

C-Nav[®]

C-Scape Appendix: MMS Database Option

Revision 5

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Release Notice

This is the July 2018 release of the C-Scape Appendix: MMS Database Option manual.

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4	09/01/2017	Updated for new BSEE links	C. Thompson
3	03/21/2016	Updated for OII standards	C. Thompson
2	09/17/2015	Updated for C-Scape 7.2.4	C. Thompson
1.2	11/26/2012	Updated website and contact information	C. Thompson
1.1	05/25/2012	Updated MMS Website details and C-Scape screenshots	C. Thompson
1.0	05/11/2012	Initial release	C. Thompson
Revision	Date	Description	Author

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Manual Organization

This is a short tutorial explaining how to add MMS objects in the Gulf of Mexico to the C-Scape position monitoring and situation awareness software. Sections are organized in a manner that facilitates quick operator orientation.

[Section 1 - Overview](#) (Page 8) gives a general overview of the purpose of the C-Scape MMS Package.

[Section 2 - Installation](#) (Page 9) details how to install the C-Scape MMS Package.

[Section 3 - MMS Integration](#) (Page 11) explains how to add MMS objects to your C-Scape project.

[Section 4 - Getting New MMS Data](#) (Page 15) details how to update the MMS data when new objects are available.

Related Documents

[CNAV-MAN-008.6 \(C-Scape Quick Start Guide\)](#)

The C-Scape Quick Start Guide provides the user with the necessary information to install and run C-Scape. It is available from the C-Nav website at

[https://www.oceaneering.com/C-Nav/Software/C-Scape/PDFDownloads/CNAV-MAN-008.6%20\(C-Scape%20Quick%20Start%20Guide\).pdf](https://www.oceaneering.com/C-Nav/Software/C-Scape/PDFDownloads/CNAV-MAN-008.6%20(C-Scape%20Quick%20Start%20Guide).pdf)

Manual Conventions

Arial font is used for plain text in this document.

Arial italic font is used for settings names.

“Arial quoted” font is used for settings values.

Arial Bold font is used for button names.

Arial Bold Italic font is used for menu items.

Arial Blue font is used for cross-references.

Arial Blue Underline font is used for hyperlinks.

Arial red italic is used for typed commands.

Arial Bold font size 10 is used for captions.

ARIAL BLACK ALL-CAPS font is used for port connection names.



This symbol means Reader Be Careful. It indicates a caution, care, and/or safety situation. The user might do something that could result in equipment damage or loss of data.



This symbol means Danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical and RF circuitry and be familiar with standard practices for preventing accidents.

Important notes are displayed in shaded text boxes.

Please note:

Such note boxes display important information that should not be ignored.

Simple file content is displayed in Courier New Black font in a text box.

```
#Sample File  
Version 0.1
```

Section 1 - Overview

Introduction

The MMS Database Option enables the system to utilize the free data available on the MMS website to show:

- Block Outlines
- Platforms
- Pipelines

The information on the MMS site is updated regularly and this option includes the capability to update the information as required. Within C-Scape the user can select an area of interest and then selectively add pipelines, platforms, and block boundaries to the project.

Section 2 - Installation

Sentinel Dongle Driver Installation

1. Download the C-Scape MMS Package from <https://www.oceaneering.com/positioning-solutions/customer-access-and-resources/#sw-cscape>.
2. Double click the “C-Scape MMS Package X.Y.Z Installer.exe” file to start the installation wizard.
3. Ensure that all Windows programs are closed press **Install** to start the installation.

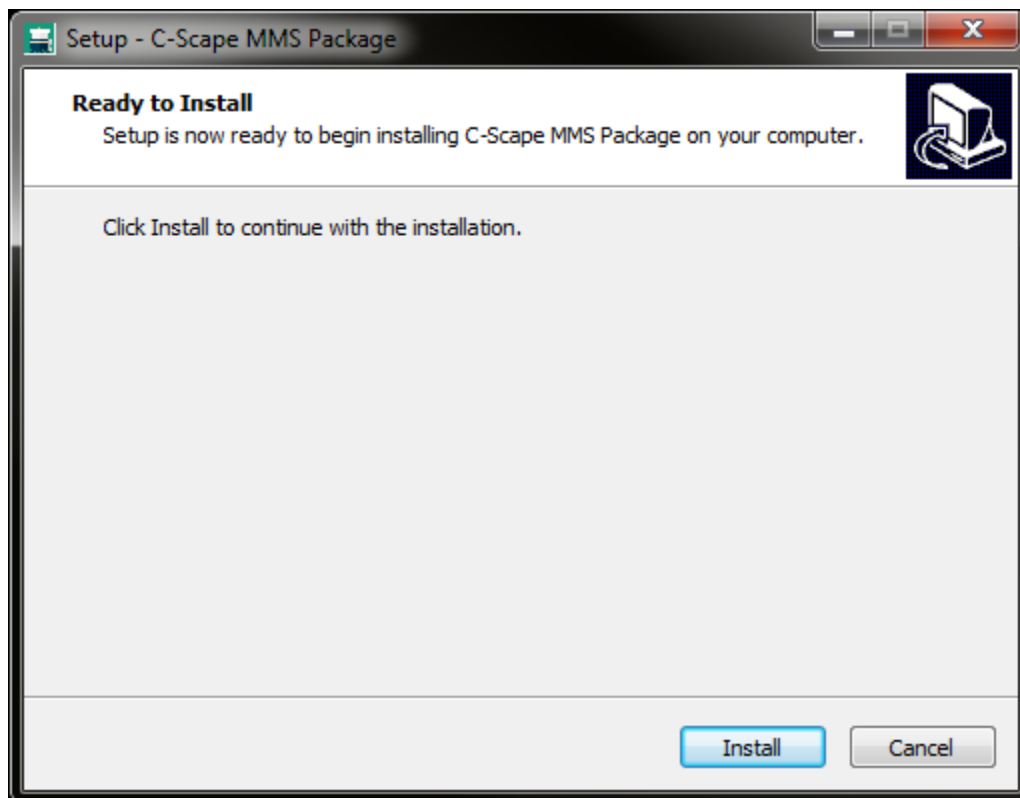


Figure 1: Installation

4. Select **Finish** to complete the installation.

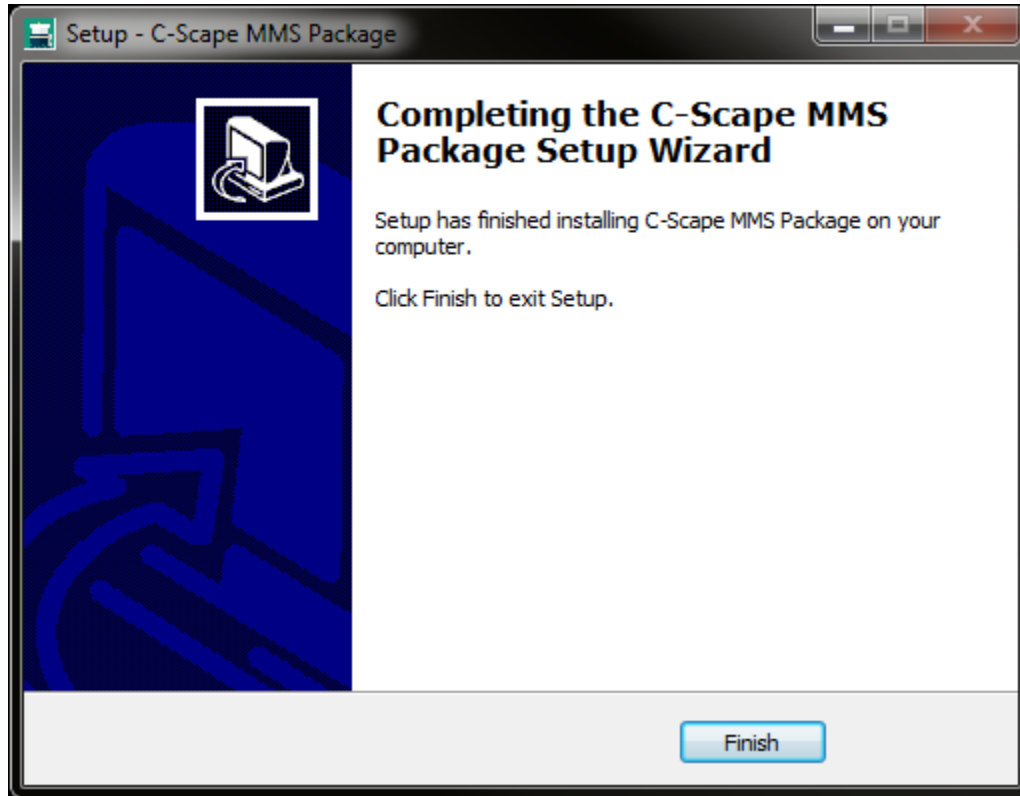


Figure 2: Finished Installation

Section 3 - MMS Integration

The MMS database objects are integrated into C-Scape by converting relevant parts of the database to Objects or Points as follows:

- Blocks are converted to Objects
- Platforms are converted to Points
- Pipelines are converted to Objects

The Objects and Points created by this dialog have the same properties as manually created ones, thus the color and line thickness of each object can be changed.

MMS Objects Dialog

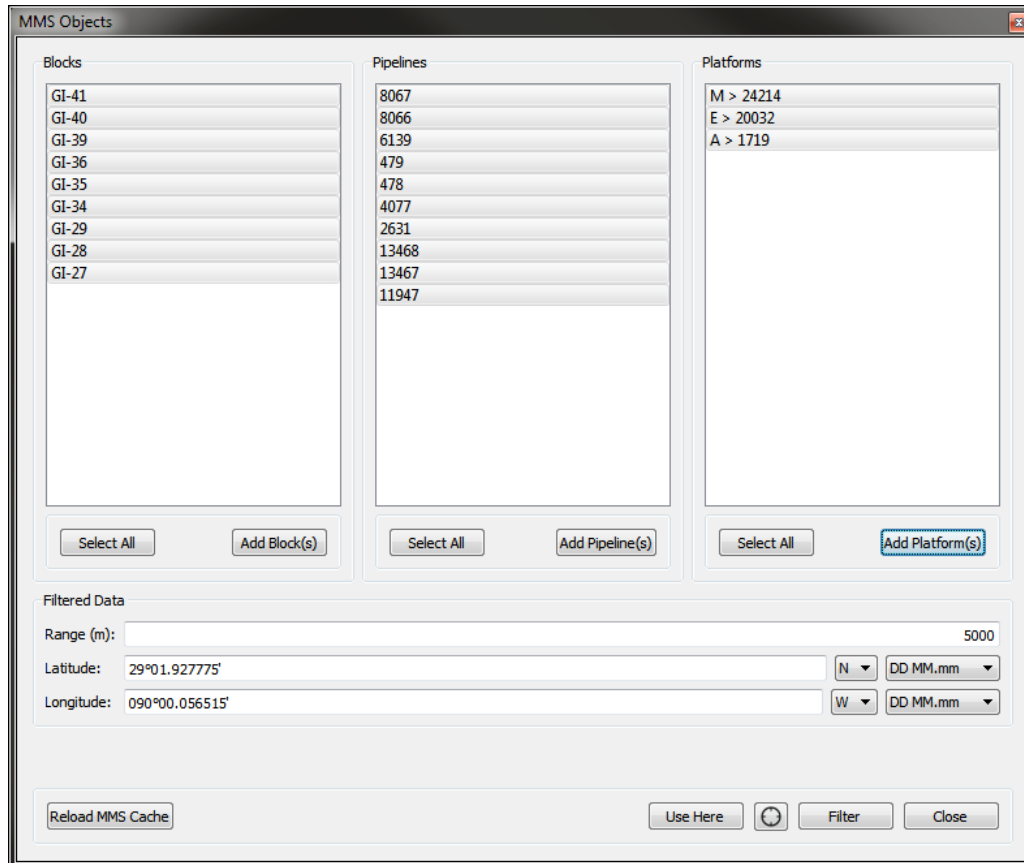


Figure 3: MMS Objects Dialog


The **MMS Objects** dialog allows the user to extract data from the MMS database and include it in a project.

Filtering MMS Objects

The MMS database contains a very large number of objects. In order to add only the desired objects, the database must first be filtered. To filter the database, enter the *Latitude* and *Longitude* and a *Range* (radius). Press the **Filter** button and C-Scape will find all objects within the given radius of the entered *Latitude* and *Longitude*.

The filtered objects will appear in the appropriate list:

- Blocks
- Pipelines
- Platforms

The user can also press the **Use Here** button to populate the *Latitude* and *Longitude* fields with the current position of the vessel. The user can also press the  button to click on the map to enter the *Latitude* and *Longitude*.

Once the database has been filtered, the user can select one, all, or any combination of filtered objects and add them. Once added, the created points and objects behave identically to all other points and objects. They will be saved and loaded as points or objects, and there will be no need to add them from this dialog again.

Platforms

Platforms are added as Points by pressing the **Add Platform(s)** button. The point *Type* is set to “Platform” and the *Watch Circle* is set to “0”.

Pipelines

Pipelines are added as Objects by pressing the **Add Pipeline(s)** button. The object *Type* is set to “Pipeline” and the default color of the pipeline is white; but the user can adjust the color and line thickness of a pipeline just like any other object.

Blocks

Blocks are added by pressing the **Add Block(s)** button, which will create an Object for each block. The default color of a block will be cyan, and the *Type* will be “Block”.

Figure 4: Sample MMS Objects is an example of a work area populated with MMS objects. The cyan squares are block boundaries, with the block centers displaying the block name (GI-114, GI-115, GI-116). The white lines are pipelines running into platforms, shown in green.

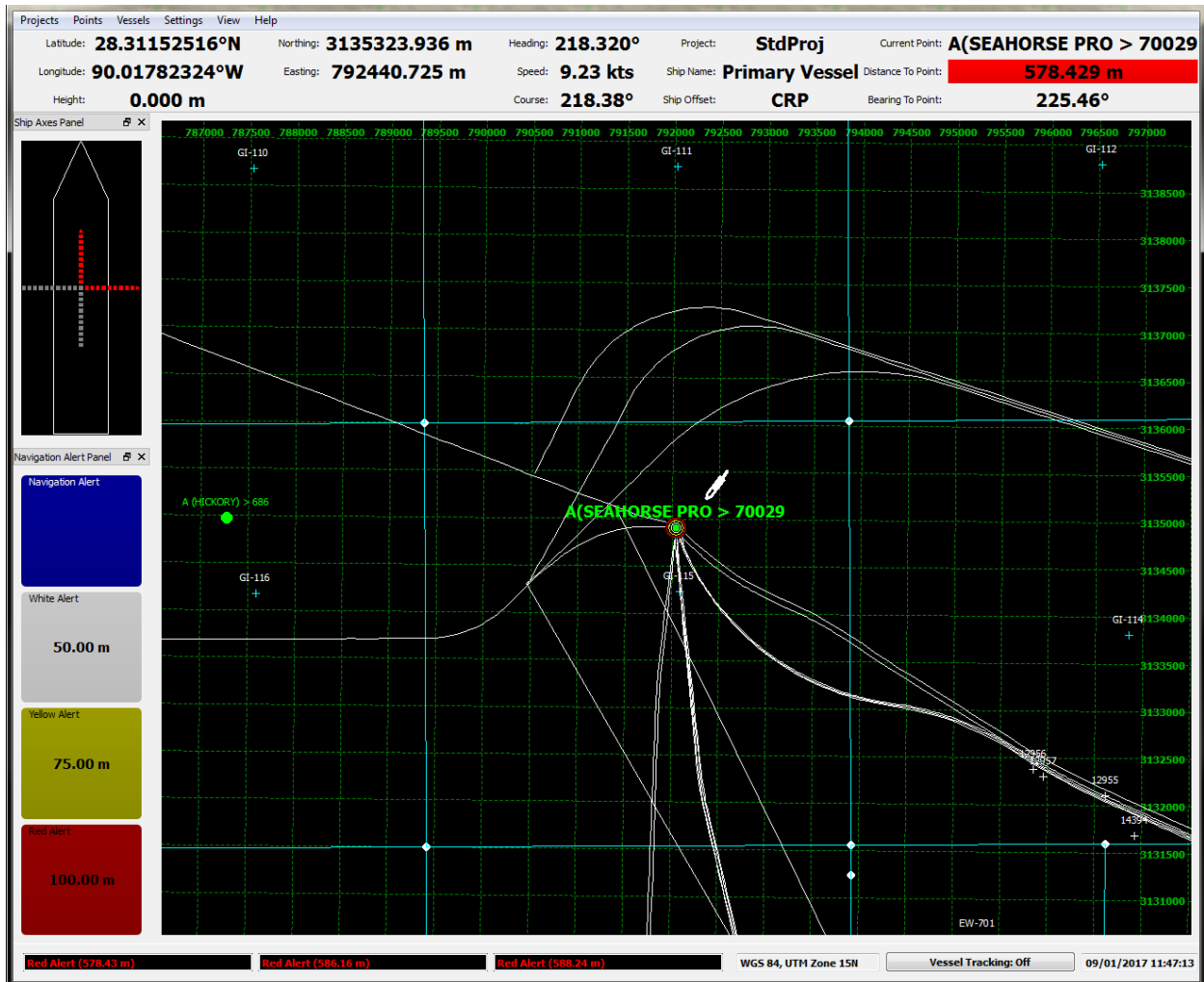


Figure 4: Sample MMS Objects

Section 4 - Getting New MMS Data

MMS updates their databases at regular intervals. Block boundaries remain fairly static, with only mistakes being corrected, but pipeline and platform databases are more dynamic. The MMS website should be checked regularly for updates.

All files are located in the common directory:

- Windows Vista and higher:
C:\ProgramData\C-Nav\C-Scape\MMS
- Windows XP:
C:\Documents and Settings\All Users\Application Data\C-Nav\C-Scape\MMS

There are three subdirectories, one for each type of MMS object.

Platforms

The updated platforms are available on the BSEE website:

<https://www.data.bsee.gov/Main/Platform.aspx>

1. Click on the **Fixed** download for the Platform Locations
2. Save the platlocfixed.zip file to the Platforms subdirectory
3. Extract the platloc.dat file to the same directory

Blocks

The updated blocks are found on BSEE website:

<https://www.data.bsee.gov/Main/Mapping.aspx>

1. Click on the **8311** download for the Blocks ASCII File
2. Save the 8311.zip file to the Blocks subdirectory
3. Extract the following files from the zip file to the same directory:
 - Blocks.gen
 - Blocks.data
4. Click on the **8318** download for the Protraction Polygons ASCII File
5. Save the 8318.zip file to the Blocks subdirectory
6. Extract the following files from the zip file to the same directory:
 - Protrac.gen
 - Protrac.data

Pipelines

The updated pipelines are found on the same page as the blocks:

<https://www.data.bsee.gov/Main/Mapping.aspx>

1. Click on the **8321** download for the Blocks ASCII File
2. Save the 8321.zip file to the Blocks subdirectory
3. Extract the following files from the zip file to the same directory:
 - ppl_arc.dat
 - ppl_arc.gen

Reloading MMS Cache

After downloading the new database files, C-Scape will need to process them into a format that is easier to read. Open the **MMS Objects** dialog and press the **Reload MMS Cache** button. This can take up to a few minutes to complete. Once this process is complete, the updated MMS database is ready to use.