

Upgrading to Surround SCM 2009 and later

Surround SCM 2009 and later includes RDBMS support and label enhancements, both of which require user intervention to upgrade. The following information is provided for administrators who are upgrading the Surround SCM Server. If you need to perform a new installation or upgrade the Surround SCM Client, see the [Surround SCM Installation Guide](#).

Do I have to use an RDBMS database?

Yes. The old proprietary database format is no longer supported.

Why did the database format change?

An RDBMS gives you more control over Surround SCM performance, where databases are stored, and how they are managed. You can leverage your existing database administration processes and use standard database tools for tasks such as data analysis, manipulation, and backups.

What is stored in the database?

All Surround SCM data except the RDBMS server connection information. Each Surround SCM Server has a server database, which is a set of tables that store user, security group, workflow, custom field, and TestTrack integration connection information. Each mainline branch has a mainline database, which is a set of tables that store all file information.

What RDBMS can I use?

Currently, PostgreSQL is the default database type for all platforms. Oracle is also supported on all platforms and Microsoft SQL Server is supported on Windows. See the [RDBMS Support - Surround SCM 2009 and Later](#) knowledgebase article (www.seapine.com/kb/questions/1497) for supported platforms and versions .

I do not have an RDBMS. How do I install one?

Surround SCM 2009 and later includes installation files for PostgreSQL, which is an open source, cross-platform RDBMS. You can install the PostgreSQL database services when you upgrade Surround SCM. The database service configuration is handled for you. We recommend using PostgreSQL if you do not have database administration experience.

Seapine does not provide support for installing, configuring, or maintaining Oracle or SQL Server.

I have an existing PostgreSQL, Oracle, or SQL Server installation. How do I use it for Surround SCM data?

During installation, you can add connection information for an existing RDBMS. The Surround SCM Server can automatically add the required database tables when the server starts for the first time. See the [Surround SCM Installation Guide](#) for information.

How do I migrate existing Surround SCM data to RDBMS format?

The server database is automatically upgraded to RDBMS format the first time you start the Surround SCM Server after installation. You must upgrade mainline branches to RDBMS format in the Surround SCM Client before users can access them. See [Upgrading mainline branches, page 4](#)

Is existing data affected during the data migration?

No, except some fields with unlimited sizes in Surround SCM 2008 and earlier now have size restrictions due to the database format change. Name fields, such as file and repository names, have a 255 character limit. Description fields have a 1024 character limit. If field values exceed the database size limit, they are truncated during the upgrade.

Why are labels affected by the upgrade?

Surround SCM's labeling feature was completely rewritten to provide many enhancements. Labels created in earlier versions were applied to the file version in all branches. Now, you can create labels for a mainline branch or a specific branch.

Labels are not automatically applied to files and must be manually upgraded before they can be used. Upgrading legacy labels allows you to choose the existing labels to import and the branches to apply them to. See [Upgrading legacy labels, page 6](#)

How long does it take to upgrade?

This depends on the size of your existing installation. The majority of time is spent upgrading mainline branches, which may take a few minutes to an entire day depending on the database size and number of files. You upgrade mainline branches individually after installation, so you can choose when to upgrade them depending on when users need access to the files in the mainline.

Before installation

Perform the following tasks before you upgrade to Surround SCM 2009 or later.

Review the Surround SCM Server system recommendations

The [Surround SCM Server Application System Recommendations](#) knowledgebase article (www.seapine.com/kb/questions/1173) includes recommended system configurations for optimal server performance.

Choose an RDBMS type and configuration

You need to decide which type of RDBMS database you want to store the Surround SCM Server and mainline databases in. All the database tables are installed in a single RDBMS database. Oracle, PostgreSQL, and SQL Server are supported.

The database configuration you use depends on your installation and environment. At any time, you can convert the RDBMS type or location for the server or mainline databases or distribute mainline branches across multiple RDBMS database instances. If you do not know how you want to configure the databases, use the default PostgreSQL installation.

Check the RDBMS server security

Review the operating system and database firewall settings on the RDBMS server to make sure the Surround SCM Server databases are secure. Some RDBMS servers must be configured to allow remote computers to access databases.

Run the Surround SCM Analyze Utility

We strongly recommend that you run the Surround SCM Analyze Utility to analyze and repair any data integrity issues in the Surround SCM Server database.

Note: Before upgrading from Surround SCM 2008.1.x to Surround SCM 2009.x, it is strongly recommended that you run the latest Surround SCM 2008.1.x Analyze Utility to address any database issues. The most recent version of the utility can be downloaded from Seapine's web site: <http://www.seapine.com/scmupgrades>.

Back up databases

You should always back up the Surround SCM Server database, mainline database, and Seapine License Server database before installation.

If you upgrade from Surround SCM 5.x or later, the server database is automatically upgraded to Surround SCM 2008 format before it is upgraded to RDBMS format. You cannot revert back to the flat file database format after upgrading, which makes it important to have a backup copy of the database.

Plan for future database backups

Your Surround SCM backup strategy will no longer work after the upgrade because the database format and location are different. Make sure you create a new backup strategy before upgrading.

During installation

During the installation, you are prompted to select the RDBMS database type. See the [RDBMS Support - Surround SCM 2009 and later](http://www.seapine.com/kb/questions/1497/) knowledgebase article (<http://www.seapine.com/kb/questions/1497/>) for supported platforms and versions.

Note: The [Surround SCM Installation Guide](#) includes platform-specific installation instructions.

PostgreSQL

PostgreSQL is the default database type, which you can use if you do not have an existing RDBMS installation. The PostgreSQL database services can be installed during the Surround SCM installation.

The default database, and usernames and passwords for the database and database service, are automatically created. For reference, the default service account name is **postgres** and the password is **P0stgreSQL**. The default database username is **seapine** and the password is **s34p1n3**. We strongly recommend changing the username and password during installation, but you can use PostgreSQL commands to change the credentials at a later time. Refer to the PostgreSQL documentation for information.

If you have an existing PostgreSQL installation, you are prompted to enter the connection information and database username and password. The Surround SCM tables are created in the database when the Surround SCM Server starts and connects to the database for the first time after installation.

Oracle

If you choose to use Oracle for the Surround SCM database, you must have an existing Oracle installation. Make sure you have the database connection information and database username and password before upgrading. The Surround SCM tables are created in the database when the Surround SCM Server starts and connects to the database for the first time after installation.

SQL Server

If you choose to use SQL Server for the Surround SCM database, you must have an existing SQL Server installation. Make sure you have the database connection information and database username and password before upgrading. The Surround SCM tables are created in the database when the Surround SCM Server starts and connects to the database for the first time after installation.

After installation

Perform the following steps after installation.

1. Start the Seapine License Server and Surround SCM Server. The Surround SCM Server database is automatically upgraded when the server starts.
2. Upgrade mainline branches to RDBMS format. You must upgrade mainline branches before users can access them. See [Upgrading mainline branches](#), page 4.
3. Optionally upgrade labels. If you use labels to mark related file versions, you must upgrade them before users can apply them. See [Upgrading legacy labels](#), page 6.

Upgrading mainline branches

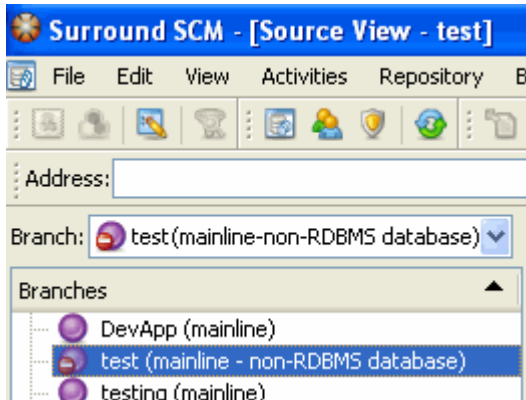
Mainline branches created in Surround SCM 2008 or earlier must be upgraded to RDBMS format in Surround SCM 2009 or later because the database is now stored in RDBMS format. Mainline branches that require upgrading before they can be used are appended with 'non-RDBMS database'. Keep the following in mind:

- A database cannot include two mainline branches with the same name. If the destination database already includes a mainline with the same name as the mainline you are upgrading, you must select a different destination database.
- During the upgrade, Surround SCM attempts to match users and security groups in the mainline branch to users and groups on the Surround SCM Server. If matching names are found, Surround SCM assumes they are the same user or group. If users in the mainline do not exist on the server, they are created without assigned licenses. If security groups in the mainline do not exist on the server, they are created without any security commands enabled. Surround SCM also attempts to match TestTrack connection information.
- If you are upgrading a mainline branch from Surround SCM5.x or earlier, you are prompted to automatically upgrade the branch to Surround SCM 2008 format before it is upgraded to RDBMS format.
- After mainline branches are upgraded, you must manually upgrade labels. See [Upgrading legacy labels](#), page 6.

Note: Back up the mainline branch directory before you upgrade it.

1. Select the mainline branch you want to upgrade.

Mainline branches that require upgrading are appended with 'non-RDBMS format'.

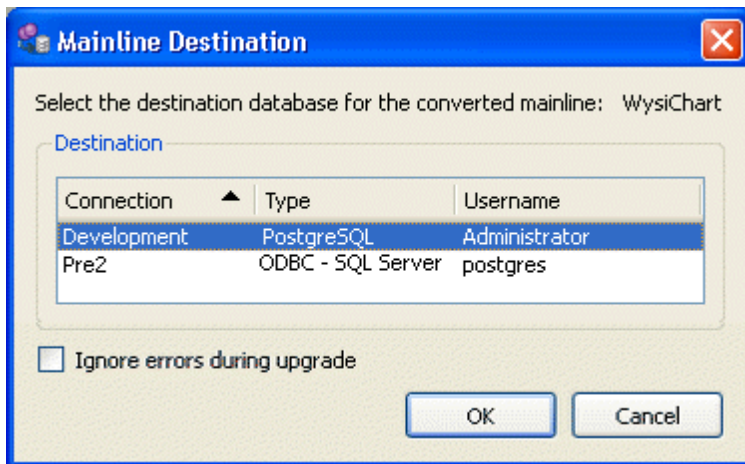


2. Choose **Tools > Administration > Upgrade Mainline Branch**.

You are prompted to upgrade the mainline branch.

3. Click **Yes**.

The Mainline Destination dialog box opens.



4. Select the **Destination database** for the upgraded mainline branch.
5. Select **Ignore errors during upgrade** to allow Surround SCM to continue processing regardless of any errors it may encounter.

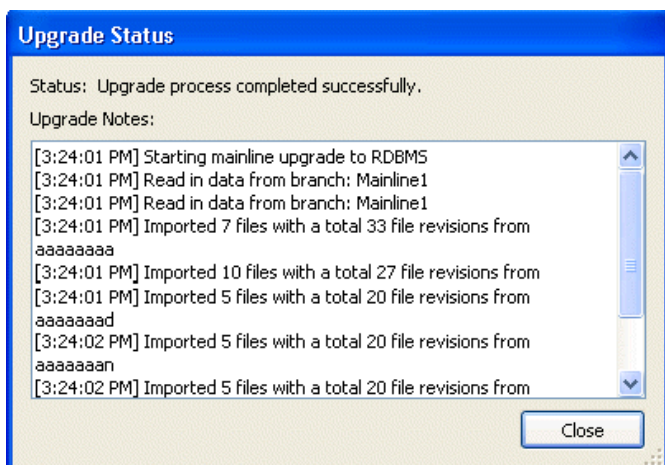
Note: Only select this option if you have already used the Surround SCM Analyze Utility and were unable to repair issues causing errors.

6. Click **OK**.

The upgrade information is sent to the Surround SCM Server for validation.

- If the validation succeeds, the upgrade starts and the Upgrade Status dialog box opens.
- If the validation fails, the Test Connection dialog box opens with error information. You can copy and paste the text into an email or text file and email it to your DBA for help.

Note: If the destination database does not include any Surround SCM tables, you are prompted to create them.



7. Click **Close** when the upgrade finishes.

Note: The old database is not deleted from the original location during the upgrade. You may want to manually delete the directory after verifying the branch is successfully upgraded to RDBMS format.

Upgrading legacy labels

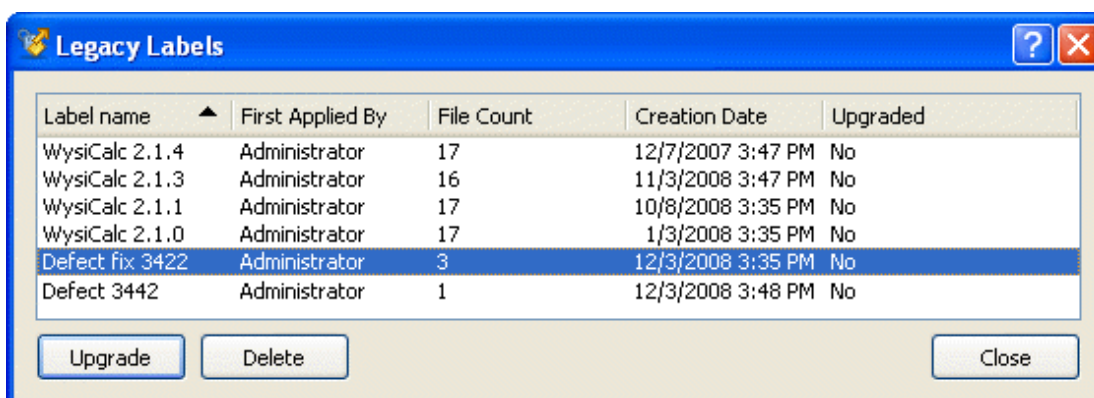
When you upgrade from Surround SCM 2008 and earlier, labels are not automatically applied to files and must be manually upgraded before they can be used.

Labels created in earlier Surround SCM versions were applied to the file version in all branches. Now, you can create labels for a mainline branch or a specific branch. Upgrading legacy labels allows you to choose the existing labels to import and the branches to apply them to.

Note: The timestamp and comments from existing labels are copied to the label history during the upgrade.

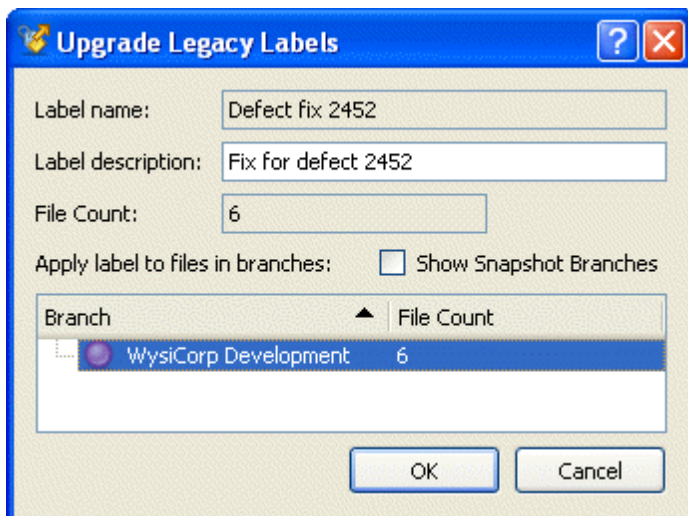
1. Select the mainline branch that includes the legacy labels to upgrade.
2. Choose **Tools > Administration > Upgrade Legacy Labels**.

The Legacy Labels dialog box opens and displays the legacy labels for the selected mainline branch.



3. Select the labels you want to upgrade. To select multiple labels, **Ctrl+click** each label.
Note: You can also delete legacy labels that you do not want to use. Select the labels and click **Delete**.
4. Click **Upgrade**.

The Upgrade Legacy Labels dialog box opens. The branches the label can be applied to are displayed.



5. Optionally enter a **Label description**. This field is not available if you are upgrading multiple labels.
6. Select **Show snapshot branches** to include snapshot branches in the branch list.
7. Select the branch to apply the label to. To select multiple branches, **Ctrl+click** each branch.

If you select a branch that did not previously include any files with the label applied, the label is not applied to any files.

Tip: The File count field displays the total number of files the label can be applied to. Compare this number to the File Count column for each branch to determine the branches to apply the label to. Typically, you will apply the label to the branch with the highest file count because it is a good indicator of the branch the label is intended for. You may also apply the label to other branches depending on how it is used. File count information not displayed if you are upgrading multiple labels.

8. Click **OK**.

The label is upgraded.

