



AGNIS Metadata Tool 1.0 User Guide

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AGNIS Metadata Tool 1.0 User Guide

This document describes how to use the AGNIS® Metadata Tool software to retrieve metadata from the cancer Data Standards Registry and Repository (caDSR) for those FormsNet™ forms which have been curated. AGNIS communications are based on these metadata, and the tool aims to provide the metadata in formats which are useful to organizations making the effort to implement an electronic data link with AGNIS.

The reader is assumed to have a basic level of familiarity with caDSR metadata. For additional information on the caDSR and related tools such as the CDE Browser and FormBuilder, please refer to documentation and training materials available from the ncicb.nci.nih.gov web site:

http://ncicb.nci.nih.gov/NCICB/infrastructure/cacore_overview/cadsr
<http://ncicb.nci.nih.gov/NCICB/training>

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Acknowledgments

This product includes software developed by Oracle®, Inc. and the National Cancer Institute.

1 Software Prerequisites

The AGNIS Metadata Tool requires Java, and should be capable of running under any operating system for which a Java 5.0 JDK is available. This includes UNIX-like operating systems such as Solaris or Linux, and Windows variants such as Windows XP.

1.1 AGNIS Metadata Tool

The AGNIS Metadata Tool is distributed in a single zip file named `metadatatool-version.zip`, which includes both source code and executable binaries. The metadata tool distribution is available here:

<http://www.agnis.net/>

Information on installing and using the metadata tool is provided later in this document (see section 2).

1.2 Java

Sun Java 5.0, also known as Java 1.5, is recommended. Later Java releases may also work. As of this writing, the Sun Java 5.0 JDK is available here:

<http://java.sun.com/javase/downloads/5u22/jdk>

To install Java, please refer to the provider's instructions. The Metadata Tool needs only the basic JDK, and does not require add-ons such as Enterprise Edition or NetBeans IDE.

1.3 Info-ZIP

The metadata tool software is distributed as a ZIP archive. Most UNIX-like operating systems include an unzip program capable of extracting the contents of a ZIP archive file. Similarly, the Windows Explorer program included with recent Windows versions is also capable of extracting the contents of a ZIP archive file.

Users of an operating system which does not provide a built-in unzip function need to install software such as Info-ZIP, a free set of tools for working with ZIP archives. The main Info-ZIP web site is here:

<http://www.info-zip.org/>

To install Info-ZIP tools, please refer to the web site for platform-specific installation information.

1.4 SHA-1 checksums

To verify the integrity of software downloads, users are encouraged to compute the SHA-1 (or MD5) checksum of the downloaded file and compare it with the expected value. The download sites for Java and AGNIS packages also offer files containing expected checksum values.

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One way to compute SHA-1 checksums is via the OpenSSL sha1 command:

```
openssl sha1 filename
```

(Refer to <http://www.openssl.org/> for additional information on OpenSSL.)

2 Install and Run

This section uses examples to illustrate installation and execution of the metadata tool.

The Windows examples show entry of commands into a command prompt window. To open a command prompt window, click the Windows Start button, select Run..., type `cmd.exe`, and click OK.

2.1 Install Metadata Tool

To install the AGNIS code, unzip the `metadatatool-version.zip` zip file to a convenient location, such as `$HOME/agnis` (Unix), or `C:\agnis` (Windows). Examples below.

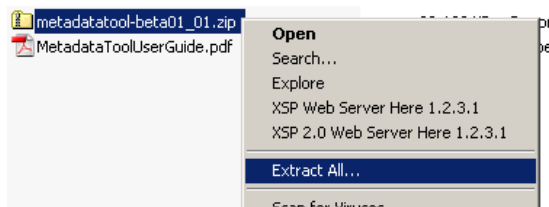
Unix:

```
~> mkdir $HOME/agnis
~> cd $HOME/agnis
~/agnis> unzip ../metadatatool-1.0_01.zip
...
```

Windows:

```
C:\> mkdir \agnis
C:\> cd \agnis
C:\> unzip ..\metadatatool-1.0_01.zip
...
```

For brevity, the Windows example depicts use of the Info-ZIP unzip program to extract the contents of the zip archive. Depending on the version of Windows being used, it may also be possible to extract the contents of a zip archive file by using Windows Explorer. To access the Extraction Wizard in Windows Explorer, right-click the Windows *Start* button, click *Explore*, locate the zip file, right-click on the file and select *Extract All...*, then follow the wizard steps to select an extraction location and extract the zip file's contents.



2.2 Run Metadata Tool

Move to the metadata tool's `bin` subdirectory code and execute the appropriate `metadatatool` script. Examples below.

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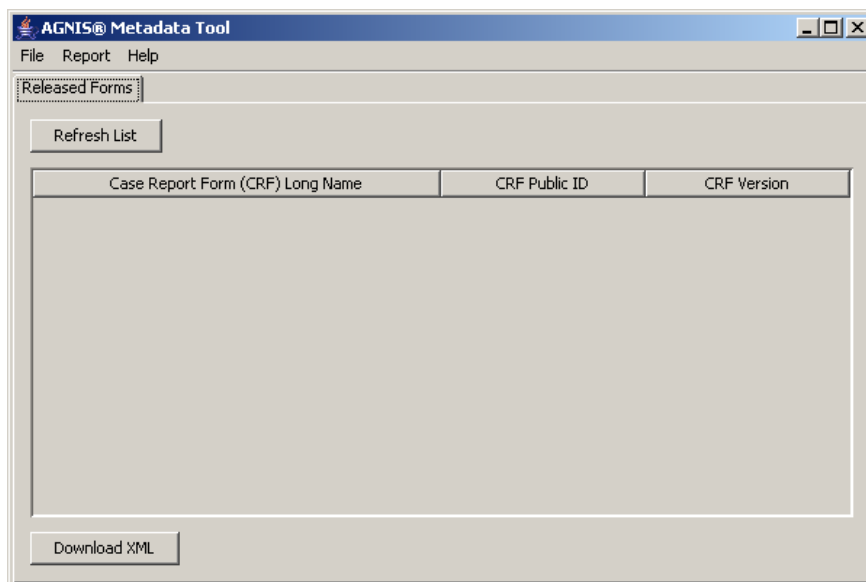
Unix:

```
~> cd $HOME/agnis/metadatatool-1.0_01/bin
~/agnis/metadatatool-1.0_01/bin> ./metadatatool.sh
...
```

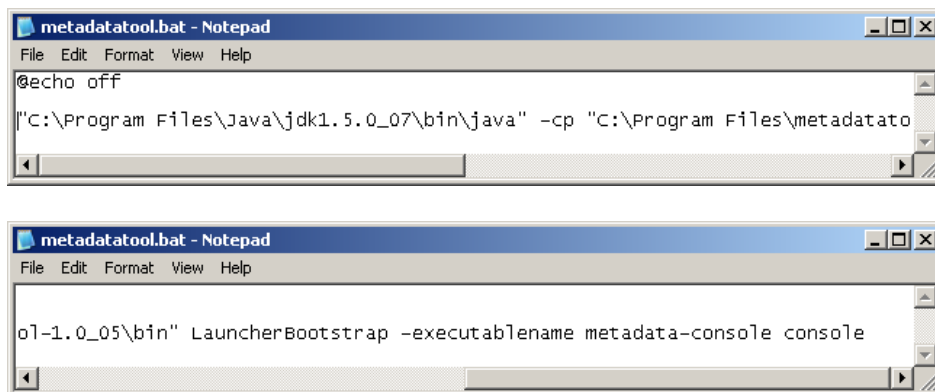
Windows:

```
C:\> cd \agnis\metadatatool-1.0_01\bin
C:\agnis\metadatatool-1.0_01\bin> .\metadatatool.bat
...
```

After a few seconds, the AGNIS Metadata Tool main window should appear:



If preferred, instead of executing the script from within the `bin` subdirectory, edit the `metadatatool.sh` or `metadatatool.bat` script as needed to specify the location of the `java` executable and set the classpath (`-cp`) to specify the location of the `bin` subdirectory. Example (Windows):



3 Using the Metadata Tool

The metadata tool queries the Cancer Data Standards Registry and Repository (caDSR) to retrieve metadata which are of interest to AGNIS participants. It stores the metadata in an XML format that closely follows the XML schema used by the cadsrapi40 web service, and is also able to generate reports in Microsoft® Excel® format.

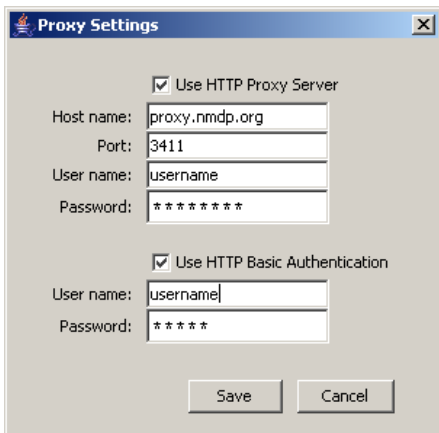
The AGNIS web service is designed to transmit data in terms of forms which are defined as Case Report Forms (CRFs) in the caDSR. At a basic level, these CRFs are comprised of caDSR Common Data Elements (CDEs).

3.1 Configure Proxy Settings

Some computer systems are required to use a proxy server when accessing the internet. For those systems, it will be necessary to configure proxy settings.

1. Open the *Proxy Settings* window (select *File*, then *Proxy Settings*).
2. Enable proxy server or HTTP basic authentication as needed
3. Enter proxy configuration details.
4. Restart the metadata tool to enable the new proxy settings.

Here's an example showing the *Proxy Settings* window populated with data.

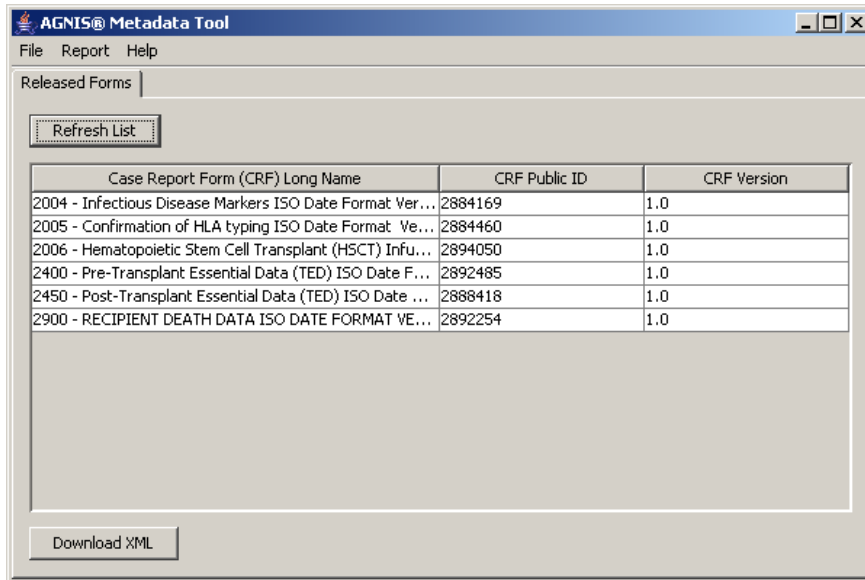


3.2 Released Forms

The *Released Forms* tab displays a list of CRFs which have a caDSR workflow status of RELEASED. Press the *Refresh List* button to query the caDSR web service and refresh the list.

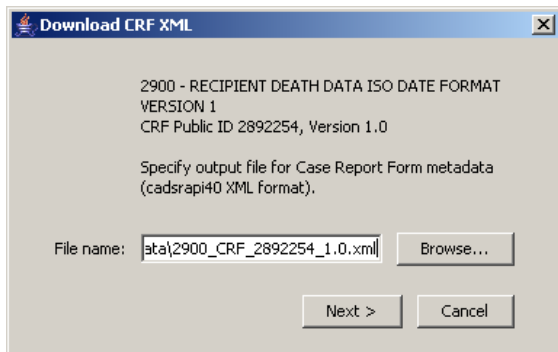
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The released CRFs listed here are of primary interest to AGNIS end users working on defining data mappings between internal systems and the CDEs used by AGNIS.



To begin the process of downloading metadata for a specific CRF, either double-click on the CRF in the list or select it and press the *Download XML* button.

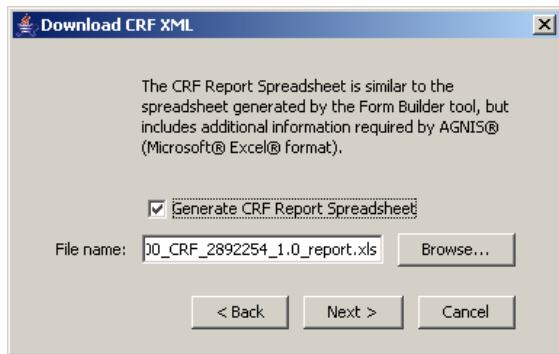
On the first page of the *Download CRF XML* wizard, specify the output XML file name and press *Next* to continue.



The *CRF Report Spreadsheet* uses a format similar to the Excel download available from the caDSR *Form Builder* tool, but adds several fields which are helpful to AGNIS users, such as module publicID and version.

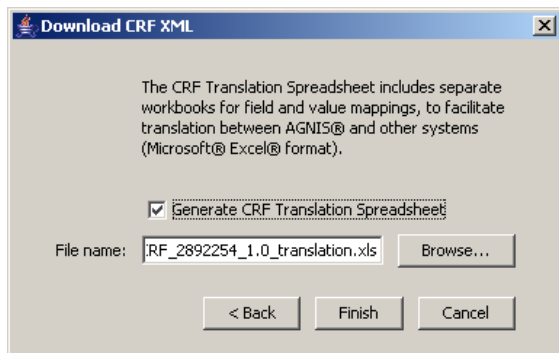
On the second page of the *Download CRF XML* wizard, indicate whether the metadata tool should generate a *CRF Report Spreadsheet* in addition to the downloaded XML, and press *Next* to continue.

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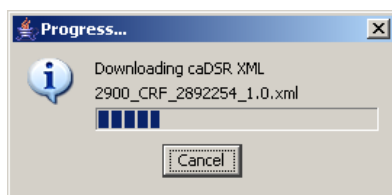


The *CRF Translation Spreadsheet* splits field mappings and value mappings into separate workbooks.

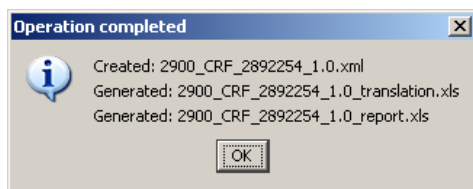
On the third page of the *Download CRF XML* wizard, indicate whether the metadata tool should generate a *CRF Translation Spreadsheet*.



Press *Finish* to begin the download process. After a few seconds, the metadata tool displays a progress meter.



When the download is finished, the program displays a message window.

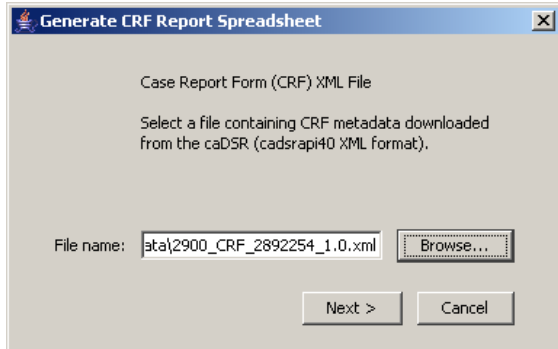


The download process can be time consuming; depending on the size of the form, it may take 10-30 minutes or longer.

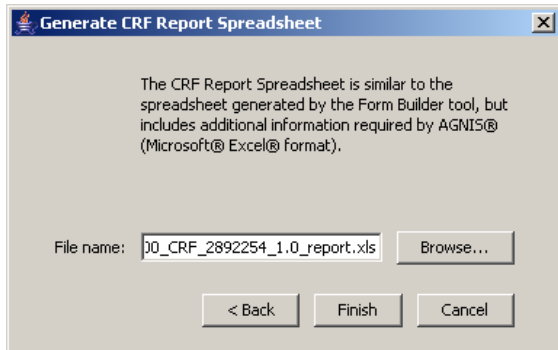
3.3 CRF Report Spreadsheet

The metadata tool can generate spreadsheets from a previously downloaded CRF XML file, such as the XML file created by using the *Download XML* button on the *Released Forms* tab.

To generate a *CRF Report Spreadsheet* from a CRF XML file stored locally, select *Report*, then *CRF Report Spreadsheet*. On the first page of the wizard, select the input file and press *Next* to continue.



On the second page, select the output file name and press *Finish* to generate the *CRF Report Spreadsheet*.



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The report spreadsheet uses a single worksheet format which is similar to the format used by the Excel download available from the caDSR FormBuilder tool.

	A	B	C
1	Long Name	2900 - RECIPIENT DEATH DATA ISO DATE FORMAT VERSION 1	
2	Definition	To define the primary and contributing causes of death for HSCT reci	
3	Context		
4	Protocol Long Name		
5	Workflow	RELEASED	
6	Type	CRF	
7	Public ID	2892254	
8	Version	1.0	
9	Header Instruction	To be completed in conjunction with 100 Days Post-HSCT Data, Six M	
10			
11	Module Display Order	Question Display Order	Valid Value Display Order
12	0		Registry I
13	0	0	
14	0	1	
15	1		Identificat

3.4 CRF Translation Spreadsheet

The metadata tool can generate spreadsheets from a previously downloaded CRF XML file, such as the XML file created by using the *Download XML* button on the *Released Forms* tab.

To generate a *CRF Translation Spreadsheet* from a CRF XML file stored locally, select *Report*, then *CRF Translation Spreadsheet*. On the first page of the wizard, select the input file and press *Next* to continue.

Generate CRF Translation Spreadsheet

Case Report Form (CRF) XML File

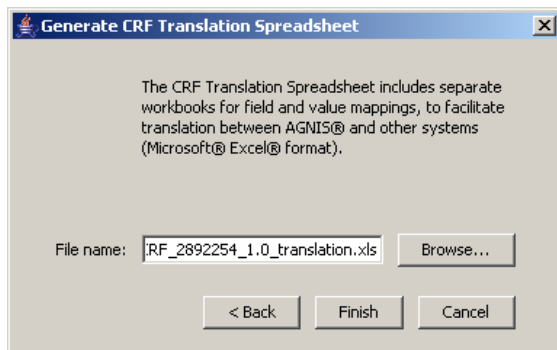
Select a file containing CRF metadata downloaded from the caDSR (cadsrapi40 XML format).

File name: ata\2900_CRF_2892254_1.0.xml Browse...

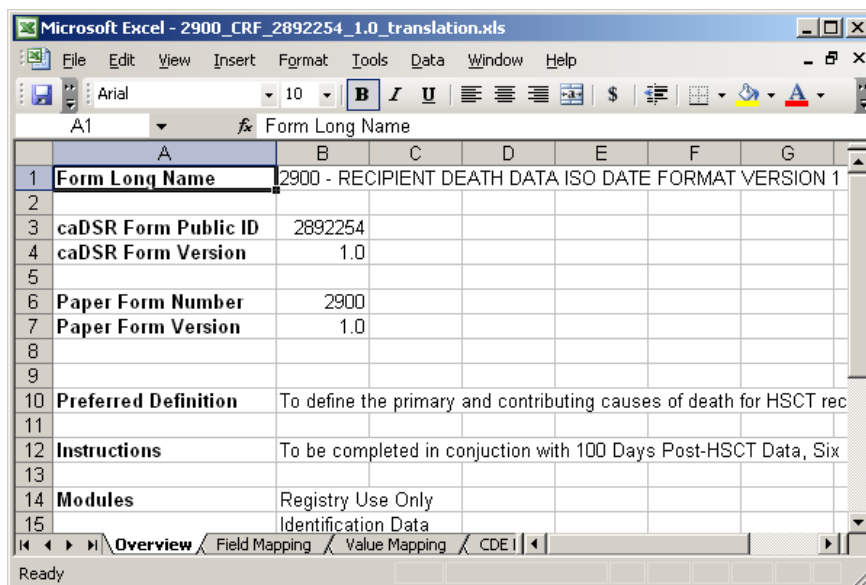
Next > Cancel

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On the second page, select the output file name and press *Finish* to generate the *CRF Translation Spreadsheet*.



The translation spreadsheet uses a multi-worksheet format to highlight different aspects of metadata translation, such as field and value mapping.



3.5 Log File

The metadata tool uses a log file to record information about significant events during program execution. If the program encounters an unexpected error, it may be worthwhile to check the log file for additional details about the error. By default, the file is named `metadatatool.log`, and is located in the `log` subdirectory.

To customize the logging configuration, edit the `log4j.xml` configuration file located in the `resources` subdirectory. This is a Log4j configuration file; refer to the logging.apache.org web site for additional information about Log4j.