Upgrade to 1.7.13

Version Information

Current Version:	1.7.13
Release Date:	June 2022
License:	Mozilla 2 Open Source License

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Description	i2b2 Released Version	Minimum Version Required	Download Link	Requirements
Files to upgrade the i2b2 server to 1.7.13	1.7.13	1.7.09c	i2b2core-upgrade-1.7.13.zip (downloadable)	See Technical Details section on the i2b2 Upgrades page.
Files to upgrade the i2b2 db instance to 1.7.13	1.7.13	1.7.09c	i2b2 data-source1.7.13.zip	
Files to upgrade the webclient	1.7.13		i2b2webclient-source1713.zip	

Notes

Release 1.7.13 contains changes to the i2b2 core Server, database and Web Client.

- User login using SAML Authentication
- User Account Registration Tool for local and SAML users
- Updated ACT Ontology v4
- Automated db upgrade process using single data_build.xml
- Improved patient counting scripts
- Log4J upgrade to latest 2.17.1 version to address security vulnerabilities
- Code changes as per veracode scan making i2b2 more secure
- i2b2-Synthea 1K syntheaMass data set in i2b2 format
- i2b2-Synthea data load scripts for loading Synthea data from scratch

⚠ **If you are running your application on JBoss, please upgrade to Wildfly before proceeding with the upgrade**

Upgrade Instructions

Below are Step-by-Step Instructions after you have upgraded to Wildfly.

Initial Steps:

- **Download** the binary upgrade distribution from i2b2core-upgrade-1713.zip
- **Extract** the download file i2b2core-upgrade-1713.zip to a folder outside of your existing i2b2 installation folder

Then, follow the steps below to upgrade i2b2 server, database instance and the webclient.

Steps to Upgrade i2b2 Server

In the following instructions the variable { version } refers to your version of Wildfly installed. We now support Wildfly 17 version.

1 **Stop WildFly**

Linux Example

```
$ /opt/wildfly-{version}.Final/bin/jboss-cli.sh --connect command=:shutdown
```

Windows Standalone Example

```
> \opt\wildfly-{version}.Final\bin\standalone stop
```

2 **Backup existing deployment directory** containing i2b2.war file

Linux
On Linux, move the /opt/wildfly-{version}.Final/standalone/deployments/ and save it to a different location outside of /opt/wildfly-{version}.Final/

Windows
On Windows, move the c:\opt\wildfly-{version}.Final\standalone\deployments\ and save it to a different location outside of c:\opt\wildfly-{version}.Final\

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Upgrade deployments folder

Copy all the files from the extracted downloaded deployment folder into your existing WildFly standalone/deployments directory.

Example your deployments folder**:** /opt/<wildfly-17.0.0.Final and above version>/standalone/deployments/

Example extracted deployments folder: i2b2core-upgrade-1713\i2b2\deployments

The folder includes the upgraded war file and upgraded jdbc driver files.

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Update datasource (*-ds.xml) files

In your deployment directory, copy *-ds.xml files from the backup folder to wildfly-17.0.#.Final/standalone/deployments

Edit the following files crc-ds.xml, ont-ds.xml, pm-ds.xml, work-ds.xml

Replace ALL the **<driver>{something}.jar</driver>** with latest drivers as below

Oracle	SQL Server	PostgreSQL
<driver>ojdbc8.jar</driver>	<driver>mssql-jdbc--9.2.0jre8.jar</driver>	<driver>postgresql42.3.2.jar</driver>

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Migrate cell properties to 1.7.13, if needed. In 1.7.12, cell properties have been moved to the database, in a table called hive_cell_params. If any cell properties were previously changed, they will need to be manually updated in the database. After this, the properties files can be deleted to prevent confusion.

More documentation on setting cell properties is available at this page. Most commonly, the AGG_SERVICE_ACCOUNT password will need to be updated. Generally, the cell URLs do not need to be configured anymore, as the hostname and port is now auto-detected.

Properties files are stored at */opt/wildfly-{version}.Final/standalone/configuration/* on **Linux** and c:\opt\wildfly-{version}.Final\standalone\configuration\ on **Windows**. The table can be edited with a SQL editor in hive_cell_params.

Steps to Upgrade i2b2 database

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Steps to perform db upgrade:

- Backup your existing data folder
- Copy all the folders created by extracting the latest version into your existing data Upgrade folder. This will replace existing Crcdata, Hivedata, Metadata, PMdata folders. Example: Downloads\i2b2core-upgrade-1713\i2b2\data to C:\opt\edu.harvard.i2b2.data\Release_1-7\Upgrade\.
- Copy the db.properties files from your back up into the respective locations (namely Crcdata, Hivedata, Metadata, PMdata)
- Open the command prompt and navigate to each cell folder and run the following upgrade ant commands on your i2b2 database instance, where {db} can be Oracle, sqlserver or postgresql.
  Alternative to above Step, you can run individual SQL scripts on your db instance in place of ant commands.
- In datafolder\Release_1-7\Upgrade\ run the ant commands under each individual cell folder as below

Upgrade From Build	***Upgrade to Latest build***
1.7.09c	In the Crcdata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-09c upgrade_tables_release_1-7-10 upgrade_tables_release_1-7-11 upgrade_tables_release_1-7-12a In the Hivedata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-11 upgrade_tables_release_1-7-12a In the Metadata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-10 upgrade_tables_release_1-7-12a In the Pmdata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-09c
1.7.10	In the Crcdata folder run the following ant command: ant -f data_build.xml upgrade_table_release_1-7-10 upgrade_tables_release_1-7-11 upgrade_tables_release_1-7-12a In the Hivedata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-11 upgrade_tables_release_1-7-12a In the Metadata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-10 upgrade_tables_release_1-7-12a
1.7.11	In the Crcdata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-11 upgrade_table_release_1-7-12a In the Hivedata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-11 upgrade_tables_release_1-7-12a In the Metadata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-12a

1.7.12a	In the Crcdata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-12a In the Hivedata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-12a In the Metadata folder run the following ant command: ant -f data_build.xml upgrade_tables_release_1-7-12a

- Upgrade stored procedures

  Run the below CRC and metadata Sql Procedures if your db instance is Postgres.

  In Crcdata/scripts/procedures/<db instance>/*.sql

  In Metadata/scripts/procedures/<db instance>/*.sql

> **HIVE_CELL_PARAMS configuration**
>
> Check HIVE_CELL_PARAMS table is updated with cell properties parameters as detailed here

Steps to Upgrade i2b2 Webclient

7 **Backup existing webclient folder** to a different location outside of your current webclient installation folder

8 **Install new webclient**

- Extract the i2b2webclient-1713.zip
- Replace your existing webclient folder on your web server with the extracted webclient folder
- Update i2b2_config_data.js using your existing **i2b2_config_data.js** from your backed up web directory**.** Details are provided here

> Backup your entire webclient folder before proceeding with webclient upgrade

9 **Start WildFly**

You can either run WildFly standalone or as a service.

Linux Standalone Example

```
$ /opt/wildfly-{version}.Final/bin/standalone.sh -b 0.0.0.0 &
```

Windows Standalone Example

```
> \opt\wildfly-{version}.Final\bin\standalone start
```

Verify Your Upgrade

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Test Webclient

Navigate to your local i2b2 Web Client in your preferred browser and verify you are able to log on and perform standard i2b2 functions. (e.g. Run queries, retrieve previous queries, view breakdowns, etc.)