SolarWinds Note

Starting with version 2021.8, SentryOne SQL Sentry is now **SolarWinds SQL Sentry**. While logos and names have rebranded, you can expect to see things like SentryOne Framework in the SolarWinds version when using EPI. The latest EPI version of SQL Sentry is available from the SolarWinds Customer Portal. Certain components like service provider names may also reflect the SentryOne name. See the [SQL Sentry Components and Architecture article](#) for more details.

Introduction

EPI increases the speed and simplicity of installing and upgrading SQL Sentry implementations with multiple monitoring services or clients, and avoids having to manually run through the original installer on every machine. It allows the automation of upgrades and deployments of the SQL Sentry platform with a command line interface experience. EPI minimizes the downtime required to update the monitoring solution by removing the need to manually shut down monitoring services or close client connections.

Getting Started

⚠️ **Warning:** The Monitoring Service Account must be a member of the local machines administrator group to complete the EPI installation. If the Monitoring Service Account is not a part of the local machines administrator group, the EPI installation will stop and notify you of this requirement. Once the...
EPI installation has completed, you can remove the Monitoring Service Account from the local machines administrator group.

Version Availability & Components

To get started with EPI (available in v19.1.1), all installed SQL Sentry components (database, monitoring service, and client) must have the EPI version of SQL Sentry installed, and the SQL Sentry controller service (EPI bootstrapper) must exist on all machines where a monitoring service or client is installed. If you are installing SQL Sentry for the first time, or have removed all SQL Sentry components from your environment, follow the installation instructions in the Install section. If you would like to upgrade an existing SQL Sentry installation to use EPI, follow the Option 2. First EPI Upgrade steps in the Upgrade section.

Note:

- To use the original installation method, see the SQL Sentry Installation article. This original installation option is recommended for smaller environments (i.e. estates with a single monitoring service or client) and those who do not need a command line experience for streamlining the installation or upgrade processes.

Run as Administrator

Command Prompt must use the Run as administrator option for all commands.

Case-Sensitivity

The parameters used in commands are case-sensitive.

This means that --connectionserver will not work for --connectionServer.

Parameters & Examples

The instructions include commands with placeholders for parameters specific to your SQL Sentry environment. This section describes all of the placeholders used in the EPI instructions.

For example, you will use the following command to register a new connection:

```
so addreg -n --connectionServer --connectionDatabase
```

When you run it with your parameter values, it might look like this:

```
so addreg -n SentryOneUS --connectionServer SentryOneHost --connectionDatabase SentryOne
```
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;connectionName&gt;</code></td>
<td>Used with <code>-n</code>. The friendly name for this connection which appears on the SQL Sentry Database Connection Management screen (formerly called Repository Connection Management). The labeled with a 1 in the image below, which has <code>SentryOneUS</code> displayed.</td>
</tr>
<tr>
<td></td>
<td><strong>Important:</strong> The name itself is arbitrary, but once you pick one, you must stick with it for all EPI commands associated with this connection.</td>
</tr>
<tr>
<td></td>
<td><img src="image.png" alt="Image of connection window" /></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> If you need to see your existing connections using EPI, you can use the <code>listreg</code> command to see the connection details as described in the EPI Commands article.</td>
</tr>
<tr>
<td><code>&lt;serverName&gt;</code></td>
<td>Used with <code>--connectionServer</code>. The name of the server hosting the SQL Sentry database or where you will install the SQL Sentry database. This is labeled with a 2 in the image above, which has <code>SentryOneHost</code> as the value.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> You may use <code>localhost</code>, if applicable.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> When working with a named instance, the parameter format is <code>serverName\instanceName</code>.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> When the SQL Sentry database is part of an availability group, it is recommended to use the availability group listener name instead of the SQL Server name.</td>
</tr>
<tr>
<td><code>&lt;databaseName&gt;</code></td>
<td>Used with <code>--connectionDatabase</code>. The name of the SQL Sentry database that will be created or updated. This is labeled with a 3 in the image above which has <code>SentryOne</code> as the value.</td>
</tr>
<tr>
<td><code>&lt;SQLServerUserName&gt;</code></td>
<td>Used with <code>--connectionUsername</code> in the command examples when using SQL Server authentication. The SQL Server authentication user name.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> This is only needed when using SQL Server authentication.</td>
</tr>
<tr>
<td></td>
<td>Used with <code>--connectionPassword</code> in the command examples when using SQL Server authentication.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><code>&lt;SQLServerUserPassword&gt;</code></td>
<td>using SQL Server authentication. The SQL Server authentication password associated with the SQL Server user name.</td>
</tr>
<tr>
<td><code>&lt;SQLServerConnectionPort&gt;</code></td>
<td>Used with --connectionPort. The SQL Server connection port. The default port is 1433.</td>
</tr>
<tr>
<td><code>&lt;serviceAccount&gt;</code></td>
<td>Used with -u. The account used to run the SQL Sentry monitoring service.</td>
</tr>
<tr>
<td></td>
<td>The following command is equivalent to completing the Service Account Information screen as shown below.</td>
</tr>
<tr>
<td></td>
<td>so install --IAcceptLicenseTerms -n -u</td>
</tr>
<tr>
<td></td>
<td><img src="image.png" alt="Service Account Information screen" /></td>
</tr>
<tr>
<td></td>
<td>┄ Warning: Passwords cannot start with a dash. There is no workaround for this.</td>
</tr>
<tr>
<td></td>
<td>See the Monitoring Service Security article for additional information on service account requirements.</td>
</tr>
<tr>
<td></td>
<td>⚠ Important: When using EPI, the monitoring service account must be a member of the local administrator group. This is not required for monitoring, but is required during EPI installations and upgrades.</td>
</tr>
<tr>
<td></td>
<td>Used with -p. The password associated with the service account.</td>
</tr>
</tbody>
</table>
The service password will be masked in the command line interface. This is the recommended method for entering your password.

![Example of masked password.]

If you want the password displayed, use the `-p` after the serviceAccount as shown below:

```
so install --IAcceptLicenseTerms -n -u -p
```

**Note:** The `-p` flag is only recommended for use when scripting out commands.

**Warning:** Passwords cannot start with a dash. There is no workaround for this.

**Important:** See the Password section in the EPI Commands article for information on using non-alphanumeric (i.e. special) characters such as spaces or quotes with the `-p` flag.

The command will stop, and monitoring and controller service installations will fail if these characters are not properly formatted with quotes and the backslash escape character.

**Parameter** | **Description**
---|---
<servicePassword> | The SQL Sentry version to which you are upgrading (i.e. 19.2.2).
<packageVersion> | Used with `-t`. The file path where the SQL Sentry upgrade package is located.
<packagePath> | Used with `--server` (`-s`). The server that will host the SQL Sentry Portal service. It must be the Fully Qualified Domain Name (FQDN) of the server.
<portalServerFQDN> | Used with `--server` (`-s`). The server that will host the SQL Sentry Portal service. It must be the Fully Qualified Domain Name (FQDN) of the server.

### Install via EPI

### Requirements

Before installing SQL Sentry, review the following articles:

- Installation Recommendations
- System Requirements
- Components & Architecture
Complete the following steps to install SQL Sentry for the first time. **There should be no existing SQL Sentry components on the machines where you complete this install.** This process walks you through creating the SQL Sentry database, installing the monitoring service, and launching the client. The .NET Framework 4.7.2 is installed during this process, which may force a reboot.

**Note:**
- Review the Parameters & Examples section for more information about the used in the following commands.
- If you experience any **Result = Timeout** messages while a command is running, refer to the Advanced section for more information. This does not mean the operation timed out.

**Important:** See the Password section of the EPI Commands article for information on using non-alphanumeric (i.e. special) characters such as spaces or quotes with the `-p` flag.

The command will stop, and monitoring and controller service installations will fail if these characters are not properly formatted with quotes and the backslash escape character.

**Install SQL Sentry**

**Deprecated:** For versions prior to 2021.8 only, go to my.sentryone.com to download the Enhanced Platform Installer version of SQL Sentry. If you are on an older version, use this SentryOneSetup.exe the same way as the SolarWinds-SQLSentry-EPI-{Version}.exe file referenced in the instructions below.
Go to the SolarWinds Customer Portal and download the Enhanced Platform Installer version of SQL Sentry. It will have a file naming convention of SolarWinds-SQLSentry-EPI-{Version}.exe.

1. On the machine that will serve as the monitoring service, double-click SolarWinds-SQLSentry-EPI-{Version}.exe.

   Note: The files are unpacked to C:\Program Files\SentryOne Framework by default and that directory is used in the examples below. If needed, change the Destination Folder during SentryOne Setup and use that directory to run commands.

2. Run Command Prompt as Administrator and change the directory to SentryOne Framework:

   ```
cd c:\Program Files\SentryOne Framework
   ```

3. Add a new connection for the server that will host the SQL Sentry database:

   Using Integrated Windows Authentication
   ```
   so addreg -n --connectionServer --connectionDatabase
   ```

   Using SQL Server Authentication
4. Use the following command to verify connection registration details:

```
so listreg
```

5. Create a new SQL Sentry database using the registered connection:

```
so createdb -n
```

**Note:** Packages are written to the tables during this step.

6. Install the SQL Sentry monitoring service (you will be prompted for the password):

Starting with version 2020.8, the --IAcceptLicenseTerms switch must be added to the command to acknowledge acceptance of the EULA.

```
so install --IAcceptLicenseTerms -n -u
```

Versions prior to 2020.8 use the following:

```
so install -n -u
```

**Note:** The SQL Sentry monitoring service is now installed and running.

**See the Monitoring Service Security article for more information about account requirements.**

**Important:** The EPI installation adds a SQL Sentry client shortcut to the desktop, but does not install the client. Running the executable file that the shortcut points to opens the client installer and then installs the client on the machine. You can remove the SQL Sentry client shortcut if you don’t want to install the client.

7. Launch the SQL Sentry client. You will see a loading dialog as files are downloaded from the SQL Sentry database for the latest version of the client. It may take a few minutes for the files to download. Note that you must do this for each machine where you wish to install the SentryOne client.

**Success:** SQL Sentry is installed and ready to use. Continue below to install the SQL Sentry Portal or to the Onboarding article for additional assistance.

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**Install SQL Sentry Portal**

Review the System Requirements and Portal Configuration articles before installing SQL Sentry Portal.

After you have ensured that your machine meets the prerequisite requirements, you can begin installing SQL Sentry Portal. Install SentryOne Portal on your machine with EPI by completing the following steps:
1. You must have installed or upgraded SQL Sentry to version 20 or greater using EPI before proceeding.

2. SQL Sentry Portal requires the SQL Sentry controller service on the machine where it is installed. If the machine where you are installing SQL Sentry Portal needs the controller service, follow the Install Additional Monitoring Services instructions below.

   **Note:** If you are installing SQL Sentry Portal on a machine where you have installed a monitoring service, then it already has the required controller service, however, the recommended setup is a dedicated machine that does not have the full monitoring service.

3. Run the following command to complete SQL Sentry Portal installation:

   **Important:**
   - **Integrated Windows Authentication** is available in versions 2020.8.31 or later. It is not available in version 2020.8.
   - **SQL Sentry Portal. SQL Server Authentication** works in all versions.
   - Starting with version 2020.8, the `--IAcceptLicenseTerms` switch must be added to the command to acknowledge acceptance of the EULA.

   **Using Integrated Windows Authentication**
   ```bash
   so installmp --IAcceptLicenseTerms -n -s -u
   ```

   **Using SQL Server Authentication**
   ```bash
   so installmp --IAcceptLicenseTerms --connectionUseIntegrated false --server --connectionServer --connectionDatabase --connectionUsername --connectionPassword
   ```

   Versions prior to 2020.8 use the following:
   ```bash
   so installmp -n -s -u -b
   ```

   **Note:**
   - The `--server (-s)` switch is for the server that will host SQL Sentry Portal (`<portalServerFQDN>`) and must be the Fully Qualified Domain Name (FQDN). If needed, this name can be found by using the **list** command to view the **Controller Service** value. See the **EPI Commands** article for additional information on using **list**.
   ```bash
   so list -t services -n
   ```
The switch -b is not valid in versions 2020.8.31 or later. This version uses the Portal Configuration Utility to make updates after installing.

- Prior to that release, it can be omitted if you're using the default value of 0.0.0:9991. Prior versions cannot use the Portal Configuration Utility with EPI and must set the binding during installation, or uninstall then reinstall to make changes.
- See the Parameters & Examples section for more information on the used such as and . These are referring to the SQL Sentry database and the SQL Server that hosts it.

**Success:** SQL Sentry Portal is installed and ready to use. Continue to the Getting Started with SQL Sentry Portal article for additional assistance.

## Install Additional Monitoring Services

In many cases, a SQL Sentry installation uses multiple monitoring services for load balancing and monitoring an increased number of targets. See the Installation Recommendations article for advice on the recommended number of monitoring services.

Perform the following steps to install the monitoring service on additional machines:

1. On the machine that will serve as a monitoring service, double-click SolarWinds-SQLSentry-EPI-{Version}.exe. The files are unpacked to C:\Program Files\SentryOne Framework.

2. Run Command Prompt as Administrator and change the directory to SentryOne Framework:

   ```bash
cd c:\Program Files\SentryOne Framework
   ```

3. Add a new connection (using the same from the installation process):

   **Using Integrated Windows Authentication**

   ```bash
   so addreg -n --connectionServer --connectionDatabase
   ```

   **Using SQL Server Authentication**

   ```bash
   so addreg -n --connectionServer --connectionDatabase --connectionUseIntegrated false --connectionUsername --connectionPassword --connectionPort
   ```

4. Use the following command to verify connection registration details:

   ```bash
   so listreg
   ```

5. Install the SQL Sentry monitoring service (using the same used during the installation). The first option is for the full monitoring service (typical installation), while the second option is for configuring a machine for SQL Sentry Portal.
1. Full monitoring service install option:

Starting with version 2020.8, the --IAcceptLicenseTerms switch must be added to the command to acknowledge acceptance of the **EULA**:

```bash
so install --IAcceptLicenseTerms -n -u
```

Versions prior to 2020.8 use the following:

```bash
so install -n -u
```

**Success:** The SQL Sentry monitoring service is now installed and running.

2. **SQL Sentry Portal** / controller service only install option:

**Note:** If you are completing this step for a machine to install the **SQL Sentry Portal**, then the entire monitoring service is not needed. You should run the install with the following parameter to install only the necessary components (i.e. the SQL Sentry **controller service**) and not the monitoring service by using the --installmonitoringservice flag and parameter 0:

Starting with version 2020.8, the --IAcceptLicenseTerms switch must be added to the command to acknowledge acceptance of the **EULA**:

```bash
so install --IAcceptLicenseTerms --installmonitoringservice 0 -n -u
```

Versions prior to 2020.8 use the following:

```bash
so install --installmonitoringservice 0 -n -u
```

**Success:** The SQL Sentry controller service is now installed and running.

**Additional Information:** Interested in installing the SQL Sentry monitoring service on a **Windows Server Core** machine? See this blog post for a demonstration.

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**Install Additional Clients**

When using EPI, the SQL Sentry client security requirements remain the same. See the [Client Security](#) article for details.

To install only the SQL Sentry client on a machine:

1. Double-click the SQL Sentry executable file.
2. Wait for the process to complete and load the client shortcut onto the desktop.
3. Double-click the shortcut to pull the client bits from the SQL Sentry database.

**Success:** The SQL Sentry client is now installed and ready to use.

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### Uninstall via EPI

#### Uninstall

To uninstall the local **controller and monitoring service**, run the following:

```
so uninstall -n
```

**Note:** The **so uninstall** command is a local command and is used to uninstall the local controller and monitoring service only. It does not affect controllers and monitoring services running in other environments.

If you want to remove the Enterprise Platform Installer entirely, you can run the executable that was used to install it and choose the uninstall option, or you can uninstall it from **Add or remove programs** in Windows. This will stop and remove the controller and monitoring services locally, in addition to removing the CLI. For more information about uninstalling SQL Sentry, see the **Uninstalling SQL Sentry** article.

### Uninstall SentryOne Portal

If you installed SentryOne Portal using EPI, you can uninstall it from a machine via EPI by following the steps below.

1. Open **Command Prompt** (use the **Run as administrator** option)
2. Change to the **SentryOne Framework** directory (or custom directory used during installation)
   ```
   cd C:\Program Files\SentryOne Framework
   ```
3. Stop the SentryOne Portal service
   ```
   so stopmp -n -s
   ```
4. Uninstall the SentryOne Portal
   ```
   so uninstallmp -n -s
   ```

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### Upgrade via EPI
See the Upgrade SQL Sentry via EPI article.

**Downgrade (non-typical process)**
See the Downgrade section of the EPI Upgrade article.

**Available Commands**
See the EPI Commands article for a table of available commands and flag examples.

**Advanced Topics**

**PowerShell**
PowerShell may be used with EPI. The SQL Sentry installation package with EPI must exist on the machines where you plan to do an installation or run commands, and then PowerShell can be used to unpack it and execute the necessary commands. See the SQL Sentry PowerShell Module article for information on importing the SQL Sentry module to use with EPI.

⚠️ **Important:** PowerShell ISE is not recommended as it may cause issues. For example, use of PowerShell ISE will lead to problems with the `so install` command when used without the password (as you are instructed in the Install section).

**Telemetry**
By default, telemetry is disabled after completing an initial installation using EPI. If you would like to enable it or learn more about telemetry in SentryOne, see the Telemetry article.

**Troubleshooting**

**Problem: Timeout message displayed**
Certain commands such as the `so install` may display a timeout message in the command line interface. This timeout does not refer to the operation itself, but rather the display timeout. If the command has a default timeout of 30 seconds, but the operation takes 60 seconds to complete, then the timeout message will display while the operation continues to execute.

Use the `so help` command to view the default timeout value for applicable commands. For example, the `so uninstallms` has a default timeout of 30 seconds, while the `so install` has a default of 120 seconds.
In a high latency environment, you may want to increase the default timeout if you want to see the process complete in the command line interface.

In this example, the `-t` (`--timeout`) flag is set to 1 second to illustrate what the timeout looks like, using `so installmp`:

If you have or expect to receive timeout messages and would rather see `Result = Success` in the command line interface, use the `-t` (`--timeout`) flag to increase the default timeout as needed.

**Error: Option 'IAcceptLicenseTerms' is unknown**

If you receive this error when using the `--IAcceptLicenseTerms` switch, you need to run the installer (`SentryOneSetup.exe`) to update the `SentryOne Framework` folder with the new EPI commands.

**Viewing Log Files**

See the [SQL Sentry Troubleshooting](https://example.com) article for information about log files.