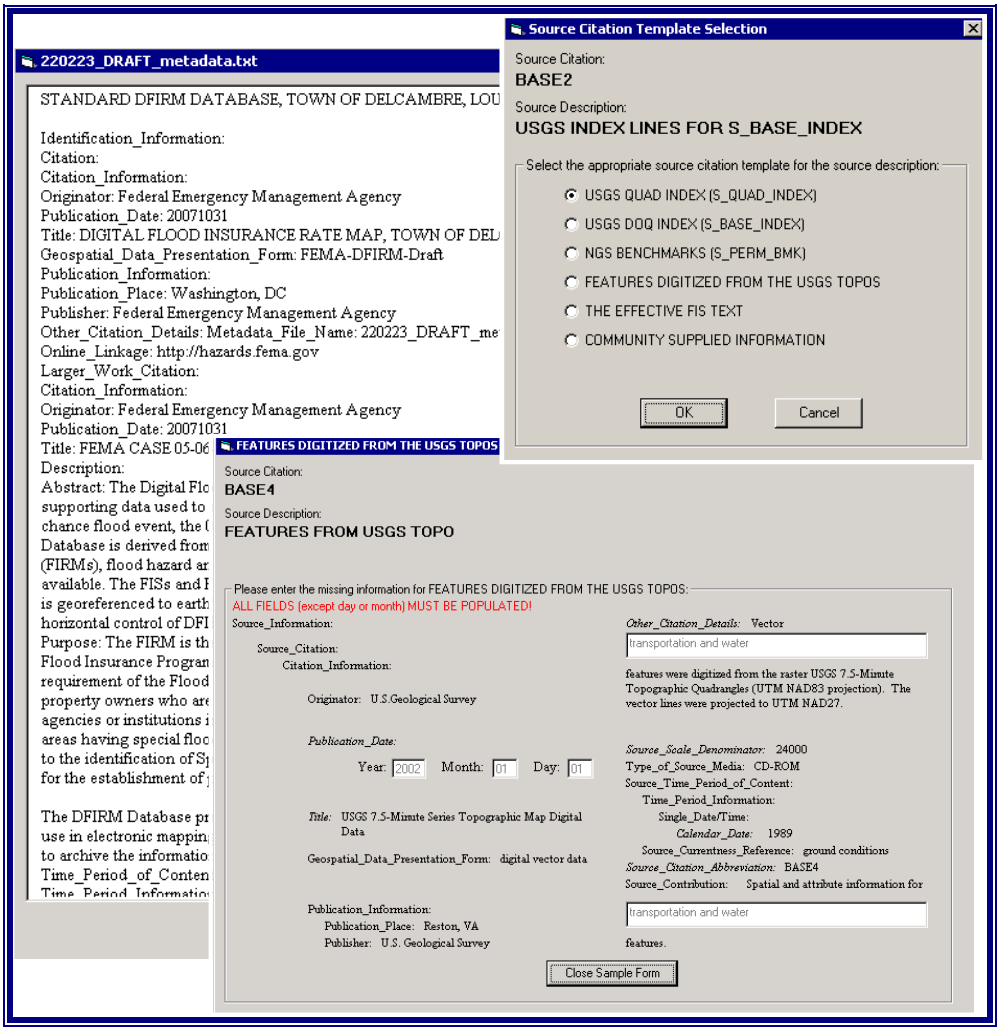
FEMA

DFIRM Metadata Builder User Guide
FEMA DFIRM Production Tools
Version 4.0



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What is the DFIRM Metadata Builder?

DFIRM Metadata Builder is a set of tools which enable you to create metadata text files which adhere to the DFIRM metadata profile, according to the specifications outlined in the *Flood Map Modernization, NFIP Metadata Profile Guidelines, April 6, 2006* document. The metadata file will be developed from your study's spatial and location information, populated data layers and tables, especially the Source Citation (L_Source_Cit) and Study_Info tables, and user-input values. The **DFIRM Metadata Builder** tools will initially guide you through a series of dialogs to assist you in creating a metadata file for the Draft DFIRM database submission to the MIP. You will be able to add new data sources and edit the existing metadata elements, as needed. Additionally, the metadata file can be easily converted to meet the specifications for the Preliminary DFIRM database submission and the Final DFIRM database submission to the MIP.

DFIRM Metadata Builder toolbar

Quick Reference Guide

The following is a quick reference guide to all of the components of **DFIRM Metadata Builder**.

 Build Metadata	Create a metadata file based on the study's data and user-input values.
 View Metadata	View an existing metadata file.
 Add Metadata Source	Populate a new source in the existing metadata file.
 Edit Metadata	Edit the keywords, source information, and/or altitude resolution values in the existing metadata file.
 Convert Metadata	Convert the existing Draft metadata file to a Preliminary metadata file and then to a Final metadata file.

Getting Started

It is important that a few key tasks have been completed prior to creating the metadata file using **DFIRM Metadata Builder** tools. The requirements are as follows:

1. The *Source Citation* (L_Source_Cit) table must be populated, and the values in the *Source Citation* (SOURCE_CIT) field must not have any gaps. In other words, you cannot have STUDY1, STUDY2, and STUDY4. Since STUDY3 is now missing, you will have to edit STUDY4 to be the value STUDY3 to remove the gap in the STUDY citation sequence.

2. The Study_Info table must be populated.

3. ArcMap must have opened without generating any data frame projection errors.

4. All of the data layers and tables appropriate for your study must be populated.

Tool Controls

This section describes the functionality of each of the tools available on the **DFIRM Metadata Builder** toolbar and provides instructions for their use.

Build Metadata

The **Build Metadata** tool enables you to create a metadata file for your Draft DFIRM database submission(s), based on the study's spatial data layers, tables, and user input. The *Source Citation* (L_Source_Cit) table, Study_Info table, and all pertinent data layers must be populated prior to creating the metadata file.

The **Build Metadata** tool follows a distinct process path of creating and interacting with the Draft metadata. When the **Build Metadata** tool is clicked, the first thing that the tool does is discover what Task System ID(s) exist in the \SubmissionUpload\Mapping.Draft_DFIRM_DB folder. If there is only one Task System ID, the tool then checks for a metadata file in the folder. If more than one Task System ID is located in the Mapping.Draft_DFIRM_DB folder, you are prompted to first select one, before continuing the process. If the metadata already exists, you will be asked to overwrite the file; otherwise, if there no metadata file in the folder, you will be creating the Draft submission metadata file.

The following sections identify general metadata element(s) and how the value(s) is defined, based on your data.

Title

The Title of the metadata file is composed of values in the fields *Study Prefix* (STUDY_PRE), *Study Name* (STUDY_NM), *State Name* (STATE_NM), and *Jurisdiction Type* (JURIS_TYP) in the Study_Info table; this should not be confused with the name of the metadata text file. Likewise, the Titles in the Cross-reference section are composed of the values in the fields *Study Prefix* (STUDY_PRE), *Study Name* (STUDY_NM), *State Name* (STATE_NM), and *Jurisdiction Type* (JURIS_TYP) in the Study_Info table.

Publication Date

The Publication Date for the metadata file is dependent upon the submission type. Since the metadata file you are building is for the Draft submission, the value is the date that the metadata file is created. Likewise, the Publication Dates in the Cross-reference section are dependent upon the submission type, and therefore, this value will be the date that the metadata file is created. This Publication Date should not be confused with the Publication Dates for the individual source citations.

Calendar Date

The Calendar Date in the metadata file is dependent upon the submission type. Since the metadata file you are building is for the Draft submission, the value is the date that the metadata file is created. This Calendar Date should not be confused with the Calendar Dates for the individual source citations.

Bounding Coordinates

The Bounding Coordinates in the metadata file are calculated based on the spatial extents of the *Political Area* (S_Pol_Ar) and *FIRM Panel Index* (S_Pan_Index) features in your study.

Note: The Layers data frame must be set to the projection that is in the *Projection Zone* (PROJ_ZONE) field in the Study_Info table, in order to calculate the Bounding Coordinate values. The data frame projection is automatically set based on the *Projection Zone* (PROJ_ZONE) value every time ArcMap opens. However, if you have changed the *Projection Zone* (PROJ_ZONE) value since ArcMap opened, you will have to close and relaunch ArcMap prior to creating the metadata file.

Keywords

Most of the themekeys are standardized to describe the DFIRM data. These themekeys are listed in the ***Keyword Selection*** dialog. You can select additional themekeys related to your study in the ***Keyword Selection*** dialog during the metadata file creation process.

Note: The themekeys can be revised via the Edit Metadata tool after the metadata file has been created.

The placekeys are derived from the DFIRM ID for your study. The headings in all capital letters (e.g., STATE, COMMUNITY) are required as part of the metadata element. These headings facilitate searching for uploaded data on the MIP.

Place:
Place_Keyword_Thesaurus: None
Place_Keyword: REGION 06
Place_Keyword: STATE LA
Place_Keyword: COUNTY Vermilion Parish; Iberia Parish
Place_Keyword: COUNTY-FIPS 22045; 22113
Place_Keyword: COMMUNITY TOWN OF DELCAMBRE
Place_Keyword: FEMA-CID 220223

Example of the placekeys in a sample metadata file for a community-based study.

Place:
Place_Keyword_Thesaurus: None
Place_Keyword: REGION 07
Place_Keyword: STATE NE
Place_Keyword: COUNTY Pawnee County
Place_Keyword: COUNTY-FIPS 31133
Place_Keyword: COMMUNITY PAWNEE COUNTY
Place_Keyword: FEMA-CID 310463

Example of the placekeys in a sample metadata file for a countywide study.

Note: If a study is a multi-county community, all of the associated counties will be listed for the COUNTY placekey and the COUNTY-FIPS placekey.

Source Information

The Source Information section will repeat for each record in the *Source Citation* (L_Source_Cit) table. In other words, if there are three records in the *Source Citation* (L_Source_Cit) table, the entire Source Information section will repeat three consecutive times in the metadata. All of the Source Information sections are populated from the details that you enter into the template dialogs (i.e., USGS DOQ INDEX [S_BASE_ INDEX], FEATURES DIGITIZED FROM THE USGS TOPOS, THE EFFECTIVE FIS TEXT, and COMMUNITY SUPPLIED INFORMATION). The USGS QUAD INDEX (S_QUAD_INDEX) and NGS BENCHMARKS (S_PERM_BMK) templates do not require any additional information from you; these sections will be populated with the default values.

Note: All of the source citation information can be revised via the Edit Metadata tool after the metadata file has been created

Process Date

The Process Date is the value in the EFF_DATE field in the *FIRM Panel Index* (S_Pan_Index) data layer.

Direct Spatial Reference Method

The Direct Spatial Reference Method is based on the value in the *DOQ Based* (DOQ_Based) field in the Study_Info table.

Horizontal Coordinate System

The Horizontal Coordinate System information is derived from the value in the *Projection Zone* (PROJ_ZONE) field in the Study_Info table.

Vertical Coordinate System

The Vertical Coordinate System is defined by the value in the *Vertical Datum* (V_DATUM) field in the Study_Info table.

Altitude Resolution

The Altitude Resolution information is taken from the ***Altitude Resolution*** dialog that you populate during the metadata file creation process.

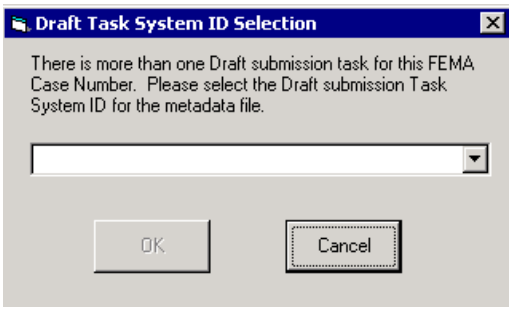
Entity and Attribute Information

The Entity and Attribute Information is based on the data layers populated for your study. Each populated data layer will be included as its own Entity Type section. If you find that a data layer is missing from this section or erroneously included, you will need to verify if that layer is populated appropriately for your study. Additionally, all populated tables, listed in FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners Appendix L: Guidelines and Specifications for Flood Hazard Partners*, will be included in the Entity and Attribute Detail Citation.

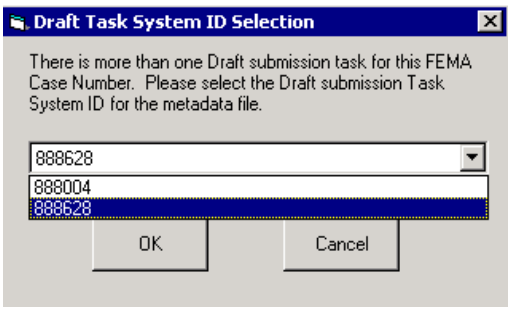
To create the metadata file for the Draft DFIRM Database deliverable submission:

1. Click the **Build Metadata** tool.

2. If there is more than one Task System ID value in the J:\FEMA\<region>\<state>\<county>\<county or community>\<FEMA Case Number>\SubmissionUpload\Mapping.Draft_DFIRM_DB folder, then the ***Draft Task System ID*** dialog opens; otherwise, if only one Task System ID value is found, then the process continues to step 4.



Draft Task System ID dialog.



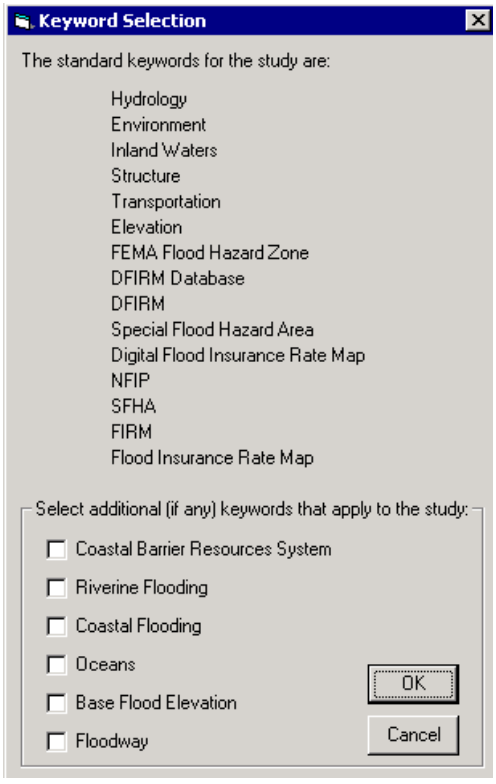
Draft Task System ID values to select in the ***Draft Task System ID*** dialog.

3. Select the Task System ID from the dropdown list that is associated with your task in the MIP workflow and click *OK*.

4. If an existing metadata file already exists, you will be prompted to overwrite the existing file. If you do not choose to overwrite the existing file, the metadata file creation process will be terminated.

Note: Even though you choose to overwrite the existing metadata file, the file will not be replaced until you complete the metadata file creation process. In other words, if you choose to overwrite the file but then you cancel the creation process mid-way through, the previous metadata file will still exist in the appropriate folder. These actions will not have deleted the former metadata file.

5. The ***Keyword Selection*** dialog opens.



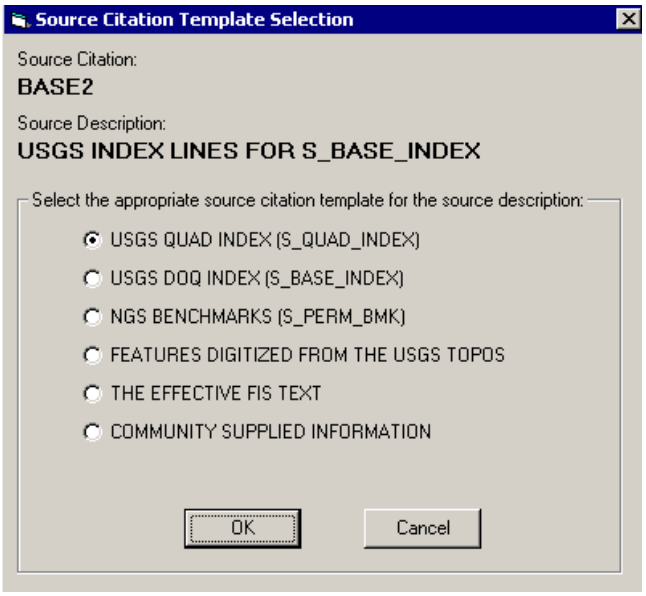
Keyword Selection dialog.

The standard themekeys for a DFIRM metadata file are listed in the top section of the dialog. Themekeys that are specific to certain DFIRM studies, but not all studies, are listed in the lower section of the dialog.

Check off all appropriate themekeys. There is no minimum or maximum of themekeys that can be included in the metadata file. If no additional themekeys are applicable, click *OK* to continue the process.

Note: If the keyword "Coastal Barrier Resources System" is checked off in the Keyword Selection dialog, then the themekeys "Coastal Barrier Resources System" and "CBRS" are added into the metadata file.

6. The ***Source Citation Template Selection*** dialog opens.



Source Citation Template Selection dialog.

The first record in the *Source Citation* (L_Source_Cit) table will be identified in the ***Source Citation Template Selection*** dialog. Both the source citation value (e.g., BASE3) and the source description (e.g., 2003 aerial survey of Franklin County) will be displayed at the top of the dialog. In the lower section of the dialog, the different templates for the citation type are selectable via radio buttons. The templates are different from one another, in that as the template list descends more information is required from you and fewer values are standardized information.

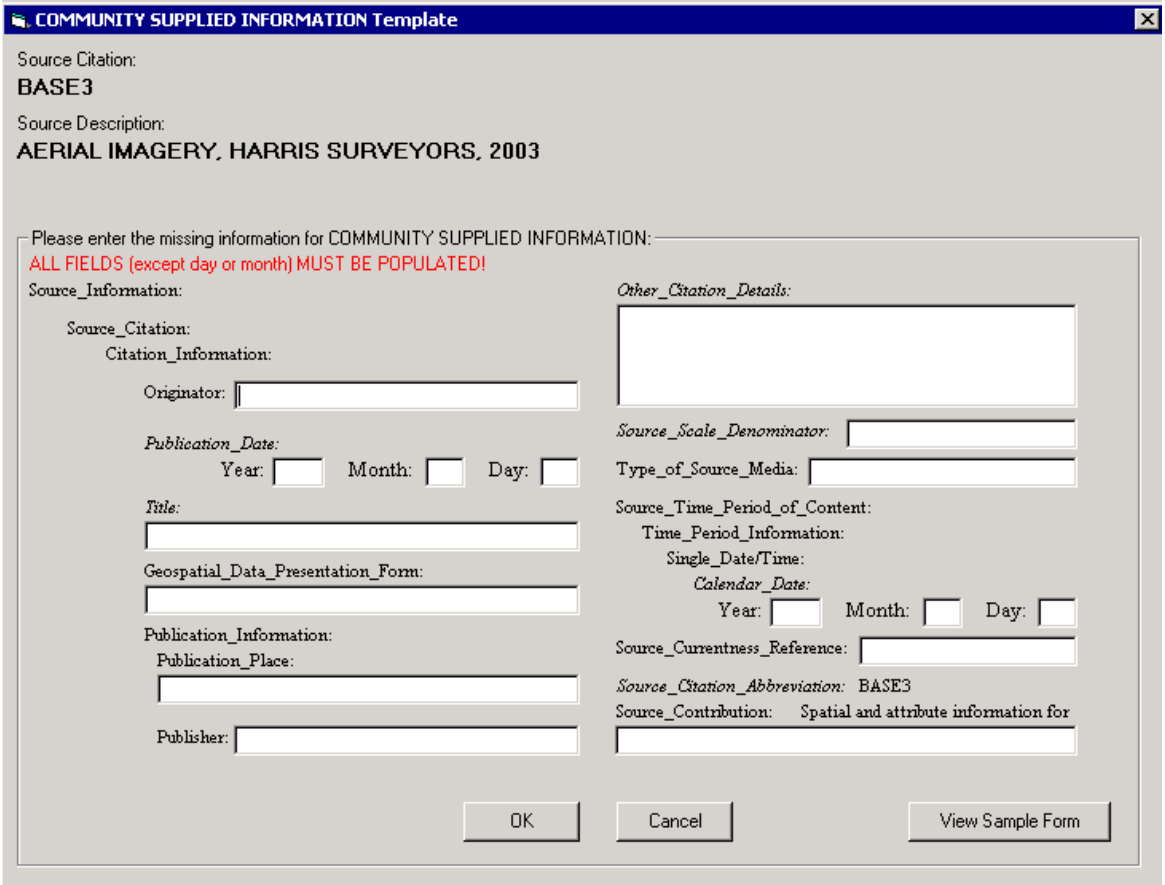
The following chart identifies which metadata elements you must populate in each of the template forms.

	USGS Quad Index (S_Quad_Index)	USGS DOQ Index (S_Base_Index)	NGS Benchmarks (S_Perm_Bmk)	Features Digitized From the USGS Topos	The Effective FIS Text	Community Supplied Information
Originator						●
Publication Date		●		●	●	●
Title						●
Geospatial Data Presentation Form						●
Publication Place						●
Publisher						●
Other Citation Details				●	●	●
Source Scale Denominator						●
Type of Source Media						●
Calendar Date					●	●
Source Currentness Reference						●
Source Contribution				●	●	●

Required information that you must enter for each type of source citation template

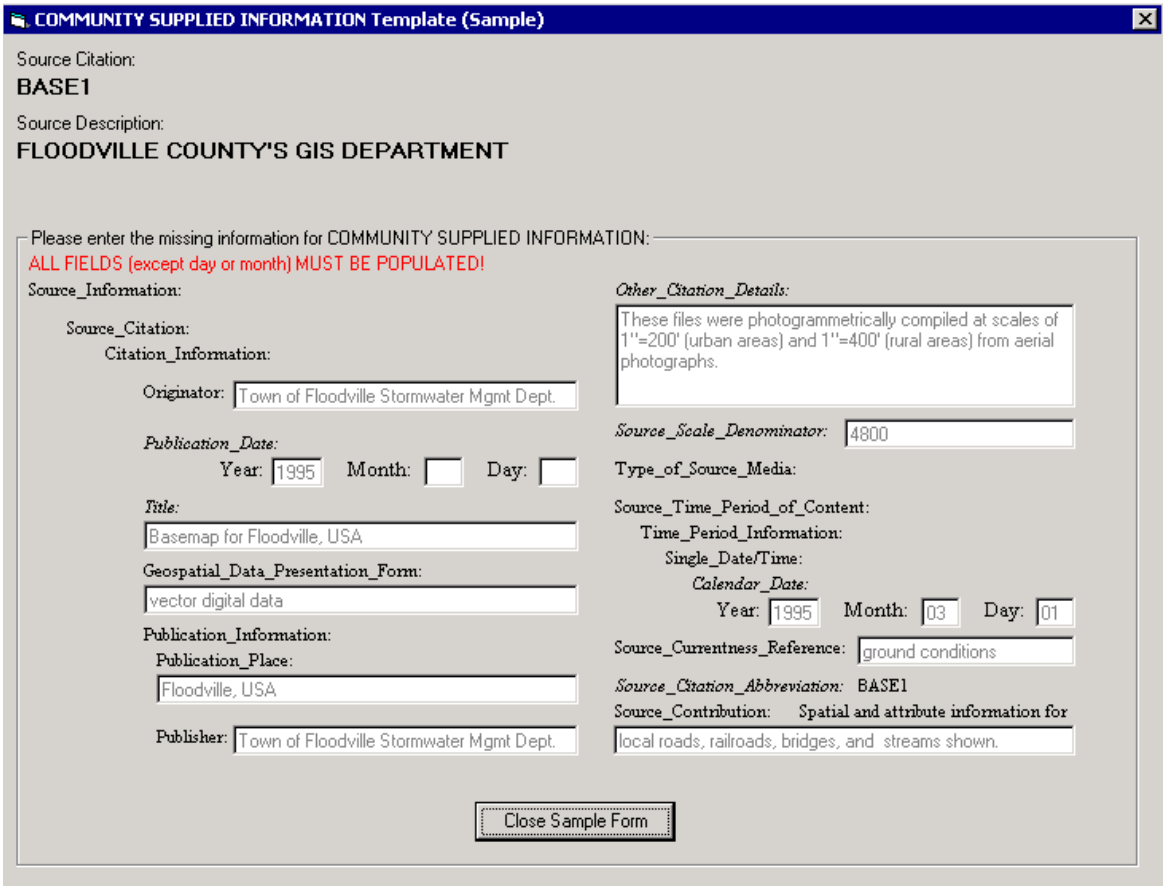
As the chart shows, you are not required to enter any information into the USGS QUAD INDEX (S_QUAD_INDEX) and NGS BENCHMARKS (S_PERM_BMK) templates. When these templates are selected, you will just see the ***Source Citation Template Selection*** dialog cycle to the next source citation. All of the information for these two templates is standardized; therefore, the USGS QUAD INDEX (S_QUAD_INDEX) and NGS BENCHMARKS (S_PERM_BMK) templates each can only be selected once per study. All of other templates can be used for multiple source citations or not used at all.

Note: When the ***Source Citation Template Selection*** dialog opens, the first radio button (USGS QUAD INDEX [S_Quad_Index]) is defaulted to be selected. Often the first record people add to the *Source Citation* (L_Source_Cit) table is "USGS Index lines for S_Quad_Index", so this dialog appears to be recommending the appropriate template. This is not the case, it is just coincidence. Use the chart above to determine which is the most appropriate template for each of your source citations.



Example of one of the source citation templates that you might populate; this example is the ***COMMUNITY SUPPLIED INFORMATION Template*** dialog.

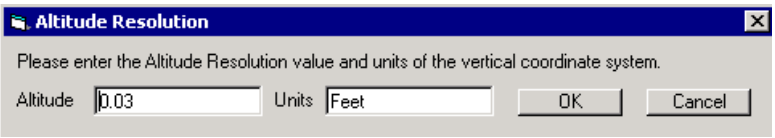
If you are unsure how to populate a particular metadata element, click the *View Sample Form* button in the template dialog. This button will open the template form with sample metadata element values. You can also refer to the *Flood Map Modernization, NFIP Metadata Profile Guidelines, April 6, 2006* document for other examples of metadata element values. Click the *Close Sample Form* button in the sample template form to return to the template dialog.



Example of the sample form for the ***COMMUNITY SUPPLIED INFORMATION Template*** dialog.

7. Cycle through the ***Source Citation Template Selection*** dialog, populating the source citation templates for each record in the *Source Citation* (L_Source_Cit) table.

8. The ***Altitude Resolution*** dialog will open.



Altitude Resolution dialog populated with the default values.

The default value for the altitude resolution is 0.03 feet, which is based on the vertical datums NAVD88 and NGVD29. You can use the default value if you do not have any aerial photos or new topographic maps as part of your study. Otherwise, you will have to consult the associated metadata for the aerial photos or topographic maps to obtain the vertical resolution. This value will be the altitude resolution for your DFIRM metadata file.

9. The metadata creation process will finish. The metadata text file will be named "<DFIRM ID>_DRAFT_metadata.txt " and stored in the J:\FEMA\<Region>\<State>\<County>\<County> or <Community>\<FEMA Case Number>\SubmissionUpload\Mapping.Draft_DFIRM_DB\<Task System ID> folder.

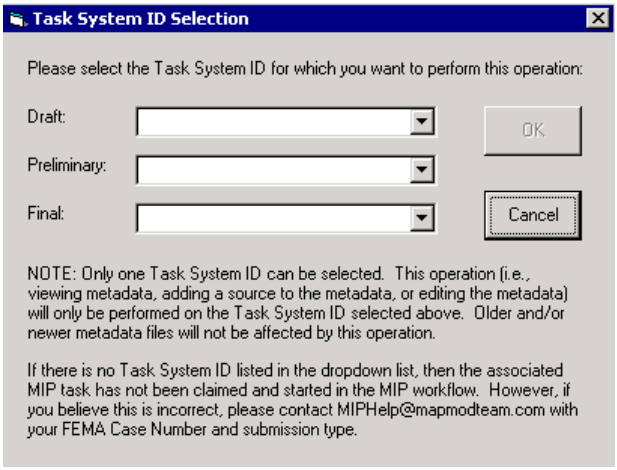
Note: The **DFIRM Metadata Builder** does not create XML files, only TXT files. Use **Metadata Manager (MetaMan)** in the Citrix environment to convert the file format of your metadata files.

View Metadata

The **View Metadata** tool allows you to open an existing metadata file within a separate dialog in ArcMap. You can review the current sources and metadata element values within the metadata file without having to navigate through the MIP directory structure to where the metadata files are stored.

1. Click the **View Metadata** tool.

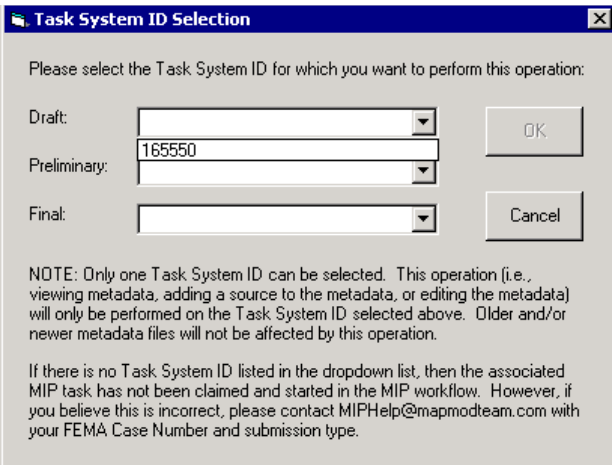
2. The ***Task System ID Selection*** dialog opens.



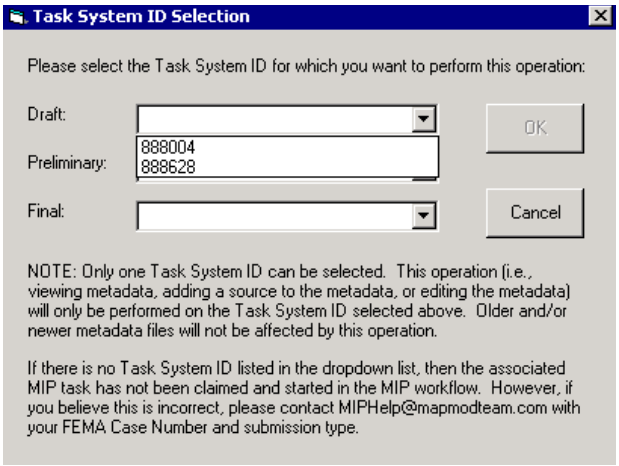
Task System ID Selection dialog.

3. Choose the appropriate Task System ID value from the submission type menu and click *OK*.

Note: The presence of a Task System ID value in a submission type dropdown list does not indicate that a metadata file exists for that Task System ID; rather the values are all of the Task System IDs listed under the associated Mapping.*_DFIRM_DB folders for your study.



Task System ID Selection dialog, where there is only one Task System ID value in the Mapping.Draft_DFIRM_DB folder.



Task System ID Selection dialog, where there is more than one Task System ID value in the Mapping.Draft_DFIRM_DB folder.

4. If the metadata file for the selected Task System ID exists, the file opens in a separate dialog; otherwise, a message box opens informing you that no metadata file exists.

Example of a metadata file opened via the **View Metadata** tool

Note: You will not be able to edit the metadata file within the dialog that the **View Metadata** tool opens. If you need to make any edits to the metadata elements, you will have to use the Edit Metadata tool or recreate the metadata file via the Build Metadata tool.

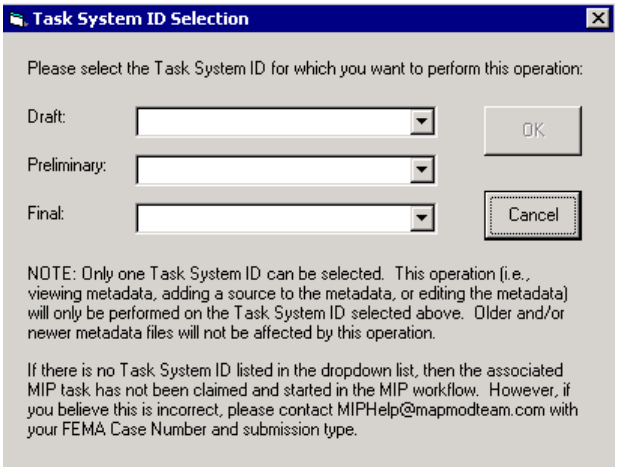
Add Metadata Source

The **Add Metadata Source** tool allows you to add and populate a source citation in the metadata file you select, when the source citation is added to the *Source Citation* (L_Source_Cit) table after the metadata was already created.

Note: The **Add Metadata Source** tool will only add the new source citation to the metadata file you select. The new sources added to the selected metadata file will not be committed to previously created metadata files. In other words, if you add the BASE3 source citation in the Preliminary metadata file, the Draft metadata file will not contain the BASE3 source citation.

1. Click the **Add Metadata Source** tool.

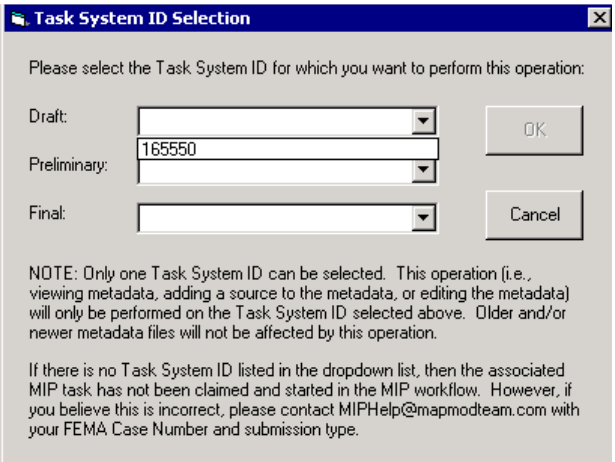
2. The ***Task System ID Selection*** dialog opens.



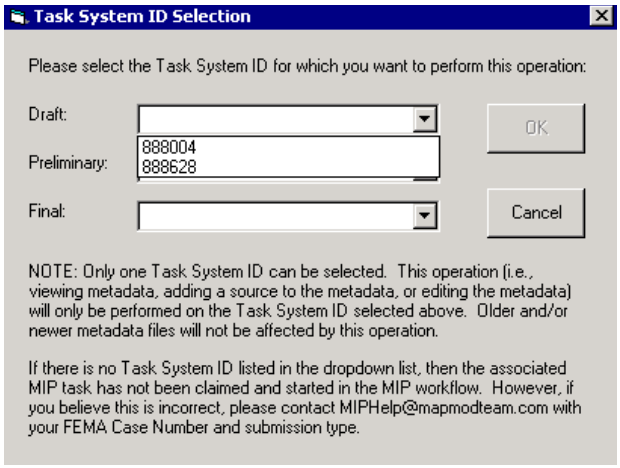
Task System ID Selection dialog.

3. Choose the appropriate Task System ID value from the submission type menu and click *OK*.

Note: The presence of a Task System ID value in a submission type dropdown list does not indicate that a metadata file exists for that Task System ID; rather the values are all of the Task System IDs listed under the associated Mapping.*_DFIRM_DB folders for your study.



Task System ID Selection dialog, where there is only one Task System ID value in the Mapping.Draft_DFIRM_DB folder.



Task System ID Selection dialog, where there is more than one Task System ID value in the Mapping.Draft_DFIRM_DB folder.

4. If the metadata file for the selected Task System ID exists, the sources in that metadata file will be compared to the records in the *Source Citation* (L_Source_Cit) table. If new sources exist, the ***Source Citation Template Selection*** dialog will open.

5. Select the appropriate source template in the ***Source Citation Template Selection*** dialog for the new source and then populate that template's dialog. This is a cyclic process that will occur for every new source discovered in the *Source Citation* (L_Source_Cit) table.

Edit Metadata

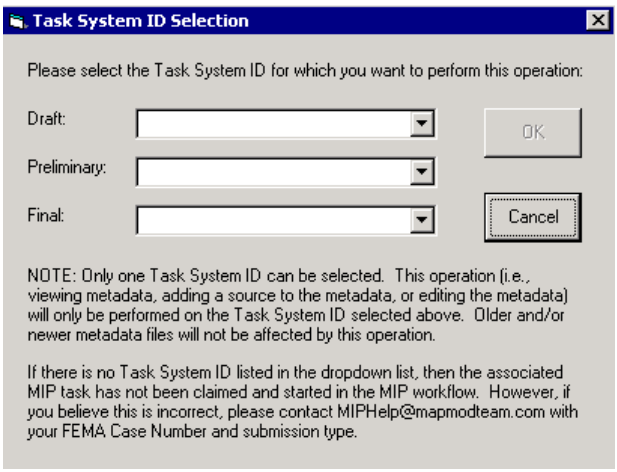
The **Edit Metadata** tool enables you to edit the keywords, source citations, and/or altitude resolution values populated in the metadata file you select. Editing the values within the metadata file is much more efficient than recreating the metadata again because of a misspelled word or an omitted keyword.

Note: The **Edit Metadata** tool will only edit the elements in the metadata file you select. The edits made to the selected metadata file will not be committed to previous metadata files. In other words, if you edit the STUDY1 source citation in the Preliminary metadata file, the Draft metadata file will remain unchanged for the STUDY1 source citation.

Note: If any new sources have been added to the *Source Citation* (L_Source_Cit) table but have not been accounted for in the metadata file, you will have to use the Add Metadata Source tool prior to editing the contents in the metadata file.

1. Click the **Edit Metadata** tool.

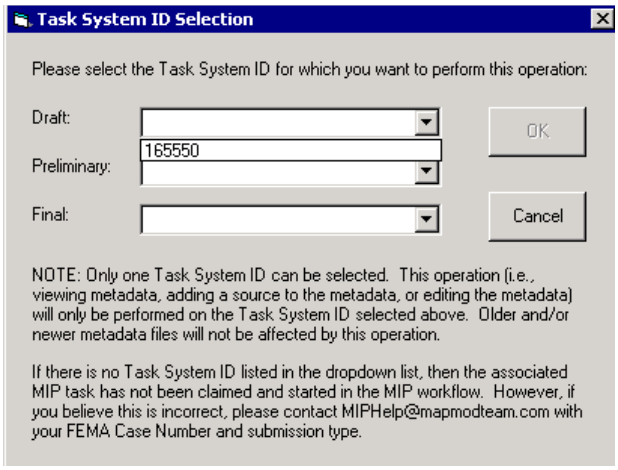
2. The ***Task System ID Selection*** dialog opens.



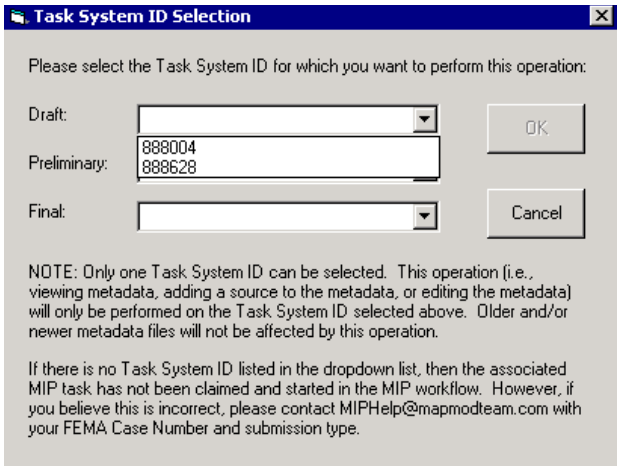
Task System ID Selection dialog.

3. Choose the appropriate Task System ID value from the submission type menu and click *OK*.

Note: The presence of a Task System ID value in a submission type dropdown list does not indicate that a metadata file exists for that Task System ID; rather the values are all of the Task System IDs listed under the associated Mapping.*_DFIRM_DB folders for your study.



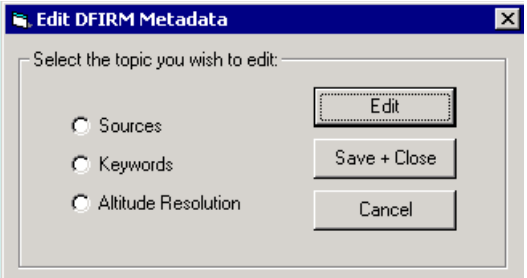
Task System ID Selection dialog, where there is only one Task System ID value in the Mapping.Draft_DFIRM_DB folder.



Task System ID Selection dialog, where there is more than one Task System ID value in the Mapping.Draft_DFIRM_DB folder.

4. If the metadata file for the selected Task System ID exists, the ***Edit DFIRM Metadata*** dialog opens; otherwise, a message box opens informing you that no metadata file exists.

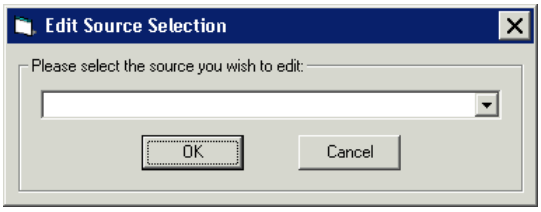
5. Within the ***Edit DFIRM Metadata*** dialog the radio buttons *Sources*, *Keywords*, and *Altitude Resolution* indicate the metadata element(s) that you want to edit. When you have selected the applicable radio button, click the *Edit* button to open the associated dialog.



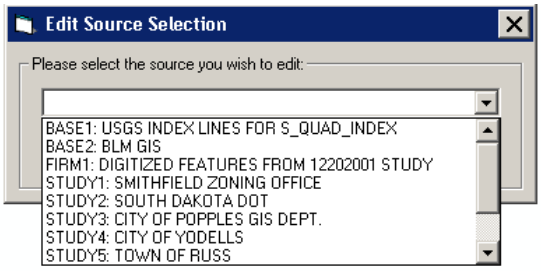
Example of the ***Edit DFIRM Metadata*** dialog

Sources

The *Sources* radio button accesses the ***Edit Source Selection*** dialog. The dropdown menu in this dialog contains all sources in the *Source Citation* (L_Source_Cit) table. The sources are identified by both the source citation (e.g., STUDY2) and source description value (e.g., City of Red Ridge GIS Survey). Select a source and click *OK*.



Edit Source Selection dialog when it is first opened; the dropdown list does not default to a preset value.

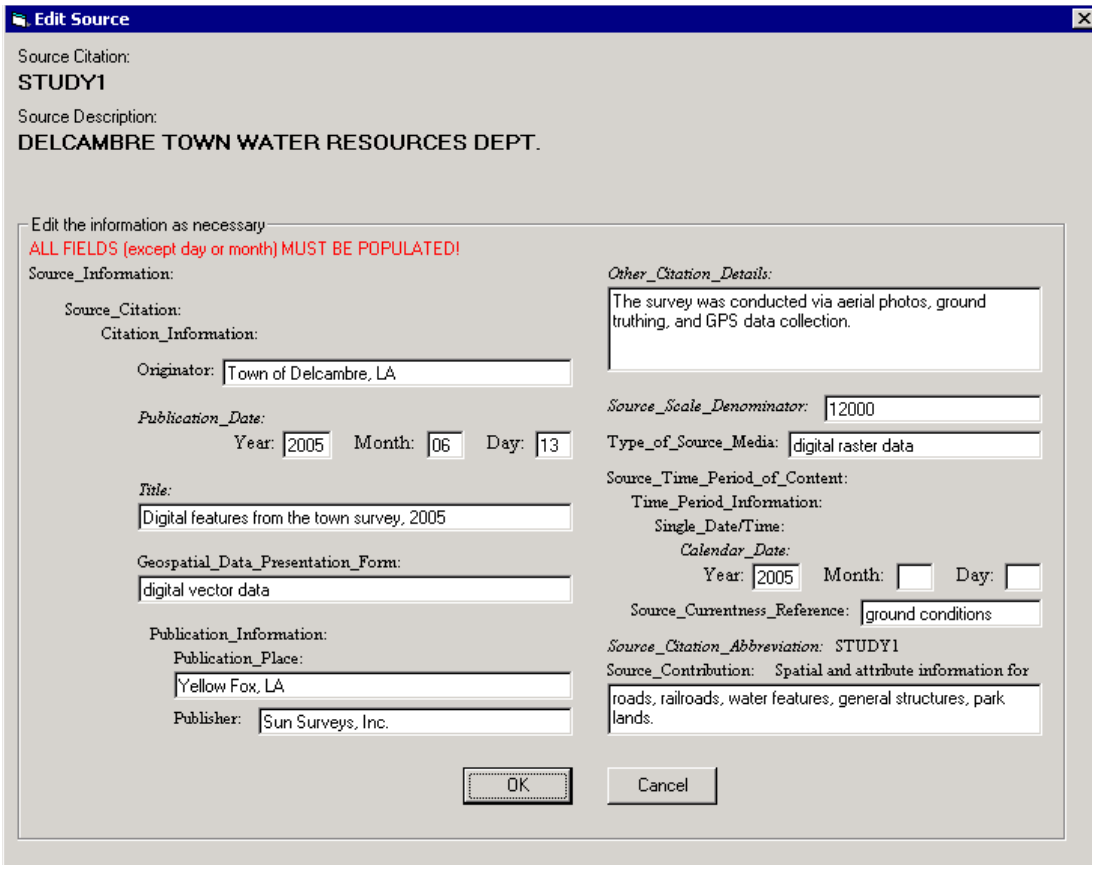


Example of the source citations in the dropdown list in the ***Edit Source Selection*** dialog.

When a source citation is selected, the ***Edit Source*** dialog opens and is populated with the specific values currently in the metadata file for that source.

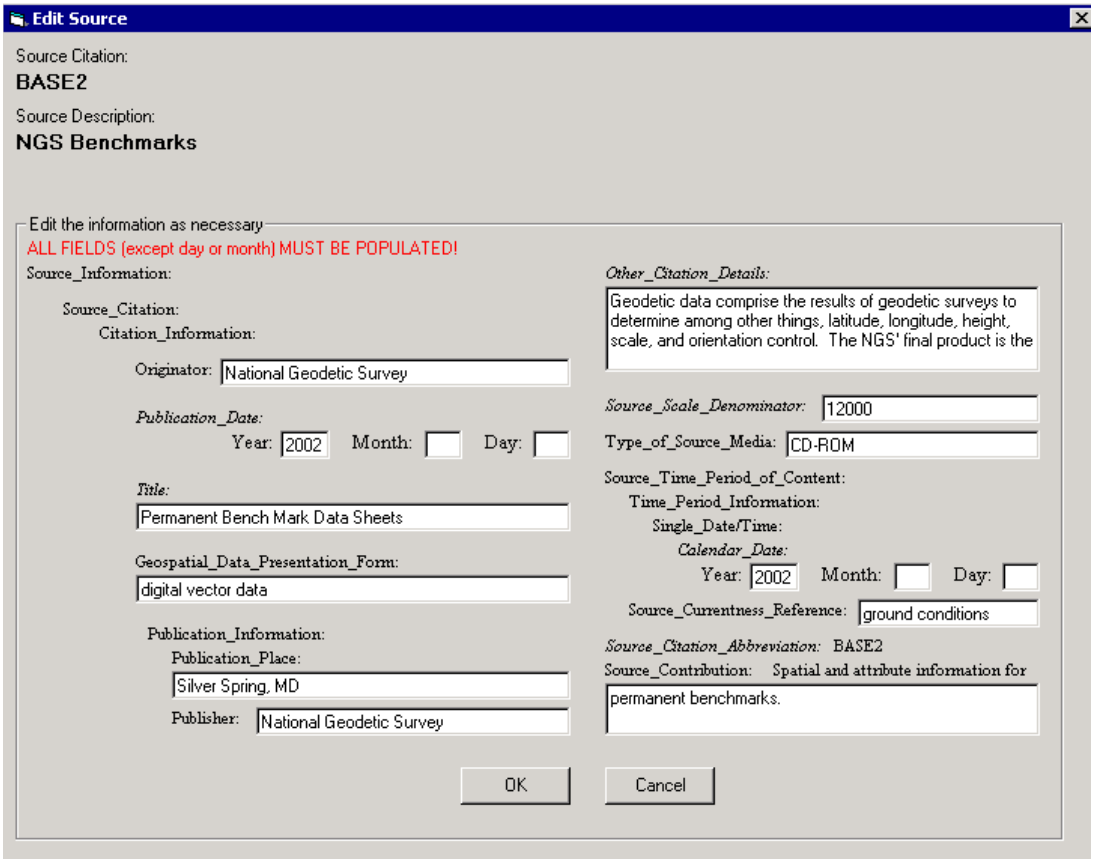
Excerpt from the most recent metadata file of the source citation metadata elements

Source_Information:
Source_Citation:
Citation_Information:
Originator: Town of Delcambre, LA
Publication_Date: 20050613
Title: Digital features from the town survey, 2005
Geospatial_Data_Presentation_Form: digital vector data
Publication_Information:
Publication_Place: Yellow Fox, LA
Publisher: Sun Surveys, Inc.
Other_Citation_Details: The survey was conducted via aerial photos, ground truthing, and GPS data collection.
Source_Scale_Denominator: 12000
Type_of_Source_Media: digital raster data
Source_Time_Period_of_Content:
Time_Period_Information:
Single_Date/Time:
Calendar_Date: 2005
Source_Currentness_Reference: ground conditions
Source_Citation_Abbreviation: STUDY1
Source_Contribution: Spatial and attribute information for roads, railroads, water features, general structures, park lands.



Example of the ***Edit Source*** dialog, populated with the values in the most recent metadata file

All possible fields for a cited source are now editable, even if the field value was standard when the source information was initially populated. In other words, if you originally choose the USGS QUAD INDEX (S_QUAD_INDEX) template for a source, the citation was populated with specific information based on that template, but you were not prompted to define any field values. Now if you select that same source citation in the ***Edit Source Selection*** dialog, you will be able to edit all of the preset fields in the ***Edit Source*** dialog.



Example of the ***Edit Source*** dialog, populated with the values from the NGS Benchmarks (S_PERM_BMK) template

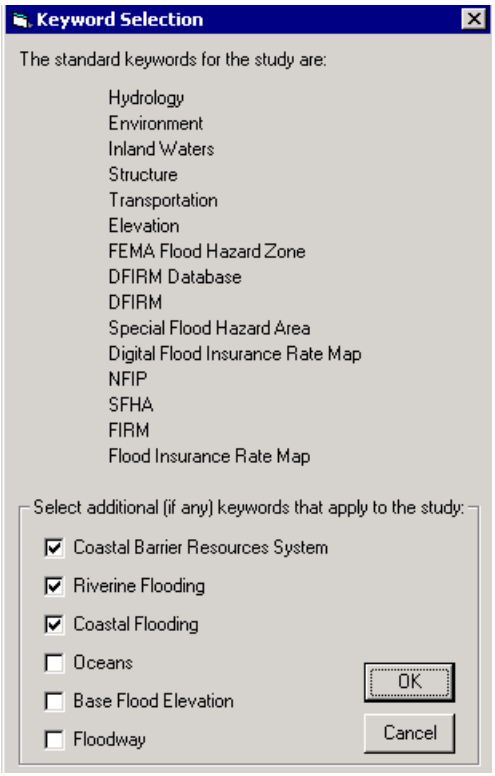
Note: If you need to remove a source from the metadata file, remove it from the *Source Citation* (L_Source_Cit) table first and then you can either run the Build Metadata tool to recreate the metadata file or access the most recent metadata file in the directory structure and delete the entire source information section using a text editor, not the **DFIRM Metadata Builder**. Be very careful if you choose to delete the source information from the metadata file, so that you do not delete too many elements or too few elements; doing so would cause you to fail the **MetaMan** validation. Refer to the *Flood Map Modernization, NFIP Metadata Profile Guidelines, April 6, 2006* document for guidance as to which metadata elements comprise the complete portion of source information.

Keywords

The *Keywords* radio button opens the ***Keyword Selection*** dialog. All of the keywords that you previously included in your metadata file are checked off in the dialog. You can add more keywords by checking off additional words, or you can remove existing keywords from your metadata file by unchecking previously checked words.

```
Theme:
Theme_Keyword_Thesaurus: FEMA NFIP Topic Category
Theme_Keyword: FEMA Flood Hazard Zone
Theme_Keyword: DFIRM Database
Theme_Keyword: DFIRM
Theme_Keyword: Special Flood Hazard Area
Theme_Keyword: Digital Flood Insurance Rate Map
Theme_Keyword: CBRS
Theme_Keyword: Coastal Barrier Resources System
Theme_Keyword: Riverine Flooding
Theme_Keyword: Coastal Flooding
Theme_Keyword: NFIP
```

Excerpt from the most recent metadata file of some of the themekey metadata elements



Example of the ***Keyword Selection*** dialog, populated with the values in the most recent metadata file

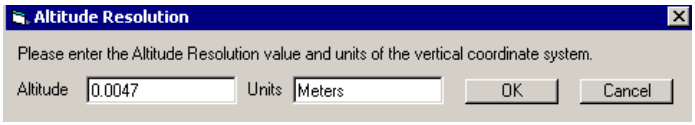
Note: The editable keywords are the themekeys (e.g., NFIP, Elevation) within the metadata file. The placekeys (e.g., COUNTY Lewis County, REGION 04) are populated based on the DFIRM ID for your study. Therefore, the placekeys are not editable. If the placekeys for your study are incorrect, please contact MIPHelp@mapmodteam.com with your JTX Job ID, FEMA Case Number, and DFIRM ID and identify the erroneous placekey and what the expected value should be.

Altitude Resolution

The *Altitude Resolution* button opens the ***Altitude Resolution*** dialog. The dialog is populated with the current values in the metadata file for altitude and altitude units.

```
Altitude_System_Definition:
Altitude_Datum_Name: North American Vertical Datum of 1988
Altitude_Resolution: 0.0047
Altitude_Distance_Units: Meters
```

Excerpt from the most recent metadata file of the altitude resolution and units metadata elements



Example of the ***Altitude Resolution*** dialog, populated with the values in the most recent metadata file

Once you have made all of your edits, click the *Save + Close* button to commit the changes to the most recent metadata file and close the ***Edit DFIRM Metadata*** dialog. At any time if you want to terminate the entire editing process, click the *Cancel* button in the ***Edit DFIRM Metadata*** dialog.

Note: The changes to the metadata file will not be saved until you click the *Save + Close* button. For instance, you edit a source in the metadata file and then edit the keywords. You decide you want to discard the changes you made to the keywords, so you click the *Cancel* button. However, you have now lost the changes to the source and the keywords, because the source changes are not automatically saved once you edit a different metadata element in the ***Edit DFIRM Metadata*** dialog. If you want to compartmentalize your changes, you should click the *Save + Close* button between each change and then click the **Edit Metadata** tool again to reopen the ***Edit DFIRM Metadata*** dialog.

Convert Metadata

The **Convert Metadata** tool enables you to easily and quickly convert your existing Draft metadata file to meet the specifications for the Preliminary metadata, and then in turn, meet the specifications for the Final metadata file.

Note: Converting the current metadata file does not replace the existing file. The metadata file for each submission type is stored in a different folder. Therefore, converting the metadata file will not overwrite any existing metadata file. If a metadata file already exists for the Final submission, the conversion process will first prompt you to overwrite the existing Final metadata file.

There are specific metadata elements that need to be modified when the Draft metadata file is converted to the Preliminary metadata file, and likewise, when the Preliminary metadata file is converted to the Final metadata file. Using the **Convert Metadata** tool takes the source metadata file, creates a copy, and alters these key dynamic elements automatically, based on the target submission type. Additionally, the metadata file is renamed to reflect the submission type, and the new metadata file is saved to the proper location in the MIP directory structure. There is no user interaction needed for the conversion process.

Note: If elements within the metadata file need to drastically change and you cannot edit them via the Edit Metadata tool (e.g., you added/removed data which causes the bounding coordinate to be incorrect, you changed the projection for the study, or you removed sources), you need to first recreate your metadata file via the Build Metadata tool before you use the **Convert Metadata** tool. Converting the metadata file will not recalculate those elements.

The following sections identify the few general metadata element(s) that are related to your data and how the value(s) is defined. If a metadata element is listed in the Build Metadata subsections but is not listed below, then that element does not change in the metadata file based on the submission type (e.g., Title, Entity and Attribute Information).

Publication Date

The Publication Date for the metadata file is dependent upon the submission type. If the submission type is Preliminary, then the value is the date that the metadata file is created. Whereas, if the submission type is Final, then the Publication Date is the value in the EFF_DATE field in the *FIRM Panel Index* (S_Pan_Index) data layer. Likewise, the Publication Dates in the Cross-reference section are dependent upon the submission type. If the submission type is Preliminary, then the value is the date that the metadata file is created. Whereas, if the submission type is Final, then the Publication Date is the value in the EFF_DATE field in the *FIRM Panel Index* (S_Pan_Index)

data layer. This Publication Date should not be confused with the Publication Dates for the individual source citations.

Calendar Date

The Calendar Date in the metadata file is dependent upon the submission type. If the submission type is Preliminary, then the value is the date that the metadata file is created. Whereas, if the submission type is Final, then the Calendar Date is the value in the EFF_DATE field in the *FIRM Panel Index* (S_Pan_Index) data layer. This Calendar Date should not be confused with the Calendar Dates for the individual source citations.

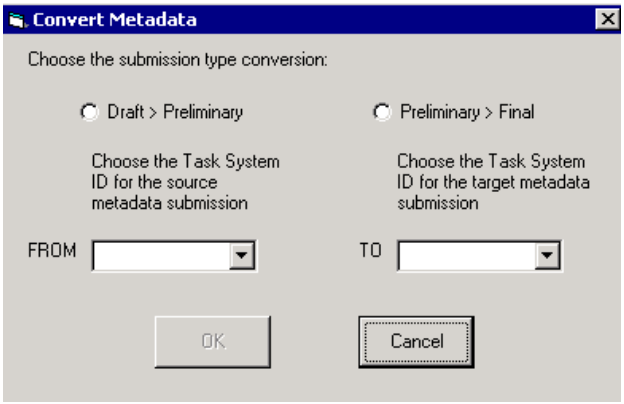
The File Name and Folder Path are based on the submission type, and they need to be changed accordingly; otherwise, the MIP workflow will not recognize nor find the metadata file for the particular DFIRM Database deliverable submission. The **Convert Metadata** tool will take care of these changes for you.

Submission Type	File Name
Preliminary	<DFIRM ID>_PRELIM_metadata.txt
Final	<DFIRM ID>_<effective date in yyyymmdd>_metadata.txt

Submission Type	Submission Folder Path
Preliminary	J:\FEMA\<Region>\<State>\<County>\<County> or <Community>\<FEMA Case Number>\SubmissionUpload\Mapping.Preliminary_DFIRM_DB\<Task System ID>
Final	J:\FEMA\<Region>\<State>\<County>\<County> or <Community>\<FEMA Case Number>\SubmissionUpload\Mapping.Final_DFIRM_DB\<Task System ID>

Note: If any new sources have been added to the Source Citation (L_Source_Cit) table but have not been accounted for in the metadata file, you will have to use the Add Metadata Source tool prior to converting the metadata file.

1. Click the **Convert Metadata** tool.
2. The ***Convert Metadata*** dialog opens.



Convert Metadata dialog.

3. Choose the radio button that describes the appropriate conversion process.

Draft > Preliminary indicates that the source metadata file is in the Draft submission format, and you wish to convert the metadata file to the Preliminary submission format. Likewise, *Preliminary > Final* indicates that the source metadata file is in the Preliminary submission format, and you wish to convert the metadata file to the Final submission format.

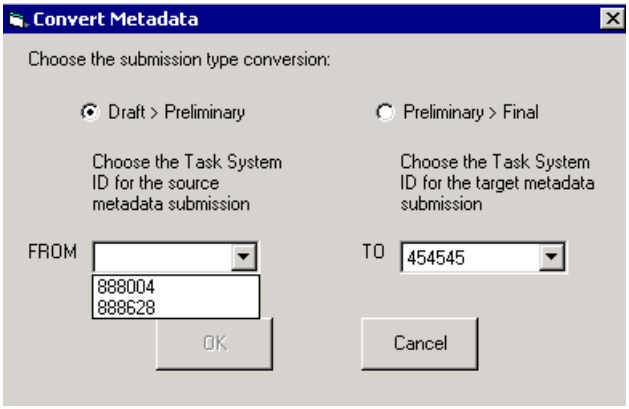
4. Select the Task System ID for the source metadata file.

If *Draft > Preliminary* is selected, the source Task System ID(s) will be taken from the Mapping.Draft_DFIRM_DB folder. Whereas, if *Preliminary > Final* is selected, the source Task System ID(s) will be taken from the Mapping.Preliminary_DFIRM_DB folder.

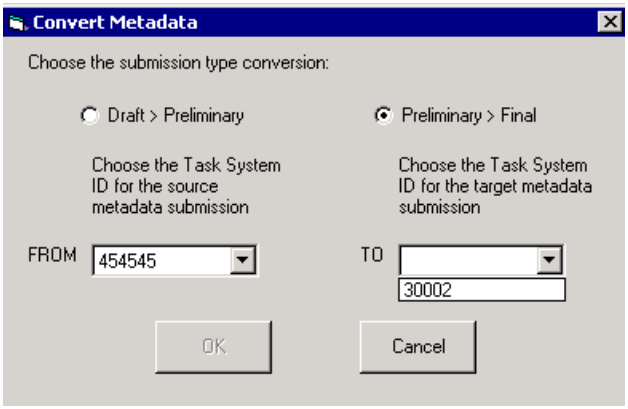
5. Select the Task System ID for the target metadata file.

If *Draft > Preliminary* is selected, the target Task System ID(s) are taken from the Mapping.Preliminary_DFIRM_DB folder. Whereas, if *Preliminary > Final* is selected, the target Task System ID(s) will be taken from the Mapping.Final_DFIRM_DB folder.

Note: The presence of a Task System ID value in the source metadata submission dropdown list does not indicate that a metadata file exists for that Task System ID. Conversely, the presence of a Task System ID in the target metadata submission dropdown list does not indicate that there is not already a metadata file for the Task System ID. The values in both the source and target dropdown lists are all of the Task System IDs listed under the associated Mapping.*_DFIRM_DB folders for your study.



Convert Metadata dialog, where the Draft metadata is to be converted to the Preliminary metadata file. In this instance, there is more than one Task System ID in the Mapping.Draft_DFIRM_DB folder.

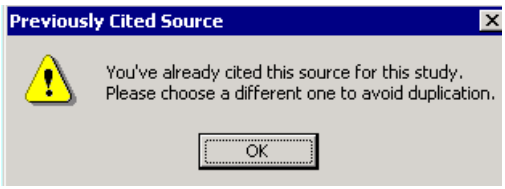


Convert Metadata dialog, where the Preliminary metadata is to be converted to the Final metadata file. In this instance, there is only one Task System ID in the Mapping.Final_DFIRM_DB folder.

6. Click *OK* to start the automated conversion process.

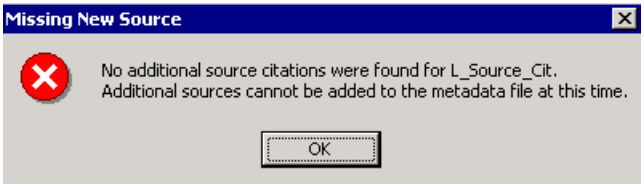
Troubleshooting

Problem: This error message is generated when I try to select either the USGS QUAD INDEX (S_QUAD_INDEX) template or the NGS BENCHMARKS (S_PERM_BMK) template twice in the ***Source Citation Template Selection*** dialog.



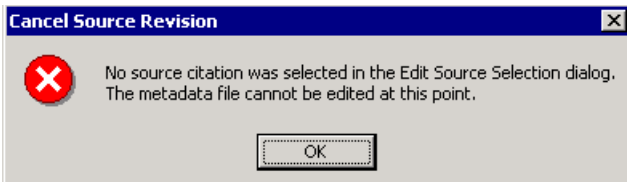
Solution: Neither the USGS QUAD INDEX (S_QUAD_INDEX) template nor the NGS BENCHMARKS (S_PERM_BMK) template requires any user-input for the source citation in the metadata file. All of the source information is standardized in both of these templates. Therefore, each of these templates should only be used once per metadata file.

Problem: When I click the Add Metadata Source tool, choose a Task System ID, and click *OK*, this error message is generated.



Solution: You need to add a new record to *Source Citation* (L_Source_Cit) table first, before you can add the source citation to the selected metadata file. Use the **Add New Row** tool on the **DFIRM GeoPop Pro** toolbar to add a new record to the *Source Citation* (L_Source_Cit) table. Once the new source citation(s) has been added to the table, you can use the **Add Metadata Source** tool.

Problem: When I click *OK* in the ***Edit Source Selection*** dialog, this error message is generated.



Solution: When the ***Edit Source Selection*** dialog opens, the dropdown menu is initially blank. If you click *OK* before you select a source, the entire editing process will be cancelled since no source was selected. You will need to click the Edit Metadata tool again, in order to restart the editing process.