

The Siemens logo is displayed in a white rectangular box in the upper left corner of the page. The logo itself is the word "SIEMENS" in a bold, teal, sans-serif font. The background of the entire page is a low-angle photograph of a modern glass skyscraper against a blue sky with scattered white clouds. The glass panels of the building reflect the sky and the surrounding structure, creating a complex geometric pattern of lines and reflections.

**SIEMENS**

# Polarion 19.3 Windows Installation

POL003 - 19.3

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# 1. About this guide

## Overview

Welcome and thanks for using Polarion.

This guide covers installation information and procedures for creating a production installation for all Polarion products based on the Polarion Application Lifecycle Management Platform. The list of products covered by this guide currently includes:

- **Polarion ALM™**
- **Polarion REQUIREMENTS™**
- **Polarion QA™**

In general, the information is applicable to all of the above products. Any product-specific differences are explicitly noted. The information covers both new installations and, where applicable, the updating of existing installations.

This guide applies to installation of the above Polarion products on supported Microsoft Windows® operating systems.

If you want to install a product on a Linux system, see the separate *Linux Installation* document.

## Evaluation installations

If you are installing Polarion for evaluation purposes, we recommend the Polarion ALM™ Trial guide . It focuses on getting you up and running with an evaluation installation as quickly as possible, using the **Evaluation** install option of the Windows installer.

This is recommended for the initial stage of any evaluation.

## Large-scale installations

If you need a large-scale server environment with multiple clustered servers and failover capabilities, multiple repositories and so forth, see Polarion ALM™ Enterprise Setup.

Topics covered there include:

- Requirements
- Installation use cases
- Configuring shared data
- Security options
- Using Resource Traceability in a cluster

## 2. System requirements and recommendations

### Server software

Requirement	Description
<b>Operating System</b>	Microsoft Windows Server 2016 (or any update release). MS Windows Server 2019  For evaluation purposes you can use Microsoft Windows 10.  See <i>Installation on Windows 10</i> .  Only 64-bit versions are supported.
<b>Java Runtime Environment</b>	Open JDK 11 - See <b>Install OpenJDK</b>  Polarion only supports the 64 bit version of Java.
<b>Version Control System</b>	Subversion version 1.6.x, 1.7.x, 1.8.x, or 1.9.x:  <a href="http://subversion.apache.org/">http://subversion.apache.org/</a>  If you are compiling Subversion yourself, compile using the <code>--with-apxs</code> or the <code>--with-httpd</code> option.
<b>Web Server</b>	Apache HTTPD server with <code>mod_proxy_ajp</code> and Subversion extension (WebDAV+SVN apache modules): <a href="http://httpd.apache.org/">http://httpd.apache.org/</a>  In general, the Polarion server should run with whatever Apache version is present on a Windows system provided it is at least the minimum required version (2.2), and <b>mod_proxy_ajp</b> and Subversion extension modules are also installed.
<b>Database</b>	<b>Minimum:</b> PostgreSQL version 8.4  <b>Recommended:</b> PostgreSQL 11

## Server hardware

Requirement	Description
RAM	<ul style="list-style-type: none"> <li>Minimum: 4 GB (gigabytes) for production installation.</li> <li>Recommended: 8 GB or more</li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Tip:  <b>Set Polarion's memory allocation</b> to 50% of your server's total RAM.</p> </div>
Disk Storage Space	<ul style="list-style-type: none"> <li>Minimum: 10 GB</li> <li>Recommended: 40 GB or more</li> </ul> <p>There is no hard and fast rule for disk storage space. The actual amount you require depends on the number and size of projects managed with Polarion. The more projects, and the larger they are, the more disk storage you require.</p>

## Client software

Requirement	Description
Operating System	<p>Any operating system that can run the supported web browsers with support for the Flash plugin (see below).</p> <p>If the client user will use a Polarion product supporting data interchange with Microsoft Office®, the client user must run a Windows operating system compatible with a supported version of the Microsoft Office application(s) used. For details, see <i>Appendix: Supported Microsoft Office Versions</i>.</p>
Web Browser	All you need to use Polarion is a <b>web browser</b> .
Adobe Flash	<p>The Polarion web portal displays <b>Live Plan</b> chart data using Adobe Flash.</p> <p>To use this particular functionality, the client computer must have Adobe Flash Player installed. You can download it free at <a href="http://www.adobe.com/products/flashplayer/">http://www.adobe.com/products/flashplayer/</a>.</p>

## Client hardware

Requirement	Description
RAM	Minimum: 2 GB (4 GB recommended)
Display Resolution	Minimum: 1280 x 800 pixels
Server Connection	Not less than 1 Mbit/s



## Supported browsers and versions

Polarion ALM is web-based software. For the best experience, always use a supported browser. Polarion may work with other browsers, but only those listed here have been tested and certified as supported. Polarion displays a warning message to users who log in using an unsupported browser.

Browser	Version(s)	Notes
Google Chrome	Latest	
Mozilla Firefox	68 or newer	Version 71 for users hoping to tap into the very latest features and improvements.  Organizations or individuals looking for longer-term support with less frequent browser updates should use Version 68 <b>ESR</b>
Microsoft Edge	Latest	
Microsoft Internet Explorer	11	Please be sure to review the additional notes section, below, for important notes about this browser.

### Additional notes for Microsoft Internet Explorer

- If running Internet Explorer on Windows Server 2012 (for example, for testing ):
  - If prompted by the browser, you will need to add **about:blank** as a trusted server.
  - You may need to add the local Polarion server and any remote Polarion servers as trusted servers.
  - You need to enable JavaScript for the Polarion server.

**Note:**

The above points do not apply when accessing Polarion running on Windows Server 2012 from other clients.

- Users of Internet Explorer should specify their Polarion server in the Local Intranet security zone while ensuring that Compatibility View is not used.
- There can be performance issues on client computers running Internet Explorer due to browser memory requirements. Occasional restarts of the browser are recommended.



# 3. Additional recommendations

## Use of anti-virus (AV) software

When running on server OS platforms that run instances of Polarion server, anti-virus (AV) software intercepts I/O requests to Polarion data structures in order to scan the data looking for virus signatures. This inserts latency (time delay) into all underlying file system read and write operations, which has the potential to directly impact Polarion Server performance, potentially in the magnitude of hundreds of percent.

Also, the AV software may detect false positives in Polarion data structures, which can result in data corruption when the AV software attempts to either re-write the data, or worse, quarantines data files. Any of the various methods used by AV software to deal with false positives could potentially result in data corruption.

Best practice guidance is to use caution when implementing AV software products on a server that hosts Polarion ALM, as it can impose performance and stability issues that may lead to poor response times or data corruption. Where feasible, not running AV software on well protected and/or network isolated server platforms assures that there will be no impact on Polarion server operation. Where AV software must be running, then at minimum it is strongly suggested to exclude the underlying file system supporting a Polarion server's Subversion repository and PostgreSQL database from real-time checking and/or dynamic scanning.

Appropriate security hygiene restricting outside access to the underlying file system supporting a Polarion server's Subversion repository is recommended practice that effectively moderates the need for AV data protections. Assuring that attachments to Polarion data structures (work Items, etc.) are only allowed from sources that *are* subject to AV data protections is an equally prudent security measure that effectively moderates need for AV data protections for Subversion data.

**Warning:**

Siemens disclaims liability for corruption of any Polarion data structure that is caused by running AV software on platforms supporting a Polarion server.

## Libraries required for building the demo projects

The items described here are not critical for running and evaluating Polarion. However, the components described are needed to be able to fully utilize Polarion's capabilities.

The distribution contains several demo projects. Each of them needs its particular set of 3rd party libraries to be correctly built and have the project reports generated. Any missing libraries are automatically downloaded from the internet during project processing, so you may need a connection to the internet when you first try building the demo projects or run reports for them.

## Enable email notifications

The Polarion server can send email notifications in response to various events in the system such as build completions and new work items. It can also notify users about external changes.

To enable Polarion to send out email notifications, you need to:

- Configure the SMTP server to be used by the Polarion server for sending emails. You can do this from the Windows installer during the regular installation process (That is not the **Evaluation** Installation), or after installation, but before starting Polarion server (see [Appendix](#)). You may wish to create a special account on your SMTP host for use with Polarion notifications.
- Provide a valid email address for each user in their user account. (**Administration** → **User Management** → **Users**.) This can be automated through user self-creation of accounts, or integration with LDAP. See **Help, Administrator's Guide: Managing Users and Permissions** in Polarion's Help.

When this configuration is correctly set up, the system sends notification emails about various events according to the notification targets configuration. For information on configuring email notifications, see **Help, Administrator's Guide: Configuring Notifications**.

Note:

If a work item is modified outside of the Polarion portal, for example manually in the SVN, email notifications are sent as if the modification occurred in the portal.

See also, [Appendix: Enabling email notifications](#)

## Enable support for Javadoc

The demo and your own projects can be configured to provide Javadoc reports.

Javadoc must also be enabled for the **descriptors.xml** file. Access it in the Repository browser: **Repository/.polarion/reports/descriptors.xml**. Refer to comments within the in the **descriptors.xml** for details on how to enable Javadoc.

# 4. Before installation

## Java runtime

*OpenJDK 11* must be installed on the computer that will run Polarion ALM *BEFORE* running the Polarion installer.

## Install OpenJDK 11

**Warning:**



As of **Polarion 19** Oracle Java SE Development Kit 8 is no longer supported.

**Caution:**

Backup the Java Keystore before installing OpenJDK 11 and **reimport it** when you've finished installing OpenJDK and Polarion.

**Warning:**

When installing or upgrading to OpenJDK 11 **make sure the default file encoding matches** the same encoding used by the previous version of Java.

1. Go to **AdoptOpenJDK 11 (LTS)**.  
(AdoptOpenJDK 11 LTS is the recommended OpenJDK distribution because it's continuously tested with Polarion and offers long-term support.)
2. Select the **HotSpot** implementation for **Windows x64** and download the **JDK .zip** file.
3. Extract the downloaded zip file into, for example, `C:\Program Files\Java\`.  
It will create a **jdk-11.0.3+7** (version number may vary) folder within the location that you select.
4. Set the **System Variables**:
  - a. Enter Windows **Control Panel** →  **System** →  **Advanced System Settings**.
  - b. Click **Advanced** and then **Environment Variables....**
  - c. Add the **bin** folder location (within the JDK folder) to the **PATH** variable in **System Variables**.

Set **JAVA\_HOME**:

- a. Under **System Variables**, click **New**.

- b. Enter **JAVA\_HOME** as the **Variable name**.
- c. Enter the **Variable value** as the installation path of the JDK (without the bin sub-folder).
- d. Click **OK**.
- e. Click **Apply Changes**.

Update **PATH**:

- a. Edit the **PATH** variable by adding **%JAVA\_HOME%\bin**.
- b. Click **OK**.
- c. Click **Apply Changes**.  
`C:\WINDOWS\system32;C:\WINDOWS;%JAVA_HOME%\bin`

5. (Optional) Configure the JDK in your Eclipse, IntelliJ or whatever IDE you develop in.

Tip:

You can see if OpenJDK installed correctly by opening a windows command prompt and typing  
`java -version`.

(If the result points to the newly installed OpenJDK you're good to go.)

## Check file encoding

1. Search for the `file.encoding` property in the main log file (`C:\Polarion\data\logs\main\`).
2. If the default file encoding for the new Open JDK 11 differs, then define it explicitly as a Java Runtime property by adding the following property to the `polarion.ini` file:  
 (Default location: `C:\Polarion\polarion\polarion.ini`.)
  - `-Dfile.encoding=file_encoding`  
 Replace `file_encoding` with the one you use.
3. Run `service.bat` to reinstall the Polarion service.

# 5. Install Polarion

## Windows installer

### Overview

The installer for Windows® systems is a 64-bit Windows executable (.exe) file. The distribution file name contains the product name, version number, service release ID (if applicable), the processor specification and .exe. For example:

#### **PolarionALM\_NN.N\_x64.exe**

Windows 64-bit distribution for Polarion.

... where **NN** is the Polarion version number (the last two digits of the year of the release) and **.N** is the Service Release number (which does not appear if the distribution is not for a Service Release).

### What the installer can install

The Windows installer can be used for a new (clean) installation only. Installing an update for an existing installation requires a different distribution archive. The installer program will advise you of this if it detects an existing installation.

### Disable firewall

The installer program for Windows leads you step-by-step through the installation process.

#### Warning:

If the computer is running a firewall, disable it or allow the Polarion installation to access ports. (Polarion will need to check for the availability of required ports.)

### Choose an installation type



- **Evaluation:** Only intended for evaluation installations. All *Polarion components* are installed and default and simple values are used for ports, paths, and other configuration settings. See *Polarion Trial Guide*, for step by step **"Evaluation"** installation instructions.
- **Standard:** Intended for production installations. This installation type allows you to select which components to install and to modify default installation parameters. Recommended for actual or simulated for example, POC production installation.

## Standard (production) installation

1. If the computer that you are installing Polarion on is running a firewall, disable it for the duration of the installation. This enables the installer to check for the availability of needed ports.
2. Copy the installer program file and the evaluation license file to the folder Polarion will be installed in. (The default `c:\Polarion` is recommended.)

Note:

Install *OpenJDK 11* BEFORE running the Polarion installer.

3. **Right-click** the  `PolarionALM_version_number_x64.exe` file and run as an  **Administrator**.

Welcome to the InstallShield Wizard for Polarion® ALM(TM) 17

The InstallShield® Wizard will install Polarion® ALM(TM) 17 on your computer. To continue, click Next.

4. On the welcome screen, click **Next**.

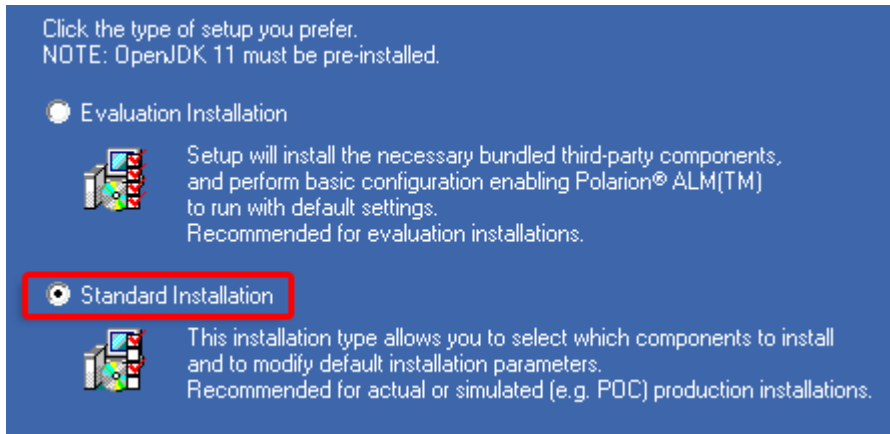
Please enter your name and the name of the company for which you work.

User Name:

Company Name:

5. Enter a **User Name** and **Company Name** and click **Next**.
6. Select the **Standard** installation and **location**:

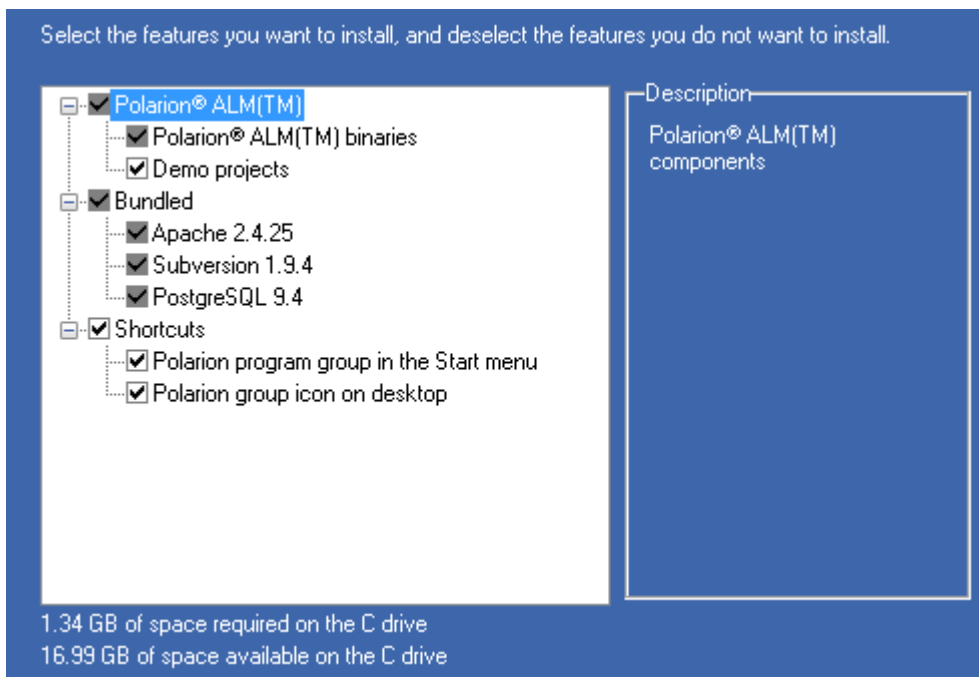


**Warning:**

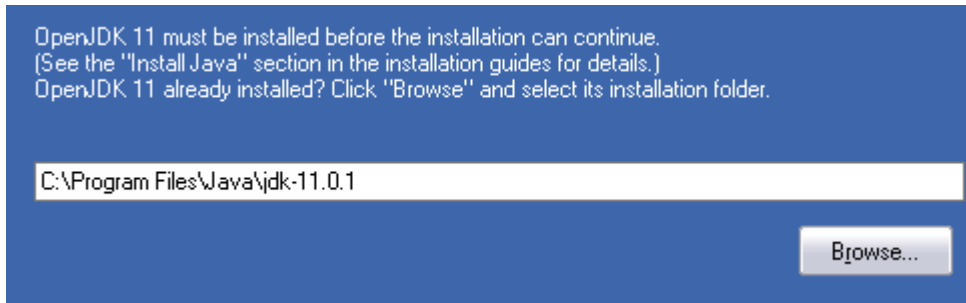
If you change the default **C:\Polarion** installation path by clicking **Browse**;

Pick a location other than the **Program Files** folder.

7. Click **Next**.



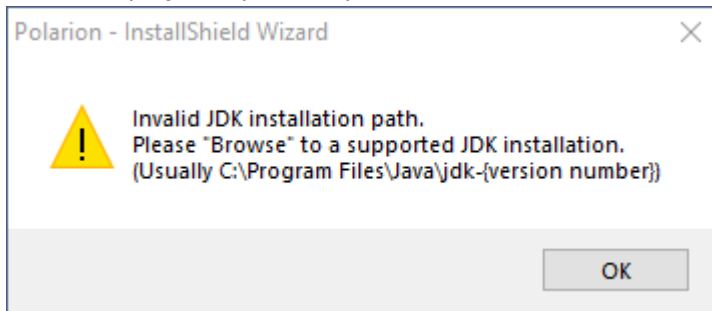
8. Clear any unwanted optional () features and click **Next**.



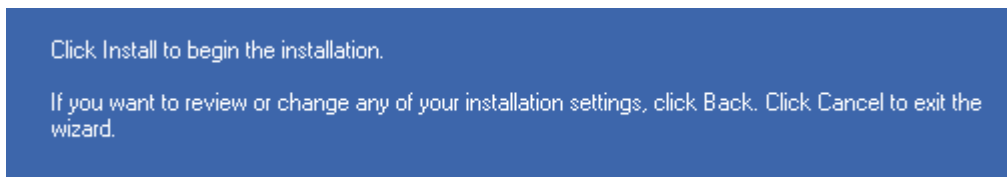
Tip:

The installer inserts the path from the `JAVA_HOME` environment variable.

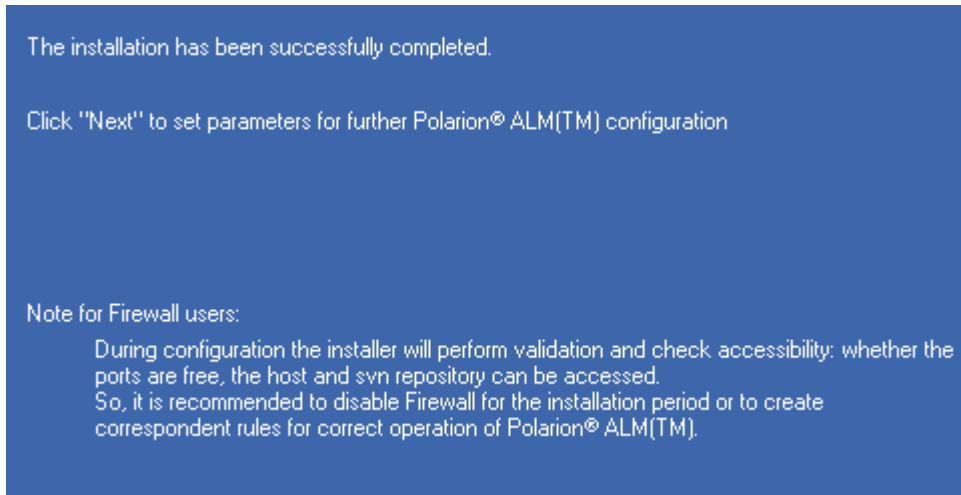
9. Click **Next**.  
 (If the displayed OpenJDK path is incorrect, the following error message appears.)



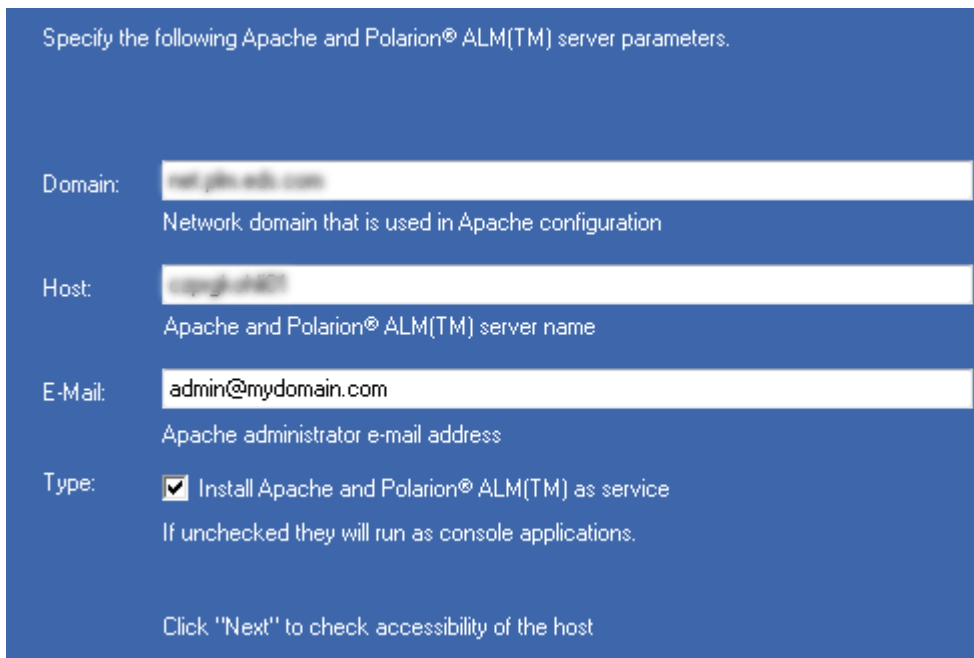
Click **Browse**, navigate to the correct path, click **OK** then **Next**.



10. Click **Install** to begin the installation with the selected settings, or **Back** to change them.



- Click **Next** when the screen above appears.



- Enter a **Domain**, **Host** and **E-Mail**.  
Clear **Type** to have the Apache and Polarion services run as console applications.
  - As services they run hidden in the background.
  - As console applications, they appear in the Windows taskbar.

Please choose ports. The default settings are suitable for most computers.

HTTP port:   
The port on which Apache web server will run

JK2 port:   
The port for communication between Apache and Polarion® ALM(TM)

Shutdown:   
The port where Polarion® ALM(TM) will listen for local shutdown requests

Click "Next" to check accessibility of the ports

13. Enter the Polarion Port settings and click **Next**.

Specify PostgreSQL version 9.4 settings

Port:

Password:

Retype password:   
Password for the 'polarion' user which will connect to the database.

14. Enter the PostgreSQL **Password** twice and click **Next**.

Specify Polarion® ALM(TM) SMTP settings

SMTP server

You can find SMTP server address in your email client settings.  
If incorrect SMTP server is given, the Polarion® ALM(TM) will operate correctly, but the email notifications will not be delivered.

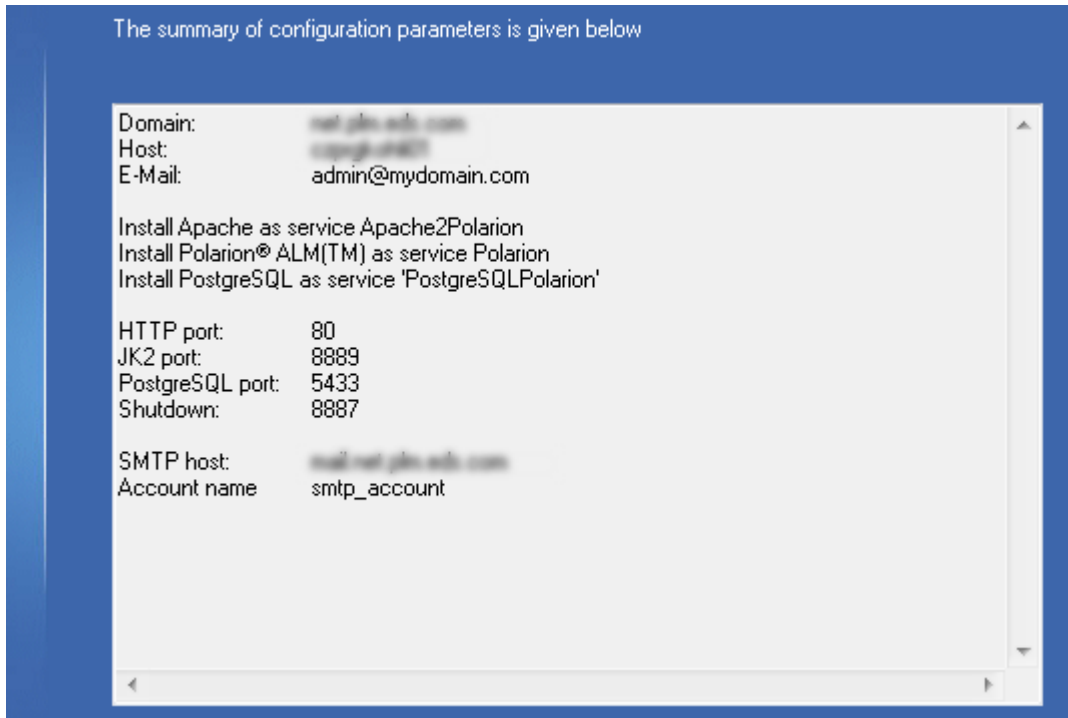
Use SMTP Authentication

Account name

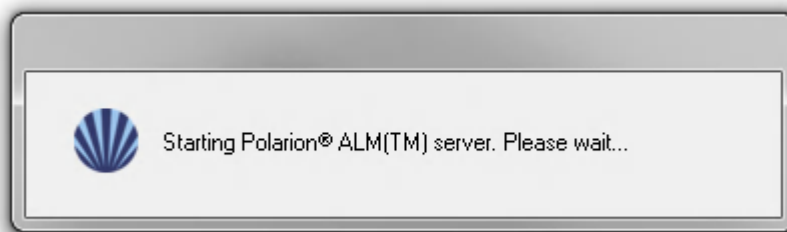
Password

Retype password

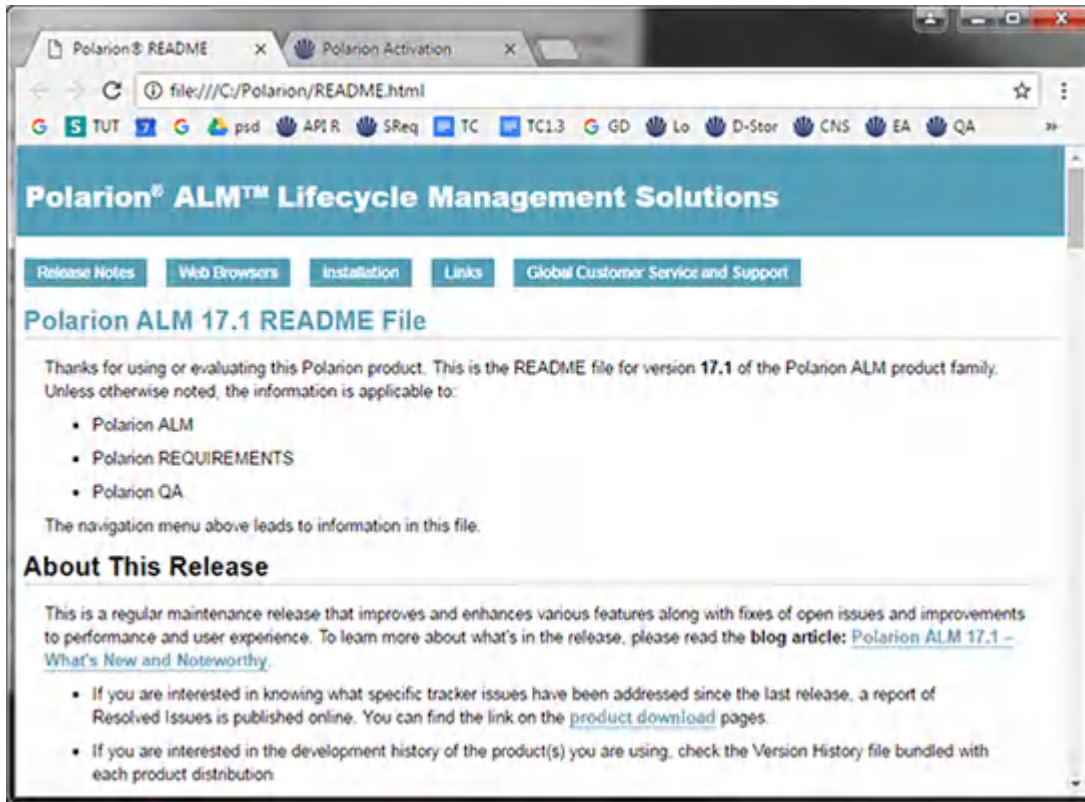
15. Enter the **SMTP server** address.  
(*Optional*) To use SMTP Authentication, select the  Use SMTP Authentication box and enter the following:
  - **Account name:** The SMTP account
  - **- Password / Retype password:** The password used for the selected SMTP account.



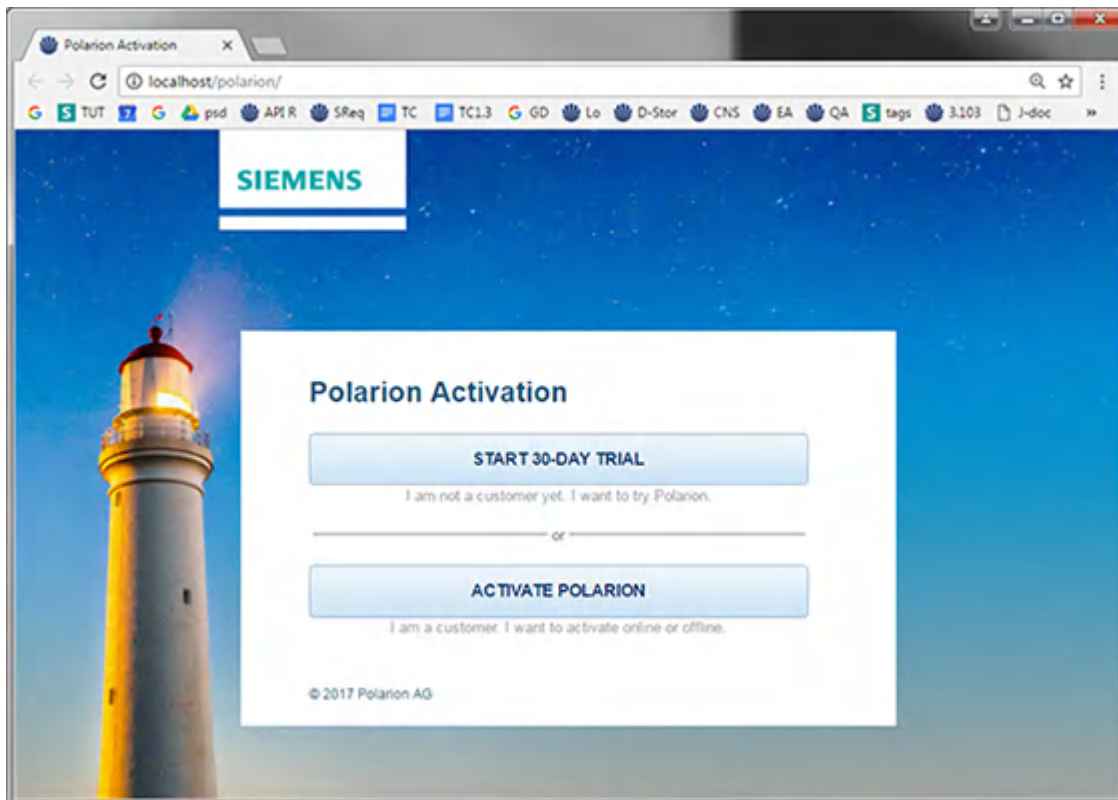
16. Confirm the configuration parameters. Click **Back** as needed to change any of the configuration settings listed above or **Next** to continue.
17. The Polarion Server starts automatically.  
(Unless **Start Polarion Server and open its portal page**) on the previous screen was cleared.



18. The Polarion README.html will launch in a tab of the default web browser.  
(Unless **View Readme file** on the previous screen was unchecked.)



19. The Polarion logon page will launch in another browser.



## Services and license key

Three services will be started once the installation is complete and the Polarion license key is required for the first browser login session. Clients access the Polarion server through a web browser using a designated URL.

Note:

Have your license key handy to activate Polarion once the installation is complete. See [SIEMENS Licensing](#) to obtain a license key. A Webkey account is required.

## Polarion components installed

Component	Description
<b>Polarion binaries</b>	Files needed for Polarion to run.
<b>Demo projects</b>	Repository folders containing sample projects and data. Installation of this component is recommended if you are evaluating Polarion. You may choose to omit it for production installations.
<b>Apache HTTP Server</b>	<p>Caution:</p> <p>You should shut down any other Apache server you may be running on the computer where you are installing Polarion.</p>
<b>Subversion</b>	The latest supported version at time of the Polarion release.
<b>OpenJDK 11</b>	The Java runtime environment is needed by Polarion for a number of different functions, including running Polarion itself. If you already have an installation of the same JDK version, you may opt not to install it. Polarion will prompt you to specify the location of your existing OpenJDK installation.  For evaluation purposes, it will be simplest to go ahead and install the JDK.
<b>PostgreSQL</b>	SQL database used to process complex queries that retrieve data for reports, dashboards and so on.
<b>Polarion program group in the start menu (Optional)</b>	A program group for Polarion in the start menu.
<b>Polarion group icon on the desktop (Optional.)</b>	Desktop shortcut that opens the installed <code>polarion_shortcuts</code> folder which contains shortcuts for starting and stopping Apache service and Polarion server.

See [Manually updating third-party software](#) for information on what versions of bundled software are distributed with Polarion.



## Installation on Windows 10

For evaluation purposes you can install Polarion on computers running Microsoft Windows 10 (64-bit only).

For production use, it is important that you use a supported server operating system.

Caution:

Installing Polarion in the **C:\Program Files** or **C:\Program Files (x86)** folder is not recommended.

Some components would not have the necessary read/write permissions by default.

We recommend that evaluators view *Polarion ALM Trial*.

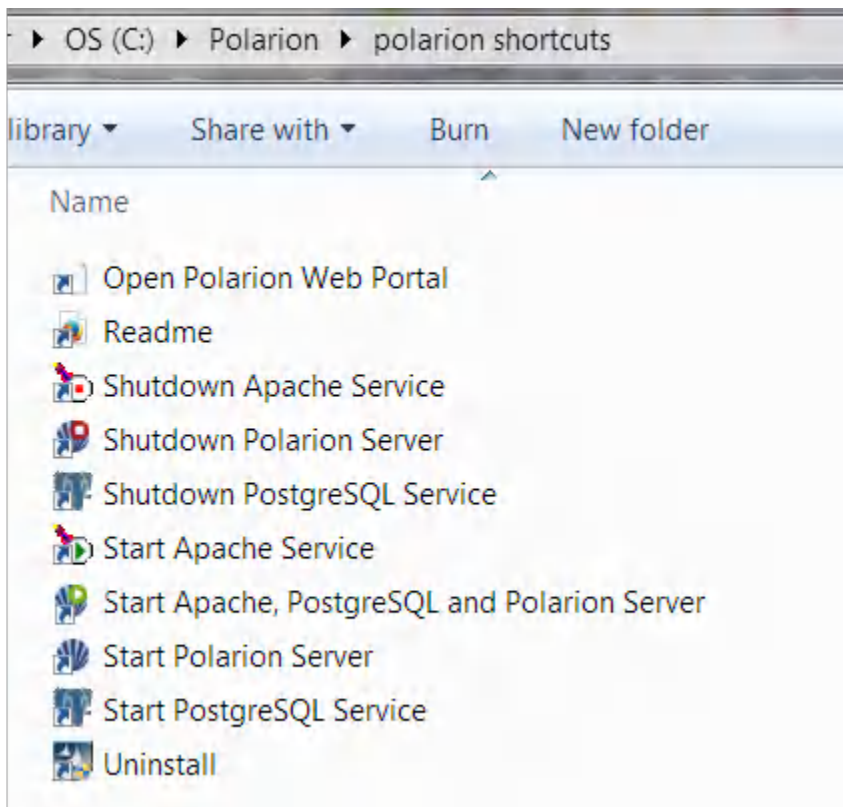


# 6. Starting and stopping the Polarion server

## Polarion shortcuts

The installer provides the option of starting the Polarion server for the first time after installation. Later on, you will need to know how to stop and restart the Polarion server manually.




The Windows installer creates and automatically configures a set of shortcuts that enable you to start and stop the Apache service, start and stop the Polarion server, start and stop the integrated PostgreSQL database, and launch the web portal in the default browser. These are located in the folder **[POLARION\_HOME]\polarion shortcuts**. The installer places an icon on the desktop that opens this folder in Windows Explorer.



## Starting the server

### Steps for starting the server

When starting the server, run the startup in the following sequence:

1. Start up Apache Service by clicking on the  Start Apache Service shortcut.
2. Start PostgreSQL by clicking on the  Start PostgreSQL shortcut.
3. Start up Polarion Server by clicking on the  ( Start Polarion Server shortcut.

It is not necessary to start Apache Service again if it is already running. You can check if it is running using the Apache Monitor program.

`($POLARION_HOME$\bundled\apache\bin\ApacheMonitor.exe).`

The first time you start the Polarion server, you will see the following message in the console:

```
Not enough data for startup estimation.
```

This is not an error message. On startup and on re-index operations, Polarion estimates and reports the amount of time the operation will take. You will see this estimate in the console and log file on subsequent startups, but the first time, no data exists on which to base the estimate.

The following startup phases are reported in the console and log file:


- Platform startup
- Context recognition
- Context initialization
- Revisions processing
- Build artifacts recognition
- BIR inspection
- Data indexing
- Polarion startup




## Express startup shortcut

Click the  **Start Apache, PostgreSQL and Polarion Server** to initiate all startup operations in the correct sequence.

### Caution:

This shortcut should only be used to start Polarion when none of these services are running.

If you are unsure whether a service or process is running, click all of the following shortcuts before clicking  **Start Apache, PostgreSQL and Polarion Server**.

-  **Shutdown Apache Service**
-  **Shutdown Polarion Server**
-  **Shutdown PostgreSQL Service**

## Starting the Polarion server as a service

### Overview

By default, Polarion Server is installed as a Windows service. The service name is Polarion. The service description is Polarion Server.

When Polarion is installed as a service, the shortcuts previously described are configured to run the necessary executables with the required parameters so that Polarion is started as a service. The shortcuts are the recommended way to start the Polarion Server. If you want to start the server from the command line, you can invoke the following after making sure the Apache service is running:

```
C:\WINDOWS\system32\net.exe start Polarion
```

### Notes about running as a service

When the Polarion service is started, parameters from the **polarion.ini** file, memory settings and so on, are not taken into account. So if you need to change **polarion.ini** and you run Polarion as a service, you must reinstall the Polarion service after changes in **polarion.ini** are completed.

To do this, use the command line to first run:

1. **C:\Polarion\polarion\service.bat -uninstall**
2. And then run:  
**C:\Polarion\polarion\service.bat -install**

## Starting Polarion as a console application

Polarion can be run as a console application by running the following in a Windows console window:




**C:\Polarion\polarion\polarion.exe.**

Note:

This file is provided mainly for backward compatibility. If you installed Polarion as a service, you should run it as such, as previously described.

## Shutting down the Polarion server

When shutting down the server, use the following sequence:

1. Click the  **Shutdown Polarion server** shortcut.
2. Click the  **Shutdown PostgreSQL Service database** shortcut.
3. Click the  **Shutdown Apache Service** shortcut.

Note:

It is not normally necessary to shut down the Apache Service if you just want to restart the Polarion Server.

The [Appendix](#) provides reference information on the default Polarion parameters used by the **Polarion installer** for Windows.

# 7. After installation

## Securing the Polarion activation application

Beginning with version 2015, Polarion includes an activation application that makes it possible to install or update a license while the Polarion server is running, without the need to copy the license file manually to the target machine.

**Warning:**

Access to this application is not initially protected by user name and password

For production use it is highly recommended to secure access to this application directly in the Apache configuration.

Beginning with version 2015, there is a template Apache configuration file in the Polarion installation folder: `\polarion\polarion\install\polarion.activation.conf.template`

To ensure that a user name and password is requested when accessing the activation application (`\polarion\activate\online` and `\polarion\activate\offline`):

1. Copy this file to the Apache configuration folder, on Windows usually `C:\Polarion\bundled\apache\conf\extra\`.
2. Rename it to remove the `.template` extension.
3. Open the file in any text editor and modify it according to the instruction comments provided. The template configuration is prepared for both user file authentication (like Polarion uses for Subversion by default, with user passwords data in a file) and for authentication against an LDAP server.

**Note:**

In a multi-instance setup with a coordinator plus one or more instances that can be clustered, it is necessary to use this configuration only on the coordinator server. The activation application runs only on the coordinator. For additional information about this type of setup, see *Polarion ALM Enterprise Setup*.

## Adjust server memory allocation

The default installation uses **640 m (megabytes)** as the maximum memory allocation settings. This is fine for evaluation purposes but should be increased in production installations to avoid running out of memory.

**Tip:**

Set the `Xmx/Xms` values to 50% of the server's total ram.

1. Open the `[POLARION_HOME]/polarion.ini` file in a text editor.
2. Adjust the following values to half of the server's total RAM:

```
-Xms650m
```

```
-Xmx650m
```

(Use MEGABYTES as the measure. For example, for 2 GB, specify `-Xmx2000m`.)

3. Save the changed file.
4. Reinstall the Windows Service.

```
C:\Polarion\polarion\service.bat -install
```

- a. Make sure the Polarion server is not running
- b. Run the following utility:

```
C:\Polarion\polarion\service.bat -install
```

5. Restart Polarion.

## Java Virtual Machine memory limit

If you allocate too much memory for the Java Virtual Machine (JVM), the operating system will not initialize it. Diagnosing the issue can be difficult because the service does not start and no error log is written. An entry is written to the Windows Application log with the description **“Could not initialize the Java Virtual Machine”** but the reason is not specified.

The amount of memory you can allocate to the JVM depends on how much total memory exists on the computer. The more total memory, the more you can allocate to the JVM before the operating system imposes a limit. In tests on a 4 GB system, allocating 1.1 GB to the JVM resulted in failure to initialize.



## Configuring PostgreSQL database

This component must be installed and properly configured before you can start the Polarion server. The Windows installer attempts to install the software and configure it to run with Polarion, including some optimization for best performance. If for any reason the installer is unable to optimize PostgreSQL, you should do it manually.

## Optimizing the PostgreSQL database

### Changes to the postgresql.conf file

Beginning with version **2015 SR2**, Polarion integrates the PostgreSQL database in all new installations. After a new Polarion installation containing this database, it is highly recommended that the administrator review, and if necessary, adjust some PostgreSQL settings to optimize performance.

After installation you should make the following changes in **postgresql.conf**.

Default path: **C:\Polarion\data\postgres-data\postgresql.conf**

```
max_connections = 80 # should be < 10 * number of CPUs

shared_buffers = 2GB # should be 10% - 15% of total system RAM

work_mem = 10MB # should be 10MB - 100MB

maintenance_work_mem = 200MB

fsync = off

synchronous_commit = off

full_page_writes = off

wal_buffers = 256kB # should be more than size of common
# transaction

checkpoint_segments = 32

effective_cache_size = 4GB # should be approx 2/3 of total
# system RAM

max_locks_per_transaction = 100 # specific for Polarion

# Optimal planner performance setting

# For HDD, keep default setting. Otherwise, uncomment the
# applicable setting below:
```

```
# For SSD:  
  
# random_page_cost = 1.5  
  
# For SAN:  
  
# random_page_cost = 2.0
```

## Allowing remote connections to the PostgreSQL server (optional)

By default the PostgreSQL database is only available on localhost after a fresh install. If you need to have access from outside the host machine, follow these steps to allow remote access:

1. Change the listener addresses in the **postgresql.conf** file (see path above). Change:  
**#listen\_addresses='localhost' to listen\_addresses='\*'**
2. In the same folder, you will find the **pg\_hba.conf** file. Open it in a text editor and add the following line: **host all all 0.0.0.0/0 md5**

### Note:

If you allow external connection to the database, the external user has blanket access to the entire database content and effectively to all Polarion data - all projects, the HEAD revision as well as history. There is no further access control. All Polarion user names will also be visible. (User passwords will not be visible as those are not stored in a database or SVN.) Access is read-only.

Administrators are advised to consider carefully before opening database access in a system in use for production.

## Enter an error reporting email

The email for the **error.report.email** property in the **polarion.properties** file is empty by default for new installations. Add the email you want error reports sent to.

# 8. Licensing and activation

## Overview

In order to use Polarion you must obtain a license. A license with the necessary key and file is normally delivered by email to the address provided by the person who purchased the license. If you need help obtaining a license, contact [sales@polarion.com](mailto:sales@polarion.com).

Polarion installs with a 30-day evaluation license. After obtaining a license for production use, you must activate your Polarion installation. The login page provides action options leading to online and offline activation instructions. You will need the information provided by Polarion to complete the activation.

## Using different license types

Several different license types are available - Evaluation, Site, User-limited, etc. If you begin using Polarion with one type of license key (**Evaluation**, for example), and want to continue using it with a different license type, simply remove the current license key file from the license folder and copy the new license key file there. If the Polarion server is running, you will need to restart it for the new license to take effect. You can install multiple license keys for different license types and/or Polarion products on the same server.

## Assigning named and concurrent users

If your license allows for named and/or concurrent users, you will need to add assignments for each type of user in the appropriate section of the users file. By default this file is located in the license folder of your Polarion installation. If you change the location for license key files, be sure to move the users file to the same folder that stores your license key file.

You can edit it in the License topic in the global Administration in the portal. The file contains comments with complete instructions on how to find the user IDs of your named/concurrent users, and make the relevant assignments.

## License usage log file

Administrators and managers can monitor license usage by checking the license usage log file **log4j-licensing-TIMESTAMP.log**. This file is located in the **[POLARION HOME]\data\workspace\metadata** folder.

When a concurrent user logs on/off, a license usage statistics report is written to the licensing log. Concurrent licensing is not supported for all products.

The following example shows one user currently using an enterprise concurrent license type, the greatest number of users of this license during the current server session (peak), and the maximum number of users allowed by the license limit.

```
2008-05-14 11:12:29,609 [TP-Processor2] INFO PolarionLicensing -  
STATS:enterpriseConcurrentUsers,current:1,peak:2,limit:20
```





# 9. Changing default system passwords

## Change the default system administrator password

To help ensure the security of your Polarion system, you should change the default password of the **System Administrator** user account described below, and the password for the **polarion** user account of the integrated Subversion (SVN) repository.

The default System Administrator user account has access to all administrative functions of Polarion, including read-write access to the Subversion repository. After installing Polarion for actual production use, you should change the password on the default System Administrator account. Before doing so, consider creating another account with administrator permissions for yourself, and perhaps someone else.

To change the default administrator password:

1. Log on to the Polarion portal with the default System Administrator credentials. (username: `admin`, password: `admin`.)
2. Click **My Polarion**. The **My Polarion** page for the System Administrator account loads in the content area.
3. Click  on the top right and click  **My Account**.
4. In the **My Account** page click  **Edit**.
5. Enter the new password in the **New Password** field, and again in the **Reenter Password** field.
6. If you want to continue using this account as the main system administrator account, you may wish to add your email address in the **Email** field, and add a description for the account in the **Description** field.
7. When finished editing the System Administrator profile, click  **Save**. The password is now changed and you must use it next time you log on.

**Warning:**

Do not lose the new password.

If you lose the changed password, you will not be able to log on as the System Administrator user. If no other accounts exist with administrator permissions, it will not be possible to change the configuration, add projects, manage user accounts, etc.

## Changing the password for the SVN 'polarion' user

A subversion repository user named polarion is created by default when you install Polarion. This user acts on behalf of Polarion and has extensive permissions including read permission for all projects. Access to this user by unauthorized users would compromise the security of your Polarion system, so change this password before putting the system into production use.

The following steps assume you use **passwd** file authentication, which is the most common method.

1. Stop the Polarion server before changing this password.
2. Use the **htpasswd.exe** to change the password for the **polarion** user. The utility is located in the **[POLARION HOME]/bundled/apache/bin** folder.  
Utility syntax: **htpasswd path/passwdfilename username**.  
Example: **htpasswd Polarion\data\svn\passwd polarion**.
3. Change the value of the password property in the **polarion.properties** file to the password you set with the htpasswd utility. The typical location of this file is **polarion/configuration/polarion.properties**.

Note:

### For LDAP Users

The typical setup for most Polarion users is passwd file authentication for the polarion user with failover to LDAP for company users. This is also the default Polarion setup.

For such setups, you do not need to enter the polarion user to your LDAP users.



# 10. Configuring OLE Object support

## Overview

It is possible to import Microsoft Word documents that contain OLE objects. Polarion can display OLE Object thumbnails during Word document import. However, some additional third-party image converter software must be installed and configured before you can import such Word documents. OLE Objects in documents must contain their thumbnails in the .emf or .wmf file formats and the image converter used must support their conversion into the .JPEG format. OLE Objects themselves are not imported, only their thumbnails.

The recommended image converter software is **ImageMagick**. Windows distributions are preconfigured for ImageMagick. An empty folder is provided at **[POLARION HOME]\polarion\imagemagick** and it contains a README file describing what to download, how to unpack it and what to do next.

Note:

When configuring OLE imports for DOORS and ReqIF, thumbnails will be generated on the fly.

## Install and configure ImageMagick

1. Download **ImageMagick**.
2. Install Image Magick into an **imagemagick** sub-directory within the **\polarion** folder of the Polarion installation.  
The correct path for the default Polarion installation would be:  
**C:\Polarion\polarion\imagemagick\convert.exe**
3. If there is no **convert.exe**, then use **magick.exe** with the following properties in the **polarion.properties** file:  

```
com.polarion.oleconverter.app=${com.polarion.home}/imagemagick/magick.exe  
com.polarion.oleconverter.usefiles=true  
com.polarion.oleconverter.param1=convert  
com.polarion.oleconverter.param2=-flatten  
com.polarion.oleconverter.param3=$in  
com.polarion.oleconverter.param4=$out  
com.polarion.oleconverter.convertedImageFormat=png
```
1. Once **ImageMagick** is installed, open the **polarion.properties** file and specify the target image format for OLE thumbnail conversion.  
`[POLARION HOME]\polarion\configuration\polarion.properties`
2. Once the **polarion.properties** file is open, Search for the section below and adjust it to suit your needs.

```
# The OLE Converter is used for converting OLE Objects with .wmf and .emf
# thumbnails contained in MS Word Documents.

#

# Configuration for ImageMagick on Windows platform

# - Before uncommenting configuration for ImageMagick read README.txt in
"Polarion Installation Dir"/polarion/imagemagick.

#com.polarion.oleconverter.app=${com.polarion.home}/imagemagick/convert.exe

#

# Configuration for ImageMagick on Linux platform

#com.polarion.oleconverter.app=convert

#

# Rest of configuration for ImageMagick on Windows and Linux platform

#com.polarion.oleconverter.usefiles=false

#com.polarion.oleconverter.param1=-flatten

#com.polarion.oleconverter.param2=-

#com.polarion.oleconverter.param3=png:-

#com.polarion.oleconverter.convertedImageFormat=png

#

#NOTE:

# - For conversion into JPEG instead to PNG, change 'png' to 'jpeg' in
com.polarion.oleconverter.param3 and
com.polarion.oleconverter.convertedImageFormat
```

### In a clustered environment:

In a clustered environment (multiple server instances, spanning more than one node, all running an identical configuration), there are additional properties in the **common.properties** configuration file that you will need to review and set after installing the image converter. Refer to comments in the section for the **com.polarion.oleconverter.app** property that explain the settings.

# Polarion Preview Generator - Teamcenter Visualization Convert and Print Shop

## Configuration

Visit [TeamCenter Visualization 11](#) to learn more about it.

The following Teamcenter Visualization Convert & Print configuration settings found in the **[Prepare]** section of the **vvcp.ini** file should also be adjusted:

The default path is:

**[Teamcenter Installation Dir]\Visualization\WVCP\vvcp.ini**

Adjust the following settings:

**MainWindowState=hide**

**SingleProcess=off**

Then follow the instructions for Teamcenter Visualization Convert & Print in the **polarion.properties** file.



# 11. Multiple repository setup

If you use Polarion in a large enterprise with many users and projects, the standard single-repository installation may not be adequate. There are two Polarion features that enable you to work with multiple repositories, but they are fundamentally different. You need to understand the basics of each feature before deciding which approach to multiple repositories best meets your needs.

The **External Repository** feature gives you the ability to link Polarion artifacts stored in Polarion's integrated repository with changes (revisions) in source code stored on one or more external SVN or Git repositories. After installation, you can configure Polarion to use one or more external repositories in addition to the SVN repository bundled and installed with Polarion. For information on this feature, see the **Administrator's Guide: Configuring Repositories** in Polarion's Help.

The **Clustering** feature enables you to run Polarion on multiple servers, either physical, virtual, or a combination. The topography can be set up to host multiple Polarion servers running on separate machines each with its own Polarion repository, and/or multiple machines all accessing a single Polarion repository. (Polarion servers on any node can optionally be configured to access external repositories, as described above.)

Special installation and configuration procedures beyond the scope of this guide are required to set up a clustered multi-server environment. These are covered fully in Polarion ALM™ Enterprise Setup.



## 12. Subversion optimization

Polarion uses a Subversion (SVN) repository as its main data storage. There are two topics in the Administrator's Guide component of Polarion online Help that provide guidance for administrators about optimizing Subversion for best performance. It is recommended that you review them before going into production with a new or updated installation.

- **Administrator's Guide** → **Advanced Administration: Topics** → **Optimizing Subversion** in Polarion's Help.
- **Administrator's Guide** → **System Maintenance: Topics** → **Maintaining Subversion (SVN)** in Polarion's Help.



Tip:

You should always set up and use the `svn://` protocol for system user access.





# 13. Accessing the portal

Use the  **Open Polarion Web Portal** , accessible by clicking  on the desktop, to open the portal login window in your default web browser after all system components are running.

The first time you log on after installation, use the default system administrator credentials:

- **User ID:** admin
- **Password:** admin

If the installation is not yet licensed and activated, the login screen first asks you to choose between running with the built-in evaluation license, and activating the installation with a production license.

See [Licensing and activation](#) for additional information.



# 14. LDAP authorization

In a new installation, users are authorized using the Subversion integrated policy access functions (directives **AuthzSVNAccessFile** and **AuthUserFile** in **polarionSVN.conf** file). If you have an LDAP infrastructure, you can make Polarion authorize users against the LDAP database.

Information on performing this configuration, together with some examples, is provided in the **polarionSVN.conf** configuration file. The file is located at: **[POLARION\_HOME]\bundled\apache\conf\extra\polarionSVN.conf**

The file is located one of the following paths, depending on your Linux distribution:

- **/etc/apache2/conf.d**
- **/etc/httpd/conf.d**

After modifying the configuration file, the Apache server must be restarted to reflect the changes.

For more information about the Apache LDAP modules and their capabilities, visit these web pages:

- [https://httpd.apache.org/docs/2.4/mod/mod\\_authnz\\_ldap.html](https://httpd.apache.org/docs/2.4/mod/mod_authnz_ldap.html)
- [https://httpd.apache.org/docs/2.4/mod/mod\\_ldap.html](https://httpd.apache.org/docs/2.4/mod/mod_ldap.html) .

You can find information on configuring Polarion to work with LDAP in the Polarion *Help* topic **Administrator's Guide** → **User Management** → **Integrating Polarion Server with LDAP/Active Directory**.



# 15. Next steps after installation

Once you have installed Polarion and logged in to the Portal, consider taking a look at the demo projects (assuming you installed demo data). Click on the drop-down control in the **Navigation panel** on the left, select **Open Project or Project Group**, and open any project in the **Demo Projects** group. See the **User Guide** → **Getting Started with Projects** section in Polarion's Help for tips.

You may want to do some initial global customizations such as custom **Work Item** types, **Workflows**, **Reports**, **SSL Support** and more. You will find topics on these configurations in the **Administrator's Guide** section of Polarion's Help.

Once you have your Polarion system running, and any global customizations done, you are ready to begin setting up your own projects and user accounts. Look up the following topics in the **Administrator's Guide: Creating and Managing Projects** and **Managing Users and Permissions** section in Polarion's Help.

**Tip:**

Polarion supports Single Sign On (SSO) authentication using Security assertion markup language 2.0 (SAML), Kerberos tokens and Teamcenter security services. See Single Sign On (SSO) with Polarion on [Polarion's Doc Center](#) portal for details.



# 16. Manually updating third-party software

## Bundled third-party software

Polarion bundles the following versions of third-party components:

- Apache 2.4.29 (Updated automatically when using binaries compiled by Polarion.)
- Subversion 1.9.7 (Updated automatically when using binaries compiled by Polarion.)
- PostgreSQL 11.4

Note:

### Apache and Subversion Binaries

The Apache and Subversion Binaries are now compiled in-house.

The **Apache Haus compiled binaries** are still compatible if required by any additional 3rd-party customizations.

Due to licensing issues, Java is no longer bundled with Polarion.

Warning:

**OpenJDK 11** must be installed before running the Polarion installation wizard.

All are 64-bit versions. If you are running the bundled version and you would like to update to a newer service release of Subversion and Apache, see the [Update Subversion](#) and [Update Apache](#) sections.

## Update Subversion

After you update Subversion you must also update Apache (see the next section). Be sure you plan enough time to do both updates.

1. Visit <http://www.apachehaus.com/cgi-bin/download.plx> and download Mod Subversion 1.9.7 for Apache 2.4.x x64.
2. Unpack the ZIP archive to some temporary folder.
3. Stop the Polarion and Apache servers.
4. Stop the existing **Svnserve** windows service if it is running.  
(**Ctrl +Alt +Delete** → **Task Manager** → **Services tab** → Right click on Svnserve and click **Stop Service**.)
5. Back up folders **\$POLARION\_HOME\$\bundled\apache** and **\$POLARION\_HOME\$\bundled\svn**
6. Delete the following files:
  - a. All files within the **\$POLARION\_HOME\$\bundled\svn** folder.  
(But do not delete the folder itself.)
  - b. From folder **\$POLARION\_HOME\$\bundled\apache\bin\ ...**  
**intl3\_svn.dll**  
**libdb48.dll**  
**libsvn\_\*.dll**
  - c. From folder **\$POLARION\_HOME\$\bundled\apache\modules\ ...**  
**mod\_authz\_svn.so**  
**mod\_dav\_svn.so**
7. Copy content of the folder within the unpacked temp folder from step two to **\$POLARION\_HOME\$\bundled\svn**, so that there is a folder **\$POLARION\_HOME\$\bundled\svn\bin**.
8. Copy the following files in the **\$POLARION\_HOME\$\bundled\svn\bin\ ...** folder...  
**mod\_authz\_svn.so**  
**mod\_dav\_svn.so**  
 ...to the **\$POLARION\_HOME\$\bundled\apache\modules\** folder.
9. Copy the following files...  
**\$POLARION\_HOME\$\bundled\svn\bin\libsvn\_\*.dll**  
 ...to the **\$POLARION\_HOME\$\bundled\apache\bin** folder.



10. (Optional). Update Apache.

## Update Apache

You should update Apache after updating Subversion. The Polarion server, PostgreSQL and Apache should already be stopped for that update.

1. You can download the appropriate Apache binaries at:  
<http://www.apachehaus.com/cgi-bin/download.plx>.  
 Installation Help for Apache HTTP server is available from Apache at:  
<http://httpd.apache.org/docs/2.4/install.html>.
2. Install the downloaded Apache on any machine to get the content of the installation folder.
3. Back up the folder **\$POLARION\_HOME\$\bundled\apache**
4. If you use Apache installed as a service, then uninstall Apache service by running:  
**\$POLARION\_HOME\$\bundled\apache\bin\httpd.exe -k uninstall -n Apache2Polarion**
5. Delete content of **\$POLARION\_HOME\$\bundled\apache** except the following:
  - a. Folder **\$POLARION\_HOME\$\bundled\apache\conf**
  - b. Files in folder **\$POLARION\_HOME\$\bundled\apache\bin**:  
**msvcr\*.dll**  
**stopApache.js**  
**libsvn\_\*.dll**
  - c. Files in folder **\$POLARION\_HOME\$\bundled\apache\modules**:  
**mod\_authz\_svn.so**  
**mod\_dav\_svn.so**  
 You may have trouble deleting **rotatelogs.exe**. If so, you can kill the rotatelogs.exe process using Windows Task Manager.
6. Copy the content of the Apache installation folder from **Step 2**, except for the **conf** folder, to **\$POLARION\_HOME\$\bundled\apache**.
7. Remove or disable the following lines in the **httpd.conf** file.  
 (To disable, insert the # character at the start of the lines, as shown below.)  
**# LoadModule authn\_default\_module modules/mod\_authn\_default.so**  
**# LoadModule authz\_default\_module modules/mod\_authz\_default.so**  
**# DefaultType text/plain**
8. Add the following lines to the **httpd.conf** file:  
**LoadModule access\_compat\_module modules/mod\_access\_compat.so**  
**LoadModule authz\_core\_module modules/mod\_authz\_core.so**

**LoadModule authn\_core\_module modules/mod\_authn\_core.so**

9. Not mandatory, but recommended: in  
**\$POLARION\_HOME\$\bundled\apache\conf\extra\httpd-default.conf**  
Increase the value of **MaxKeepAliveRequests** to 10000.
10. If you use Apache installed as a service, install Apache service. Use the following command in a single line:  
**\$POLARION\_HOME\$\bundled\apache\bin\httpd.exe -k install -n Apache2Polarion**
11. Start Apache, PostgreSQL and the Polarion server.

## Update Java

It's good to update **OpenJDK** regularly for security reasons, but check the `README.html` file that ships with your version of Polarion to make sure that major **OpenJDK** version updates are officially supported before updating to them.

**Caution:**

As of **Polarion 19 Oracle Java SE Development Kit 8** is no longer supported.

**Warning:**

Backup the Java Keystore before installing OpenJDK and **reimport it** once it and the Polarion installation are complete.

**Warning:**

If you added extra GC related runtime parameters for Java, you will need to update so that they'll work with **OpenJDK 11**. (If you don't, the Java Virtual Machine may fail to start.)

**Warning:**

When installing or upgrading to **AdoptOpenJDK 11 (LTS)** make sure **the default file encoding matches** the same encoding used by the previous version of Java.

**Tip:**

**Not sure how to update your custom GC related runtime parameters?**

*The following links will help:*

<http://openjdk.java.net/jeps/158>

<http://openjdk.java.net/jeps/271>

**Still stuck?**

Contact **SIEMENS' GTAC** support system.

### **IMPORTANT!**

If you update Java to its latest version you will also have to update the Java path in both the `polarion.ini` and `exec.bat` files.

(Both files are located in `C:\Polarion\polarion\` by default.)

## Import a certificate to the Java Keystore

You will need to import a certificate to the Java Keystore if:

- You are not using a SSL certificate that is signed by an authority trusted by Java. Use of a trusted certificate is preferred and recommended because using an untrusted certificate, such as a self-signed certificate, will cause web services communication to fail with the `SSLHandshakeException` error.
- Before making the switch from Oracle JDK8 to OpenJDK 11.

The information is important only if you are not using a SSL certificate that is signed by an authority trusted by Java. Use of a trusted certificate is preferred and recommended because using an untrusted certificate, such as a self-signed certificate, will cause web services communication to fail with the `SSLHandshakeException` error. If you do opt to use an untrusted certificate, then you must import it into the Java keystore. The general import procedure is described below, followed by examples for Linux and Windows.

1. Copy the default keystore `$JDK_HOME/lib/security/cacerts` as `$JDK_HOME/lib/security/jssecacerts`.

This will leave the original `cacerts` file available as a backup. JSSE will use the `jssecacerts` file, if present, instead of `cacerts`. `Jssecacerts` needs to start as a copy of `cacerts`, which it overrides rather than extends.

2. Import the certificate to the `jssecacerts` keystore using the following command, replacing variables as noted below:

```
$JDK_HOME/bin/keytool -importcert -file $CERT -alias $ALIAS
-keystore
$JRE_HOME/lib/security/jssecacerts -storepass changeit
```

- a. Replace `$JDK_HOME` with your actual JDK home path.
  - b. Replace `$CERT` with the path to your certificate the you previously installed to the system.
  - c. Replace `$ALIAS` with the preferred alias to be used in the keystore.
  - d. Note that `changeit` is the default password for Java's `cacerts` file. Check whether it has been changed on your system.
3. When prompted, check the certificate and confirm that it should be trusted. The prompt to verify and confirm the certificate can be suppressed by adding option `-noprompt`.

## Windows example:

The following command should be written as a single line. It must be run as Administrator. If the Java paths on your system contain spaces, they must be contained in a pair of double straight quotes, as shown.

```
"C:\Program Files\Java\jdk-11.0.1\bin\keytool" -importcert -file
C:\Polarion\bundled\apache\conf\certificate.crt -alias labs.polarion.com
-keystore "C:\Program Files\Java\jdk-11.0.1\lib\security\jssecacerts"
-storepass changeit
```

## Linux Example (CentOS)

This example following command should be written as a single line:

```
/usr/java/jdk-11.0.1/bin/keytool -importcert -file /etc/pki/tls/certs/
cert.pem
-alias labs.polarion.com -keystore /usr/java/jdk-11.0.1/lib/security/
jssecacerts -storepass changeit
```

Depending on your operating system and version, additional command parameters may be necessary.

(See <https://www.cloudera.com> to learn more.)

## Keytool Commands

Here are some potentially useful keytool commands:

```
keytool -list -keystore %JAVA_HOME%\lib\security\jssecacerts -storepass
changeit
```




```
keytool -delete -alias mykey -keystore %JAVA_HOME%\lib\security
\jssecacerts
-storepass changeit
```

```
keytool -importcert -help
```

```
keytool -help
```





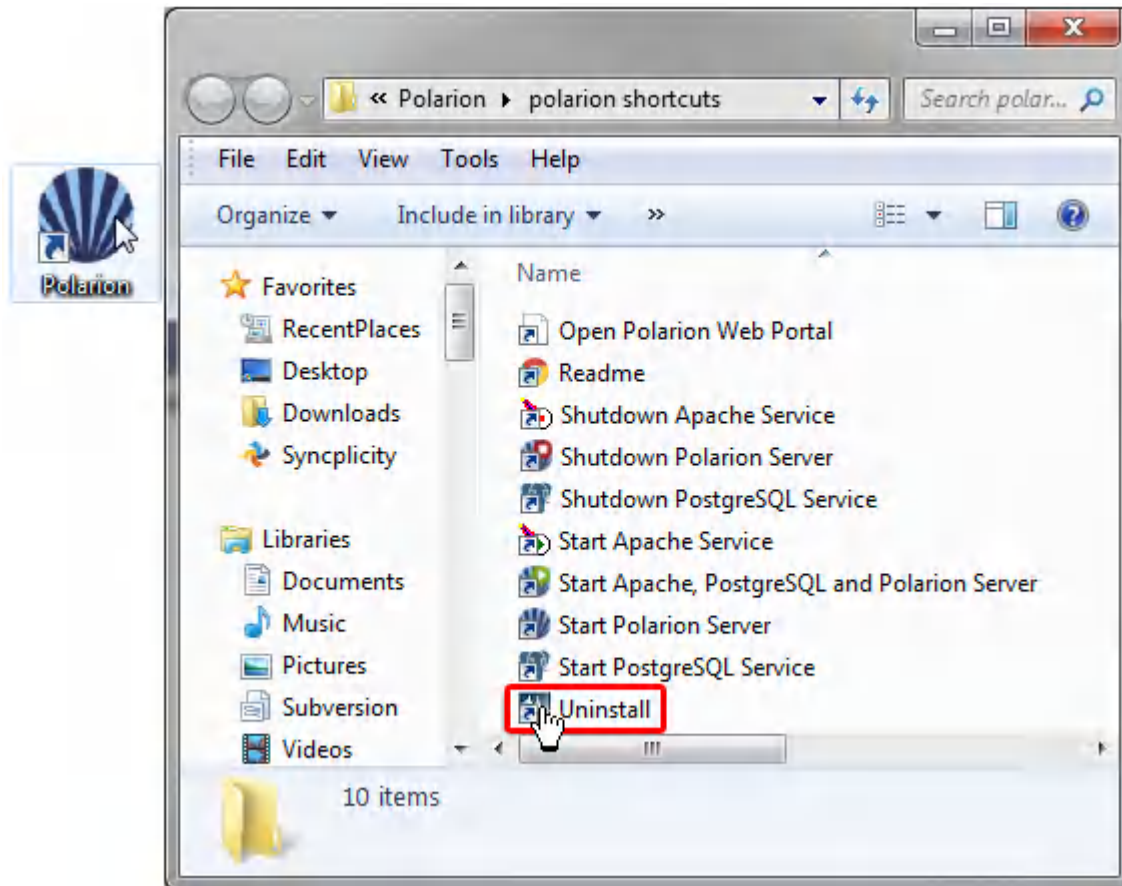
# 17. Uninstall Polarion

Polarion comes with its own uninstaller that can either be launched via the  **Uninstall** shortcut in the Polarion shortcuts folder or through  *Programs and Features* in  *Windows Control Panel*.



**Warning:**

Polarion's subversion repository is stored in the **[POLARION]\polarion** folder. Be sure this repository does not contain production data that must be preserved. If it does, make a backup before uninstalling Polarion.

1. Click on the  **Polarion** icon.
2. Click on the  **Uninstall** in the Polarion shortcuts folder.



OR

1. Go to the  *Windows Control Panel*.
2. Select  *Programs and Features*.
3. Select Polarion from the list of Programs and click **Uninstall**.
4. Click **Yes** to confirm the uninstallation when the warning screen appears.
5. The uninstall process begins.

Polarion and bundled components were successfully uninstalled.  
The Subversion repository and files created during Polarion operation were not deleted.  
Please select one of the options below:

- Do not delete any remaining files
- Keep the data folder but delete the configurations and program files changed after installation
- Delete ALL files including project builds, generated reports and Subversion repository

6. Select what files, if any, to keep and click **Next**.

#### Uninstallation Complete

InstallShield Wizard has finished performing maintenance operations on Polarion.

7. Click **Finish**.
8. Polarion is successfully removed from your system.

#### Note:

OpenJDK will need to be uninstalled separately.



# 18. Technical support

Polarion is problem-free for most people... at least that's been our experience. However, it's impossible to anticipate all the conditions and environments where Polarion may be used. If an arises, Polarion's Technical Support team maintains the Customer Self-service Portal which includes an extensive knowledge base of common problems and solutions and troubleshooting information, as well as the possibility to submit, manage, and review your own specific support cases.

For information about the portal and technical support options, please visit: <https://polarion.plm.automation.siemens.com/techsupport/resources>



# 19. Appendix

## Enabling email notifications

If you did not configure email notification settings in the installation program, you can do this after installation by setting the host name in the **announcer.smtp.host** property in the **polarion.properties** file located in **[POLARION\_HOME]\polarion\configuration**. There you should also set the **announcer.smtp.user** and **announcer.smtp.password** properties to a valid email account on the SMTP host specified in **announcer.smtp.host**. You may want to create a dedicated email address on your SMTP host for use by the Polarion notifications system.

When this configuration is correctly set up, the system will send notification emails about various events according to the notification targets configuration. For information on configuring email notifications, see the **Administrator's Guide: Configuring Notifications** in Polarion's Help.

## Default parameters and settings

This section contains reference information about default Polarion parameters used by the Polarion installer for Windows.

1. Polarion installation root folder: **C:\Polarion**.
2. Polarion components (default folder is: **C:\Polarion\bundled**):
  - a. Apache2 HTTPD-server (**C:\Polarion\bundled\apache**)
  - b. Subversion (**C:\Polarion\bundled\svn**)
  - c. PostgreSQL (**C:\Polarion\bundled\PostgreSQL**)
3. Default settings for Apache:
  - a. Install type: for an **Evaluation** installation as a service, otherwise user-specified (service or console application, default: Service)
  - b. HTTP port: 81 for an **Evaluation** installation, otherwise port user-specified (default: 80)
  - c. Shutdown port: 8887
  - d. SMTP host: localhost for an **Evaluation** installation, otherwise the value is generated by adding mail. to the domain name taken from the registry. Remember that this is just the documentation of default values. You would specify the actual value for your system during the installation.

4. Default settings for Polaron:
  - a. Install type: for an **Evaluation** installation, as a console application, otherwise user specified (default: as Windows service).
5. Default system property setting for PostgreSQL database connection:  
**com.polarion.platform.internalPG=polarion:polarion@localhost:5433**  
Parameters: *<connecting user name>:<password>@<hostname>:<port>*

## 20. Supported Microsoft Office versions



Feature	Action	Ext.	Format	2003	2007	2010	2013	2016	2019
LiveDocs (2011)	Word Import & Round-trip	.docx	DOCX	✗ <sup>2</sup>	✗ <sup>1</sup>	✗ <sup>4</sup>	✗ <sup>4</sup>	✓	✓
	Excel Import & Round-trip	.xlsx	XLSX	✗ <sup>2</sup>	✗ <sup>1</sup>	✗ <sup>4</sup>	✗ <sup>4</sup>	✓	✓
LiveDocs (2010)	Excel Export	.xls	XML	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>
	Word Export	.doc	XML	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>	✗ <sup>3</sup>

Supported ✓

Unsupported ✗

- Beginning with Polarion 18, Microsoft Office 2007 is no longer supported in Polarion LiveDocs™.

Caution:

(The only exception is Polarion's internal templates. If updated in Microsoft Word, they should still be saved in the 2007 .docx format to ensure that content like shapes import/export as expected.)

- Beginning with Polarion version 2014-SR1, Microsoft Office 2003 is no longer supported in Polarion LiveDocs™.
- Prior to Polarion version 2011, **Live Documents** referred to Microsoft Office Word and Excel documents based on special document templates that could define and store Polarion **Work Items**. Beginning with version 2011, the technology was completely refactored, but backward compatibility was maintained. Beginning with Polarion version 2014-SR1, support for this legacy format was dropped completely and the feature was renamed as **LiveDocs**.
- Beginning with Polarion 19, Microsoft Office 2010 and 2013 are no longer supported in Polarion LiveDocs™.

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