

Upgrading from Rhythmyx Version 5.0 to Version 5.7

This document describes the infrastructure requirements for upgrading to Rhythmyx Version 5.7, and the implementation requirements to take advantage of new features in this Version.

Hardware Requirements for the Version 5.7 Upgrade

The only new feature in Rhythmyx 5.7 that has a potential impact on hardware requirements is the full-text search engine, which was added in Version 5.5. The full-text search engine adds roughly 100 MB to the disk space requirements during both installation and operation. In operation, the full-text search engine may also increase RAM usage. Since full-text searches on very large repositories may have a significant adverse impact on performance, Percussion software offers three options when upgrading:

- The default option is to install the full-text search engine on the same machine as the Rhythmyx server. This option requires an additional disk storage space during operation. Operation of the search engine for small repositories may require as little as 100 MB above the disk storage requirements of the Rhythmyx server during operation, but larger repositories need additional space; Percussion Software recommends disk space for the search engine equal to the disk space available for the repository itself for larger systems. In addition to the disk requirements, the search engine requires three additional port listeners beyond the port used by the Rhythmyx server. (The default ports are 9993, 9994, and 9995).
- Customers with very large repositories, or whose Rhythmyx server currently operates near its functional limits may want to consider a remote installation of the full-text search engine on a separate machine. This option requires some additional manual setup, but it minimizes the effect of the full-text search engine on the Rhythmyx server and dedicates processing power to the search engine itself. If you choose to co-locate the full-text search engine with the Rhythmyx server, you can still choose to move the search engine to another machine later, although this process does require some manual setup.
- For customers whose Rhythmyx Version 5.0 server is already operating at or over capacity, the option of not installing the full-text search engine is also available. In this case, full-text search capabilities will not be available (nor will the new text extraction functionality); the lightweight, database search engine available with previous version will still function, however. The overall processing demand of the Rhythmyx server using this option is equal to that of a Version 5.0 server.

WebDAV and Rhythmyx Hardware Requirements for the Rhythmyx Repository

Customers considering the use of WebDAV functionality should take into account the potential impact of greatly increased volume of repository database. WebDAV makes it possible to drag and drop hundreds of binary attachments into the repository quickly and easily. The addition of a significant new volume of binary data may demand greatly increased storage space and may adversely affect database performance. Modern database management systems generally store binary data much more efficiently than earlier version of these systems; nevertheless, customers should be aware the volume of binary data that can be added to the database using WebDAV may noticeably degrade the performance of the RDBMS.

Performance Characteristics of Rhythmyx Version 5.7

Benchmark testing indicates that the overall system performance of Rhythmyx Version 5.5 matches or exceeds the performance of the July 2004 service release of Rhythmyx 5.01 in every significant category of system usage. Our opinion is that the performance of a system upgraded to Rhythmyx Version 5.5 will be very similar to the performance of the Rhythmyx Version 5.0 or Version 5.01 server on the same hardware configuration prior to upgrade.

Platform Changes Between Rhythmyx Version 5.0x and Version 5.7

Percussion Software has made some minor changes in supported platforms and operating systems to keep up with newer versions of the platforms and operating systems. Please remember that these changes are to the platforms and operating systems that our Software Quality Assurance team certifies during the testing process.

Operating Systems

Rhythmyx is certified on three operating system platforms, Microsoft Windows, Sun Solaris, and Linux.

Microsoft Windows Operating System

Support for Windows NT has been deprecated. The Rhythmyx server is certified on Windows 2000 and Windows 2003 server lines.

Sun Solaris Operating System

The Rhythmyx server is certified on Sun Solaris SPARC Versions 7, 8, and 9.

Linux Operating System

In Version 5.5, the Rhythmyx server is certified on Red Hat AS 3.0. Support is available for other versions of the Linux operating system, but Red Hat AS 3.0 is the only Linux operating system certified.

Rhythmyx Client Certification

Rhythmyx clients include the Workbench, Server Administrator and Multi-server Manager. Support for these clients on Windows NT is deprecated. Rhythmyx clients are supported on Windows 2000, Windows XP, and Windows Server 2003 operating systems.

Relational Database Management Systems (RDBMS)

Rhythmyx continues to support the following relational database management systems:

- Oracle
 - 8i
 - 9i
 - (support for Oracle 10g is pending the last quarter of 2004)
 - (Support for Oracle 7 is deprecated)
- Microsoft SQL Server
 - SQL Server 2000
 - (Support for SQL Server 7 is deprecated)
- Sybase
 - Version 12.5
- IBM DB2 UDB
 - Version 7.2 and later

Supported Browsers

Microsoft Internet Explorer 5.5 and later are certified. Internet Explorer Version 5.0 is no longer supported.

Netscape Communicator 7.0 is certified on Microsoft Windows. Netscape 4.x is no longer supported. Mozilla 1.5 and higher are supported on Microsoft Windows.

Both Netscape and Mozilla require the open-source Esker plugin, which enables ActiveX support, to support the rich-text editing control. The Esker plugin is available from Esker plugin support site at Yahoo Groups (<http://groups.yahoo.com/group/esker-activex-plugin/>).

Apple Macintosh Support

Rhythmyx Version 5.7 supports the Safari 1.21 browser on the Apple OS/X 10.3 and high operating systems. The Ektron eWebEditPro rich text editor control is not supported on this platform, however. If rich text editing is as mission-critical feature, please contact your Percussion Software sales representative to discuss your options.

Portal Connector

The BEA WebLogic connector that ships with Rhythmyx 5.5 is certified with WebLogic Portal 8.1. Support for WebLogic 7.x is deprecated.

Java Runtime Engine Browser Plugin

The minimum recommended version of the Java runtime engine browser plugin is Version 1.4.2. Version 1.5 is the minimum recommended version to provide full support for accessibility in Rhythmyx.

Accessibility

New features for product accessibility are certified on Internet Explorer 6. In addition, certain accessibility features in the Content Explorer require bug fixes that Sun has included in the JSRE Java plugin Version 1.5 and in a new version of the Java Accessibility Bridge components. Version 1.5 of the Java plugin is the minimum requirement for full accessibility compliance.

New Features of Rhythmyx Version 5.5 and Their Effect on Upgrades

Rhythmyx Version 5.5 introduced a variety of new features. For details about all new Version 5.5 features, see “What’s New in Rhythmyx Version 5.5”. Implementer intervention is required to gain the full benefit of the following new features:

- WebDAV
- WebImageFX Image editor
- Text extraction
- Directory Services
- Accessibility enhancements
- Revised HTML Search pages

In addition, if you install the full-text search engine, you will need to create the search indices and you will also need to be aware of the interaction between the optional full-text search engine and existing saved searches.

WebDAV

Rhythmyx Version 5.5 introduced support for WebDAV to link Rhythmyx Folders to working directories in your network. Using WebDAV, Content Contributors can automatically manage image- and file-type Content Items simply by working with them in their system directories. The system directories are linked to Rhythmyx Folders by WebDAV servlets.

WebDAV requires some manual implementation to link the system directories to the Rhythmyx Folders. For details, see *Implementing WebDAV in Rhythmyx*.

WebImageFX

Rhythmyx Version 5.5 incorporated the WebImageFX graphics editor from Ektron to provide basic image editing functionality. The WebImageFX editor, like the eWebEditPro DHTML text editor, is available as a Content Editor Control that can be added to Image Content Types. This control must be added to a Content Editor to make it available to Content Contributors. For details, see “sys_WebImageFX and the WebImageFX Editor” in the Content Editor Control appendix of *Implementing Content Editors*.

Text Extraction

The Convera RetrievalWare full-text search engine available with Rhythmyx 5.5 and 5.7 provides facilities Rhythmyx can access to extract text from binary files. A special Java extension, sys_TextExtraction, can be attached to a Content Editor resource to provide this functionality. For details about using the text extraction capabilities, see “Text Extraction” in *Implementing Content Editors*.

Directory Services

Directory services provides functionality that allows you to recover user attributes from a directory server, such as a LDAP server or a Microsoft ActiveDirectory server. You can use these attributes as part of user authentication, or use them as data for Rhythmyx processing.

To use Directory Services, you must define directory services configurations in the Rhythmyx Server Administrator. For details, see “Maintaining Directory Services Configurations” in the Rhythmyx Server Administrator Help.

Accessibility Enhancements

Rhythmyx Version 5.5 introduced a number of enhancements to improve accessibility for users with disabilities. Most of these enhancements require no additional implementation. An enhancement has been added to the Content Editor field properties, however, that allows you to add an accelerator key to each field in a Content Editor. For details, see “Field Maintenance Dialogs” in *Implementing Content Editors*.

Full-text Search Engine

The Convera RetrievalWare full-text search engine is an optional feature you can install to provide a robust, full-text alternative to the light-weight database search engine available with Rhythmyx. If you choose to install the full-text search engine, you will need to index your Content before searches will return results. Indexing can take several hours. Consider this fact when scheduling your upgrade installation.

To create search indices, enter the command:

```
search index type id
```

Where *id* is the Content Type ID of the Content Type you want to index. If you do not provide a value (in other words if you only enter the command `search index type`) all Content Types in your system will be indexed.

Any existing saved searches created using the light-weight database search engine will continue to exist until you delete them manually. Once these saved searches are deleted, you will not be able to recreate them.

The existing saved searches will continue to use the original, light-weight search functionality, but no full-text search functionality will be available with them. To take advantage of the full-text search functionality, you must create new saved searches after upgrading to the full-text search engine.

Revised HTML Search Pages

New Search pages are available for the searches launched from Active Assembly, or when inserting inline links. These searches are rendered using HTML rather than using the search applet. The new search pages have been refactored to enhance their accessibility to users requiring assistive devices.

When you upgrade, the inline search page is automatically upgraded to use the new search page, but the Active Assembly search page is not. If you want to use the new pages, you must update the Active Assembly search component to use the correct Rhythmyx application. To update the Active Assembly search component:

1. In Content Explorer, choose the System tab.
2. In the Left Navigation, under the Components option, click the [By Name](#) link.

3. Click on the [research](#) link. (You may have to scroll through a few pages of component listings to reach this link.)
4. Change the value in the **URL** field to `../sys_searchSupport/getQuery.html`.
5. Click the [Save] button.
6. In the Workbench, restart the sys_rcSupport application.

If you want to return to the original Active Assembly search page, use the same procedure, but in step 4., change the value in the URL field to `../sys_relatedSearch/relatedsearch.html`.

General and Miscellaneous Upgrade Facts

A new installation code is required for the upgrade from Rhythmyx 5.0 or 5.01 to Rhythmyx 5.7. In addition, the Tomcat Web server is upgraded and a new rich text DHTML editor is introduced.

Installation Code

Upgrade to Rhythmyx 5.5 and later requires a new installation code. The Version 5.7 installer will not recognize a Version 5.0 installation code as valid, and the installation will fail.

Tomcat Web Server Upgrade

In Rhythmyx Version 5.7, the Tomcat Web server is upgraded to Version 5.5.7. In the process of this upgrade, the following files are overwritten:

- server.xml
- web.xml

Backups of these files are automatically created during the upgrade process. If you have made any modifications to these files, you will need to migrate the change from the backup file to the new version manually. The most common modifications to the server.xml are :

- add JNDI properties to the server.xml file in systems that use a JNDI directory server (and LDAP server or Microsoft Active Directory); and
- adding SSL port and keystore entries to systems using SSL.

Compare the new server.xml to the backup to ensure that you have not lost any important configuration settings.

Any additional web applications you may have implemented will be preserved, but should be tested to ensure that they still function as expected with Tomcat 5.5.7.

The cacerts file in the Tomcat JRE are also overwritten during the upgrade. This new cacerts file differs significantly from the earlier cacerts file, so you cannot rely on a backup of the file. You can, however, re-import the existing key from the Rhythmyx server into the new Tomcat JRE cacerts file. You will also need to export a key from the new Tomcat JRE and import that key into the Rhythmyx server JRE before you will be able to use SSL to publish.

If you are using database publishing via Tomcat you may also have made modifications, adding `<Resource>` elements to the server.xml. You must translate these elements into new `<Resource>` elements in `<Rxxroot\AppServer\webapps\Rxservices\META-INF\context.xml`. The resource parameters, defined in `<Parameter>` children must be translated as attributes of the `<Resource>` element.

If you use Microsoft SQL Server or Oracle as your target database, the new <Resource> element have already been defined for you. You only need to uncomment the appropriate <Resource> element, and copy the values of the Resource parameters currently defined in server.xml and paste them as the value of the attributes of the <Resource> element in context.xml.

If you use Sybase or DB2 as your target database, you will have to translate the elements manually.

Example translation for Sybase:

Original (Tomcat 4.1.27):

```
<Resource name="jdbc/dbpubtarget" auth="Container"
type="javax.sql.DataSource" />
<ResourceParams name="jdbc/dbpubtarget">
  <parameter>
    <name>username</name>
    <value>sa</value>
  </parameter>
  <parameter>
    <name>password</name>
    <value>demo</value>
  </parameter>
  <parameter>
    <name>driverClassName</name>
    <value>com.sybase.jdbc2.jdbc.SybDriver</value>
  </parameter>
  <!-- optional
  <parameter>
    <name>driver</name>
    <value>sybase</value>
  </parameter>
  -->
  <parameter>
    <name>url</name>
    <value>jdbc:sybase:Tds:localhost:5000</value>
  </parameter>
</ResourceParams>
```

Translated for Tomcat 5.5.7:

```
<Resource name="jdbc/dbpubtarget" auth="Container"
type="javax.sql.DataSource"
driverClassName="com.sybase.jdbc2.jdbc.SybDriver" driver="sybase"
url="jdbc:sybase:Tds:localhost:5000"/>
```

Example translation for DB2

Original (Tomcat 4.1.27):

```
<Resource name="jdbc/dbpubtarget" auth="Container"
type="javax.sql.DataSource" />
<ResourceParams name="jdbc/dbpubtarget">
  <parameter>
    <name>username</name>
    <value>sa</value>
  </parameter>
  <parameter>
    <name>password</name>
    <value>demo</value>
```

```

</parameter>
<parameter>
  <name>driverClassName</name>
  <value>COM.ibm.db2.jdbc.app.DB2Driver</value>
</parameter>
<parameter>
  <name>url</name>
  <value>jdbc:db2:dbpubtarget</value>
</parameter>
</ResourceParams>

```

Translated for Tomcat 5.5.7:

```

<Resource name="jdbc/dbpubtarget" auth="Container"
type="javax.sql.DataSource"
driverClassName="COM.ibm.db2.jdbc.app.DB2Driver" driver="sybase"
url="jdbc:db2:dbpubtarget"/>

```

You can add other attributes to this element. For a complete list of elements valid for this element, and their effect, see

<http://jakarta.apache.org/commons/dbcp/configuration.html>.

Ephox EditLive! for Java DHTML Editor

In Rhythmyx Version 5.7, a new rich text DHTML editor is introduced, Ephox EditLive! for Java. This control supersedes the Ektron eWebEditPro rich text DHTML editor.

You do not have to replace eWebEditPro with EditLive! You can continue to use eWebEditPro if you prefer. Note, however, that Percussion Software will only support the eWebEditPro control until November 2006.

NOTE: You cannot use both the EditLive! and the eWebEditPro controls in the same Content Editor. The two controls are incompatible, and you must use one or the other consistently within any Content Editor. You can, however, use the EditLive! control in one Content Edit and the eWebEditPro control in a different Content Editor.

To change the rich text DHTML editor for a field from the eWebEditPro control to the EditLive! control:

- 1 In the Rhythmyx Workbench, open the Content Editor application whose editor you want to change and double-click on the Content Editor resource.
Rhythmyx displays the Content Editor Properties dialog with the current configuration data for the Content Editor.
- 2 Select the Content Editor field whose control you want to change and click the [Edit] button.
Rhythmyx displays the Field Properties dialog.
- 3 In the **Control** field, click the drop list and choose *sys_EditLive*.
- 4 Rhythmyx automatically sets common parameters to the same values used for the *sys_eWebEditPro* control that was used for the field.
- 5 If you want to use a customized configuration file, or modify other parameters:
 - a) Click the browse button next to the Control field.
Rhythmyx displays the Display Control Properties for <field> dialog.
 - b) Enter the parameters and associated values you want to assign to the control.
 - c) Click [OK] to save your edits.

- 6** On the Field Properties dialog, click [**OK**] to save the modifications you made to the field.
- 7** On the Content Editor Properties dialog click [**OK**] to save the modification you made to the Content Editor.

The changes will take effect the next time you start your application. To see your changes, stop and restart the application, log into Rhythmyx, and activate the editor.