



Polaris Installation Guide

7.1

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About This Guide

This guide describes how to install or upgrade the Polaris® Integrated Library System server and client software. It does not cover detailed procedures for staging a new server or installing and using Microsoft® Windows® software. If you need assistance with these procedures, consult your Microsoft documentation and/or contact your Polaris Site Manager. Support technicians can help with your specific situation. The information in this guide is intended for system administrators.

Polaris Installation Topics

Important:

For information about developments that may have occurred after this information was published, go to <https://innovative.libguides.com/PolarisHome>.

This guide covers the following topics:

- [Polaris 7.1 Requirements](#): Polaris software requirements: server configurations, special installation considerations.
- [Server Installation and Upgrades](#): Staging a new Polaris server (overview), installing prerequisites and Polaris server software, installing INN-Reach, licensing, date and currency formats, changing SQL user password, upgrades.
- [Client Installation](#): Installing Polaris Windows Components Updates software and client software (staff client, Polaris SIP, Polaris NCIP, Polaris® ExpressCheck™); Automatic, Group Policy, and System Center deployment methods; RFID for Polaris hosted and terminal server environments.

Related Resources

The following resources may be useful when installing and configuring Polaris server and client software:

- **Polaris System Administration training:** Contact your Innovative Interfaces Customer Sales representative for details.
- **Microsoft Windows server and workstation documentation**
- **Polaris Administration information:** These materials cover how to set up Polaris for your library, and how to use Polaris Administration to customize Polaris:
 - Polaris staff client help
 - Polaris® ExpressCheck™ Administration Guide
- **Polaris Customer Supportal:**
 - For updated user and support information, go to <https://innovative.libguides.com/PolarisHome>.
 - For more information about system requirements, see the latest [Polaris Operating System Requirements](#).
- **Polaris Site Manager:** Contact your Site Manager at (877) 857-1978.

Polaris 7.1 Requirements

Innovative Interfaces installs Polaris ILS software for new customers during equipment staging or equipment installation. The operating system, all service packs, Microsoft Windows components, and Polaris software are installed on the servers. However, if you are setting up new computers or restoring a computer after disaster recovery, follow the procedures for new installations in this guide.

The Polaris installation software includes both server and client installations. The Polaris Windows Components Update, which installs most of the prerequisites you need to run Polaris, is integrated into the Polaris client software installation process.

Current customers can upgrade to Polaris 7.1 from Polaris version 5.0 (191) or later.

This unit covers the following topics:

- [Servers](#)
- [Staff Client Requirements](#)
- [Polaris PowerPAC Browsers](#)
- [Reports](#)
- [Network Security](#)
- [Terminal Server and Printers](#)
- [Polaris for Consortia](#)
- [Polaris Authentication](#)
- [Licenses](#)

Servers

Important:

Review all licensing issues and requirements whenever you install any Microsoft products. Current Microsoft Service Packs must be applied to all server and workstation system software before you upgrade.

Polaris 7.1 servers require one of the following operating systems:

- Windows Server 2019 64-bit (Standard, Enterprise, Datacenter editions)
- Windows Server 2016 64-bit (Standard, Enterprise, Datacenter editions)

- Windows Server 2012 R2 64-bit (Standard, Enterprise, Datacenter editions)

Additional required support software is installed automatically as part of the Polaris Client Installer software (see [Installing Prerequisites](#)).

If you do not have a separate server for Reporting Services, the Polaris production server is used by default. See [Reports](#) for more information about Reporting Services.

Polaris Database Server

The Polaris database server holds your Polaris records, such as patron records, bibliographic records, and item records. The Polaris database requires one of the following Microsoft SQL Server releases:

- Microsoft SQL Server 2019 64-bit
- Microsoft SQL Server 2017 64-bit
- Microsoft SQL Server 2016 (SP2) 64-bit
- Microsoft SQL Server 2014 (SP3) 64-bit
- Microsoft SQL Server 2012 (SP4) 64-bit

The database server also processes statistical transactions, so it requires Microsoft Message Queuing (MSMQ). Microsoft SQL Server Native Client is installed, if necessary, as part of the software installation process. See [Installing Prerequisites](#).

Web Server

The web server hosts Polaris® PowerPAC™, Polaris® Mobile PAC™, and Polaris® PowerPAC™ Children's Edition. In addition, the Polaris Phone Attendant (inbound telephony) uses the web server to store certain settings. For a list of web server components, see [Web Server Component Features](#).

RAM Recommendations for Single-Server Environments

The following RAM amounts are recommended for Polaris 7.1 in single-server production environments:

- 16 GB of RAM for up to 5 million circ transactions annually
- 32 GB of RAM for up to 10 million circ transactions annually
- 64 GB of RAM for up to 15 million circ transactions annually

For 10-user training servers, a minimum of 8 GB of RAM is recommended.

The annual circulation transactions criterion is simply a guideline; your requirements may differ depending on the size of your database and the number of users. Also, if you will implement integrated federated searching, you may need additional server RAM.

Staff Client Requirements

Important:

Review all licensing issues and requirements whenever you install any Microsoft products. Current Microsoft Service Packs and additional updates, including all versions of the .NET Framework, must be applied to all server and workstation system software before you upgrade.

The Polaris ILS staff client application includes Polaris administration, acquisitions, serials, cataloging, circulation, and patron services functions. One of the following operating systems must be installed on every staff client computer:

- Windows 10 32-bit or 64-bit, Anniversary Update (version 1607) or later
 - Professional, Ultimate, or Enterprise edition
 - RAM: 4GB recommended
- Windows 8.1 32-bit or 64-bit
 - Professional, Ultimate, or Enterprise edition
 - RAM: 2GB recommended

Additional required software for all workstations is installed automatically as part of the Polaris Client Installer (see [Installing Prerequisites](#)).

The Polaris 7.1 staff client is optimized for monitors with 1024 x 768 resolution.

Polaris PowerPAC Browsers

Polaris PowerPAC, the web-based PAC application, is based on Asynchronous JavaScript™ and XML (AJAX) programming. AJAX-compatible browsers include Chrome, Firefox, Edge, and Safari.

Reports

Polaris uses SQL Server Reporting Services for reports and notices, as well as most printing tasks in the staff client. Microsoft Report Manager and Report Designer (if you customize reports) are installed on your report “server,” which may be located on your Polaris production server or another server you specify.

In Polaris Administration, you specify the URL for the Report Manager and report service. Because report definitions, folders, and resources are published and managed as a web service, SQL Server Reporting Services requires access to the web server. Reporting Services uses Windows authentication by default. If you want to change the default account that is authenticated to the report server, you can do so in Polaris Administration. If you use a proxy server, you also specify the proxy server for use with reporting services in Polaris Administration. Use the staff client profiles Report Server and Proxy Server, available at the system, library, and branch levels, to specify the servers. In a consortium, different servers can be specified for different organizations as appropriate.

Note:

The web interface for Reporting Services supports only Internet Explorer, although other browsers may work.

Network Security

Polaris customers are responsible for maintaining the security of their networks, servers, and clients. You need to maintain a firewall, and keep antivirus software and software patches current on servers and clients. For more information, see the Customer Supportal, which provides detailed information about security planning, security tools and downloads, and Polaris policies.

Terminal Server and Printers

If you are operating Polaris in a terminal server environment, the drivers for the printers used by local workstations must be installed on the terminal server. The printers must be terminal server-certified. Install Print Management, then add the terminal server

computer name to Print Management. Expand the new server name, right-click Add Drivers, and install the necessary print drivers.

Polaris for Consortia

Polaris provides extraordinary opportunities for independence and flexibility to consortium members sharing the database. Consortium-wide decisions regarding processes and workflow are few, so that member organizations can operate in ways that best serve their patrons while drawing on the database resources of the consortium as a whole. Polaris provides flexible policies down to the branch level. In addition, even though consortium members share the database, member libraries own their records. These are protected by access and modification permissions.

However, if your situation requires it, you can set up Polaris to function in an application service provider (ASP) environment. In this model, a library consortium with one Polaris installation can have multiple Polaris databases. The catalogs are not shared or mutually accessible (unless a consortium member sets up another member's Polaris database as a remote search target), and patron information is not shared.

Note:

The ASP model requires at a minimum SQL Server Standard Edition.

Innovative Interfaces helps you set up Polaris for an ASP environment. When you install Polaris on a workstation, you specify the application server name and datalink name for the workstation. See [Installing the Polaris Clients](#).

Polaris Authentication

Polaris authentication requires either Active Directory or Windows Workgroups. In an Active Directory environment, the user is authenticated to the domain at logon.

Note:

Innovative does not support or test Polaris integration with other directory systems such as Novell. Selection, implementation, and maintenance of these systems is solely the library's responsibility.

After Polaris is installed, you can set a staff client workstation for automatic logon to the Polaris staff client using Windows Active Directory integrated security. When the Polaris

staff client application is started, the logon dialog is skipped, and if the branch-level Logon branch: Access permission is set for the workstation, the user can select a logon branch. If the permission is not set, the workstation is automatically logged on to the workstation's parent branch. In Polaris Administration, set the Staff Client profile Automatic logon to Yes to enable this feature. The profile is available at the system, library, branch, and workstation levels; the default setting is No. For more information about Polaris Administration, see the Polaris staff client help.

We strongly recommend Active Directory for all customers. However, if you do use Windows Workgroups, the following configurations are possible:

- **Production server is in Active Directory environment, clients are in Workgroup.**

There are two options:

- The user must have a local matching account with the same password.
- The user uses local workstation manage-network passwords, and uses an account that will also be used to log into the Polaris client. The account must also exist in the Active Directory domain where the Polaris production server resides.

- **Production server is in Workgroup, client is in Workgroup.**

There are two options:

- The user must have a local matching account with the same password.
- The user uses local workstation manage-network passwords, and uses an account that will also be used to log into the Polaris client. The account must also exist locally on the production server.

- **Production server is in Workgroup, client is in Active Directory domain.**

There are two options:

- The user must have a local matching account with the same password.
- The user uses local workstation manage-network passwords and uses an account that will also be used to log into the Polaris client. The account must also exist locally on the production server.

- **Production server resides in one domain, clients reside in another domain and there is *no trust*.**

There are three options:

- The user must have a local matching account with the same password.
- The user uses local workstation manage-network passwords, and uses an account that will also be used to log into the Polaris client. The account must also exist in the domain where the Polaris production server resides.
- Install a Polaris Application Server in the same domain as the clients and point the clients to this application server. The application server itself will only use a SQL connection to the untrusted domain.

If you use any of these configurations, during Polaris client installation, you must select Enable Workgroup Mode on the Server Information screen of the client installation wizard and specify the authenticating domain for the production server. See [Install Polaris client software manually](#).

Staff Client Logon and Logoff Transactions

Polaris includes transaction logging for staff client logon and logoff transactions. You can track currently logged-on users when performing upgrades, and generate reports of historical usage of the software by user and/or workstation to assess staff client use.

The Polaris Workstations table records whether a workstation is logged on to the Polaris staff client, and includes the server date and time of the logon. The following transactions are posted in the Transactions database and are available for reporting:

Log-On (status = 1)

- TransactionTypeID = TR_SYS_LOGON (7200)
- OrganizationID - User's log-on branch
- Workstation ID
- User ID
- Transaction Client Date/Time
- Transaction SubTypeID = SUBSYSTEM_TYPE (235)
- Transaction SubtypeCode = Staff Client (33)

Log-Off (status = 0)

- TransactionTypeID = TR_SYS_LOGOFF (7201)
- OrganizationID - User's log-on branch
- Workstation ID
- User ID
- Transaction Client Date/Time

- Transaction SubtypeID = SUBSYSTEM_TYPE (235)
- Transaction SubtypeCode = Staff Client (33)

Logoff transactions include any way in which the user exits from the client, including but not limited to:

- Shortcut Bar - Select **X**
- Shortcut Bar - Select **File > Exit**
- Shortcut Bar - Select **File > Logoff**
- Shortcut Bar - Press **ALT + F4**
- Workform - Select **File > Exit**

Licenses

Certain Polaris features and products are available by separate licenses. After installation, contact your Polaris Site Manager to obtain your licenses. You can then place them on your Polaris application server (see [Place Polaris licenses on your application server](#)).

In Polaris 7.1, the following features require licenses:

- 3M (cloudLibrary) eBook Integration
- Acquisitions EDI
- Address Verification
- Axis 360 eBook Integration
- Borrow by Mail
- Campaigns (automatic promotions)
- Carousel Toolkit
- Children's PAC
- ChiliFresh Connections
- ChiliFresh Ratings and Reviews
- Community Profiles
- ContentXChange
- Course Reserves
- Credit Card Payment - EnvisionWare
- Credit Card Payment - SmartPAY

- Database Sync Restore
- Driver's License Scan Facility
- Export Express (separately licensed option in SimplyReports)
- ExpressCheck
- ExpressCheck Credit Card Payments
- Feature It! (Promotions)
- Fusion
- Inbound Telephony (Polaris Phone Attendant)
- INN-Reach Integration
- ITG DiscXpress
- LEAP
- Mobile PAC
- Mobile PAC Credit Card Payments
- Outbound Telephony (telephone notification)
- Outreach Services
- Overdrive eBook Integration
- Polaris API Service (public) (PAPI)
- Polaris Inventory Manager (PIM)
- PowerPAC
- PowerPAC credit card payments
- RBdigital
- RFID
- SimplyReports
- Staff Client Credit Card Payments
- Titles to Go
- URL Detective
- Vega Discover
- Wireless Access Manager (WAM)

Server Installation and Upgrades

Innovative Interfaces stages servers and performs upgrades for Polaris customers. This unit is for those customers who prefer to perform these procedures themselves. If you are a new customer, you can contact your Polaris Implementation Project Manager at any time for assistance. Existing customers can contact their Polaris Site Manager.

This unit covers the following topics:

- [Staging a New Polaris Server](#)
- [Installing Prerequisites](#)
- [Installing Polaris Server Software](#)
- [Licensing, Logon Validation, and Diagnostics](#)
- [Setting Date and Currency Formats](#)
- [Changing the Polaris SQL User Password](#)
- [Upgrading to Polaris 7.1](#)

Staging a New Polaris Server

Polaris server software includes the application server, SQL (database) server, Polaris Telephony, SimplyReports, Polaris Fusion, and web server components such as PowerPAC (see [Web Server Component Features](#) for details). The Polaris server applications are usually installed on several physical computers. This section summarizes how to stage a new server, whether that server computer will house one or several of the Polaris server software components.

Important:

For new installations, you must install Polaris Telephony on a new server separate from the Polaris production server. If you are already running Polaris Telephony, you will need a separate server for telephony when you replace your servers. This configuration eliminates the problem of system downtime when telephony services must be rebooted, and minimizes issues with Dialogic driver compatibility.

Stage a new Polaris server

For best results, use the Administrator account rather than an account with administrator privileges to do these procedures.

Note:

If you need detailed procedures for staging a new server or installing and using Microsoft Windows software, consult your Microsoft documentation and/or contact Polaris Customer Support. Support technicians can help with your specific situation.

1. Set up the RAID configuration according to your contract specifications. For more information, contact your Polaris Site Manager.

Note:

Review all licensing issues and requirements whenever you install any Microsoft products.

2. Install the following Microsoft server software on the appropriate servers:
 - **All servers** - Microsoft Windows Server 2012 R2, Microsoft Windows Server 2016, or Microsoft Windows Server 2019.

Important:

After you install the operating system software, view Windows Updates to check for updates and security patches. (For Microsoft Windows Server 2012 R2, right-click the Start button and select Control Panel > System and Security > Windows Updates. For Microsoft Windows Server 2016 or 2019, right-click the Start button and select Settings > Update and Security.) Install *all* critical or recommended Microsoft Windows updates.

- **Application server** - All Polaris servers require the Polaris Application Server feature, which depends on Microsoft Message Queuing (MSMQ) being installed. Message Queuing can be installed under the Features section of the server features list in Server Manager.
- **Web server** - Microsoft Internet Information Services (IIS) and Microsoft Edge.

Note:

SMTP is optional. If SMTP is selected, the prerequisite IIS 6.0 Manager will also be installed. The full IIS role (with web and other features) is not necessary for SMTP to be installed.

3. Create a PolarisServices account on the domain and give the account appropriate rights. The PolarisServices account must be a domain account.

Note:

If this is a workgroup Polaris application server, create the PolarisServices account locally in computer management.

See [Create a PolarisServices account](#) and [Give appropriate local security policy rights](#).

4. Open Disk Management and set up any drives related to SQL Server to be formatted with 64K cluster size. It is *highly* recommended that you configure separate drives for DATA (SQL .mdf file type), LOG (SQL .ldf file type), and TEMPDB.

If this is not feasible, the following list ranks disk management configurations from best performance to worst performance:

- Four separate drives (C: for OS, D: for DATA, E: for LOG, and F: for TEMPDB)
 - Three separate drives (C: for OS, D: for DATA and LOG, and E: for TEMPDB)
 - Two separate drives (C: for OS and TEMPDB, and D: for DATA and LOG)
 - One drive (C: for OS, DATA, LOG, and TEMPDB)
5. Move the databases from the old server to the new location.
 6. Install SQL Server 2012 64-bit, SQL Server 2014 64-bit, SQL Server 2016 64-bit, or SQL Server 2019.

Important:

If you plan to have both a production and training server, SQL Server will need to be installed individually on each server. You cannot mix a training database and a production database on one server.

7. Create an account for support purposes. In this guide, we assume that the account is called **PolarisExec**. See [Create a PolarisExec account](#).

8. Configure DCOM or COM+ on all servers that will have the Polaris Application Server feature installed.

9. Optimize Windows server software throughput for use with Polaris.

For example, navigate to **System Properties > Advanced** and select the **Settings** button for Performance. On the Visual Effects tab, select **Adjust for best performance**. On the Advanced tab, select **Background services** to optimize for best performance of background tasks.

10. Enable network communication and access on all Polaris servers.
11. Install the Polaris prerequisite server software on all servers. See [Installing Prerequisites](#).
12. Install Polaris 7.1 server software and then reboot the server. See [Installing Polaris Server Software](#).

Important:

Do not install any Polaris server software on the domain controller.

13. Set up the client computers. See [Client Installation](#).
14. Contact your Polaris Site Manager for any necessary licenses. See [Licenses](#).

Create a PolarisServices account

The PolarisServices account runs Polaris services such as the ERMS daemon and the business object under COM+. Unless the Polaris software is running in workgroup mode, a domain account that will run the Polaris-related services will need to be created.

- This account should not have administrator rights on the domain nor local administrator rights on the Polaris servers from which it is used. This account should have domain user rights only.
- If security concerns are paramount about this account, you can create a group policy (GPO) that limits this account to logging on only on the appropriate Polaris servers.
- Create a strong password for this account, at least 8 characters consisting of letters, numbers and symbols.
- You can change the password of this account, but you must update all services that depend on this account with the new password.

As an example in the procedure below, the account is called PolarisServices. However, you can create the account with any name you wish as long as its only use is for Polaris

services and the account is a non-administrator account. Ask your domain administrator or Polaris Support personnel to create this account in Active Directory.

Note:

Record your password for the PolarisServices account. You need the <domain or machine>\username (for example, MyDomain\PolarisServices) and the password during Polaris server software installation.

(*Workgroup mode only*) Follow these steps to create a PolarisServices account on the local machine for application servers that are running in *workgroup mode*:

1. On the local machine (application, Web, or DB server), select **Control Panel > Administrative Tools > Computer Management**.

The Computer Management window appears.

2. Open the **Users** folder in the **Local Users and Group** folder.

The contents of the **Users** folder appear in the left pane.

3. Select **Action > New User**.

The New User dialog appears.

4. Type **PolarisServices** in the **User Name** box. Filling in the **Full Name** and **Description** boxes is optional.

5. Type a **Password**.

Note:

Passwords are case-sensitive.

6. Confirm your password.
7. Clear the **User must change password at next logon** checkbox.
8. Select the following options:
 - **User cannot change password**
 - **Password never expires**
9. Select **Create**.

The New User dialog appears.

10. Select **Close**.

The Computer Management window appears.

Give appropriate local security policy rights

Your PolarisServices account must have the following local security policy rights:

- **Act as part of the operating system**
- **Log on as batch job**
- **Log on as a service**
- **Impersonate a client after authentication**
- **Replace a process level token**

In addition, the account that is used for the SQL Server Service account should have the local security policy right **Perform volume maintenance tasks**. This increases SQL Server performance when expanding its data files.

Follow these steps to assign security policy rights to the PolarisServices account. (Follow a similar procedure to assign the **Perform volume maintenance tasks** right to the account that is used for the SQL Server Service account.)

1. Select **Control Panel > Programs > Administrative Tools > Local Security Policy**.

The Local Security Settings dialog appears.

2. Open **Local Policies**.
3. Open **User Rights Assignment**.

The policy settings are displayed.

4. Select **Act as part of the operating system > Action > Security**.

The Local Security Policy Setting dialog appears.

5. Select **Add** to add the PolarisServices account to the list of groups with the right to act as part of the operating system.

A list of accounts appears.

6. Select **PolarisServices**, and select **Add**.

The **PolarisServices** path name appears in the lower pane.

7. Select **OK** to confirm your selection.

The Local Security Policy Setting dialog appears. The **Local Machine\PolarisServices** path name should be listed in the **Assigned To** pane. If this account is a domain account, the path name is **domain\PolarisServices**.

8. Select **OK** to confirm the setting.

The Local Security Settings dialog appears.

9. Repeat steps 4 through 8 to assign the following rights:

- **Log on as batch job**
- **Log on as a service**
- **Impersonate a client after authentication**
- **Replace a process level token**
- **Perform volume maintenance tasks** . If you are installing SQL Server 2016 or SQL Server 2019, skip this step. Instead, grant the right by selecting the box in the SQL Server installation.

Note:

Give the same account that SQL Server is using rights to **Perform volume maintenance tasks**.

10. Close the Local Security Settings window.
11. Restart the computer to activate the new PolarisServices account rights.

Related Information

Domain\PolarisServices needs full permissions to the following folders:

- **C:\Program Files (x86)\Polaris**
- **C:\ProgramData\Polaris**

Create a PolarisExec account

The PolarisExec account is used primarily by Polaris Support. This account must be a domain account that has local administrative rights for Polaris servers only.

Note:

When you create your password for the domain account, contact your Polaris Site Manager to supply the password for support purposes.

PolarisExec should be a domain account and thus created by your domain administrator.

(Workgroup mode only) You can follow these steps to create a PolarisExec account locally on the Polaris-related servers that are running in workgroup mode:

1. On the server that is in workgroup mode for use with Polaris, select **Control Panel > Administrative Tools > Computer Management**.

The Computer Management window appears.

2. Open the **Users** folder in the **Local Users and Group** folder.

The contents of the **Users** folder appear in the left pane.

3. Select **Action > New User**.

The New User dialog appears.

4. Type **PolarisExec** in the **User Name** box. Filling in the **Full Name** and **Description** boxes is optional.

5. Type a **Password**.

Note:

Passwords are case-sensitive.

6. Confirm your password.
7. Clear the **User must change password at next logon** checkbox.
8. Select one of the following options:
 - **User cannot change password**
 - **Password never expires**

9. Select **Create**.

The New User dialog appears.

10. Select **Close**.

Verify PolarisExec in Local Machine Admin Group

Follow these steps to verify that PolarisExec is a member of the Local Administrators group for servers running Polaris.

1. On the Polaris server, select **Control Panel > Administrative Tools > Computer Management**.

The Computer Management window appears.

2. Open **Groups** in the **Local Users and Groups** list.

The Groups list appears in the right pane.

3. Double-click **Administrators**.

4. Select the **Member Of** tab.

The users who are part of the Administrators group are listed.

5. If PolarisExec is not listed, use the following steps to add it to the group:

- Select **Add**.
- Type **PolarisExec**, and select **Add**.
- Select **OK** to save the information.

6. Select **X** to close the Computer Management Window.

Installing Prerequisites

Polaris Windows Components Updates (PWCU) exists as an integral part of the Polaris software installation (Polaris Client Installer media). The Polaris Client Installer includes all additional required software for both Polaris servers and clients. You can install these components before you install Polaris application software in advance if you wish, whether you are upgrading or you are installing Polaris 7.1 as a new installation.

From the following list, the appropriate updated components for your operating system and current configuration are installed automatically:

- SQL 2008 Native Client with Service Pack 2
- SQL 2012 Native Client Service Pack 3 QFE
- Visual C++ Runtime 10.0
- Visual C++ Runtime 2008
- Visual C++ Runtime 2015 Update 2
- Microsoft XML 4.0 with Service Pack 2
- Microsoft XML 6.0
- Microsoft SQL Server Compact Edition 4 x64

Note:

.NET Framework 4.6.1 or later is required and is installed via Windows Updates. If you use Windows 10, the Anniversary Update (version 1607) or a later version is required.

Adobe® Reader is also required to view reports from the Polaris staff client and Leap. It is available at no cost from <https://get.adobe.com/reader/>.

Install the necessary prerequisites via the Polaris Client Installer

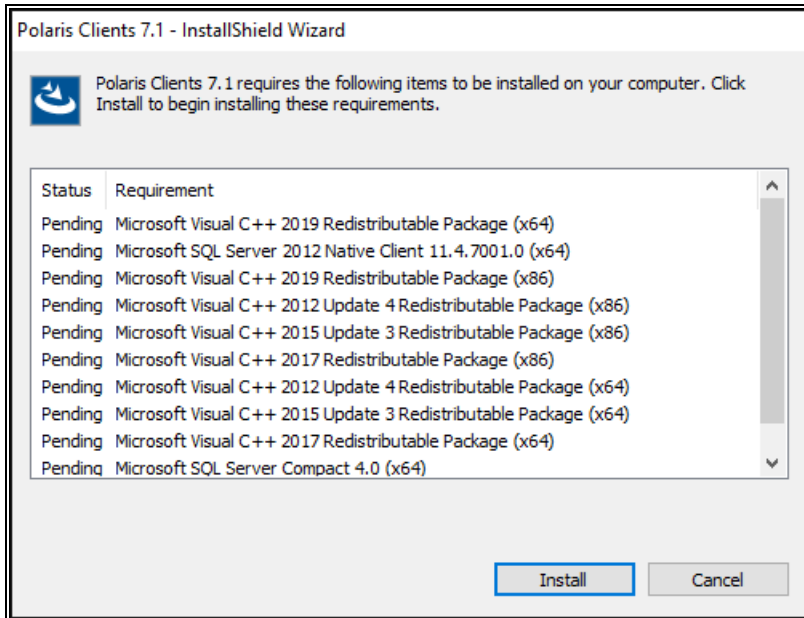
Innovative Interfaces places the Polaris Client Installer package via FTP on a share on your server. Copy the package to each Polaris server. If you want to install the necessary prerequisites in advance, *without installing Polaris client software*, follow these steps:

1. Double-click **PolarisClients.exe**.

The Polaris Clients installation wizard opens and lists the prerequisites that will be installed.

Note:

Running **PolarisClients.exe** lets you preview the list of prerequisites that will be installed. If you instead run **Polaris Client Installer.exe** (which executes **PolarisClients.exe** after performing system checks), prerequisites are automatically installed silently.

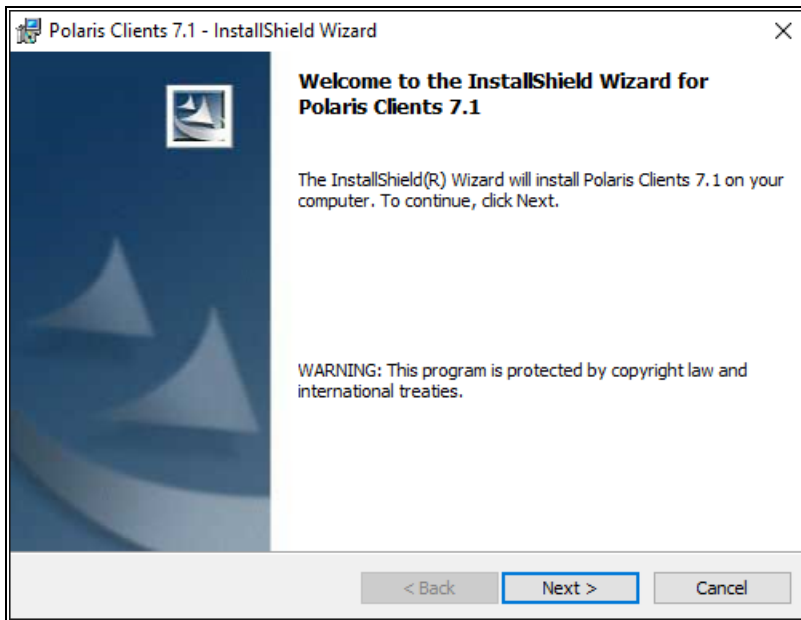
**Note:**

The requirements listed in the Polaris Clients installation wizard may differ for each computer because of operating system variations and software already installed. The components listed are those that must be installed for Polaris to install and function properly on this specific computer.

2. Select **Install**.

The wizard installs the prerequisite components. The server or workstation will restart if any prerequisites that are being installed require it. If this occurs, the installation process will resume after the restart. It is possible that the server or workstation could restart multiple times.

When installation is complete, a welcome screen appears.



3. Select **Cancel** to close the wizard without installing the Polaris client software.

Installing Polaris Server Software

When you install Polaris server software, you can choose which components to install on that particular server computer. You can install the following components on one server computer, or separate computers:

- Application Server
- Web Server (PowerPAC Server) - See [Web Server Component Features](#) for details.
- Database Server
- ERMS (Electronic Resource Management System) Server
- Reporting Services
- Polaris Phone Notification (outbound telephony)
- Polaris Phone Attendant (inbound telephony)

Important:

- Do not install any Polaris server software on the domain controller.
- Telephony applications require a separate server.

Before you install the Polaris server software, you must prepare each server computer by installing the appropriate Windows operating software, including SQL Server (new installations), MSMQ (new installations, application server only) and the Polaris Windows Components Updates (new installations and updates). See [Staging a New Polaris Server](#) and [Installing Prerequisites](#).

Web Server Component Features

The following features are available for Web Server installation.

Robots.txt - Limiting Web Crawlers

Robots.txt is an optional file that limits the ability of web search engines to “crawl” your Polaris PowerPAC pages. These automatic searches can register misleading transaction statistics and may impact performance. The Robots.txt file is always installed in the IIS root folder: [WindowsVolume]\inetpub\wwwroot\

The default version of Robots.txt allows only your portal page to be searched automatically by web crawlers. You can edit the file to allow other pages to be searched. If you edit Robots.txt and later reinstall Polaris server software, the existing file is backed up with the Polaris version added to the end of the file name, for example Robots.txt.5.6.270, so that your changes are preserved.

Note:

The Polaris Server installation will create only one backup of Robots.txt per release build. If you install the same build of Polaris more than once, Robots.txt is backed up the first time only.

Polaris Ancillary Web Service (PAWS)

PAWS is a web service used by Polaris Inventory Manager, Polaris Telephony Voice Recorder, and other applications.

PAPI Service

The Polaris Application Programming Interface (PAPI) is a web-based REST service which returns data from and/or performs actions in the Polaris application database. Method calls are made over TCP connections by sending HTTP GET, PUT, POST and DELETE requests; method calls are also made over NCIP, SIP, and Z39.50 connections. Nearly any computer language can be used to communicate over HTTP with the REST server. Returns are made as XML and JSON. The Polaris Developer Network is available

to Polaris API license holders, with a “sandbox” version available to any Polaris customer who requests access (customers do not need a Polaris API license). The Network offers forums, API documentation, sandbox servers, test tools, sample code, and downloads, eliminating the need for a training server to test custom solutions that use the Polaris API. For more information, go to <http://developer.polarislibrary.com>.

Swagger is an open-source framework for REST APIs. In Polaris 5.2 and later versions, PAPI has a Swagger endpoint which provides code and documentation to Polaris customers and third-party vendors who use the Polaris API. For more information about Swagger, go to <http://swagger.io/>. A Polaris Web Server installation option provides access to the Polaris Swagger endpoint.

Mobile PAC

Polaris® Mobile PAC™ is a web-based public access library catalog that has been optimized for mobile devices. It provides simplified access to most of the features that are available in Polaris® PowerPAC™. Any device with a web browser can access the site, including mobile devices with browsers optimized for mobile use and desktop machines with standard web browsers. Polaris Mobile PAC is a separately licensed product. For more information, see the Polaris staff client help.

Note:

In Polaris 7.1, Polaris PowerPAC is responsive to the user's device, and automatically adjusts to desktop, tablet, and smartphone displays.

Fusion Provider

With the Polaris® Fusion™ digital collection management system, libraries can expose, maintain, and manage digital collections. You can use Polaris Fusion to attach multiple digital files (such as images, audio files, video files or pdfs) to MARC records within the Polaris database, and expose this digital content to patrons through Polaris PowerPAC and Mobile PAC. You can also maintain and control access to a private repository of restricted digital media and offer this media to patrons for a fee. If you accept credit card payments for fines and fees in PAC, you can accept payments for digital downloads. For more information, see the *Polaris Fusion Guide*.

ContentXChange

Libraries that use Polaris Community Profiles can offer their community partners ContentXChange, available under separate license. ContentXChange consists of a set of

widgets that provide an easy way to incorporate features from the library or the organization's library record into the organization's own website. For more information, see the Polaris staff client help.

Important:

If you install ContentXChange, you must set the PAC parameter URL of the ContentXChange/Carousel Toolkit root for the Web server in Polaris Administration.

Polaris Language Editor (WebAdmin)

Polaris Language Editor is a web-based tool for customizing English and other licensed language strings in all the parts of Polaris that support multiple languages, including Polaris PowerPAC, Polaris ExpressCheck, printed and email notices, telephone notices, text message notices, Polaris Phone Attendant (inbound telephony), Mobile PAC, and Polaris Fusion. Polaris Language Editor also provides special PAC tools, including a language string identifier for Polaris PowerPAC and the reload tool to clear the Polaris PowerPAC or Mobile PAC cache and reload PAC pages.

WebAdmin is automatically installed when you install Polaris Web Server software. The server must be registered as a workstation in Polaris Administration, and both the workstation and staff user must have the system-level System Administration WebAdmin access: Allow permission. The staff member must log in with Polaris username, password, and domain name. For more information about registering workstations in Polaris and setting Polaris permissions, see the Polaris staff client help. For more information about using Polaris Language Editor, see the *Polaris Language Editor (WebAdmin) Guide*, available from the Language Editor Help tab.

SimplyReports

With Polaris® SimplyReports, users who do not have in-depth knowledge of the Polaris database or expertise in Structured Query Language (SQL) can produce thousands of different kinds of reports by selecting the data columns, filters, and other options on a simple web-based interface. Once you have defined the criteria for the report, you can save the report parameters and schedule the report to run at another time, or you can create the report immediately. In addition, if your library has purchased Polaris Export Express, you can save the report output for item, bibliographic, and authority list reports in a variety of exportable file formats. For more information, see the SimplyReports help.

PowerPAC

Polaris PowerPAC is your web-based public access catalog. If you have a license for Polaris PowerPAC Children's Edition, it is installed with PowerPAC. For more information about both applications, see the Polaris staff client help.

INN-Reach

INN-Reach integrates consortial Polaris and Sierra library catalogs with a shared INN-Reach Central Catalog that enables patrons to easily find and request materials online. The INN-Reach Central server is hosted in AWS (Amazon Web Services). See [Installing INN-Reach](#).

Automatic Reindexing at Server Upgrade

In Polaris Administration, libraries can set the system-level Cataloging parameter MARC Re-index during next server upgrade to Yes to trigger automatic reindexing at no cost when they upgrade to Polaris 7.1. You will see no change in your previous version of Polaris, although you must set the parameter in the previous version, *before* you upgrade to Polaris 7.1. When the upgrade to Polaris 7.1 and the reindexing are complete, the parameter is automatically reset to No (the default setting).

Important:

Reindexing can add a significant amount of time to the upgrade process and should be avoided if it is not necessary. However, if you must reindex, performing the process at upgrade may be both cost-effective and time-effective, since there is a fee associated with retroactive reindexing and the server will be offline during the upgrade in any case.

When the parameter is set to Yes, the system sets a flag so that the server installation database update (DBUpdate) process performs a reindex comprised of the following general steps:

- Alerts the Polaris support engineer that a reindex will take place during the DBUpdate process
- Rebuilds indices and relinks bibs to authorities
- Defragments database tables
- Updates database statistics

When the reindexing has successfully completed, an alert is logged in the DBUpdate report.

To set the parameter in your previous version of Polaris (anticipating an upgrade to the next release), you need the System Administration permission Access MARC Re-index during next server upgrade: Allow to set the parameter. When the parameter is changed from No to Yes, you also receive a warning message regarding potential upgrade time.

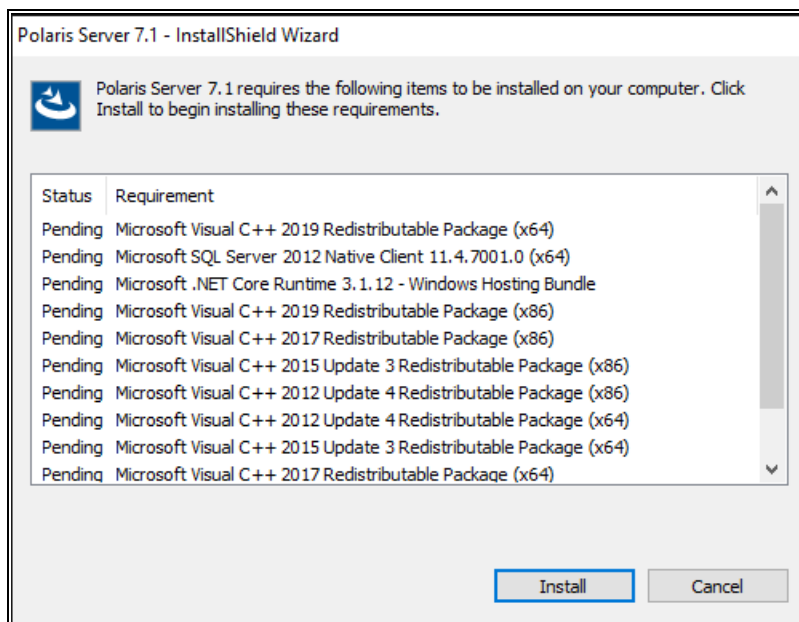
Install Polaris Server Software

Follow these steps to install the Polaris server software.

Note:

If your site has a two-server configuration (separate web server), see the specific instructions in [Install server software \(separate web server\)](#).

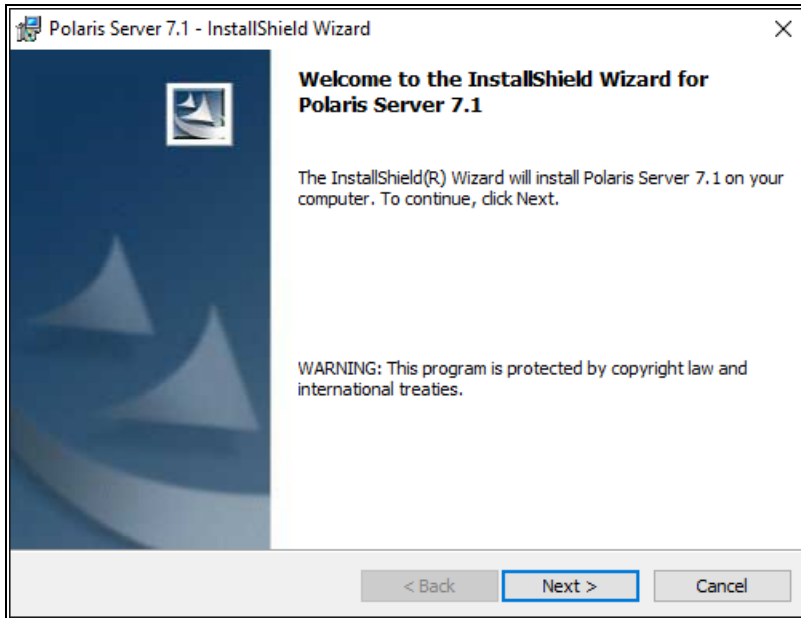
1. Install the prerequisites from the Polaris server install, if you have not already done so.



Note:

The server will restart if any prerequisites require it. If this occurs, the installation process will resume after the server restarts.

Once the prerequisites are installed, a welcome dialog appears.

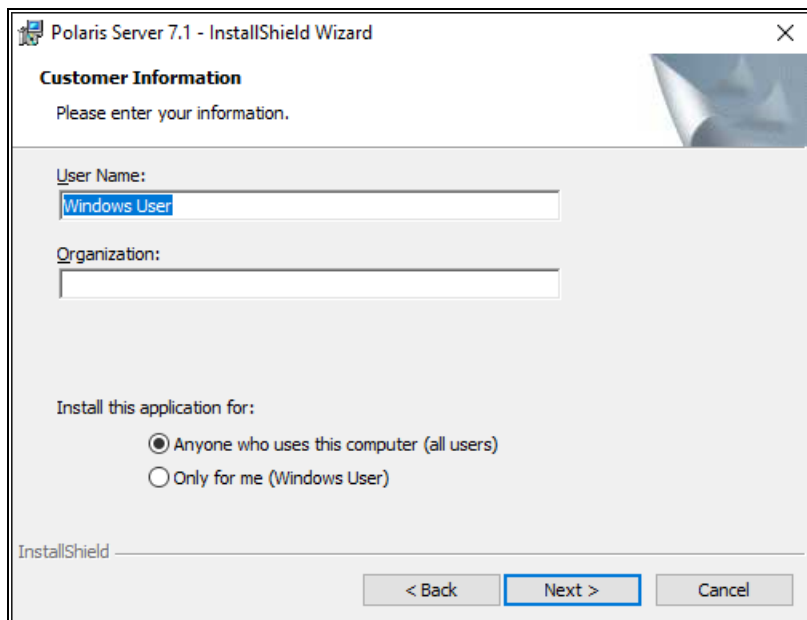


2. Select **Next**.

The License Agreement dialog appears.

3. Select **I accept the terms in the license agreement**.
4. Select **Next**.

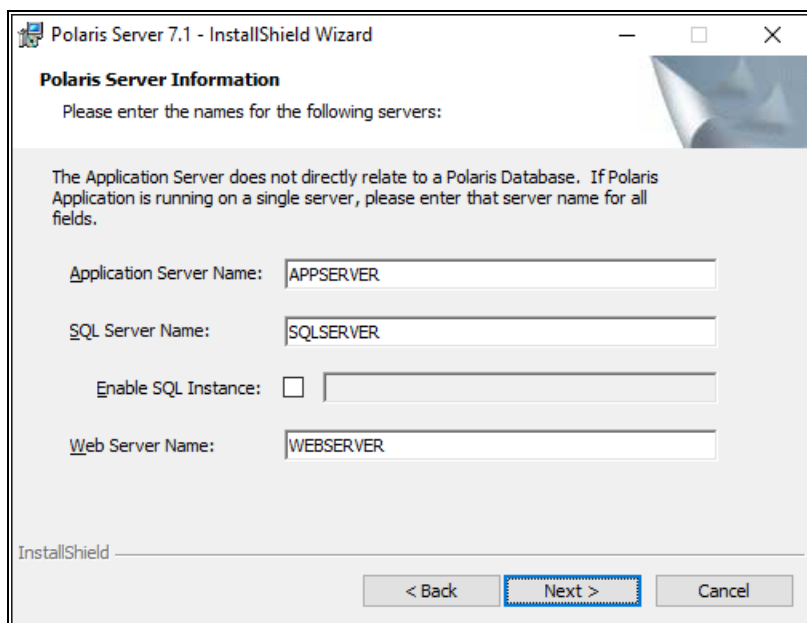
The Customer Information dialog appears.



The dialog box is titled "Polaris Server 7.1 - InstallShield Wizard". It has a close button (X) in the top right corner. The main heading is "Customer Information" with the instruction "Please enter your information." Below this, there are two text input fields: "User Name:" containing "Windows User" and "Organization:" which is empty. Underneath these fields, there is a section titled "Install this application for:" with two radio button options: "Anyone who uses this computer (all users)" (which is selected) and "Only for me (Windows User)". At the bottom left, it says "InstallShield". At the bottom right, there are three buttons: "< Back", "Next >" (highlighted with a blue border), and "Cancel".

5. Type your username and organization name in the appropriate boxes.
6. Select a user permission option using the **Install this application for** setting.
7. Select **Next**.

The Polaris Server Information dialog appears.



The dialog box is titled "Polaris Server 7.1 - InstallShield Wizard". It has standard window controls (minimize, maximize, close) in the top right corner. The main heading is "Polaris Server Information" with the instruction "Please enter the names for the following servers:". Below this, there is a paragraph of text: "The Application Server does not directly relate to a Polaris Database. If Polaris Application is running on a single server, please enter that server name for all fields." There are four text input fields: "Application Server Name:" containing "APPSERVER", "SQL Server Name:" containing "SQLSERVER", "Enable SQL Instance:" with an unchecked checkbox and an empty field, and "Web Server Name:" containing "WEBSERVER". At the bottom left, it says "InstallShield". At the bottom right, there are three buttons: "< Back", "Next >" (highlighted with a blue border), and "Cancel".

8. Type the appropriate computer names in the **Server Name** boxes.

Note:

Your Polaris server configuration determines the server names you supply in this dialog. For example, if the application server, the SQL server, and the web server reside on the same physical computer, type the same name in all three boxes.

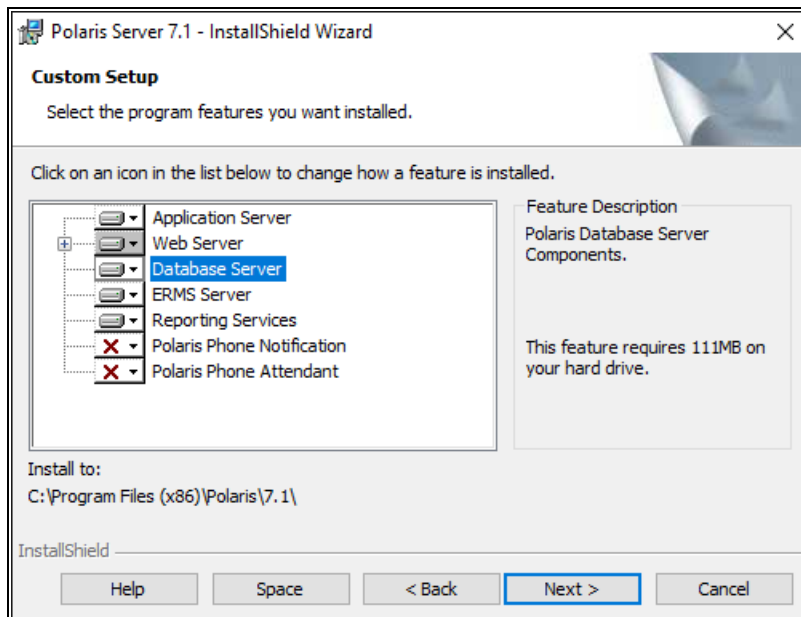
9. If more than one SQL instance exists on your SQL server, select the **Enable SQL Instance** checkbox, and type the instance name in the box next to the option.

Example:

You may have separate SQL instances set up if there is more than one Polaris database. If you have separate SQL instances, you need to check this option and supply the instance name for database updates.

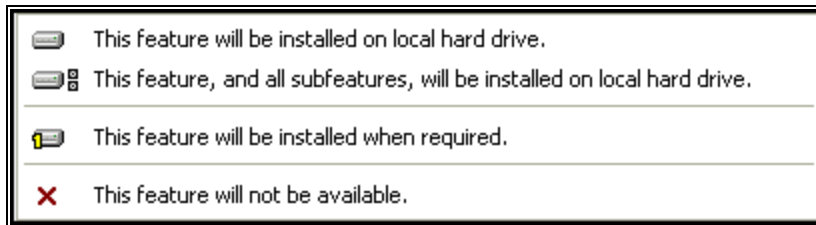
10. Select **Next**.

The Custom Setup dialog appears.



11. Select or deselect the server software to install on this computer by selecting a server name and selecting an option from the drop-down menu. For more

information about web server components, see [Web Server Component Features](#).



Example:

If you do not want to install Web Server software on this computer, select **Web Server**, and select **This feature will not be available** from the drop-down menu.

Notes:

- If you are installing Polaris Fusion Provider on a dedicated server, you must also install the Application Server and ERMS Server components. Open the same ports as you do for the Web Server.
- If you select **Database Server** for installation, be aware that the database update can take an hour or more to complete. If this installation is an upgrade from a previous version of Polaris, and you have set the Polaris profile to reindex the database at upgrade, the reindexing takes place immediately after the database update. This process can take from 30 minutes to 7 hours. See [Automatic Reindexing at Server Upgrade](#) for more information.
- If you select **Polaris Administration** to install the web-based Polaris Administration, you must complete several configuration steps after the installation is complete. See [Appendix: Configuring Polaris Administration \(Web-Based\)](#).

12. (Optional) If you want to install the Polaris servers in a folder other than the default location, select **Change** to display the Change Current Destination Folder dialog. Specify or select the folder where you want to install the server software, and select **OK** to return to the Custom Setup dialog.

Tip:

To accept <SYSTEMDRIVE>\Program Files\Polaris\7.1 as the default location, skip this step.

13. If the ERMS Port Configuration dialog appears, change the default listening ports if necessary.

The ERMS Daemon is a service that provides storage, processing, and access to electronic resources.

The example screen below shows the default ports that are used by the ERMS Daemon. Do not modify the port settings unless you have a specific technical need to use another port. If you will not be using the default ports, please confer with your site manager to discuss other changes that might be necessary to make your configuration work. Note that the HTTPS port can be disabled, but Innovative *highly* recommends that you leave it enabled.

ERMS Port Configuration

Please provide the following information to properly configure ERMS.

Please select the required ports and specify the port number.
Only enable the ports that you will be using. You may modify the default port number if needed.

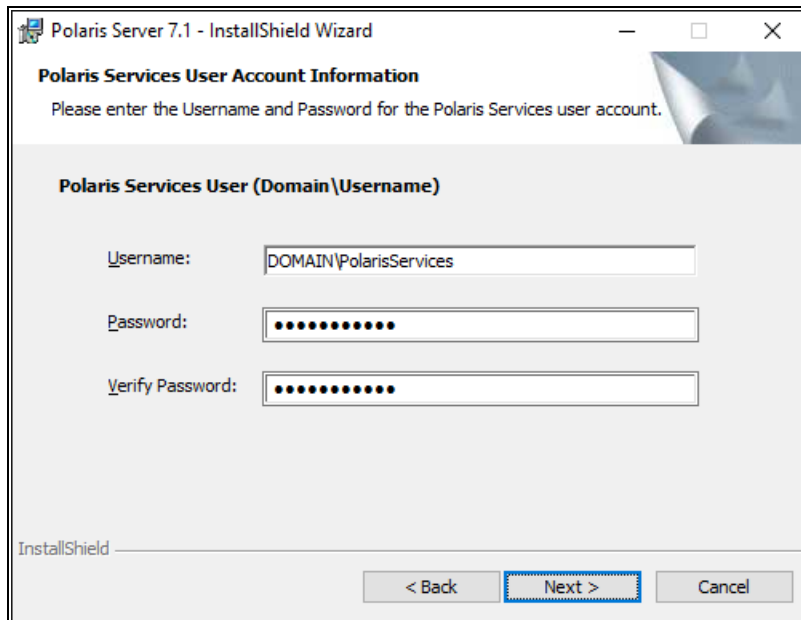
ILL Port:	499
Z39.50 Port:	210
RCE Port:	13088
HTTP Port:	80
☒ HTTPS Port:	443

InstallShield

< Back Next > Cancel

14. Select **Next**.

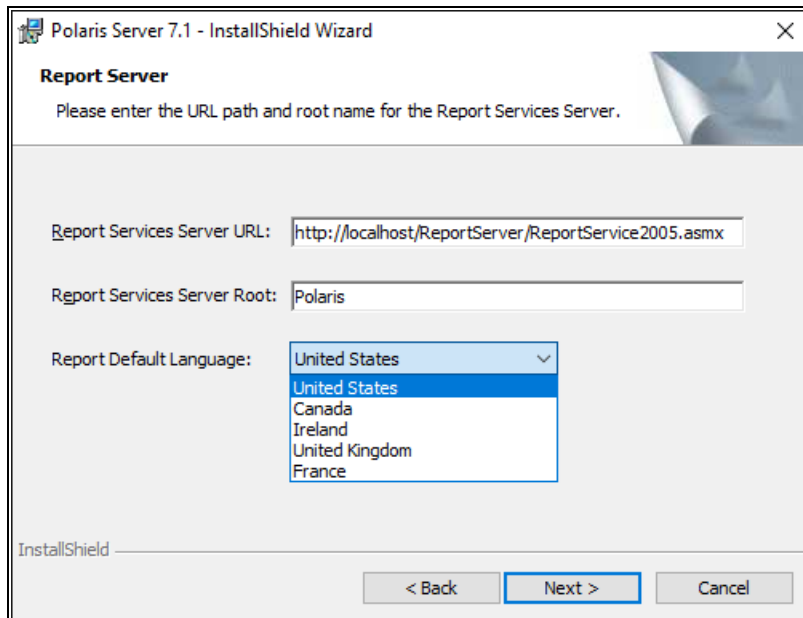
The Polaris Services User Account Information dialog appears.

**Note:**

The Polaris Services account must be a standard user account (non-administrator privileges) and must not belong to the administrators group. See [Create a PolarisServices account](#) and [Give appropriate local security policy rights](#).

15. Type the Polaris Services username in the format *Domain\PolarisServices*.
16. Type the Polaris Services password in the **Password** box.
17. Type the Polaris Services password again in the **Verify Password** box.
18. Select **Next**.
19. If the Report Server dialog appears, type the complete URL for the Report Services Server on this computer, type the Report Services Server Root.

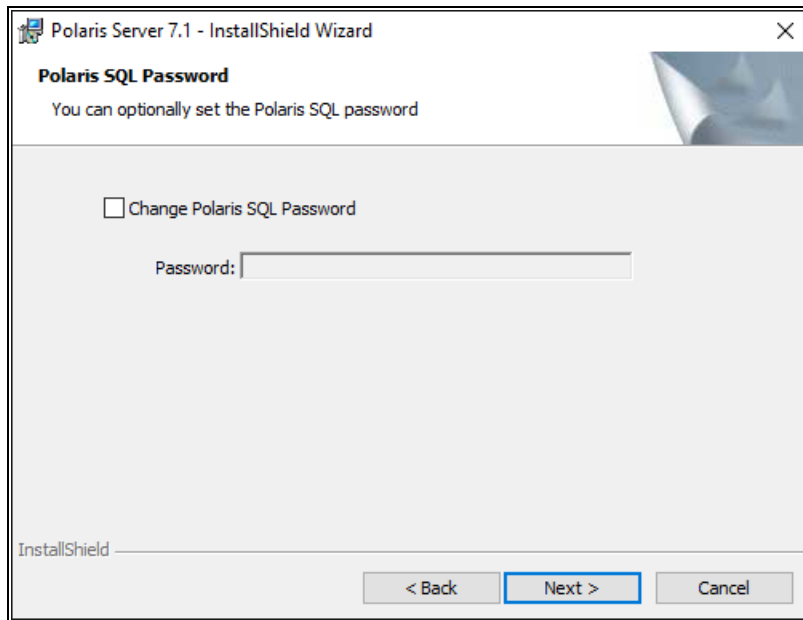
The Report Server dialog appears if you are installing Reporting Services on this computer. Reporting Services is selected for installation by default.

**Note:**

Reporting Services files are typically installed on the web server, but they can be configured as an independent server.

20. Select Next.

If you selected Database Server for installation in step 11, the Polaris SQL Password dialog appears. Continue to the next step.



If you did not select Database Server for installation, the Ready to Install the Program dialog appears. Skip to step 23.

21. (Optional) If you want to change the Polaris SQL password, select **Change Polaris SQL Password** and type the new password in the **Password** box.

Note:

The maximum length of the password is 50 characters. The password characters are not visible when you type in the Password box.

22. Select **Next**.

The Ready to Install the Program dialog appears.

23. Select **Install**.

The Installing Polaris Server 7.1 dialog is displayed until the installation is finished.

Important:

Before doing the next step, make sure the database update (DB Update Scripts) has finished. This process can take an hour or more to complete. When the update is complete you are notified by a text file.

24. Select **Finish**.
25. Restart the computer.

Related Information

Web server access for Reporting Services - Polaris uses SQL Server Reporting Services for reports, notices, and most printing tasks in the staff client. Microsoft Report Manager (and Report Designer, if you customize reports) is installed on your report “server,” which may be located on your Polaris web server or another server you specify. For more information, see [Reports](#).

Activating Polaris PowerPAC Multilingual Version or Mobile PAC - Contact your Polaris Site Manager. For more information about setting up Polaris PowerPAC Multilingual Version and Mobile PAC, see the Polaris staff client help.

Activating Polaris PowerPAC Children’s Edition - Contact your Polaris Site Manager. Then, using SQL, insert attribute ID 1966 in the Polaris **organizationspppp** table:

```
insert organizationspppp  
values (1, 1966, 'yes')
```

In Polaris Administration, set the PowerPAC profile **Navigation: Children’s PAC** to **Yes** to display the link on the Polaris PowerPAC page. For more information about setting up Polaris PowerPAC Children’s Edition, see the Polaris staff client help.

Install server software (separate web server)

Follow these steps to install Polaris server software if you have a two-computer server configuration with a separate web server. In this configuration, the Application Server and Database Server components are installed on one computer, and the selected Web Server components, ERMS Server, and Reporting Services components are installed on the other.

Note:

Telephony applications require a separate server. Install telephony components on the telephony server.

1. Follow the general instructions for installing Polaris server software until the Polaris Server Information dialog appears. See [Install Polaris Server Software](#).
2. When the Server Information dialog appears, supply the server names in the appropriate boxes:

- Type the name of the application server computer in every Server Name box except **Web Server Name**.
- Type the name of the web server in the **Web Server Name** box.

In the example below, the application server is called Server1. The web server is called Server2.

3. If more than one SQL instance exists on your SQL server, select the **Enable SQL Instance** checkbox, and type the instance name in the box next to the option.
4. Select **Next**.

The Custom Setup dialog appears.

5. De-select every feature for installation except **Application Server** and **Database Server**.
6. Select **Next** and complete the installation on this computer. See [Install Polaris Server Software](#) for details.
7. On the **Web server computer**, start the Polaris server installation.
8. When the Polaris Server Information dialog appears, supply the server names in the appropriate boxes:
 - Type the web server name in the **Application Server Name** and the **Web Server Name** boxes.

- Type the name of the SQL server in the **SQL Server Name** box.

Note:

If the web server is outside a firewall, the **Application Server Name** and **Web Server Name** fields would use the same value. This is because outside a firewall, the application server components must be running locally to the web server. If the web server is on the same network as the application server, the web server and application server can be separate servers. In this case, you will still use Computer1 for the Application Server Name even though Computer2 is the Web Server Name.

9. Select **Next**.

The Custom Setup dialog appears.

10. Select **Web Server** component features, ERMS Server, and Reporting Services for installation. For more information about web server components, see [Web Server Component Features](#).
11. Select **Next** and complete the installation on the web server. See [Install Polaris Server Software](#) for details.

Related Information

- **Two-server configuration in Polaris Administration** - In Polaris Administration, the application server should have an SQL connection and a Z39.50 connection. The web server should have only a web connection. For more information about configuring servers in Polaris Administration, see the Polaris staff client help.
- **Web server parameters** - In Polaris Administration, check the parameters for the web server to be sure they refer to the web server. For more information about setting server parameters in Polaris Administration, see the Polaris staff client help.

Installing INN-Reach

For an overview of INN-Reach integration, see [INN-Reach](#) and also see the Polaris staff client help. Two server software components are installed as part of the Polaris INN-Reach integration:

- Windows service process (Polaris INN-Reach Connector) which continually sends real-time record updates of bibliographic and item data to the INN-Reach Central server, as well as outgoing API messages related to INN-Reach circulation and

request functions.

- INN-Reach Web service which listens for incoming API messages related to request and circulation messages from the INN-Reach Central server and other local servers that are members of the consortium. This also serves as a management portal for configuration and monitoring.

For the the local Polaris server running INN-Reach processes, all inbound and outbound traffic on port 443 (including appropriate SSL certificates) to the following INN-Reach Central servers in AWS (Amazon Web Services) should be allowed:

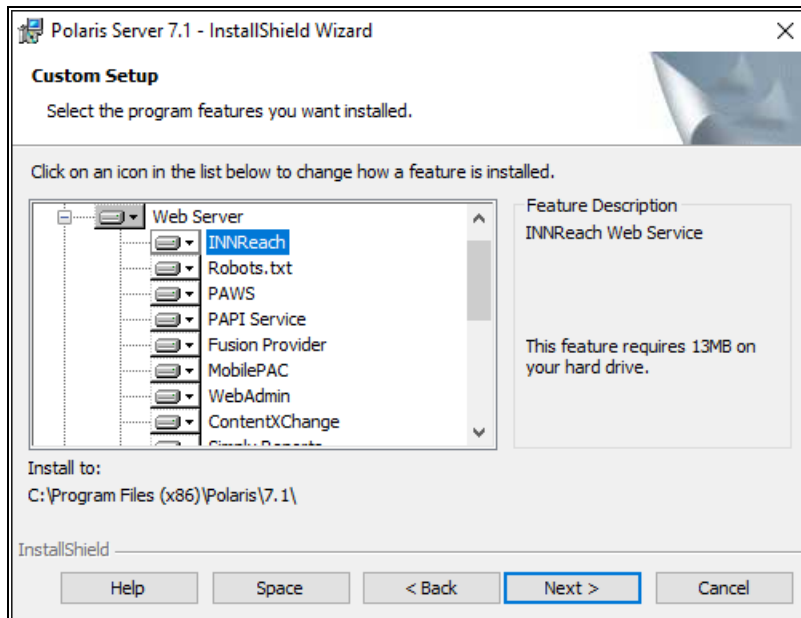
- 54.183.40.224
- 54.67.111.221

Inform your Innovative customer support representative of the IP and domain name of the local Polaris server that will be connecting to AWS. The support representative should communicate this information to Innovaive staff responsible for the Innovative AWS platform.

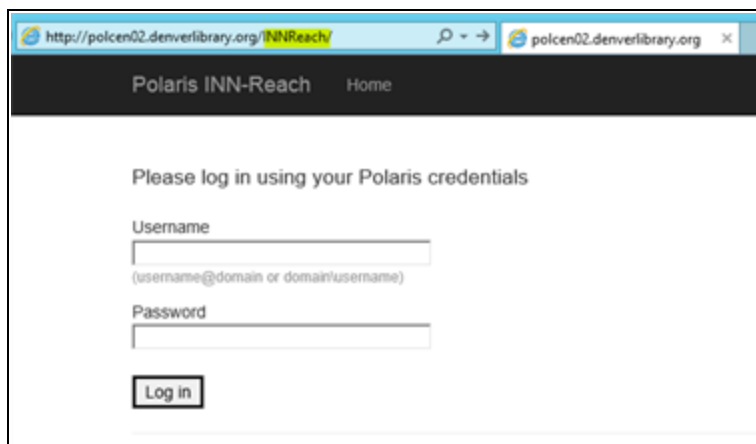
To configure INN-Reach for your local Polaris system, you work with your Innovative customer support representative to complete a spreadsheet of configuration data. Your support representative then uses a configuration utility, **InnReachConfig.exe**, to load the configuration.

Follow these steps to install and verify Polaris INN-Reach server software:

1. Follow the general instructions for installing Polaris server software, selecting INN-Reach (under Web Server) for installation. See [Install Polaris Server Software](#).



2. License the server for INN-Reach Integration. See [Place Polaris licenses on your application server](#).
3. Verify that the INN-Reach Admin Portal is installed on the server.



4. Verify that the INN-Reach Windows Service is installed.
5. Check log files in C:\ProgramData\Polaris\7.1\Logs\InnReach.Connector\ for status of running INN-Reach service. Since configuration data has not yet been loaded, the log should say that the process exited.
6. Have your Innovative customer support representative run the configuration utility, **InnReachConfig.exe**, to load your configuration data.

7. Once the configuration has been successfully loaded, view the configuration in the INN-Reach Admin view.

Note:

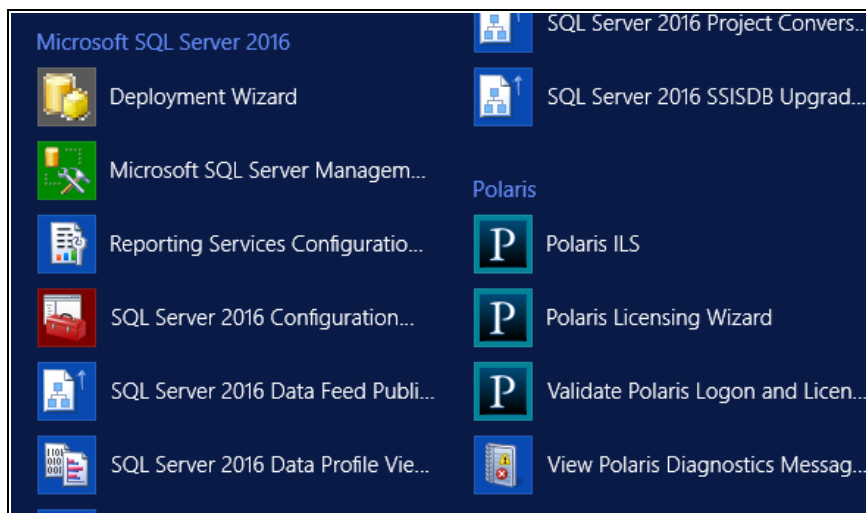
You need the Polaris permission **INN-Reach Administration: Access** to view the INN-Reach Administration tool. You need both **INN-Reach Administration: Access** and **INN-Reach Administration: Modify** permissions to make changes.

Licensing, Logon Validation, and Diagnostics

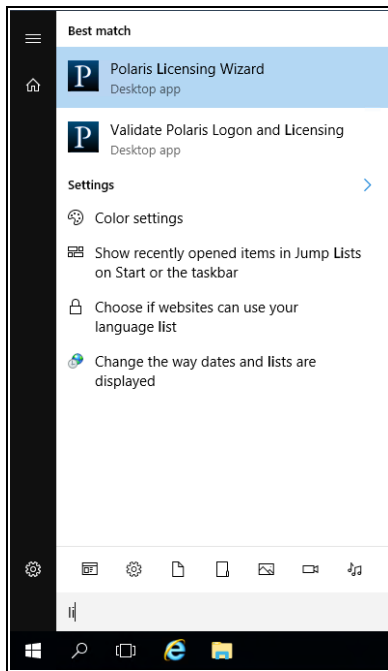
The Polaris server application offers useful features under the Polaris Tools program entry in the Start menu:

- **Polaris Licensing Wizard** - [Place Polaris licenses on your application server](#)
- **Validate Polaris Logon and Licensing** - [Validate Polaris Logon and Licensing](#)
- **View Polaris Diagnostic Messages** - [View Polaris diagnostic messages](#)

The example below shows Windows Server 2012 R2:



This example shows Windows Server 2016:



Place Polaris licenses on your application server

Once Innovative has made the appropriate licenses available to your site, you can use the Polaris Licensing Wizard tool to place the licenses on your application server. Follow these steps.

Note:

This procedure requires your Polaris site code and passphrase. Contact your Polaris Site Manager to obtain this information if necessary.

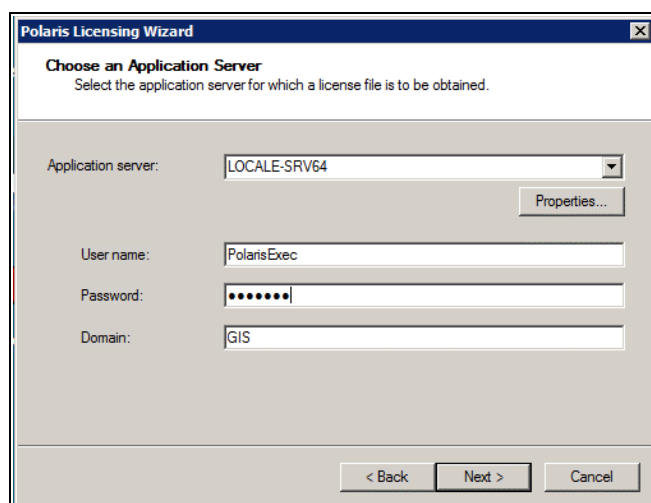
1. On the Start menu, select **Polaris > Tools > Polaris Licensing Wizard**.

The Welcome window appears.



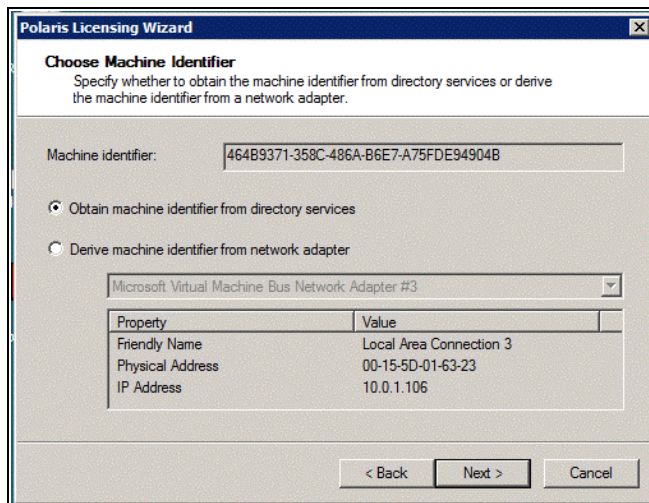
2. Select **Next**.

The Application Server window appears.



3. Select your application server, type your Polaris account logon information, and select **Next**.

The Machine Identifier window appears.



The screenshot shows the 'Polaris Licensing Wizard' window with the 'Choose Machine Identifier' step. It includes a text field for the Machine Identifier, two radio buttons for obtaining the identifier, a dropdown menu for network adapters, and a table of network properties.

Polaris Licensing Wizard

Choose Machine Identifier
Specify whether to obtain the machine identifier from directory services or derive the machine identifier from a network adapter.

Machine identifier: 464B9371-358C-486A-B6E7-A75FDE94904B

☒ Obtain machine identifier from directory services
☐ Derive machine identifier from network adapter

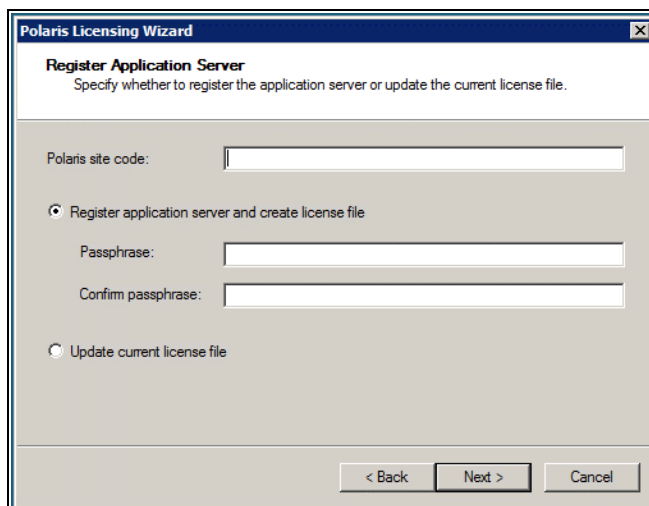
Microsoft Virtual Machine Bus Network Adapter #3

Property	Value
Friendly Name	Local Area Connection 3
Physical Address	00-15-5D-01-63-23
IP Address	10.0.1.106

< Back Next > Cancel

4. Leave the Machine Identifier settings as they are, and select **Next**.

The Register Application Server window appears.



The screenshot shows the 'Polaris Licensing Wizard' window with the 'Register Application Server' step. It includes a text field for the Polaris site code, two radio buttons for registering or updating the license, and text fields for a passphrase and its confirmation.

Polaris Licensing Wizard

Register Application Server
Specify whether to register the application server or update the current license file.

Polaris site code:

☒ Register application server and create license file
☐ Update current license file

Passphrase:
Confirm passphrase:

< Back Next > Cancel

5. Enter your Polaris site code.

Note:

Contact your Polaris Site Manager to obtain this information if necessary.

6. Select one of the following options:

- **First-time users** - Select **Register application and create license file**. Then type and confirm your passphrase.

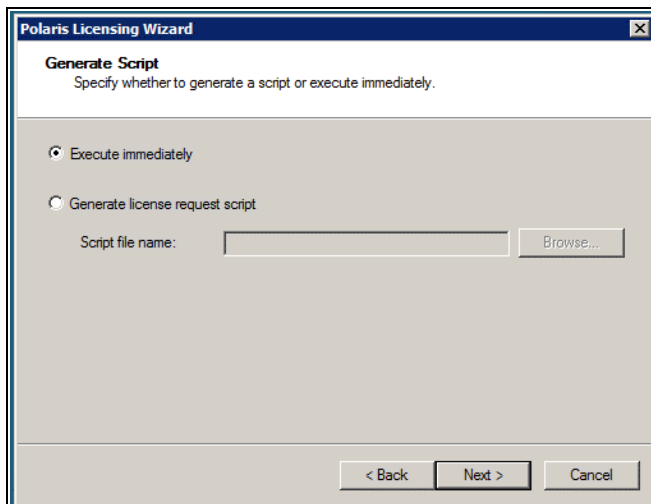
Note:

Contact your Polaris Site Manager to obtain this information if necessary.

- **Updates** - Select **Update current license file**.

7. Select **Next**.

The Generate Script window appears.



8. Select one of the following options:

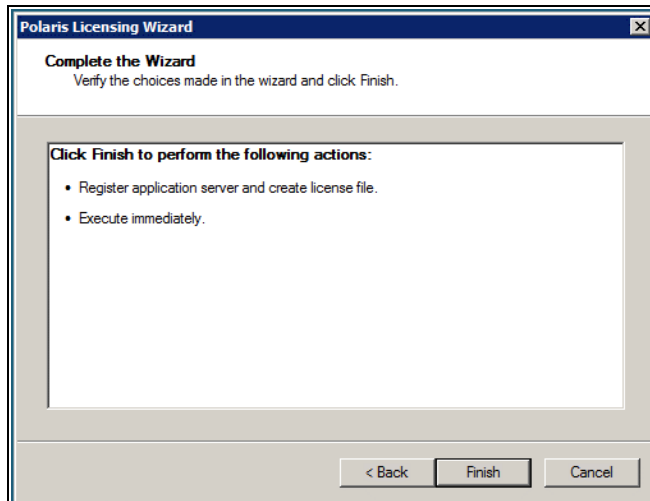
- **Application server with Internet access** - Select **Execute immediately**. This option will automatically generate the license file and place it on your server.
- **Application server with no Internet access** - Select **Generate license request script** and specify a script file name. If you select this option, send your script file to your Polaris Site Manager so that Innovative can register your license. Innovative will send the license file back to you.

Note:

You may need to change your script file extension to .txt in order to email it to your Polaris Site Manager.

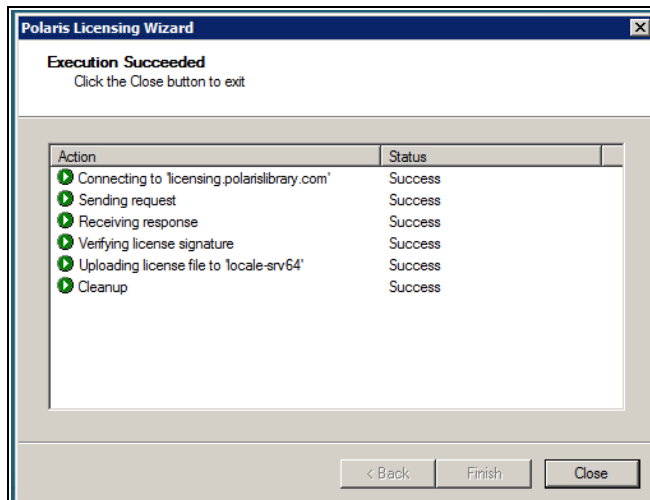
9. Select **Next**.

The Complete the Wizard window appears.



10. Verify your choices and select **Finish** (or select **Back** to change your settings).

The status window appears.



11. Select **Close**.

If you chose to generate and receive your license file directly via the Internet, the license file is automatically created and placed in the Polaris directory. If you chose to generate the script and send it to Innovative by email, Innovative generates the license file and sends it back to you. Place the file in the appropriate location, typically:

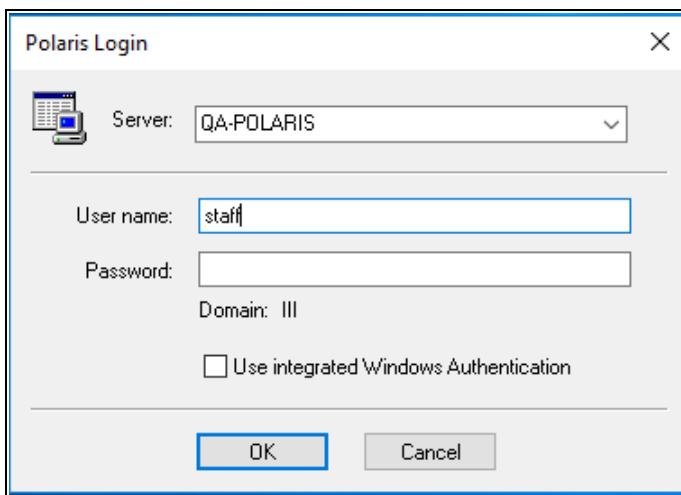
C:\Program Files (x86)\Polaris\7.1\bin

Validate Polaris Logon and Licensing

Use this option to verify license information and test the logon without actually installing the Polaris staff client application.

1. On the Start menu, select **Polaris > Tools > Validate Polaris Logon and Licensing**.

The Polaris Login dialog appears.

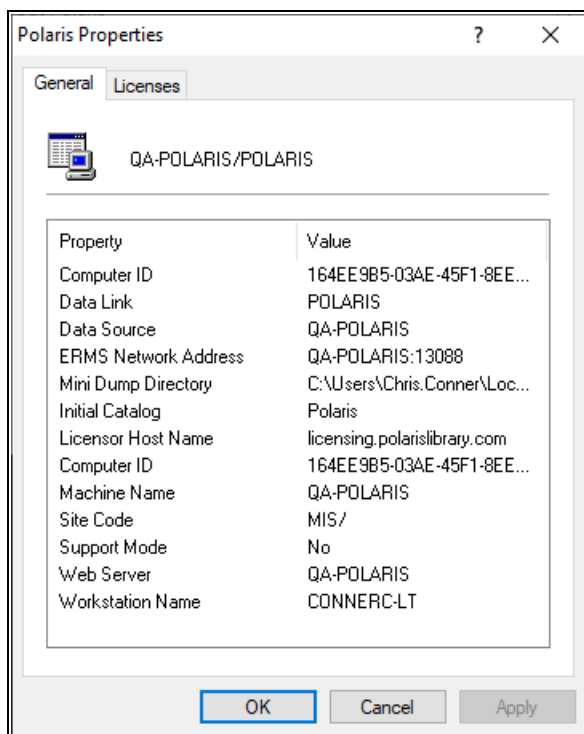
The image shows a Windows-style dialog box titled "Polaris Login". It has a close button (X) in the top right corner. Inside the dialog, there is a "Server:" label followed by a dropdown menu showing "QA-POLARIS". Below this is a horizontal separator line. Under the line, there are three fields: "User name:" with the text "staff" entered, "Password:" with an empty field, and "Domain:" with the text "III" entered. Below these fields is a checkbox labeled "Use integrated Windows Authentication" which is currently unchecked. At the bottom of the dialog are two buttons: "OK" and "Cancel".

2. Supply the following information:
 - **Server** - Select your application server if necessary.
 - **User name** - Type the Polaris user name. The user name must be a user registered in the Polaris database.
 - **Password** - Type the password associated with this user name.
 - **Domain** - Type the network domain.
 - **Use Windows Authentication** - Select if appropriate.

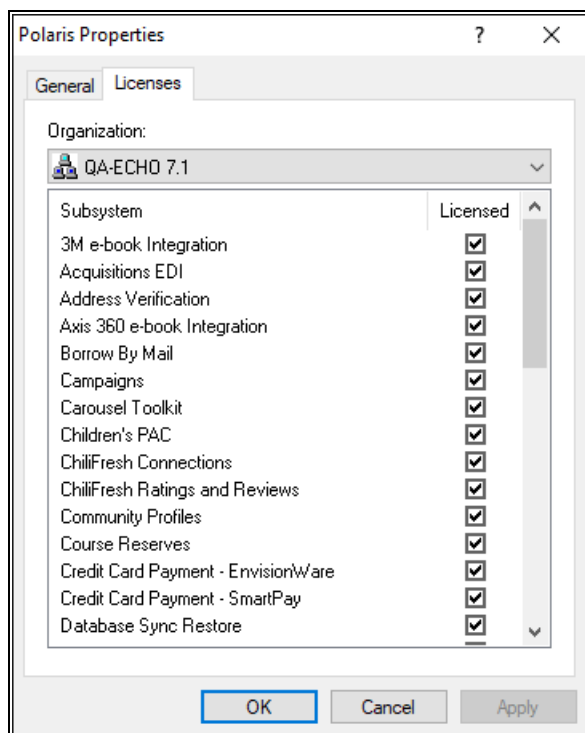
3. Select **OK**.

The Polaris Properties dialog appears. The illustration is an example of the type of information the General tab displays. If the **Site Code** field is blank, there is no

license file.



4. Select the Licensess tab to see your currently assigned licenses. The illustration is an example where licenses have been assigned.

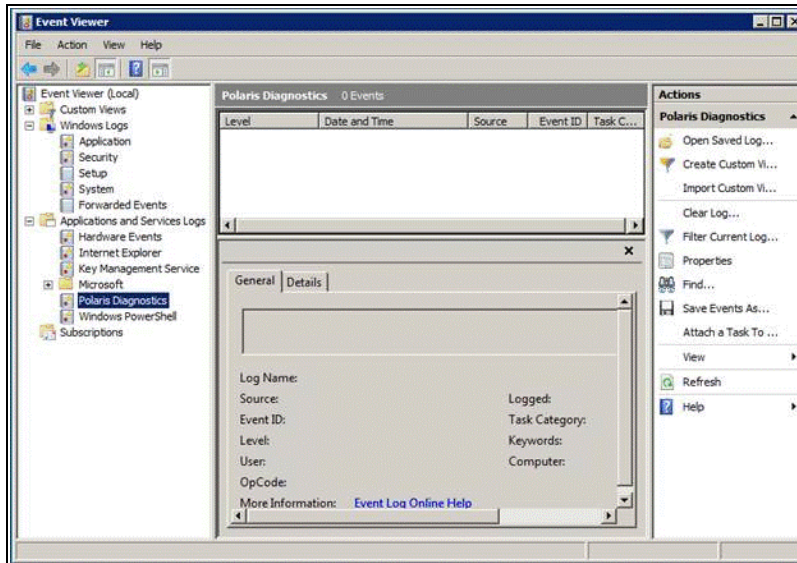


5. Select **OK** to close the Properties dialog and exit the Validate Polaris Logon and Licensing tool.

View Polaris diagnostic messages

Use this tool to access the Polaris Diagnostics node in the event log, without having to open the Event Viewer and search for the node.

On the Start menu, select **Polaris > Tools > View Polaris Diagnostic Messages**. The Event Viewer opens, and the Polaris Diagnostics log is automatically selected.



Setting Date and Currency Formats

Polaris supports various date formats. Set your server and client computers to the date format you prefer. For example, on a Windows 8 workstation, select **Control Panel > Clock > Language and Region**, and select the format from the **Region** list.

Important:

Client and server date format settings must match.

Polaris also supports currency conversion in Acquisitions for libraries that use foreign vendors. You must set your own base currency to use this feature, and your base currency must be in dollar format (United States, Canada, Australia). On the Language, Clock, and Region dialog, select **Additional settings** (Windows 8) to set a currency format within the regional setting, then select Currency to display the Currency tabbed page. You must keep the dollar sign on the left, and the decimal point before the last two digits. For more information about currencies, see the Polaris staff client help.

Important:

Client and server currency format settings must match.

Ensuring Consistency in Locale and Time

Transaction time stamps are derived from both the server and the staff client. If the time setting is different on these computers, you may notice discrepancies in logs and

transactions. After the Polaris staff client is installed, using staff client profiles in Polaris Administration, you can enable automatic checking for consistency in date and currency formats, as well as the time recorded for logs and transactions. For more information, see “Ensuring Locale and Time Consistency” in the Polaris staff client help.

Changing the Polaris SQL User Password

Best security practices dictate that you change the default Polaris SQL User password, which controls access to your database. To change the password, you run a script in SQL Management Studio, then update the password for Reporting Services. Follow the steps outlined below, or contact your Polaris Site Manager for assistance.

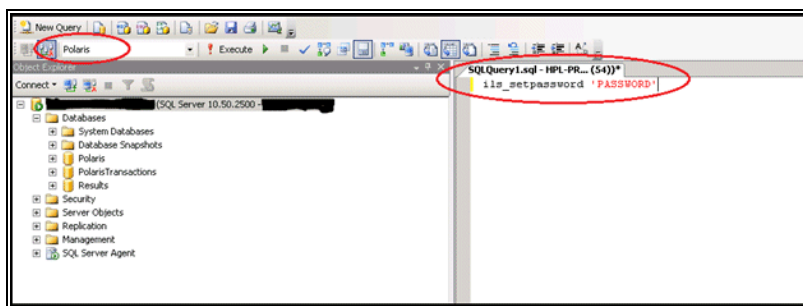
Change the Polaris SQL user password

Follow these steps to change the default Polaris SQL User password.

1. Open SQL Management Studio as an administrative user.
2. Select the Polaris database.
3. Run the following script, where 'PASSWORD' is the new password for the polaris SQL user:

```
ils_setpassword 'PASSWORD'
```

A complex password consisting of letters, numbers, and symbols is recommended. Certain symbols are not accepted: ~!%^&()-{}'\`



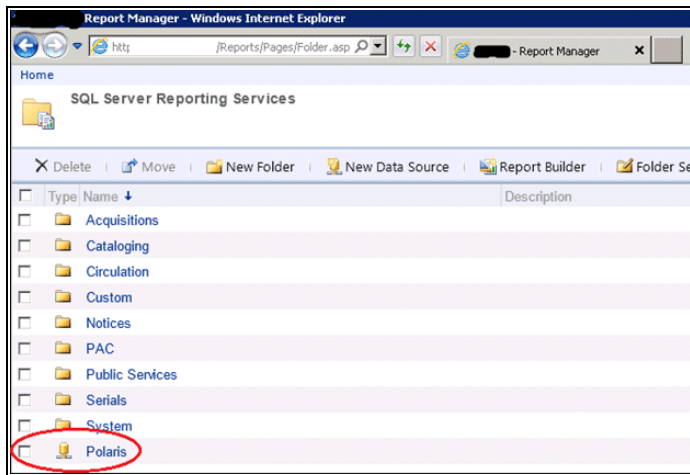
4. When the script has run, reboot the server.

Update the password in Reporting Services

Because the polaris SQL user password is cached in Reporting Services, you must also update the password there. Follow these steps to update the password in Reporting

Services.

1. Open Report Manager at:
<http://servername/reports>
2. Select the **Polaris** data source.



3. Type the new Polaris SQL user password in the **Password** field.

A screenshot of the 'Generate Model' dialog box in the Report Manager. The 'Name' field is set to 'Polaris'. The 'Data source type' is 'Microsoft SQL Server'. The 'Connection string' is 'Data Source= ; Initial Catalog=Polaris'. Under 'Connect using', the radio button 'Credentials stored securely in the report server' is selected. The 'User name' field is 'polaris' and the 'Password' field is highlighted with a red circle. The 'Test Connection' button is visible at the bottom.

4. (Optional) Select **Test Connection** to test your change.
 5. Select **Apply**.
-

Upgrading to Polaris 7.1

You can upgrade to Polaris 7.1 from Polaris version 5.0 (191) or later.

Important:

If you want to reindex your database automatically as part of the upgrade, set the Cataloging parameter MARC Re-index during next server upgrade to Yes. See [Automatic Reindexing at Server Upgrade](#).

Note:

If you have a single-server production environment, see [Servers](#) ("RAM Recommendations for Single-Server Environments").

To upgrade to Polaris 7.1 from a previous version:

1. If you plan to do the update while maintaining full library functions, create offline transaction files.
2. Verify that all users are logged off the server, and close all staff and public clients.
3. Back up the Polaris database.
4. Uninstall the previous Polaris server and client software from the servers.
5. Apply all Microsoft and Microsoft Windows updates.
6. Install Polaris 7.1 server software. See [Installing Polaris Server Software](#).
7. Install the Polaris staff and public client software on the appropriate workstation computers. See [Installing the Polaris Clients](#).

Important:

The installation terminates any running **Polaris.exe** processes before the installation proceeds.

Client Installation

The Polaris staff client (Polaris ILS), Polaris SIP (self-check), Polaris NCIP service, and Polaris ExpressCheck use the same installation program. You choose which software to install during client installation.

Note:

The client prerequisites are rolled into the client installation and will be automatically installed, if necessary.

This unit covers the following topics:

- [Installing the Polaris Clients](#)
- [Group Policy Deployment](#)
- [System Center Deployment](#)
- [Automating Polaris Client Deployment](#)
- [RFID Circulation for Polaris Hosted and Terminal Server Environments](#)

Installing the Polaris Clients

Along with staff client software, the client software required for computers controlling SIP2 self-check, NCIP service, and Polaris ExpressCheck is included in the Polaris client installation software. You can install any of these independently, without necessarily installing the staff client.

Note:

Polaris client software can also be installed on Polaris servers as part of the server installation process. See [Installing Polaris Server Software](#). The procedure is the same, except that you cannot change server names or the installation path.

Client Installation Methods

Several options are available for installing Polaris client software. See the following topics:

- [Install Polaris client software manually](#)
- [Group Policy Deployment](#)
- [System Center Deployment](#)
- [Automating Polaris Client Deployment](#)

Printing Reports, Notices, and Purchase Orders

Staff computers that are used to print Polaris reports, notices, or purchase orders require the following configuration:

- The database containing the purchase orders to be printed must be named Polaris.
- At least one page-size printer must be set up in Microsoft Windows on the computer.

Important:

Polaris requires Adobe Reader DC or later on any workstation that runs reports, notices, or does certain staff client printing tasks. The application is available at no cost from <http://get.adobe.com/reader/>

Security Manager

The Polaris Security Manager is automatically installed if you select RFID, EM (electromagnetic), or AV Locker security options while installing Polaris ExpressCheck, or RFID while installing the Polaris staff client. It supports the Polaris security interface and provides the underlying implementation for each supported third-party security model, including the following:

- 3M™ RFID
- Bibliotheca RFID
- EnvisionWare RFID
- Bibliotheca SmartDispenser200™
- Bibliotheca EM (electromagnetic security)

The Polaris client software communicates with the Security Manager using a common interface, and the Security Manager handles the specific details of each RFID implementation. Thus the Security Manager provides the ability to apply security fixes, updates and upgrades by simply updating the Security Manager.

The Security Manager provides tightly integrated security (RFID, AV, EM) operations, allowing Polaris client software to communicate directly with each security device.

Polaris controls when to read from devices, when to write to devices, and so forth. The Security Manager does not rely on screen scraping or a keyboard wedge to send key operations. There is no need to manage a second application for security operations.

Settings in the Security Manager are vendor-specific, not Polaris client-specific, so any changes you make in the Security Manager affect all the client workstations that use the vendor's security features.

Important:

The Security Manager uses TCP port 8075. This port must be open if any security measures (RFID, EM, AV Locker) are used.

The Security Manager is set with the equipment manufacturer's default values and the security options that you select for your vendor when you install the Polaris client software. If you need to change these settings, open **SecurityManager.exe**, located by default on the client workstation at:

C:\Program Files\Polaris\7.1\Bin

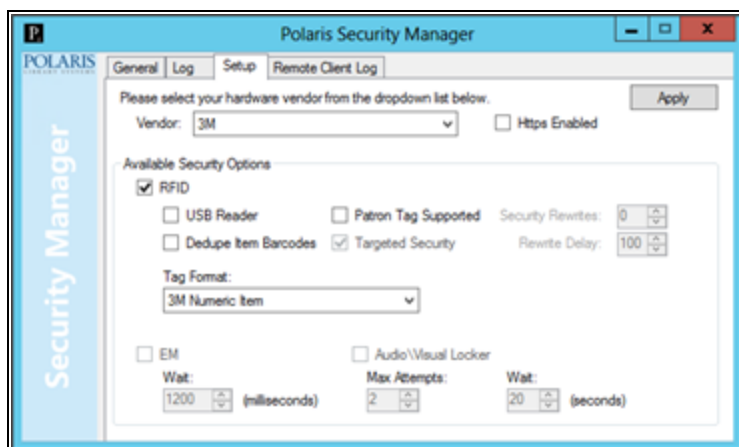
This puts the Security Manager icon in the desktop tray. Select the icon to open the Security Manager, and select your vendor.

Note:

You can install a standalone Security Manager for workstations without the staff client that will run Leap with integrated RFID. See [Integrated RFID for Workstations Running Leap \(No Staff Client\)](#).

Note:

Polaris supports integrated RFID on Polaris workstations using an RDP connection to Terminal Server. See [Security Manager and RFID in Hosted and Terminal Server Environments](#).



The available RFID options depend on the vendor. They are the same as those you can select during client installation:

- **USB Reader** - Select this option if the workstation uses a USB RFID reader.
- **Dedupe item barcodes** - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once.
- **Patron tag supported** - Select this option if your ITG installation supports patron RFID tags.
- **Targeted security** - This option, which is selected by default, provides the ability to set RFID security to off for certain items in a stack of items. You can de-select this option if your RFID vendor is ITG. If the option is not selected, RFID security is set to off for the entire stack of items on the reader.
- **Tag format** - For 3M RFID. Select 3M Numeric Item or 3M Alphanumeric Item.

If you run Polaris ExpressCheck on Bibliotheca hardware, you can also change settings for the EM (electromagnetic) and the AV Locker security features:

- **EM Wait (milliseconds)** - Sets the amount of time Polaris ExpressCheck pauses while the EM device travels along the rails inside the unit.
- **AV Locker** - When this option is enabled and an item is scanned, the material type is checked in the SelfCheck Material Types policy table. If the Unlocker option is set to Yes for the material type, an instruction screen explains how to unlock the media locker. For more information about this feature, see the Polaris ExpressCheck Administration Guide.

- **Max Attempts** - Specifies the number of intervals the software waits for the user. If the user exceeds the maximum number of attempts, the item is not checked out.
- **Wait (seconds)** - Specifies how long the locker remains unlocked.

You can save a log file for RFID security debugging purposes. On the Log tabbed page, select Save log to file. The log file is saved in the following location:

C:\ProgramData\Polaris\7.1\Logs\SECURITYMANAGER

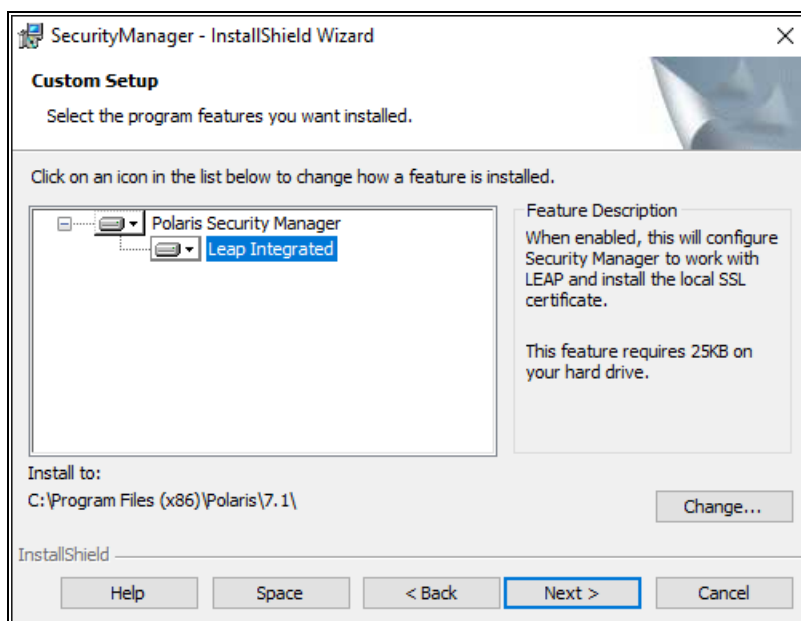
Integrated RFID for Workstations Running Leap (No Staff Client)

Note:

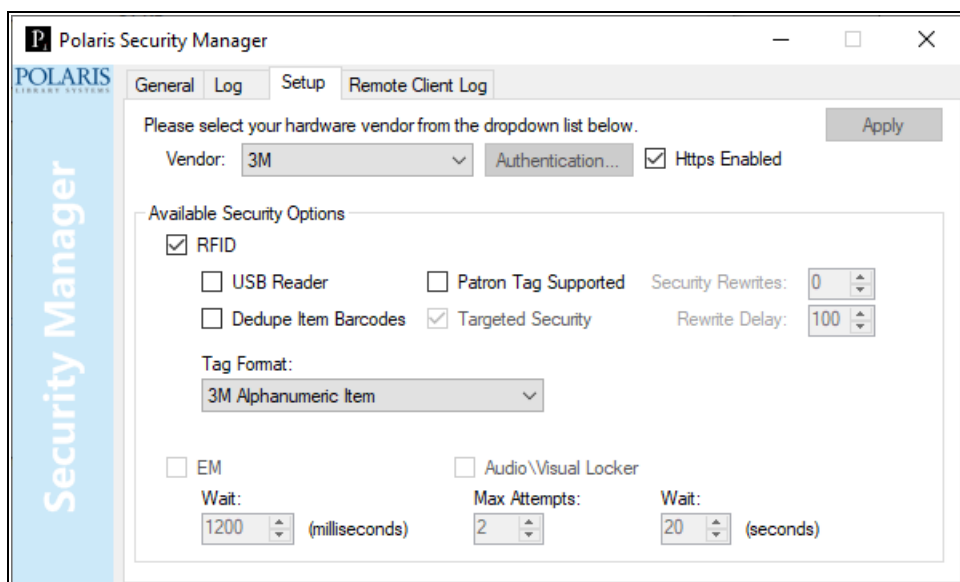
For information about installing integrated RFID for Leap on workstations where the Polaris staff client is also being installed, see [Install Polaris client software manually](#).

If a workstation will be running Leap with RFID without installing the Polaris staff client, you can enable RFID by installing the standalone Security Manager. To install the standalone Security Manager and enable RFID for Leap:

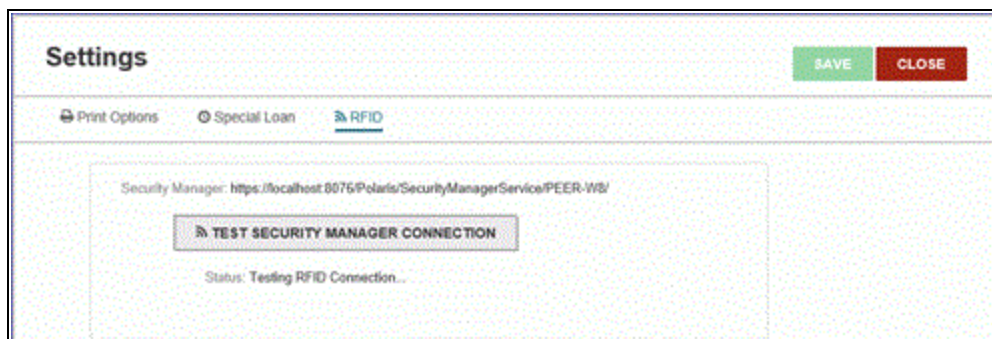
1. Run **setup.exe** in the Security Manager folder.
2. In the **SecurityManager - Install Shield Wizard** dialog, select **Leap Integrated**, and select **Next**.



3. Complete the Security Manager installation.
4. Open the Polaris Security Manager, and select the **Setup** tab.



5. Select the RFID vendor in the **Vendor** list.
6. If it is not already selected, select the **Https Enabled** checkbox.
7. Select the RFID checkbox and set the security options.
8. To ensure that Security Manager is installed and connecting correctly, you can test the connection in Leap. Go to the Settings page in Leap, select the **RFID** tab, and select **TEST SECURITY MANAGER CONNECTION**.



Security Manager and RFID in Hosted and Terminal Server Environments

Polaris supports integrated RFID circulation on Polaris workstations that are used in a hosted environment or otherwise use an RDP connection to Terminal Server. To use this functionality, you perform a Polaris client installation on the Terminal Server, specifying Terminal Server as the RFID “vendor,” and then install a standalone Polaris Security Manager application on the RFID-enabled workstations that will communicate with the Terminal Server. For details, see [RFID Circulation for Polaris Hosted and Terminal Server Environments](#).

Credit Card Reader

When staff members accept credit card payments through the Polaris staff client, they can enter payment information manually or using a magnetic swipe credit card reader. Polaris ExpressCheck requires a magnetic swipe credit card reader for payments. When you install staff client or ExpressCheck client software on a workstation, be sure the credit card reader is connected to the client workstation, and that one of the credit card reader options is selected. See [Install Polaris client software manually](#). If you use a serial credit card reader, select Enable Serial Creditcard Reader during installation. If you use a USB device, select Enable Keyboard Emulation Creditcard Reader during installation. You can use any swipe reader that supports keyboard emulation and returns the swipe data in ISO 7813 format followed by a CR.

Note:

The MagTek Mini Swipe credit card reader must be configured and installed for keyboard emulation on 64-bit Windows workstations. It cannot be installed as a serial credit card reader because the MagTek Mini Swipe driver is not compatible with 64-bit versions of Windows.

Important:

If you are installing ExpressCheck with credit card support on a SeePoint unit, select Enable Serial Creditcard Reader. If you are installing ExpressCheck with credit card support on an NCR unit, select Enable Keyboard Emulation Creditcard Reader.

Serial mode readers work only for clients that are directly connected to the Polaris server. USB keyboard emulation readers work both for clients that are directly connected, and for clients that connect to a Terminal Server.

In serial mode, Polaris controls when the magnetic swipe reader will accept a card swipe. In USB keyboard emulation mode, the magnetic swipe reader is not controlled and accepts a card swipe at any time.

Innovative currently recommends the Magtek® Centurion magnetic swipe reader, part number 21073062. This unit connects to the workstation via a USB Type A plug and receives power from the USB bus. The unit has two programmable interface modes, USB HID (Serial) and USB Keyboard Emulation, but is pre-programmed for USB Keyboard Emulation mode. USB Keyboard Emulation mode works both for directly connected clients and for clients in a Remote Desktop/Terminal Server environment. Serial mode works only for directly connected clients.

Telephony Text-to-Speech (TTS) Editor

Polaris telephony includes the TTS Lexicon Editor that you can use to modify the pronunciation of certain words, such as branch or place names, when message text is converted to computer-generated SAPI (Speech Application Programming Interface) voice messages. You select sounds for a word from a standard list of English phonemes (speech sounds), and the pronunciation is stored in the SAPI Lexicon, a database for the words and their pronunciations.

The TTS Lexicon Editor is included in the Polaris telephony server installation. However, because each user log-on has its own Lexicon database, and because the workstation needs a sound card to test pronunciation adjustments, you cannot use Remote Desktop to connect to the telephony server and work with the Lexicon Editor there. You must log on locally to a workstation with a sound card and speakers to test the pronunciation, then use Remote Desktop to connect to the telephony server and copy your changes. For the most accurate test, the workstation should have available the SAPI voice actually used in the message. To make this process more convenient, you can select the TTS Lexicon Editor as part of the staff client installation, then install the appropriate AT&T SAPI voice on the workstation.

For detailed information about installing and using the TTS Lexicon Editor, see Polaris staff client help.

Install Polaris client software manually

To install the Polaris 7.1 client software manually, the file **Polaris Client Installer.exe** must be run on each client workstation. For convenience, during the Polaris server-side installation, a share is created (using folder C:\Program Files\Polaris\7.1\Clients) that contains **Polaris Client Installer.exe** so that the file can be readily available to client

workstations. To access this file from a client workstation, navigate to \\<servername>\clients\ where <servername> is the name of the Polaris Server on which the share was created.

Note:

For other client installation methods, see the following topics: [Group Policy Deployment](#); [System Center Deployment](#).

Follow these steps to install Polaris prerequisites and Polaris 7.1 client software manually.

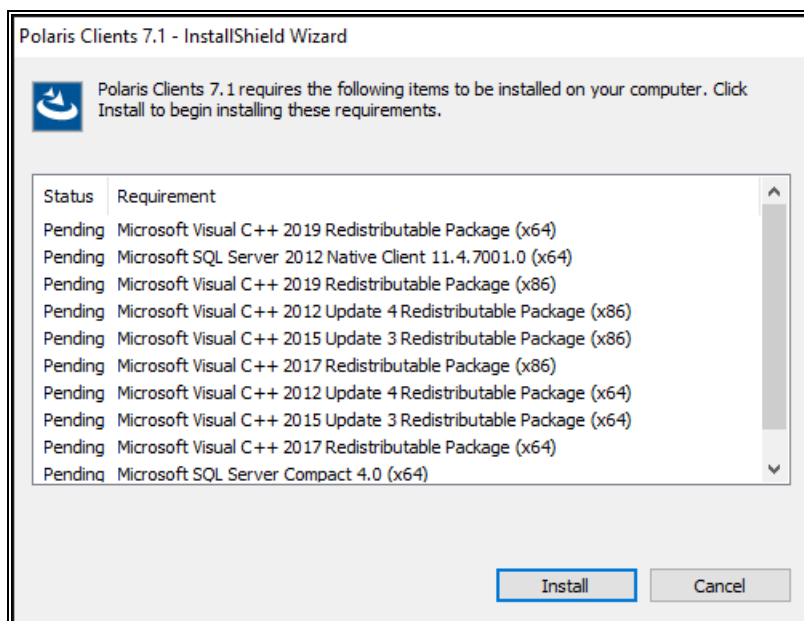
Important:

The installation terminates any running **Polaris.exe** processes before the installation proceeds.

Note:

When a new Polaris release is installed on a workstation, the file path changes only for a major release. For Service Pack (SP) installations, the file path remains the same as for the major parent release.

1. Navigate to the share folder, and double-click **Polaris Client Installer.exe**.
The Polaris Client Installer wizard opens. The illustration shows an example.



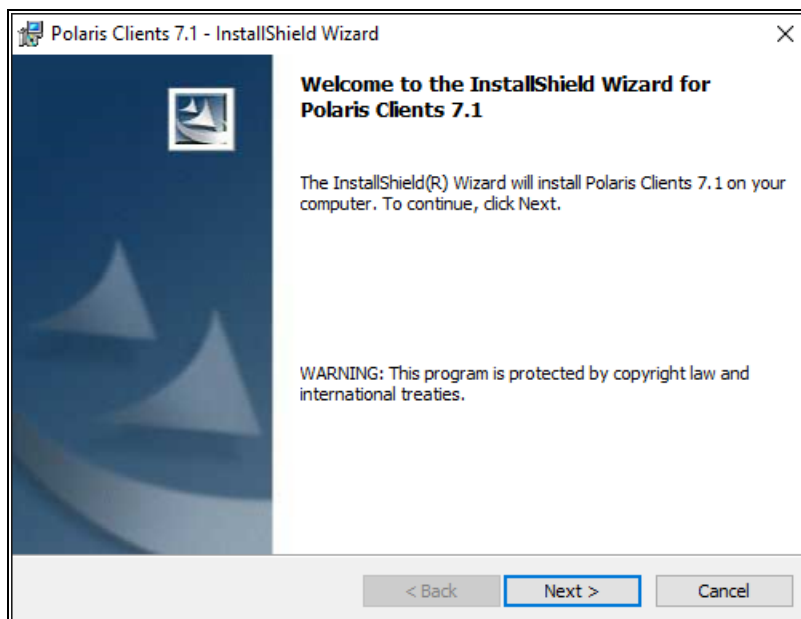
Note:

The requirements listed in the Polaris Client Installer dialog differ for each computer because of operating system variations and software already installed. The listed components are those that must be installed for Polaris to install and function properly on this specific computer.

2. Select **Next** to install the required components and the client software.

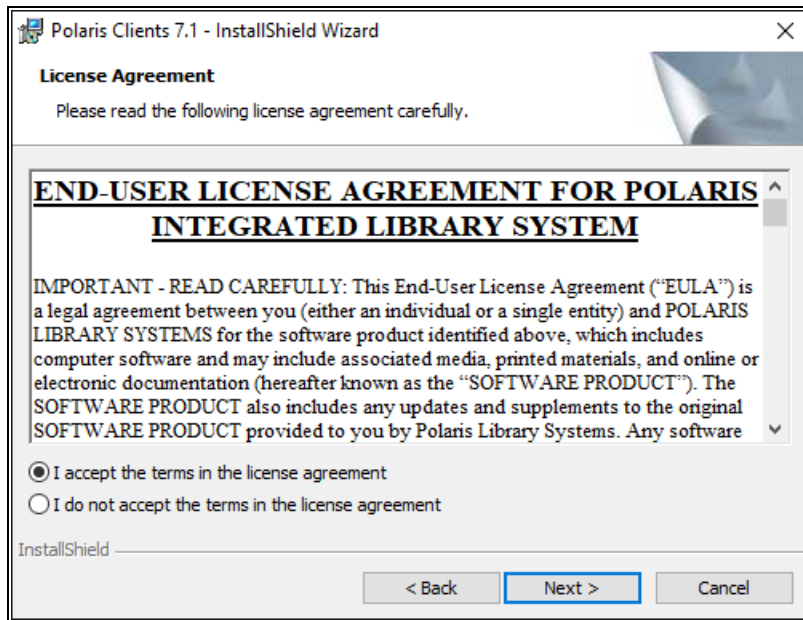
Installing the Polaris prerequisites takes from no time at all to several minutes, depending on the client hardware and the number of components that need to be installed. For example, if Polaris has not been installed on the workstation previously and most or all of the components must be installed, the entire installation process may take up to 10 minutes.

When the necessary prerequisites have been installed, the client installation Welcome screen opens.



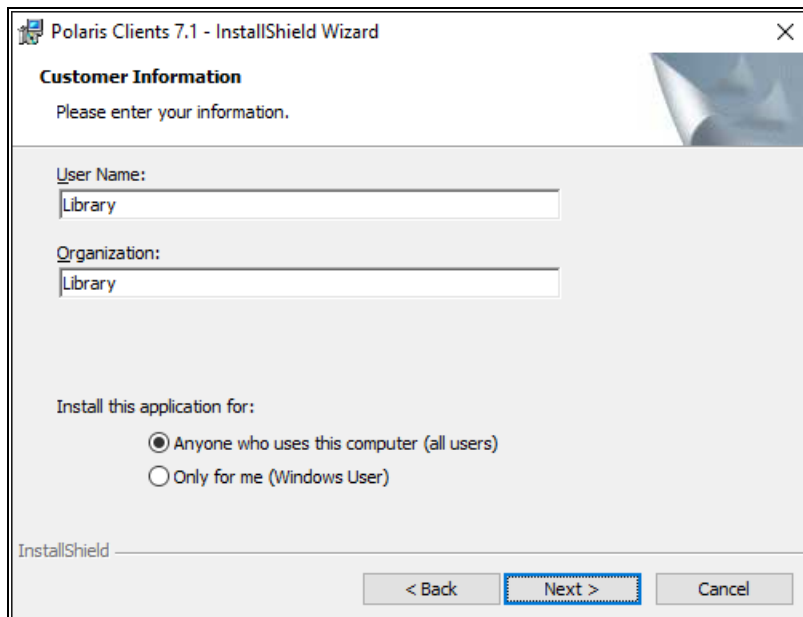
3. Select **Next** to continue.

The License Agreement dialog appears.



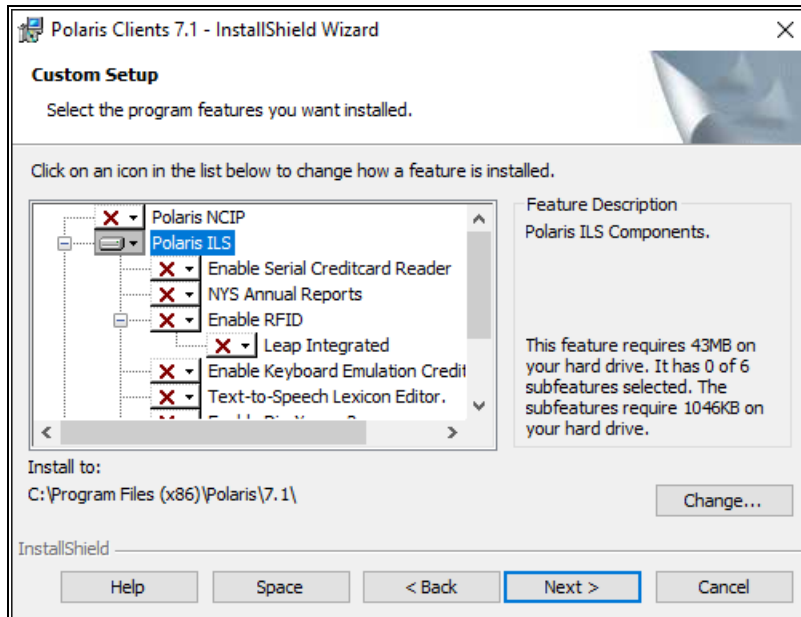
4. Select **I accept the terms in the license agreement**, and select **Next**.

The Customer Information dialog appears.



5. Type the appropriate information in the **User Name** and **Organization** boxes.
6. Select a user permission option, and select **Next**.

The Custom Setup dialog appears.

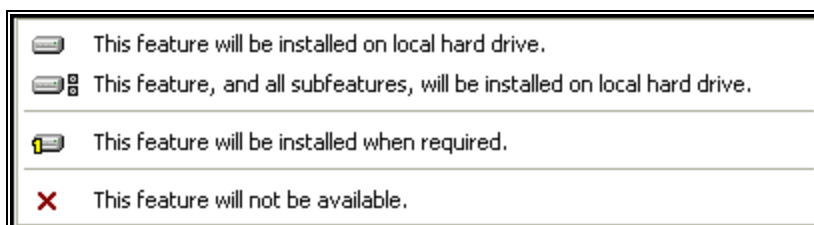


7. Select or deselect which Polaris software components to install.

By default, only staff client (Polaris ILS) software is set to be installed. If you are installing other Polaris software, you must select and deselect the components as appropriate. A red X indicates that a component will not be installed unless you deliberately select it for installation.

Example:

To install Polaris ExpressCheck only, select **Polaris ILS**, and select **This feature will not be available** from the menu. This prevents the staff client installation. Then select **Polaris ExpressCheck**, and select **This feature will be installed on local hard drive** from the menu.



- If you are installing staff client software on a workstation that will use RFID circulation, select **Enable RFID** from the list under **Polaris ILS**.
- If this workstation will also run Leap with RFID, select **Leap Integrated** under **Enable RFID**. (For information about Leap with RFID on workstations without the Polaris staff client, see [Integrated RFID for Workstations Running Leap \(No Staff Client\)](#).)

Note:

When **Enable RFID** is selected, the Polaris RFID Utility is also installed automatically; a Polaris RFID Utility shortcut icon appears on the desktop when the installation is finished. Use this utility to write item barcode and related information to RFID tags. The utility also sets the tag's security bit. For more information about using the RFID utility, see the *Polaris RFID Conversion Utility Guide*, available on the Polaris Customer Supportal.

Important:

TCP port 8075 is used by the Security Manager (see [Security Manager](#)). This port must be open if any security measures (RFID, EM, AV Locker) are used.

- If you are installing staff client software on a 32-bit Windows workstation that will use a MagTek® serial credit card reader, select **Enable Serial CreditCard Reader** from the list under **Polaris ILS**. For more information about setting up staff client workstations for credit card processing, see the Polaris staff client help.

Note:

If your credit card reader is not a MagTek serial reader, or you are installing client software on a 64-bit Windows workstation, do not select **Enable Serial CreditCard Reader**. (The MagTek Mini Swipe driver is not compatible with 64-bit versions of Windows.) Instead, select **Enable Keyboard Emulation Creditcard Reader**. You can use any swipe reader that supports keyboard emulation and returns the swipe data in ISO

7813 format followed by a CR. See [Credit Card Reader](#) for details.

- If you are installing staff client software on a workstation that will communicate with a Bibliotheca SmartDispenser200™ media dispenser, select **Enable DiscXpress2** from the list under **Polaris ILS**. For more information about setting up media dispenser processing, see the Polaris staff client help.
- If you will use this workstation to modify the pronunciation of certain words in SAPI telephony messages, select **Text-to-Speech Lexicon Editor**. See [Telephony Text-to-Speech \(TTS\) Editor](#).
- To install the SIP or NCIP services, select **This feature will be installed on local hard drive** from the drop-down menu for the Polaris SIP or Polaris NCIP option.

Important:

The Polaris SIP (self-check), Polaris NCIP, and Polaris ExpressCheck options are not installed unless you specify their installation. You can install them independently of the staff client software.

- To install the Polaris ExpressCheck application on a Polaris ExpressCheck self-check workstation, select This feature will be installed on local hard drive from the drop-down menu for the Polaris ExpressCheck option. If this workstation will use a MagTek serial credit card reader, select Enable Serial Creditcard Reader under Polaris ExpressCheck, and select This feature and all subfeatures will be installed from the drop-down menu.

Important:

If you are installing ExpressCheck with credit card support on a SeePoint unit, select Enable Serial Creditcard Reader. If you are installing ExpressCheck with credit card support on an NCR unit, select Enable Keyboard Emulation Creditcard Reader.

Note:

If your credit card reader is not a MagTek serial reader, do not select Enable Serial CreditCard Reader. Instead, select Enable

Keyboard Emulation Creditcard Reader. You can use any swipe reader that supports keyboard emulation and returns the swipe data in ISO 7813 format followed by a CR. See [Credit Card Reader](#) for details.

- If this workstation will read *item* RFID tags, select Enable RFID under Polaris ExpressCheck, and select This feature and all subfeatures will be installed from the drop-down menu. If this workstation will also read patron RFID cards, select Enable RFIDPatron Cards under Polaris ExpressCheck, and select This feature and all subfeatures will be installed from the drop-down menu. For details, see the *Polaris ExpressCheck Administration Guide*.

Important:

You should also select this option if you will use ITG's EM (electromagnetic) security.

Important:

TCP port 8075 is used by the Security Manager (see [Security Manager](#)). This port must be open if any security measures (RFID, EM, AV Locker) are used.

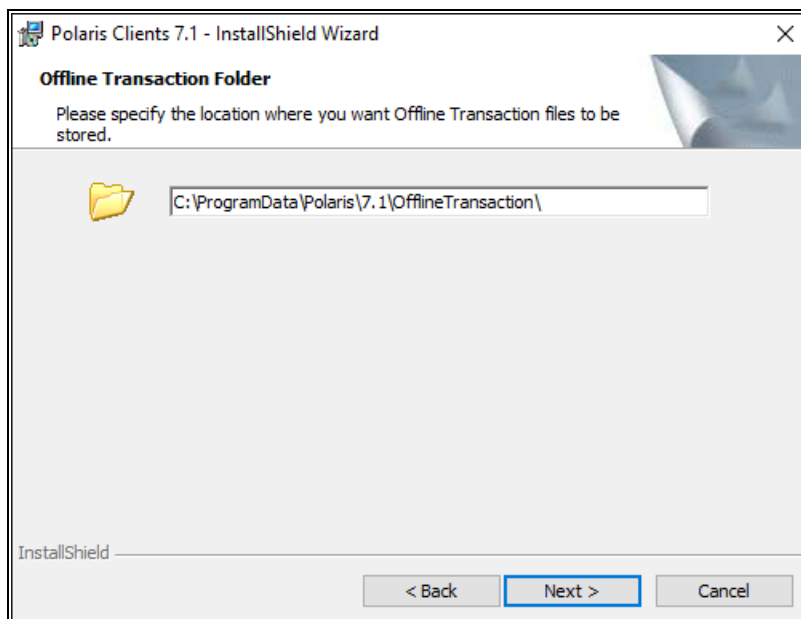
Note:

When Enable RFID is selected, the Polaris RFID Utility is also installed automatically; a Polaris RFID Utility shortcut icon appears on the desktop when the installation is finished. Use this utility to write item barcode and related information to RFID tags. The utility also sets the tag's security bit. For more information about using the RFID utility, see the *Polaris RFID Conversion Utility Guide*, available on the Polaris Customer Supportal.

- If this workstation will communicate with an Bibliotheca SmartDispenser200™ media dispenser, select **Enable DiscXpress2** under **Polaris ExpressCheck**, and select **This feature and all subfeatures will be installed** from the drop-down menu. You can select this feature together with or independently from other ITG options. For more information about media dispenser processing, see the *Polaris ExpressCheck Administration Guide*.

- If this workstation will be used to take inventory with Polaris Inventory Manager (PIM), select **Polaris Inventory Manager**, and select **This feature and all subfeatures will be installed** from the drop-down menu. For more information about PIM, see the *Polaris Inventory Manager Guide*.
8. Select **Next** on the Custom Setup dialog.

The Offline Transactions Folder Files dialog appears.



9. If you want offline transaction files for the staff client to be stored in a location other than the default, specify the location and then select **Next**.

The Server Information dialog appears.

Polaris Clients 7.1 - InstallShield Wizard

Server Information
Please enter the server names for the following servers.

Application Server Name:

Datalink Name: ☐

Enable Workgroup Mode: ☐

Authenticating Domain:

Please specify a port to use for your credit card reader: (5-10) ☐

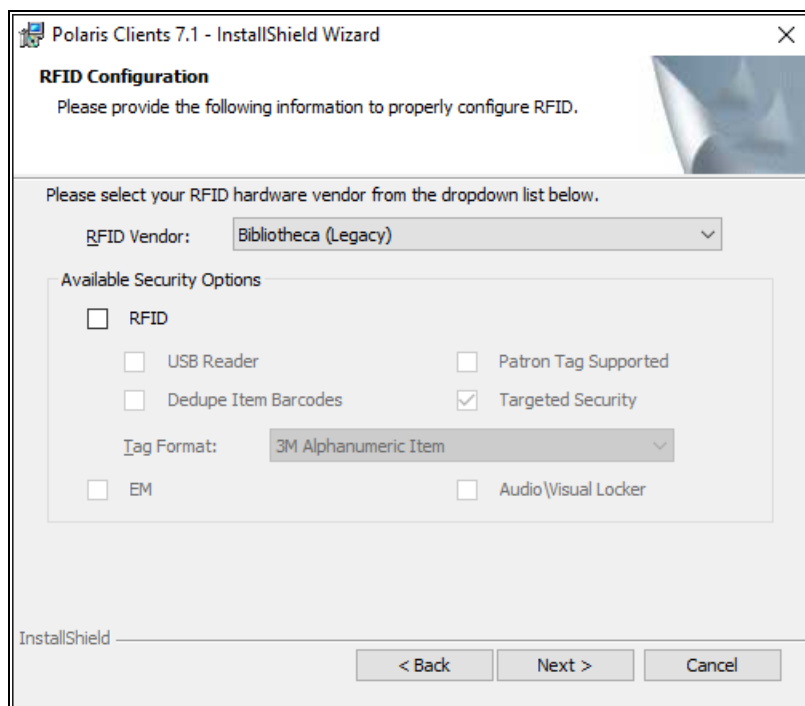
InstallShield

< Back **Next >** Cancel

10. Type the application server name in the **Application Server Name** box.
11. If you are running Polaris in an ASP environment, select the **Datalink Name** checkbox, and type the datalink name in the box. See [Polaris for Consortia](#) for more information.
12. If the client computer is running in a Workgroup environment, or authenticates to a different domain controller than the domain that Polaris runs in, do these steps:
 - Select the **Enable Workgroup Mode** checkbox.
 - Type the workgroup name or authenticating domain name (the domain that Polaris runs in) in the **Authenticating Domain** box.

See [Polaris Authentication](#) for more information.

13. If the staff client or ExpressCheck workstation uses a serial credit card reader, type the port number to which the reader is connected. This option is available only if you selected **Enable Serial Creditcard Reader** under **Polaris ILS** or **Polaris ExpressCheck** on the Custom Setup dialog.
14. Select **Next**.
15. If you selected an RFID option to install—staff client with **Enable RFID** checked or Polaris ExpressCheck with **Enable RFID** checked—the RFID Configuration dialog appears.



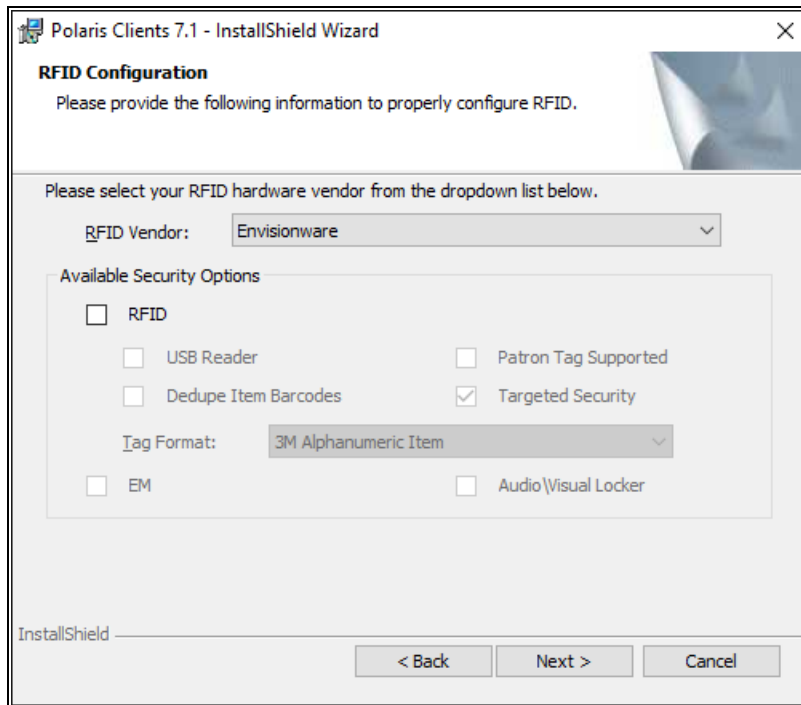
Select your RFID vendor in the **RFID vendor** box, and select **RFID**.

If you selected **Bibliotheca**, select one of the following options, as appropriate for your Bibliotheca equipment setup:

- **USB Reader** - Select this option if the workstation uses a USB RFID reader.
- **Patron tag supported** - Select this option if your Bibliotheca installation supports patron RFID tags.
- **Dedupe item barcodes** - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once.
- **Targeted security** - Select this option for the ability to set RFID security to off for certain items in a stack of items. If the option is not selected, RFID security is set to off for the entire stack of items on the reader.
- **EM** - Select this option if your ITG installation supports electromagnetic (EM) security, where magnetic strips on materials are desensitized when they are successfully checked out.

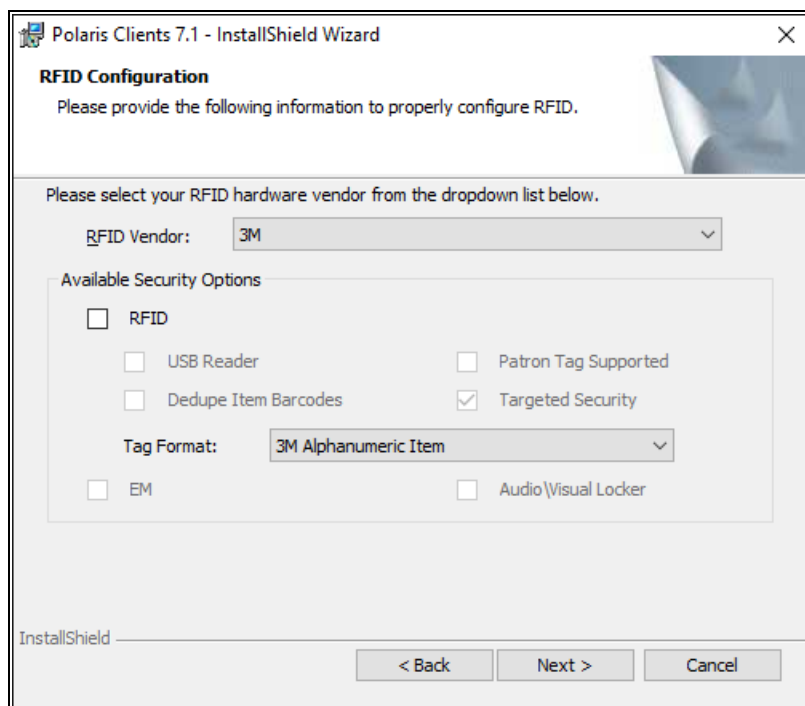
- **Audio-Visual Locker** - Select this option if your installation supports an AV locker that unlocks to deliver specified materials when they are successfully checked out.

If you selected **Envisionware**, select from the following options, as appropriate for your EnvisionWare equipment setup:



- **USB Reader** - Select this option if the workstation uses a USB RFID reader.
- **Patron tag supported** - Select this option if your Envisionware installation supports patron RFID tags.
- **Dedupe item barcodes** - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once. However, the security bit is turned off in all the Envisionware RFID tags on the antenna pad with that barcode.

If you selected **3M**, select from the following options, as appropriate for your 3M equipment setup:



- **USB Reader** - Select this option if the workstation uses a USB RFID reader.
 - **Patron tag supported** - Select this option if your Envisionware installation supports patron RFID tags.
 - **Dedupe item barcodes** - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once.
 - **Tag Format** - Select **3M Alphanumeric Item** (default) or **3M Numeric Item**, as appropriate for your 3M RFID item tag format.
16. If you selected Polaris NCIP to install, the NCIP Configuration dialog appears. Check the ports this client will use and change the port numbers if necessary.

Polaris Clients 7.1 - InstallShield Wizard

NCIP Configuration

Please provide the following information to properly configure NCIP.

Please select the required ports and specify the port number.
Only enable the ports that you will be using. You may modify the default port number if needed.

☒	N <u>C</u> IP Port:	5059
☐	H <u>T</u> TP Port:	8080
☐	H <u>T</u> TPS Port:	443
☐	O <u>T</u> her HTTPS Port:	8443

InstallShield

< Back **Next >** Cancel

17. Select **Next** on the NCIP Configuration box.

If you are installing Polaris ExpressCheck, the Polaris ExpressCheck Configuration dialog appears.

Polaris Clients 7.1 - InstallShield Wizard

Polaris ExpressCheck Configuration

Please specify the following settings to configure Polaris ExpressCheck.

Enable Polaris ExpressCheck Auto Logon? ☐

<u>U</u> ser Name:	
<u>P</u> assword:	
<u>V</u> erify Password:	
<u>D</u> omain Name:	

InstallShield

< Back **Next >** Cancel

If you want the Polaris ExpressCheck client software to start automatically when the Polaris ExpressCheck workstation is rebooted, select **Enable Polaris ExpressCheck Auto Logon**. Then supply the appropriate information in the **User Name**, **Password**, **Verify Password**, and **Domain Name** boxes, and select **Next**.

The Ready to Install the Program dialog appears.

18. Select **Install** to start the installation.

The automatic installation process starts. If you are installing the staff client or Polaris ExpressCheck with RFID, or the Polaris RFID Utility, installation dialogs may appear for the USB reader or USB dongle device drivers. Follow the prompts. The Installation Complete dialog appears when the installation is finished.

19. Select **Finish** to close the InstallShield Wizard.

The appropriate shortcut icons appear on the desktop.

Related Information

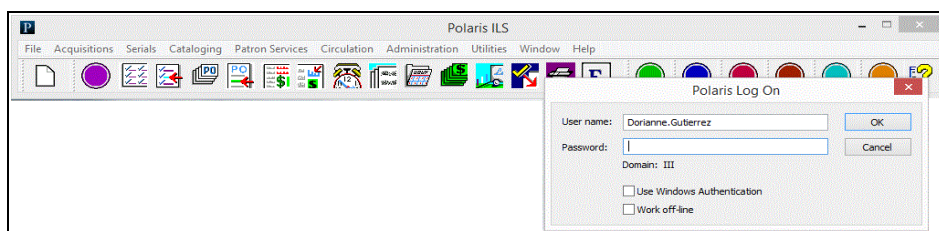
- **Check installation** - See [Verify the staff client installation](#).
- **Configuring Polaris** - After installing the client software, you configure Polaris through Polaris Administration in the staff client. For details, see the Polaris staff client help.

Verify the staff client installation

Follow these steps to verify that the Polaris staff client was installed correctly on staff workstations.

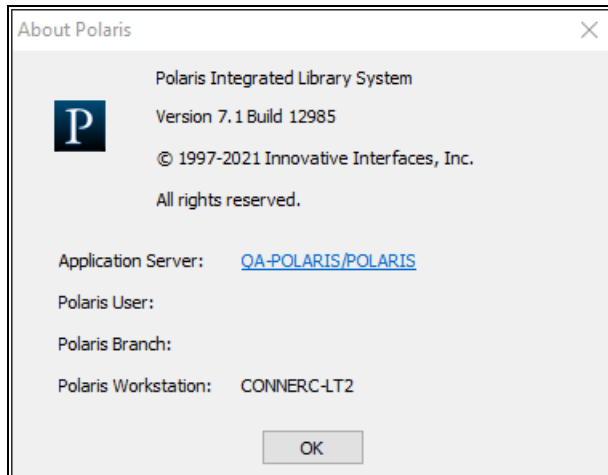
1. Double-click the Polaris ILS staff client icon  on the desktop.

The Polaris Shortcut Bar and Polaris Log On dialog appear.



2. Select **Cancel** on the Log On dialog.
3. Select **Help > About Polaris** from the Polaris Shortcut Bar.

The About Polaris dialog appears. You should see the correct version number in the second line, and the appropriate Application Server name.

**Note:**

Select the Application Server link to see the licenses currently active for your organization.

Related Information

Log-On Server Cues - You can set an alert message to alert the user that he or she is attempting to log on to the staff client on the training server, and once the user has logged on, to indicate the log-on server through custom colors on the title bars of staff client workforms. With this feature, the user can do such tasks as comparing data from a production and a training environment, easily identifying the data from each client. For example, the user may wish to display parallel workforms from both servers, so that Polaris Administration settings and data can be copied from one to the other. See “Visual Cues for Staff Client Log-On Server” in the Polaris staff client help.

Group Policy Deployment

You can deploy Polaris Client software via Group Policy instead of manually installing each client.

A Polaris Support Engineer places the following two MSI packages on your server:

- **Polaris Client Installer.msi** - Used to distribute the client during Active Directory deployment.
- **Polaris Clients 7.1.msi** - Used to generate the transform file with the template MST via ORCA (and nothing else).

You must use a tool such as Microsoft's ORCA™ to provide an "answer" file (also referred to as a "transform" or .mst file). When using ORCA, the answer file will be generated from the MSI package Polaris Clients 7.1.msi using the template PolarisILS.mst.

After producing the answer file (PolarisClientILS.mst in the following example), all of the necessary files must be copied to a share that is accessible to workstations on the network. In the following example, a folder is created on the root of the C: drive called C:\PolarisAD and it is shared as PolarisClientsAD. The following files must be copied into this folder:

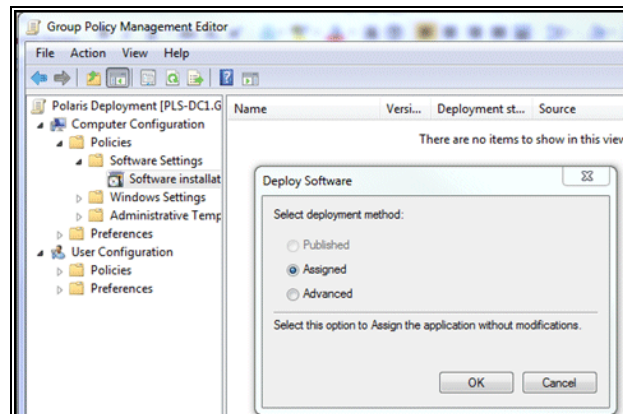
Note:

Spaces are not allowed in the share name or path. If you include spaces, the installation will fail.

- Copy the entire contents of C:\Program Files\Polaris\7.1\Clients to the C:\PolarisAD folder
- Copy Polaris Client Installer.msi to the C:\PolarisAD folder
- Copy the transform file that generated by ORCA—for example, PolarisClientILS.mst—to the C:\PolarisAD folder. It is important to confirm that this is the only .mst file in the folder.

Group Policy can now be used to deploy the client. When selecting the MSI package Polaris Client Installer.msi, do not choose to apply a transform. The transform in the folder C:\PolarisAD will be automatically applied during the client installation.

When you select the Polaris Client Installer.msi package, this prompt appears:



Confirm that **Assigned** is selected, and select **OK**.

The clients will now deploy.

Note:

The client is deployed in the background after the computer policy is applied. Users will be able to log onto the workstation while the client installation is in progress.

System Center Deployment

You can also deploy Polaris Client software via System Center.

A Polaris Support Engineer places the following two MSI packages on your server:

- **Polaris Client Installer.msi** - Used to distribute the client during Active Directory deployment.
- **Polaris Clients 7.1.msi** - Used to generate the transform file with the template MST via ORCA (and nothing else).

You must use a tool such as Microsoft's ORCA to provide an "answer" file (also referred to as a "transform" or .mst file). When using ORCA, the answer file will be generated from the MSI package Polaris Clients 7.1.msi using the template PolarisILS.mst.

After producing the answer file (PolarisClientILS.mst in the following example), all of the necessary files must be copied to a share that is accessible to workstations on the network. In the following example, a folder is created on the root of the C: drive called C:\PolarisAD and it is shared as PolarisClientsAD. The following files must be copied into this folder:

- Copy the entire contents of C:\Program Files\Polaris\7.1\Clients to the C:\PolarisAD folder
- Copy Polaris Client Installer.msi to the C:\PolarisAD folder
- Copy the transform file that generated by ORCA—for example, PolarisClientILS.mst—to the C:\PolarisAD folder. It is important to confirm that this is the only .mst file in the folder.

Execute one of the following two commands from the command line:

```
msiexec /quiet /i "\\servername\PolarisClientsAD\Polaris Client Installer.msi" /log  
c:\ClientInstall.log
```

or

```
"\\servername\PolarisClientsAD\Polaris Client Installer.exe" /s
```

The /s switch instructs the EXE installer to be silent.

Automating Polaris Client Deployment

Beginning with Polaris 4.1R2, you can ease client upgrades with the Polaris Client Deployment tool, a separately licensed fee-based feature. Using the server-side Polaris Client Deployment console, administrators can deliver (“push”) Polaris client software upgrades to a specified set of workstations. You save significant time and effort at installation and upgrade, minimizing or eliminating downtime while you get the latest from Polaris.

You can also have the upgrade initiated from the client in a passive deployment (“pull”). Once client software is assigned to be deployed from the designated upgrade server, the client application performs a version check at startup, and if it is out of version, prompts the user to upgrade. Depending on how the administrator has set the client installation requirements, the user can either choose to upgrade or be required to upgrade. Once the upgrade is initiated, the assigned Polaris client is installed. The logged-in user does not require administrator rights to install the Polaris client, because it is installed under an account that has the appropriate rights. If the user chooses not to upgrade when prompted, the client can function in offline mode. This client-initiated option ensures that client upgrades that were not deployed successfully from the console via the push method will be installed when the client is started by the end-user.

With either deployment mode, the Polaris Client Deployment tool reports unsuccessful client installations and allows you to retry the deployment for those that have failed.

For more information about obtaining the Polaris Client Deployment Tool, contact Innovative Interfaces Customer Sales. For detailed information about requirements and procedures, see “Automating Polaris® Client Deployment,” available on the Polaris Customer Supportal (<https://supportal.polarislibrary.com>).

RFID Circulation for Polaris Hosted and Terminal Server Environments

Polaris supports integrated RFID circulation on Polaris workstations that are used in a hosted environment or otherwise use an RDP connection to Terminal Server. To use this functionality, you perform a Polaris client installation on the Terminal Server, specifying Terminal Server as the RFID “vendor,” and then install a standalone Polaris Security Manager application on the RFID-enabled workstations that will communicate with the Terminal Server.

Install the client on Terminal Server

Follow these steps to install the Polaris staff client application with RFID on the Terminal Server.

1. On the Terminal Server computer, navigate to the **Polaris staff client setup.exe** application and start the application.

The Welcome screen opens.

2. Select **Next**.

The License Agreement dialog appears.

3. Select **I accept the terms in the license agreement**, and select **Next**.

The Customer Information dialog appears.

4. Type the appropriate information in the **User Name** and **Organization** boxes.

5. Select a user permission option, and select **Next**.

The Custom Setup dialog appears. Polaris ILS, the staff client application, is enabled by default.

6. Select **Enable RFID** from the list under **Polaris ILS**.

7. Select **Next**.

The Offline Transactions Folder Files dialog appears.

8. Leave the location set to the default value, and select **Next**.

The Server Information dialog appears.

9. Type the application server name in the **Application Server Name** box, and select **Next**.

The RFID Configuration dialog appears.

10. Select **Terminal Server** in the **RFID Vendor** list.

11. Select **Next**.

The Ready to Install the Program dialog appears.

12. Select **Install** to start the installation.

The Installation Complete dialog appears when the installation is finished.

Install the Security Manager on the local workstation

Follow these steps to install the standalone Security Manager application on the local RFID-enabled workstation.

1. On the local workstation, navigate to the Security Manager **setup.exe** application and start the application.

The Welcome screen opens.

2. Select **Next**.

The License Agreement dialog appears.

3. Select **I accept the terms in the license agreement**, and select **Next**.

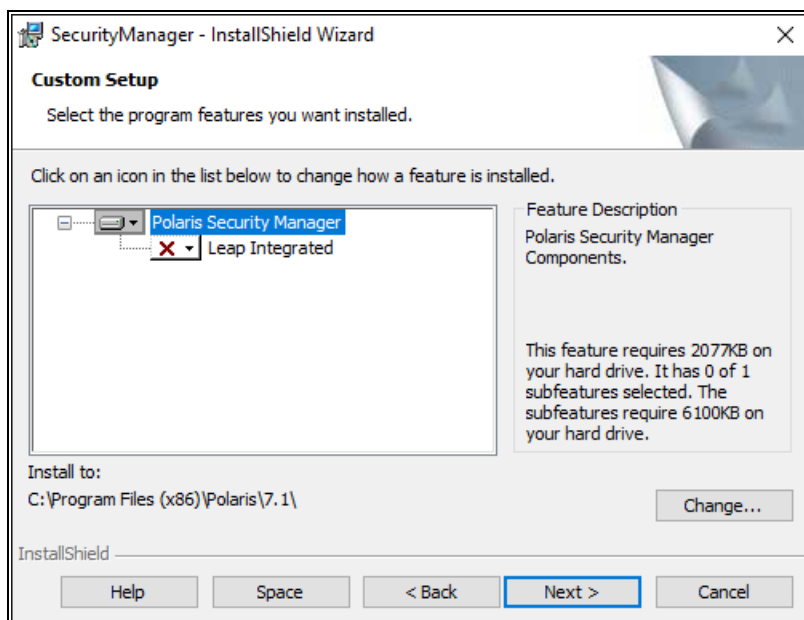
The Customer Information dialog appears.

4. Type the appropriate information in the **User Name** and **Organization** boxes.

5. Select a user permission option, and select **Next**.

The Custom Setup dialog appears. Polaris Security Manager, the only option, is

enabled by default.

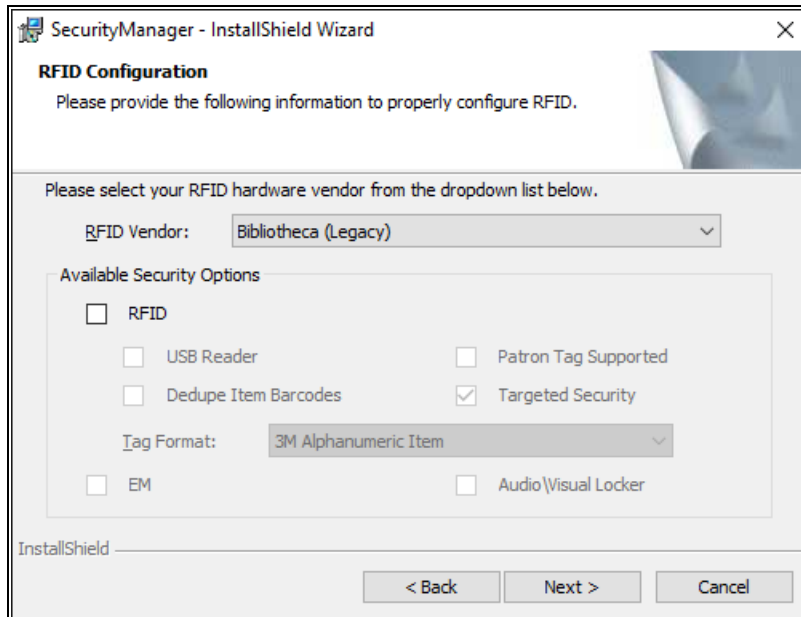


6. Select **Next**.

The RFID Configuration dialog appears.

7. Select your RFID vendor in the **RFID vendor** box, and select **RFID**.

The illustration is an example for the vendor Bibliotheca.



8. If you selected Bibliotheca in step 7, select one of the following options, as appropriate for your Bibliotheca equipment setup:
 - USB Reader - Select this option if the workstation uses a USB RFID reader.
 - Patron tag supported - Select this option if your Bibliotheca installation supports patron RFID tags.
 - Dedupe item barcodes - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once.
9. If this workstation runs Polaris ExpressCheck and you selected Integrated Technology Group (ITG) in step 7, select from the following options, as appropriate for your ITG equipment setup:
 - USB Reader - Select this option if the workstation uses a USB RFID reader.
 - Dedupe item barcodes - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once.

- Patron tag supported - Select this option if your ITG installation supports patron RFID tags.
- Targeted security - Select this option for the ability to set RFID security to off for certain items in a stack of items. If the option is not selected, RFID security is set to off for the entire stack of items on the reader.

Note:

The EM (electromagnetic) security and Audio-Visual Locker options are not currently supported in Terminal Server or Polaris Hosted environments.

10. If you selected Envisionware in step 7, select from the following options, as appropriate for your EnvisionWare equipment setup:
 - USB Reader - Select this option if the workstation uses a USB RFID reader.
 - Patron tag supported - Select this option if your Envisionware installation supports patron RFID tags.
 - Dedupe item barcodes - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once. However, the security bit is turned off in all the Envisionware RFID tags on the antenna pad with that barcode.
11. If you selected 3M, select from the following options, as appropriate for your 3M equipment setup:
 - USB Reader - Select this option if the workstation uses a USB RFID reader.
 - Patron tag supported - Select this option if your Envisionware installation supports patron RFID tags.
 - Dedupe item barcodes - Select this option if your library places RFID tags with duplicate item barcodes on all items in a set. When this option is selected, at check-out duplicate item barcodes are removed from the list of RFID tags currently on the antenna pad (reader) so that the set is checked out once.
 - Tag Format - Select 3M Alphanumeric Item (default) or 3M Numeric Item, as appropriate for your 3M RFID item tag format.
12. Select **Next** on the RFID Configuration box.

The Ready to Install the Program dialog appears.

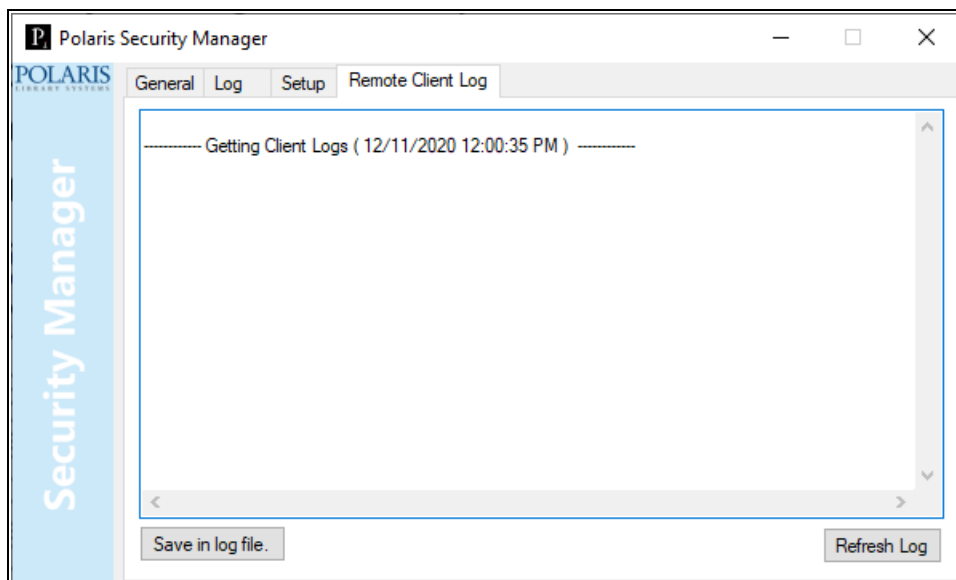
13. Select **Install** to start the installation.

The Installation Complete dialog appears when the installation is finished.

Accessing Remote Client Logs

Open the remote client Security Manager first, then the Terminal Server Security Manager. The Terminal Server Security Manager (vendor is set to Terminal Server) connects to the Client Security Manager at startup.

In the Terminal Server Security Manager, select the Remote Clients Log tab. The window shows the remote client logs and offers the option to save the logs in the Polaris Security Manager Log folder. Remote client and Terminal Server log files are saved separately.



Appendix: Configuring Polaris Administration (Web-Based)

If you installed **Polaris Administration** during the [Polaris server software](#) installation process, you must do the following before using Polaris Administration (web-based):

- [Create the appsettings.user.json file in the C:\Program Files\Polaris\Polaris.AdminServices directory.](#)
- [Create the appsettings.user.json file in the C:\Program Files\Polaris\PolarisAdmin\assets directory.](#)
- [Test your access to Polaris Administration \(web-based\).](#)

Create the appsettings.user.json File in the C:\Program Files\Polaris\Polaris.AdminServices Directory

To create the appsettings.user.json file in the C:\Program Files\Polaris\Polaris.AdminServices directory:

1. On your workstation, navigate to the C:\Program Files\Polaris\Polaris.AdminServices directory.
2. Right-click on the appsettings.user.template.json file, and select **Copy**.
3. Right-click in the Polaris.AdminServices folder, and select **Paste**.
4. Rename the copy of the file to "appsettings.user.json".
5. Using Notepad, open appsettings.user.json.
6. In the following lines of the file, replace `[SQLSRVNAME]` with the name of your SQL server.

```
"ConnectionStrings": {  
  "Polaris": "Data Source=[SQLSRVNAME];Initial  
    Catalog=Polaris;Integrated Security=False;  
    User ID=[USER];Password=[PASSWORD];Persist  
    Security Info=True;Application Name=  
    Polaris.Admin.Web.API;"  
},
```

7. In the same lines, replace *[USER]* with your SQL username and *[PASSWORD]* with your SQL password.
8. In the following lines, replace *false* with *true*.

```
"BasicAuth": {  
  "Enabled": false  
},
```

9. Save your changes, and close appsettings.user.json.

Create the appsettings.user.json File in the C:\Program Files\Polaris\PolarisAdmin\assets Directory

To create the appsettings.user.json file in the C:\Program Files\Polaris\PolarisAdmin\assets directory:

1. On your workstation, navigate to the C:\Program Files\Polaris\PolarisAdmin\assets directory.
2. Right-click on the appsettings.user.template.json file, and select **Copy**.
3. Right-click in the PolarisAdmin\assets folder, and select **Paste**.
4. Rename the copy of the file to "appsettings.user.json".
5. Using Notepad, open appsettings.user.json.
6. In the following line of the file, replace *[URLROOT]* with the fully-qualified domain name of the server.

```
"apiUrlRoot": "[URLROOT]"
```

For example, if the fully-qualified domain name of the server is <https://polarisadmin.domain.org>, edit the line to read:

```
"apiUrlRoot": "https://polarisadmin.domain.org/polaris.adminservices/api/"
```

7. Save your changes, and close appsettings.user.json.

Test Access to Polaris Administration (Web-Based)

To test your access to Polaris Administration (web-based):

1. In a browser, navigate to the Polaris Administration (web-based) URL. The Polaris Administration (web-based) URL is the fully-qualified domain name of the server followed by */PolarisAdmin*.

For example, the server mentioned above would have the following Polaris Administration (web-based) URL:

`https://polarisadmin.domain.org/PolarisAdmin`

If the page does not load, there is a problem with your configuration. Make sure the settings above are correct.

2. Select **SIGN IN**.

The Sign In page appears.

3. Enter the credentials for your Polaris user account.

Note:

Your Polaris user account must have the Access administration: Allow permission.

4. Select **Sign in**.

The Polaris Administration (web-based) home page appears.

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