Upgrade Guide

Before you begin the migration process:

- Please check the Supported Platforms to confirm the latest requirements. Note that v9.0.x is certified on **OpenJDK (11.0.2).**
- Please read and understand the Planning for v9.0 which may require your action before you begin your upgrade.

> **v9 License Key Required**
> - *A v9 license key is required for this version of Live Forms if you are upgrading from a prior version. Request a v9 license by emailing support@frevvo.com* **before** *you begin the upgrade.*

Determine Your Upgrade Path

Your Live Forms Version	Recommended Upgrade Path to v9.0.x
7.2.x	Upgrade directly to v9.0.x
7.3.x	Upgrade directly to v9.0.x
7.4.x	Upgrade directly to v9.0.x

Note: Upgrades from Live Forms 6.3.9 - 6.3.12 through v7.4.x are supported but these versions are not available for general release.

Migrating from HSQLDB

Live Forms does not support the use of HSQLDB for use beyond demo/trials of the Live Forms software. If by mistake you continued to use the demo/trial HSQLDB database for production use, you will need to first migrate your data to one of Live Forms supported production databases **BEFORE** you can upgrade to later versions of Live Forms.

Please follow the instructions on this page to perform your upgrade.

- Upgrading Live Forms
  - Prepare for the upgrade
  - Install Upgraded Version
  - Configure the Database and Email
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  - Start the Insight Server
  - Start Live Forms
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Upgrading Live Forms

Please read the following upgrade steps prior to starting the migration. *frevvo recommends that you test the upgrade process on your test server before performing it on your production server. Contact your frevvo Account Manager for information if you do not have a test environment.*

Prepare for the upgrade

1. Please read and understand the Migration Considerations which may require your action before beginning.
    a. Install **OpenJDK (11.x)** before beginning.
2. Stop Live Forms with one of the methods listed below:
    a. Execute <frevvo-home>\stop-frevvo.[bat,sh] for versions previous to v9.x.
    b. If you are upgrading from v7.x, you will also need to stop the Insight Server by closing the window or if you are using the tomcat bundle by typing these commands in the <frevvo-home>\solr-x.x.x directory of your **existing** installation.

        bin\solr.cmd stop -all

    c. Stop Live Forms and the Insight Server through the Computer Management Services console if they are running as Window's services.
3. Backup the forms database from your current Live Forms installation.
4. Backup the current Live Forms server's installation directory so that you have a copy of all custom configuration parameters.
5. Request a v9 license if you are upgrading from a Live Forms version prior to v9.0.x.

SQL Database Option

If you are using SQL Server as your Live Forms database, it is highly recommended that you turn on the **READ COMMITTED SNAPSHOT** setting in the database **BEFORE** performing the upgrade to Live Forms v9.0.x. *You do not have to do this if you are using MySQL or Oracle databases because this option is turned on by default.*

There are two ways to turn on the option:

1. Using DDL (Data Definition Language) - Run the commands listed below:

```
ALTER DATABASE <your frevvo database schema> - replace <your frevvo
database schema> with the name of your frevvo database schema SET
READ_COMMITTED_SNAPSHOT ON
```

2. Using SQL Server Management Studio:
    a. Turn on the **"Is Read Committed Snapshot On" Option** under database properties.

Install Upgraded Version

1. Download the latest v9.0.x software. The download is a zip file. Extract the contents to any folder of your choice. This folder will be referred to as **<frevvo-home>** (note that the zip already contains a top level frevvo folder).
2. Install a JDBC Driver.
3. If you increased Memory Settings in your previous installation, make those changes to the appropriate files in the new installation. Refer to Hardware and Memory Requirements for the details
4. Navigate to the **server.xml file in the <frevvo-home>\tomcat\conf directory of your v9.0.x installation**

Configure the Database and Email

Database and Email configuration is done in the <frevvo-home>\tomcat\conf\server.xml file. The database resource name was changed to jdbc/sharedfrevvoDS in v7.0. When you configure your database, make the changes to the v9.0.x server.xml. **Do not copy configured sections from a frevvo.xml of a previous release into the v9.0.x server.xml file.**

1. Select your database type
2. Refer to the Configure the Connection URL topic to point the v9.0.x frevvo database to your current frevvo database. If you are using SQL Server, remember to add the **sendStringParametersAsUnicode** property with a value of **false** to your database connection URL if it is not already there.
3. Configure Email
4. If you made changes to the Default Port in previous releases, make those changes again in the **v9.0.x server.xml** file.
5. Save the changes to the server.xml file.

Convert parameters to properties

This section applies only to upgrades from versions prior to 7.4.x.
⌄ Click here to expand if you are upgrading from a version prior to v7.4...

The frevvo.xml and insight.xml files are embedded in the frevvo war in v9.0.x. Configuring Live Forms features is now done by adding
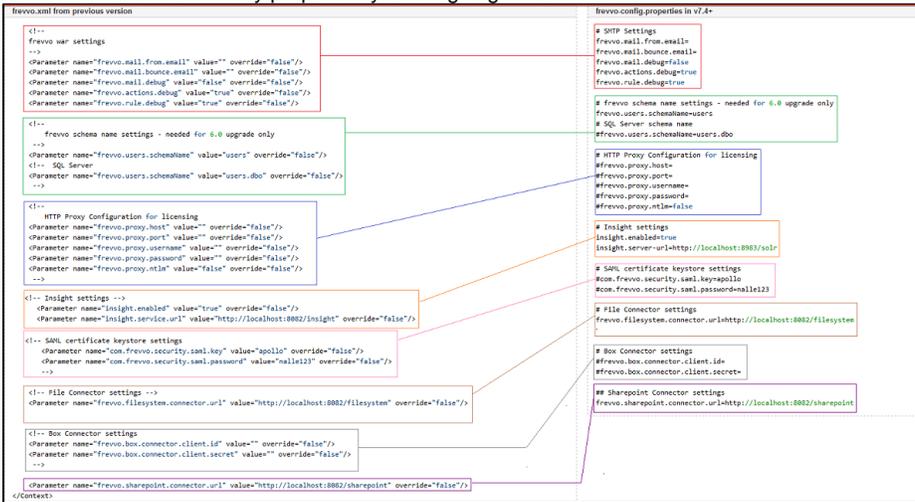
properties to the **<frevvo-home>\tomcat\frevvo-config.properties file**.

The properties follow a simple property=value syntax. The frevvo-config.properties file provided in the frevvo tomcat bundle contains default values for the following properties:

- frevvo war settings for email
- HTTP Proxy Configuration for licensing
- Insight Settings to enable/disable Insight and the URL to the location of the Insight Server
- SAML certificate keystore settings for the key and password
- Filesystem Connector Settings for the URL to the Filesystem Connector and the metadata prefix
- SharePoint Connector Settings for the URL to the connector

Context parameters, previously added to the frevvo.xml or modified in web.xml and insight.xml files, must be converted to the property format. Follow the instructions below.

1. Examine the frevvo.xml file from your previous installation and open the <frevvo-home>\tomcat\conf\frevvo-config.properties in the v9.0+ Installation.
   a. Add the values of any parameters that were changed in the frevvo.xml after the equal sign to the appropriate property in the frevvo-config.properties file.
   b. Remove the # in front of any properties you are going to use.

   c. Compare the **frevvo.users.schemaName property** in the frevvo.xml file from the version of Live Forms you are upgrading from to the properties in the **frevvo schema name settings - needed for 6.0 upgrade only** section of the frevvo-config.properties file. If they are not the same, follow these steps:
      i. If the value in the parameter in the frevvo.xml file is not **users**, copy the value from the frevvo.xml and add it after the equal sign for the **frevvo.users.schemaName** property in frevvo-config.properties.
      ii. For SQL server database migration:
         1. Uncomment " frevvo.users.schemaName" value=users.dbo
         2. Comment out frevvo.users.schemaName. If the value in the parameter in the frevvo.xml file is not users.dbo, copy the value from the frevvo.xml and add it after the equal sign for the **frevvo.users.schema Name** property in frevvo-config.properties.

frevvo.xml from previous release

```
<!--
       frevvo schema name settings -
needed for 6.0 upgrade only
     -->
    <Parameter
name="frevvo.users.schemaName"
value="users" override="false"/>
    <!--   SQL Server
    <Parameter
name="frevvo.users.schemaName"
value="users.dbo" override="false"/>
     -->
```

frevvo-config.properties in v7.4+

```
# frevvo schema name settings -
needed for 6.0 upgrade only
frevvo.users.schemaName=users
# SQL Server schema name
#frevvo.users.schemaName=users.dbo
```

2. Add properties for any parameters that you added to the frevvo.xml in your previous installation. Refer to Installation Tasks for information about additional configuration properties that can be added to the frevvo-config.properties file to customize Live Forms features.

3. Any parameter changes that were made to the web.xml file in previous releases must be converted to properties and added to the frevvo-config.properties file.

   a. Unpack the frevvo.war file from your previous installation to a temporary location of your choice: e.g. c:\tmp\frevvo-war. Change the file extension from .war to .zip if necessary.
   b. Edit c:\tmp\frevvo\WEB-INF\web.xml.
   c. Locate the parameters that were changed, convert them to properties and add them to the frevvo-config.properties file.
   d. If you are upgrading from v7.0+ or v7.1+ and you made changes to the <frevvo-home>/tomcat/conf/Catalina/localhost/insight.xml file, convert those parameters to properties and add them to the frevvo-config.properties file in your **v9.0** installation. You can skip this step if you are upgrading from a version of Live Forms previous to v7.0
   e. Save the changes to the frevvo-config.properties file.
   f. Verify that you do **NOT** have files named frevvo.xml or insight.xml in the <frevvo-home>\tomcat\conf\catalina\localhost directory.

Let's say you had context parameters to default the tenant login and customize the placeholder on the login screen in the frevvo.xml file of your previous installation. The context parameters in frevvo.xml would look like this:

frevvo.xml from your previous Live Forms installation

```
<Parameter name="frevvo.default.login.tenant.id" value="your_tenant_id"
override="false"/>
<Parameter name="frevvo.login.username.placeholder"
value="user@<your_tenant_name>" override="false"/>
```

The configuration properties follow a simple property name=value syntax. Follow these steps:

1. Navigate to <frevvo-home>/tomcat/conf directory.
2. Edit the frevvo-config.properties file.
3. The Parameter name becomes the property name.
4. Add an equal sign
5. Add the value after the equal sign
6. Repeat this for all custom parameters that were added to the frevvo.xml file of your previous installation

Refresh Searchable Fields

The Refresh Searchable Fields process will run automatically as part of the upgrade. If it does not, you can run it manually once the upgrade is complete. The process should be run **after hours** when your users are not using your forms/flows.

Start the Insight Server

Follow the steps for your Operating system to start the Insight server **BEFORE** starting Live Forms.

Windows:

1. Open a command prompt. Navigate to <frevvo-home>\solr-x.x.x. Type **bin\solr.cmd start** to run the Insight server in the background, listening on the default port 8983.

```
C:\frevvo-9.0.0\frevvo\solr-7.5.0>bin\solr.cmd start
```

2. You will see this message:

```
Started Solr server on port 8983. Happy searching!
```

> If you close the Insight server (Solr) startup window, the server will stop running. Leave the window open or go to **Step 18** for instructions to remove existing services and set up Live Forms and the Insight Server to run as Windows services.

3. Browse **http://<your server:port>/ solr** to verify the Insight server is running. The <server:port> default values are localhost:8983. Change **localhost to the server name** and **8983 to the port the Insight server is running on** if they are different than the defaults. Do not include the angle brackets <>. You will see the Insight server (Solr) dashboard with the current status.
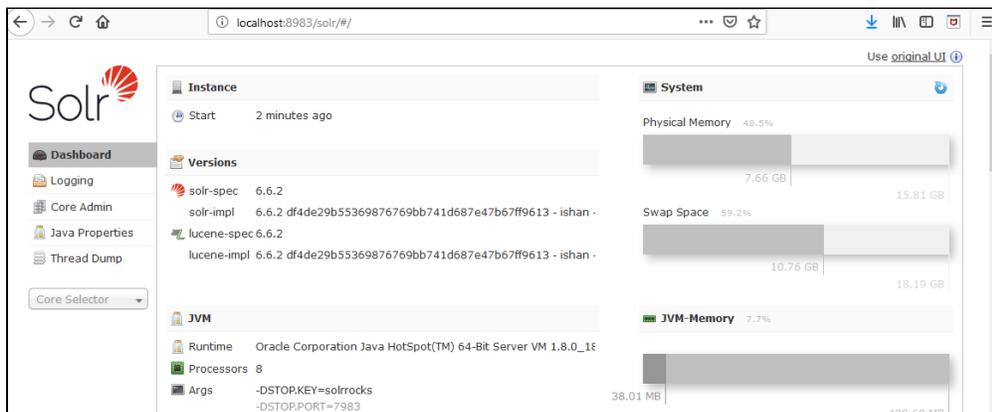
Linux:

1. Ensure that the scripts are executable: chmod 755 <frevvo-home>/tomcat/bin/*.sh
2. Navigate to <frevvo-home>/solr-x.x.x/bin. Run this command to make the solr startup file executable:
   chmod +x solr
3. Navigate back to the solr-x.x.x directory.
   cd ..
4. Start the Insight server by typing: bin/solr start - this starts the Insight server in the background.
5. Browse **http:<your server:port>/solr** to verify the Insight server is running. The <server:port> default values are localhost:8983. Change **localhost to the server name** and **8983 to the port the Insight server is running on** if they are different than the defaults. Do not include the angle brackets <>. You will see the Insight server (Solr) dashboard with the current status.
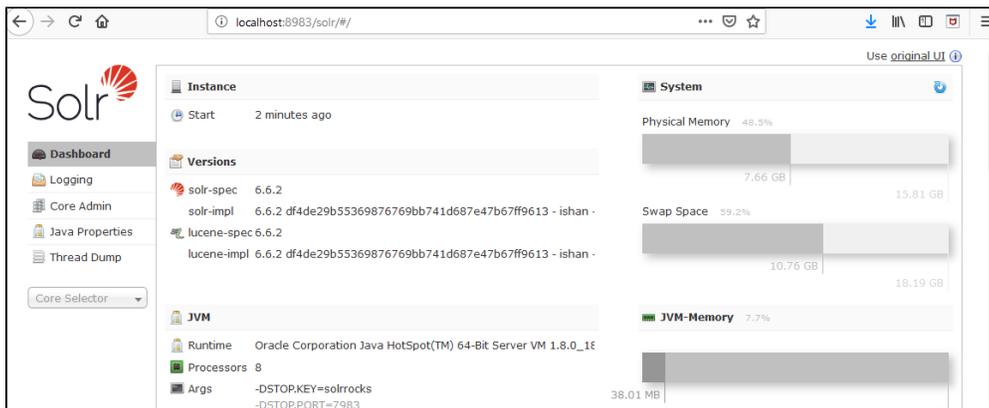
Start Live Forms

Start the Live Forms v9.0.x server by running the start-frevvo.bat or start-frevvo.sh files (depends on your Operating system) in the <frevvo-home>\frevvo directory.

If you are running Live Forms and the Insight Server (Solr) as Windows services, you must delete the existing services then reinstall them for the services to run properly.

1. Follow these steps to delete the existing Insight Server service for Windows Vista, 7, 8 or 10 operating systems:
2. Login as an administrator.
3. Verify the Insight Server service name by double clicking it in the Windows Services list
4. Type this command: If your service name has spaces in it, use quotes around the service name.

```
sc delete <ServiceName>
```

5. The message "DeleteService SUCCESS' will display when successful.
6. Remove the Live Forms service by running the <frevvo-home>\Remove-Service batch file.
7. Perform these steps to reinstall the Insight Server and Live Form services.

Connectors

Ensure you upgrade to the supported version of the connectors for your upgraded version of Live Forms. Version information can be found at the links below.

- If you are using the Live Forms Database Connector, you must reinstall and configure it again for the v9.0.x installation.
- If you are using the Google or PVE connectors you must reinstall and configure them for the v9.0.x installation.
- If you are using the Live Forms Filesystem Connector, you must reinstall and configure it again for the v9.0.x installation.
- If you are using the Live Forms SharePoint Connector you must reinstall and configure it again for the v9.0.x installation.

> All database initialization and/or required upgrade will be automatically done by frevvo.war as part of the Live Forms v9.0.x startup.

Things to Check

Verify that any Live FormsConnectors are up and running.

1. Login as a tenant admin
   a. Click on the Configuration Checklist link to verify that all configurations are complete.
   b. Click on the Reports link. Click on one of the Reports to verify that submission data is displayed.
2. Login as a tenant designer user
   a. View and edit a form/flow
   b. Verify that your submissions are displayed when you click the

   Submissions and

   Legacy submissions icons.
   c. Test forms/flows

Login as the superuser admin.

1. Verify that the Refresh Searchable Fields process ran and completed successfully.

Troubleshooting

It is recommended that you do not change or delete the frevvo.users.schemaName property in frevvo.xml after the first startup of v9.0.x. If the property is changed or deleted post migration you may see this error:

HTTP Status 404 - /frevvo/web/login

type Status report

message /frevvo/web/login

description The requested resource is not available.

Apache Tomcat/7.0.53

Follow these steps to rectify the situation:

Change the property back to what it was during migration and restart.

If step 1 does not fix the problem, delete all rows from the DATABASECHANGELOG database table and then restart. Use the command: delete from DATABASECHANGELOG.

If you start Live Forms before the Insight server, you will see this message when you browse the Live Forms login URL. Follow these steps to start the servers in the correct order:

Configuration Checklist

Your environment is not configured correctly. Please, fix any problems below and restart frevvo. For more information please consult the installation instructions

Status	Configuration	Help
✓	Database schema	⊕
✓	SMTP Configuration	⊕
!	Insight Server Configuration	⊕
	The insight server was not properly configured and the dashboard will not function correctly. Make sure the server is running and the url is correctly set.	

Navigate to your <frevvo-home> directory.

Run the stop-frevvo.bat or stop-frevvo.sh file depending on your Operating system to stop Live Forms.

Open a command prompt. Navigate to <frevvo-home>\solr-6.6.2

Start the Insight server. Refer toStart the Insight Server above for the instructions.

Browse **http://<your server:port>/solr** to verify the Insight server is running. The <server:port> default values are localhost:8983. Change localhost to your server name and 8983 to the port the Insight server is running on if they are different from the defaults.Do not include the angle brackets <>.

Start Live Forms.

Applying a Minor Patch Update

If you're applying a minor patch update, for example, applying patch 9.0.x to your installed v9.0.0 Live Forms server, you can follow these simple steps instead of the more lengthy upgrade steps.

The latest major Live Forms version and the compatible frevvo connectors are available from the frevvo Software Downloads Directory.

1. Unzip the downloaded build zipfile to a temp directory.
2. Copy the \temp\frevvo\tomcat\webapps\frevvo.war file.
3. Stop Live Forms.
4. Replace the frevvo.war file in your installation with the one copied above.
5. If you made any configuration changes in the web.xml file inside the frevvo.war, or if you added configuration parameters to the <frevvo-home>\tomcat\conf\catalina\localhost\frevvo.xml in your previous installation, we recommend that the configuration context parameters be converted to properties and added to the <frevvo-home>\tomcat\conf\frevvo-config.properties file instead. This keeps all your changes in one place and makes migration to major new versions easier.

6. Delete everything inside \frevvo\tomcat\temp directory of your installation.
7. Start Live Forms.