DFIRM Work Map Pro
User Guide
FEMA DFIRM Production Tools
Version 4.0

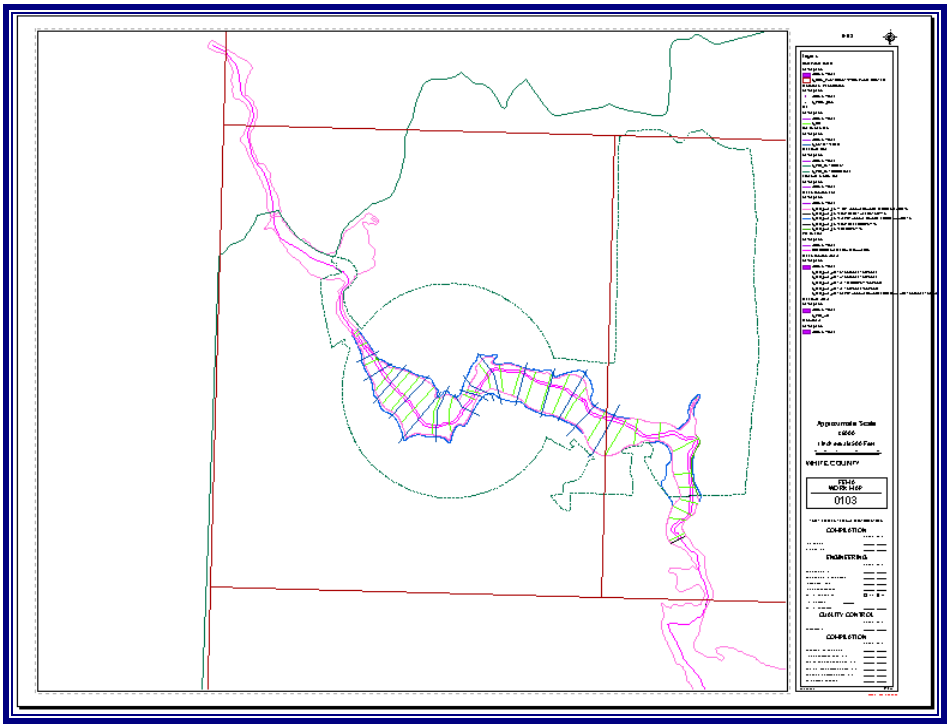


Table of Contents:

What is DFIRM Work Map Pro?

DFIRM Work Map Pro automates the creation of work maps within ArcMap. Work maps are an important part of the DFIRM creation process as it provides the first opportunity for an engineering-based Quality Control (QC) review. The **DFIRM Work Map Pro** toolbar contains one tool, the ***Generate Work Map*** tool. The ***Generate Work Map*** tool prompts the ***Generate Work Map*** dialog. Through the user-friendly interface, you have the ability to customize a portion of the legend and to dictate the layer which serves as the basis of the work map panel extents. Additionally, you may opt to preview a single work map or batch the creation of multiple work map images.

Quick Reference Guide

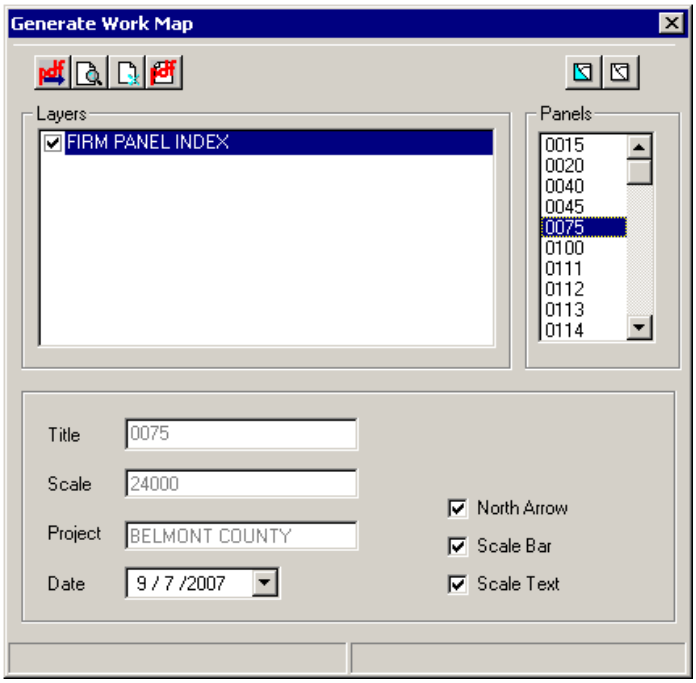
The DFIRM Work Map Pro toolbar contains a single tool, ***Generate Work Map***.

The following is a quick reference guide to all the tools available via ***Generate Work Map***.

Generate Work Map tools

Layers window: Lists the available panel extent layers and currently selected layer

Lists currently selected panel information, including title, scale, project, and current date



Panels window: Lists panels available for currently selected layer

Optional elements to be added to the layout including north arrow, scale bar, and scale text

Export to PDF — Creates a work map layout and a PDF image file of the layout

Preview Work Map — Creates a work map layout for the selected panel

	**Remove Graphics**	Removes all graphics and legend-related data frames from the layout
	**Export Previewed Work Map**	Creates a PDF image file for the current work map layout
	**Select All Printed Panels**	Selects all panels that are defined as printed panels
	**Clear Selected Panels**	Clears the panel list of selected panels

Getting Started

It is important that a few key tasks have been completed prior to creating work maps using **DFIRM Work Map Pro**. The requirements are as follows:

1. The Layers data frame must exist in the active ArcMap session.

2. The Study_Info table must be populated.

3. Panel extents will be used as the basis of the work map. Either the *FIRM Panel Index* (S_FIRM_Pan) layer must be populated and loaded into the Table of Contents, or a polygon reference layer with the appropriate attribute fields must be loaded into the Table of Contents. Features may be created via the Panel Index Generator tool on the **DFIRM GeoPop Pro** toolbar.

4. In the layer that will serve as the basis of the work map, the attribute fields *PANEL NUMBER* (PANEL), *PANEL TYPE* (PAN_TYP), *SCALE*, and *DFIRM_ID* must exist and be populated.

Creating Work Maps

This section describes how to create a work map using **DFIRM Work Map Pro**.

1. Symbolize the features by clicking the ***Render Using VVT Symbology*** tool on the **PLTS Symbology and QC** toolbar and selecting the "WORKMAP" style option.

Note: If you wish to label the features, right-click on the feature class in the Table of Contents and select **Properties**. Once the ***Layer Properties*** dialog appears, click on the *Label* tab and set the appropriate label expression.

2. Click the ***Generate Work Map***  tool on the **DFIRM Work Map Pro** toolbar.

3. Within the ***Generate Work Map*** dialog, select the layer from the *Layers* list that contains the panel information that will be the basis for your work map. The tool will list all of the panels in the selected layer.

Note: If the tool is not able to locate *PANEL NUMBER* (PANEL) field values, you will receive an error, and the *Panels* list will be empty.

4. Select the panel(s) from the *Panels* list for which you would like to create a work map(s).

You can also use the ***Select All Printed Panels*** tool to automatically select all of the panels that are printed.

The Title and Scale information in the ***Generate Work Map*** dialog dynamically updates based on the selected panel. If more than one panel is selected, the information for the first selected panel will be displayed. This information is being read from the attribute fields of the selected layer and may not be manually altered in the dialog. If you batch the creation of the work maps, the tool will dynamically apply the appropriate Title and Scale information to each work map.

5. If desired, update the Date information. The Date value represents the date that the work map was created; this is not intended to be the preliminary or effective date. The Date value automatically defaults to today's date. If you batch the creation of the work maps, the same Date value will be applied to all of the created work maps.

6. If desired, determine which legend elements will appear on the work map by checking/unchecking the options. The options include the North Arrow, the Scale Bar, and the Scale Text. When checked, the option will appear on the layout. If you batch the creation of the work maps, the checked options will be applied to all of the created work maps.

7. Use the ***Preview Work Map*** tool to generate the work map layout.

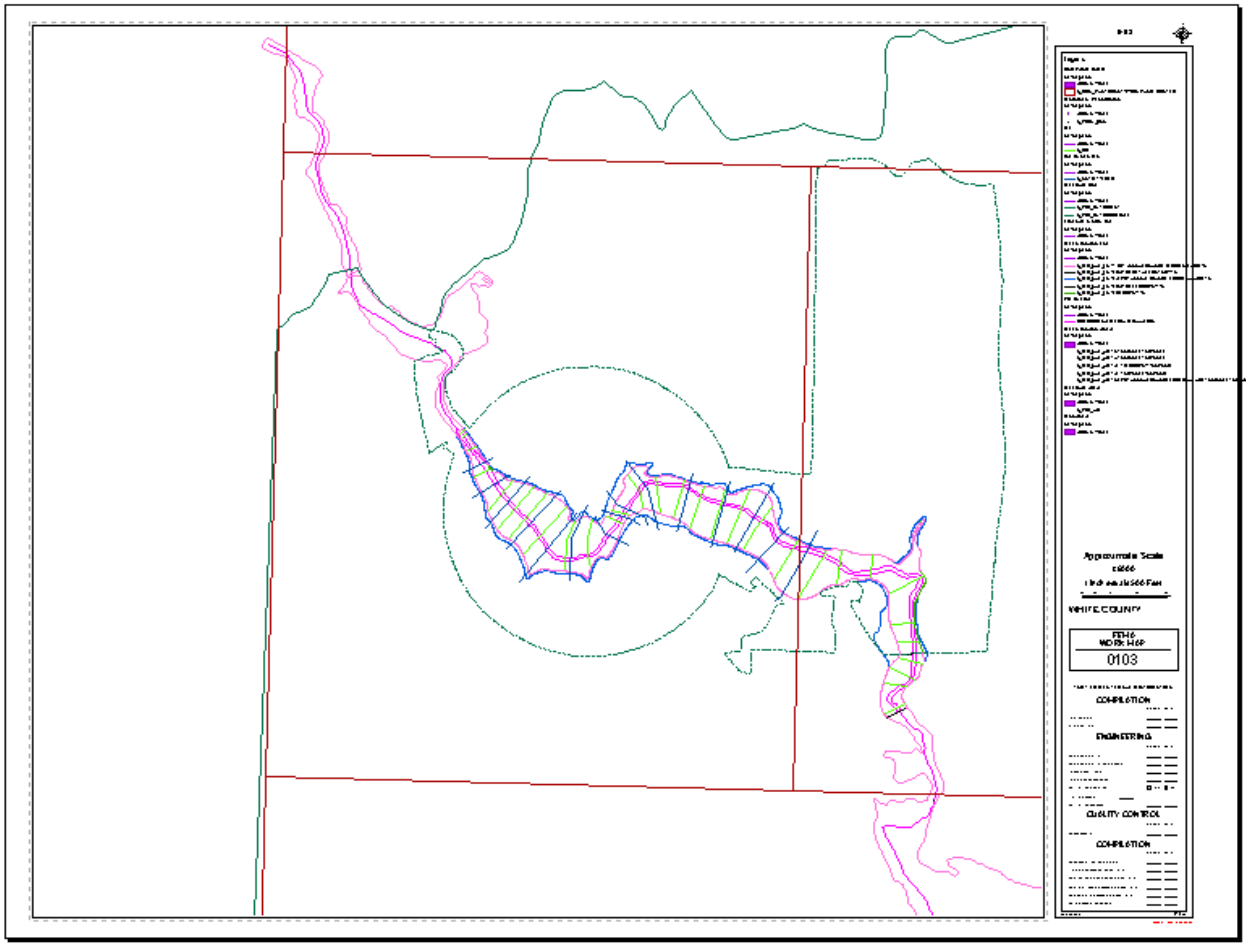
8. Use the ***Export Previewed Work Map*** tool to create a PDF image file for the current work map layout.

OR

7. Use the ***Export to PDF*** tool to batch the creation of the work map layouts and PDF image files of the layout.

Note: The image properties have been set to create a PDF file in landscape format, 44 inches by 34 inches (ANSI E). The PDF file can be downloaded for local review and plotting.

The ***Preview Work Map***, ***Export Previewed Work Map***, and ***Export to PDF*** output should look similar to the following:



Using a Reference Layer as the Panel Basis

Work maps may be used to compare the current data to the past effective data. To do so successfully, the scale of the two products must be the same. Since not all past effective studies follow the newer trend of adhering to the 24,000-, 12,000-, or 6,000-scale panel extents, the ***Generate Work Map*** tool allows you to use a reference layer to represent the panel extents of the to-be-created work maps.

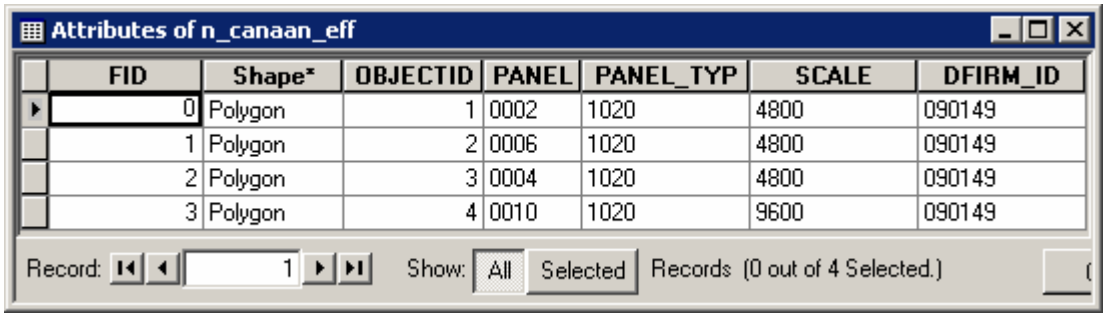
To do this, users will have to add the shapefile, coverage, or personal geodatabase feature class containing the previous effective layout panel polygons to the active ArcMap session via the ***DFIRM Reference Data Loader*** tool on the **DFIRM Layer Loader** toolbar. The reference layer must contain polygon features. Additionally, in order for the tools to function correctly, the reference layer must contain the required attribute fields. These attribute fields are as follows:

- DFIRM_ID
  - Text field type
  - Stores the DFIRM_ID of the active study.
- PANEL
  - Text field type
  - Stores the 4-digit panel number (e.g., 0025)

- PANEL_TYP
  - Text field type
  - Stores the D_Panel_Typ domain code identified in FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners, Appendix L: Guidance for Preparing Draft Digital Data and DFIRM Database*.
  - Most commonly used domain codes are as follows:

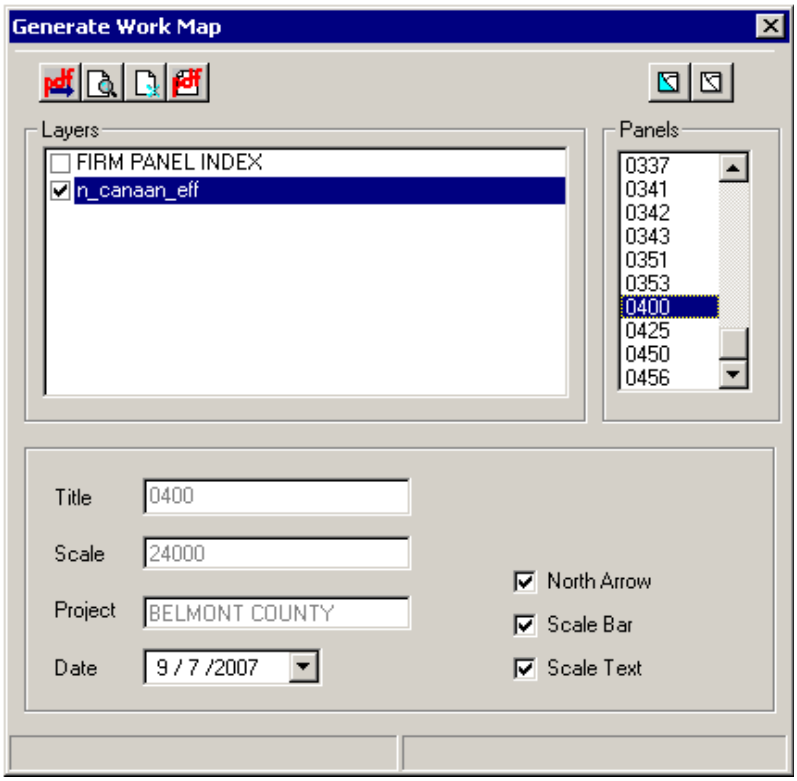
PANEL_LID	PANEL_TYP
1000	COUNTYWIDE, PANEL PRINTED
1010	COUNTYWIDE, NOT PRINTED
1020	COMMUNITY BASED, PANEL PRINTED
1030	COMMUNITY BASED, NOT PRINTED
- SCALE
  - Text field type
  - Stores the scale of the panel extents (e.g., "6000", "12000", "24000")

Note: The attribute fields may be in any order.



Example of a personal geodatabase reference layer with the required attribute fields.

In the ***Generate Work Map*** dialog, the polygon reference layer will be included in the *Layers* list.



An example of the Generate Work Map dialog when a polygon reference layer is loaded into the ArcMap session.

Note: All polygon-based reference layers loaded in the active ArcMap session will appear in the *Layers* list. However, only those with the appropriate attribute fields may be used to select a panel(s) and generate work maps. If you select a reference layer which does not contain the required attribute fields, you will receive an error.

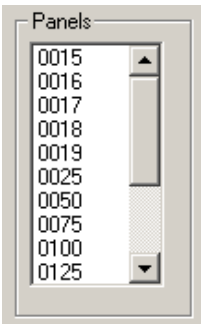
Tool Controls

This section describes in detail the functionality of each of the tools available in the ***Generate Work Map*** dialog.

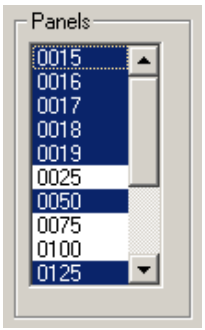
Select All Printed Panels

The **Select All Printed Panels** tool selects all panels in the *Panels* list whose *PANEL_TYPE* (PANEL_TYP) attribute field value contains the text "PANEL PRINTED" for the selected layer.

From the ***Generate Work Map*** dialog, click **Select All Printed Panels**.



The *Panels* list before clicking the ***Select All Printed Panels*** tool.

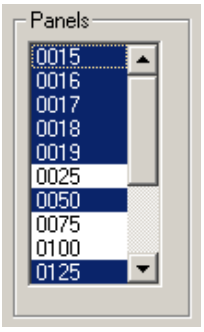


The *Panels* list after clicking the ***Select All Printed Panels*** tool.

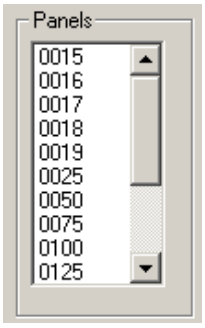
Clear Selected Panels

The **Clear Selected Panels** tool clears the *Panels* list of all selected panels.

From the ***Generate Work Map*** dialog, click **Clear Selected Panels**.



The *Panels* list before clicking the ***Clear Selected Panels*** tool.



The *Panels* list after clicking the ***Clear Selected Panels*** tool.

Export to PDF

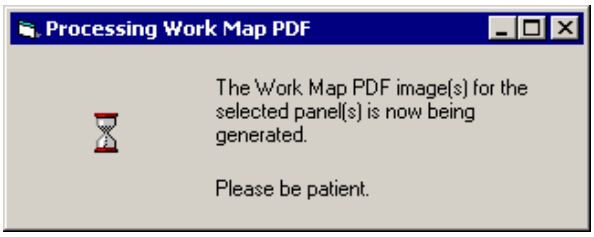
The **Export to PDF** tool creates a work map layout for the selected panel with the checked options and then immediately generates a PDF image file of the layout. If multiple panels have been

selected, the tool cycles through the layout creation and image generation process until all panels have been processed. For instance, if two panels are selected, the tool completes the following tasks before the process is complete: a layout for the first panel is created; the PDF image for the first panel is created; the layout is cleared; the layout for the second is created; and the PDF image for the second panel is created. At least one panel must be selected.

1. From the ***Generate Work Map*** dialog, select the panel(s) of interest from the *Panels* list.

2. Click **Export to PDF**.

3. While the process is executing, the following processing message is displayed on-screen.



An example of the processing message.

4. A PDF image file will be created using the following naming convention:

W<DFIRM_ID>_<panel number>.pdf, such as W06063C_0225.pdf

The image file is stored in the J:\FEMA\<Region>\<State>\<County>\<County or Community>\<FEMA Case Number>\Mapping\Mapping_Outputs\PDF folder.

Note: If a PDF image file with the same name already exists, the existing file will be overwritten without warning.

Note: The image properties have been set to create a PDF file in landscape format, 44 inches by 34 inches (ANSI E). The PDF file can be downloaded for local review and plotting.

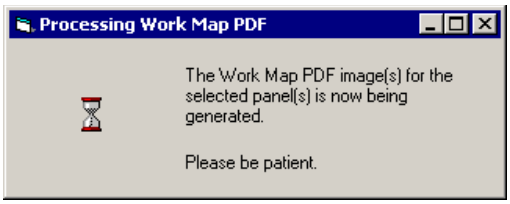
Preview Work Map

The **Preview Work Map** tool creates the work map with the checked options in the layout view for the selected panel. Only one panel may be selected.

1. From the ***Generate Work Map*** dialog, select the panel of interest from the *Panels* list.

2. Click **Preview Work Map**.

3. While the process is executing, the following processing message is displayed on-screen:



An example of the processing message.

4. To preview another panel:

    a. Remove the panel selection by clicking ***Clear Selected Panels*** or click on the currently selected panel in the *Panels* list.

    b. Select another panel.

    c. Click **Preview Work Map**.

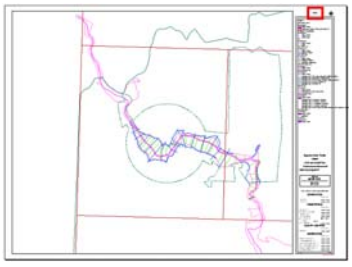
5. If you would like to create a PDF image file for the current work map layout, click ***Export Previewed Work Map***.

The majority of the work map layout is dominated by the data itself. The legend for the work map resides on the right-hand side of the layout. The legend portion is composed of objects such as the panel number, the north arrow, the symbology for the features, the scale reference, the quality control review checklist, and the work map creation date.

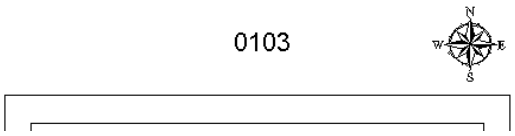
Panel Number

The panel number of the selected panel is placed in several places in the legend. The panel number is placed at the top of the legend, in the middle of the legend, and at the bottom of the legend. The multiple locations are useful as the panel number is easily found even when you are flipping through a large stack of printed work maps. The panel number value is pulled from the *PANEL NUMBER* (PANEL) attribute field for the selected panel and is the value in the Title input box in the ***Generate Work Map*** dialog.

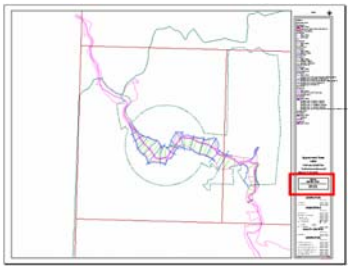
Example of the Title value.



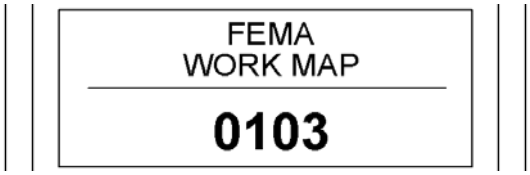
Location of the panel number at the top of the legend.



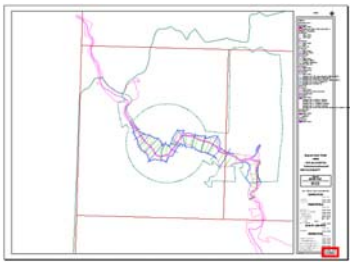
Example of the panel number at the top of the legend.



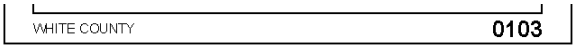
Location of the panel number in the middle of the legend.



Example of the panel number in the middle of the legend.



Location of the panel number at the bottom of the legend.



Example of the panel number at the bottom of the legend.

Since the panel number is a standard ArcMap object, you may easily alter it as desired by:

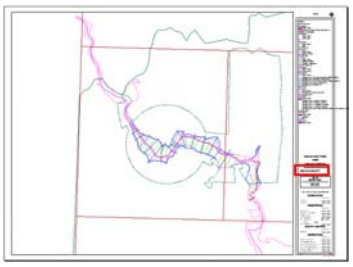
1. Selecting the graphic object with the ***Select Elements*** tool (the black arrow) on the **Tools** toolbar.
2. Right-clicking on the selection and selecting ***Properties*** from the options that appear.
3. Setting the desired options in the ***Map Graphic Properties*** dialog.
4. Clicking *OK* to apply the changes.

Note: When you preview another panel, your customized changes will be lost.

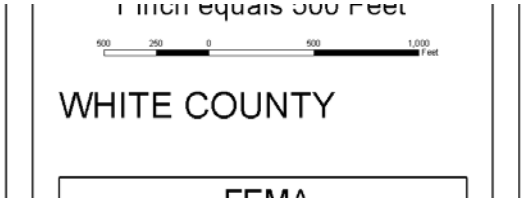
Project Name

The project name of the current study is placed in several locations in the legend. The project name is placed in the middle of the legend and at the bottom of the legend. The multiple locations are useful as the project name is easily found even when you are flipping through a large stack of printed work maps. The project name value is pulled from the *STUDY NAME* (STUDY_NM) attribute field from the Study_Info table and is the value in the Project input box in the ***Generate Work Map*** dialog.

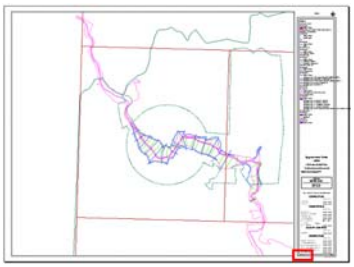
Example of the Project value.



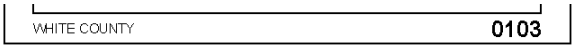
Location of the project name in the middle of the legend.



Example of the project name in the middle of the legend.



Location of the project name at the bottom of the legend.



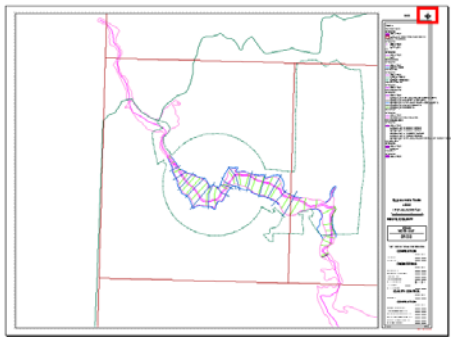
Example of the project name at the bottom of the legend.

Note: The project name may be manually altered via the ***Map Graphics Properties*** dialog. When you preview another panel, your customized changes will be lost.

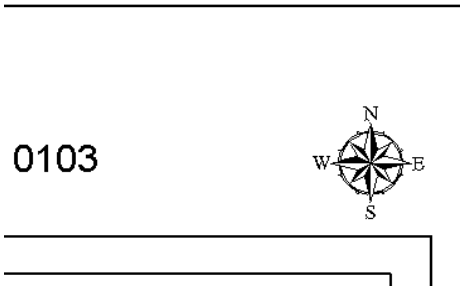
North Arrow

A north arrow object is included in the legend if the option was selected in the ***Generate Work Map*** dialog. If the North Arrow option was checked, the north arrow object will appear in the upper right-hand corner of the legend.

North Arrow option is checked.

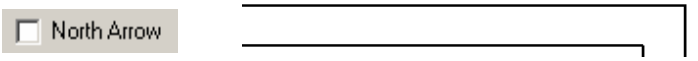


Location of north arrow object.



Example of the north arrow object.

If the North Arrow option was not checked, the north arrow object will not appear in the layout.



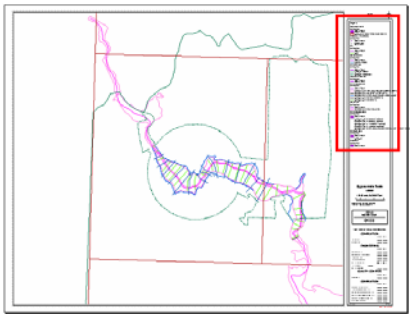
North Arrow option is not checked.

Example of the north arrow object not placed in the layout.

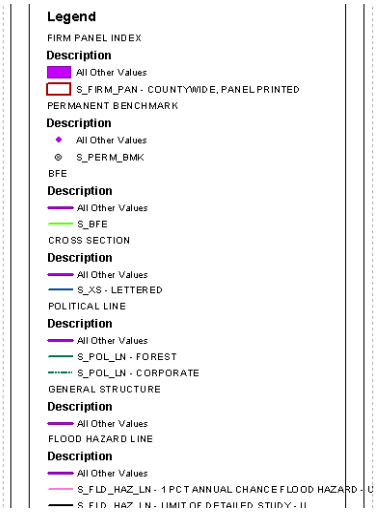
Note: The north arrow may be manually altered via the ***Map Graphics Properties*** dialog. When you preview another panel, your customized changes will be lost.

Legend Symbology

The layout contains a standard ArcMap Legend object. This Legend object is dynamic and displays the information only for those layers which are visible in the Table of Contents (e.g., as you click on and off layer visibility, the Legend items are updated). The layers in the Legend are shown in the same order as the layers in the Table of Contents. Additionally, if you update the symbology of a layer (e.g., change the *BFE* (S_BFE) layer symbology from green to blue), the Legend is automatically updated.



Location of the Legend object.



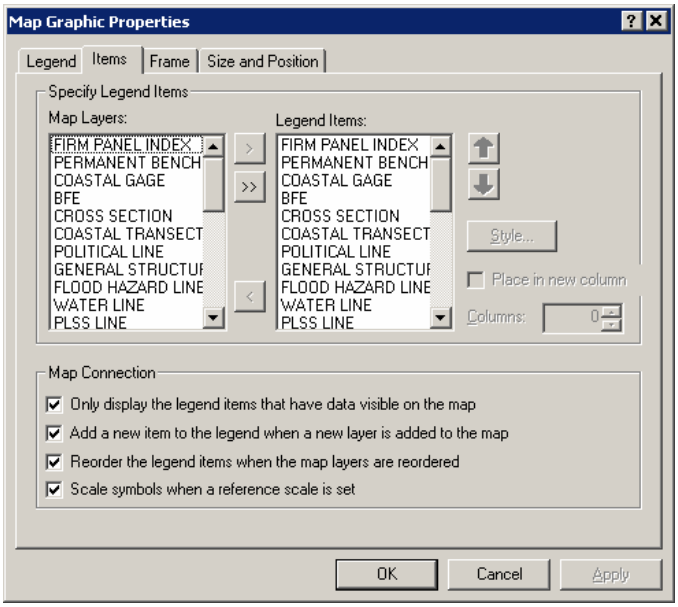
Example of the Legend object.

Since the Legend is a standard ArcMap object, you may easily alter it as desired by:

5. Selecting the Legend object with the ***Select Elements*** tool (the black arrow) on the **Tools** toolbar.

6. Right-clicking on the selection and select ***Properties*** from the options that appear.

7. Set the desired options in the ***Map Graphic Properties*** dialog.



An example the ***Map Graphic Properties*** dialog.

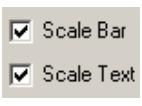
8. Clicking *OK* to apply the changes.

Note: When you preview another panel, your customized changes to the Legend will be lost.

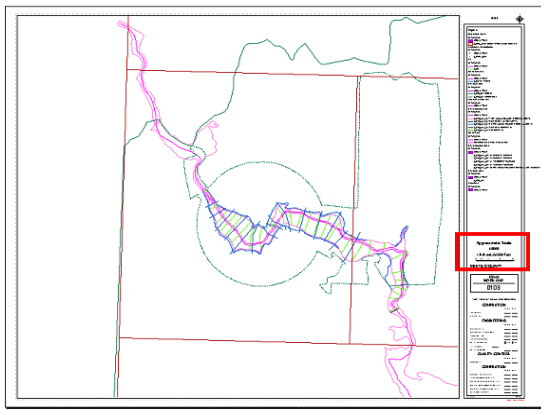
Scale Bar and Text

When the work map layout is created, the map scale is automatically set to the selected panel's scale (e.g., if panel 0025 is selected, the map scale will be set to 1:24,000). A scale bar and its associated scale reference text are included in the legend if the options were selected in the ***Generate Work Map*** dialog.

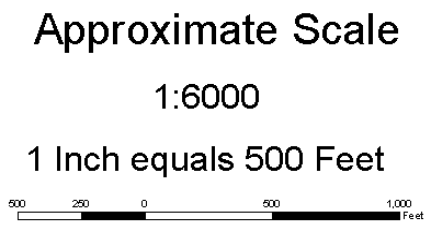
If the Scale Bar and Scale Text options were checked, the scale bar is drawn for the scale of the selected panel. For instance, if panel 0103 is selected, the scale bar will be relative to 6,000. Additionally approximate scale text is added to the layout.



Scale–related options are checked.

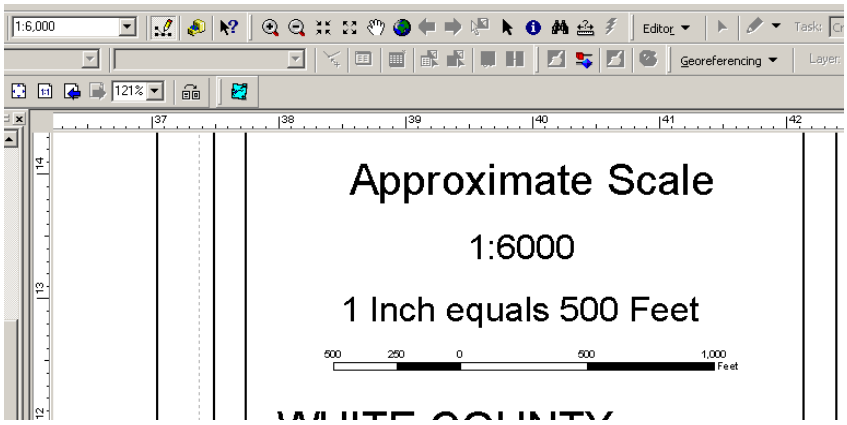


Location of the scale-related objects.

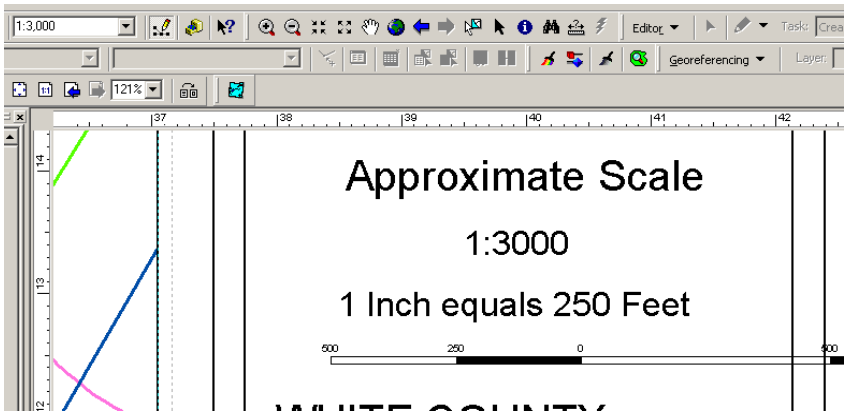


Example of the output scale reference text and scale bar.

The scale bar is dependent upon the map scale of the Layers data frame. If you alter the map scale by zooming, the scale bar object and approximate scale object in the legend will automatically update to reflect the new scale. Note that doing so may cause the scale bar to no longer fit within the designated legend extents.

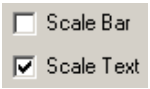


Example of the map scale set to 1:6,000 and the corresponding scale-related objects in the layout.

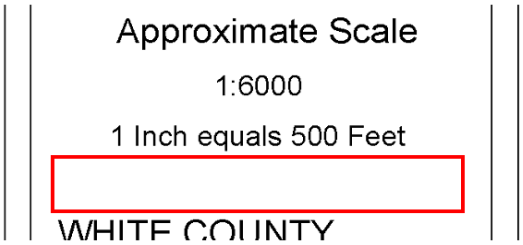


Example of the map scale set to 1:3,000 and the corresponding scale-related objects in the layout.

If you opt to not include the Scale Bar, the scale bar object will not be placed in the layout.

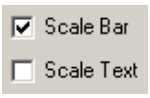


Scale Bar option is not checked.



Example of the scale bar object not placed in the layout.

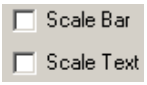
If you opt to not include the Scale Text, the approximate scale object will not be placed in the layout.



Scale Text option not selected.

Example of the approximate scale object not placed in the layout.

If you opt to not include the Scale Bar and the Scale Text, neither the approximate scale object nor the scale bar object will be placed in the layout.



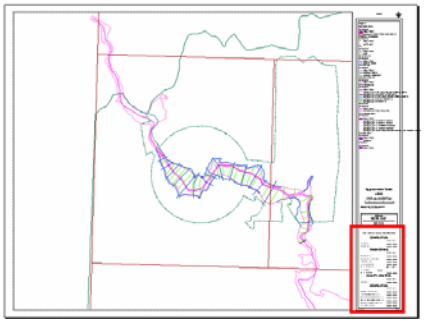
Scale Bar and Scale Text options not selected.

Example of the approximate scale and scale bar objects not placed in the layout.

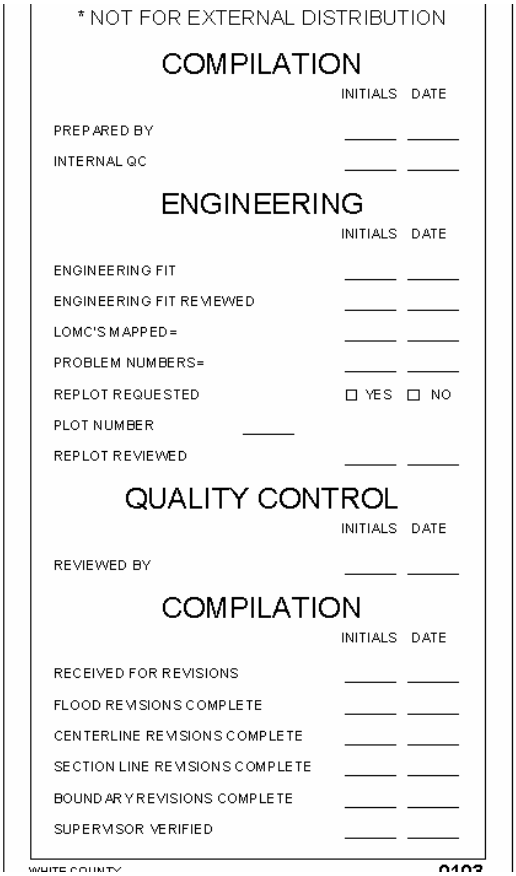
Note: The scale bar and approximate scale text may be manually altered via the ***Map Graphics Properties*** dialog. When you preview another panel, your customized changes will be lost.

Review Checklist

To assist with the review of the data, a list of items to check is included in the layout. This list contains our recommended best-practices QC review items. Your own work practices should dictate how much of the list applies to you. Next to each review item is space for the reviewer to note his/her initials and the reviewed date.



Location of the review checklist text.



* NOT FOR EXTERNAL DISTRIBUTION

COMPILATION

	INITIALS	DATE
PREPARED BY		
INTERNAL QC		

ENGINEERING

	INITIALS	DATE
ENGINEERING FIT		
ENGINEERING FIT REVIEWED		
LOMC'S MAPPED=		
PROBLEM NUMBERS=		
REPLOT REQUESTED	☐ YES ☐ NO	
PLOT NUMBER		
REPLOT REVIEWED		

QUALITY CONTROL

	INITIALS	DATE
REVIEWED BY		

COMPILATION

	INITIALS	DATE
RECEIVED FOR REVISIONS		
FLOOD REVISIONS COMPLETE		
CENTERLINE REVISIONS COMPLETE		
SECTION LINE REVISIONS COMPLETE		
BOUNDARY REVISIONS COMPLETE		
SUPERVISOR VERIFIED		

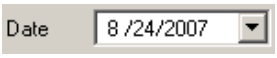
WHITE COUNTY 0103

Example of the review checklist text.

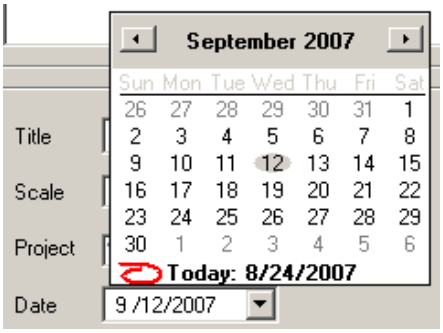
Note: The review checklist text may be manually altered via the ***Map Graphics Properties*** dialog. When you preview another panel, your customized changes will be lost.

Work Map Creation Date

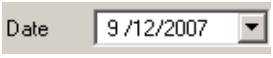
The date in which the work map was created is included on the layout at the bottom of the legend. This date will help you distinguish between work map versions and will help you keep a historical record, if desired. The date text is red on the layout for easy identification. The date is the value in the Date input box in the ***Generate Work Map*** dialog. The date value is automatically defaulted to today's date. However, if desired, you may change this date value by clicking in the input box and selecting a new date from the calendar or by simply typing in new values.



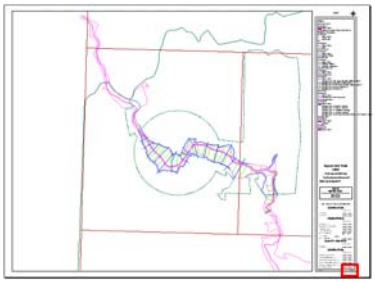
Default Date value is today's date.



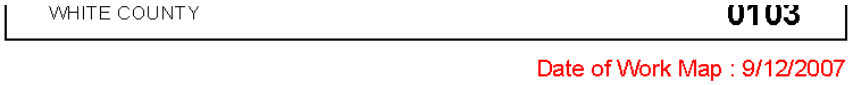
You may manually change the date through the calendar.



The Date value is updated to the selected date.



Location of the work map creation date text.



Date of Work Map : 9/12/2007

Example of the map creation date text.

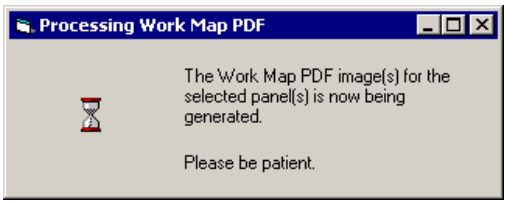
Note: The work map creation date may be manually altered via the ***Map Graphics Properties*** dialog. When you preview another panel, your customized changes will be lost.

Export Previewed Work Map

The **Export Previewed Work Map** tool creates a PDF image file for the current layout. This tool is ideal for when you have made custom changes to the layout and you would like to capture those in a PDF image. Only one panel from the *Panels* list may be selected.

1. From the ***Generate Work Map*** dialog, click **Export Previewed Work Map**.

2. While the process is executing, the following processing message is displayed on-screen.



An example of the processing message.

3. A PDF image file will be created using the following naming convention:

W<DFIRM_ID>_<panel number>.pdf, such as W06063C_0225.pdf

The image file is stored in the J:\FEMA\<Region>\<State>\<County>\<County or Community>\<FEMA Case Number>\Mapping\Mapping_Outputs\PDF folder.

Note: If a PDF image file with the same name already exists, the existing file will be overwritten without warning.

Note: When the ***Preview Work Map*** tool generates a work map layout, the panel number is temporarily stored in the system's internal memory. This value is used to name the PDF image file. If the panel number is no longer stored in memory (e.g., if you closed and re-opened ArcMap, the temporary memory is cleared and the panel number is no longer stored), the tool will name the file according to the panel selected in the ***Generate Work Map*** dialog. If not exporting the work map layout in the same session in which it was created, be careful to select the panel from the list which represents the layout; if you select the wrong panel, your PDF image file name will be incorrect and may cause you confusion.

Note: The image properties have been set to create a PDF file in landscape format, 44 inches by 34 inches (ANSI E). The PDF file can be downloaded for local review and plotting.

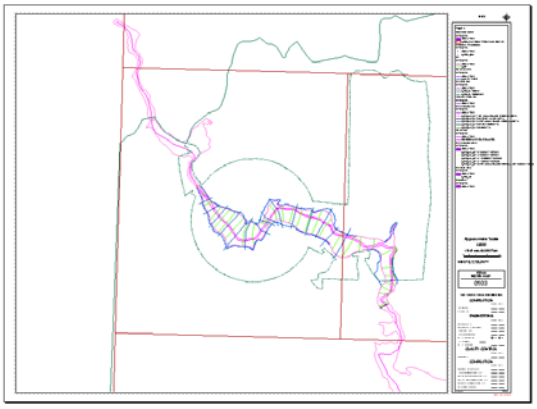
Remove Graphics

The **Remove Graphics** tool deletes all graphics and all data frames, other than the Layers data frame, from the layout. In addition, any graphic features (e.g., polygons, points, text added with the tools on the **Draw** toolbar) added to the layout are automatically removed.

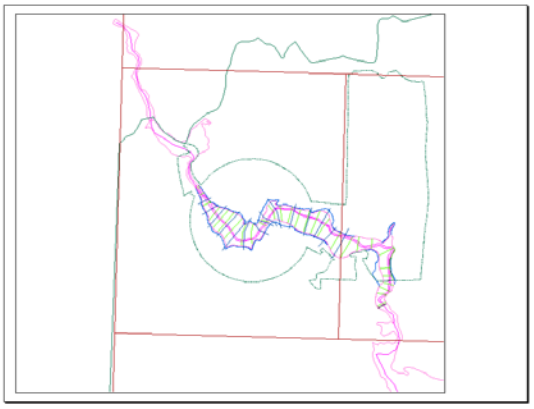
Note: Graphic features, such as rectangles, polygons, and text, that are added while in Data View are not deleted when **Remove Graphics** is clicked.

The only appropriate way to clear the layout is via the ***Remove Graphics*** tool. If you close the ***Generate Work Map*** dialog and then decide that the layout needs to be cleared, click on the ***Generate Work Map*** tool on the **DFIRM Work Map Pro** toolbar to prompt the ***Generate Work Map*** dialog again.

From the ***Generate Work Map*** dialog, click **Remove Graphics**.



The work map layout before clicking the Remove Graphics button.



The work map layout after clicking the Remove Graphics button.

Close Dialog

To exit/close the ***Generate Work Map*** dialog, click the "X" button in the upper right-hand corner of the dialog. Closing the dialog does not impact the current layout.

Troubleshooting

Problem: When the ***Generate Work Map*** dialog opens, there are no layers listed in the *Layers* window.

Solution: The only layers that may be listed in the *Layers* window are the *FIRM Panel Index* (S_FIRM_Pan) layer and any polygon-based reference data layers. If any of these layers are not loaded into the active ArcMap session, the window will be empty. Add the *FIRM Panel Index* (S_FIRM_Pan) layer into the ArcMap session with the ***DFIRM SDE Data Loader*** tool on the **DFIRM Layer Loader** toolbar.

Problem: I do not understand when I am able to select more than one panel in the *Panels* list without receiving an error.

Solution: When you are creating a work map layout with the ***Preview Work Map*** tool, only one panel may be selected. When you want to create a PDF image file of the current layout with the ***Export Previewed Work Map*** tool, only one panel may be selected. When you want to batch the creation of the work map layout and the PDF image files with the ***Export to PDF*** tool, multiple panels may be selected. If you have no panels selected and attempt to use any of these tools, you will receive an error telling you to select a panel.

Problem: When I attempt to create a PDF image file with ***Export Previewed Work Map*** or ***Export to PDF***, why do I receive the following cannot-access-folder error?

Cannot Access Directory Folder error

Solution: In order to create the PDF image file and place it in the proper location, the tool must be able to access the folder. If the tool cannot access the folder, the error is generated. The folder may not be accessible because the folder permissions are incorrect; the folder may not exist; or there may be a misspelling somewhere in the folder pathway. Within Windows Explorer on CITRIX, navigate to the appropriate output directory for your study and look for anything unusual. Contact MIPHelp@mapmodteam.com with your findings. Be sure to include as much detail as possible, including supplying a screen capture of this error, your DFIRM ID (e.g., 12345C), your study's location (White County, GA), and your FEMA Case Number (e.g., 01-01-00001S).

Problem: I created a work map layout with ***Preview Work Map*** and generated the PDF image with ***Export Previewed Work Map***. When I open the created PDF image file, why does the image file name not match the panel number of the work map?

Solution: When the ***Preview Work Map*** tool generates a work map layout, the panel number is temporarily stored in the system's internal memory. This value is used to name the PDF image file. If the panel number is no longer stored in memory (e.g., if you closed and re-opened ArcMap, the temporary memory is cleared and the panel number is no longer stored), the tool will name the file according to the panel selected in the ***Generate Work Map*** dialog. If the file name and the layout panel number in the image do not match, it is because the panel number was no longer stored in memory, and you had a different panel number selected in the *Panels* list. To correct this problem, rename the existing PDF image file with the correct name. In the future when using the ***Export Previewed Work Map***, be sure to check the selected panel in the *Panels* list before clicking the tool.

Problem: When I click the ***Select Printed Panels*** tool, why are none of the panels in the *Panels* list selected?

Solution: The ***Select Printed Panels*** tool functions by reading the values in the *PANEL TYPE* (PANEL_TYP) attribute field for the selected layer. Every panel whose *PANEL TYPE* (PANEL_TYP) value contains the text "PANEL PRINTED" (e.g., COUNTYWIDE, PANEL PRINTED) is selected. Open the attribute table for the selected layer in the *Layers* window (e.g., *FIRM Panel Index* (S_FIRM_Pan)) and verify that the *PANEL TYPE* (PANEL_TYP) values are correct. If you find that your data does contain *PANEL TYPE* (PANEL_TYP) values that indicate that the panel is printed, please contact MIPHelp@mapmodteam.com and describe the problem with as much detail as possible. Be sure to include your study's DFIRM_ID and JTX Job ID.

Problem: When I generate a work map, why aren't the features symbolized like the examples in the *DFIRM Work Map Pro User Guide*?

Solution: **DFIRM Work Map Pro** does not alter the layer's symbology. The user is responsible for setting the symbology. We recommend that you use the ***Render Using VVT Symbology*** tool on the **PLTS Symbology and QC** toolbar to symbolize your features according to the WORKMAP style.

Problem: When I generate a work map, why aren't the features labeled?

Solution: **DFIRM Work Map Pro** does not alter the layer's labels. The user is responsible for adding labels for the features. We recommend that you use the *Label* tab in the ***Layer Properties*** dialog to specify the label criteria and to apply the labels to the layer.

Problem: I generated a work map layout, changed some of the objects in the legend, and generated another work map layout. Why weren't my changes to the legend saved/applied to the new layout?

Solution: **Preview Work Map** and **Export to PDF** create work map layout the same way every time. The tools do not acknowledge any custom changes to the layout; therefore, when a new layout is created, the custom changes are automatically overwritten.