

MAP ViewerV.3.00

User's Manual

User's Manual

Rev.1.00
Mar. 01, 2005

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1. Outline of the Map Viewer

The Map Viewer is a GUI utility to show the map information of absolute module files output by M3T-NC30WA, M3T-NC308WA, M3T-NC79WA, or M3T-CC32R in Windows.

1.1. Window Structure

1.1.1. The Main Window

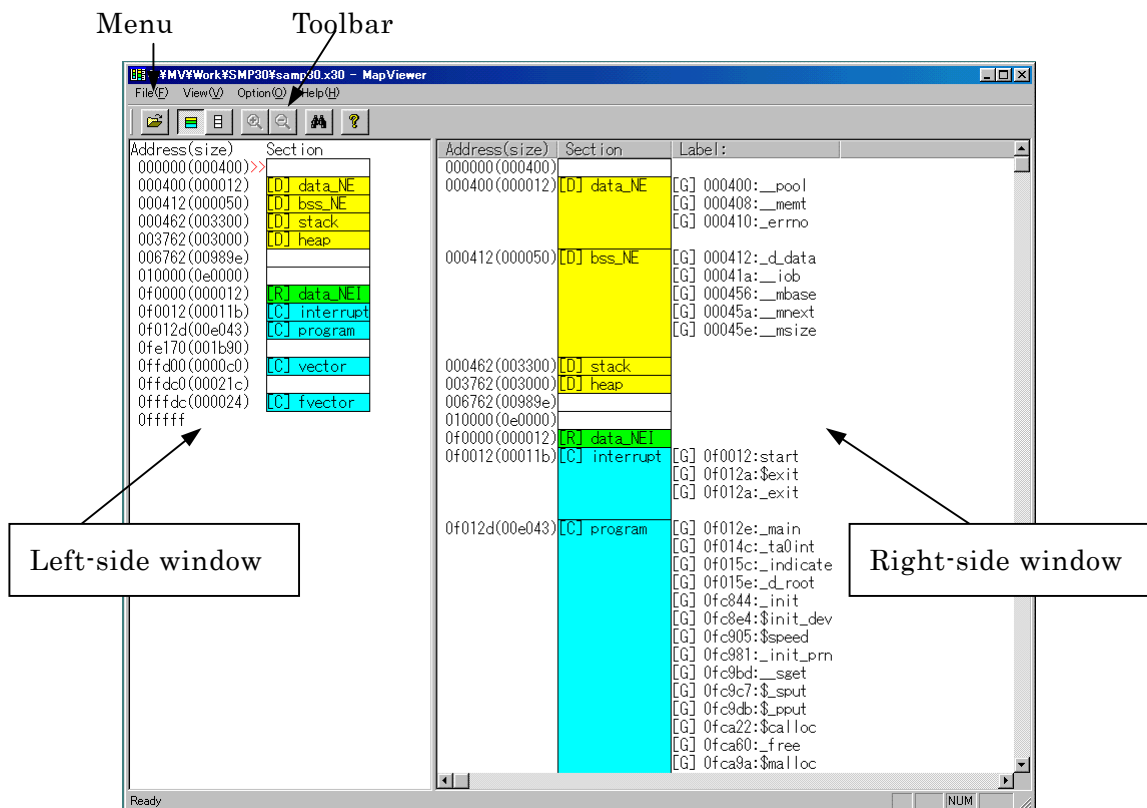


Figure 1. The Main Window

This is the main window of the Map Viewer. This window appears first when you start the Map Viewer. The main window has the primary commands assigned to its toolbar. The map information being displayed can be changed by clicking a toolbar button.

The map information of the absolute module file entered using the [Open] button or from the [File] menu is displayed on the Left-side window for outline information and on the Right-side window for detail information. The Left-side window shows the whole of the absolute module file, while the Right-side window shows information on each section of the file. The display start position on the Right-side window is marked with ">>" on the Left-side window.

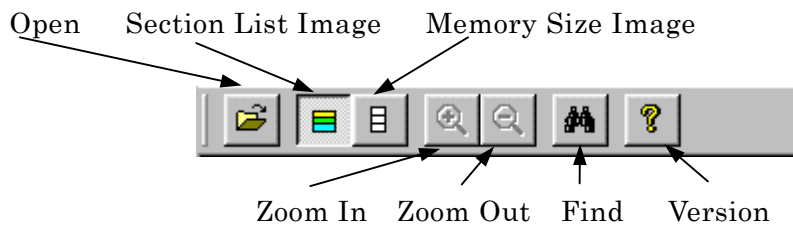


Figure 2. Main Window Toolbar

Table 1. Contents of the Main Window Toolbar








Item	Content	Remark
 Open	Opens the [Open] dialog box, from which to load the absolute file.	
 Section List Image	Shows what is displayed on the Left-side window in a section list image.	
 Memory Size Image	Shows what is displayed on the Left-side window in a memory size image.	
 Zoom In	Zooms in a memory size image.	
 Zoom Out	Zooms out a memory size image.	
 Find	Opens the [Find] dialog box, from which to search.	
 Version	Shows the version of the Map Viewer.	

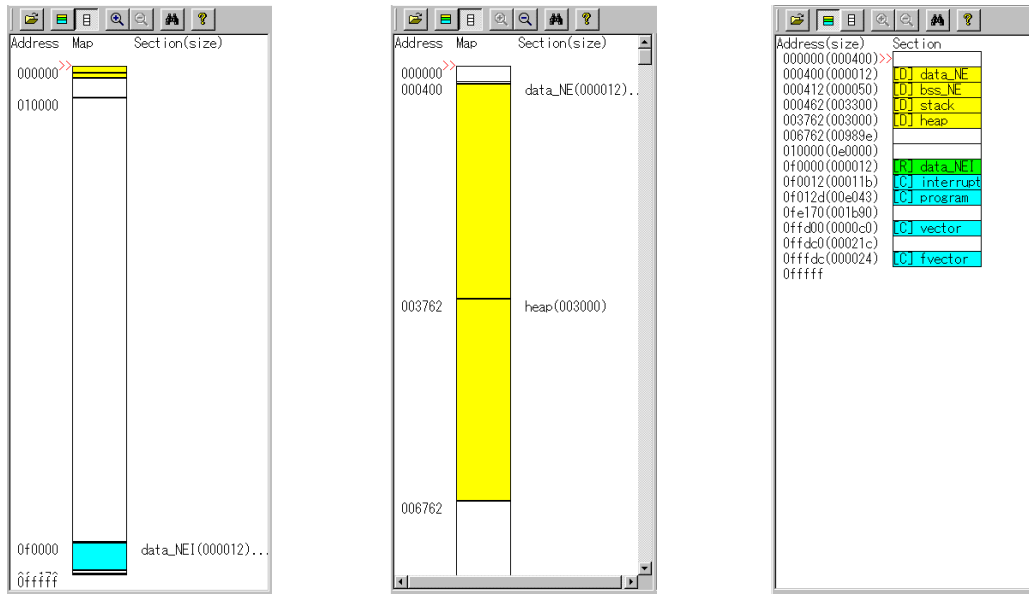


Figure 3. Main Window Menu

Table 2. Contents of the Main Window Menu

Item	Content	Remark
File		
Open...	Opens the [Open] dialog box, from which to load the absolute file.	
Printer Set Up	Sets up the printer.	
Print Preview	Previews to print the right-side window.	
Print	Prints the right-side window.	
Exit	Closes the Map Viewer.	
View		
Tool Bar	Shows/hides the toolbar.	
Status Bar	Shows/hides the status bar.	
Option		
MapView...	Opens the [MapView] dialog box, from which to set the contents of display.	
Find...	Opens the [Find] dialog box, from which to search.	
Font...	Opens the [Font] dialog box, from which to change fonts.	
Help		
Index	Opens the help file.	
About...	Shows the version of the Map Viewer.	

1.1.2. Left-side Window (Outline View Window)



(a) Memory Size Image (b) Memory Size Image (Zoom) (c) Section List Image

Figure 4. Left-side Window (Outline View Window)

The Left-side window of the Map Viewer shows the entire image of the absolute module file. This entire image is shown like the one in Figure 4 (a) by using the [Memory Size Image] button or by check for [Memory Size] from the [Map View] dialog box. The Memory Size frame is adjusted to the window size.

In Memory Size Image, the zoom function is supported with the [Zoom In] button and the [Zoom Out] button. The display in Figure 4 (b) is produced by using the [Zoom In] button.

Moreover, the display range can be set up with the [Start] text box and the [End] text box of the [MapView] dialog.

In Memory Size Image, sections displayed in the Memory Size frame may overlap one on top of another. In such a case, they are marked with “...” to indicate that multiple sections exist.

The display in Figure 4 (c) is produced by using the [Section List Image] button or by check for [Section List] from the [Map View] dialog box.

The marking “>>” shown on the Left-side window indicates the position of the first section shown on the Right-side window. Also, the Left-side window has a function which allows you to show any section on the Right-side window by right-clicking on the appropriate position on the Left-side window.

On the Map Viewer, sections are displayed in the manner shown below depending on section types.

Table 3. Display by Section Type

Section type	Memory Size Image	Section List Image	Right-side window
DATA	Area displayed in yellow	Displayed in yellow and with [D]	Displayed in yellow and with [D]
ROMDATA	Area displayed in green	Displayed in green and with [R]	Displayed in green and with [R]
CODE	Area displayed in blue	Displayed in blue and with [C]	Displayed in blue and with [C]

1.1.3. The display range of Memory Size Image

In Memory Size Image, the display range is between the minimum address which MCU has, and the maximum address. This frame is adjusted to the window size. This display range can be changed by the [MapView] dialog box from the [Option] menu. Also in this case, This frame is adjusted to the window size, too.

In addition, there is a zoom function. If the [Zoom In] button is pushed, the frame become double. Moreover, if the [Zoom Out] button is pushed, a frame become half. This zoom function can be performed to five stages. The scroll bar is displayed as responding necessity.

1.1.4. Right-side Window (Detail View Window)

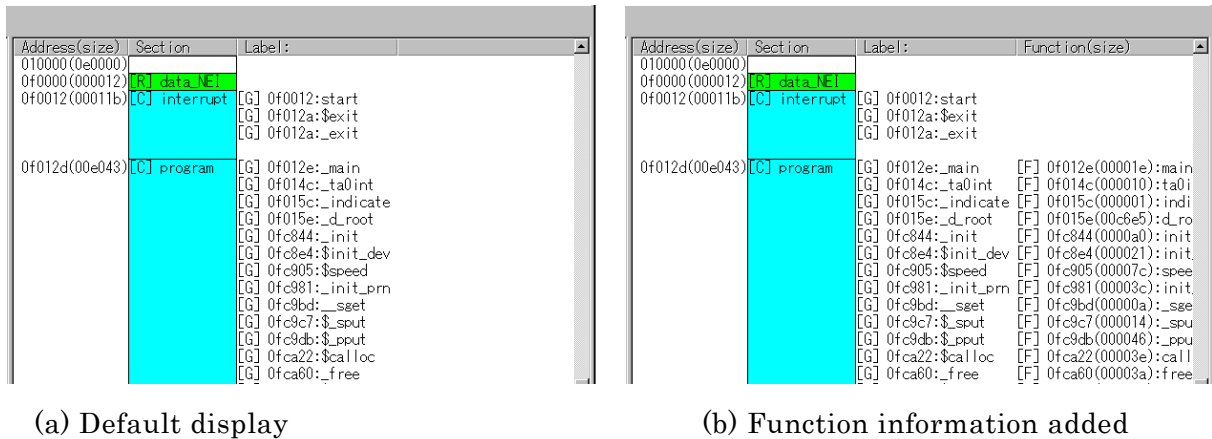


Figure 5. Right-side Window (Detail View Window)

The Right-side window (detail view window) of the Map Viewer shows detail information on the absolute module file. This window is displayed like the one in Figure 5 (b) by checking [Local Information List], [.EQU List], or [Function List] on the [Map View] dialog box. The size of each section is adjusted to that of display item (and is not the section size).

The table below shows the display format of each list.

Table 4. Display Format of the Right-side Window

Type of list	Display format
Section	Shows the section start address, size, and section name. See Table 3 for details on how section names are displayed. When [Local Information List] is selected, the section name is followed by a module name.
Label	Shows [G] (global) or [L] (local), address, and label name.
.EQU	Shows [G] (global) or [L] (local), value, and .EQU name.
Function	Shows [F], function start address, size, function name, and file name.

On the Right-side window, if the location of any section has one of the following problems, the start address of that section is displayed in red.

- A section that overlaps another section
- A section that exceeds the maximum address of the MCU

1.1.5. Display size of each listing item

The display size of the initial state of each listing item is the size which can display the largest character string of the item. The display width of each item can be changed by moving the right end of each item of a title bar.

Thereby, the display width of the Right-side window can be changed.

1.1.6. MapView Dialog

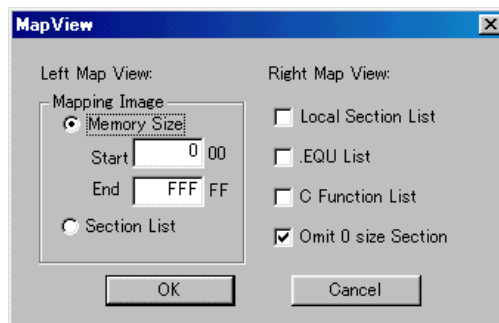


Figure 6. MapView Dialog Box

The MapView dialog box is provided for setting the display formats of the Left-side and Right-side windows.

Table 5. Items on the MapView Dialog Box

Item	Content	Remark
Left Map Layout		
Mapping Image		
Memory Size	Shows map in memory size image.	
Start	Sets the start address in memory size image.	
End	Sets the end address in memory size image.	
Section List	Shows map in section list image.	
Right Map Layout		
Local Information List	Turns display of local information on or off.	
.EQU List	Turns display of .EQU information on or off.	
C Function List	Turns display of C language function information on or off.	
Omit 0 size section	Turns display of 0 size section on or off.	
OK	Enables change of settings before closing the dialog box.	
Cancel	Disables change of settings before closing the dialog box.	

1.1.7. Find Dialog Box



Figure 7. Find Dialog Box

The Find dialog box is used to search for the string to be displayed on the Right-side window.

Table 6. Items on the Find Dialog Box

Item	Content	Remark
Find What	Specify the string to be searched.	
Match Case	Specify whether the string should be discriminated between upper and lower cases.	
Wild Card	Enables the wild card (*, ?).	
Direction	Specify the direction in which to search.	
Select	Specify the type of string to search.	
Find Next	Searches for the next occurrence.	
Close	Closes the Find dialog box.	

2. Using the Map Viewer

2.1. Starting and Exiting the Map Viewer

2.1.1. Starting the Map Viewer

The Map Viewer can be started by one of the following methods.

Using the Start button

Started by clicking an icon

Open the folder that contains the Map Viewer and from this folder, double-click the MapViewer.exe icon.

Started by specifying a file

From the [Run] dialog box of Windows or the MS-DOS prompt, enter the file name in the format shown below.

```
[path to MapViewer.exe] MapViewer.exe [absolute module file name] ENTER
```

Started by the TM

Click the Map Viewer button on the project bar of TM V.3.00 or later. When a project has been opened in the TM, the Map Viewer by default uses the project's absolute module file and shows map information on a GUI screen.

2.1.2. Exiting the Map Viewer

Exiting from the menu

Choose [File]→[Exit] from the Map Viewer menu bar. Or open the main window's system menu and from that menu, choose [Close].

Exiting with shortcuts

Press the Alt+F keys and then the x key.

Exiting with the [Close] button

Click the [Close] button located at the upper right corner of the main window.

2.1.3. Opening a File

Starting from the menu

Choose [File]→[Open] from the Map Viewer menu.

Starting with shortcuts

Press the Ctrl+O keys.

Starting from the toolbar

Click the [Open] button on the toolbar.

The above operation brings up the [Open] dialog box. From that dialog box, select the absolute module file you want.

2.2. Manipulating the Contents of Display

The following shows how to manipulate the contents of display.

2.2.1. Showing a Memory Size Image on the Left-side window

To show a Memory Size Image, use one of the following methods.

- Press the [Memory Size Image] button
- Choose [Memory Size] from the [MapView] dialog box

2.2.2. Showing a Section List Image on the Left-side window

To show a Section List Image, use one of the following methods.

- Press the [Section List Image] button
- Choose [Section List] from the [MapView] dialog box

2.2.3. Showing the module's local information on the Right-side window

To show the local information included in the module, use the following method.

- Choose [Local Information List] from the [MapView] dialog box

2.2.4. Showing .EQU symbol information on the Right-side window

To show information on .EQU symbols, use the following method

- Choose [.EQU List] from the [MapView] dialog box

2.2.5. Showing C language function information on the Right-side window

To show information on C language functions, use the following method.

- Choose [C Function List] from the [MapView] dialog box

2.2.6. Showing 0 size section information on the Right-side window

To show information on 0 size sections, use the following method.

- Don't choose [Omit 0 size Section] from the [MapView] dialog box

2.3. How to Print

The following shows how to print of the Right-side window.

2.3.1. Setting the printer

To set the printer, use the following method.

- Choose [Printer Set Up] from the [File] Menu

Since a printer setting dialog opens, the printer is set up.

2.3.2. Showing the printing preview

To show the printing preview, use the following method.

- Choose [Print Preview] from the [File] Menu

2.3.3. Check the number of pages

To check the number of pages, show the page footer in preview of printing.

2.3.4. Print

To show preview of printing, use the following method.

- Choose [Print] from the [File] Menu

Since a printing dialog opens, it sets variously and printing is executed by "OK " button.

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Publication Date: Mar. 01, 2005 Rev.1.00

Published by: Sales Strategic Planning Div.
Renesas Technology Corp.

Edited by: Microcomputer Tool Development Department
Renesas Solutions Corp.

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