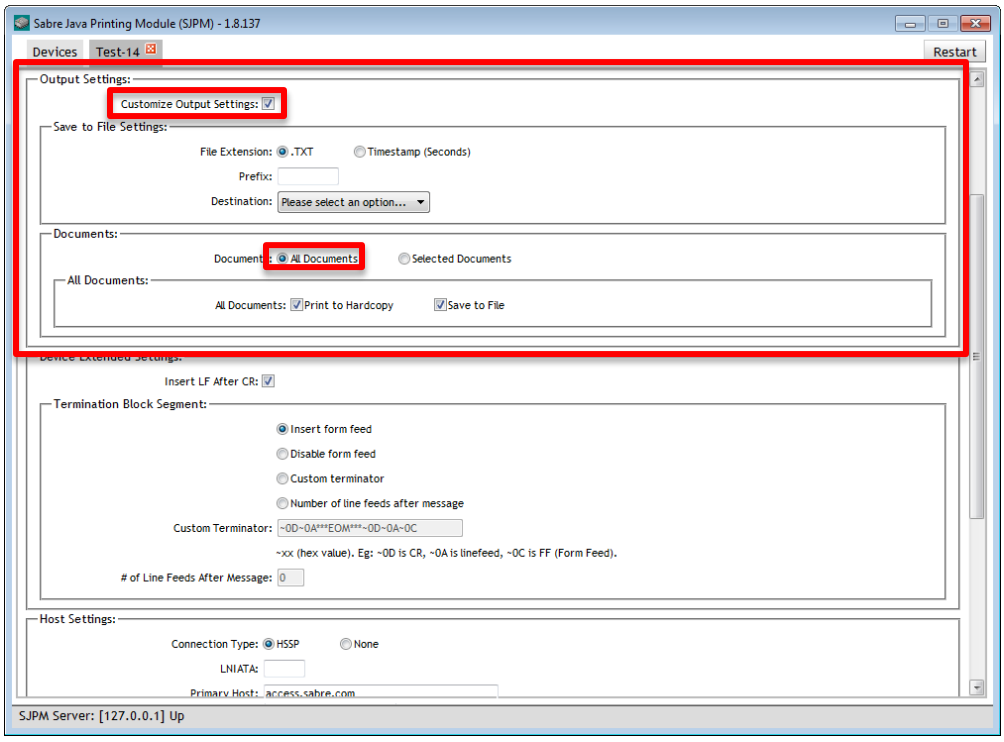
The screenshots below show the "**RawIP**" Driver's configuration tab.

"RawIP" configuration tab – Default Settings:

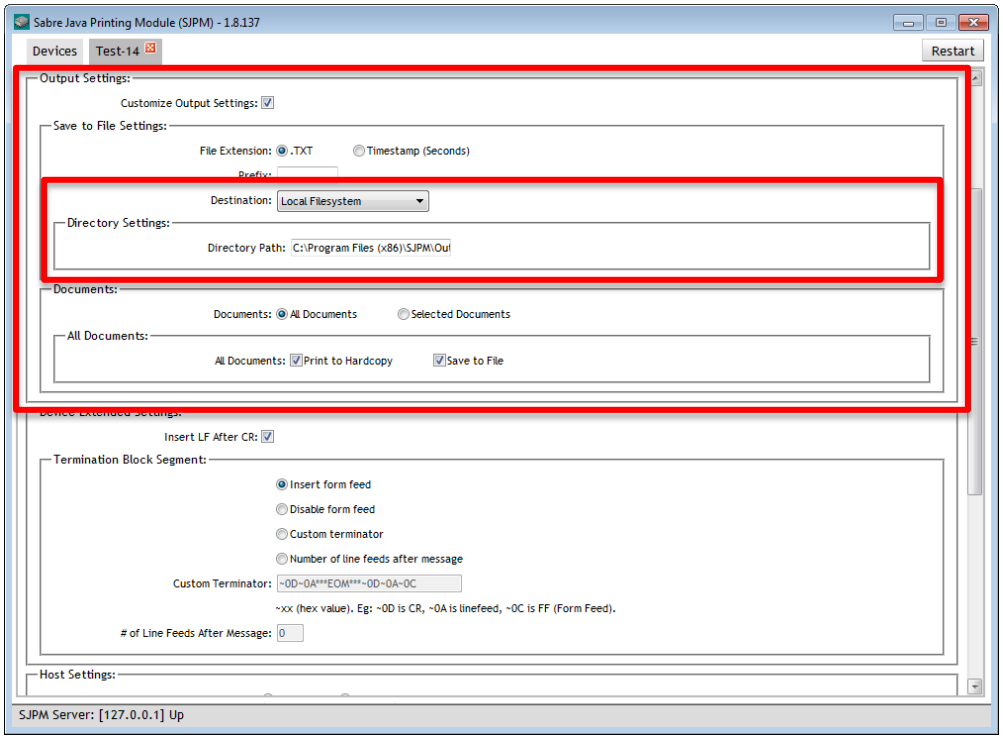




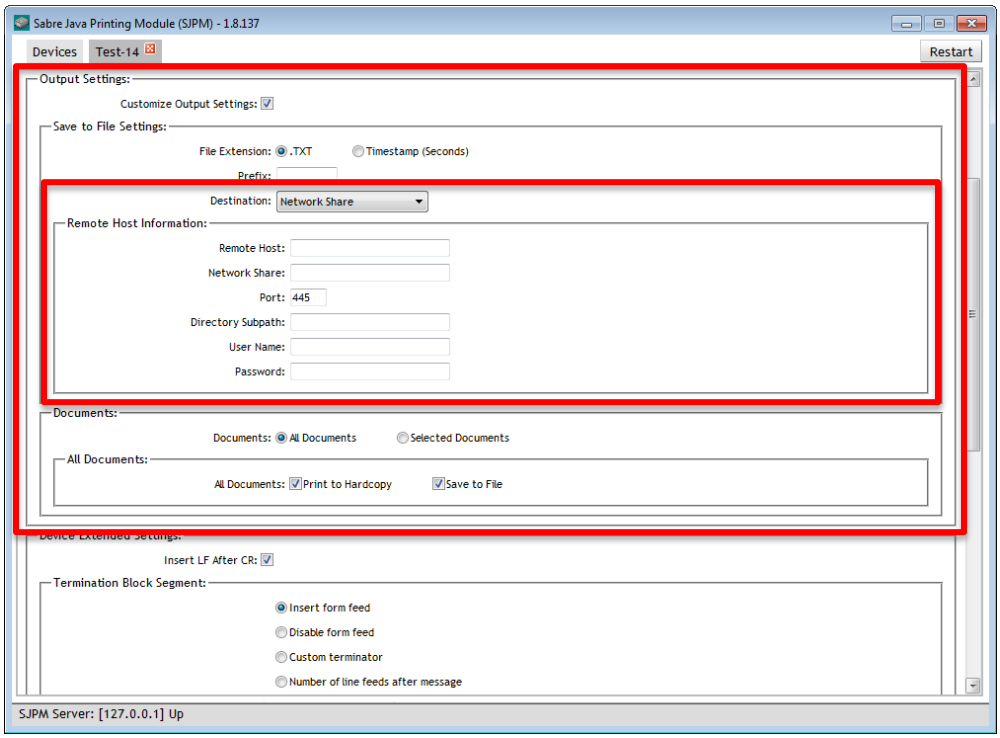
"RawIP" configuration tab with "Customize Output Settings" selected and "All Documents" selected – Default Settings:



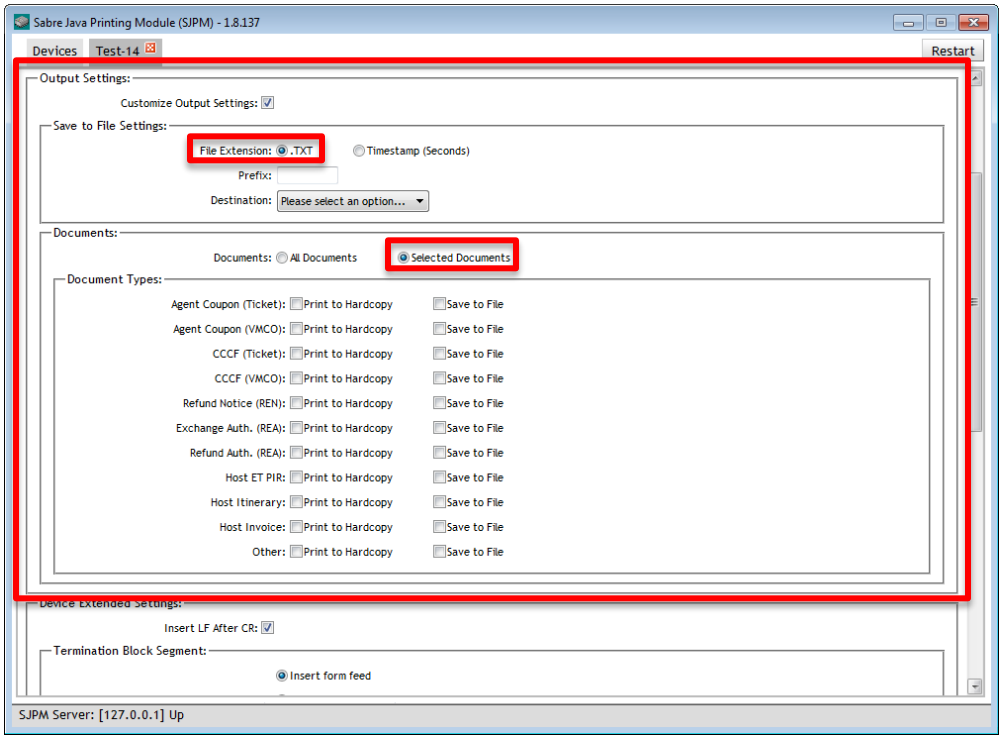
“RawIP” configuration tab with “Customize Output Settings” selected and “Local Filesystem” selected – Default Settings:



“RawIP” configuration tab with “Customize Output Settings” selected and “Network Share” selected – Default Settings:



"RawIP" configuration tab with "Customize Output Settings" selected and "Selected Documents" selected – Default Settings:



"RawIP" driver configuration options:

"Physical Device Location:"

"Location:"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"Hostname or IP Address:"

The "**Hostname or IP Address**" configuration is for the hostname or IP address of the printer to be used to print to. The default is blank.

"Port:"

The "**Port**" configuration sets the port to be used for printing. The default port is set to "**9100**".

"**Output Settings:**"

Note: The configurations and functionality of the options contained within the "**Output Settings**" box (displayed when the "**Customize Output Settings**" checkbox is selected) are regional for the Asia Pacific (APAC) market and should be used with caution in other markets.

"**Customize Output Settings:**"

The "**Customize Output Settings**" option, when checked, provides additional output settings that can be configured for the device. The "**Customize Output Settings**" checkbox is un-checked by default.

"**Save to File Settings:**"

"**File Extension:**"

The "**File Extension**" selection sets the file extension to use when printing to file.

Available selections are:

"**.TXT**"

- Sets the output file extension to "**.TXT**". This option is set as default. File output format will be timestamp with a .txt extension. For example, with "**.TXT**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105045016.txt**".

"**Timestamp (seconds)**"

- Sets the output file extension to "**Timestamp (seconds)**". For example, with "**Timestamp (seconds)**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105720577.20**".

"**Prefix:**"

The "**Prefix**" configuration sets the prefix that will be prepended to the output filename. The default is blank.

"**Destination:**"

The "**Destination**" selection sets the destination of the output files. The default is set to "**Please select an option…**".

Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

Available selections are:

"**Local Filesystem**"

"**Network Share**"

"**FTP**"

"**FTPS**"

"**FTPES**"

"**SCP**"

"**SFTP**"

"**CIFS/SMB1**"

"**SMB2/SMB3**"

"**Directory Settings:**"

The "**Directory Settings**" box will display when "**Local Filesystem**" is selected from the "**Destination**" configuration.

"**Directory Path:**"

The "**Directory Path**" configuration is for the location where the files will be created (**Example:** "**C:\Test**"). The default is set to "**C:\Program Files\SJPM\Output**" for 32bit operating systems and "**C:\Program Files (x86)\SJPM\Output**" 64bit operating systems.

"**Remote Host Information:**"

The "**Remote Host Information**" box will be displayed when **Network Share**, **FTP**, **FTPS**, **FTPES**, **SCP**, **SFTP**, **CIFS/SMB1**, or **SMB2/SMB3** is selected from the "**Destination**" option.

"**Remote Host:**"

The "**Remote Host**" configuration sets the IP address, hostname, or computer name of the machine where the share exists. The default is blank.

"**Network Share:**"

The "**Network Share**" configuration sets the name of the network share. The default is blank.

"**Port:**"

The "**Port**" configuration sets the remote host's port to connect to.

Defaults are:

Network Share, CIFS/SMB1 and **SMB2/SMB3** = **445**

(By default port 445 is used, which uses the SMB protocol. If this is changed to another value, the Network Share will connect using the WebDav protocol.**)**

FTP and **FTPES** = **21**

FTPS = **990**

SCP and **SFTP** = **22**

"**Directory Subpath:**"

The "**Directory Subpath**" configuration sets the optional directory subpath under the network share where files will be written. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets user name connecting to the network share. The default is blank.

"**Password:**"

The "**Password**" configuration sets the password of the user connecting to the network share. The default is blank.

"**Documents:**"

"**Documents:**"

The "**Documents**" selection sets the document type(s) to use when printing. The default is set to "**All Documents**".

Available selections are:

"**All Documents**"

- The "**All Documents**" selection sets the data output to all documents with options.

"**Selected Documents**"

- The "**Selected Documents**" selection displays the "**Document Types**" box with the document types that can be selected (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list).

"All Documents:"

"**All Documents:**"

The "**All Documents**" selections set the data output type.

Available selections are:

"**Print to Hardcopy**"

- The "**Print to Hardcopy**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to hardcopy. The "**Print to Hardcopy**" checkbox is selected by default.

"**Save to File**"

- The "**Save to File**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to file. The "**Save to File**" checkbox is selected by default.

"Document Types:"

The "**Document Types**" box will display when "**Selected Documents**" is selected from the "**Documents**" configuration.

See the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list.

"Device Extended Settings:"

"**Insert LF After CR:**"

The "**Insert LF After CR**" selection, if checked, inserts a Line Feed after a Carriage Return. The "**Insert LF After CR**" checkbox is checked by default.

"Termination Block Segment:"

"**Insert form feed**"

The "**Insert form feed**" selection, if selected, inserts a Form Feed at the end of the message data. The "**Insert form feed**" selection is selected by default.

"**Disable form feed**"

The "**Disable form feed**" selection, if selected, disables Form Feed.

"**Custom terminator:**"

The "**Custom terminator**" selection, if selected, inserts a custom terminator that can be user edited. The default custom terminator is set to "**~0D~0A***EOM***~0D~0A~0C**".

~xx (hex value). Eg: ~0D is CR, ~0A is linefeed, ~0C is FF (Form Feed).

"**Number of line feeds after message**"

The "**Number of line feeds after message**" selection, if selected, inserts the number of line feeds entered in the "**# of Line Feeds After Message:**" field to the end of the message data if selected. The default is set to "**0**".

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.15 STPATB1 Driver

The "**STPATB1**" Driver allows the user to send data from the Sabre Host, through a modem at the Main Office location, to a Sabre Certified printer at a STP or Branch location with various configuration options.

Note 1: If using any of the STP Drivers, SJPM must be run as a Service.

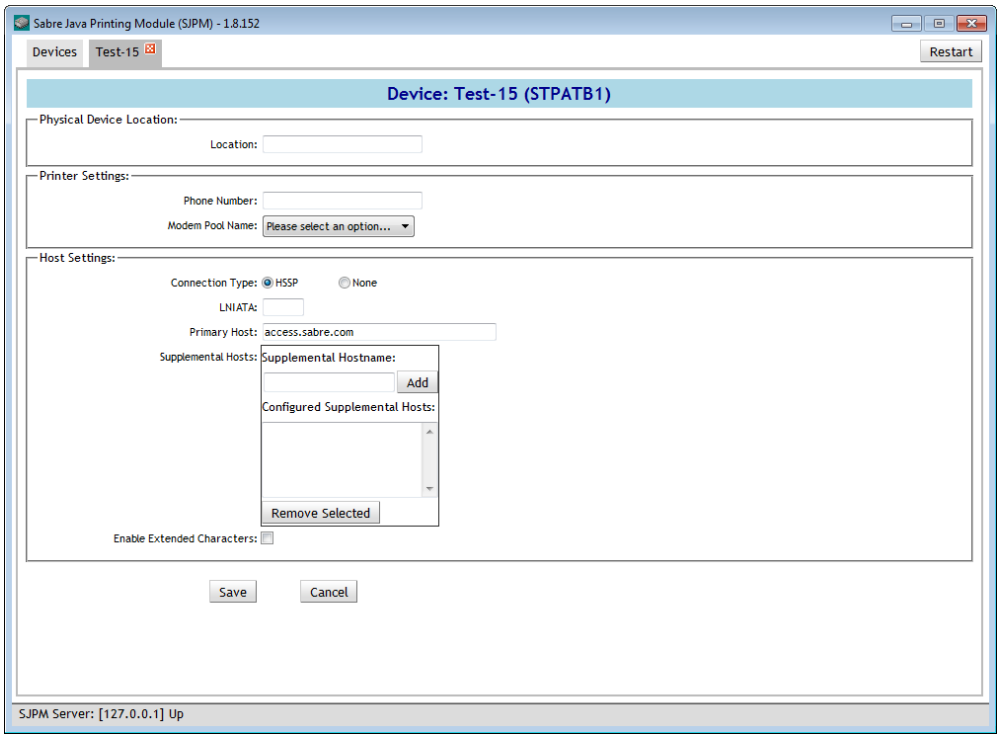
Note 2: The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

Usage:

The "**STPATB1**" Driver should be used if the user needs to send ATB1 data from the Sabre Host to a Satellite printing location for ATB1 ticket printing.

The screenshot below shows the "**STPATB1**" Driver's configuration tab.

"STPATB1" configuration tab – Default Settings:



"STPATB1" driver configuration options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"**Phone Number:**"

The "**Phone Number**" configuration is for the phone number of the STP location. This phone number will also be displayed in the "**Location**" section of the device line in SJPM.

"**Modem Pool Name:**"

The "**Modem Pool Name**" selection is for the selection of the modem pool to be used when dialing the STP location. The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.16 STPATB1INI Driver

The "**STPATB1INI**" Driver allows the user to send data from the Sabre Host, through a modem at the Main Office location, to a Sabre Certified printer at a STP or Branch location with various configuration options.

Note 1: If using any of the STP Drivers, SJPM must be run as a Service.

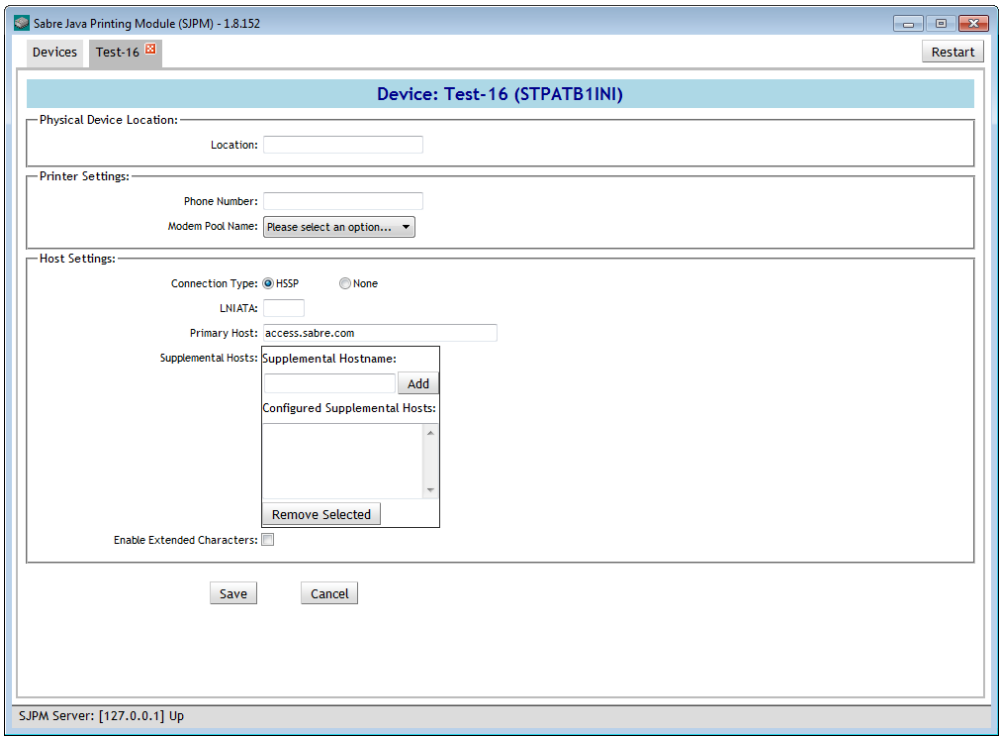
Note 2: The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

Usage:

The "**STPATB1INI**" Driver should be used if the user needs to send ATB1 data, from the Sabre Host to a Satellite printing location for invoice and itinerary printing.

The screenshot below shows the "**STPATB1INI**" Driver's configuration tab.

"STBATB1INI" configuration tab – Default Settings:



"STPATB1INI" driver configuration options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"**Phone Number:**"

The "**Phone Number**" configuration is for the phone number of the STP location. This phone number will also be displayed in the "**Location**" section of the device line in SJPM.

"**Modem Pool Name:**"

The "**Modem Pool Name**" selection is for the selection of the modem pool to be used when dialing the STP location. The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.17 STPATB2 Driver

The "**STPATB2**" Driver allows the user to send data from the Sabre Host, through a modem at the Main Office location, to a Sabre Certified printer at a STP or Branch location with various configuration options.

Note 1: If using any of the STP Drivers, SJPM must be run as a Service.

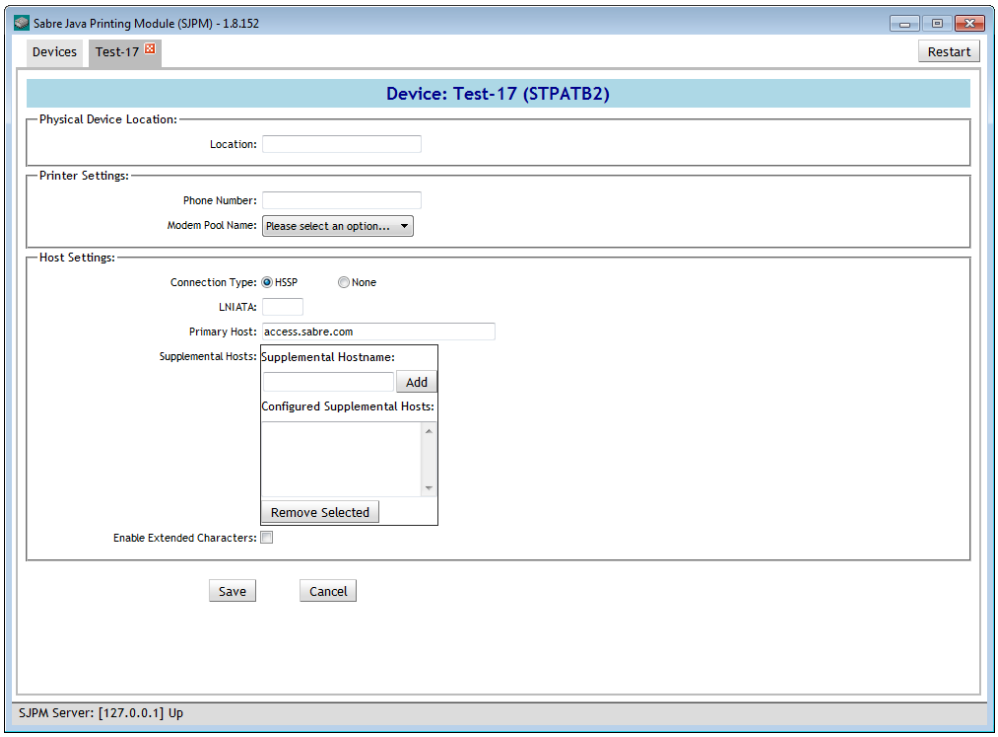
Note 2: The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

Usage:

The "**STPATB2**" Driver should be used if the user needs to send ATB2 data from the Sabre Host to a Satellite printing location for ATB2 ticket printing.

The screenshot below shows the "**STPATB2**" Driver's configuration tab.

"STPATB2" configuration tab – Default Settings:



"STPATB2" driver configuration options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"**Phone Number:**"

The "**Phone Number**" configuration is for the phone number of the STP location. This phone number will also be displayed in the "**Location**" section of the device line in SJPM.

"**Modem Pool Name:**"

The "**Modem Pool Name**" selection is for the selection of the modem pool to be used when dialing the STP location. The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.18 STPATB2INI Driver

The "**STPATB2INI**" Driver allows the user to send data from the Sabre Host, through a modem at the Main Office location, to a Sabre Certified printer at a STP or Branch location with various configuration options.

Note 1: If using any of the STP Drivers, SJPM must be run as a Service.

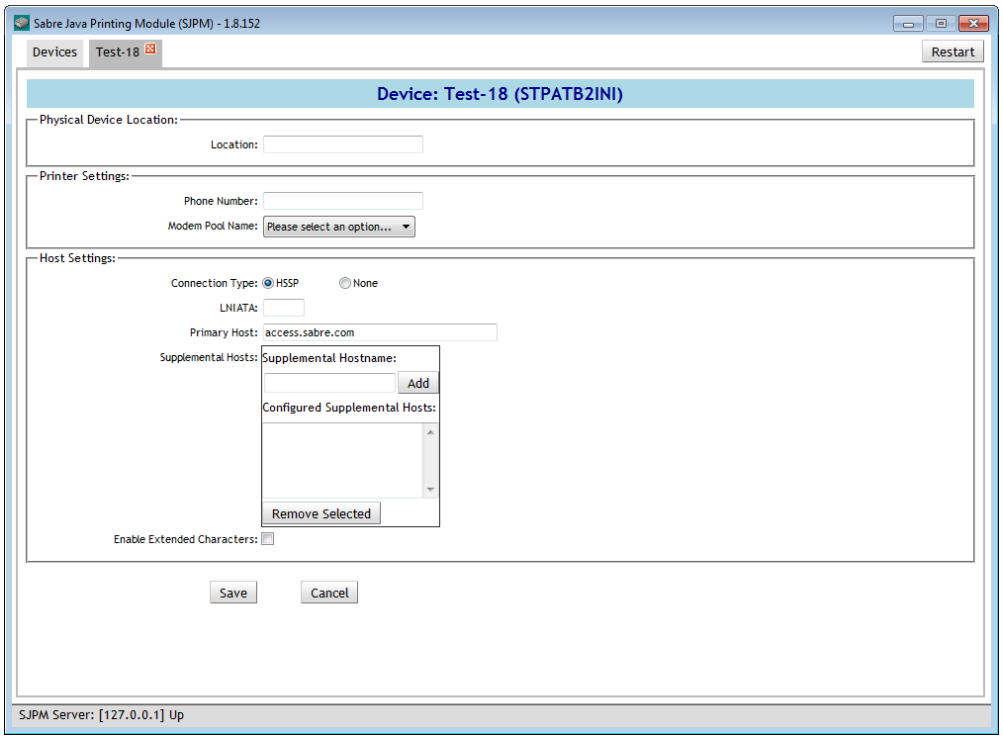
Note 2: The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

Usage:

The "**STPATB2INI**" Driver should be used if the user needs to send ATB2 data from the Sabre Host to a Satellite printing location for invoice and itinerary printing.

The screenshot below shows the "**STPATB2INI**" Driver's configuration tab.

"STPATB2INI" configuration tab – Default Settings:



"STPATB2INI" driver configuration options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"**Phone Number:**"

The "**Phone Number**" configuration is for the phone number of the STP location. This phone number will also be displayed in the "**Location**" section of the device line in SJPM.

"**Modem Pool Name:**"

The "**Modem Pool Name**" selection is for the selection of the modem pool to be used when dialing the STP location. The STP must be configured prior to device creation and configuration. Refer to section **6.1.2 SJPM STP Configuration – STP Drivers Only**.

"Host Settings:"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed explanation.

6.2.19 System Driver

The "**System**" Driver allows the user to print data from the Sabre Host to a Network printer with various configuration options.

Note 1: To ensure proper functionality with the SJPM "**System**" Driver, the driver for the printer you plan to print to should be downloaded from the manufacturer's website and installed. **Do not use the driver for the printer that comes with Windows.**

Note 2: Existing System printer devices created with SJPM version earlier than 1.8 that are using the paper settings Source selection will not work. This is due to a limitation in the amount of configuration data that is retrieved for the configured printer. If the source as a valid target is required then delete the old device and create a new device with SJPM version 1.8 or newer.

Note 3: Due to a limitation with the way that Java's print service library is implemented, both the paper **Size** and **Source** cannot be specified and provided to the printer at the same time. Furthermore, any print job generated with the **Source** selection results in the page **Size** being set to the default of your locale (for example: NA Letter for North America). If the selected tray has any other media besides the default, the print job will fail to print. If printing to a specific media **Size** is required, use the **Size** selection and configure the printer to print from a specific bin using that size. The SJPM Team is hoping that future Java updates will provide more features that allow both **Size** and **Source** selections for a specific printer.

Refer to Section **6.1.6 Allow User Rights – Queue and System Drivers** for details on user rights configurations.

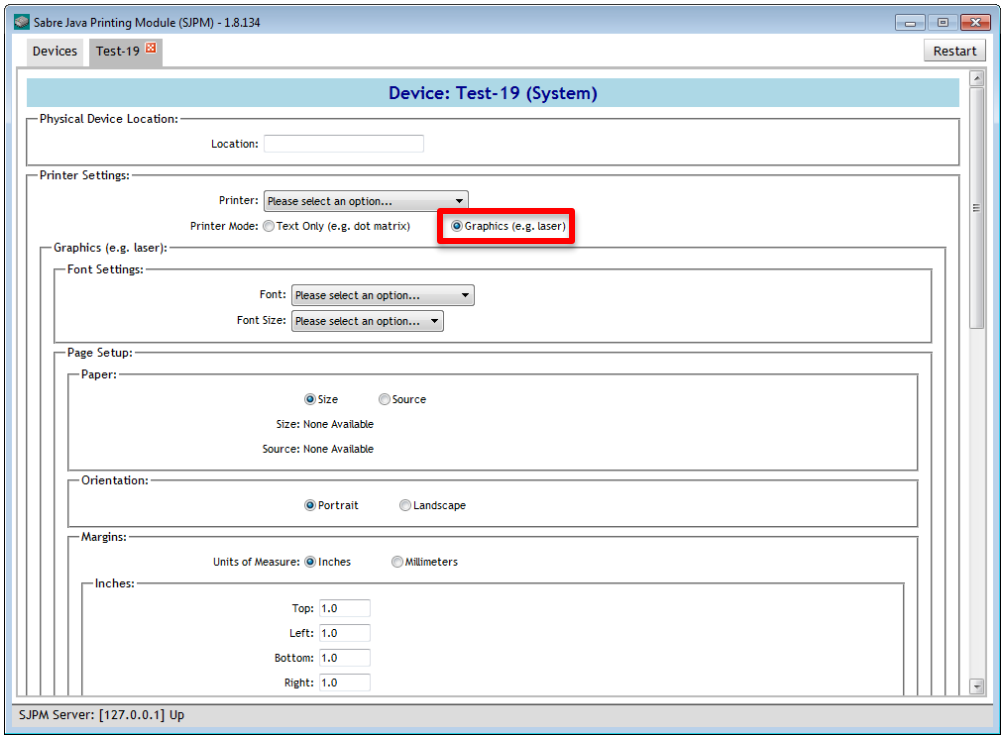
Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

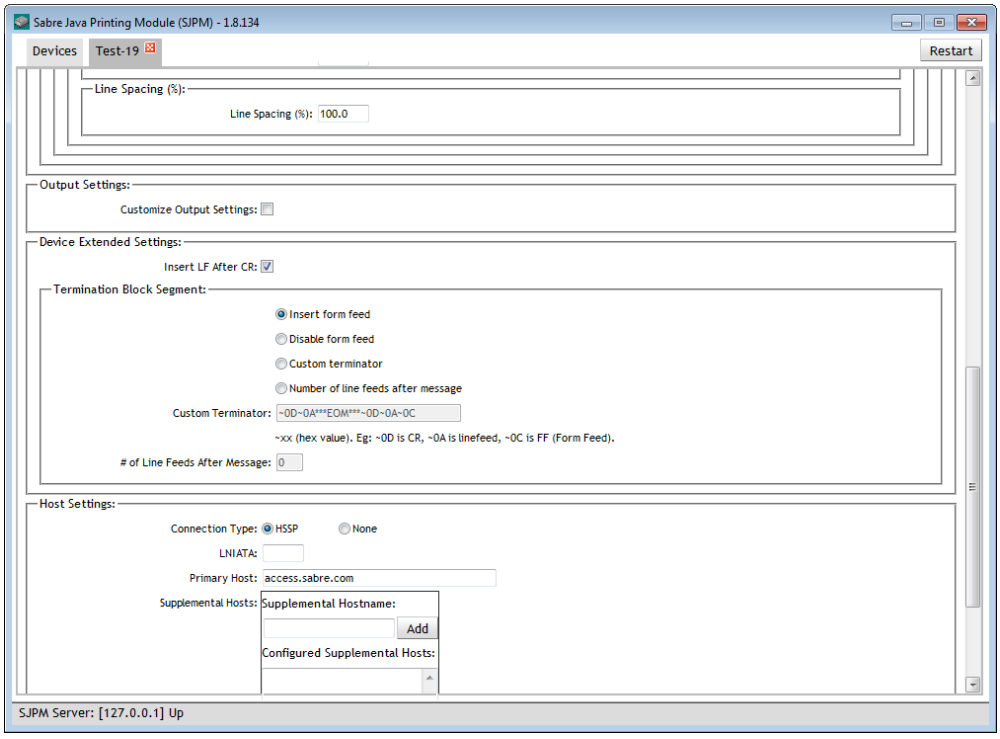
Usage:

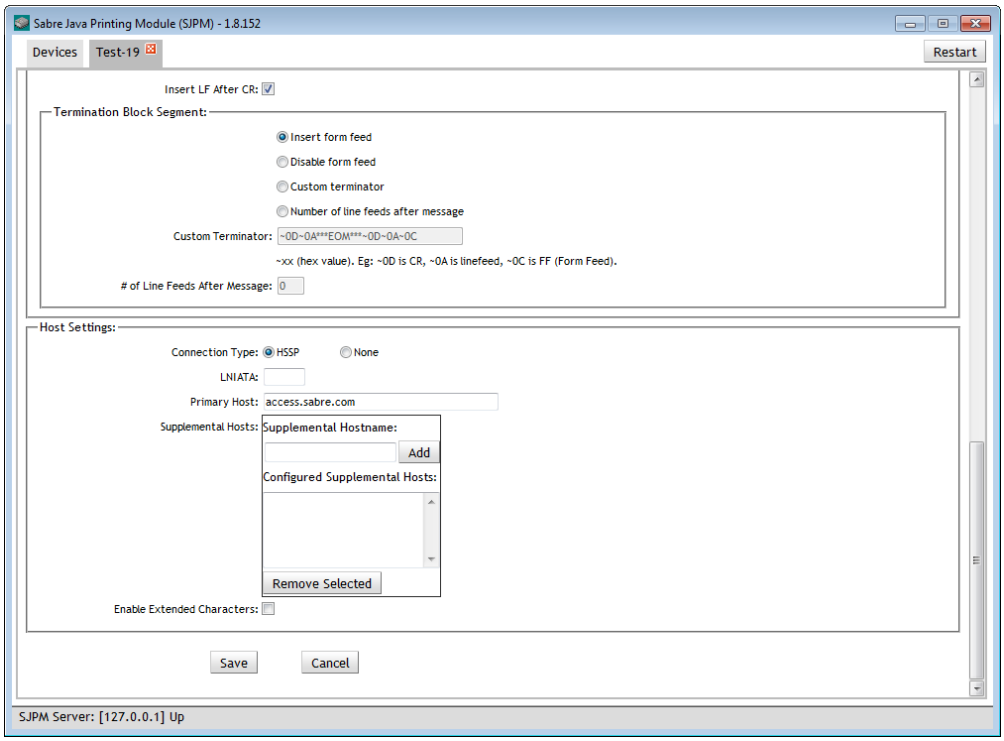
The "**System**" Driver should be used if the user needs to send data from the Sabre Host to a Network printer on the user's network.

The screenshots below show the "**System**" Driver's configuration tab.

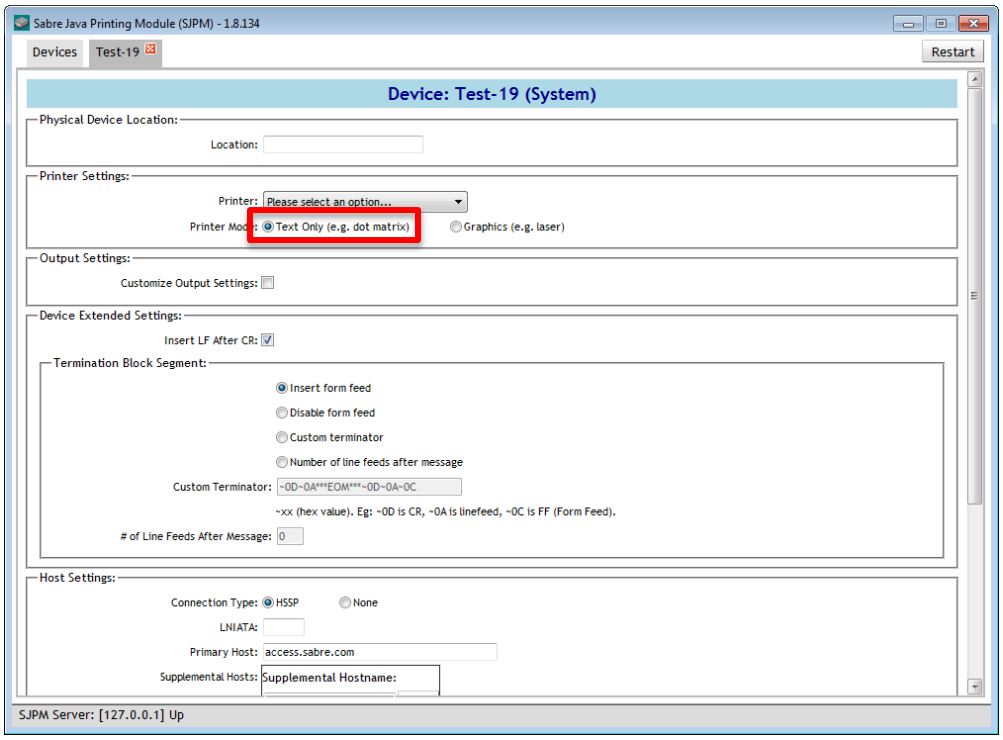
“System” configuration tab with “Graphics (e.g. laser)” selected – Default Settings:



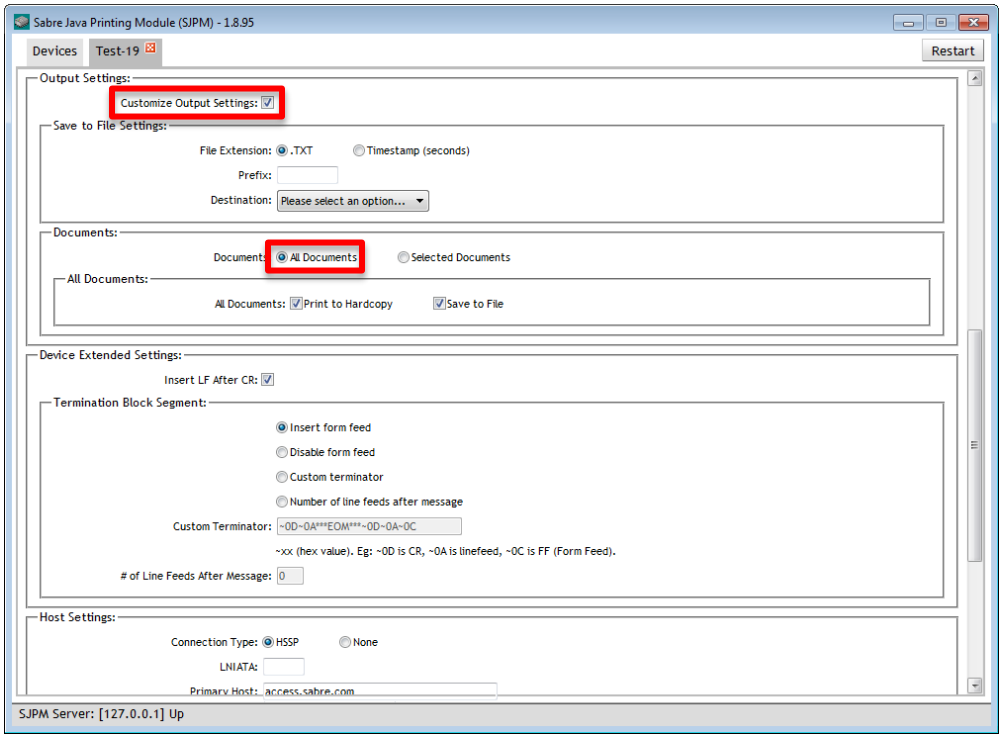




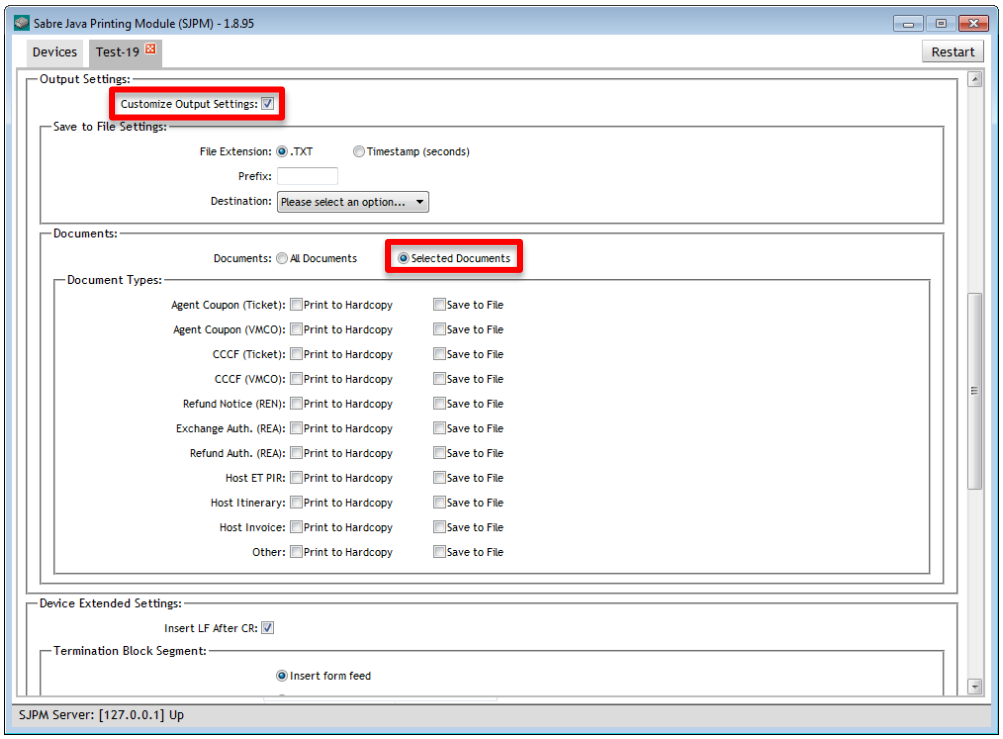
"System" configuration tab with "Text Only (e.g. dot matrix)" selected – Default Settings:



“System” configuration tab with “Customize Output Settings” selected and “All Documents” selected – Default Settings:



“System” configuration tab with “Customize Output Settings” selected and “Selected Documents” selected – Default Settings:



Generic Text only Printer Driver:

When using the "**Generic Text Only**" printer driver in Windows with SJPM's "**System**" Driver and the "**Graphics (e.g. laser)**" selection you must select the "**monospace.plain**" font from the "**Font:**" drop down list in the System Driver's configuration tab for data to be delivered correctly to file. If the "**monospace.plain**" font is not selected the driver may print empty lines to the file.

"System" driver configuration options:

"Physical Device Location:"

"**Location:**"

The "**Location**" configuration is for a pseudo name (**TKTPrinter1**), physical location of the device (**Computer Room**) or location of the device's output data (**Reports Folder-ABC1**). This configuration is also used by the SJPM grouping feature to group devices together based on the "**Location**" field.

"Printer Settings:"

"**Printer:**"

The "**Printer**" selection is for selection of the System printer you want to use to print to. The default is set to "**Please select an option…**".

"**Printer Mode:**"

The "**Printer Mode**" selection sets the print mode. The default is set to "**Graphics (e.g. laser)**".

Available selections are:

"**Text Only (e.g. dot matrix)**"

- For Text Only print such as used with dot matrix printers.

"**Graphics Only (e.g. laser)**"

- For Graphics Only print such as used with laser printers.

"Graphics (e.g. laser):"

The "**Graphics (e.g. laser)**" box will display when "**Graphics (e.g. Laser)**" is selected from the "**Printer Mode**" option.

"**Font Settings:**"

The "**Font Settings**" box will display when "**Graphics (e.g. Laser)**" is selected from the "**Printer Mode**" option.

"**Font:**"

The "**Font**" selection is for the Font to use with the System printer. The default is set to "**Please select an option…**".

"**Font Size:**"

The "**Font Size**" selection is for the Font Size to use with the System printer. The default is set to "**Please select an option…**".

"**Page Setup:**"

The "**Page Setup**" box will display when "**Graphics (e.g. Laser)**" is selected from the "**Printer Mode**" option.

"**Paper:**"

The "**Paper**" selection sets the paper size and source. The default is set to "**Size**".

Available selections are:

"**Size**"

- For the selection of the Paper Size.

"**Source**"

- For the selection of the Paper Source.

"**Orientation:**"

The "**Orientation**" selection sets the page orientation. The default is set to "**Portrait**".

Available selections are:

"**Portrait**"

- For the Portrait orientation.

"**Landscape**"

- For the Landscape orientation.

"**Margins:**"

The "**Margins**" configuration sets the Top, Left, Bottom, and Right margin size. Settings can be set in Inches or Millimeters. The default is set to "**Inches**" and "**1.0**" for all margins.

"**Units of Measure:**"

Available selections are:

"**Inches**"

- For inches unit of measure.

"**Millimeters**"

- For millimeters unit of measure.

"**Line Spacing (%):**"

The "**Line Spacing (%)**" configuration sets the line spacing percentage between printed lines. The default is set to "**100.0**".

"**Output Settings:**"

Note: The configurations and functionality of the options contained within the "**Output Settings**" box (displayed when the "**Customize Output Settings**" checkbox is selected) are regional for the Asia Pacific (APAC) market and should be used with caution in other markets.

"**Customize Output Settings:**"

The "**Customize Output Settings**" option, when checked, provides additional output settings that can be configured for the device. The "**Customize Output Settings**" checkbox is un-checked by default.

"**Save to File Settings:**"

"**File Extension:**"

The "**File Extension**" selection sets the file extension to use when printing to file.

Available selections are:

"**.TXT**"

- Sets the output file extension to "**.TXT**". This option is set as default. File output format will be timestamp with a .txt extension. For example, with "**.TXT**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105045016.txt**".

"**Timestamp (seconds)**"

- Sets the output file extension to "**Timestamp (seconds)**". For example, with "**Timestamp (seconds)**" selected and a "**Prefix**" of "**APAC**" the output file will be "**APAC_20161107105720577.20**".

"**Prefix:**"

The "**Prefix**" configuration sets the prefix that will be prepended to the output filename. The default is blank.

"**Destination:**"

The "**Destination**" selection sets the destination of the output files. The default is set to "**Please select an option…**".

Refer to **Appendix K** for terminology on Remote File Services that are available in the destination selection.

Available selections are:

"**Local Filesystem**"

"**Network Share**"

"**FTP**"

"**FTPS**"

"**FTPES**"

"**SCP**"

"**SFTP**"

"**CIFS/SMB1**"

"**SMB2/SMB3**"

"**Directory Settings:**"

The "**Directory Settings**" box will display when "**Local Filesystem**" is selected from the "**Destination**" option.

"**Directory Path:**"

The "**Directory Path**" configuration is for the location where the files will be created (**Example:** "**C:\Test**"). The default is set to "**C:\Program Files\SJPM\Output**" for 32bit operating systems and "**C:\Program Files (x86)\SJPM\Output**" 64bit operating systems.

"**Remote Host Information:**"

The "**Remote Host Information**" box will be displayed when **Network Share**, **FTP**, **FTPS**, **FTPES**, **SCP**, **SFTP**, **CIFS/SMB1**, or **SMB2/SMB3** is selected from the "**Destination**" option.

"**Remote Host:**"

The "**Remote Host**" configuration sets the IP address, hostname, or computer name of the machine where the share exists. The default is blank.

"**Network Share:**"

The "**Network Share**" configuration sets the name of the network share. The default is blank.

"**Port:**"

The "**Port**" configuration sets the remote host's port to connect to.

Defaults are:

Network Share, CIFS/SMB1 and **SMB2/SMB3** = **445**

(By default port 445 is used, which uses the SMB protocol. If this is changed to another value, the Network Share will connect using the WebDav protocol.**)**

FTP and **FTPES** = **21**

FTPS = **990**

SCP and **SFTP** = **22**

"**Directory Subpath:**"

The "**Directory Subpath**" configuration sets the optional directory subpath under the network share where files will be written. The default is blank.

"**User Name:**"

The "**User Name**" configuration sets user name connecting to the network share. The default is blank.

"**Password:**"

The "**Password**" configuration sets the password of the user connecting to the network share. The default is blank.

"**Documents:**"

"**Documents:**"

The "**Documents**" selection sets the document type(s) to use when printing. The default is set to "**All Documents**".

Available selections are:

"**All Documents**"

- The "**All Documents**" selection sets the data output to all documents with options.

"**Selected Documents**"

- The "**Selected Documents**" selection displays the "**Document Types**" box with the document types that can be selected (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list).

"**All Documents:**"

"**All Documents:**"

The "**All Documents**" selections set the data output type.

Available selections are:

"**Print to Hardcopy**"

- The "**Print to Hardcopy**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to hardcopy. The "**Print to Hardcopy**" checkbox is selected by default.

"**Save to File**"

- The "**Save to File**" selection sets the data output for all print types (see the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list) to go to file. The "**Save to File**" checkbox is selected by default.

"**Document Types:**"

The "**Document Types**" box will display when "**Selected Documents**" is selected from the "**Documents**" option.

See the "**Customize Output Settings selected – Selected Documents selected - Default Settings:**" screenshot above for document type list.

"**Device Extended Settings:**"

"**Insert LF After CR:**"

The "**Insert LF After CR**" selection, if checked, inserts a Line Feed after a Carriage Return. The "**Insert LF After CR**" checkbox is checked by default.

"**Termination Block Segment:**"

"**Insert form feed**"

The "**Insert form feed**" selection, if selected, inserts a Form Feed at the end of the message data. The "**Insert form feed**" selection is selected by default.

"**Disable form feed**"

The "**Disable form feed**" selection, if selected, disables Form Feed.

"**Custom terminator:**"

The "**Custom terminator**" selection, if selected, inserts a custom terminator that can be user edited. The default custom terminator is set to "**~0D~0A***EOM***~0D~0A~0C**".

~xx (hex value). Eg: ~0D is CR, ~0A is linefeed, ~0C is FF (Form Feed).

"**Number of line feeds after message**"

The "**Number of line feeds after message**" selection, if selected, inserts the number of line feeds entered in the "**# of Line Feeds After Message:**" field to the end of the message data if selected. The default is set to "**0**".

"**Host Settings:**"

"**Connection Type:**"

The "**Connection Type**" selection sets the connection type. The default is set to "**HSSP**".

Available selections are:

"**HSSP**"

- For receiving data directly from the Sabre Host.

"**None**"

- For use with the "**ATB2TNProxy**" (required by children devices), "**Group**", and "**Proxy**" Drivers.

"**LNIATA:**"

The "**LNIATA**" configuration is for the LNIATA (Sabre Address) of the device you are configuring to send data to.

"**Primary Host:**"

The "**Primary Host**" configuration is for the address to the Sabre Host. The default is set to "**access.sabre.com**".

"**Supplemental Hosts:**"

The "**Supplemental Hosts**" configuration allows for supplemental host addresses to be configured for the device. This will allow data to be sent to the device from multiple host addresses.

"**Enable Extended Characters:**"

The "**Enable Extended Characters**" selection enables decoding of extended characters for providing international character capability. The default is unchecked.

Refer to section **6.1.1 Supplemental Hosts Configuration – Applies to All Drivers** for a detailed

Troubleshooting

7

7.1 Enabling SJPM Logging

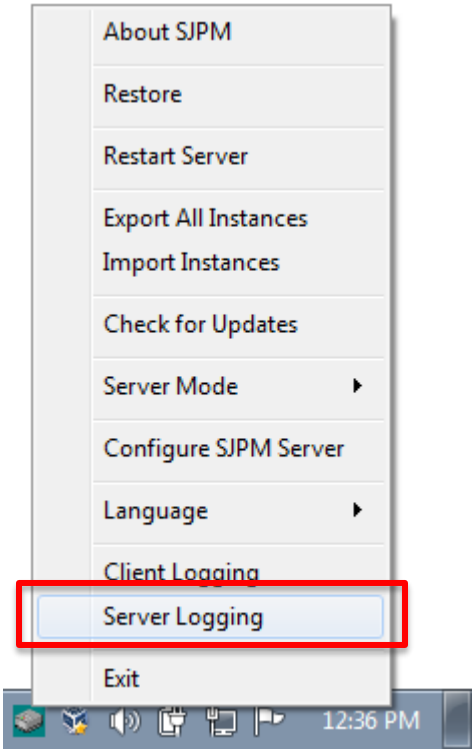
SJPM logging is disabled by default. Logging must be enabled from the SJPM Windows System Tray Icon Menu to generate SJPM log files that can be used to troubleshoot and support SJPM.

7.1.1 Enabling SJPM Server Logging – System Tray Icon Menu

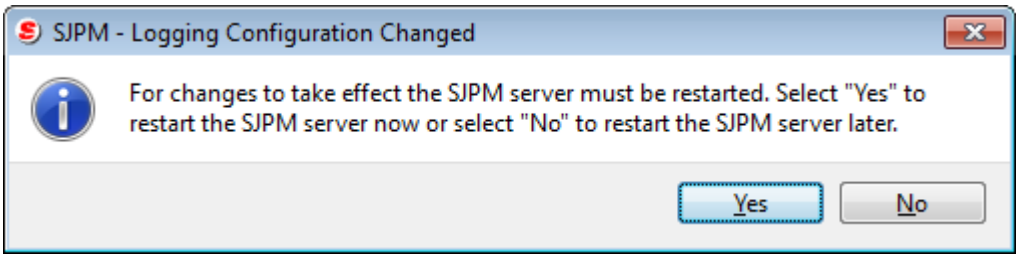
Enable SJPM Server logging from the SJPM Windows System Tray Icon Menu:

The procedure below describes how to enable SJPM Server logging from the SJPM Windows system Tray Icon Menu.

1. Right click on the SJPM Windows System Tray Icon.
2. Highlight and left click on "**Server Logging**".



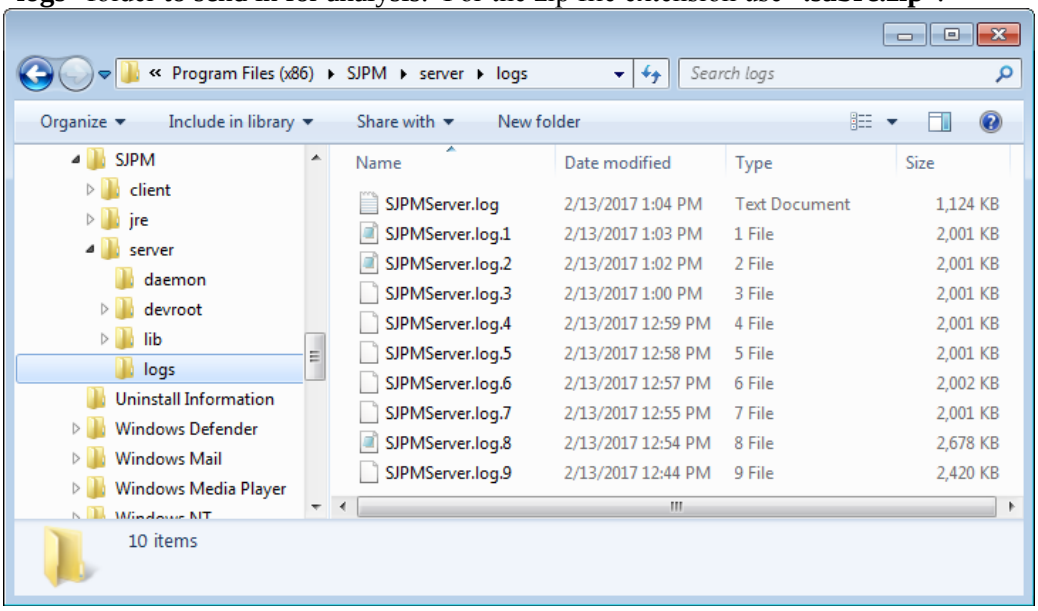
3. The "**SJPM TN – Logging Configuration Changed**" window will appear. Click on the "**Yes**" button to restart the SJPM Server.



Open the SJPM Client GUI. The SJPM Client GUI will display the current logging status, logging level, and location of the log file.

SJPM will create log files "**SJPMServer.log**" in the ("**C:\Program Files (x86)\SJPM\server\logs**" directory for Windows 7 64bit and Windows 8 64bit).

SJPM Server Logging will create ten (10) rolling log files. Zip up all of the log files in the "**logs**" folder to send in for analysis. For the zip file extension use "**.sabre.zip**".



Once the issue has been captured in the log files stop the SJPM Server from the Windows "**Start**" button. Refer to Sections **4.2.1.9**, **4.2.1.10**, **4.2.1.11**, and **4.2.1.12**.

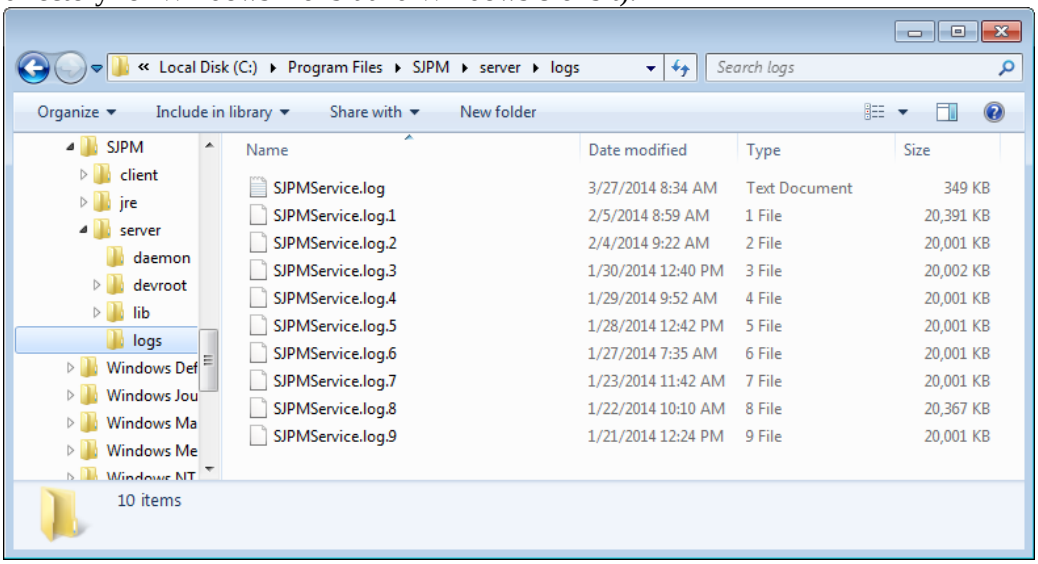
Go to the "**C:\Program Files (x86)\SJPM\server\logs**" directory and then zip up all of the log files to send in for analysis. For the zip file extension use "**.sabre.zip**".
Example: "**SJPMServer.log.sabre.zip**".

7.1.1.1 Increasing the Server Log Files Size to "20000KB" – File Edit

By default the SJPM log files are set to "**2000KB**". If the log files size needs to be increased in order to capture an issue follow the procedure below.

1. Stop the SJPM Server. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item. Refer to Sections 4.2.1.9, 4.2.1.10, 4.2.1.11, and 4.2.1.12.
2. Open Windows Notepad as the administrator and then open the "**server.properties**" file that is located in the "**C:\Program Files (x86)\SJPM\server**" directory.
3. Search the "**server.properties**" file for the text string "**#sjpm.logmaxfilesize=20000KB**".
4. Delete the "#" from the line (**sjpm.logmaxfilesize=20000KB**).
5. Save the changes to the "**server.properties**" file and then close the file.
6. Start the SJPM Server. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on either the "**Start SJPM Server (as a service)**" or "**Start SJPM Server (as an application)**" menu item according to how you run SJPM and then left click on the "**Run as administrator**" menu item. Refer to Section 4.2.1.

   SJPM Server logging will now create up to ten (10) rolling log files of 20000KB each named "**SJPMServer.log**" in the ("**C:\Program Files (x86)\SJPM\server\logs**" directory for Windows 7 64bit and Windows 8 64bit).



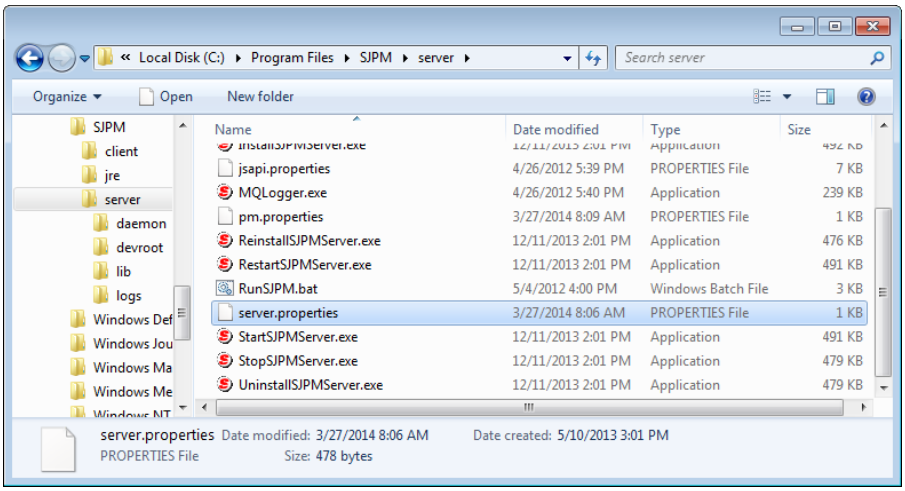
7.1.2 Enabling SJPM Server Logging – File Edit

Enable SJPM Server logging in the "server.properties" file:

The procedure below describes how to manually enable SJPM Server logging.

1. Stop the SJPM Server. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item. Refer to sections 4.2.1.9, 4.2.1.10, 4.2.1.11, and 4.2.1.12.

2. Open Windows Notepad as the administrator and then open the "**server.properties**" file that is located in the "**C:\Program Files (x86)\SJPM\server**" directory.



3. Search the "**server.properties**" file for the text string "**loglevel=NONE**". Change the "**loglevel**" to "**ALL**". **Example:** loglevel=ALL

   Available log levels are:

   FATAL – Log only fatal errors

   ERROR – Log only errors

   WARN – Log only warnings

   INFO – Log only information

   DEBUG – Log only debug information

   TRACE – Log only trace information

   ALL – Log all of the above

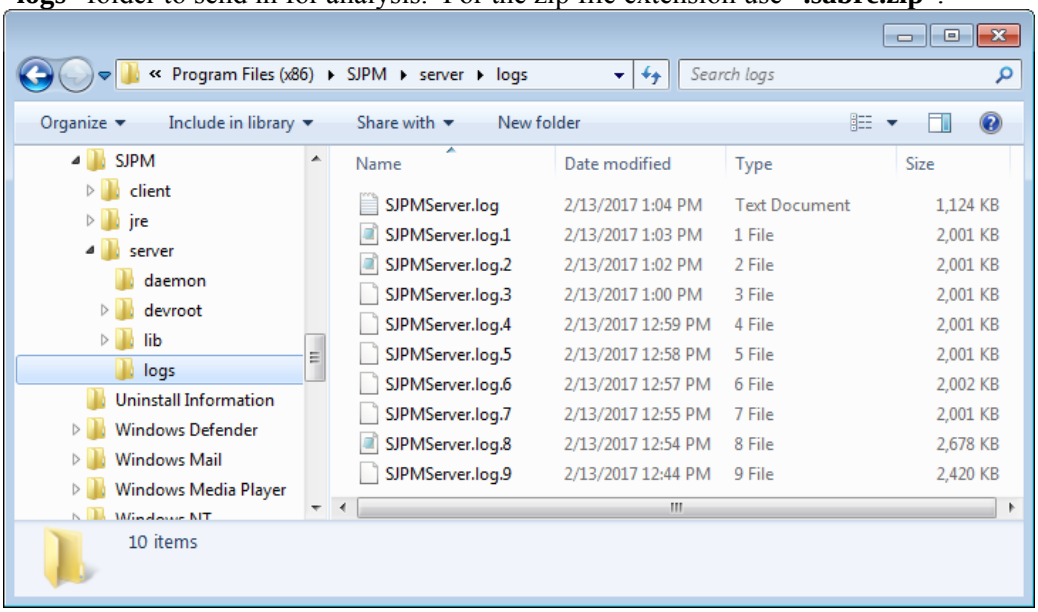
4. Save the changes to the "**server.properties**" file and then close the file.

5. Start the SJPM Server. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on either the "**Start SJPM Server (as a service)**" or "**Start SJPM Server (as an application)**" menu item according to how you run SJPM and then left click on the "**Run as administrator**" menu item. Refer to Section **4.2.1**.

   Once logging is turned on the SJPM Client GUI will display the current logging status, logging level, and location of the log files.

SJPM will create log files "**SJPMServer.log**" in the ("**C:\Program Files (x86)\SJPM\server\logs**" directory for Windows 7 64bit and Windows 8 64bit).

SJPM Server Logging will create ten (10) rolling log files. Zip up all of the log files in the "**logs**" folder to send in for analysis. For the zip file extension use "**.sabre.zip**".



Stop the SJPM Server. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item. Refer to sections **4.2.1.9**, **4.2.1.10**, **4.2.1.11**, and **4.2.1.12**.

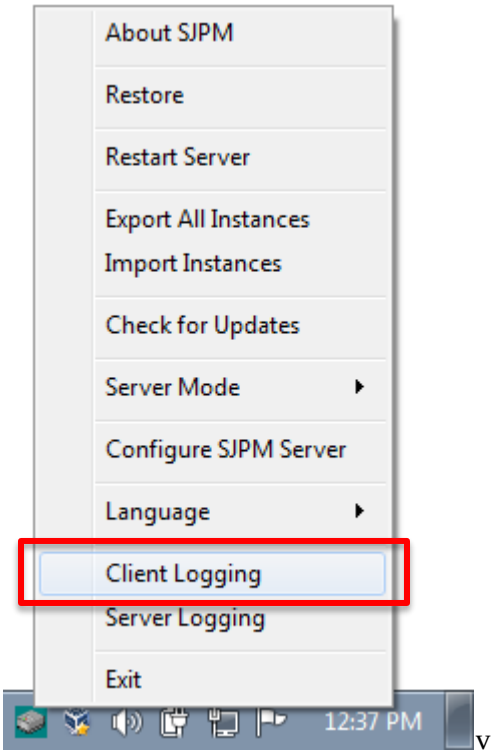
Go to the "**C:\Program Files (x86)\SJPM\server\logs**" directory and then zip up all of the log files. For the zip file extension use "**.sabre.zip**".
Example: "**SJPMServer.log.sabre.zip**".

If you need to change the log files size refer to section **7.1.1.1**.

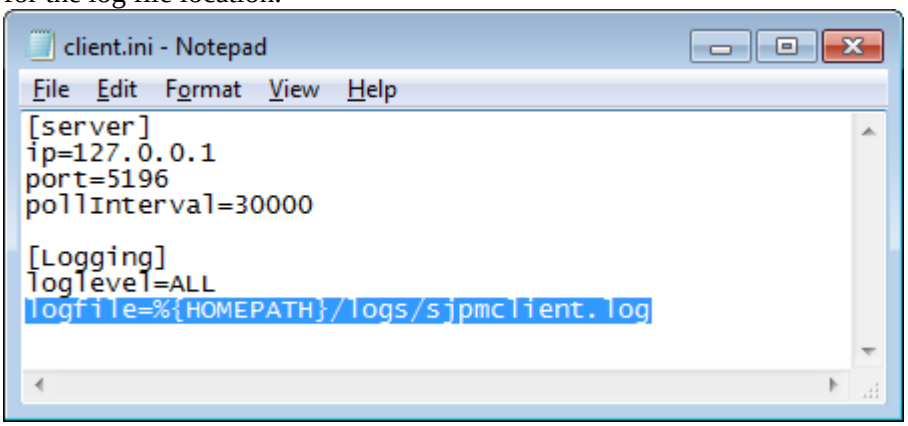
Enable SJPM Client logging from the SJPM Windows System Tray Icon Menu:

The procedure below describes how to enable SJPM Client Logging from the SJPM Windows System Tray Icon Menu.

1. Right click on the SJPM Windows System Tray Icon.
2. Highlight and left click on "**Client Logging**".



SJPM will create the "**sjpmclient.log**" file in "**logfile=%{HOMEPATH}/logs/sjpmclient.log**". You can also look in the "**client.ini**" file for the log file location.



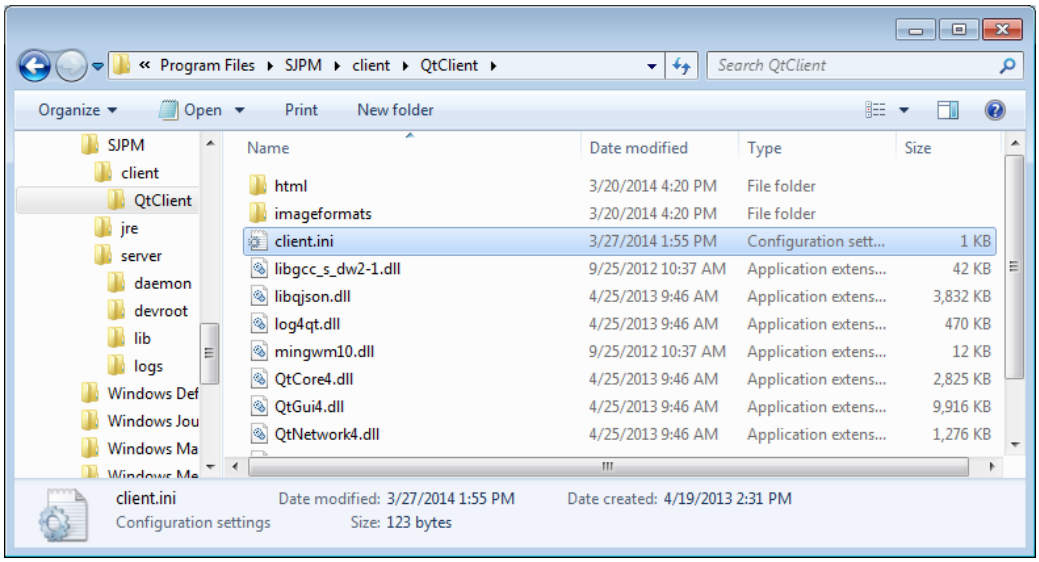
3. Right click on the SJPM Windows System Tray Icon and then highlight and left click on "**Exit**". Go to the sjpmclient.log file location and zip up the "**sjpmclient.log**" file to send in for analysis. For the zip file extension use "**.sabre.zip**". **Example:** "**sjpmclient.log.sabre.zip**".

4. Start the SJPM Client. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**SJPM Client**" menu item and then left click on the "**Run as administrator**" menu item.

7.1.5 Enabling SJPM Client Logging – File Edit

Enable SJPM Client logging in the "client.ini" file:

Run Windows Notepad as Administrator and then open the "**client.ini**" file that is located in the ("**C:\Program Files (x86)\SJPM\client\QtClient**" directory for Windows 7 64bit and Windows 8 64bit).



The steps below describe the procedure to manually enable SJPM Client logging.

1. In the "**client.ini**" file search for the text string "**loglevel=OFF**".

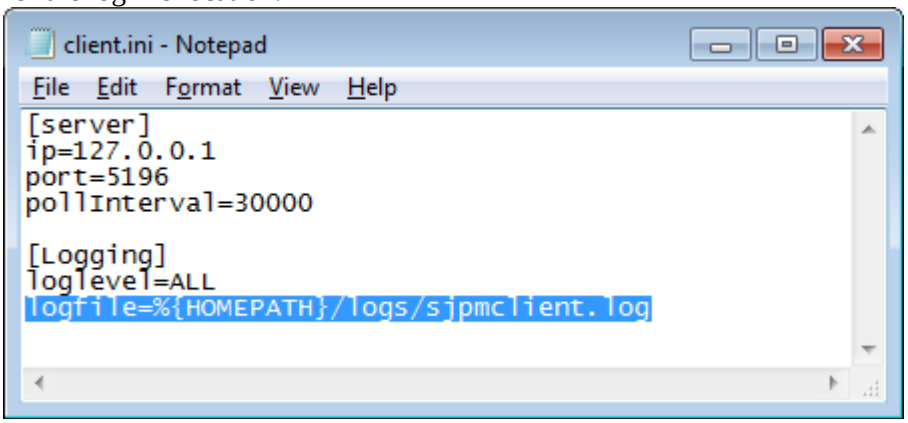
   Change the "**loglevel**" to "**ALL**". **Example: loglevel=ALL**

2. Save the changes to the "**client.ini**" file and close the file.

3. Right click on the SJPM Windows System Tray Icon and then highlight and left click on "**Exit**".

4. Start the SJPM Client. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**SJPM Client**" menu item and then left click on the "**Run as administrator**" menu item.

   SJPM will create the "**sjpmclient.log**" file in "**logfile=%{HOMEPATH}/logs/sjpmclient.log**". You can also look in the "**client.ini**" file for the log file location.



5. Right click on the SJPM Windows System Tray Icon and then highlight and left click on "**Exit**". Go to the sjpmclient.log file location and zip up the "**sjpmclient.log**" file to send in for analysis. For the zip file extension use "**.sabre.zip**".

6. Start the SJPM Client. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**SJPM Client**" menu item and then left click on the "**Run as administrator**" menu item.

7.2 Disabling SJPM Logging

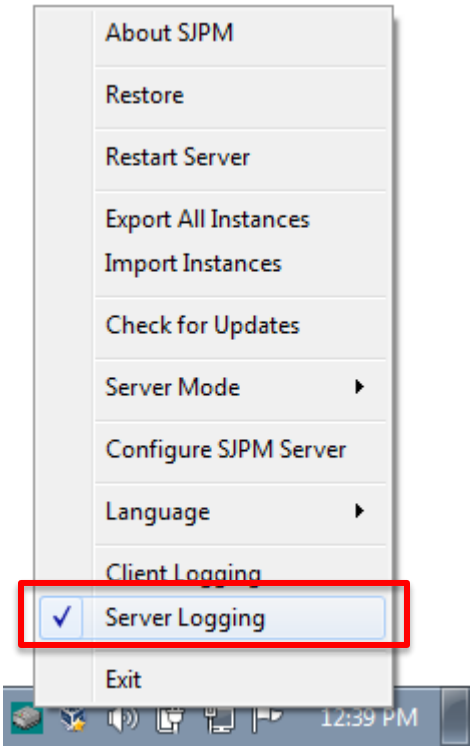
SJPM logging is disabled by default. Logging must be enabled in order to generate SJPM log files for use in troubleshooting.

7.2.1 Disabling SJPM Server Logging – System Tray Icon Menu

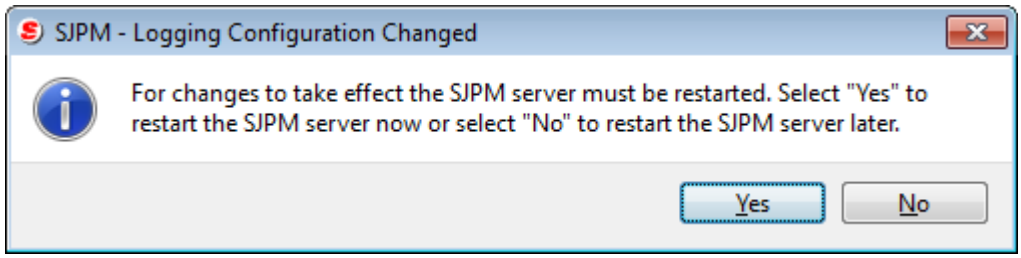
Disable SJPM Server logging from the SJPM Windows System Tray Icon Menu:

The steps below describe the procedure to disable SJPM Server Logging. A check mark next to the "**Server Logging**" menu item denotes that logging is enabled.

1. Right click on the SJPM Windows System Tray Icon.
2. Highlight and left click on "**Server Logging**".



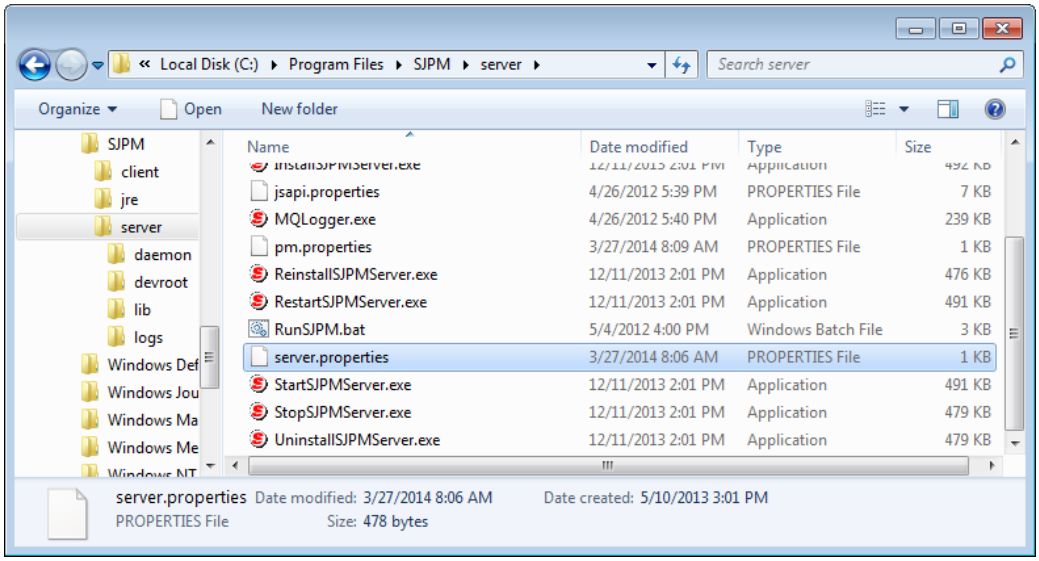
3. The "**SJPM TN – Logging Configuration Changed**" window will appear. Click on the "**Yes**" button to restart the SJPM Server.



7.2.2 Disabling SJPM Server Logging – File Edit

Disable SJPM Server logging in the "server.properties" file:

Run Windows Notepad as Administrator and then open the "**server.properties**" file that is located in the ("**C:\Program Files (x86)\SJPM\server**" directory for Windows 7 64bit and Windows 8 64bit).



The steps below describe the procedure to manually disable SJPM Server logging.

1. Stop the SJPM Server. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**Stop SJPM Server**" menu item and then left click on the "**Run as administrator**" menu item. Refer to section **4.2 Starting and Stopping the SJPM Server**.

2. In the "**server.properties**" file search for the text string "**loglevel=ALL**".

   Change the "**loglevel**" to "**NONE**". **Example: loglevel=NONE**

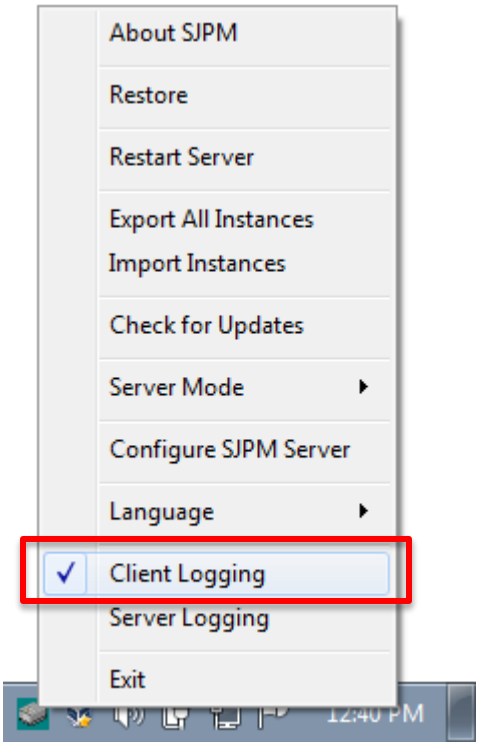
3. Save the changes to the "**server.properties**" file and then close the file.

4. Start the SJPM Server. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**Start SJPM Server (as a service)**" or "**Start SJPM Server (as an application)**" menu item according to how you run SJPM and then left click on the "**Run as administrator**" menu item. Refer to section **4.2 Starting and Stopping the SJPM Server**.

Disable SJPM Client logging from the SJPM Windows System Tray Icon Menu:

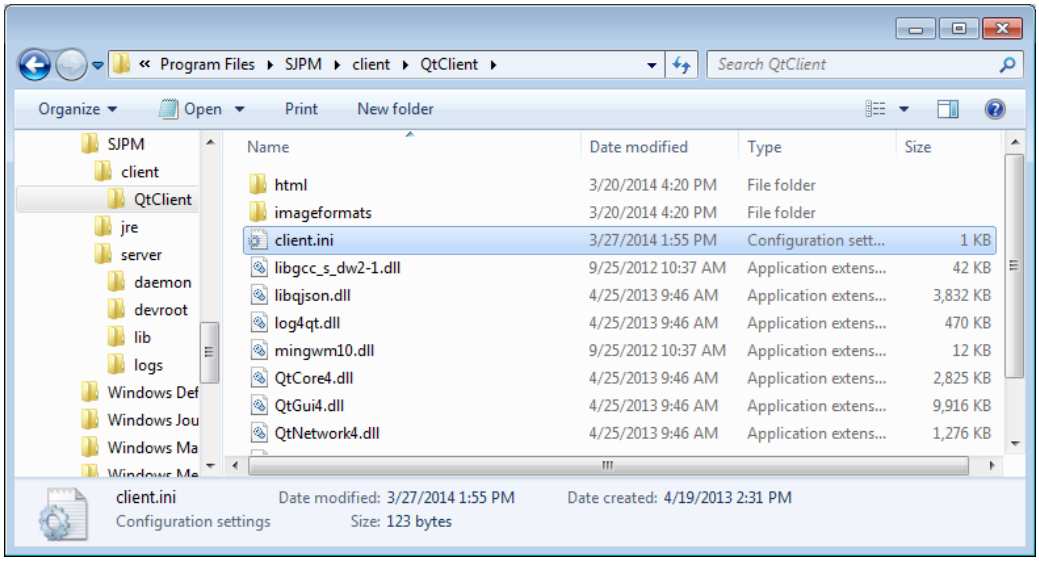
The steps below describe the procedure to disable SJPM Client Logging. A check mark next to the "**Client Logging**" menu item denotes that logging is enabled.

1. Right click on the SJPM Windows System Tray Icon.
2. Highlight and left click on "**Client Logging**".



Disable SJPM Client logging in the "client.ini" file:

Run Windows Notepad as Administrator and then open the "**client.ini**" file that is located in the ("**C:\Program Files (x86)\SJPM\client\QtClient**" directory for Windows 7 64bit and Windows 8 64bit).



The steps below describe the procedure to manually disable SJPM Client Logging.

1. In the "**client.ini**" file search for the text string "**loglevel=ALL**".

   Change the "**loglevel**" to "**OFF**". **Example: loglevel=OFF**

2. Save the changes to the "**client.ini**" file and then close the file.

3. Right click on the SJPM Windows System Tray Icon and then highlight and left click on "**Exit**".

4. Start the SJPM Client. Click on the Windows "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**SJPM Client**" menu item and then left click on the "**Run as administrator**" menu item.

Appendix

A. SJPM Recommended Requirements

Certified Operating System Software

- Windows 7 64Bit, Windows 8.1 64Bit, Windows 10 64Bit and Linux.
- Other systems running SJPM as an application with Java 1.7 or above.

SJPM GUI – Configured Devices

The recommended maximum number of configured devices in the SJPM Client GUI is (**35**). The SJPM Client GUI **is** capable of handling more devices based on the machine's processor and memory capabilities.

Java™ Runtime Environment

- Java 2 Platform, Standard Edition (included with the SJPM installation)

Hardware

- **Processor** - Intel Pentium 4 or higher
- **RAM** - 2 GB or higher
- **Video Resolution** - 1024 x 768 or higher
- **Hard disk Space** - 250 MB of free disk space

Network

- Sabre Host access is required on the machine where SJPM is running

Firewall Considerations

- Sabre Host access is required
- Your firewall administrator should verify that all firewall configurations allow the following traffic types:

  Outbound TCP connections to 151.193.141.0/24 (255.255.255.0) for the following TCP Port: 30051 (NOFEP Printing)

B. SJPM Minimum Requirements

Certified Operating System Software

- Windows 7 64Bit, Windows 8.1 64Bit, Windows 10 64Bit and Linux.
- Other systems running as an application with Java 1.7 or above.

SJPM GUI – Configured Devices

The recommended maximum number of configured devices in the SJPM Client GUI, when using the minimum requirements, is (**10**). The SJPM Client GUI **is** capable of handling more devices based on the machine's processor and memory capabilities.

Java™ Runtime Environment

- Java 2 Platform, Standard Edition (included with the SJPM installation)

Hardware

- **Processor** - Intel Pentium 4
- **RAM** - 1 GB
- **Video Resolution** - 1024x768
- **Hard disk Space** - 250 MB of free disk space

Network

- Sabre Host access is required on the machine where SJPM is running

Firewall Considerations

- Sabre Host access is required
- Your firewall administrator should verify that all firewall configurations allow the following traffic types:

  Outbound TCP connections to 151.193.141.0/24 (255.255.255.0) for the following TCP Port: 30051 (NOFEP Printing)

C. SJPM Frequently Asked Questions

The **SJPM FAQ** provides questions and answers to the most popular questions on the install, uninstall, configuration, operation, and support of Sabre Java Printing Module (SJPM).

Q: What Operating Systems are SJPM certified for use on?

A: SJPM is certified for use with the following operating systems. If the operating system is not listed below then it is not certified nor supported at this time.

- **Windows 7 64Bit**
- **Windows 8.1 64 Bit**
- **Windows 10 64 Bit**
- **Linux**

Q: How long does it take to install SJPM?

A: The average installation time for the "Typical" installation is **2-5** Minutes depending on the machine it is being installed on.

Q: How do I run SJPM on Linux?

A: Refer to section **4.5 Running SJPM on Linux** in the SJPM User's Guide.

Q: Will SJPM run on Windows XP?

A: SJPM **IS NOT** certified for use on **Windows XP** operating systems. However, there are customers currently running SJPM on Windows XP with no issues and we have done testing on various versions with no issues.

Q: Will SJPM run on Windows Server?

A: SJPM **IS NOT** certified for use on **Windows Server** operating systems. However, there are customers currently running SJPM on Windows Server with no issues and we have done testing on various versions with no issues.

Q: Will SJPM run on Citrix?

A: SJPM **IS NOT** certified for use on **Citrix**. However, there are several customers running SJPM on Citrix with no issues and we have done testing on Citrix with no issues.

Q: Does SJPM update automatically?

A: **No**, SJPM does not update automatically. SJPM must be updated manually. New versions of SJPM can be downloaded from "**agency eservices**". Log in to agency eservices, then navigate to "**Support**", then "**Downloads**", and then click on the "**Sabre Java Print Module**" link.

When installing a newer version of SJPM; SJPM's internal automatic upgrade functionality eliminates the need to uninstall the previous version of SJPM. Application files are updated as needed and all device configurations are saved and migrated to the new SJPM installation version.

Q: Is SJPM automatically downloaded through "Install Sabre Applications" in SRW?

A: **No**, SJPM is not available in SRW for download. SJPM can be downloaded from "**agency eservices**".

Log in to agency eservices, then navigate to "**Support**", then "**Downloads**", and then click on the "**Sabre Java Print Module**" link.

Q: Where do I download SJPM?

A: Travel Network users can download SJPM from "**agency eservices**".

Log in to agency eservices, then navigate to "**Support**", then "**Downloads**", and then click on the "**Sabre Java Print Module**" link.

Q: Does SJPM require Java to be installed?

A: **No**, the SJPM installation includes its own Java, version **1.8.0_45**. The use of SJPM's Java is dependent on the "**SJPM_JAVA_HOME environment variable**" settings. All SJPM Drivers will use SJPM's Java.

Q: Can SJPM print to LPT parallel printers?

A: **Yes**, the "**Printer**" Driver has configuration options for printing to parallel printers. Refer to section **6.2.7 Printer Driver** in the SJPM User's Guide.

Q: Can SJPM print to PDF files?

A: **Yes**, the "**File**" and "**ATB2File**" Drivers have configuration options for printing to **PostScript**. Refer to sections **6.2.6 File Driver** and **6.2.1 ATB2File Driver** in the SJPM User's Guide.

Q: Can SJPM print PostScript files?

A: **Yes**, the "**File**" and "**ATB2File**" Drivers have configuration options for printing to **PostScript**. Refer to sections **6.2.6 File Driver** and **6.2.1 ATB2File Driver** in the SJPM User's Guide.

Q: Can SJPM print to BMP files?

A: **Yes**, the "**ATB2File**" Driver has configuration options for printing to **BMP**. Refer to section **6.2.1 ATB2File Driver** in the SJPM User's Guide.

Q: Can SJPM print to JPG files?

A: **Yes**, the "**ATB2File**" Driver has configuration options for printing to **JPG**. Refer to section **6.2.1 ATB2File Driver** in the SJPM User's Guide.

Q: Can SJPM print to PNG files?

A: **Yes**, the "**ATB2File**" Driver has configuration options for printing to **PNG**. Refer to section **6.2.1 ATB2File Driver** in the SJPM User's Guide.

Q: Can SJPM print tickets to file?

A: **Yes**, the "**ATB2File**" Driver has configuration options for printing tickets to **BMP**, **JPG**, and **PNG** file formats. Refer to section **6.2.1 ATB2File Driver** in the SJPM User's Guide.

Q: Can SJPM be installed to another hard drive other than C:\?

A: **Yes**. This requires running the SJPM installation from the command line. Refer to section **6.1.7Installing SJPM to a Different Hard Drive** in the SJPM User's Guide.

Command Example:

Install_SJPM_TN_x86_32Bit_1.8.25.exe INSTALLDIR="Z:\TTT"

Q: Is SJPM available in other languages?

A: **Yes**. Currently SJPM is available in **English** and **Spanish**, accessible from the SJPM Windows System Tray icon menu. Other languages will be added in later releases.

Q: How many devices can be configured in SJPM?

A: The recommended number of configured devices for the SJPM Client GUI is **35**. The SJPM GUI is capable of handling more devices but this could result in performance issues while viewing the SJPM GUI. The maximum number of devices will be determined by the machine's CPU and Memory capabilities on which SJPM is installed.

Q: Where are the SJPM log files created and stored?

A: Refer to sections **7.1 Enabling SJPM Logging** and **7.2 Disabling SJPM Logging**.

Server Logging:

When Server Logging is enabled SJPM will create and store the log files "**SJPMServer.log**" (Maximum of ten (10) files. "**SJPMServer.log**" thru "**SJPMServer.log.9**") in the "**C:\Program Files (x86)\SJPM\server\logs**" directory for Windows 7 64bit and Windows 8 64bit for default installations. If SJPM is installed on a different drive than the default then the log files will be located on the install drive in the "**SJPM\server\logs**" folder.

SJPM Server Logging creates ten (10) rolling log files. (All 10 log files should be zipped up with the file extension of "**.sabre.zip**" before sending in for analysis.)

Client Logging:

When Client Logging is enabled SJPM will create the log file "**sjpmclient.log**" in the "**logfile=%{HOMEPATH}/logs/sjpmclient.log**". You can also look in the "**client.ini**" file for the log file location.
(The log file should be zipped up with the file extension of "**.sabre.zip**" before sending in for analysis.)

Q: Is there a manual with instructions on SJPM?

A: **Yes**. You are reading it!, The SJPM User's Guide is included in the SJPM installation under "**Start**", "**All Programs**", "**SJPM**", **SJPM User's Guide**.

Q: Are there ports or firewall exclusions that need to be configured for SJPM?

A: SJPM functions the same as SPM (OADP) so it will not require any changes. For new Sabre users SJPM does not require any Windows setup for operation. However, connectivity to Sabre on the machine where SJPM is installed is required.

Q: Can SJPM be run more than once on a single machine?

A: **No**, currently this feature is not available but we will be working to add this functionality in a later release.

Q: Can SJPM run as a Service or an Application?

A: **Yes**. SJPM runs as a Service by default upon installation but can be changed to run as an Application from the SJPM Windows System Tray icon menu. Refer to sections **4.1.4 Running SJPM as a Service** and **4.1.3 Running SJPM as an Application**.

Q: Can SJPM print to network printers?

A: **Yes**, the "**System**" and "**Queue**" Drivers can print to network printers. Refer to sections **6.2.19 System Driver** and **6.2.13 Queue Driver**.

Q: Can SJPM print to network drives?

A: **Yes**, the "**File**" and "**IFQ**" Drivers can print to network drives. Refer to section **6.1.5 Printing to a Mapped Network Drive Folder – ATB2File, File, and IFQ Drivers**.

Q: Can you specify the location of output files?

A: **Yes**, with the SJPM "**ATB2File**", "**File**" and "**IFQ**" Drivers you can specify the location of the output files. Refer to sections **6.2.1 ATB2File Driver**, **6.2.6 File Driver** and **6.2.8 IFQ Driver**.

They are defaulted as follows:

ATB2File and File Driver = C:\Program Files (x86)\SJPM\Output\

IFQ Driver = C:\SPL

Q: Can you restart a single device after edit in SJPM?

A: **No**, SJPM currently requires a complete restart after edits, deletions, or additions. This is a feature we will add in a later release.

Q: Does SJPM work with SCVPN?

A: **Yes**, SJPM has a SCVPN enabled JCSAPI included that provides compatibility with SCVPN.

Q: Does SJPM require configuration to work with SCVPN?

A: **No**, the SCVPN enabled JCSAPI included with SJPM is preconfigured for compatibility with SCVPN.

Q: Does SJPM connect to SCVPN on startup?

A: **No**, the SCVPN Launcher must be run first and Sabre Sign-In credentials authenticated before SJPM can connect devices to Sabre.

Q: Does SJPM provide file encryption?

A: **Yes**, SJPM provides file encryption with the "**ATB2File**", "**File**", and "**IFQ**" Drivers. Refer to **Appendix F**.

Q: Does SJPM provide device backup and restore functionality?

A: **Yes**, you can backup and restore SJPM devices. The procedure is manual. Refer to section **6.1.3 Device Backup and Restore**.

Q: Can you Import and Export devices in SJPM?

A: **Yes**, SJPM provides functionality in the SJPM Client GUI and SJPM System Tray Icon to import and export devices.

Q: Can you Enable and Disable multiple devices in SJPM?

A: **Yes**, SJPM provides functionality in the SJPM Client GUI to enable or disable multiple devices.

Q: Can you FTP files with SJPM?

A: **Yes**, SJPM provides functionality in the "**ATB2File**" and "**File**" Drivers to FTP files.

D. Connecting to Sabre with SJPM Using SCVPN

When using **SJPM** with the **Sabre Customer Virtual Private Network (SCVPN)** product it is required that you enter your Sabre credentials whenever SJPM runs and tries to connect a device to Sabre for the first time. Once the credentials have been entered, accepted and the devices have connected, SJPM will then maintain the connection to Sabre.

Possible reasons for SJPM devices to not be able to connect to Sabre could be that the credentials have not been entered (look for the credentials windows), the credentials entered are incorrect, or the connectivity is down.

There is a 15 minute timeout with SCVPN. If the connectivity in your office is down for more than 15 minutes and SJPM cannot maintain the connection it will be necessary for you to enter your credentials again once connectivity to your office has been restored.

E. Compatibility with Sabre Customer Virtual Private Network (SCVPN)

The **JCSAPI** that is included with **SJPM** has been enhanced to support the **Sabre Customer Virtual Private Network (SCVPN)** product. The SCVPN enabled JCSAPI is included in the SJPM installation and does not require any configuration or interaction.

SJPM requires an active SCVPN tunnel before SJPM can connect. "**SCVPNLauncher**" can be used and should be running. Once SCVPNLauncher is running then SJPM can be started, or restarted if already running, for the SCVPN connection to be performed. The user will then be prompted for Sabre Sign-In credentials. Once the Sabre credentials have been submitted and authenticated SJPM devices will connect through SCVPN.

F. File Encryption and Decryption – ATB2File and File Drivers

SJPM provides the ability to encrypt files when using the "**ATB2File**" and "**File**" Drivers. These drivers can be configured to encrypt output files. The following source code can be used to generate a public and private key for use with the "**ATB2File**" and "**File**" Drivers.

F.a Encryption – Source Code

The following source code can be used to encrypt files created from the "**ATB2File**" and "**File**" Drivers.

EncryptDecryptHelper.java

```
~~~
import java.io.ByteArrayOutputStream;
import java.util.Random;
import javax.crypto.Cipher;
import javax.crypto.SecretKey;
import javax.crypto.SecretKeyFactory;
import javax.crypto.spec.PBEKeySpec;
import javax.crypto.spec.PBEParameterSpec;

public class EncryptDecryptHelper {
   private static final int ITERATIONS = 1000;

   public static byte[] passwordEncrypt( char[] password, byte[] plaintext ) {
      ByteArrayOutputStream baos = new ByteArrayOutputStream();;

      try {
         byte[] salt = new byte[8];
         Random random = new Random();
         random.nextBytes( salt );

         PBEKeySpec keySpec = new PBEKeySpec( password );
         SecretKeyFactory keyFactory = SecretKeyFactory.getInstance( "PBEWithMD5AndDES");
         SecretKey key = keyFactory.generateSecret( keySpec );
         PBEParameterSpec paramSpec = new PBEParameterSpec( salt, ITERATIONS );

         Cipher cipher = Cipher.getInstance( "PBEWithMD5AndDES" );
         cipher.init( Cipher.ENCRYPT_MODE, key, paramSpec );

         byte[] ciphertext = cipher.doFinal( plaintext );

         baos.write( salt );
         baos.write( ciphertext );
      } catch( Exception e ) {
         System.out.println( "Threw exception: " );
         e.printStackTrace();
      }

      return baos.toByteArray();
   }

   public static byte[] passwordDecrypt( char[] password, byte[] saltAndCiphertext ) {
      byte[] plaintext = new byte[1];

      try {
         byte[] salt = new byte[8];
         byte[] ciphertext = new byte[ saltAndCiphertext.length - 8 ];
         int keySize = saltAndCiphertext.length - 8;
```

```
         System.arraycopy( saltAndCiphertext, 0, salt, 0, 8 );
         System.arraycopy( saltAndCiphertext, 8, ciphertext, 0, keySize );

         PBEKeySpec keySpec = new PBEKeySpec( password );
         SecretKeyFactory keyFactory = SecretKeyFactory.getInstance( "PBEWithMD5AndDES");
         SecretKey key = keyFactory.generateSecret( keySpec );
         PBEParameterSpec paramSpec = new PBEParameterSpec( salt, ITERATIONS );

         Cipher cipher = Cipher.getInstance( "PBEWithMD5AndDES" );
         cipher.init( Cipher.DECRYPT_MODE, key, paramSpec );

         plaintext = cipher.doFinal( ciphertext );

      } catch( Exception e ) {
         System.out.println( "Threw exception: " );
         e.printStackTrace();
      }

      return plaintext;
   }
}
~~~


CreateKeysApp.java:
~~~
import java.io.BufferedReader;
import java.io.ByteArrayOutputStream;
import java.io.FileOutputStream;
import java.io.InputStreamReader;
import java.security.Key;
import java.security.KeyPair;
import java.security.KeyPairGenerator;
import java.util.Arrays;
import java.util.Random;
import javax.crypto.Cipher;
import javax.crypto.SecretKey;
import javax.crypto.SecretKeyFactory;
import javax.crypto.spec.PBEKeySpec;
import javax.crypto.spec.PBEParameterSpec;
import javax.crypto.spec.SecretKeySpec;

public class CreateKeysApp {
   private static final int ITERATIONS = 1000;

   public static void main( String[] args ) {
      try {
         BufferedReader in = new BufferedReader( new InputStreamReader( System.in ) );
         System.out.print( "Password to encrypt the private RSA key: " );
         //String password = in.readLine();
         char[] password = System.console().readPassword();

         System.out.println( "Generating public and private RSA keys..." );

         KeyPairGenerator keyPairGenerator = KeyPairGenerator.getInstance( "RSA" );
         keyPairGenerator.initialize( 4096 );
         KeyPair keyPair = keyPairGenerator.genKeyPair();

         System.out.println( "Generated RSA key." );

         System.out.print( "Public key filename: " );
         String publicKeyFilename = in.readLine();

         byte[] publicKeyBytes = keyPair.getPublic().getEncoded();

         FileOutputStream fos = new FileOutputStream( publicKeyFilename );
         fos.write( publicKeyBytes );
         fos.close();

         System.out.print( "Private key filename: " );
         String privateKeyFilename = in.readLine();

         byte[] privateKeyBytes = keyPair.getPrivate().getEncoded();

         byte[] encryptedPrivateKeyBytes =
            EncryptDecryptHelper.passwordEncrypt( password, privateKeyBytes );

         byte[] decryptedPrivateKeyBytes =
            EncryptDecryptHelper.passwordDecrypt( password, encryptedPrivateKeyBytes );

         if( Arrays.equals( privateKeyBytes, decryptedPrivateKeyBytes ) ) {
            System.out.println( "Password Based Encryption/Decryption success" );
         }
         else {
            System.out.println( "Password Based Encryption/Decryption failure" );
         }

         fos = new FileOutputStream( privateKeyFilename );
         fos.write( encryptedPrivateKeyBytes );
         fos.close();
      } catch( Exception e ) {
         System.out.println( "Threw exception: " );
         e.printStackTrace();
      }
   }
}
~~~
```

The following source code can be used to decrypt encrypted files created from the "**ATB2File**" and "**File**" Drivers.

DecryptFileApp.java:

```
~~~
import java.io.BufferedReader;
import java.io.ByteArrayOutputStream;
import java.io.DataInputStream;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.InputStreamReader;
import java.security.Key;
import java.security.KeyFactory;
import java.security.PrivateKey;
import java.security.spec.PKCS8EncodedKeySpec;
import java.util.Arrays;
import java.util.Random;
import javax.crypto.Cipher;
import javax.crypto.CipherInputStream;
import javax.crypto.SecretKey;
import javax.crypto.SecretKeyFactory;
import javax.crypto.spec.IvParameterSpec;
import javax.crypto.spec.PBEKeySpec;
import javax.crypto.spec.PBEParameterSpec;
import javax.crypto.spec.SecretKeySpec;

public class DecryptFileApp {
   private static final int ITERATIONS = 1000;

   public static void main( String[] args ) {
      try {
         BufferedReader in = new BufferedReader( new InputStreamReader( System.in ) );
         System.out.print( "Password to dencrypt the private RSA key: " );
         char[] password = System.console().readPassword();

         System.out.print( "Private RSA key filename: " );
         String privateKeyFilename = in.readLine();

         System.out.print( "Encrypted input filename: " );
         String encryptedInputFilename = in.readLine();

         System.out.print( "Decrypted output filename: " );
         String decryptedOutputFilename = in.readLine();

         FileInputStream fis = new FileInputStream( privateKeyFilename );
         ByteArrayOutputStream baos = new ByteArrayOutputStream();
         int aByte = 0;

         while( ( aByte = fis.read() ) != -1 ) {
            baos.write( aByte );
         }

         fis.close();
         byte[] encryptedPrivateKeyBytes = baos.toByteArray();
         baos.close();

         byte[] decryptedPrivateKeyBytes =
            EncryptDecryptHelper.passwordDecrypt( password, encryptedPrivateKeyBytes );

         PKCS8EncodedKeySpec keySpec = new PKCS8EncodedKeySpec( decryptedPrivateKeyBytes );
         KeyFactory keyFactory = KeyFactory.getInstance( "RSA" );
         PrivateKey privateKey = keyFactory.generatePrivate( keySpec );

         Cipher rsaCipher = Cipher.getInstance( "RSA/ECB/PKCS1Padding" );

         DataInputStream dis =
            new DataInputStream( new FileInputStream( encryptedInputFilename ) );
         byte[] encryptedAESKeyBytes = new byte[ dis.readInt() ];
         dis.readFully( encryptedAESKeyBytes );

         rsaCipher.init( Cipher.DECRYPT_MODE, privateKey );
         byte[] aesKeyBytes = rsaCipher.doFinal( encryptedAESKeyBytes );

         SecretKey aesKey = new SecretKeySpec( aesKeyBytes, "AES" );

         byte[] iv = new byte[16];
         dis.read( iv );
         IvParameterSpec ivSpec = new IvParameterSpec( iv );
```

```
            Cipher cipher = Cipher.getInstance( "AES/CFB8/NoPadding" );
            cipher.init( Cipher.DECRYPT_MODE, aesKey, ivSpec );
            CipherInputStream cis = new CipherInputStream( dis, cipher );

            FileOutputStream fos = new FileOutputStream( decryptedOutputFilename );

            aByte = 0;

            while( ( aByte = cis.read() ) != -1 ) {
               fos.write( aByte );
            }

            cis.close();
            fos.close();
         } catch( Exception e ) {
            System.out.println( "Threw exception: " );
            e.printStackTrace();
         }
      }
   }
}
~~~
```

G. Licensing

SJPM makes use of various external libraries in its functionality. This section provides detailed information on licensing for the SJPM application and its components.

G.a. QJson

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H. Creating and Loading ATB2 Virtual Stock

The SJPM "**ATB2File**" and "**ATB2System**" Drivers make use of ATB2 Virtual Stock. This section provides detailed information on creation of custom ATB2 Virtual Stock and explains how to load and configure the ATB2 Virtual Stock using the bin-specific forms and their associated bmp files. **Note:** The ATB2 Virtual Stock image file must be **1673 x 737** pixels.

SJPM comes with bin form and bmp files for printing to ATB2 Virtual Stock. You can create your own custom ATB2 Virtual Stock for use with the SJPM "**ATB2File**" and "**ATB2System**" Drivers. The steps below describe the procedure to create, load, configure and use your custom virtual stock.

STEP 1

Create the ATB2 Virtual Stock:

1. In a picture editor create your ATB2 Virtual Stock image. The ATB2 virtual stock image you create must be "**1673 x 737**" pixels in size and saved as a "**.bmp**" file type. When saving the file, name the file with a two digit number (i.e. **50.bmp**).

STEP 2

Stop the SJPM Server:

1. Click on the "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**Stop SJPM Server**" menu item and then click on the "**Run as administrator**" menu item.

2. The "**User Account Control**" pop-up window will appear. Click on the "**Yes**" button. The SJPM Server will stop.

STEP 3

Loading the ATB2 Virtual Stock:

1. Copy the ATB2 Virtual Stock file you created into the folder of the driver you are using as shown below.

   ATB2File = C:\Program Files (x86)\SJPM\server\devroot\resources\ATB2FILE
   ATB2System = C:\Program Files (x86)\SJPM\server\devroot\resources\ATB2SYSTEM

STEP 4

Configuring the ATB2 Virtual Stock:

1. In the same folder that you copied your ATB2 Virtual Stock into, edit the bin form that you want to use this virtual stock (**b1.form** and/or **b2.form**).

2. Open a text editor like Notepad as the Administrator and then open the form file (**b1.form** and/or **b2.form**) and make the changes. In the b1.form file, for example, you will see the following "**TTB1:01L0000000900000**". Delete the "**99**" and replace it with the number you gave your ATB2 Virtual Stock file and then save the file.

STEP 5

Start the SJPM Server:

1. Click on the "**Start**" button, then click on "**All Programs**", then click on the "**SJPM**" folder, then right click on the "**Start SJPM Server (as a service)**" and then click on the "**Run as administrator**" menu item to start SJPM as a Service or right click on "**Start SJPM Server (as an application)**" and then click on the "**Run as administrator**" menu item to start SJPM as an application.

2. The "**User Account Control**" pop-up window will appear. Click on the "**Yes**" button. The SJPM Server will start.

I. LPR vs System vs RawIP Drivers

The SJPM "**LPR**", "**System**" and "**RawIP**" drivers each provide the SJPM user with similar capabilities. Each of these drivers allows the user to print hardcopy data, but not ATB2 data, to a physical printer but through different connectivity protocols. The data that is being printed on each physical printer can also be, optionally, archived to a file stored on either a local or remote filesystem. The SJPM user can choose either to archive all of the printer data or to archive only selected printer data document types. The available document types include "**Agent Coupon (Ticket)**", "**Agent Coupon (VMCO)**", "**CCCF (Ticket)**", "**CCCF (VMCO)**", "**Refund Notice (REN)**", "**Exchange Auth. (REA)**", "**Refund Auth. (REA)**", "**Host ET PIR**", "**Host Itinerary**", "**Host Invoice**", and "**Other**". Each document type can individually archived, or not archived, if the user wishes to archive only a subset of all document types. The SJPM "**File**" Driver also provides the SJPM user with similar capabilities as the "**LPR**", "**System**" and "**RawIP**" Drivers but the "**File**" Driver allows the user to print hardcopy data, not ATB2 data, to a file on either a local or remote filesystem rather than printing data to a physical printer.

I.a. LPR Driver

The SJPM "**LPR**" Driver allows the user to print hardcopy data in both textual mode and graphical mode to a TCP/IP network printer using the LPR, Line Printer Remote, protocol. Many TCP/IP network capable printers include an LPD, Line Printer Daemon, which provides LPR protocol capability. The printer is addressed based upon its "**Hostname**", the TCP/IP "Port" which it is listening on, its LPD "**Queue**" name, and the LPD "**User**" which will be used for printing. The default TCP/IP port is **515**. When using graphical mode the SJPM user can chose the Page Size, the Font, and the Font Size.

I.b. System Driver

The SJPM "**System**" Driver allows the user to print hardcopy data in both textual mode and graphical mode to a Microsoft Windows configured printer using the Microsoft Windows printer spooler. The Microsoft Windows configured printer could be a network TCP/IP network capable printer, it could be a locally attached printer, or it could be a file if the printer has been configured as a print-to-file printer within Microsoft Windows. When using graphical mode the SJPM user can chose the Paper Size or Source, Orientation, Margins, the Font, and the Font Size.

I.c. RawIP Driver

The SJPM "**RawIP**" Driver allows the user to print hardcopy data in textual mode, but not graphical mode, to a TCP/IP network printer using the RAW TCP/IP protocol. Many TCP/IP network capable printers include the RAW TCP/IP protocol capability. The printer is addressed based upon its "**Hostname**" and the TCP/IP "**Port**" which it is listening on. The default TCP/IP port is **9100**. There is no graphical mode capability in the "**RawIP**" Driver so only raw text data is sent to the printer without any special formatting.

J. ATB2LPR vs ATB2System Drivers

The SJPM "**ATB2LPR**" and "**ATB2System**" Drivers each provide the SJPM user with similar capabilities. Each of these allows the user to print ATB2 data, e.g. ticket documents, to a physical printer but through different connectivity protocols. The SJPM "**ATB2File**" Driver is also similar but it allows the user to print ATB2 data, but not hardcopy data, to a file on either a local or remote filesystem. The SJPM "**ATB2File**" Driver also provides the SJPM user with similar capabilities as the "**ATB2LPR**" and "**ATB2System**" Drivers but the "**ATB2File**" Driver allows the user to print ATB2 data, not hardcopy data, to a file on either a local or remote filesystem rather than printing data to a physical printer.

J.a. ATB2LPR Driver

The SJPM "**ATB2LPR**" Driver allows the user to print ATB2 data to a TCP/IP network printer using the LPR, Line Printer Remote, protocol. Many TCP/IP network capable printers include an LPD, Line Printer Daemon, which provides LPR protocol capability. The printer is addressed based upon its "**Hostname**", the TCP/IP "**Port**" which it is listening on, its LPD "**Queue**" name, and the LPD "**User**" which will be used for printing. The default TCP/IP port is **515**. The user can choose the Page Size and whether to print the ATB data at native AEA paper stock size or to fit the document to the printer's paper page size.

The SJPM "**ATB2System**" Driver allows the user to print ATB2 data to a Microsoft Windows configured printer using the Microsoft Windows printer spooler. The Microsoft Windows configured printer could be a network TCP/IP network capable printer, it could be a locally attached printer, or it could be a file if the printer has been configured as a print-to-file PDF-type printer within Microsoft Windows. When configuring their "**ATB2System**" Driver the SJPM user can chose the Paper Size or Source, Orientation, Margins and whether to print the ATB2 data at native AEA paper stock size or to fit the document to the printer's paper page size.

K. Remote File Services Terminology

The SJPM "**ATB2File**", "**File**", "**LPR**", "**Printer**", "**RawIP**", and "**System**" Drivers utilize remote file services. The descriptions below provide information on each remote file service available in SJPM.

Network Share

Network Share uses the Windows "**NET USE**" command to transfer computer files between a client and server on a computer network; SJPM automatically connects to the configured share and then transfers data to it. After the data transfer is complete, SJPM disconnects from the share. SJPM Network Share is only available on Windows installations. Linux does not have this option available.

FTP

The File Transfer Protocol (FTP) is a standard network protocol used to transfer computer files between a client and server on a computer network; Plain, unencrypted FTP that defaults over port **21**. Most web browsers support basic FTP.

FTPS

Implicit SSL/TLS encrypted FTP that works just like HTTPS. Security is enabled with SSL as soon as the connection starts. The default FTPS port is **990**.

FTPES

Explicit FTP over SSL/TLS. This starts out as plain FTP over port **21**, but through special FTP commands is upgraded to TLS/SSL encryption. This upgrade usually occurs before the user credentials are sent over the connection.

SCP

The SCP protocol is a network protocol, which supports file transfers between hosts on a network. SCP uses Secure Shell (SSH) for data transfer and uses the same mechanisms for authentication, thereby ensuring the authenticity and confidentiality of the data in transit. The default port is **22**.

SFTP

SFTP, which stands for SSH File Transfer Protocol, or Secure File Transfer Protocol, is a separate protocol packaged with SSH that works in a similar way over a secure connection. The default port is **22**.

CIFS

The Common Internet File System (CIFS) is the standard way that computer users share files across corporate intranets and the Internet. The default port is **445**.

SMB

The Server Message Block (SMB) Protocol is a network file sharing protocol. It operates as an application-layer network protocol mainly used for providing shared access to files, printers, and serial ports and miscellaneous communications between nodes on a network. The default port is **445**.

L. Print Data Request

This request is used to pass data, either URL encoded, as JSON or as XML document, to a device for printing. The format of the data in the request body should be specified by means of the HTTP header "**Content-Type**".

Note: This is a **POST** request, not a GET.

Example (JSON):

POST /printData?deviceName=FILE_PTR HTTP/1.1

If-Modified-Since: Thu, 1 Jan 1970 00:00:00 GMT

Cache-Control: no-cache

Content-Length: 54
Content-Type: application/json

```
{"data":"¡Este texto está acentuado y tiene eñes!"}
```

Example (URL-encoded):

POST /printData?deviceName=FILE_PTR HTTP/1.1

If-Modified-Since: Thu, 1 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Content-Length: 67
Content-Type: application/x-www-form-urlencoded

```
%C2%A1Este%20texto%20est%C3%A1%20acentuado%20y%20tiene%20e%C3%B1es!
```

Example (XML):

POST /printData?deviceName=FILE_PTR HTTP/1.1

If-Modified-Since: Thu, 1 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Content-Length: 106
Content-Type: application/xml

```
<?xml version="1.0" encoding="UTF-8"?> <data>¡Este texto est&#xe1;
acentuado &amp; tiene e&#241;es!</data>
```

Response (regardless of input format):

HTTP/1.1 200 OK

Content-Type: application/json
Cache-Control: no-cache
Date: Tue Nov 08 11:43:19 ART 2016
Content-Length: 163

```
{
  "FILE_PTR": {
        "Host_Status": "Ready",
        "Device_Status": "Online",
        "Transaction_Status": "Last Send Successful",
        "Detailed_Status": "No issues.",
        "Transation_Status_Code": 0
  }
}
```

An error condition will be reported with a Transaction_Status_Code <> 0 and the other fields describing the condition. See the example for a request sent for a device that doesn't exist.

Example:

POST /printData?deviceName=A_DEVICE HTTP/1.1

If-Modified-Since: Thu, 1 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Content-Length: 54
Content-Type: application/json

```
{"data":"¡Este texto está acentuado y tiene eñes!"}
```

Response:

HTTP/1.1 200 OK

Content-Type: application/json
Cache-Control: no-cache
Date: Tue Nov 08 11:43:19 ART 2016
Content-Length: 118

```
{
  "A_DEVICE": {
        "Transaction_Status": "Last Send Failed",
        "Detailed_Status": "Device not found",
        "Transation_Status_Code": 1
  }
}
```

M. LPR/LPD Printing (SJPM "ATB2LPR" and "LPR" Drivers)

LPR/LPD is short for ***l**ine **p**rinter **d**aemon/**l**ine **p**rinter **r**emote*, a printer protocol that uses TCP/IP to establish connections between printers and workstations on a network.

The LPD software is typically stored in the printer or print server and the LPR software must be installed in the client device. The LPR client sends the print request to the IP address of the LPD printer/server, which in turn queues the file and prints it when the printer becomes available.

What is LPR/LPD?

LPR/LPD is the printing method most commonly used in TCP/IP networks. The new generation of operating systems, for both mainframe and desktop, now support TCP/IP and LPD. It is a computer-to-computer printing method, rather than PC-to-PC.

The **LPR/LPD** protocol is broken into two parts, **LPR** and **LPD**. The standard LPD port is **515**.

LPR is an acronym for **Line Printer Remote**; this is the part that submits the print request. LPR is the client part of the protocol. Any system submitting requests via an "**LPR client**" is a client.

LPD stands for **Line Printer Daemon**; this is the piece that receives and processes the request. A "**daemon**" is a server or agent.

The phrase "LPD printing" refers to the setup or process required to print to an LPD server. Often what people have in mind is system of organizing their print requirements into LPD print queues. For instance a queue named "printronix132" might be setup to print 132 column text to a printronix printer. It's easier to keep your work organized if you are systematic and print queue names certainly give you that opportunity.

The phrase "**LPR printing**" is very closely related, and often refers to using an LPR capable program on your system to send print jobs to an LPD server.

The LPD Protocol Specification is documented in RFC 1179, Line Printer Daemon Protocol, dated August 1990, edited by L. McLaughlin III.

N. USB to Serial Port Converter Use with SJPM

USB to Serial Port converters can be used with SJPM but they are not supported by Sabre. This is due to the inconsistency found in prior testing of various USB to Serial Port converters and the short market life for these products. With some units tested we found that they were not properly converting the data and thus we observed loss of data in the print output. The most reliable solution is to add a PCI Serial Port Card to the PC running SJPM, if possible.

O. SJPM International Character Capability

SJPM is capable of printing International Unicode Characters both to hardcopy and ATB2 devices.

Note: Not all SJPM devices are capable of printing International Unicode data. Device types that are capable of printing International Unicode data include hardcopy devices ("**File**", "**LPR**", and "**System**") and ATB2 devices ("**ATB2File**", "**ATB2LPR**", and "**ATB2System**"). ATB2 devices will require the data to be ATB2 formatted. The "**Group**" and "**Proxy**" drivers can also be used with the above devices.

To print International Unicode Characters it is important to configure the printing device's font to one which is capable of printing those specific International Unicode characters. Each of the SJPM device types which are capable of printing International Unicode characters allows the SJPM user to configure that a specific System font be used in order to ensure that the print data characters print correctly as the SJPM user intends. International Unicode character data to be printed using an SJPM device can arrive from either a Sabre printer LNIATA or from the SJPM printData RESTful Web Service., including the "**Utilize Device**" feature in the SJPM Device's context menu (shown when a device is right clicked on).

O.a. International Unicode data originating from a Sabre Printer LNIATA

The printable International Unicode characters from a Sabre printer LNIATA include any of the possible 65,536 code points of the 55,237 assigned Unicode characters from the Basic Multilingual Plane. Due to the fact that the Sabre TPF system encodes its data internally using a descendant of a 6-bit character encoding system, which later transformed into a unique Sabre-specific subset of 8-bit IBM EBCDIC, the Sabre TPF system is not able to handle International Unicode Characters natively. However, SJPM is able to utilize International Unicode character data because it uses the **Numeric Character Reference** (**NCR**) specification to encode all 65,536 16-bit Unicode characters using only the available native Sabre characters.

The NCR encoding specification allows Sabre to pass International Unicode data to SJPM in the following form; "**&#x[0-9A-F]{4};**". For example, this is the NCR encoding of the International Unicode Character "**0x1234**", an Ethiopic Syllable See (ሴ) character, "**ሴ**".

Although each of these 8 characters in an NCR-encoded International Unicode character is itself a native Sabre character, some Sabre TPF applications have restrictions that prevent some of those native characters from being used. For example, the ampersand (**&**), pound (**#**), and lowercase "**x**" characters may sometimes be restricted in Sabre TPF applications. In order to also cope with those restrictions SJPM utilizes a secondary Sabre-specific encoding technique to encode NCR-encoded characters using only the characters "**0-9**", "**A-F**", "**X**" and the Sabre Cross of Lorraine character "ǂ". The Sabre-encoded NCR-encoded "**0x1234**" is "ǂ**X1234X**ǂ". These encoding specifications allow SJPM to handle all International Unicode character data whether it is NCR-encoded with, or without, additional Sabre TPF restrictions on the use of the ampersand (**&**), pound (**#**), and lowercase "**x**" characters.

To print International Unicode character data from Sabre TPF, using SJPM, the International Unicode character data must be sent to the Sabre Printer LNIATA encoded either using the NCR encoding standard, e.g. "**ሴ**", or the Sabre encoding standard, e.g. "ǂ**X1234X**ǂ".

O.b. International Unicode data originating from the SJPM printData RESTful Web Service

The printable International Unicode characters from the printData RESTful Web Service include any of the 1,112,064 valid code points Unicode UTF-8 characters. The printData RESTful Web Service is made easily accessible to the SJPM user through the SJPM Device's context menu by selecting the "**Utilize Device**" menu item. This "**Utilize Device**" menu item presents the SJPM user with a dialog box where they can send any SJPM device any UTF-8 International Unicode character data. It is not necessary to NCR-encode International Unicode character data sent to SJPM using the SJPM printData RESTful Web Service.

[DIAGRAM OF UTILIZE DEVICE DIALOG BOX CONTAINING INTERNATIONAL DATA]

The SJPM printData RESTful Web Service can also be used by an external application directly. There are 3 forms of the SJPM printData RESTful Web Service delineated by their "**Content-Type**" HTTP headers; "**application/json**", "**application/x-www-form-urlencoded**", and "**application/xml**". The SJPM printData RESTful Web Service requires all print data passed to it to use the UTF-8 charset encoding.

Here are examples of the 3 forms of the SJPM printData RESTful Web Service:

Example (JSON):

POST /printData?deviceName=FILE_PTR HTTP/1.1

If-Modified-Since: Thu, 1 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Content-Length: 54
Content-Type: application/json

```
{"data":"¡Este texto está acentuado y tiene eñes!"}
```

Example (URL-encoded):

POST /printData?deviceName=FILE_PTR HTTP/1.1

If-Modified-Since: Thu, 1 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Content-Length: 72
Content-Type: application/x-www-form-urlencoded

```
data=%C2%A1Este%20texto%20est%C3%A1%20acentuado%20y%20tiene%20e%C
3%B1es!
```

Example (XML):

POST /printData?deviceName=FILE_PTR HTTP/1.1

If-Modified-Since: Thu, 1 Jan 1970 00:00:00 GMT
Cache-Control: no-cache
Content-Length: 106
Content-Type: application/xml

```
<?xml version="1.0" encoding="UTF-8"?><data>¡Este texto est&#xe1;
acentuado &amp; tiene e&#241;es!</data>
```

Here is an example of a successful response from the SJPM printData RESTful Web Service:

Response (regardless of input format):

HTTP/1.1 200 OK

Content-Type: application/json
Cache-Control: no-cache
Date: Tue Nov 08 11:43:19 ART 2016
Content-Length: 163

```
{
  "FILE_PTR": {
        "Host_Status": "Ready",
        "Device_Status": "Online",
        "Transaction_Status": "Last Send Successful",
        "Detailed_Status": "No issues.",
        "Transation_Status_Code": 0
  }
}
```

Here is an example of an unsuccessful response from the SJPM printData RESTful Web Service:

Response:

HTTP/1.1 200 OK

Content-Type: application/json
Cache-Control: no-cache
Date: Tue Nov 08 11:43:19 ART 2016
Content-Length: 118

```
{
  "A_DEVICE": {
        "Transaction_Status": "Last Send Failed",
        "Detailed_Status": "Device not found",
        "Transation_Status_Code": 1
  }
}
```

P. Automatic Check for Updates / Manual Check for Updates

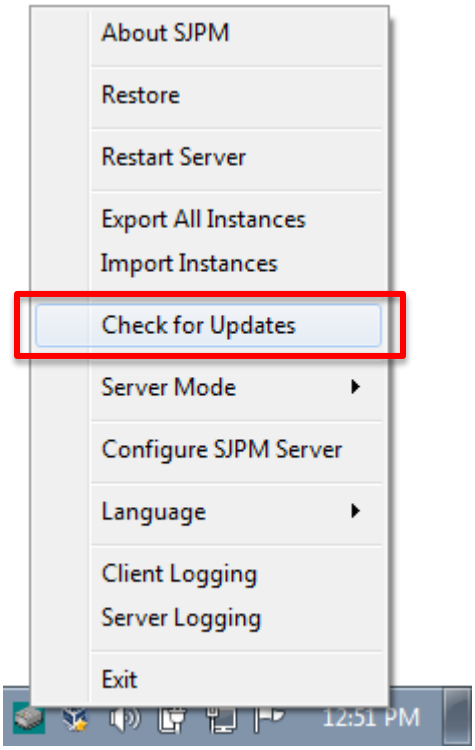
SJPM automatically checks for updates periodically and allows the user to manually check for updates whenever required. This feature provides users with the ability to update SJPM when notified that an update is available or to update at a later date.

Automatic Check:

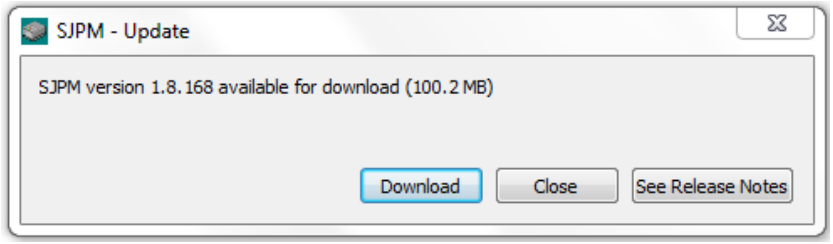
The Automatic Check for Updates functionality will occur weekly and if an update is found will notify the user and provide the option to update now or at a later date.

Manual Check:

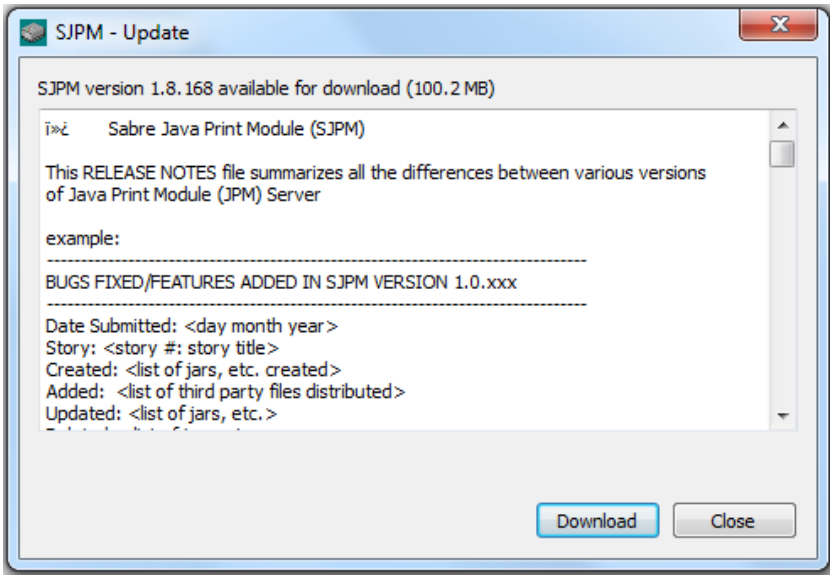
The Manual "**Check for Updates**" functionality can be initiated by the user from the "**SJPM Windows System Tray Icon**".



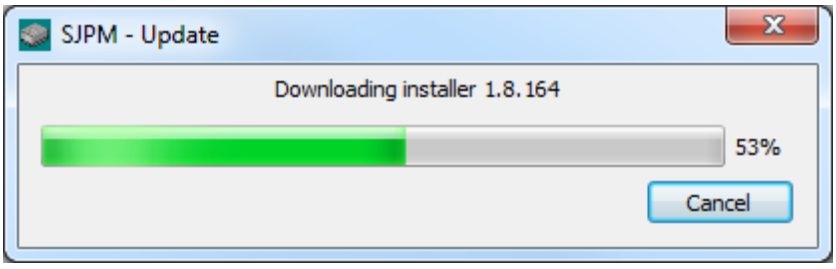
1. Click on the "**Check for Updates**" menu item. The "**SJPM – Update**" window will appear.



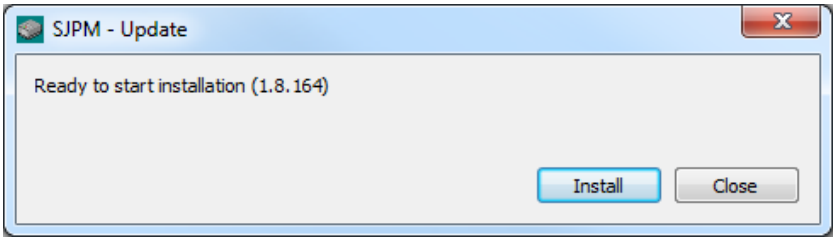
2. Click on the "**Download**" button to start the download. Click on the "**Close**" button to cancel or click on the "**See Release Notes**" button to review the release notes. The following window will appear when the "**See Release Notes**" button is clicked.



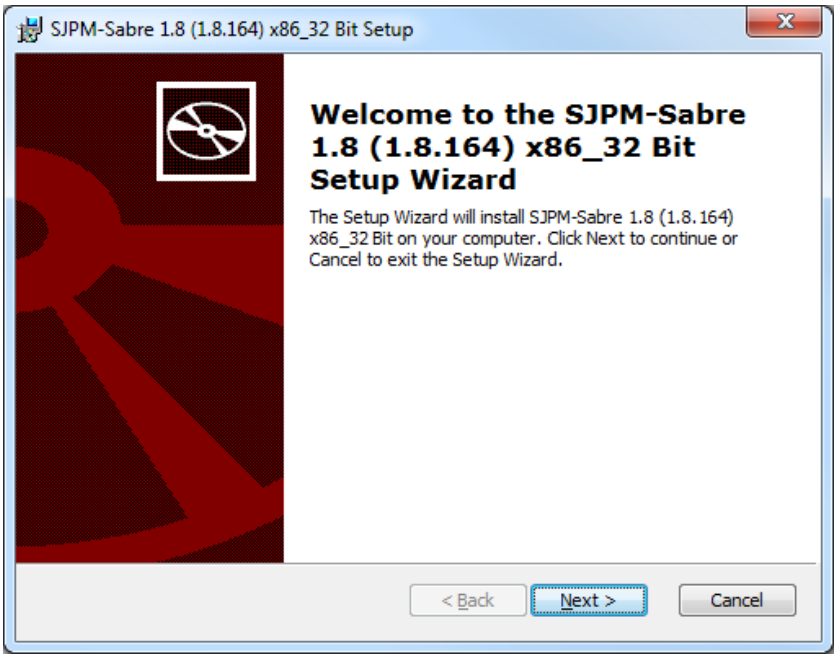
3. Click on the "**Download**" button from either window to begin the download or click on "**Close**" to cancel. The following window will appear.



4. After the download has completed, the following window will appear.



5. Click on the "**Install**" button to start the installation or click on the "**Close**" button to cancel. The "**User Account Control**" window will appear. Click on the "**Yes**" button. The "**File Extracting…**" window will appear and when the file extraction is complete the installation process will begin. Click on the "**Cancel**" button to cancel.



Follow the onscreen prompts to complete the installation.

For detailed information on the SJPM installation process please refer to the "SJPM User's Guide" which is in the Windows Start SJPM folder.