



CORMAT PLUGIN TOOL (UNIFIED MAPPING PLATFORM PLUGIN)

CorMat PlugIn Tool Installation and User Guide

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1. INTRODUCTION

The CorMat PlugIn tool was developed at Vivid Solutions, supplied by Natural Resources Canada and designed for users of the National Topographic Data Base (NTDB) who wish to apply the NTDB correction matrices to the existing NTDB data sets. It allows the users, through the Unified Mapping Platform (JUMP), to easily select an existing NTDB shapefile, apply the correction matrices, and view the new geometric accuracy enhanced NTDB shapefile quickly and efficiently.

1.1 OTHER DOCUMENTS

- [CORMAT Standard and Specifications](#)

1.2 RUNTIME REQUIREMENTS

- [Java 1.4.2 Runtime Environment](#)
- [Unified Mapping Platform](#) (JUMP Version 1.1 or higher)

2. INSTALLATION & CONFIGURATION

The CorMat PlugIn Tool is supplied as a JAR-file containing all the required software.

The software is a PlugIn to the Unified Mapping Platform Version 1.1 or higher (JUMP) and hence requires:

- a. That the Java 1.4 Runtime Environment be installed and configured as the default runtime environment.
- b. That JUMP Version 1.1 or higher be installed;

The CorMatPlugIn.jar file must then be placed into the JUMP PlugIn extension directory. This is usually defaulted as “..\lib\ext” of the JUMP root directory.

For example: if the JUMP application was installed to “C:\BIN\JUMP\” then the CorMatPlugIn.jar must reside in “C:\BIN\LIB\EXT\” for JUMP to detect and load the CorMat PlugIn.

It is possible to specify another extension directory by the command line option “-plug-in-directory” when JUMP is started. Under Windows, this would require a command-line parameter like the following:

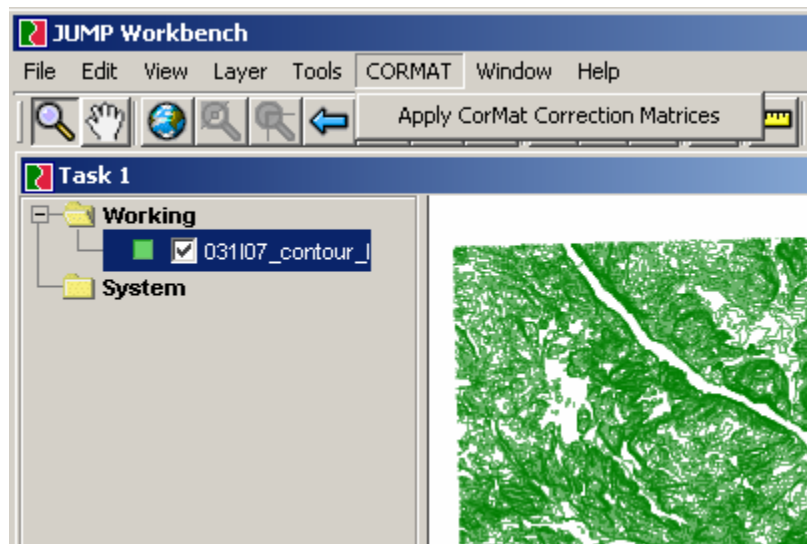
```
-plug-in-directory c:\other\plugins\
```

Usually this would be done by editing the JUMPWorkbench.bat file in the “JUMP\scripts” directory and specify a new location where the “-plug-in-directory” option is specified.

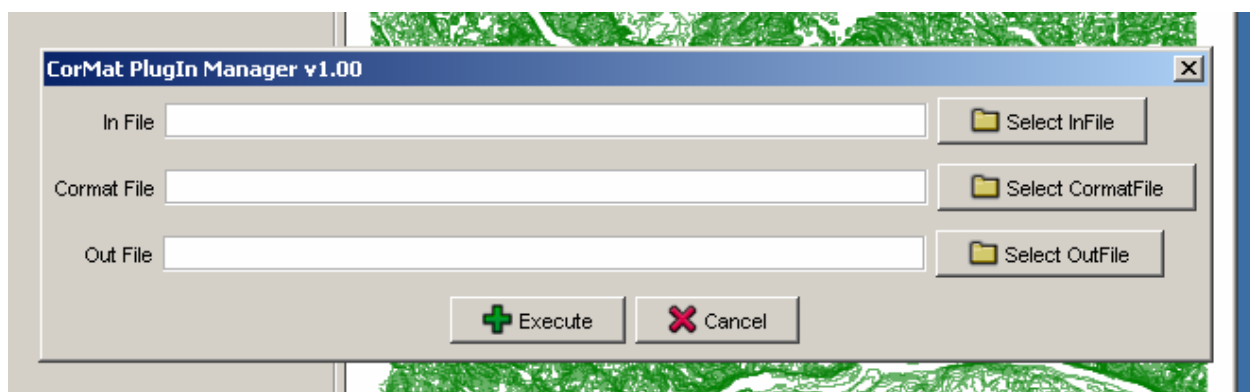
3. USING THE CORMAT PLUGIN

3.1 STARTING

The tool is invoked within JUMP by opening the **CORMAT** menu and selecting the option **Apply CorMat Correction Matrices**.




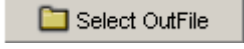
The following CorMat PlugIn Manager V1.00 dialog box will appear over the main JUMP window:

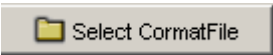


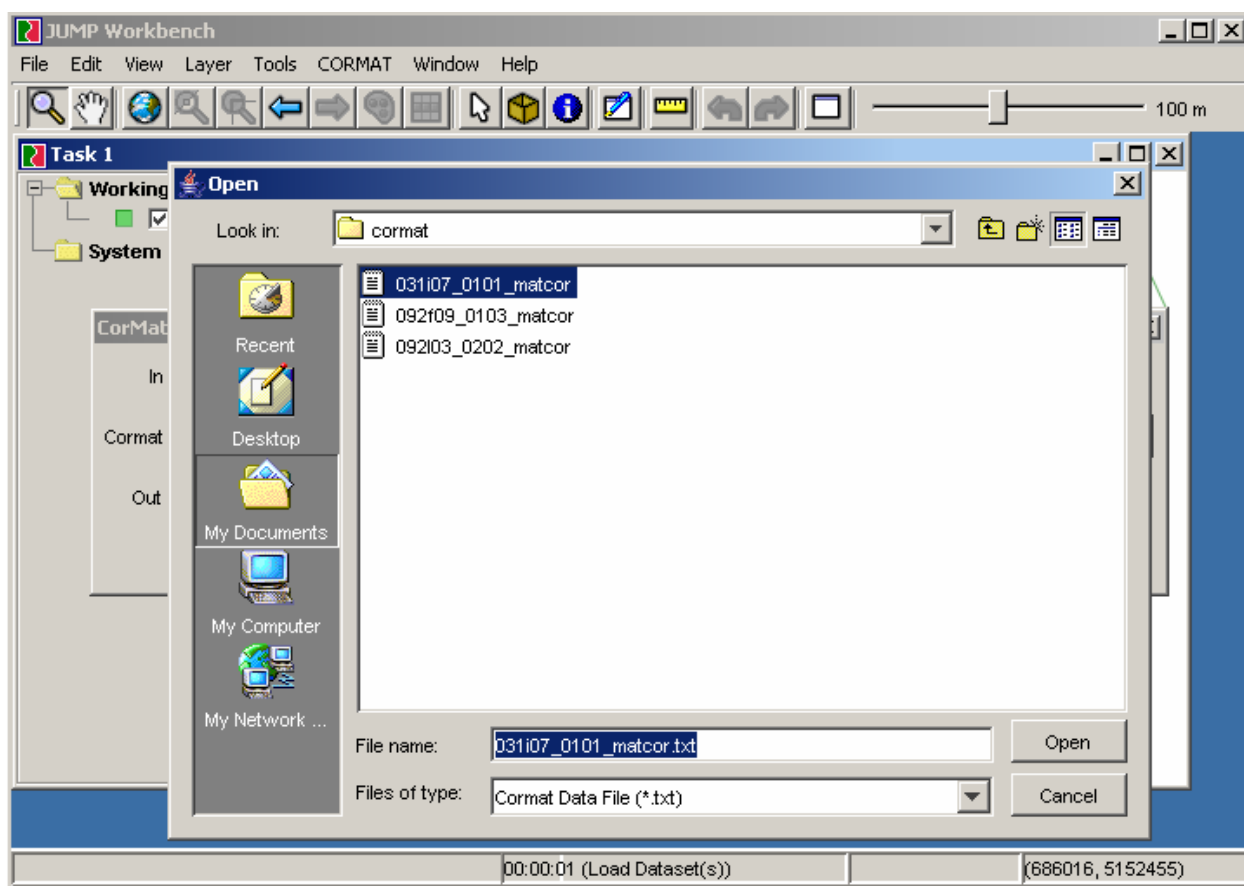
3.2 SPECIFYING PARAMETERS


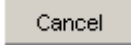
Select the  button to:
Select an input NTDB data set in ESRI shapefile format.

Select the  button to:
Select a corresponding Correction Matrix data set in txt format.

Select the  button to:
Select the corrected NTDB data set in ESRI shapefile format.

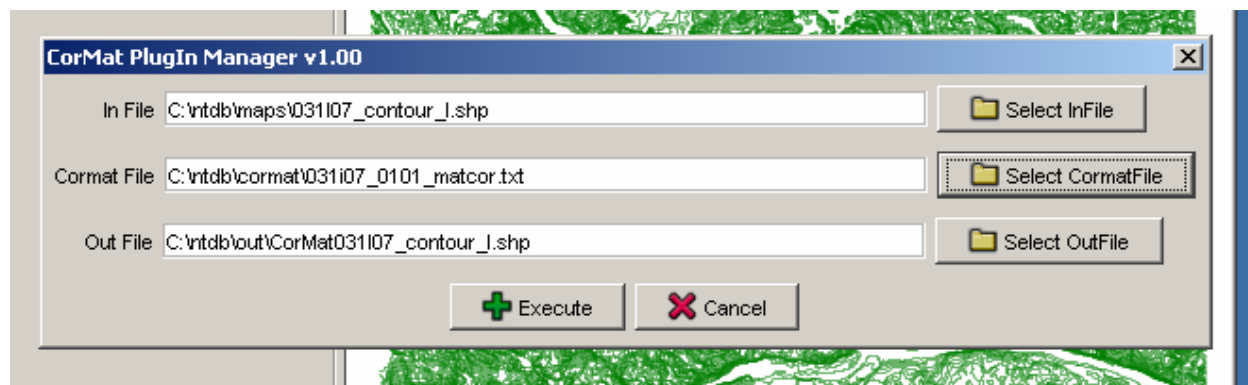
For example, when selecting the  button the following CorMat file selection dialogue box will appear:




Pressing  accepts the present choice and it is added into the CorMat File field in the CorMat PlugIn Manager window. Pressing  cancels the present choice.


3.3 INITIATING THE CORMAT TRANSLATION PROCESS

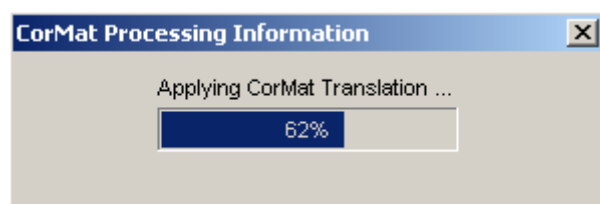
After the selection of the input shapefile, the correction matrix txt file, and the output shapefile, the user is ready to begin the application of the correction matrices.



Select the  **Execute** button to:
Begin the application of the correction matrix to the input data set.

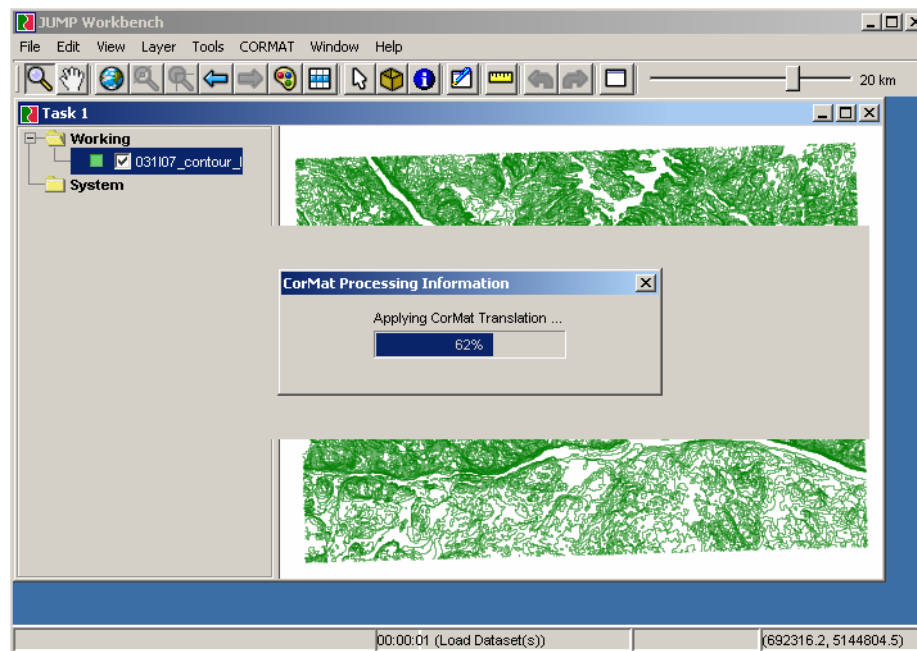
Select the  **Cancel** button to:
Exit the application.

If  **Execute** is selected, a CorMat processing information box will appear detailing the progress.

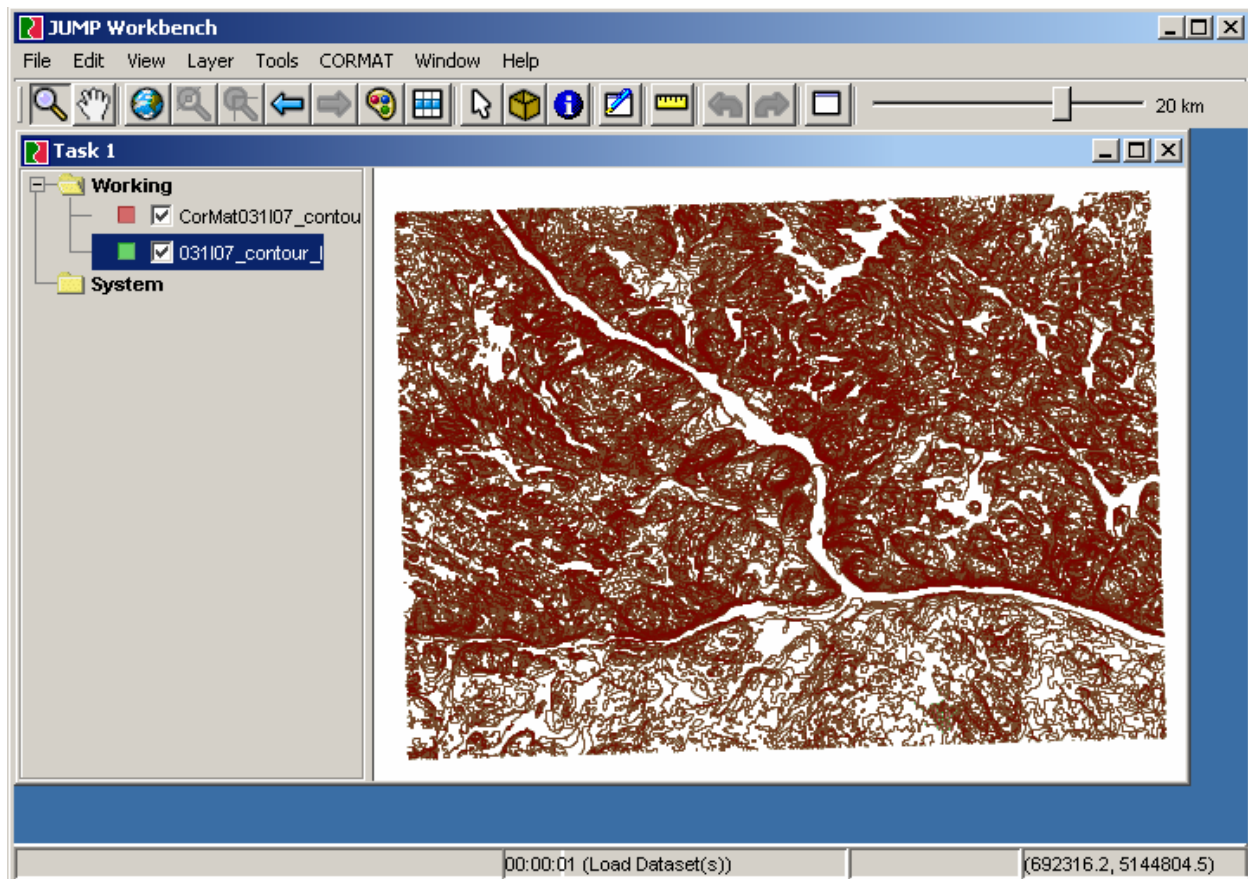


The sequence of work will be:

1. Reading Shapefile ... ;
2. Loading Correction Matrix Data file ... ;
3. Applying CorMat Translation ... ; (with progress bar specifying % complete)
4. Writing Shapefile ... ;

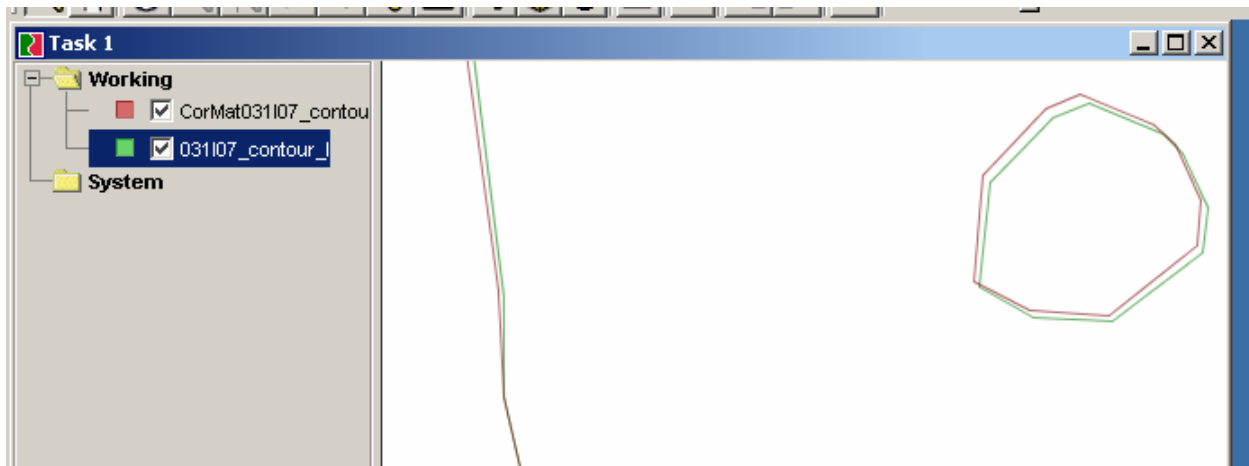


After completion, the CorMat PlugIn dialogue box will disappear and the translated file will automatically be loaded into a new layer and appropriately named as the specified Output CorMat file.



3.4 OUTPUT

The output will be a NTDB corrected shapefile that will be identical to the input shapefile except that it's coordinates will have been corrected using the specified correction matrix. Using JUMP to zoom in will reveal if the CorMat translation was applied, taking note that some areas will not be corrected as specified by the correction matrix file.



Note: the CorMat corrected layer will not need to be saved through JUMP because the layer was loaded from the created shapefile.

4. ERROR MESSAGES

The following errors and warnings may be generated.

Message	No Input SHP file specified.
Severity	Error
Cause	Execute was initiated but no Input file was specified.
Action	Press [Select Infile] and select a shapefile.

Message	Error reading SHP file.
Severity	Error
Cause	The selected input file is not a proper shapefile or has corrupted data.
Action	Press [Select Infile] and select another shapefile.

Message	No Cormat Data file specified.
Severity	Error
Cause	Execute was initiated but no Cormat file was specified.
Action	Press [Select Cormatfile] and select a CorMat file.

Message	Error reading CorMat file.
Severity	Error
Cause	The selected cormat file is not a proper cormat file or has corrupted data.
Action	Press [Select Cormatfile] and select another CorMat file.

Message	No Output SHP file specified.
Severity	Error
Cause	Execute was initiated but no Output file was specified.
Action	Press [Select Outfile] and select/choose an output file.

Message	Error writing SHP file.
Severity	Error
Cause	There was an error writing the selected output file.
Action	The medium may be write protected. Press [Select Outfile] and select/choose another output file on a different storage medium.

Message	The file <filename.shp> already exists. Do you want to replace the existing file?
Severity	Warning
Cause	The shapefile selected for output already exists.
Action	Select [Yes] to overwrite; [No] to alter choice.

Message	Some data points were outside the CorMat matrix and were NOT shifted.
Severity	Warning
Cause	Some of the coordinates within the input file are outside the extents of the selected CorMat data files Correction Matrix. Possibly due to selecting a CorMat data file that does not encapsulate the input files data.
Action	Ensure that the Cormat file represents the corrections for the input files mapsheet.