



Installation Guide

# **i2b2 Workbench**

*Document Version:* 1.5.1  
*I2b2 Software Release:* 1.5

# Table of Contents

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<i>About this Guide</i>	3
<b>1. Prerequisites</b>	<b>4</b>
<b>1.1 Third Party Software</b>	<b>4</b>
1.1.1 Java JDK	4
<b>2. Install</b>	<b>5</b>
<b>2.1 Installing the i2b2 Workbench application</b>	<b>5</b>
2.1.1 Download files	5
<b>3. Execute</b>	<b>10</b>
<b>3.1 Define Physical Memory</b>	<b>10</b>
<b>3.2 Running the i2b2 Workbench Application</b>	<b>11</b>
<b>3.3 Reconfiguring the default layout</b>	<b>14</b>
3.3.1 Adding a View	14
3.3.2 Moving a View	15
3.3.3 Removing a View	15
<b>4. Features</b>	<b>16</b>
<b>4.1 Installing a Feature</b>	<b>16</b>
<i>License</i>	<b>22</b>

## ABOUT THIS GUIDE

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Informatics for Integrating Biology and the Bedside (i2b2) is one of the sponsored initiatives of the NIH Roadmap National Centers for Biomedical Computing (<http://www.bisti.nih.gov/ncbc/>).

One of the goals of i2b2 is to provide clinical investigators broadly with the software tools necessary to collect and manage project-related clinical research data in the genomics age as a cohesive entity; a software suite to construct and manage the modern clinical research chart.

# 1. PREREQUISITES

## 1.1 Third Party Software

### 1.1.1 Java JDK

JDK 6.0 is recommended and can be downloaded from the java website:

<http://java.sun.com/products/archive/>

1. Install the SDK into a directory of your choice.

Example: */opt/java/jdk1.6.0* or *YOUR\_JAVA\_HOME\_DIR*

## 2. INSTALL

### 2.1 Installing the i2b2 Workbench application

The latest version of the i2b2 Workbench is available as an executable and can be downloaded from the i2b2 website.

Ⓢ *This version of the i2b2 Workbench is setup to work with HarvardDemo.*

#### 2.1.1 Download files

2. Go to the i2b2 website (<http://www.i2b2.org>)
3. At the top of the page there is a navigation bar, click on “**Software**” to go to the *software page*.



4. Once the software page loads, scroll down to the section called **Downloads**.
5. Click on the **Client Software** box.

#### Downloadables



- Information about the latest version and a list of zip files available for downloading will appear.
- Select the appropriate file to download.

Windows Version

Macintosh Version

### Downloadables

Client Software

i2b2 Workbench

Download the Windows or Macintosh executable

Client & Server

i2b2 VMWare

Download the VMWare image to run both the client and server

Source Code

i2b2 Source

Download the source code and build the client and server from scratch

## Client Software

Version: 1.4  
Release Date: February 10, 2010  
License: [i2b2 Open Source License](#)

The i2b2 Workbench is a collection of client-side components that communicate with i2b2 Cells and help aggregate their functionality in the Hive. Each component is designed as an Eclipse-based plug-in that interacts with a hive cell; collectively these plug-ins provide a cohesive entity to tie all the i2b2 cells together.

After you have downloaded and installed the software, please use the following demo login to authenticate:

👤 Demo Account

User: **demo**

Password: **demouser**

Select the appropriate file below for download:

Download	File Size	Type
<a href="#">i2b2Workbench-win-14.zip</a>	110 MB	Windows v1.4 (Core Cells Only) with features
<a href="#">i2b2Workbench-mac-14.zip</a>	72 MB	Macintosh v1.4 (Core Cells Only) with features
<a href="#">i2b2Workbench_Documentation_14.zip</a>	2.4 MB	i2b2 Workbench Documentation

- The **Download** page will open. At this point, if you are not already a registered user you will need to do so. If you are a returning user you can click on the “**file download**” link.

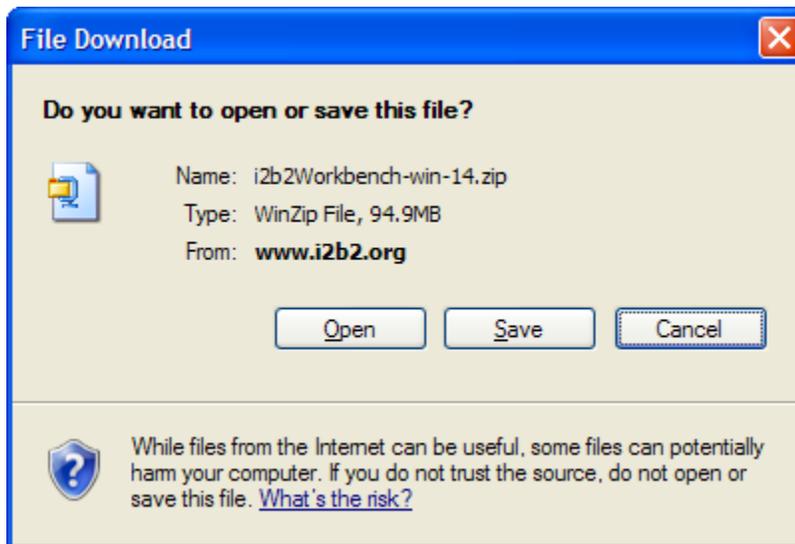
## Download

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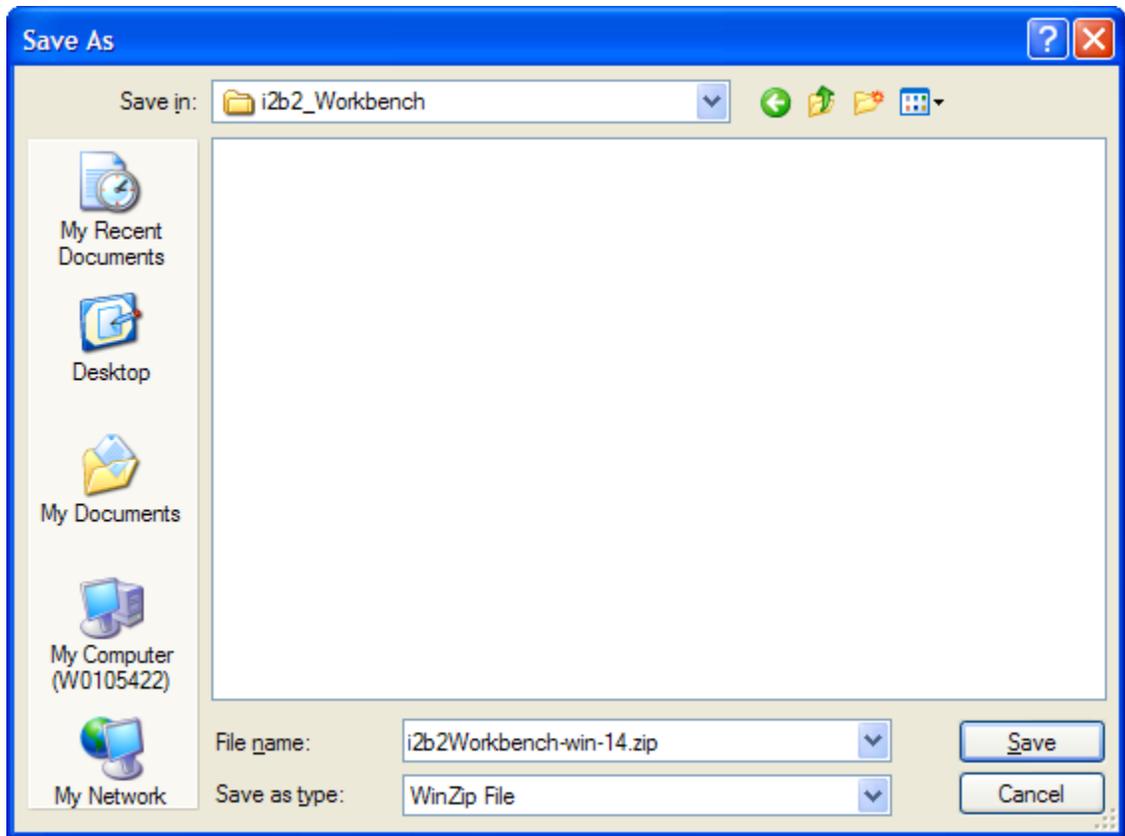
New users: please [register](#) before downloading the file.

Returning users: continue with the [file download](#).

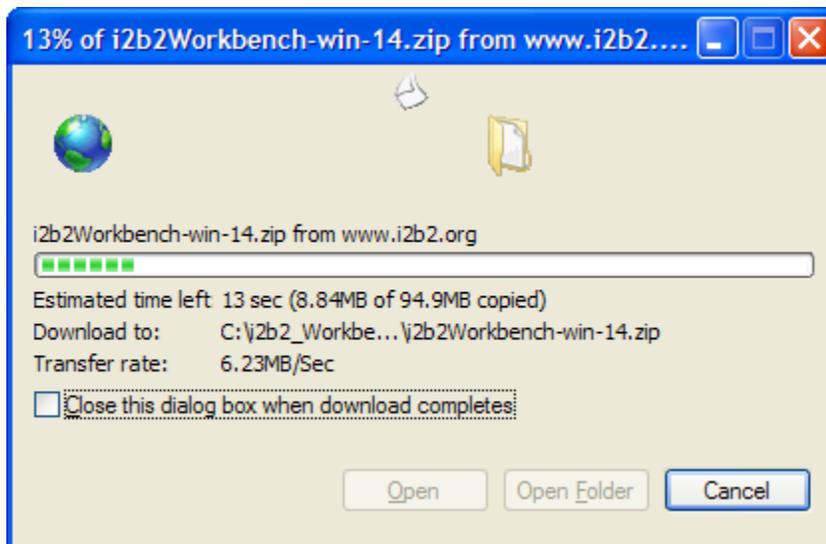
9. The next step is to review the i2b2 license and choose to either accept or decline.
  - a. If you choose to **Decline** you will be brought back to the main i2b2 Software page.
  - b. If you agree with the license click on **Accept** to continue with the download.
  
10. The File Download dialog box will open.



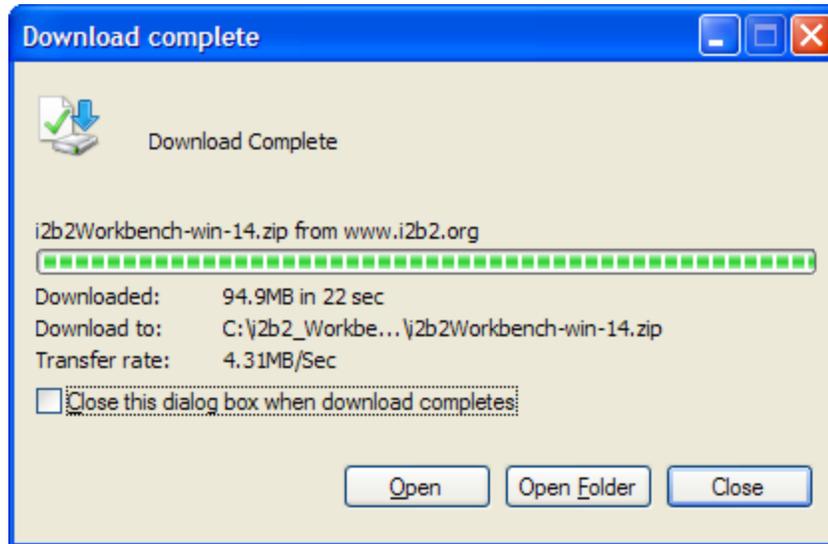
11. Click on the **Save** button and save the file to a directory of your choice.



12. The progress dialog box will open.

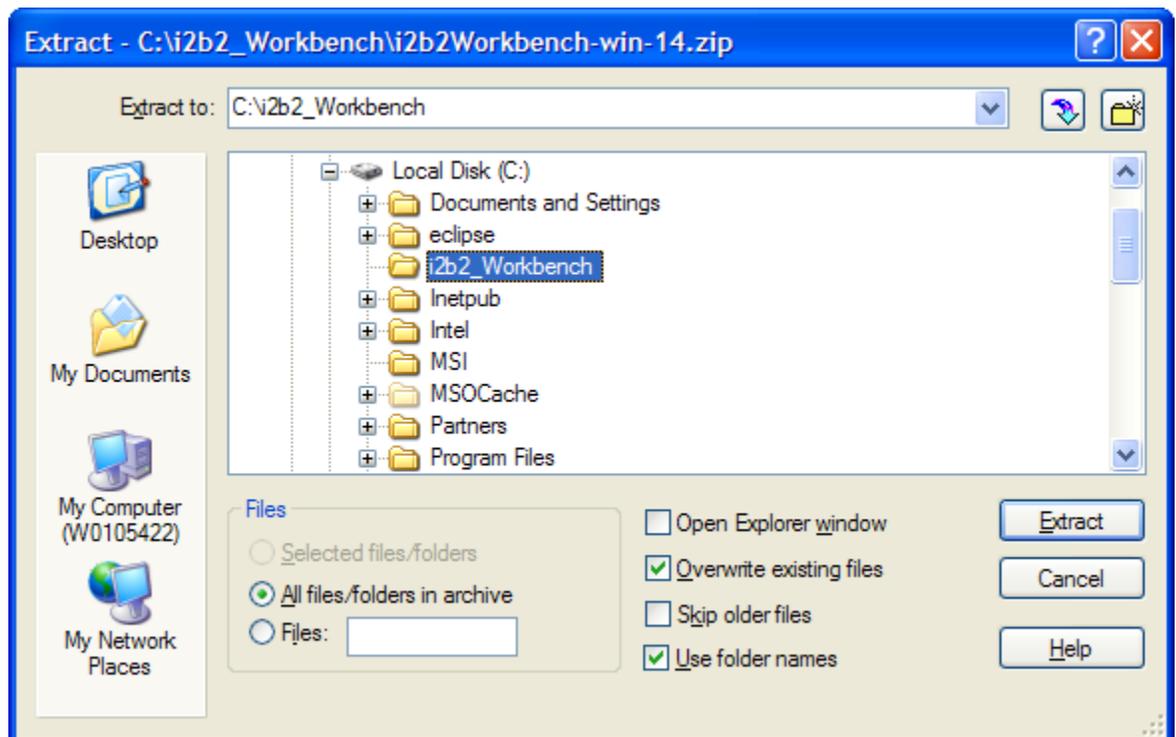


13. Once the file has finished downloading the **Download Complete** dialog box will open.



14. Click on the **Open** button.

15. Once the zip file opens, extract the files into a target area of your choice.

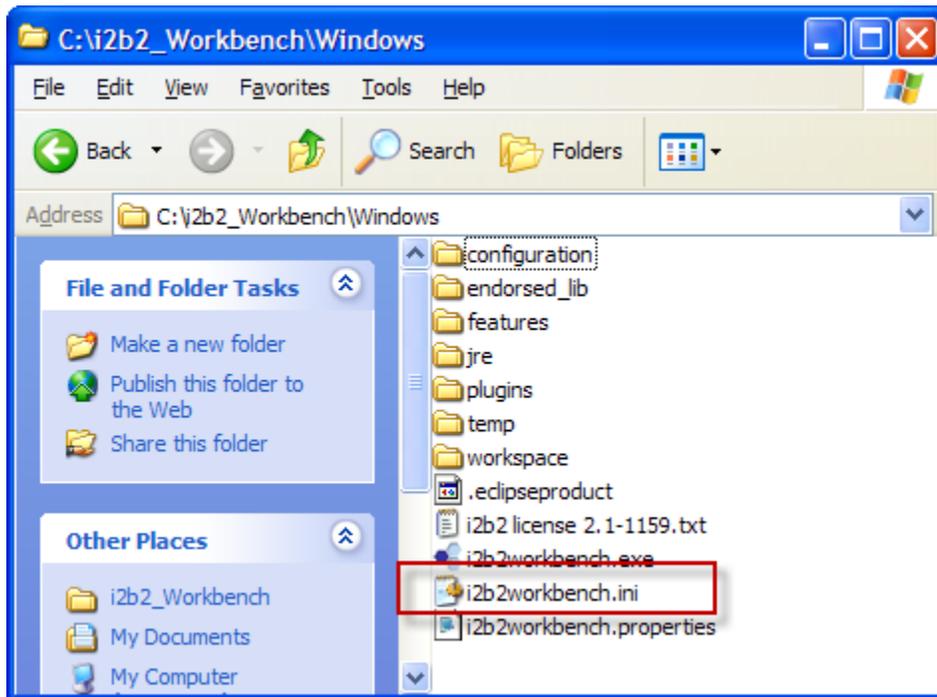


### 3. EXECUTE

#### 3.1 Define Physical Memory

In your target's i2b2 Workbench directory there is a file called **i2b2workbench.ini** and it is in this file that the physical memory for the i2b2 Workbench is defined.

1. Go to your target directory for the i2b2 Workbench.
2. Open the **i2b2workbench.ini** file.



3. Edit the value of **Xmx** to be equal to the amount of physical memory on your computer. The default setting is *480m*.

Example:

Default Setting: -Xmx 480m

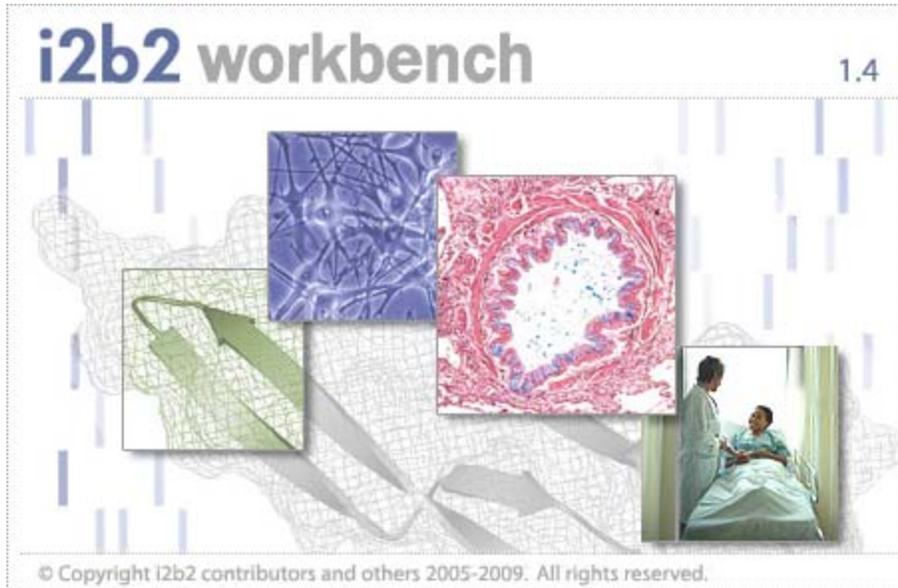
Scenario: your computer is running with 1GB of Ram

New Setting: -Xmx 1024m

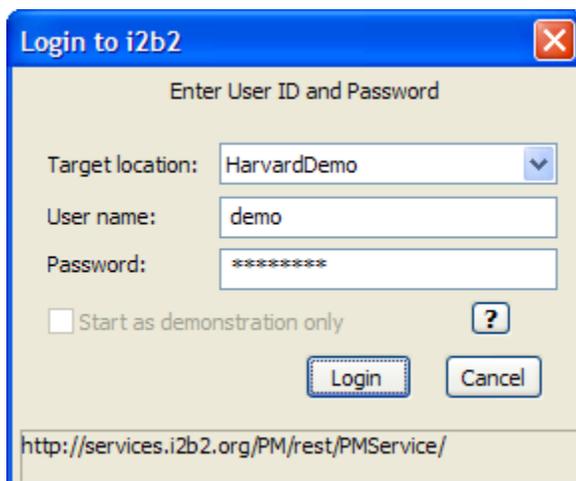
### 3.2 Running the i2b2 Workbench Application

The executable file for running the i2b2 Workbench Application can be found in the same target directory as the “.ini” file defined above. The name of this executable is **i2b2workbench.exe**.

1. Double click on **i2b2workbench.exe**.
2. The i2b2 Workbench splash screen will appear.



3. The **Login** dialog box will open.

The image shows a Windows-style dialog box titled "Login to i2b2". The dialog box has a blue title bar with a close button (X) in the top right corner. Below the title bar, the text "Enter User ID and Password" is centered. The dialog box contains the following fields and controls:

- "Target location:" followed by a dropdown menu showing "HarvardDemo".
- "User name:" followed by a text input field containing "demo".
- "Password:" followed by a text input field containing "\*\*\*\*\*".
- A checkbox labeled "Start as demonstration only" with a question mark icon to its right.
- Two buttons: "Login" and "Cancel".
- At the bottom of the dialog box, the URL "http://services.i2b2.org/PM/rest/PMService/" is displayed.

4. Enter the following information:

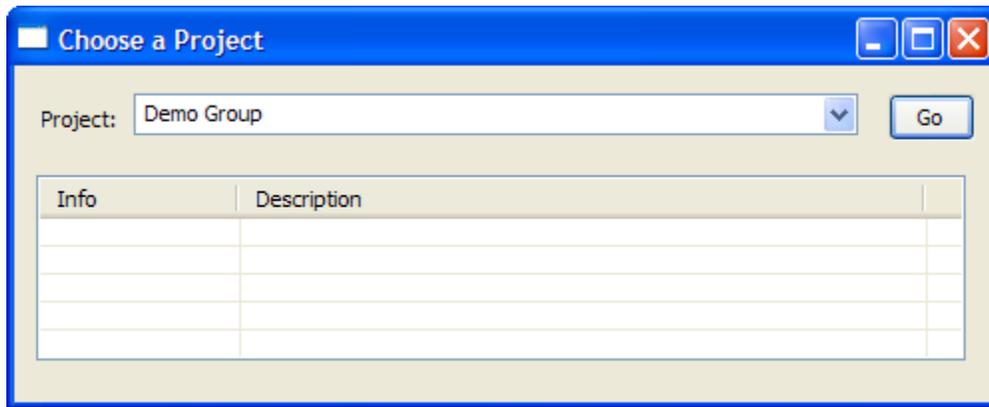
**User name:** demo

**Password:** demouser

5. Click on the “**Login**” button.

6. The **Choose a Project** dialog box will open.

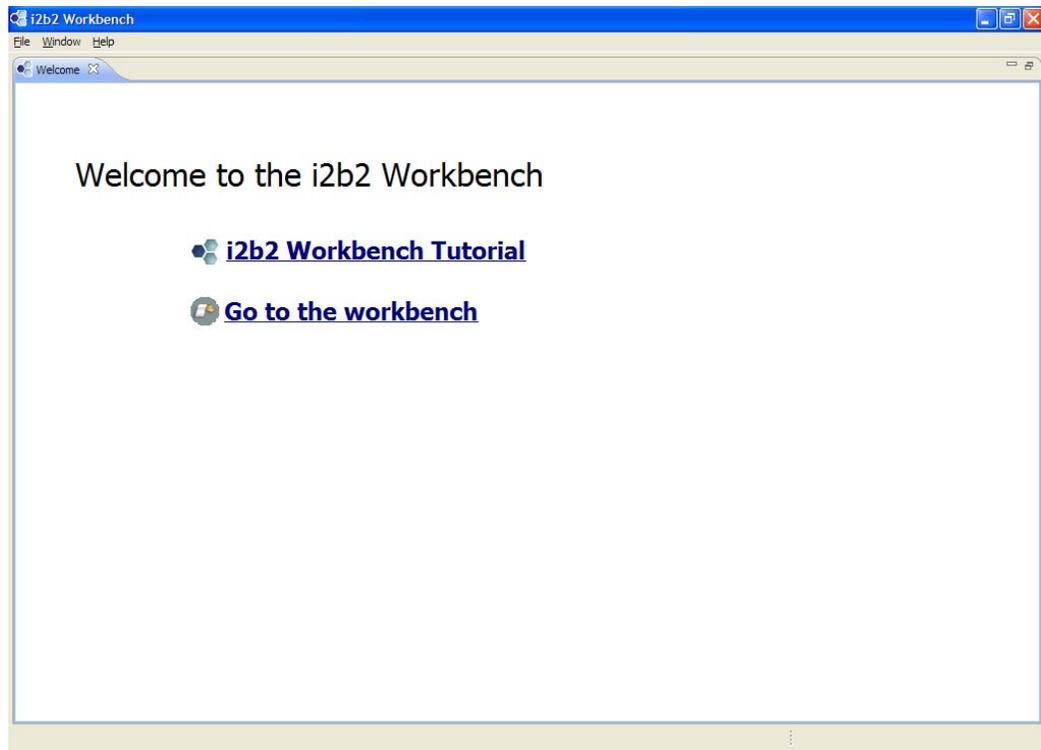
Ⓞ *The project dialog box will only appear if you have access to multiple projects. If you only have access to one project you will be brought to the Welcome page.*



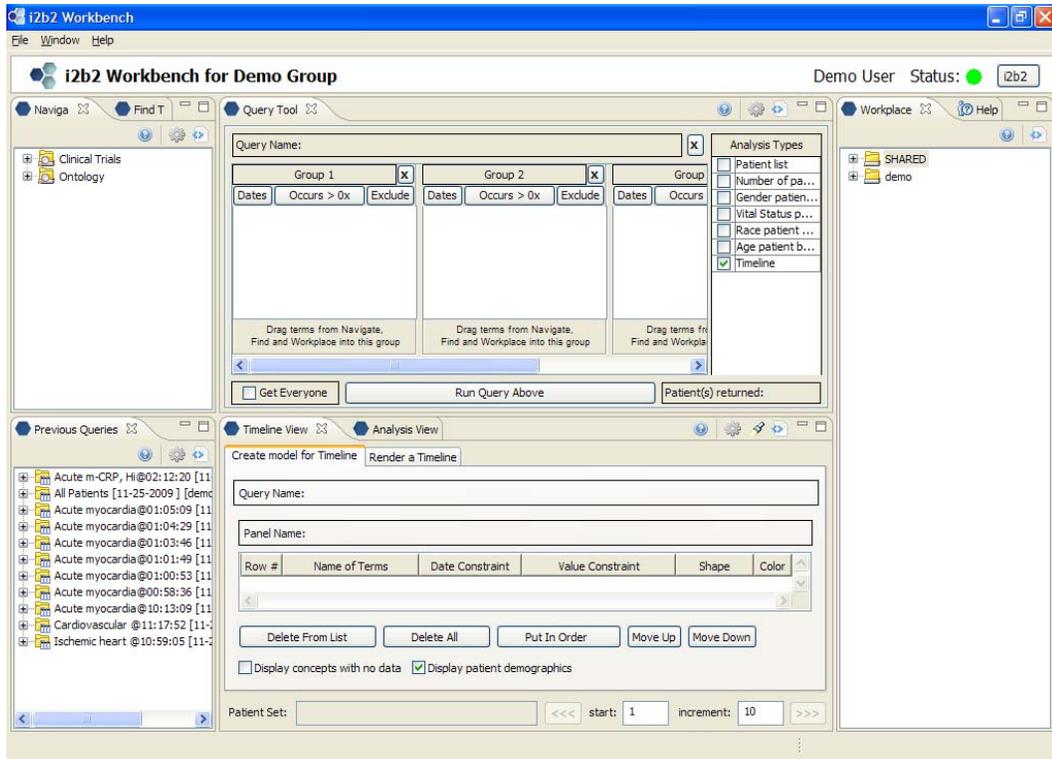
7. Accept the default project by simply clicking on the “**Go**” button.

8. The **Welcome** page will open.

Ⓞ *The welcome page will open the first time you login. All subsequent logins will bring you directly to the i2b2 desktop. You can access the welcome page anytime by selecting it from the Help menu on the toolbar.*



9. Click on **Go to the workbench**.
10. The **desktop** of the i2b2 Workbench will open.



### 3.3 Reconfiguring the default layout

The default layout can be reconfigured to the users needs.

#### 3.3.1 Adding a View

At the top of the i2b2 Workbench is a menu bar. Click on **Window** and select “**Show View**” from the drop down menu. A list of “core views” will display. To add a view simply click on it’s name and it will be added to the desktop area of the i2b2 Workbench.

☉ **“Core views” are those views that are associated with the cell that are part of the core hive.**

View	Description
Analysis View	Provides a visualization of analysis results of queries that users run using the i2b2 Workbench.
Find Terms	Allows users to search for concepts.
Help	Displays the help documentation for the active view.

Navigate Terms	Displays the i2b2 vocabulary concepts that are maintained in the <b>Ontology Management Cell</b> of the <b>i2b2 Hive</b> .
Previous Queries	Displays the most recent queries run by a user. The results associated to the query are also available for viewing.
Query Tool	The query tool view is designed to simplify the process of retrieving information from the database associated to the i2b2 Workbench.
Timeline View	Displays the information in a graphical representation of a chronological sequence of events
Workplace	Information in the Workplace View is related to the most common concepts and queries that an individual uses and in essence becomes their personal workspace. The main objectives of this view are: <ul style="list-style-type: none"> <li>▪ Save and organize user specific items.</li> <li>▪ Share information with other project users.</li> <li>▪ Project managers can view the workplace for individual team members.</li> </ul>

### 3.3.2 Moving a View

Move the position of any view by clicking on the view's tab and dragging it to another area of the i2b2 Workbench (desktop area).

### 3.3.3 Removing a View

At the top of each view is a tab that contains the name of the view and close button. To remove a view simply click on the close (✖) button.

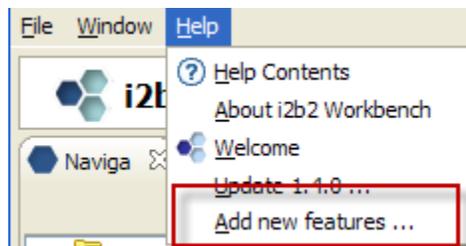
## 4. FEATURES

Optional plug-ins are packaged as a “feature” and can be installed from within the i2b2 Workbench.

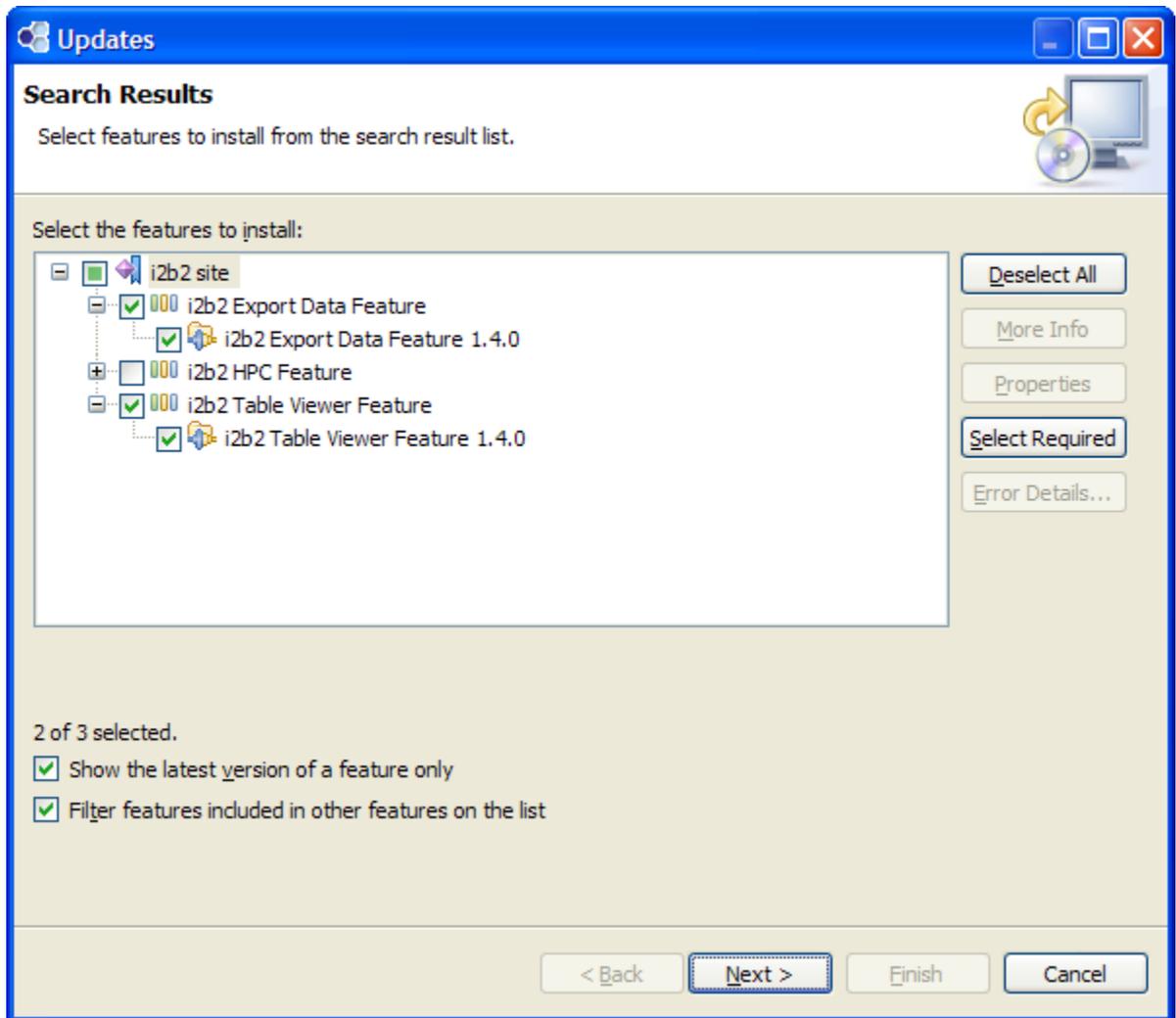
### 4.1 Installing a Feature

The following steps outline how to install a new feature.

1. On the menu bar in the i2b2 Workbench click on **Help** to display the menu items.
2. Select **Add new features**.

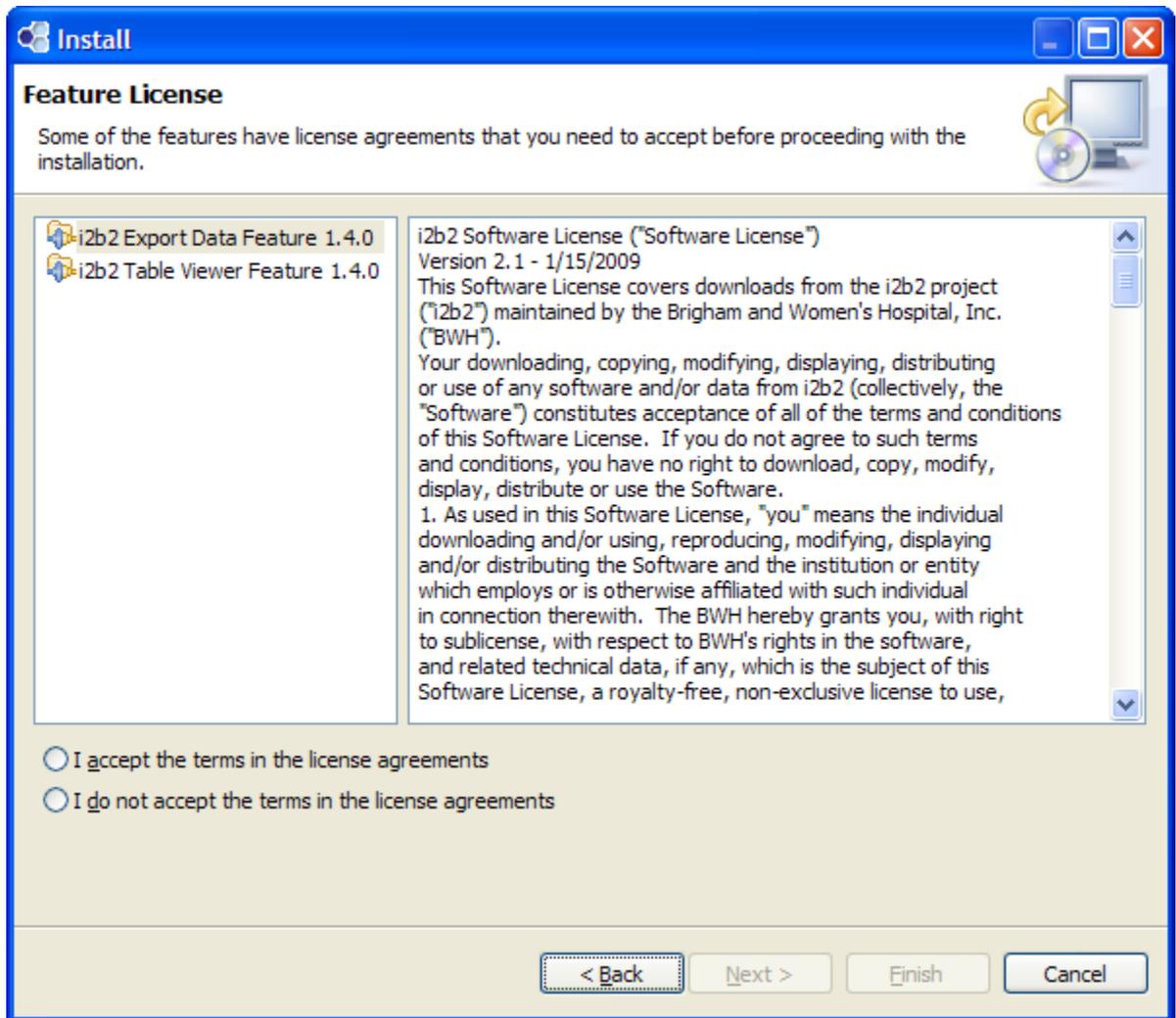


3. The **Updates** window will open displaying a list of available features.
4. Select the feature(s) you want to install.



Ⓢ *If you want to see additional information about a particular feature, highlight it in the list and click on the **Properties** button.*

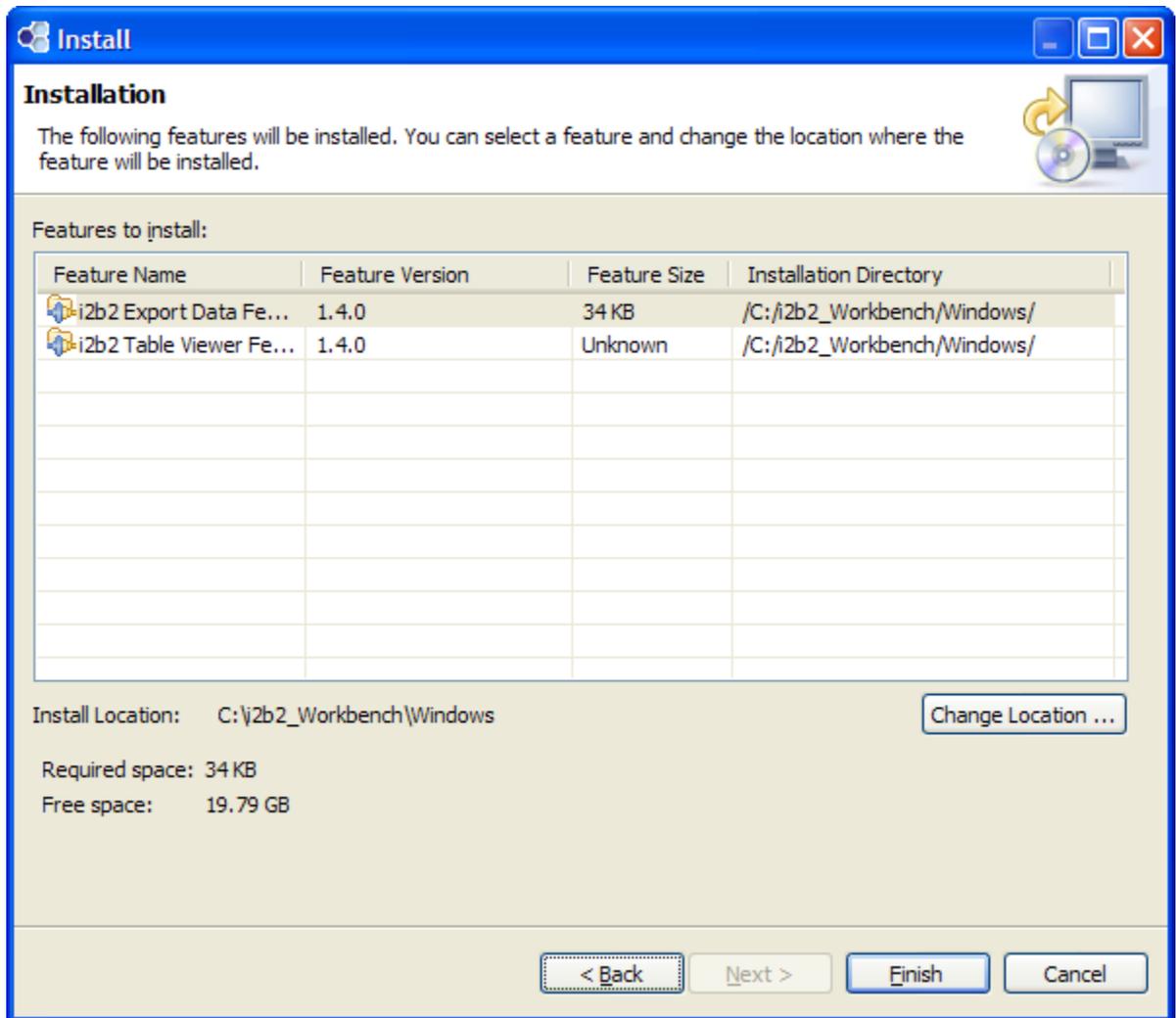
5. Click on the **Next** button.
6. The **Install** dialog box will open to the *Feature License* page.



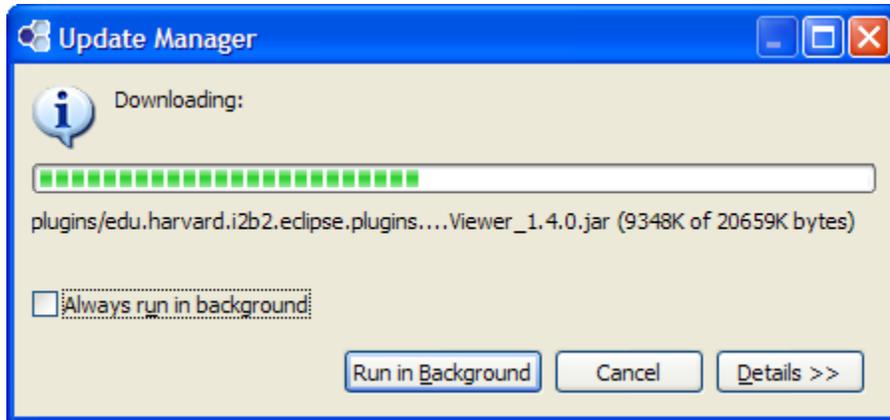
7. After reviewing the license you need to either accept or decline the terms in the license agreement.

 ***You can not move forward with the install unless you choose to accept the license agreement.***

8. Once you have accepted the agreement click on the **Next** button to move to the *Installation page*.



9. Accept the default installation location and click on the **Finish** button.
10. The **Update Manager** dialog box will open displaying the status of the install.

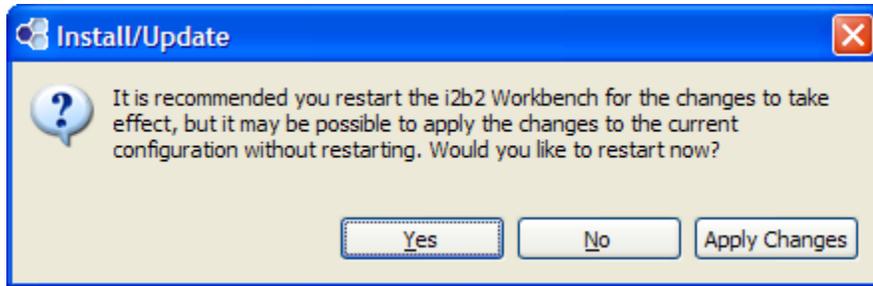


11. Once the install is complete, a message recommending you restart the i2b2 Workbench. The options are:

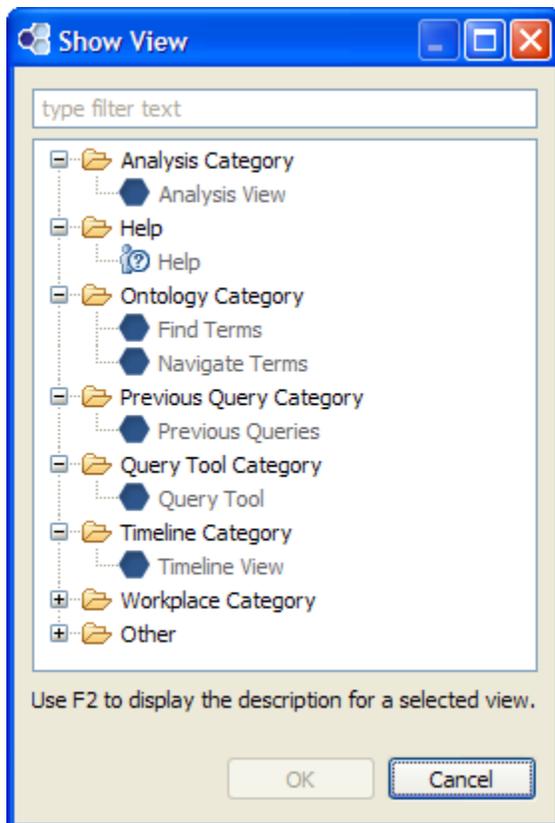
Option	Action
<b>Yes</b>	The i2b2 Workbench will close and restart. The user will need to enter user name and password to log back in. Once the i2b2 Workbench restarts the user can add the new view.
<b>No</b>	The i2b2 Workbench will not close. The view is not available to add until the user logs out and back in to the i2b2 Workbench.
<b>Apply Changes</b>	The i2b2 Workbench will not close. The desktop area will be refreshed and the perspective will be reset to the default. The view will be open when the refresh is complete.

❗ *You will loose any changes you have made changes to the desktop area of the i2b2 Workbench if you select **Apply Changes**.*

12. Click on **Yes** to restart.



13. Log back in to the i2b2 Workbench.
14. On the menu bar click on Window and select “Show View from the drop down menu.
15. Select “Other” from the list of views.
16. The Show View window will open.



17. Select the view for the feature you added and click on **OK**.
18. The view will now appear in the desktop area of the i2b2 Workbench.

## LICENSE

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The i2b2 source code is licensed under the i2b2 Software License 2.1. This includes but is not limited to all code in the edu.harvard.i2b2.\* package namespace.