

SoftMax® Pro Data Acquisition and Analysis Software

GxP Edition

SoftMax Pro Software - GxP Edition version 7.1.1, GxP Admin Software version 3.0.1

Installation Guide for the Multi Computer Setup

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Chapter 1: Introduction

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The SoftMax[®] Pro 7.1.1 GxP Compliance Software Suite controls Molecular Devices[®] spectrophotometers and absorbance, luminescence, and fluorescence microplate readers and detection platforms.



Note: In this document, all references to the SoftMax Pro Software - GxP edition use the term SoftMax Pro GxP Software.

This document is specifically for the GxP Admin Software version 3.0.1 and SoftMax Pro GxP Software version 7.1.1.

- The GxP Admin Software version 3.0.1 is not compatible with any SoftMax Pro GxP Software prior to version 7.1.1.
- The SoftMax Pro GxP Software versions prior to version 7.1 must be used with GxP Admin Software version 2.x.



Note: The GxP Admin Software has no user interface. The version number for the GxP Admin Software displays in the bottom left corner of the GxP Admin Portal.

Scalability

The SoftMax Pro 7.1.1 GxP Compliance Software Suite scales with the size of your laboratory environment. Depending on the size of your implementation, you can install the interdependent SoftMax Pro 7.1.1 GxP Compliance Software Suite components on multiple networked computers. For the smallest of implementations, it is possible to install the components on a single computer. You should consult with your Molecular Devices representative and your network administrators to plan and scale your implementation according to your requirements.

SoftMax Pro 7.1.1 GxP Compliance Software Suite components:

- **GxP Admin Software:** The GxP Admin Software (server) is the database and security back-end application that you install on a dedicated, centrally located server with a static IP address. This server must be accessible to all computers that run the GxP Admin Portal Software and the SoftMax Pro GxP Software. The GxP Admin Software does not have a user interface.
- **GxP Admin Portal Software:** The GxP Admin Portal is the user interface that you use to interact with the GxP Admin Software. Install the GxP Admin Portal Software on a computer or computers that have access to the dedicated server on which you install the GxP Admin Software.
- **SoftMax Pro GxP Software:** The SoftMax Pro GxP Software (client) controls the microplate reader for data acquisition and statistical data analysis. These computers must have access to the dedicated server on which you install the GxP Admin Software.

This scalability has changed the way the software is installed, validated, and supported.

- **SoftMax Pro Software Standard Edition and MiniMax Imaging Edition** - There is no version 7.1.1 for the SoftMax Pro Software Standard edition or the SoftMax Pro MiniMax Imaging edition. You cannot update these editions to version 7.1.1. The current update path is to update from version 7.0.3 (or earlier) to version 7.1.
- **SoftMax Pro Software GxP Edition** - There are two methods to deploy the SoftMax Pro Software - GxP edition:
 - **Multi Computer Setup** - This setup supports multiple microplate readers connected to multiple computers and Windows Credential login mode. All computers in the multi computer setup are networked to one central secure Microsoft SQL database that you install separately.
 - **Single Computer Setup** - This setup means that the computer connected to the microplate reader is also the same computer that houses all components of the SoftMax Pro 7.1.1 GxP Compliance Software Suite. This is the only computer that runs the SoftMax Pro GxP software and the only computer that acquires data from the microplate reader. The SoftMax Pro 7.1.1 GxP Single Computer Setup Installation Wizard installs a Microsoft SQL Express database on the computer. The installed database can store up to 10 GB of data with the related System Audit Trail records.

SoftMax Pro 7.1.1 GxP Compliance Software Suite Update Path



CAUTION! If you update the SoftMax Pro Software - GxP edition from a version prior to 7.1, the update to SoftMax Pro Software - GxP edition version 7.1.1 requires time and training to implement. Please contact Technical Support for assistance. See [Obtaining Support on page 69](#).

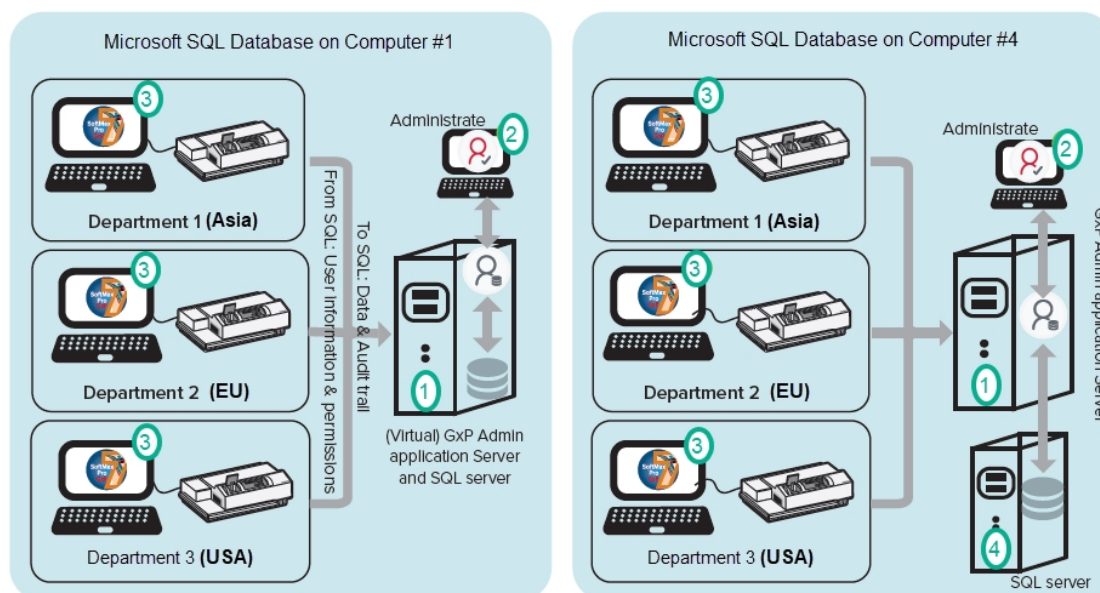
For the SoftMax Pro Software - GxP edition, the only change between version 7.1 and version 7.1.1 is to remove the dependency on the Docker Desktop application. If you update from SoftMax Pro Software - GxP edition version 7.1 to version 7.1.1 there is no change to the software workflow. This requires a new installation. For the multi computer setup, the installation scripts enable you to use an existing version 7.1 database as long as the database is not in a Docker container. If the database is in a Docker container, you must use our migration script to migrate the data from the Docker container to the 7.1.1 database.

See the following documents for details:

- *SoftMax Pro Data Acquisition and Analysis Software Standard Edition and MiniMax Imaging Edition Installation Guide*
- *SoftMax Pro Data Acquisition and Analysis Software - GxP Edition - Installation Guide for the Single Computer Setup*
- *SoftMax Pro and SoftMax Pro GxP Validation Package User Guide*
- *SoftMax Pro Data Acquisition and Analysis Software User Guide*
- *GxP Admin Software User Guide*

Chapter 2: Important Software Installation Considerations

Due to the complexities and variables associated with the installation of a multi-component, cross-network software application, the multi computer setup installation is script-based. The installation scripts are packaged within a wizard whose sole purpose is to unpack the installation scripts to the location of your choice. Although the scripts are not extremely complex, you must have knowledge of Microsoft PowerShell and your network topology to use the multi computer setup installation. Use the PowerShell `Get-Help` commands to access the help documentation within each script.



Multi Computer Setup Installation Configuration Options

Setup	Software Application
1	GxP Admin Software (Can also contain the Microsoft SQL database) Installing GxP Admin Software on page 19
2	GxP Admin Portal Software Installing GxP Admin Portal Software on page 28
3	SoftMax Pro Software - GxP Edition Installing SoftMax Pro GxP Software on page 31
4	Microsoft SQL Server Standard or SQL Enterprise database on computer #4

Computer System Requirements Multi Computer Setup

Install each component in the multi computer setup on computers that have the following system requirements.



Note: If you intend to use Active Directory Single Sign On, your network infrastructure must support Active Directory.

Requirements: Server Computer for GxP Admin Software

Item	Required
Operating system	Windows 10 Enterprise, Windows 10 Pro, Windows Server 2016, or Windows Server 2019 (all 64-bit)
Processor	Intel Core i5 with 8 or more cores or equivalent
Memory	16 GB RAM
Hard drive	50 GB of available space, or more
Database	Microsoft SQL Express or Microsoft SQL Server (either 2016 or 2017)
Additional software	Windows PowerShell 5.1 must be 64-bit. Must allow script execution with the execution policy set to at least <code>Remote Signed</code>
Domain Name Service (DNS)	Configured DNS must be active for all computers participating in the multi computer setup

Ports

For the typical multi computer setup the network connections between the computers require that all firewalls and routers be configured to allow data transfer using ports 8210, 8211, 1433, and 1434.

Backup

The multi computer setup assumes that your company network has standard backup and recovery procedures in place for the SQL database.

Requirements: Client Computers for SoftMax Pro GxP Software

Item	Minimum	Standard Performance
Operating system	Windows 10 Enterprise, Windows 10 Pro, Windows Server 2016, or Windows Server 2019 (all 64-bit)	
Processor	Intel Core i5 with 4 cores or equivalent	Intel Core i5 with 8 or more cores or equivalent
Memory	8 GB RAM	16 GB RAM
Hard drive	50 GB of available space, or more	
Additional software	Windows PowerShell 5.1 must be 64-bit. Must allow script execution with the execution policy set to at least <code>Remote Signed</code>	

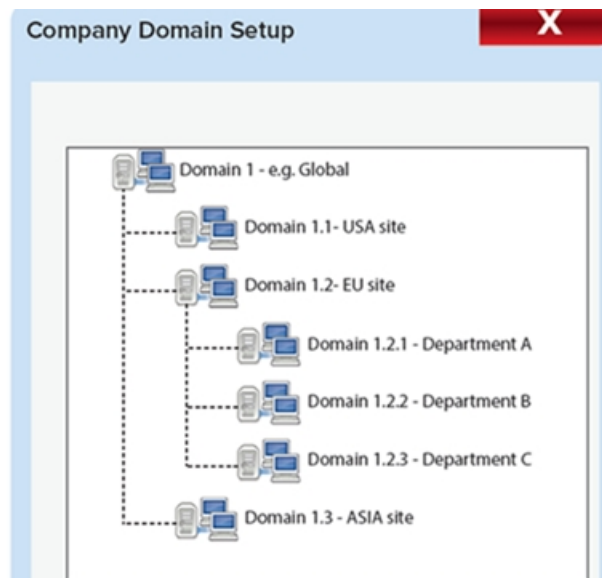
Domain Structure Considerations For Active Directory Users

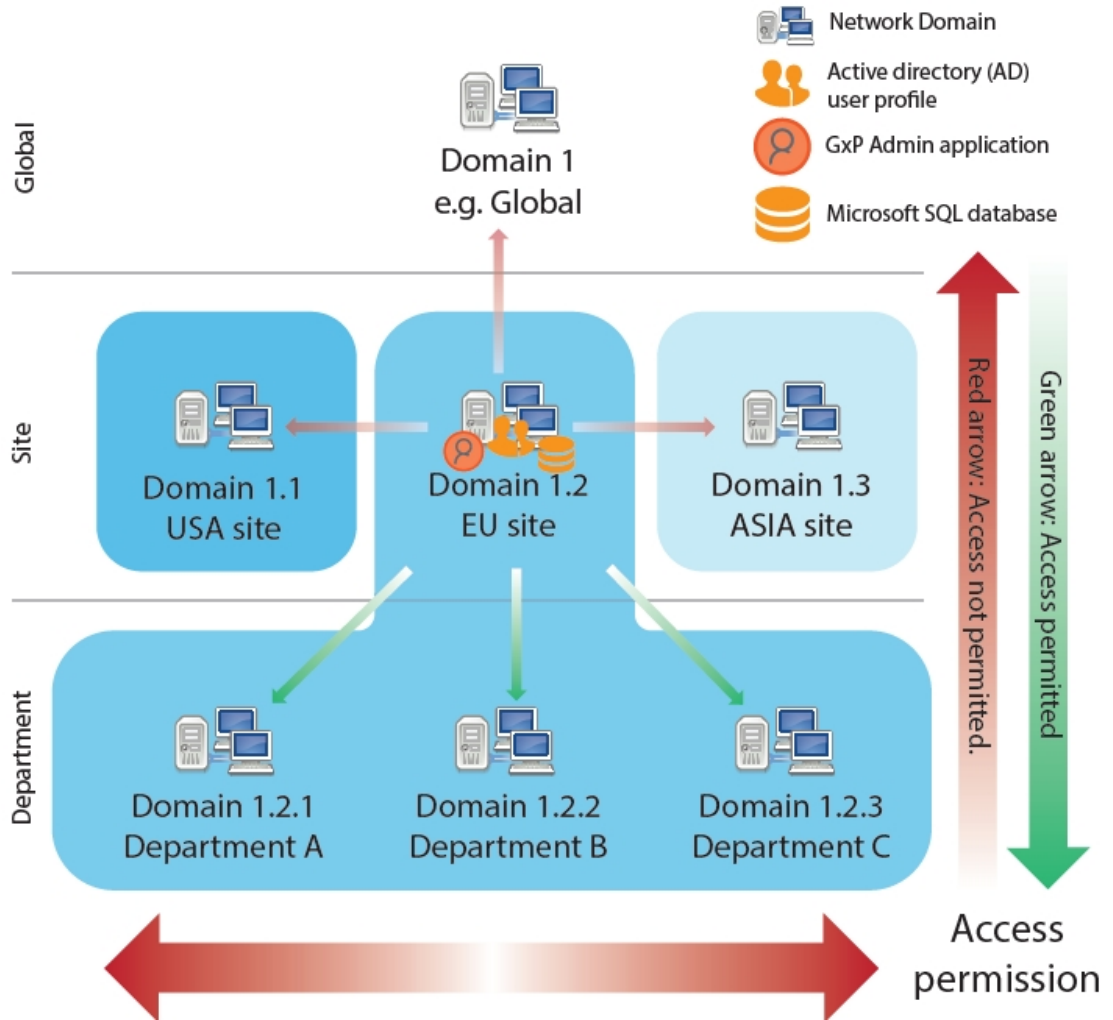
The SoftMax Pro 7.1.1 GxP Compliance Software Suite multi computer setup supports the creation of both Custom Credentials users and the integration with Windows Credentials, Active Directory (LDAP) users.

- Windows Credentials:** For users you create with the Windows Credentials login mode, password management is maintained through the Active Directory. Windows Credentials login mode users cannot change their password in the GxP Admin Portal Software or the SoftMax Pro GxP Software. The password maintenance settings in the GxP Admin Portal do not affect Windows Credentials login mode users. Windows Credential login mode users with the SoftMax Pro Access permission must have a license and must be a member of at least one Project. Their activity within the SoftMax Pro GxP Software is restricted by their Role permissions.
- Custom Credentials:** For users you create with the Custom Credentials login mode, the software creates a randomly generated alphanumeric string of characters to be their password. This password grants users with the appropriate Access permissions access to the GxP Admin Portal Software and the SoftMax Pro GxP Software. Both software applications require Custom Credentials login mode users to change their password upon initial login. Both software applications allow Custom Credentials login mode users to change their password as often as they want. The GxP Admin Portal has settings to manage password strength and password aging to require Custom Credentials login mode users to change their password at the interval you specify.

If you want to create users that use your company's Windows Active Directory login credentials, determine the best location and under which domain to install GxP Admin Software so that the GxP Admin Software can access your company's Active Directory database.

The following shows an example how a domain tree looks in Windows.





Consider the Active Directory system as a permission pyramid. Access to domains above or sideways is not possible.

- Example 1: If a user or application is located in the Department A domain, then this user cannot log in at a computer that is located in the Department B domain.
- Example 2: If a user should be able to access Department A/B/C then their Active Directory user profile and the GxP Admin Software need to be located at the EU site level (Domain 1.2).



Note: If you intend to use Windows Credentials login mode users, the service user (IP_UserName and SvcUserName) you enter into the scripts must be a user that is in your company's Active Directory database.

Required Computer Settings



CAUTION! Disable your anti-virus program before you install the software. Anti-virus programs can interfere with the installation process. If your computer hibernates or turns off during data acquisition, the transfer of data from the instrument to the software can be interrupted.

To prevent data loss turn off all sleep and hibernation settings for the hard disk, the CPU, and the USB ports.

To define computer settings in the Windows Control Panel:

1. Open **Control Panel**.
2. Click **Hardware and Sound**.
3. Under **Power Options**, click **Change When the Computer Sleeps**.
4. Click **Change advanced power settings**.
5. In the Power Options dialog, set **Hard disk > Turn Off Hard Disk After** to **Never**.
6. Set **Sleep > Sleep After** to **Never**.
7. Set **Sleep > Hibernate After** to **Never**.
8. Set **USB Settings > USB Selective Suspend Setting** to **Disabled**.
9. Click **OK**.

Decimal Symbol Must be a Period

For the SoftMax Pro Software to parse or execute calculations, the regional options for the computer must use the period symbol (“.”) for the decimal symbol. This can be an issue if the Region and Language setting for the computer is something other than English.

To set custom regional settings, go to **Control Panel > Clock and Region**.

Troubleshooting

For the multi computer setup, when you install the GxP Admin Software on the same computer as the Microsoft SQL database, if you reboot the computer and you cannot log in to the GxP Admin Portal Software, you should check the GxP_AU_Data service and the GxP_AU_Web service to confirm that they are running. To correct this you can set up dependencies or delays to ensure that the database is up and running before the services time out.



Note: If the SoftMax Pro GxP Software loses connection with the GxP Admin Software database for more than 30 days, protocol data will not be saved to the database. You should resolve any database connection issue within 30 days.

Functionality Not Included in the Software

The SoftMax Pro 7.1.1 GxP Compliance Software Suite currently does not include the following functionality:

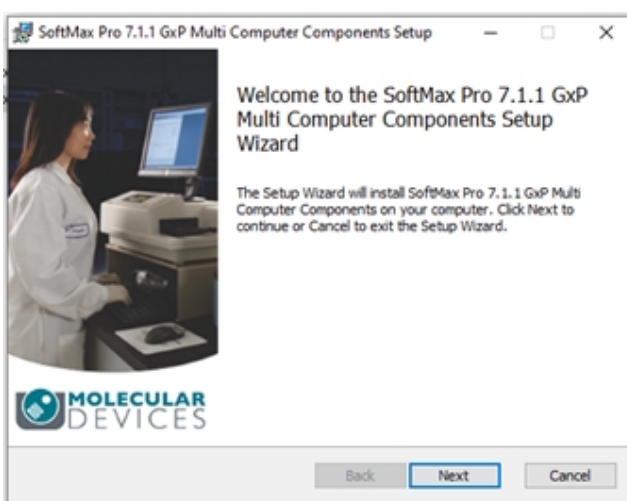
- You cannot connect the computers that run the SoftMax Pro GxP Software to a server that runs the GxP Admin Software with a different database. For example, to accommodate Test, Staging, and Production environments.
- You cannot install multiple instances of the GxP Admin Software to use a single database. There is a one-to-one relationship between each GxP Admin Software implementation and its database.
- You cannot connect the GxP Admin Software to different SQL databases.
- The software cannot search Windows Active Directory sub-domains.
- The software does not support security certificates which specify SANs (Subject Alternative Names) using IP addresses.
- You cannot import an existing certificate.

Chapter 3: Unpacking Installation Files

All installation files are packaged in the SoftMax Pro 7.1.1 GxP - Multi Computer Installation Components.msi file.

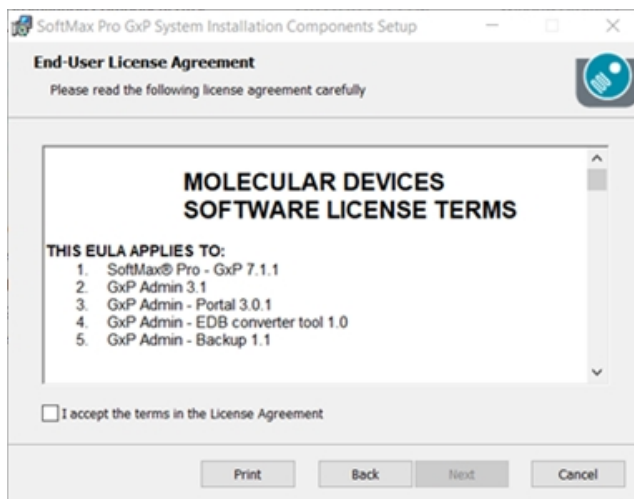
To extract the installation files:

1. Insert the SoftMax Pro 7.1.1 GxP Compliance Software Suite installation DVD into the computer DVD drive or use alternative media.
2. Locate and double-click the SoftMax Pro 7.1.1 GxP - Multi Computer Installation Components.msi file to start the install.
3. On the Welcome page:



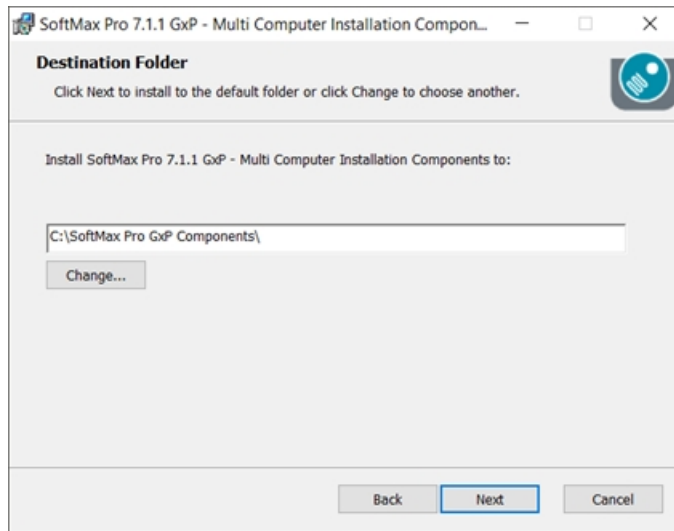
Click **Next**.

4. On the License Agreement page:



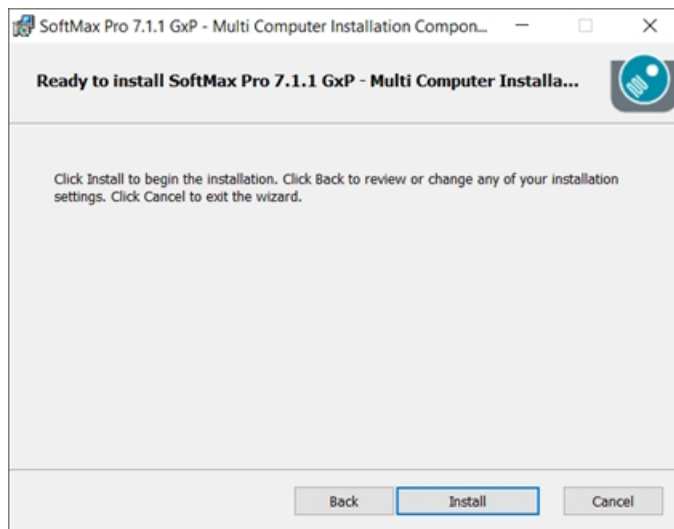
- a. Select the **I Accept the Terms of the License Agreement** check box.
- b. Click **Next**.

5. On the Destination Folder page:



- a. Enter the file path to the location where you want to place the component installation files. This can be a flash drive or a network location that has access to all the computers onto which you want to install the SoftMax Pro 7.1.1 GxP Compliance Software Suite components.
- b. Click **Next**.

6. On the Ready to Install SoftMax Pro 7.1.1 GxP Multi Computer Installation Scripts page:



Click **Install**.

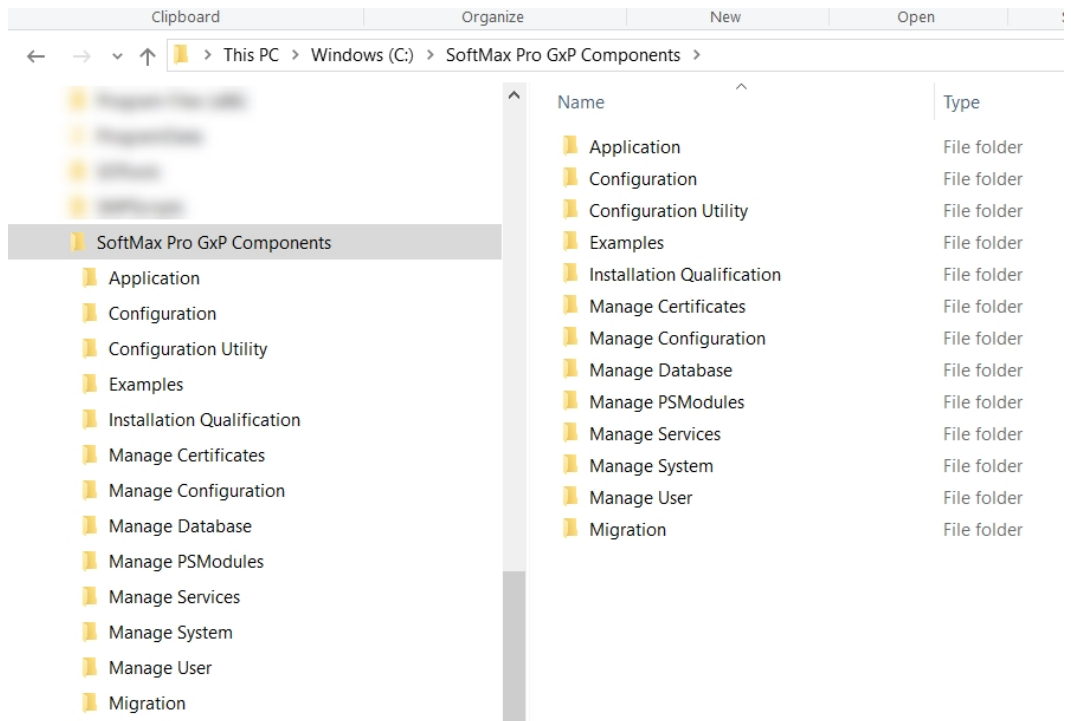
- 7. When the "Do You Want to Allow This App..." message displays, click **Yes**. The installation wizard unpacks the installation scripts to the location you specify.

8. On the Completed the SoftMax Pro 7.1.1 GxP Multi Computer Installation Components Setup Wizard page:



Click **Finish**.

9. Use Windows Explorer to navigate to the location of the installation script files.



Understanding Installation Files

The installation wizard unpacks the installation files to the SoftMax Pro GxP System Installation Scripts folder in the destination you specify. The relevant files are the Script files that have the .ps1 file extension. Use the PowerShell `Get-Help` commands to access the help documentation in each script. The following is the file structure that the installation wizard creates:

SoftMax Pro GxP System Installation Scripts

Application

Configuration

Configuration Utility

Examples

- ClientInstall.ps1
- Configuration.ps1
- PortallInstall.ps1
- ServerInstall.ps1

Installation Qualification

- Installation-Qualification.ps1

Manage Certificates

- Manage-Certificates.ps1

Manage Configuration

- Manage-Configuration.ps1

Manage Database

- Manage-Database.ps1

Manage PSModules

- Manage-PSModules.ps1

Manage Services

- Manage-Services.ps1

Manage System

- Manage-System.ps1

Manage User

- Manage-User.ps1

Migration

- Migrate-gxp-data.ps1

Script Types

For the multi computer setup, the installation package includes two types of scripts:

- Installation Foundation Scripts
- Sample Deployment Scripts

You will edit and modify the scripts to enter the parameters required for your network topology and security requirements.

Installation Foundation Scripts

The installation foundation scripts are digitally signed and are the foundation for the sample deployment scripts. Although you can use the installation foundation scripts to install the SoftMax Pro 7.1.1 GxP Compliance Software Suite, they are not the most efficient way to install the software. These scripts require entry of many redundant parameters which increases the potential for errors. When you edit the installation foundation scripts they are no longer digitally signed but they will still run and can perform their intended purpose.

Sample Deployment Scripts

The sample deployment scripts provide an example of how a network administrator could customize and combine the installation foundation scripts to install the SoftMax Pro 7.1.1 GxP Compliance Software Suite. The sample deployment scripts are in the Examples folder. After you successfully enter the required variables into the Configuration.ps1 sample deployment script, the remaining sample deployment scripts read the Configuration.ps1 file and use the installation foundation scripts to simplify the installation of the SoftMax Pro 7.1.1 GxP Compliance Software Suite.

Chapter 4: Installation Script Files

The installation requires that you run scripts in a specific sequence.

GxP Admin Software

The following installation foundation scripts install the GxP Admin Software on the server. See [Installing GxP Admin Software on page 19](#).

These scripts are run in the following sequence:

1. Manage-PSModules.ps1
2. Manage-Database.ps1
3. Manage-User.ps1
4. Manage-System.ps1
5. Manage-Certificates.ps1
6. Manage-Configuration.ps1
7. Manage-Services.ps1
8. Installation-Qualification.ps1

There are two sample deployment scripts that use the installation foundation scripts to install the GxP Admin Software on the server.

- Configuration.ps1
- ServerInstall.ps1

GxP Admin Portal Software

The following installation foundation scripts install the GxP Admin Portal Software on computers. See [Installing GxP Admin Portal Software on page 28](#).

These scripts are run in the following sequence:

1. Manage-Certificates.ps1
2. Manage-System.ps1
3. Installation-Qualification.ps1

There are two sample deployment scripts that use the installation foundation scripts to install the GxP Admin Portal Software on the computers.

- Configuration.ps1
- PortalInstall.ps1

SoftMax Pro GxP Software

The following installation foundation scripts install the SoftMax Pro GxP Software on computers. See [Installing SoftMax Pro GxP Software on page 31](#).

These scripts are run in the following sequence:

1. Manage-User.ps1
2. Manage-System.ps1
3. Manage-Certificates.ps1

4. Manage-Configuration.ps1
5. Manage-Services.ps1
6. Installation-Qualification.ps1

There are two sample deployment scripts that use the installation foundation scripts to install the SoftMax Pro GxP Software on the computers.

- Configuration.ps1
- ClientInstall.ps1

Script Modes

Some installation scripts have a Mode parameter that can support the following variables:

- **C - Check:** For scripts that support the check Mode, you should use the C (Check) variable to gather the additional prerequisites and to get an understanding of what the script is to accomplish without actually running the script.
- **I - Install:** You will run all scripts (except Manage-Configuration.ps1) with the Mode parameter set to I (Install) to achieve their intended purpose during the installation to create a new result.
- **E - Edit:** You will run the Manage-Configuration.ps1 script with the Mode parameter set to E (Edit) because this script edits the configuration config.json file that the Manage-Services.ps1 script creates.
- **D - Delete:** Some scripts allow you to set the Mode parameter to D (Delete) to delete an erroneous entry from a previous run of the script.

Common Optional Parameters

Most installation scripts have the following optional parameters in common:

Common Optional Parameters

Parameter	Description
IP_OutputFile	Specifies a file that is overwritten with the exit code or result of this program.
IP_LogFile	Specifies a file that is overwritten with all terminal output. Required for a silent run of the program with a processing log for later reference in IQ / installation documentation. All output will still display in the terminal if silent mode is not set
IP_DetailedLog	Adds detailed information of each command and the corresponding response to the log.
IP_Silent	Specifies if there should be any terminal output. If the parameter is set, all visible output is suppressed.

Chapter 5: Installing GxP Admin Software

For an example GxP Admin Software installation scenario, see [Example Installation Scenario on page 63](#).

The GxP Admin Software installation requires the following installation foundation scripts and they must run in the following sequence:

1. **Manage-PSModules.ps1** - This script checks for and installs all necessary PowerShell modules to run the installation.
2. **Manage-Database.ps1** - This script finds the SQL database, formats the database for use with the SoftMax Pro 7.1.1 GxP Compliance Software Suite, and adds the GxP Admin Software Administrator user to the database.
3. **Manage-User.ps1** - This script creates the service user who manages the services that the SoftMax Pro 7.1.1 GxP Compliance Software Suite uses.



Note: If you intend to use Windows Credentials login mode users, the service user (IP_UserName and SvcUserName) you enter into the scripts must be a user that is in your company's Active Directory database.

4. **Manage-System.ps1** - This script, run with the IP_DeploymentType parameter set to S (server), installs the GxP Admin Software.
5. **Manage-Certificates.ps1** - This script creates the certificates that networked computers use to transmit encrypted data across a network.
6. **Manage-Configuration.ps1** - This script, run with the Mode parameter set to E (edit), updates the config.json file.
7. **Manage-Services.ps1** - This script creates the services that the SoftMax Pro 7.1.1 GxP Compliance Software Suite uses.
8. **Installation-Qualification.ps1** - This script is optional and generates a report.

The sample deployment scripts call each of these scripts. See [GxP Admin Software Sample Deployment Scripts on page 24](#).

Manage-PSModules

Prerequisites: PowerShell version 5.1, 64-bit exists and you must be able to execute scripts with the execution policy set to at least `Remote Signed` on the computer.

This script checks for and installs all necessary PowerShell modules to run the installation.

Parameters Manage-PSModules

Parameter	Description
IP_Mode	Run in Install mode.

Verification:

Script runs with no errors.

Manage-Database

Prerequisites: Run Manage-PSModules.ps1

This script prepares the Microsoft SQL database for use with the SoftMax Pro 7.1.1 GxP Compliance Software Suite and adds the first user's name and password. This user is the Administrator user for the GxP Admin Software.

Parameters Manage-Database

Parameter	Description
IP_Mode	Run in Install mode.
IP_ServerName	The name or IP address of the database server including instance name or port.
IP_SAUserName	Creates the name of the user who has permission to create database objects such as databases, tables, logins, and stored procedures.
IP_SAPassword	Creates the password of the database service user (IP_SAUserName).
IP_WSUserName	Creates the name of the user in the database for the Webservice login.
IP_WSPassword	Creates the password of the Webservice user (IP_WSUserName).
IP_DSUserName	Creates the name of the user in the database for the Dataservice login.
IP_DSPassword	Creates the password of the Dataservice user (IP_DSUserName).
IP_GXPUserName	Creates the name of the user in the database for the first user of the SoftMax Pro 7.1.1 GxP Compliance Software Suite. This is the Administrator user. Note: Must start with an alpha character, be at least 6 alphanumeric and/or underscore characters (no other special characters and no spaces). You can change this in the software.
IP_GXPPassword	Creates the password of the GxP Administrator user (IP_GXPUserName). Note: Must be at least six characters. The software forces you to change this upon first login.



CAUTION! Remember the username and password of the GxP Administrator you enter here. Otherwise you must reinstall the software.

Verification:

If you have SQL Management Studio, you can use SQL Management Studio to confirm the creation of the following databases:

- DataService
- Webservice

Manage-User

Prerequisites: Run Manage-Database.ps1.

This script creates the user to contain and run data and services related to the SoftMax Pro 7.1.1 GxP Compliance Software Suite.



Note: If you intend to use Windows Credentials login mode users, the IP_UserName you enter into this script must be a user that is in your company's Active Directory database and the IP_PassWord must be their password in the Active Directory.

Parameters Manage-User

Parameter	Description
IP_Mode	Run in Install mode.
IP_UserName	Creates the user to contain and run SoftMax Pro 7.1.1 GxP Compliance Software Suite data and services.
IP_PassWord	Enter the password for the IP_UserName.

Verification:

Use Windows Explorer to confirm that there is a folder under Users that is named for the user you entered. Default path:

C:\Users\<<username>

Manage-System

Prerequisites: Run Manage-User.ps1.

This scrip installs the GxP Admin Software.

Parameters Manage-System

Parameter	Description
IP_Mode	Run in Install mode.
IP_DeploymentType	Set to S (server) to install the GxP Admin Software.
IP_InstallationDirectoryApplication	Creates the directory into which to install application files.

Verification:

Use Windows Explorer and locate the config.json file. Default path:

C:\Users\<<username>\AppData\Roaming\MolecularDevices\GxPAdmin7.1.1\Server\Configuration\config.json

Manage-Certificates

Prerequisites: Run Manage-System.ps1.

This script creates the certificates that allow the GxP Admin Software computer, the GxP Admin Portal Software computer, and the SoftMax Pro GxP Software computer to transmit encrypted data across a network.

Parameters Manage-Certificates

Parameter	Description
IP_CreateCertificates	Switch On to create the certificates.
IP_CompanyName	Creates the company name for the certificate.
IP_CAPassword	Creates the root certificate password.
IP_SVPassword	Creates the server certificate password.
IP_HostNamesAliases	Passes the hostnames, aliases, and IP addresses delimited by a comma. For example, "servername,serveralias1,serveralias2,10.120.140.200"
IP_CertificateDirectory	Creates the directory to which to deploy the certificates.

Verification:

Use Windows Explorer to locate the Certificate directory in the path you enter in the script.



Note: Copy the Certificate folder to the flash drive or to a location that is accessible to all computers onto which you will install the GxP Admin Portal Software and the SoftMax Pro GxP Software.

Manage-Configuration

Prerequisites: Run Manage-Certificates.ps1.

This script updates the config.json file to add the certificate information.

Parameters Manage-Configuration

Parameter	Description
IP_Mode	Run in Edit mode.
IP_ServerClient	Set to S (server) to update the server configuration.
IP_ConfigurationPath	The path to the config.json file that the Manage-System.ps1 script creates.

Verification:

Open the config.json file and confirm that appropriate fields are populated.

Manage-Services

Prerequisites: Run Manage-Configuration.ps1.

This script creates the services to run the GxP Admin Software.

Parameters Manage-Services

Parameter	Description
IP_UserName	The username you entered in the Manage-User.ps1 script.
IP_PassWord	The password you entered for the user you entered in the Manage-User.ps1 script.
IP_WorkingDirectory	Path where the executable is going to be run.
IP_Executable	Path to the executable that is going to be run with AlwaysUp.

Verification:

Open the Services dialog and confirm that the following services have been created and are running:

- GXP_AU_ADCLIENT - Required when you intend to create users with the Windows Credentials login mode to use your company's Active Directory.
- GXP_AU_DATA
- GXP_AU_REPORT
- GXP_AU_WEB

Installation-Qualification

Optional: Generates a report.

Parameters Installation-Qualification

Parameter	Description
IP_Mode	Run in Record mode.
IP_Version	For the GxP Admin Software set the IP_Version variable to GXP Admin Server.
IP_ReportDirectory	Creates the location where you want to place the report.

Verification:

Use Windows Explorer and locate the GXP Admin Server Report.pdf in the location you enter in the script.

GxP Admin Software Sample Deployment Scripts

To use the sample deployment scripts to install the GxP Admin Software, modify the following sample deployment scripts:

Configuration

The Configuration.ps1 script is called by all of the sample deployment scripts.

Prerequisites: PowerShell version 5.1, 64-bit exists and you must be able to execute scripts with the execution policy set to at least `Remote Signed` on the computer.

This script holds the common variables that all of the sample deployment scripts use during the installation.

Variables Configuration.ps1

Sample Deployment Scripts Parameter	Description	Installation Foundation Scripts Equivalent
SharedPwd	<p>Password the sample deployment scripts use for the GxP Administrator user, the web service user, the data service user, certificates, and the service user.</p> <p>Note: You can edit the Configuration.ps1 file to use a different password for each user. For example:</p> <ul style="list-style-type: none"> - The IP_GXPPassword must be at least 6 alphanumeric characters. - The IP_PassWord must be the password for a user that is in your company's Active Directory database if you want to use Windows Credentials login mode users. 	IP_GXPPassword IP_WSPassword IP_DSPassword IP_CAPassword IP_PassWord
GxPName	<p>Creates the name of the first user of the SoftMax Pro 7.1.1 GxP Compliance Software Suite. This is the Administrator user.</p> <p>Note: This name must start with an alpha character, be at least six alphanumeric characters (no special characters) and cannot contain a space. You can change this username in the software after the installation completes.</p>	IP_GXPUserName
GxPPwd	<p>Uses the SharedPwd to create the password of the GxP Administrator user. The software forces the user to change this password upon first login.</p> <p>Note: This password must be at least 6 characters. The software forces you to change this to a strong password upon initial login.</p>	IP_GXPPassword

Variables Configuration.ps1 (continued)

Sample Deployment Scripts Parameter	Description	Installation Foundation Scripts Equivalent
SvcUserName	Creates the username of the service user used to run services. Note: If you intend to use Windows Credentials login mode users, the service user (IP_UserName and SvcUserName) you enter into the scripts must be a user that is in your company's Active Directory database.	IP_UserName
SvcUserPwd	Uses the SharedPwd to create the password of the services user. Note: If you intend to use Windows Credentials login mode users, the Service User you enter into the scripts must be a user that is in your company's Active Directory database and this must be that user's Active Directory password.	IP_PassWord
WebName	Creates the name of the user for the web service.	IP_WSUserName
WebPwd	Uses the SharedPwd to create the password of the web service user.	IP_WSPassword
DataName	Creates the name of the user for the data service.	IP_DSUserName
DataPwd	Uses the SharedPwd to create the password of the data service user.	IP_DSPassword
ServerFQDN	Creates the fully qualified domain name of the server onto which you install the GxP Admin Software.	IP_ServerName
ServerAliases	Creates the server aliases that are used in the creation of server certificates.	IP_HostNamesAliases
CertificatePwd	Uses the SharedPwd to create the certificate password.	IP_CAPassword
ServerFQDN	The fully qualified machine name of the computer that contains the Microsoft SQL database. Note: If you use a named instance, change this to "<machine_name>\<instance_name> For example, "vmw-sql-ckkier.dtn.pdv.moldev.com\sqlexpress"	IP_ServerName
SqISa	Creates the name of the SQL server administrator user who has permission to create database objects such as databases, tables, logins, and stored procedures.	IP_SAUserName

Variables Configuration.ps1 (continued)

Sample Deployment Scripts Parameter	Description	Installation Foundation Scripts Equivalent
SqlSaPwd	Uses the SharedPwd to create the password of the database service user.	IP_SAPassword
FoundationScriptRoot	The path to the folder that contains the installation foundation scripts that the sample deployment scripts use.	n/a
ProgramRoot	The full path to the folder under which to install all SoftMax Pro 7.1.1 GxP Compliance Software Suite components.	n/a
ServerRoot	The full path to the root install location for the GxP Admin Software.	n/a
ClientRoot	The full path to the root install location for the SoftMax Pro GxP Software.	n/a
ADClientRoot	The full path to the root install location for the GxP active directory service executable.	n/a
ConfigBase	The full path to the root location of where documents are stored.	n/a
ServerDataRoot	The full path to the root location of the GxP Admin Software data (where configuration and data files are stored).	n/a
ClientDataRoot	The full path to the root location of the SoftMax Pro GxP Software data (where configuration and data files are stored).	n/a
PortalDataRoot	The full path to the root location of the GxP Admin Portal Software data (where configuration and data files are stored).	n/a
InstallLogRoot	The full path to the root location of installation log files.	n/a

ServerInstall

The ServerInstall.ps1 script calls the installation foundation scripts and uses the variables in the Configuration.ps1 script to install the GxP Admin Software.

Prerequisites: Complete the parameters in the Configuration.ps1 script and confirm that the path to the installation foundation scripts is accurate.

Parameters ServerInstall.ps1

Parameter	Description
Mode	Run in Insert mode.
InstallDb	Turn On to create a new SQL Express database Turn Off to use an existing database.
DoNotCreateUser	Turn On to use an existing local domain user. Turn Off to create a new service user.
DetailedLog	Turn On to create detailed log messages. Turn Off to not create detailed log messages.

Examples:

Perform dry run check.

```
ServerInstall.ps1 -Mode C
```

Perform installation and create new server databases.

```
ServerInstall.ps1 -Mode I -InstallDb
```

Perform installation and use existing server databases.

```
ServerInstall.ps1 -Mode I
```

Perform installation and use existing server databases and existing service user.

```
ServerInstall.ps1 -Mode I -DoNotCreateUser
```

Copying Certificates to Flash Drive

Copy the Certificates folder from the hard drive to the flash drive that has the scripts. You will install the certificates on the computers on which you install the GxP Admin Portal Software and the SoftMax Pro GxP Software.

Chapter 6: Installing GxP Admin Portal Software

For an example GxP Admin Portal Software installation scenario, see [Example Installation Scenario on page 63](#).

The GxP Admin Portal Software installation requires the following installation foundation scripts and you will run them in the following sequence:

1. **Manage-Certificates.ps1** - Implements the certificates used to transmit encrypted data across a network.
2. **Manage-System.ps1** - Run with the IP_DeploymentType parameter set to P (portal), this script installs the GxP Admin Portal Software.
3. **Installation-Qualification.ps1** - This script is optional and generates a report.

The PortalInstall.ps1 sample deployment script calls each of these scripts. If you plan to use the sample deployment scripts you must enter the path to the location of the installation foundation scripts into the Configuration.ps1 script. See [GxP Admin Portal Software Sample Deployment Scripts on page 30](#).

Manage-Certificates

Prerequisites: Install GxP Admin Software and copy the Certificates folder to the flash drive or an equally accessible location.

Parameters Manage-Certificates

Parameter	Description
IP_CreateCertificates	Switch to Off.
IP_CompanyName	Uses the IP_CompanyName you created when you ran this script for the GxP Admin Software installation.
IP_CAPassword	Uses the IP_CAPassword you created when you ran this script for the GxP Admin Software installation.
IP_SVPassword	Uses the IP_SVPassword you created when you ran this script for the GxP Admin Software installation.
IP_HostNamesAliases	Passes the hostnames, aliases, and IP addresses delimited by a comma. For example, "servername,serveralias1,serveralias2,10.120.140.200"
IP_SourceDirectory	Enter the path to the certificates on the flash drive or the comparable location from the GxP Admin Software installation.
IP_DeployToCertificateStore	Switch to On.

Verification:

Open the Computer Certificate Store and locate the MolDev_SMP711_GxP... certificate.
Trusted Publishers\Certificates\

Manage-System

Prerequisites: Run Manage-Certificates.ps1 script.

This script installs the GxP Admin Portal Software.

Parameters Manage-System

Parameter	Description
IP_DeploymentType	Set to P (portal) to install the GxP Admin Portal Software.
IP_InstallationDirectoryApplication	Creates the directory into which to install application files.

Verification:



displays on the computer desktop.

Installation-Qualification

Optional: Generates a report.

Parameters Installation-Qualification

Parameter	Description
IP_Mode	Run in Record mode.
IP_Version	For the GxP Admin Portal Software the IP_Version is GXP Admin Portal.
IP_ReportDirectory	Creates the location where you want to place the report.

Verification:

Use Windows Explorer and locate the GXP Admin Portal Report.pdf in the location you specified.

GxP Admin Portal Software Sample Deployment Scripts

PortalInstall

The PortalInstall.ps1 script calls the installation foundation scripts and uses the variables in the Configuration.ps1 script to install the GxP Admin Portal Software.

Prerequisites: Complete the parameters in the Configuration.ps1 script and confirm that the path to the installation foundation scripts and the certificate folder on the flash drive is accurate.

Parameters PortalInstall.ps1

Parameter	Description
Mode	Run in Install mode.
InstallOnServer	Turn On to install the GxP Admin Portal Software on the same computer as the GxP Admin Software. Turn Off to install the GxP Admin Portal Software on a separate computer.
PathToPortalCertificate	Specify the path to the certificate folder on the flash drive. The script copies the certificates to the computer certificate store.

Examples:

Perform dry run check.

```
PortalInstall.ps1 -Mode C
```

Perform portal installation on the same computer as the server.

```
PortalInstall.ps1 -Mode I -InstallOnServer
```

Perform portal installation and copy web app server certificate to computer certificate store.

```
PortalInstall.ps1 -Mode I -PathToPortalCertificate  
"C:\Certificates\portal\certificate.cer"
```

Perform portal installation without installing certificate. This is useful if you deploy a CA certificate to the GxP server.

```
PortalInstall.ps1 -Mode I
```

Chapter 7: Installing SoftMax Pro GxP Software

For an example SoftMax Pro GxP Software installation scenario, see [Example Installation Scenario on page 63](#).

The SoftMax Pro GxP Software installation requires the following scripts and you will run them in the following sequence:

1. **Manage-User.ps1** - This script uses the service user you created during the GxP Admin Software installation.
2. **Manage-System.ps1** - This script, run with the IP_DeploymentType parameter set to C (client), installs the SoftMax Pro GxP Software.
3. **Manage-Certificates.ps1** - This script implements the certificates used to transmit encrypted data across a network.
4. **Manage-Configuration.ps1** - This script, run with the Mode parameter set to E (edit), updates the config.json file.
5. **Manage-Services.ps1** - This script creates the services that the SoftMax Pro 7.1.1 GxP Compliance Software Suite uses.
6. **Installation-Qualification.ps1** - This script is optional and generates a report.

The ClientInstall.ps1 sample deployment script calls each of these scripts. If you plan to use the sample deployment scripts you must enter the path to the location of the installation foundation scripts into the Configuration.ps1 script. See [SoftMax Pro GxP Software Sample Deployment Scripts on page 34](#).

Manage-User

Prerequisites: Install GxP Admin Portal Software.

This script creates the user to contain and run data and services related to the SoftMax Pro 7.1.1 GxP Compliance Software Suite.

Parameters Manage-User

Parameter	Description
IP_Mode	Run in Install mode.
IP_UserName	The IP_UserName you created or used when you installed the GxP Admin Software.
IP_Password	The IP_Password you created or used when you installed the GxP Admin Software

Verification:

Use Windows Explorer to confirm that there is a folder under Users that is named for the user you entered.

C:\Users\<username>

Manage-System

Prerequisites: Run Manage-User.ps1.

This scrip installs the SoftMax Pro GxP Software.

Parameters Manage-System

Parameter	Description
IP_Mode	Run in Install mode.
IP_DeploymentType	Set to C (client) to install the SoftMax Pro GxP Software.
IP_InstallationDirectoryApplication	Creates the directory into which to install application files.

Verification:



displays on the computer desktop.

Manage-Certificates

Prerequisites: Run Manage-System.ps1.

This script copies the certificates from the flash drive or share to the computer onto which you install the SoftMax Pro GxP Software.

Parameters Manage-Certificates

Parameter	Description
IP_CreateCertificates	Switch to Off.
IP_CompanyName	Uses the IP_CompanyName you created when you ran this script for the GxP Admin Software installation.
IP_CAPassword	Uses the IP_CAPassword you created when you ran this script for the GxP Admin Software installation.
IP_SVPassword	Uses the IP_SVPassword you created when you ran this script for the GxP Admin Software installation.
IP_HostNamesAliases	Passes the hostnames, aliases, and IP addresses delimited by a comma. For example, "servername,serveralias1,serveralias2,10.120.140.200"
IP_CertificateDirectory	Creates the directory to which to deploy the certificates.
IP_SourceDirectory	Enter the path to the certificates on the flash drive or the comparable location from the GxP Admin Software installation.
IP_DeployToCertificateStore	Switch to On.

Verification:

Open the Certificate Store and locate the MolDev_SMP711_GxP... certificate.

Trusted Publishers\Certificates\

Manage-Configuration

Prerequisites: Run Manage-Certificates.ps1.

This script updates the config.json file to add information needed.

Parameters Manage-Configuration

Parameter	Description
IP_Mode	Run in Edit mode.
IP_ServerClient	Set to C (client) to update the client configuration.
IP_ConfigurationPath	The path to the config.json file that the Manage-System.ps1 script creates.
IP_LocalServiceAddress	In most circumstances this localhost. If you use certificates you might have to enter the full machine name.

Verification:

Use Windows Explorer and locate the config.json file in the following path:

C:\Users\\AppData\Roaming\MolecularDevices\GxPAdmin7.1.1\Server\Configuration\config.json

Open the config.json file and confirm that appropriate fields are populated.

Manage-Services

Prerequisites: Run Manage-Configuration.ps1.

This script creates the services to run the SoftMax Pro GxP Software.

Parameters Manage-Services

Parameter	Description
IP_Mode	Run in Install mode.
IP_UserName	Uses the IP_UserName you created when you installed the GxP Admin Software.
IP_PassWord	Uses the IP_PassWord you created when you installed the GxP Admin Software.
IP_WorkingDirectory	Path where the executable is going to be run.
IP_Executable	Path to the executable that is going to be run with AlwaysUp.

Verification:

Open the Services dialog and confirm that the following services have been created and are running:

- GXP_AU_ADCLIENT - Required when you intend to create users with the Windows Credentials login mode to use your company's Active Directory.
- GXP_AU_DATA
- GXP_AU_REPORT
- GXP_AU_WEB

Installation-Qualification

Optional: Generates a report.

Parameters Installation-Qualification

Parameter	Description
IP_Mode	Run in Record mode.
IP_Version	For the SoftMax Pro GxP Software the IP_Version is SMP GXP .
IP_ReportDirectory	Creates the location where you want to place the report.

Verification:

Use Windows Explorer and locate the SMP GXP Report.pdf in the location you specified.

SoftMax Pro GxP Software Sample Deployment Scripts

ClientInstall

The ClientInstall.ps1 script calls the installation foundation scripts and uses the variables in the Configuration.ps1 script to install the SoftMax Pro GxP Software.

Prerequisites: Complete the parameters in the Configuration.ps1 script and confirm that the path to the installation foundation scripts and the certificate folder on the flash drive is accurate.

Parameters ClientInstall.ps1

Parameter	Description
Mode	Run in Install mode.
InstallOnServer	Turn On to install the GxP Admin Portal Software on the same computer as the GxP Admin Software. Turn Off to install the GxP Admin Portal Software on a separate computer.
PathToClientCertificate	Specify the path to the certificate folder on the flash drive. The script copies the certificates to the computer certificate store.

Examples:

Perform dry run check.

```
ClientInstall.ps1 -Mode C
```

Perform client installation on the same workstation as the server and copy client certificates to computer certificate store.

```
ClientInstall.ps1 -Mode I -InstallOnServer -  
PathToClientCertificateCertificates "C:\Certificates\client"
```

Perform client installation and copy certificates to computer certificate store.

```
PortalInstall.ps1 -Mode I -  
PathToClientCertificateCertificates "C:\Certificates\client"
```

StakMax Microplate Handling System Plug-in

If you use the StakMax® Microplate Handling System, you must install the SoftMax Pro Software 7.1.1 StakMax Plug-in on each computer that uses the SoftMax Pro GxP Software to operate the StakMax instrument. See the *SoftMax Pro 7.1.1 StakMax Plug-in Installation Guide* located on the SoftMax Pro 7.1.1 GxP Compliance Software Suite installation DVD.

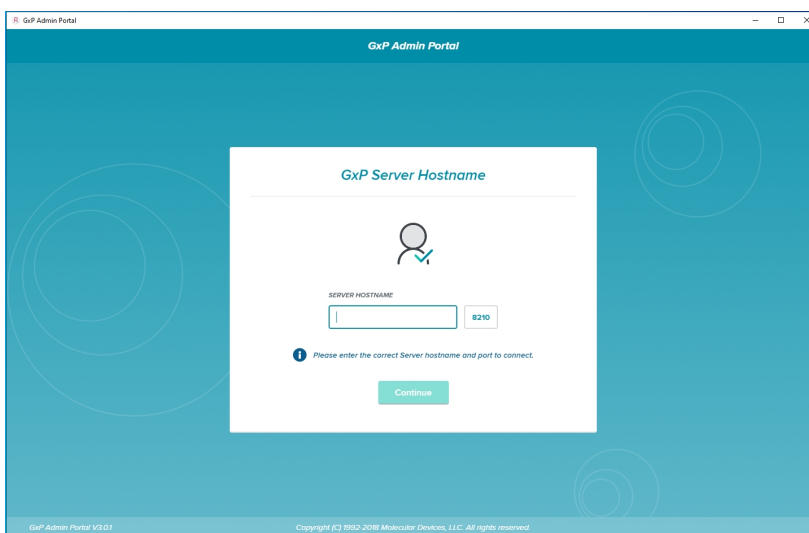
Chapter 8: Getting Started - GxP Admin Portal Software

8

The GxP Admin Portal is the user interface for the GxP Admin Software. Before you can use the SoftMax Pro GxP Software, you use the GxP Admin Portal to add the licenses for the SoftMax Pro users, create the users, manage Roles, and create Projects.

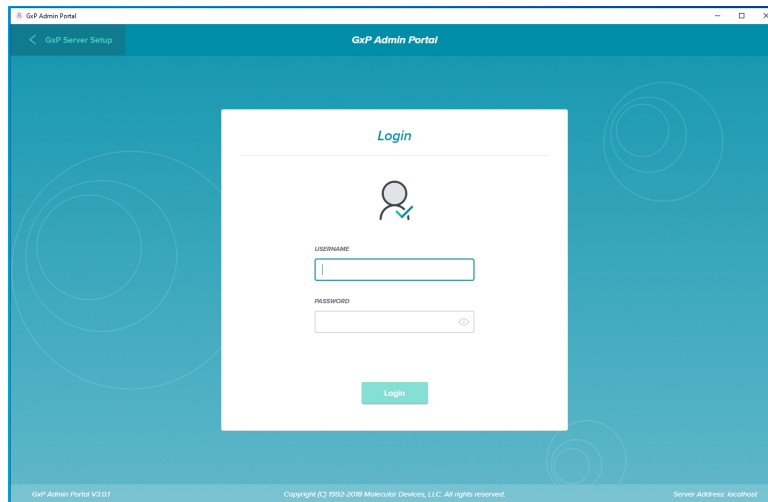
To get started in the GxP Admin Portal:

1. On the computer desktop, double-click  to start the GxP Admin Portal Software.
2. In the GxP Admin Portal GxP Server Hostname dialog:



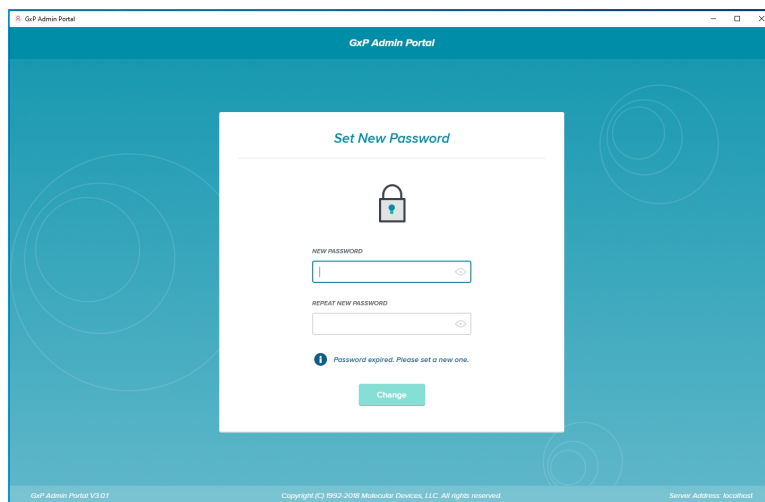
- a. In the **Server Hostname** field:
 - If you install the GxP Admin Portal Software on the same computer as the GxP Admin Software, enter **localhost**.
 - If you install the GxP Admin Portal Software on a different computer from the GxP Admin Software, enter the server hostname of the server that contains the GxP Admin Software.
- b. Click **Continue**.

3. In the GxP Admin Portal Login dialog:



- a. In the **Username** field, enter the user name you entered when you installed the GxP Admin Software (a.k.a. Administrator user).
- b. In the **Password** field, enter the password you entered when you installed the GxP Admin Software.
- c. Click **Login**.

4. In the Set New Password dialog:



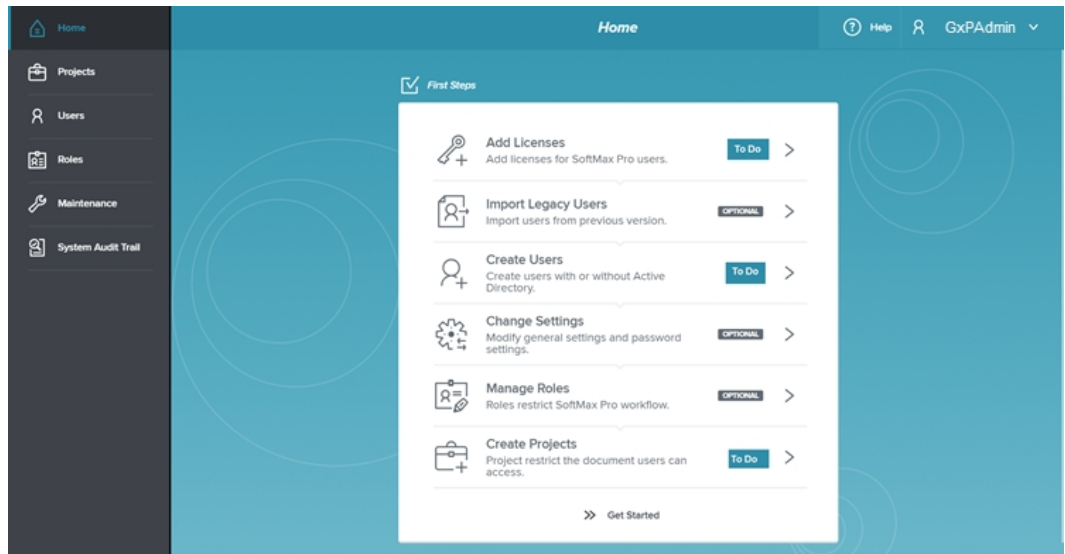
- a. In the **New Password** field, enter the new password for the Administrator user. The password must be at least 10 characters long, contain at least one number, at least one lowercase letter, at least one uppercase letter, and at least one special character.
- b. In the **Repeat New Password** field, enter the password a second time.



Note: If you forget this password, you must reinstall the software.

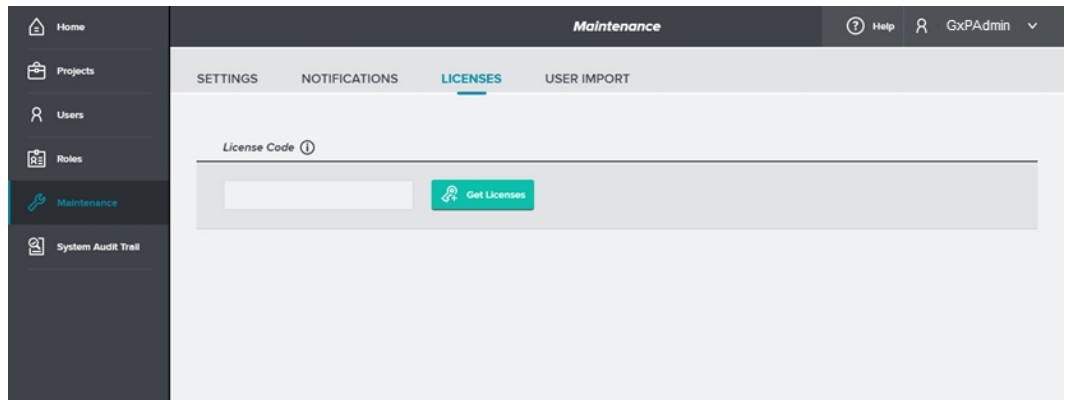
- c. Click **Change**.

5. On the Home page:



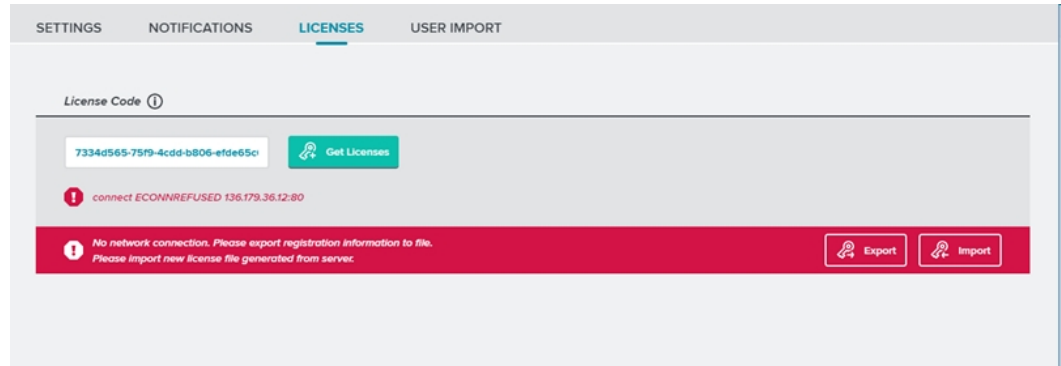
Click **Add Licenses**.

6. On the Licenses tab on the Maintenance page:

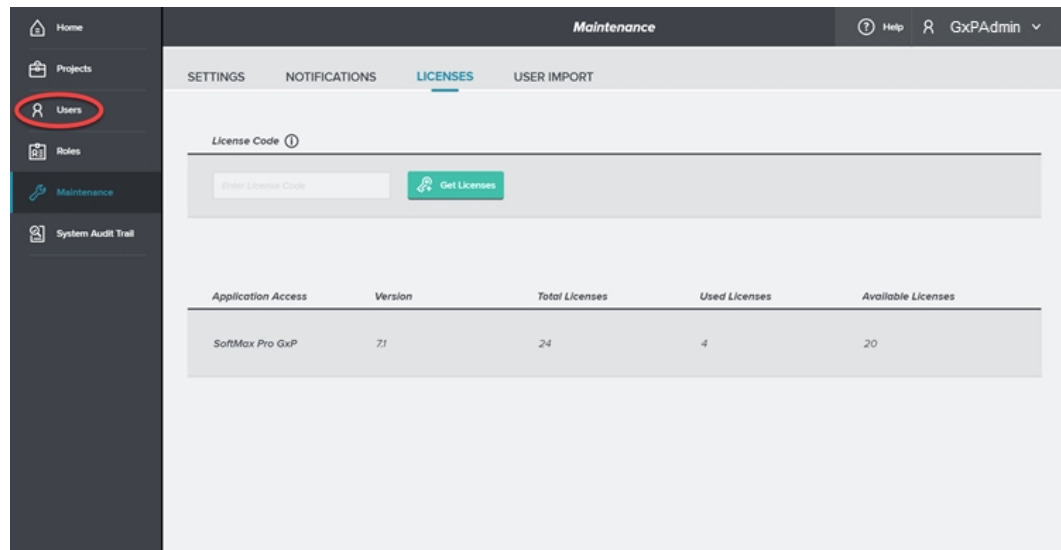


- a. In the **License Code** field, enter the license code. This code is printed on the SoftMax Pro GxP Certificate of License shipped with the installation DVD.
- b. Click **Get License**. If the computer is connected to the Internet, the code should be validated, and the license information displays on the page. Skip the next step. If the computer is not connected to the Internet, continue to the next step.

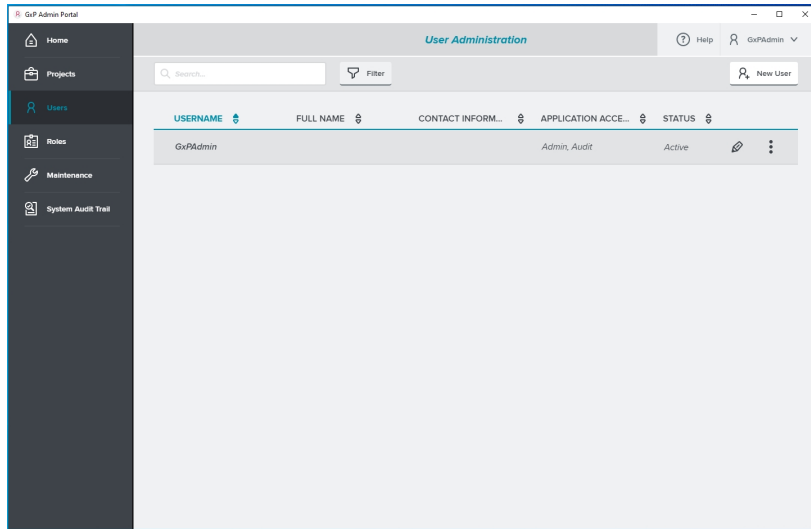
7. On the Licenses tab on the Maintenance page when the computer is not connected to the Internet:




- a. Click **Export**.
 - b. Save the **OfflineClaim.json** file to a flash drive or to a location that has access to the Internet.
 - c. Contact Molecular Devices Technical Support to complete the Offline Activation process. Technical Support will send back a license activation *.json file. See [Obtaining Support on page 69](#)
 - d. Save the license activation *.json file to a flash drive and insert the flash drive into the computer running the GxP Admin Portal Software.
 - e. Click **Import** to import the license activation *.json file into the GxP Admin Portal.
8. On the left, click **Users**.

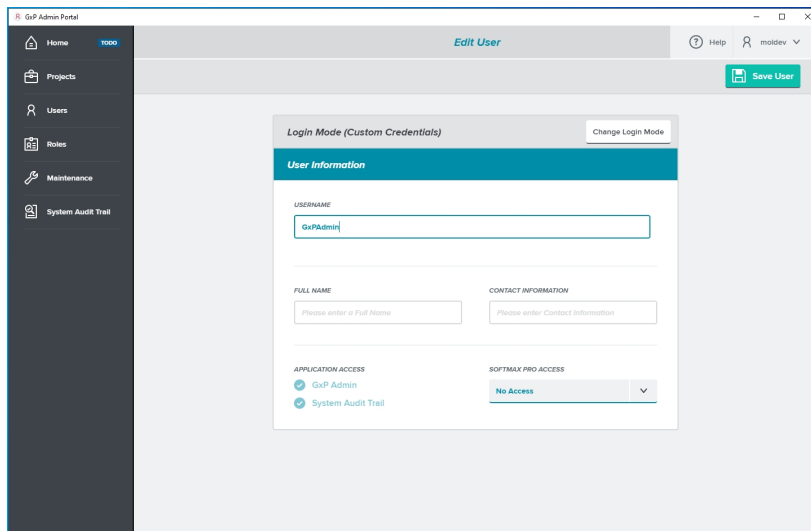


9. On the User Administration page:



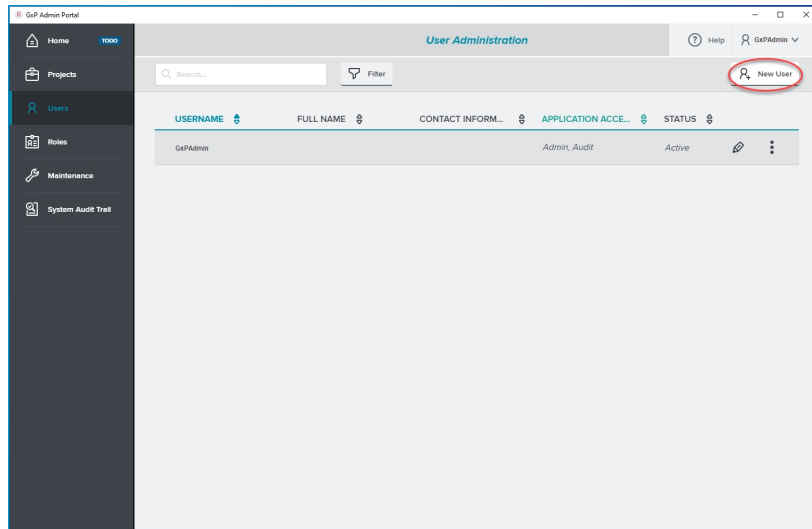
Next to the first user, click .

10. In the Edit User dialog:



- a. In the **Full Name** field, enter the user's full name.
- b. In the **Contact Information** field, enter the user's contact information.
- c. For this user, the software selects and disables both **Application Access** check boxes. In general, you would leave the **SoftMax Pro Access** field set to **No Access** for this user because this is the user that you use to manage the other users and do not use in the SoftMax Pro GxP Software.
- d. Click **Save User**.

11. If you update from GxP Admin Software version 2.x to GxP Admin Software version 3.x, you can use the GxP Admin EDB Converter Tool to convert the version 2.x .edb user files to the version 3.x edbexp file format. See [Converting Legacy Users on page 49](#).
After you convert the user files to the .edbexp format, use the GxP Admin Portal to import usernames, passwords, and the GxP Admin Access permission into the version 3.x database. After you import the users you need to use the GxP Admin Portal to assign each user with the SoftMax Pro Access permission a license from the User Administration page and assign each user to a Project from the Project Administration page before the user can log in to the SoftMax Pro GxP Software. See [Importing Legacy Users on page 52](#).
12. To add new users, on the User Administration page:



Click **New User**.

13. To create users with the **Custom Credentials Login Mode** whose credentials are managed by the SoftMax Pro 7.1.1 GxP Compliance Software Suite, do the following: (Step 14 describes how to create users that use Windows Active Directory.)

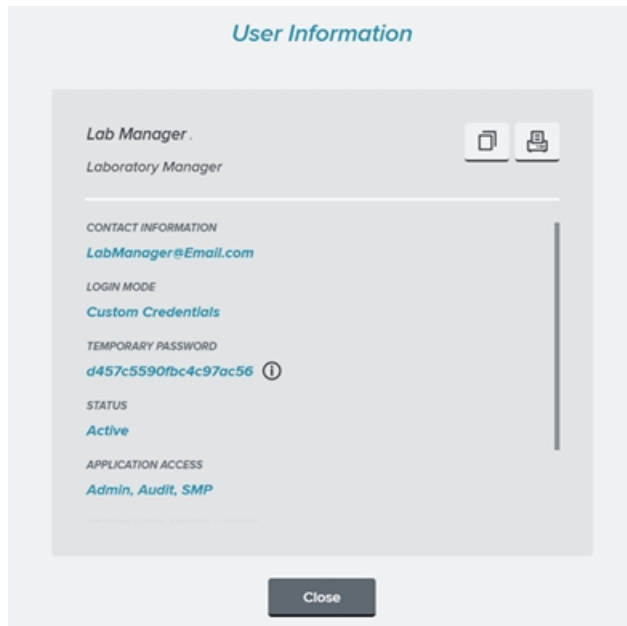
The screenshot shows the 'New User' form in the GxP Admin Portal. The form is titled 'Login Mode (Custom Credentials)' and includes a 'Change Login Mode' button. The form is divided into several sections:


- User Information:** Contains a 'USERNAME' field with the value 'Lab Manager' and a note: 'A password for the initial login will be generated automatically.'
- Full Name:** Contains a 'FULL NAME' field with the value 'Laboratory Manager'.
- Contact Information:** Contains a 'CONTACT INFORMATION' field with the value 'LabManager@Email.com'.
- Application Access:** Contains two checkboxes: 'GxP Admin' (checked) and 'System Audit Trail' (unchecked).
- SoftMax Pro Access:** Contains a dropdown menu labeled 'SoftMax Pro GxP n.n' with a downward arrow.

The form also features a 'Save User' button in the top right corner and a 'Help' icon in the top right corner of the page header.

- In the **Username** field, enter the user's name.
- In the **Full Name** field, enter the user's full name.
- In the **Contact Information** field, enter the user's contact information.
- To grant the user access to the GxP Admin Software via the GxP Admin Portal, select the **GxP Admin** check box. This also grants access to the System Audit Trail.
- To grant the user access to only the System Audit Trail, clear the GxP Admin check box and select the **System Audit Trail** check box.
- To grant the user access to the SoftMax Pro GxP Software, click the **SoftMax Pro Access** drop-down and select **SoftMax Pro GxP 7.n.n**

- g. Click **Save User**. The User Information dialog contains the temporary password the user needs the first time they log in to the system:



- h. Click  to copy the user information to the computer clipboard.
- i. Either paste the user information into an email that you send to the user or open a word processing application and paste this information into a document that the user can access when they log in to the system.
- j. Click **Close**.

14. To create users with the **Windows Credentials Login Mode** whose credentials are managed by your company's Windows Active Directory, do the following:

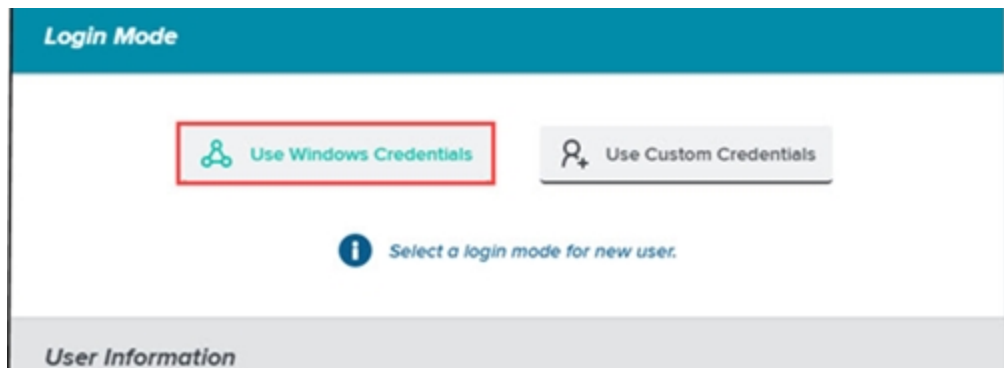


Note: The computer must have access to your company's Active Directory database.

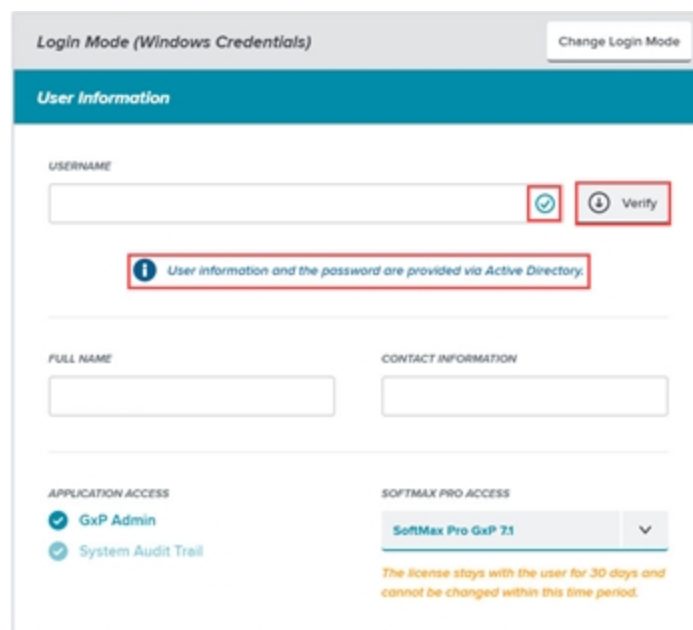
- a. In the New User dialog, click **Change Login Mode**.

A screenshot of a software dialog box titled "Login Mode (Custom Credentials)". The dialog has a grey header bar with the title and a button labeled "Change Login Mode" on the right, which is circled in red. Below the header is a teal bar with the text "User Information". The main area contains a "USERNAME" label above a text input field. Below the input field is a blue information icon followed by the text "A password for the initial login will be generated automatically." Below this is a horizontal separator line. At the bottom, there are two labels: "FULL NAME" above a text input field, and "CONTACT INFORMATION" above another text input field. The bottom of the dialog features a decorative border with a repeating sawtooth pattern.

- b. Click **Use Windows Credentials**.

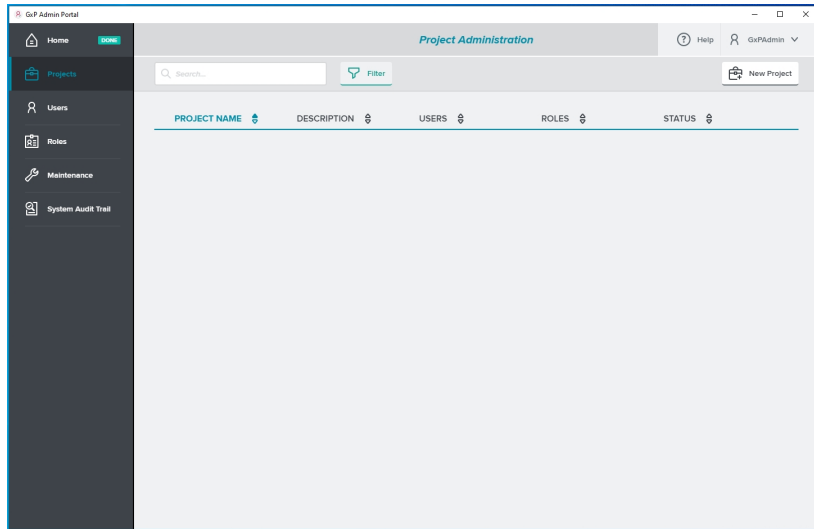


In the New User dialog:



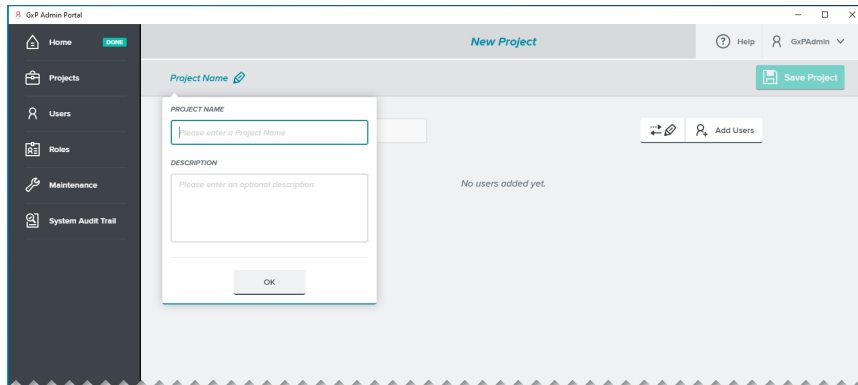
- c. In the **Username** field, enter a user name that exists in your company's Active Directory database.
 - d. Click **Verify**. The software finds the user and populates the Full Name field and the Contact Information field if that information is in the Active Directory database.
 - e. To grant the user access to the GxP Admin Software via the GxP Admin Portal, select the **GxP Admin** check box. This also grants access to the System Audit Trail.
 - f. To grant the user access to only the System Audit Trail, clear the GxP Admin check box and select the **System Audit Trail** check box.
 - g. To grant the user access to the SoftMax Pro GxP Software, click the **SoftMax Pro Access** drop-down and select **SoftMax Pro GxP 7.1.1**.
 - h. Click **Save User**. This user will use their password from the Windows Active Directory to log in to the system.
15. On the left, click **Projects**.

16. On the Project Administration page:



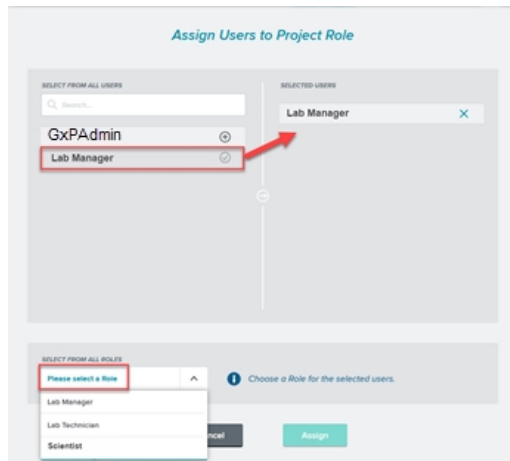
Click **New Project**.


17. In the New Project dialog:



- a. In the **Project Name** field, enter the project name.
- b. In the **Description** field, enter a description if you want.
- c. Click **OK**.
- d. Click **Add Users**.

18. In the Assign Users to Project Role dialog:



- a. Click  next to each user to add to the Project with the permissions you will grant in the next step.
- b. Click the **Select From All Roles** drop-down and select the Role that contains the permissions to grant to the users. You can select from the three default Roles that the installation creates or use the Role Administration page to manage Roles. See the *GxP Admin Software User Guide* or the application help.
- c. Click **Assign**.
- d. Repeat to add additional users with different Roles to the Project.

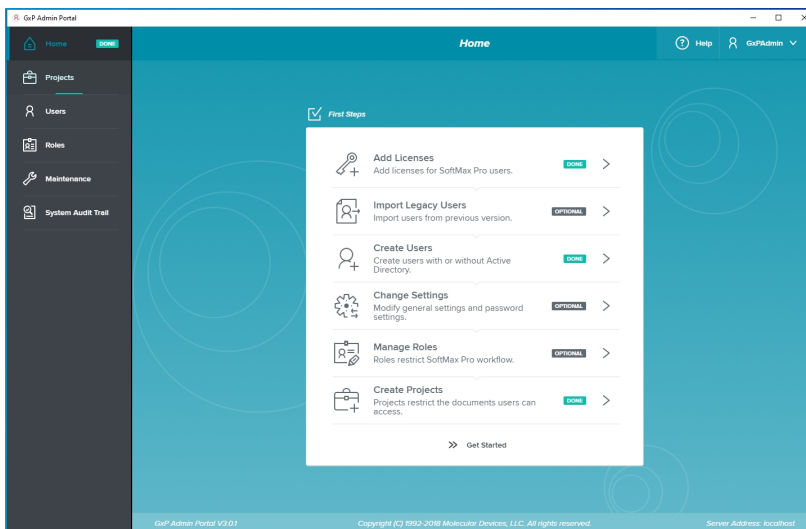


Note: You can assign a user to multiple Projects. Each user can have only one Role in each Project.

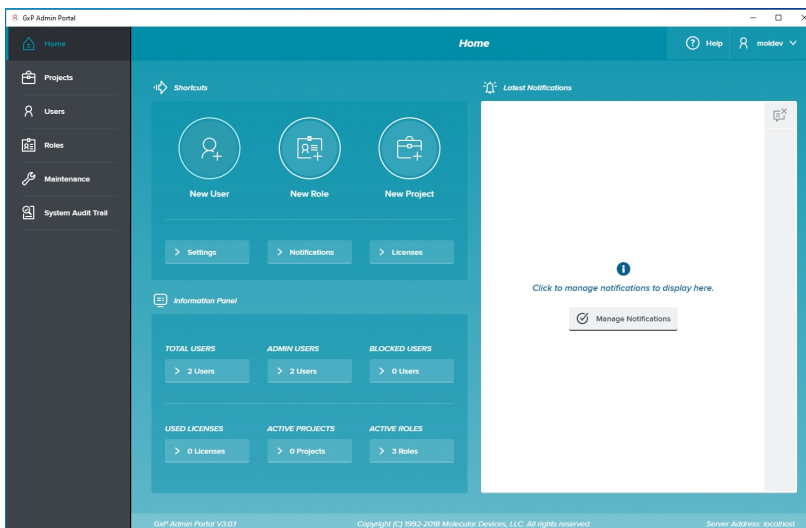
19. In the New Project dialog, click **Save Project**.

20. On the left, click **Home**.

21. On the Home page:



At the Bottom of the To Do list, click **Get Started** to display the Home page with shortcuts to relevant workflows, notifications, and other information.

22. Use the Settings tab on the Maintenance page to manage password strength requirements. See the *GxP Admin Software User Guide* or the application help.

Converting Legacy Users

The GxP Admin Software version 3.x is significantly different from the previous versions. The database structure is different and additional security permissions have been implemented. Therefore, if you want to use the users from GxP Admin Software version 2.x, you must convert legacy user files to an updated format and then import the legacy users into the GxP Admin Software version 3.x database.



Note: If you intend have users use your company's Active Directory database you will use the GxP Admin Portal to create new Windows Credentials login mode users. GxP Admin Software version 2.x did not support Windows Active Directory and users you convert are created as Custom Credential users in the GxP Admin Software 3.x software.

The GxP Admin EDB Converter Tool is a separate software application that converts the version 2.x user files that have an .edb file extension to the version 3.x user files that have an .edbexp file extension.



Note: After you convert the user files, you use the GxP Admin Portal to import usernames, passwords, and the GxP Admin Access permission into the GxP Admin Software version 3.x database. You must then assign each user with the SoftMax Pro Access permission a license from the User Administration page and to a Project from the Project Administration page.

The GxP Admin EDB Converter Tool installation file is in the following path:

SoftMax Pro GxP Installation

Scripts\Application\EDBConverterTool\EDBConverter<n.n>Setup.exe


To prepare to convert GxP Admin Software version 2.x user files that have the .edb file extension:

- You can run the GxP Admin EDB Converter Tool on the computer on which you install the SoftMax Pro 7.1.1 GxP Compliance Software Suite if the computer has a network connection to the computers that contain the .edb files.
- You can use a flash drive to copy the .edb files to any location on the computer on which you install the SoftMax Pro 7.1.1 GxP Compliance Software Suite.
- You can use a flash drive to move the GxP EDB Converter folder to the computer on which the .edb files are located.
- You can install the GxP Admin EDB Converter Tool on other computers.

Install the GxP Admin EDB Converter Tool

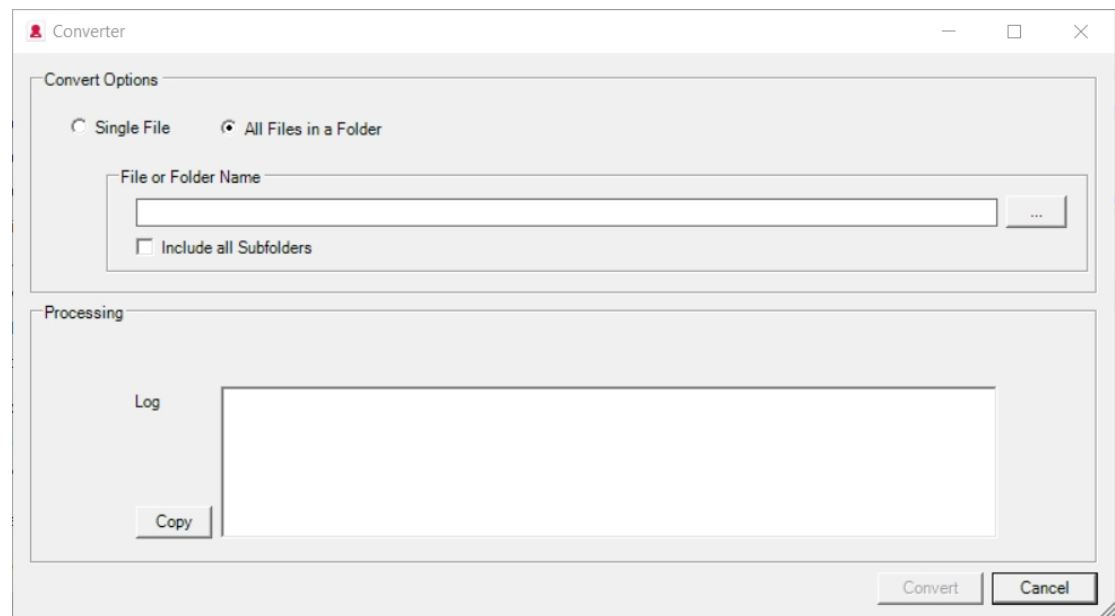
To install the GxP Admin EDB Converter Tool:

1. Insert the GxP Admin Software DVD in the computer DVD drive or use alternative media. Locate and double-click EDBConverter\<n.n>Setup.exe file to start the install.
2. On the Welcome page, click **Next**.
3. On the License Agreement page:
 - a. Select the **I Accept the Agreement** check box.
 - b. Click **Next**.
4. On the Destination Folder page and the pages that follow, click **Next** to accept the default settings or you can read the instructions and do a custom installation until the Installation Complete page displays.
5. On the Installation Complete page, click **Finish**.

The GxP Admin EDB Converter Tool icon  appears on the computer desktop.



Converting Legacy User Files

The GxP Admin EDB Converter Tool is a separate software application that you run on a computer that has access to your legacy GxP Admin Software user files. The GxP Admin Software version 2.x user files have an .edb file extension and the GxP Admin Software version 3.x user files have an .edbexp file extension.





Converting a Single File

To convert one .edb file to an .edbexp file:

1. Click  or locate and double-click **ConverterTool.exe** to display the Converter dialog.
2. Select the **Single File** Convert Option.
3. To the right of the File or Folder Name field, click  to display the Open dialog.
4. Navigate to the .edb file and click **Open** to display the path to the file in the File or Folder Name field. Note this location because the software places the new .edbexp file here.
5. Click **Convert**. The Log field displays the progress of the conversion.
6. The software places the .edbexp file in the same folder as the .edb file. Copy the .edbexp file to a flash drive or place it on a network drive that is accessible to the computer running the GxP Admin Portal Software. See [Importing Legacy Users on page 52](#).

Converting Multiple Files

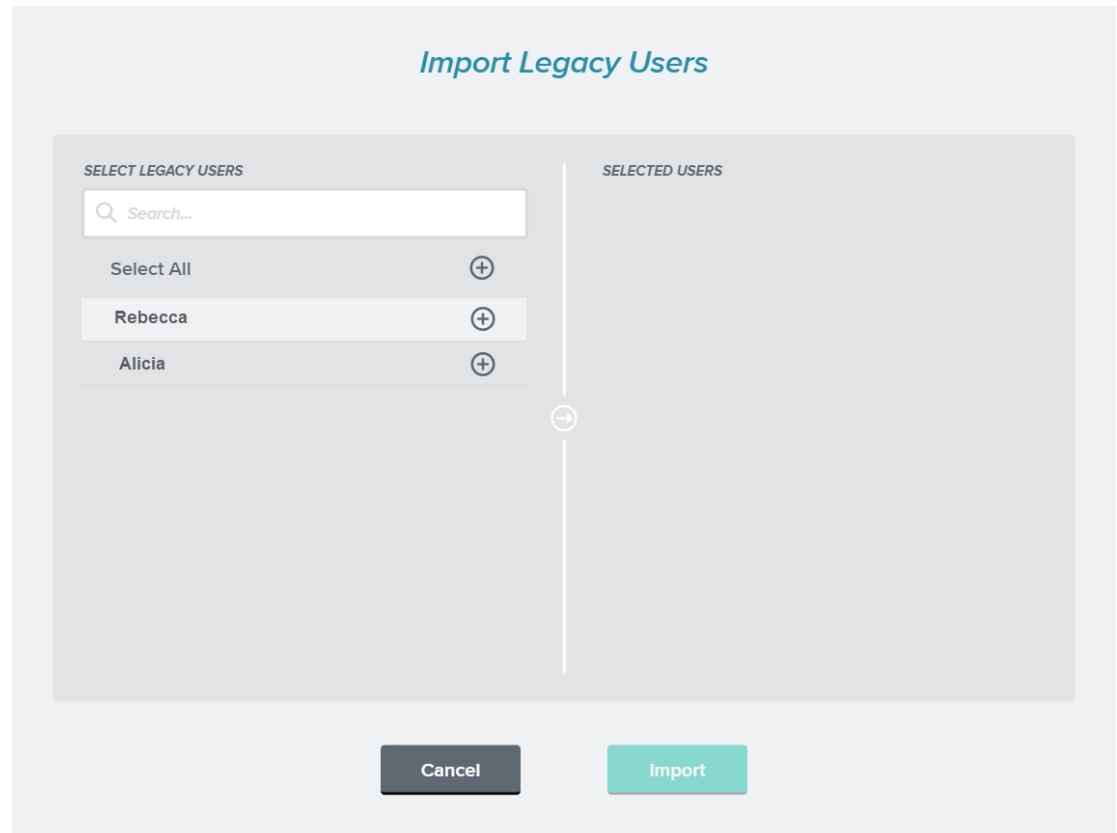
To convert multiple .edb files to .edbexp files:

1. Click  or locate and double-click **ConverterTool.exe** to display the Converter dialog.
2. Select the **All Files In a Folder** Convert Option.
3. To the right of the File or Folder name field, click  to display the Browse For Folder dialog.
4. Navigate to the folder that contains the .edb files and click **OK** to display the path to the folder in the File or Folder Name field.
5. Select the **Include All Subfolders** check box to convert all .edb files in the subfolders of the folder you select.
6. Click **Convert**. The Log field displays the progress of the conversion. The EDB Converter Tool creates an .edbexp file for each .edb file in the same location as the .edb file.
7. Copy the .edbexp files to a flash drive or place them on a network drive that is accessible to the computer running the GxP Admin Portal Software. See [Importing Legacy Users on page 52](#).

Importing Legacy Users

Use the Import Legacy Users dialog to select the individual user names to import into the GxP Admin Software version 3.x database.

After you complete the import, you must use the User Administration page to assign each user who is to have access to the SoftMax Pro GxP Software a license and then assign each user to at least one Project.




To import users:

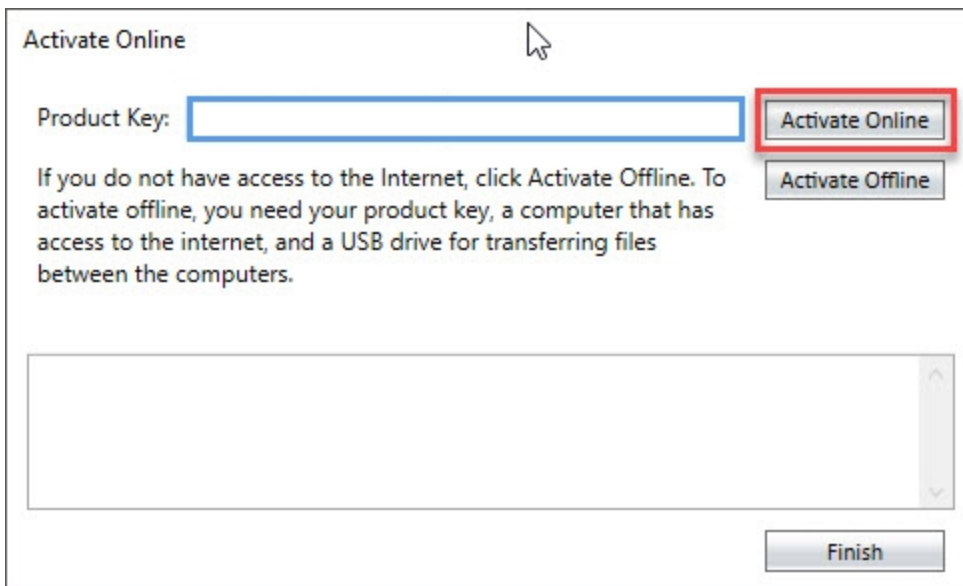
1. Use the GxP Admin EDB Converter Tool to convert legacy .edb files to .edbexp files and save the .edbexp files to a location from where the GxP Admin Portal can access the files. See [Converting Legacy Users on page 49](#).
2. On the left, click **Maintenance** to display the Maintenance page.
3. Select the **User Import** tab.
4. Click **Import**.
5. Navigate to the .edbexp file.
6. Click **Open**.

Chapter 9: Getting Started - SoftMax Pro GxP Software

9

The SoftMax Pro GxP Software is the software that controls the microplate reader and does data analysis. After you use the GxP Admin Portal Software to create users and Projects, you can start using the SoftMax Pro GxP Software.

1. On the computer desktop, double-click  to start the SoftMax Pro Software.
2. On the Software License Activation page, click **Activate**.
3. In the Activate Online dialog:



Activate Online

Product Key:

Activate Online

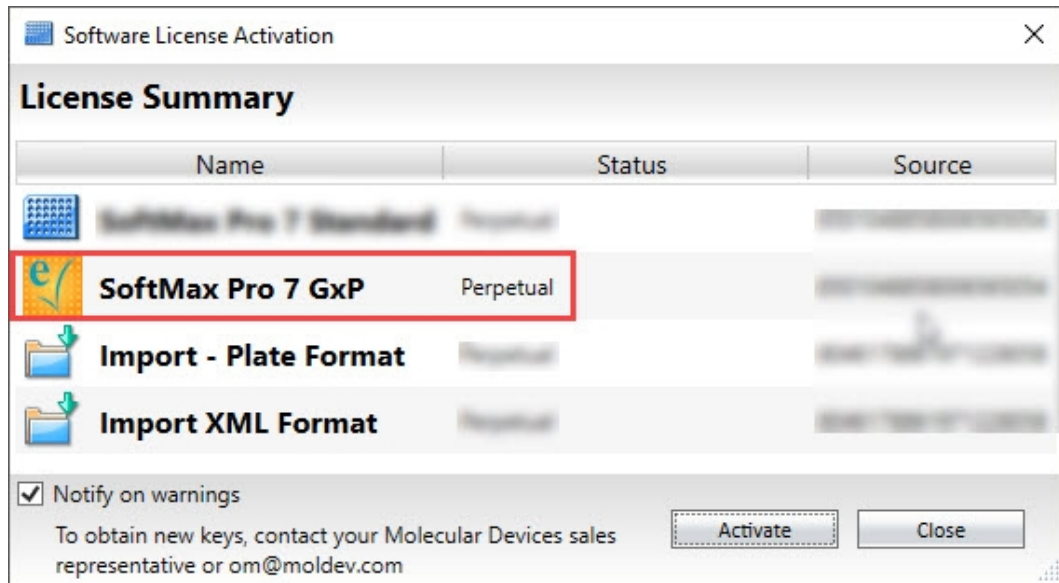
Activate Offline

If you do not have access to the Internet, click Activate Offline. To activate offline, you need your product key, a computer that has access to the internet, and a USB drive for transferring files between the computers.

Finish

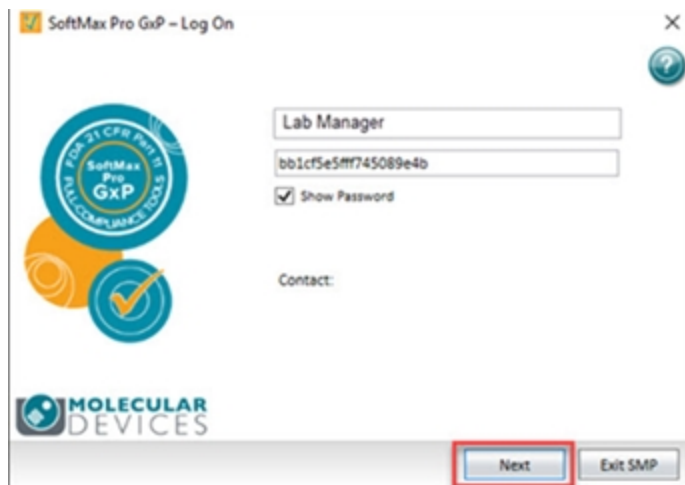
- a. In the **Product Key** field, enter the product key.
- b. If the computer has access to the Internet, click **Activate Online**.
If the computer does not have access to the Internet, see [Activating SoftMax Pro GxP Offline on page 57](#).
- c. Wait for the *Activation Success* message and click **Finish**.

4. In the License Summary dialog:



Note that SoftMax Pro 7 GxP has a perpetual license.

5. On the SoftMax Pro GxP Log On dialog:



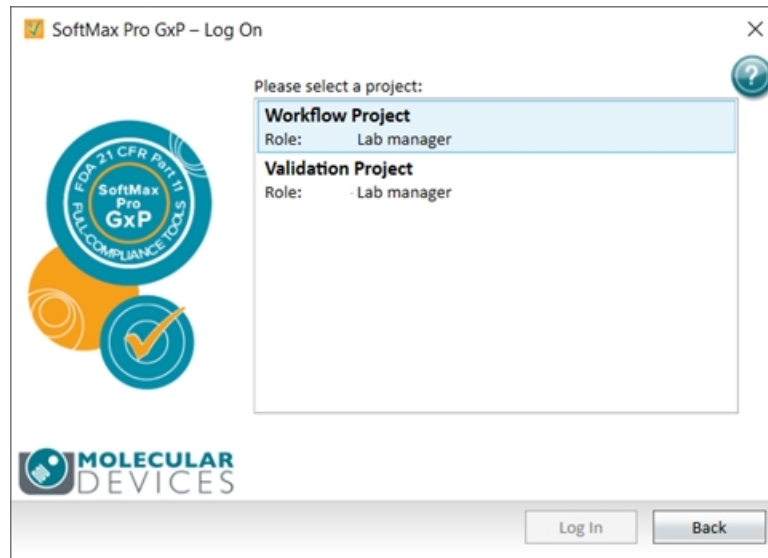
- a. In the **User ID** field, enter the name of the user you created in the GxP Admin Portal Software to whom you assigned a SoftMax Pro license.
- b. For a Custom Credentials login mode user, open the email or word processing application file that contains the password that the GxP Admin Portal Software generated. Copy and paste the password in the **Password** field. For a Windows Credential login mode user, enter the user's Active Directory password in the **Password** field.
- c. Click **Next**.

6. For a Custom Credentials login mode user, the Change Password dialog displays:

- In the **New Password** field, enter a new password. Default password strength settings require that the password must be at least 10 characters long, contain at least one number, at least one lowercase letter, at least one uppercase letter, and at least one special character.
 - In the **Confirm Password** field, re-enter the password.
 - Click **OK**.
 - Click **OK** on the confirmation message.
7. In the SoftMax Pro GxP Log On dialog:

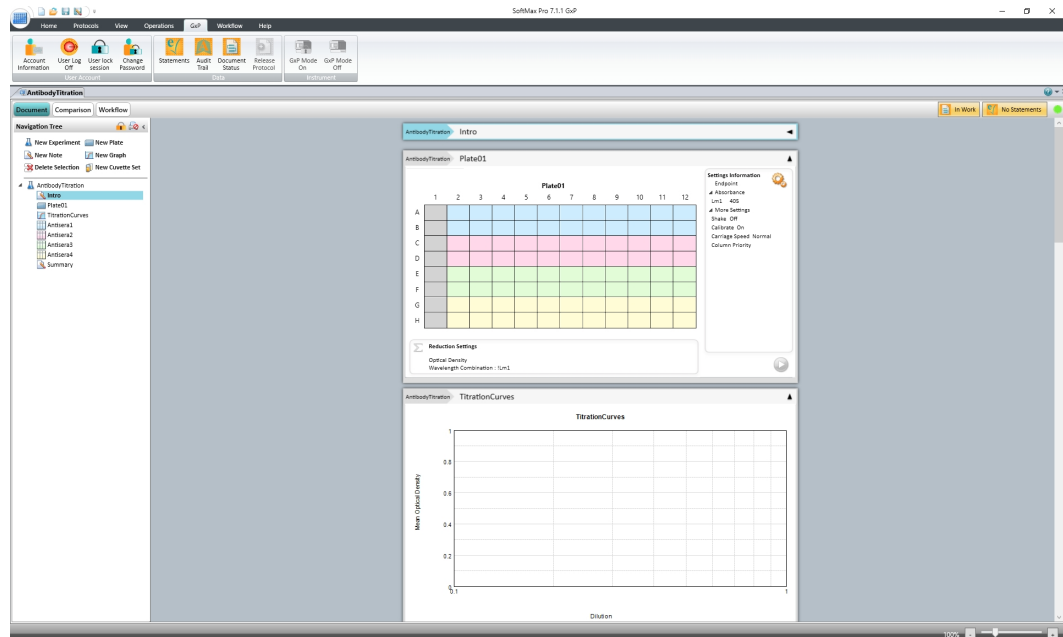
- In the **Password** field, enter the new password.
- Click **Next**.

8. In the Select Project dialog:



- a. Select a Project to which you associated the user. A user can be a member of multiple Projects.
- b. Click **Log In**.

9. In the SoftMax Pro GxP Software:



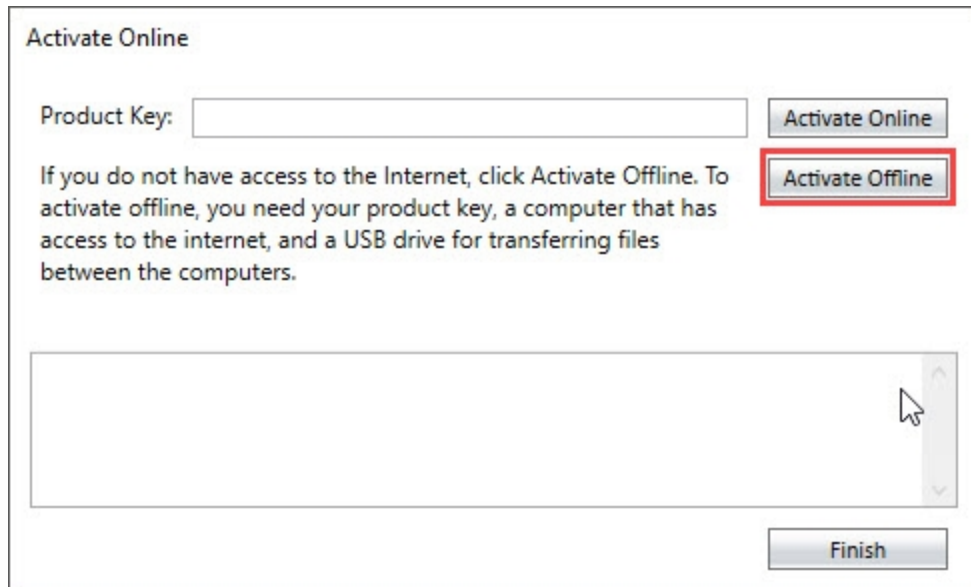
Begin using the software. See the *SoftMax Pro Data Acquisition and Analysis Software User Guide*.

Activating SoftMax Pro GxP Offline

When the computer onto which you install the SoftMax Pro GxP Software cannot connect to the Internet, you need a flash drive and access to a computer that is connected to the Internet.

To license the SoftMax Pro GxP Software on a computer that cannot connect to the Internet:

1. In the Activate Online dialog:



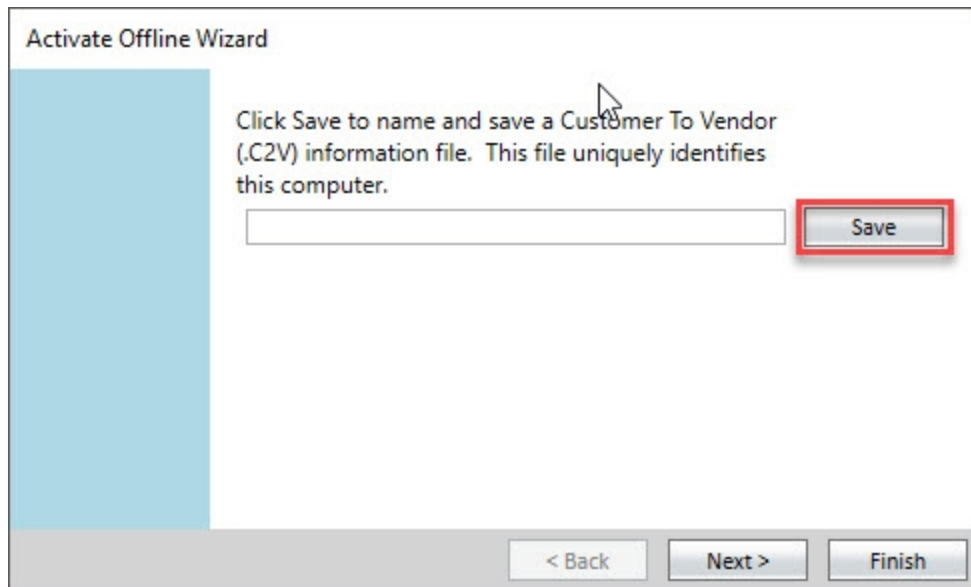
Activate Online

Product Key:

If you do not have access to the Internet, click Activate Offline. To activate offline, you need your product key, a computer that has access to the internet, and a USB drive for transferring files between the computers.

Click **Activate Offline**.

2. In the Activate Offline Wizard dialog:

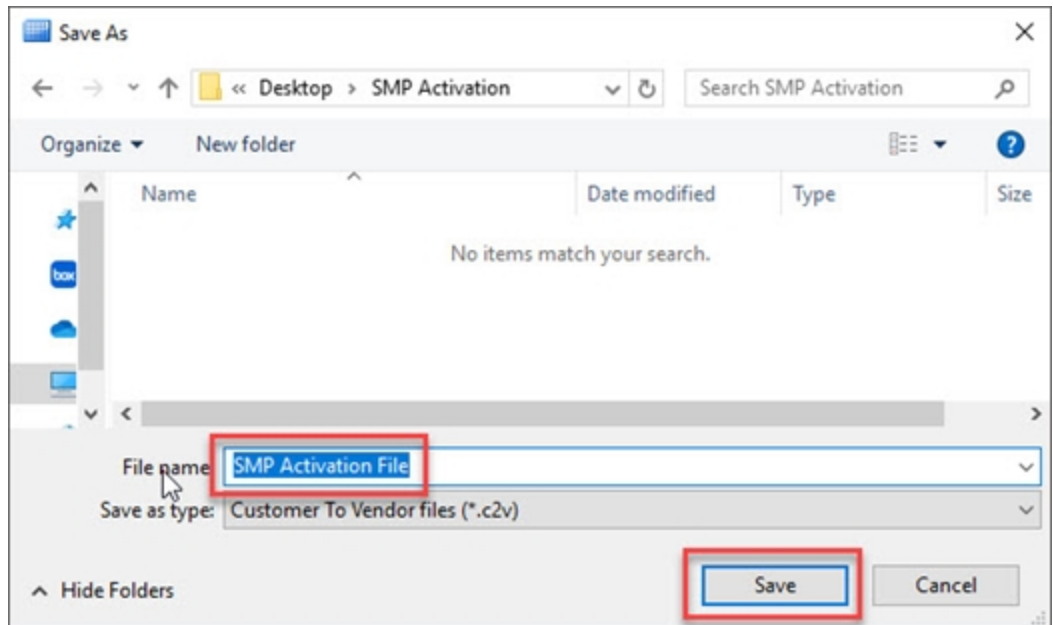


Activate Offline Wizard

Click Save to name and save a Customer To Vendor (.C2V) information file. This file uniquely identifies this computer.

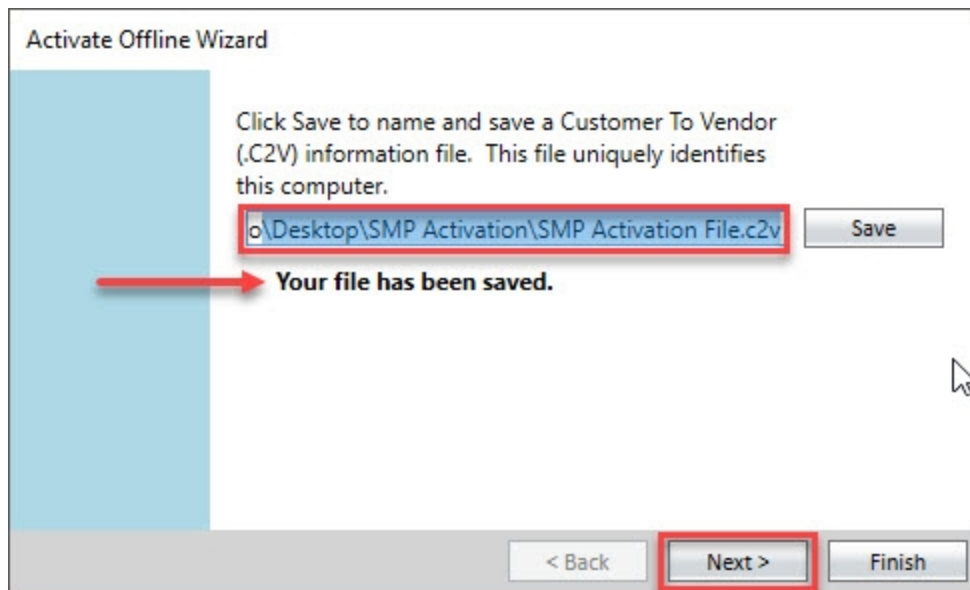
Click **Save**.

3. In the Save As dialog:



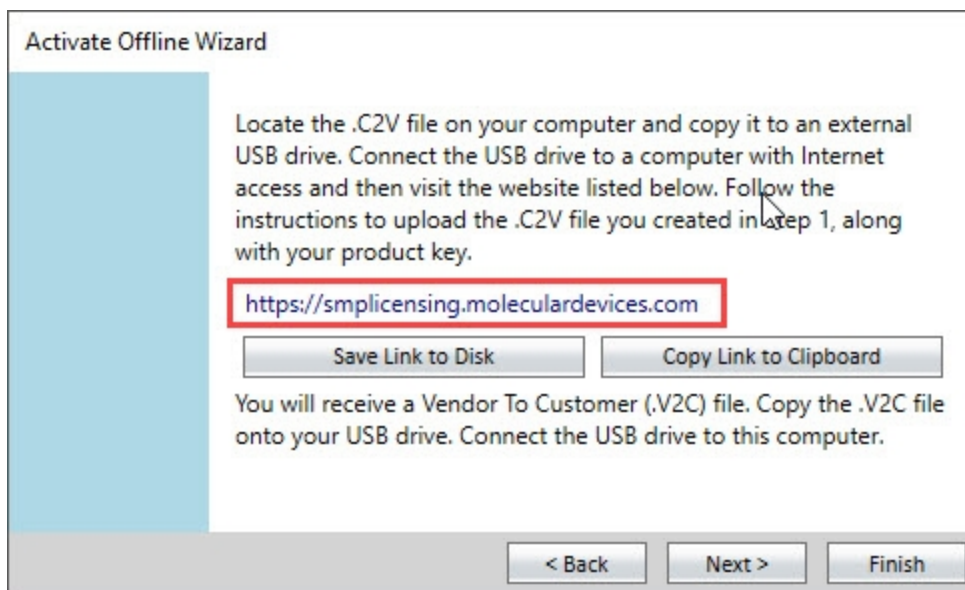
- a. In the **File Name** field, enter a name for the customer to vendor file (.c2v).
- b. Navigate to the folder in which to save the **.c2v** file.
- c. Click **Save**.

4. In the Activate Offline Wizard dialog:

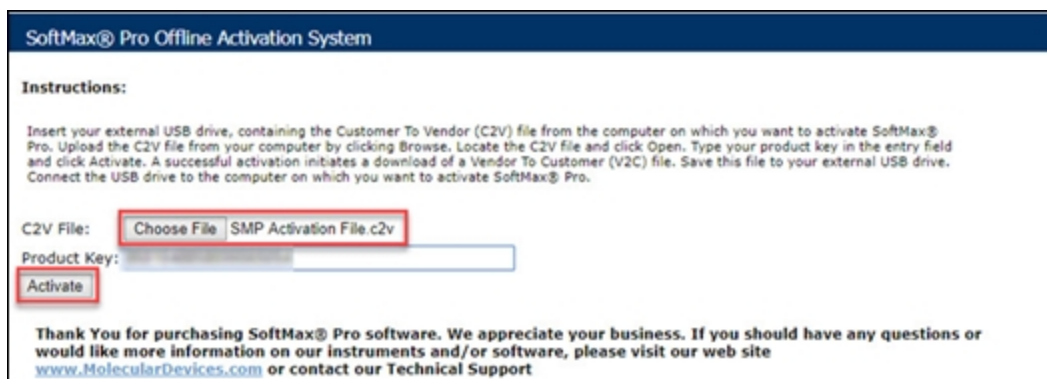


Note the path to the file and click **Next**.

5. In the Activate Offline Wizard dialog:

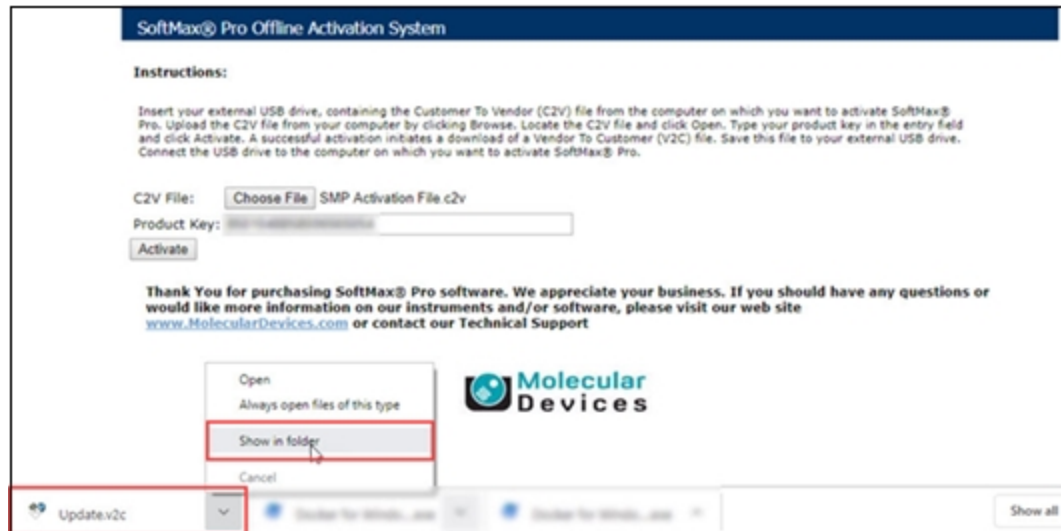


- a. Copy the **.c2v** file to a flash drive.
 - b. Click **Save Link to Disk**, **Copy Link to Clipboard** or make note of the link. You need this link for step 8.
6. Take the flash drive to a computer that has access to the Internet.
7. Open an Internet browser and go to: <https://smplicensing.moleculardevices.com>.
8. On the SoftMax Pro Offline Activation System page:

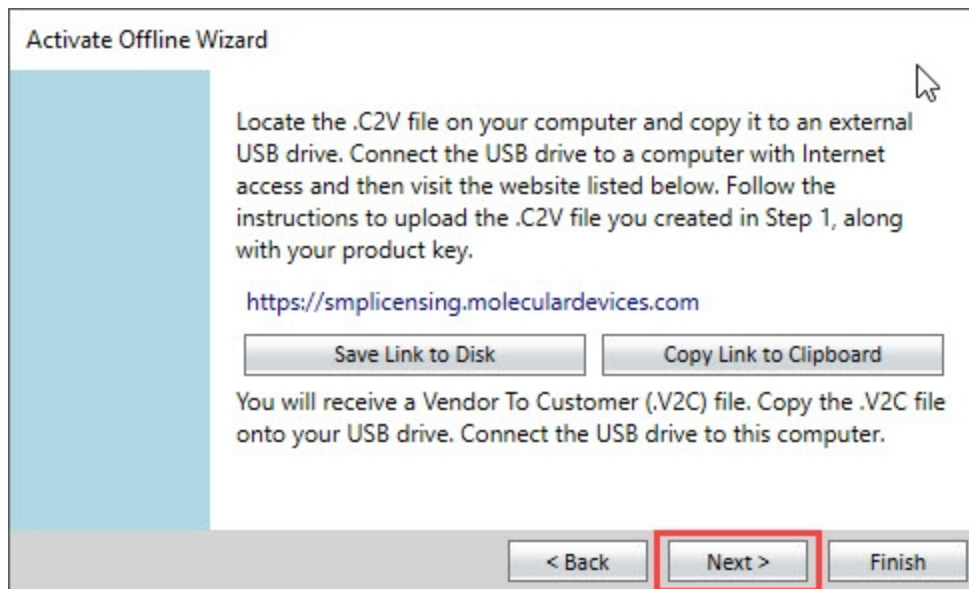


- a. Click **Choose File**.
- b. Navigate to and select the **.c2v** file on the flash drive.
- c. Click **Activate**.

9. On the SoftMax Pro Offline Activation System page:

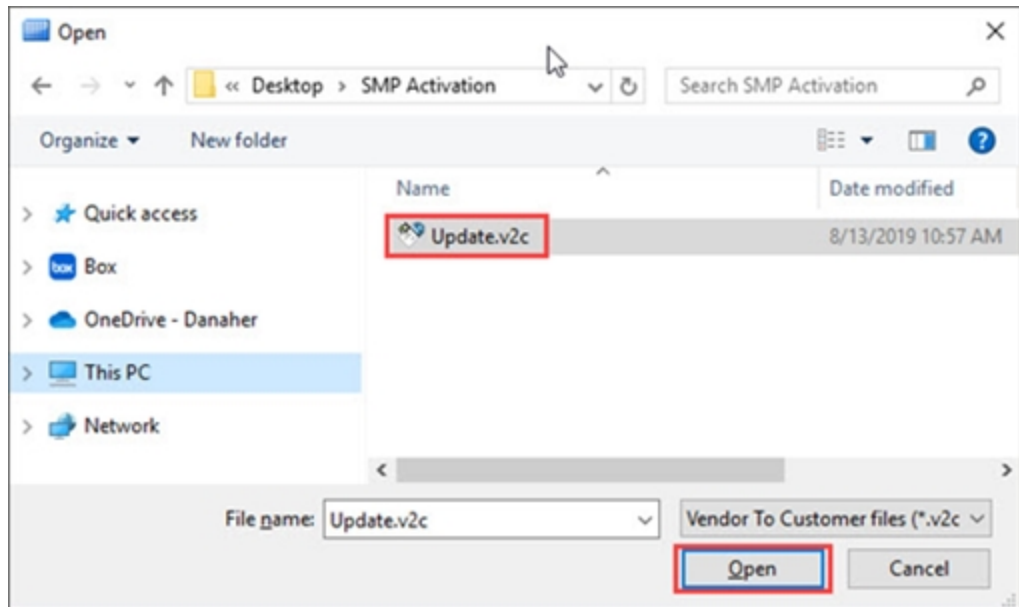


- a. Click **Show in Folder** to display the location of the **Update.v2c** file that the activation system downloads to your computer. Otherwise, locate the **Update.v2c**.
 - b. Copy the **Update.v2c** file to the flash drive.
10. Take the flash drive to the computer running the SoftMax Pro GxP Software. In the Activate Offline Wizard:



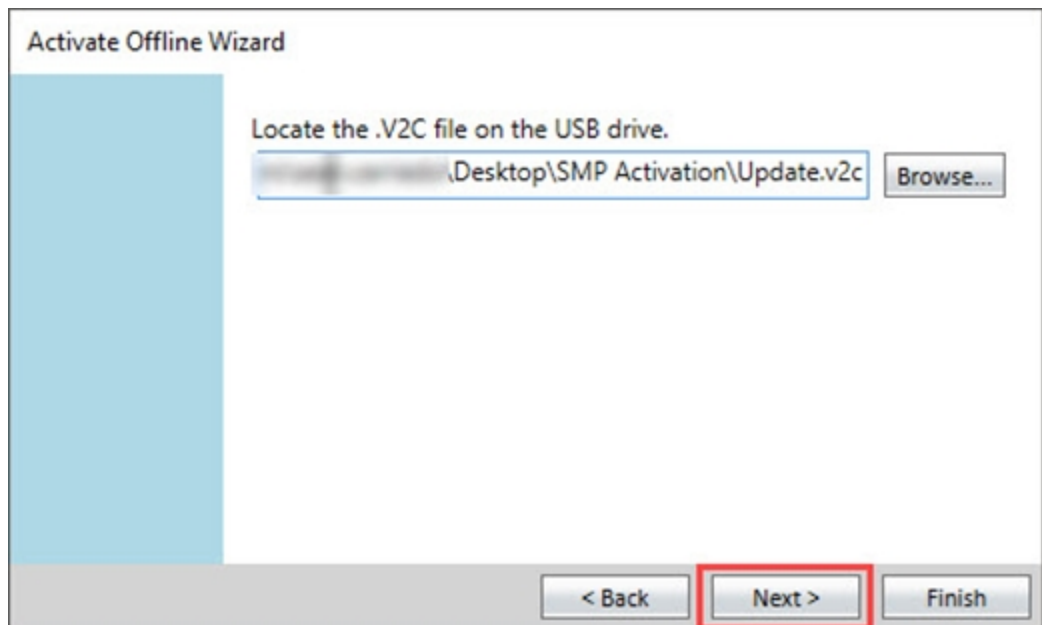
Click **Next**.

11. In the Open dialog:



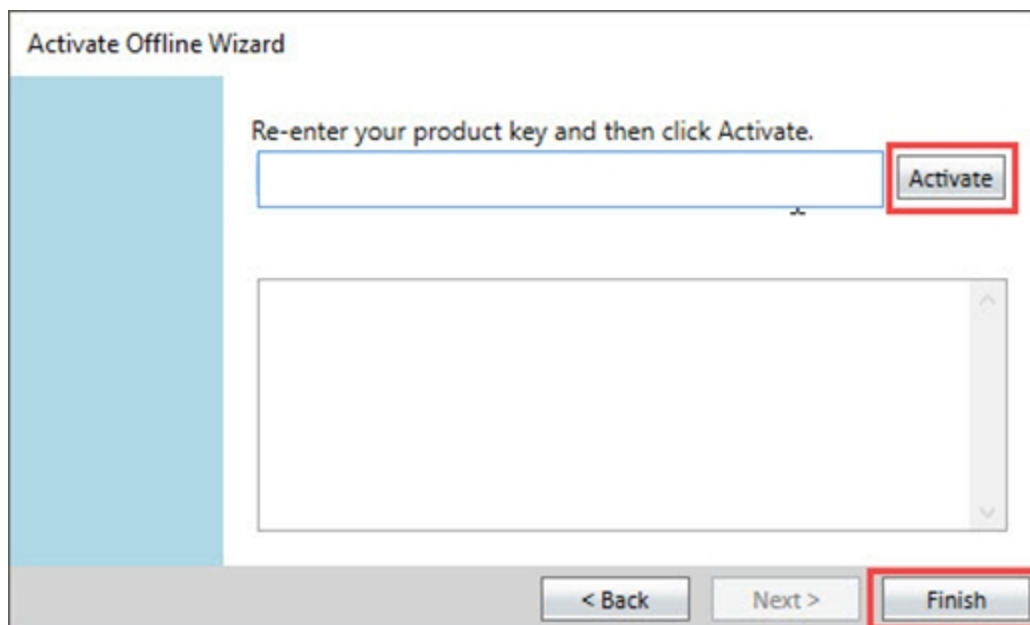
- a. Navigate to and select the **Update.v2c** file on the flash drive.
- b. Click **Open**.

12. In the Activate Offline Wizard:

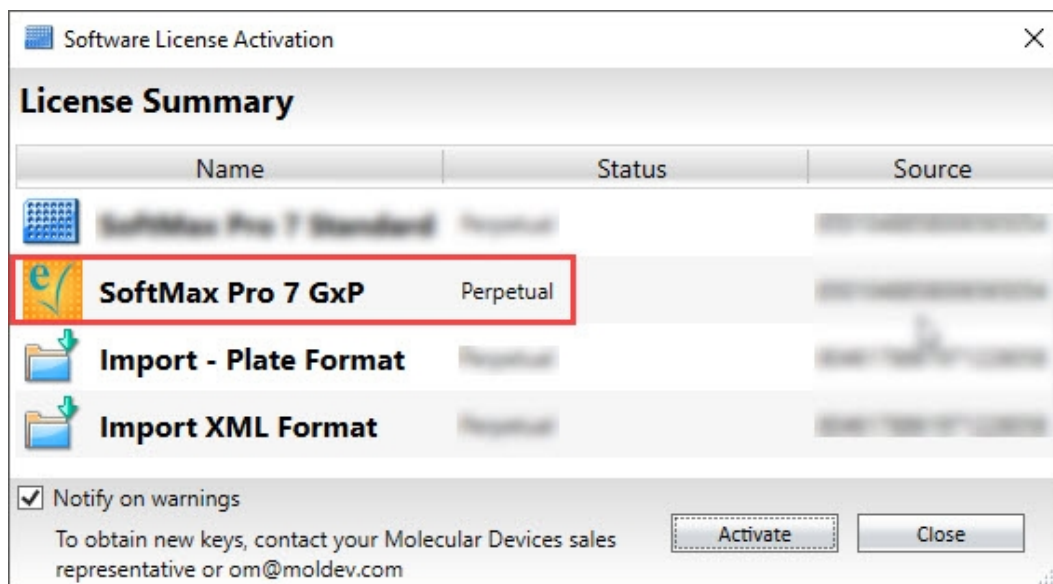


Note the name and location of the **Update.v2c** file and click **Next**.

13. In the Activate Offline Wizard:



- a. In the **Re-enter Your Product Key and then Click Activate** field re-enter the product key.
 - b. Click **Activate**.
 - c. Click **Finish**.
14. In the License Summary dialog:



Note that SoftMax Pro 7.x GxP has a perpetual license.

Appendix A: Example Installation Scenario

A

Every network is unique. Every multi computer setup is unique. This chapter describes an example of how to use the sample deployment scripts.



Note: You cannot change the names of the folders below the SoftMax Pro GxP Components folder and you cannot change the names of the installation scripts.

Complete the following sections in the sequence presented.

Unpacking the Files

Do the following to unpack the installation files:

1. Locate and double-click the SoftMax Pro 7.1.1 GxP - Multi Computer Installation Components.msi to run the wizard that unpacks the installation files to either a flash drive or a network location that is accessible to all computers in the SoftMax Pro 7.1.1 GxP Compliance Software Suite. See [Unpacking Installation Files on page 12](#).
2. Rename the "SoftMax Pro GxP Components" folder to "scripts". Do not change any other folder names or file names.

Entering Configuration Variables

Do the following to enter the variables into the Configuration.ps1 script that is called by all other sample deployment scripts. See [Configuration on page 24](#).

1. Start PowerShell and run as administrator.
2. Complete the parameters in the Configuration.ps1 file.

Default Entries

- SharedPwd = !1moldevUIC
- GxPName = gxpadmin
- GxPPwd = SharedPwd
- SvcUserName = gxpsvc



Note: If you intend to use Windows Credentials login mode users that use your company's Active Directory, this must be a user who is in your company's Active Directory database.

- SvcUserPwd = SharedPwd



Note: If you intend to use Windows Credentials login mode users that use your company's Active Directory, you must change this to the password of the user who is in your company's Active Directory database.

- WebName = WebserviceAccess
- WebPwd = SharedPwd
- DataName = DataServiceAccess

- DataPwd = SharedPwd
- ServerFQDN = machine.company.com
- ServerAliases = machine.company.com, machine
- CertificatePwd = SharedPwd
- SqlFQDN = sql.company.com
- SqlSa = sa
- SqlSaPwd = SharedPwd
- FoundationScriptRoot = ..\scripts



Note: You must change this to point to the location of the "scripts" folder.

- ProgramRoot = C:\Program Files\Molecular Devices
- ServerRoot = ProgramRoot\GxP Admin 7.1.1\Server
- ClientRoot = ProgramRoot\GxP Admin 7.1.1\Client
- ADClientRoot = ServerRoot\ADCCClient
- ConfigBase = C:\Users\Public\Documents
- ServerDataRoot = ConfigBase\Server
- ClientDataRoot = ConfigBase\Client
- PortalDataRoot = ConfigBase\Portal
- InstallLogRoot = ConfigBase\install-logs

Example GxP Admin Software Installation Scenario

Do the following on the computer onto which you install the GxP Admin Software:

1. Start PowerShell and run as administrator.
2. Navigate to the Example scripts folder and enter the following command:

```
.\ServerInstall.ps1 -Mode C
```

Optional Parameters:

- - InstallDb = Turn On to install a new GxP Admin Software Microsoft SQL database or turn Off to use the an existing GxP Admin Software database.
- - DoNotCreateUser = Turn On to not create the service user or turn Off to create the service user (SvcUserName).

Acceptable Exit Codes:

- Manage-PSModules.ps1 = 30 unless PowerShell components are installed. When you run the ServerInstall.ps1 with Mode I the PowerShell components will be installed.
- Manage-Database.ps1 = 0
- Manage-User.ps1 = 10 unless the Service User SvcUserName is created. When you run the ServerInstall.ps1 with Mode I the Service User will be created.
- Manage-System.ps1 = 0
- Manage-Certificates.ps1 = 0
- Manage-Configuration.ps1 = 340 The IP_CertificatePath does not exist and will be created when you run the ServerInstall.ps1 with Mode I.
- Manage-Services.ps1 (GXP_AU_WEB) = 0
- Manage-Services.ps1 (GXP_AU_DATA) = 0
- Manage-Services.ps1 (GXP_AU_REPORT) = 0
- Manage-Services.ps1 (GXP_AU_ADCLIENT) = 0

3. Enter the following command:

```
.\ServerInstall.ps1 -Mode I - InstallDb
```

Verification

All Exit Codes = 0

Use SQL Management Studio:

- The following databases exist:
 - DataService (default name)
 - WebService (default name)
- The following logins are seen:
 - DataServiceUser (default name)
 - WebServiceUser (default name)

Use Windows Explorer and confirm that a folder for the service user exists:

- C:/Users/gxpsvc (default name)

Open Windows Service dialog and check that the following services exist and are running:

- GXP_AU_ADCLIENT (default name)
- GXP_AU_DATA (default name)
- GXP_AU_REPORT (default name)
- GXP_AU_WEB (default name)

Validation Report

To generate a report that meets the requirements of the FDA 21 CFR Part 11 Final Rule enter the following command:

```
.\Installation-Qualification.ps1 - Mode Record - IP_Version  
GXP Admin Server - IP_ReportDirectory (path to location for  
the report)
```

Verification:

Use Windows Explorer and locate the GXP Admin Server Report.pdf in the location you enter in the script.

Example GxP Admin Portal Software Installation Scenario

Prerequisites: The Certificates folder that was created during the GxP Admin Software installation is accessible from the computer onto which you install the GxP Admin Portal Software.

Do the following on the computers onto which you install the GxP Admin Portal Software:

1. Start PowerShell and run as administrator.
2. Navigate to the Example scripts folder and enter the following command:

```
.\PortalInstall.ps1 - Mode C - PathToPortalCertificate  
(path to location of Certificates folder)
```

Optional Parameter:

- - InstallOnServer = Turn On to install the GxP Admin Portal Software on the same computer onto which you installed the GxP Admin Software or turn Off to the GxP Admin Portal Software on computers that can access the GxP Admin Software computer.

Acceptable Exit Codes:

- Manage-Certificates.ps1 = 0
- Manage-System.ps1 = 0


3. Enter the following command:

```
.\PortalInstall.ps1 - Mode I - PathToPortalCertificate  
(path to location of Certificates folder)
```

Verification

All Exit Codes = 0

To verify the GxP Admin Portal Software installation:

1. On the computer desktop, double-click  to start the GxP Admin Portal Software to display the GxP Admin Portal GxP Server Hostname dialog.

2. In the **Server Hostname** field:
 - If you install the GxP Admin Portal Software on the same computer as the GxP Admin Software, enter **localhost**.
 - If you install the GxP Admin Portal Software on a different computer from the GxP Admin Software, enter the server hostname of the server that contains the GxP Admin Software.
3. Click **Continue** to display the GxP Admin Portal Login dialog.
4. In the **Username** field, enter the GxPName you entered when you installed the GxP Admin Software (default = gxpadmin).
5. In the **Password** field, enter the GxPPwd you entered when you installed the GxP Admin Software (default = !1moldevUIC).
6. Click **Login** to display the Set New Password dialog.

Validation Report

To generate a report that meets the requirements of the FDA 21 CFR Part 11 Final Rule enter the following command:

```
.\Installation-Qualification.ps1 - Mode Record - IP_Version  
GXP Admin Portal - IP_ReportDirectory (path to location for  
the report)
```

Verification:

Use Windows Explorer and locate the GXP Admin Portal Report.pdf in the location you enter in the script.

Example SoftMax Pro GxP Software Installation Scenario

Prerequisites: The Certificates folder that was created during the GxP Admin Software installation is accessible from the computer onto which you install the SoftMax Pro GxP Software.

Do the following on the computers onto which you install the SoftMax Pro GxP Software:

1. Start PowerShell and run as administrator.
2. Navigate to the Example scripts folder and enter the following command:
`.\ClientInstall.ps1 - Mode C - PathToClientCertificate
(path to location of Certificates folder)`

Optional Parameter:

- - InstallOnServer = Turn On to install the SoftMax Pro GxP Software on the same computer onto which you installed the GxP Admin Software or turn Off to the SoftMax Pro GxP Software on computers that can access the GxP Admin Software computer.

Acceptable Exit Codes:

- Manage-User.ps1 = 10 unless the Service User SvcUserName is created. When you run the ClientInstall.ps1 with Mode I the Service User will be created.
 - Manage-System.ps1 = 0
 - Manage-Certificates.ps1 = 0
 - Manage-Configuration.ps1 = 340 The IP_CertificatePath does not exist and will be created when you run the ClientInstall.ps1 with Mode I.
 - Manage-Services.ps1 (GXP_AU_WEB) = 0
 - Manage-Services.ps1 (GXP_AU_DATA) = 0
3. Enter the following command:
`.\ClientInstall.ps1 - Mode I - PathToClientCertificate
(path to location of Certificates folder)`
 4. Wait for the count downs to occur. The installation eventually completes and the cursor returns.

Verification:

All Exit Codes = 0

Use Windows Explorer and confirm that a folder for the service user exists:

- C:/Users/gxpsvc (default name)

Open Windows Service dialog and check that the following services exist and are running:

- GXP_AU_DATA (default name)
- GXP_AU_WEB (default name)



displays on the computer desktop. To get started, see [Getting Started - SoftMax Pro GxP Software on page 53](#).

Obtaining Support

Molecular Devices is a leading worldwide manufacturer and distributor of analytical instrumentation, software, and reagents. We are committed to the quality of our products and to fully supporting our customers with the highest level of technical service.

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You can contact your local representative or Molecular Devices Technical Support at 800-635-5577 X 1815 (North America only) or +1 408-747-1700. In Europe call +44 (0) 118 944 8000.

To find regional support contact information, visit www.moleculardevices.com/contact.

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