

WMExporter User Guide

Transgenomic, Inc.

This document describes the WMExporter software utility - a program designed to migrate WAVEMaker data to Navigator v1.5.1a and later.

1.0 INSTALLATION

Please see the installation document “WMExporter Installation Guide”, which is included on the installation CD.

2.0 INTRODUCTION

The WMExporter program is provided to allow customers to migrate data from WAVE-Maker version 4.0 and later to Navigator version 1.5.1a or later. The intent of this tool is to provide a mechanism to migrate essential methods, sequences, and projects that would benefit from the enhanced functionality and analysis tools present in Navigator. It is recommended that a minimum of data be migrated to the Navigator platform. Nonessential data should be viewed using the WAVEMaker Desktop utility.

The user performs the following steps to migrate data:

- 1.** Open the WMExporter application and scan appropriate hard drives for Wavemaker Methods, Sequences, and Projects
- 2.** Select and export Wavemaker data
- 3.** Import data file into Navigator

This document describes each of these steps in detail and provides general hints and troubleshooting information to help make the Wavemaker to Navigator transition an easy and smooth one.

3.0 SOURCE DATA SELECTION

3.1 STARTING THE APPLICATION

Select the “Start/Programs/WAVEMAKER/WMExporter” program. Alternatively, double-click the WMExporter shortcut on the desktop. The WMExporter application should start.

3.2 SCANNING THE DISKS

The WMExporter program will scan local or remotely mounted hardisks looking for WAVEMaker data. WMExporter can search for the following classes of data:

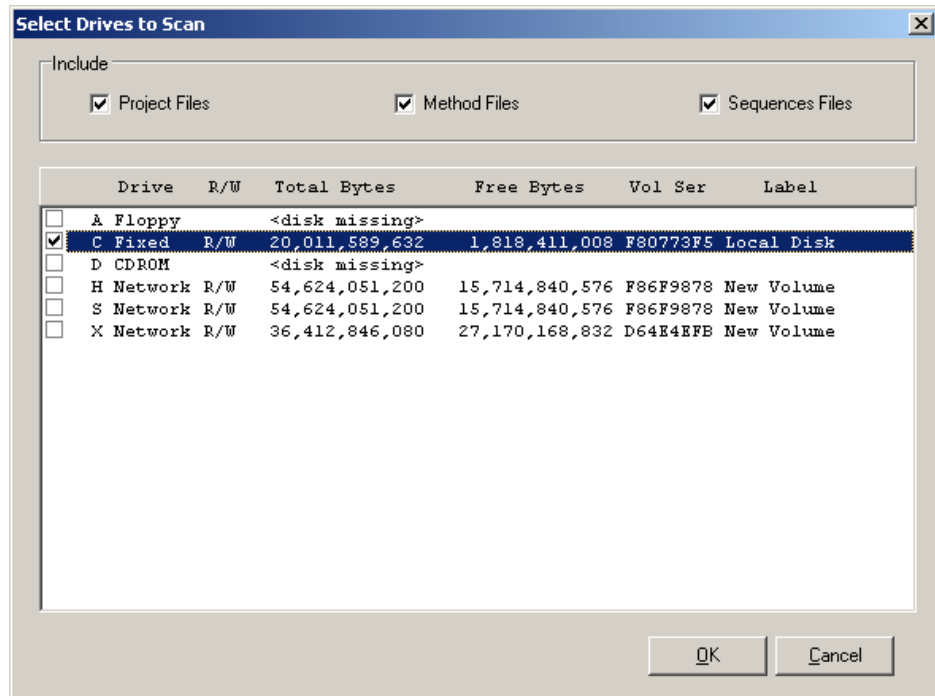
- WAVEMaker Projects
- WAVEMaker Methods
- WAVEMaker Sequences

The user may initiate a system scan by selecting the “Scan” menu item or, alternatively, by selecting the scan icon in the toolbar.

Menu Selection. Select the menu item “File/Scan”

Icon Selection. Select the following icon in the toolbar: 

In both cases the “Select Drives To Scan” dialog will be displayed:



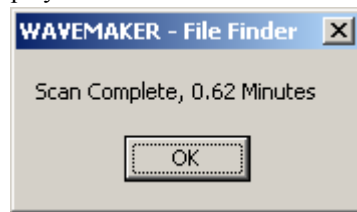
This dialog contains two major sections: 1) the “Include” region and 2) a list of the available drives.

“Include” Region. The include region instructs WMExporter to search for Project and/or Method and/or Sequence Files. Checking the checkbox will include the file types in the file discovery process. By default, all three file types are checked.

Available Drives. This section lists all available disk drives. The user may select to search the appropriate drives by checking the appropriate checkboxes to the left of each row. In the dialog above, the “C:\” drive is selected. By default, all checkboxes are unchecked.

Selecting the “OK” button will begin the scanning process. Alternatively, the process may be cancelled by selecting the “Cancel” button.

The process may continue for some time, depending on the number and sizes of the disks selected. The scan will be complete when a dialog indicating the scan time is displayed:



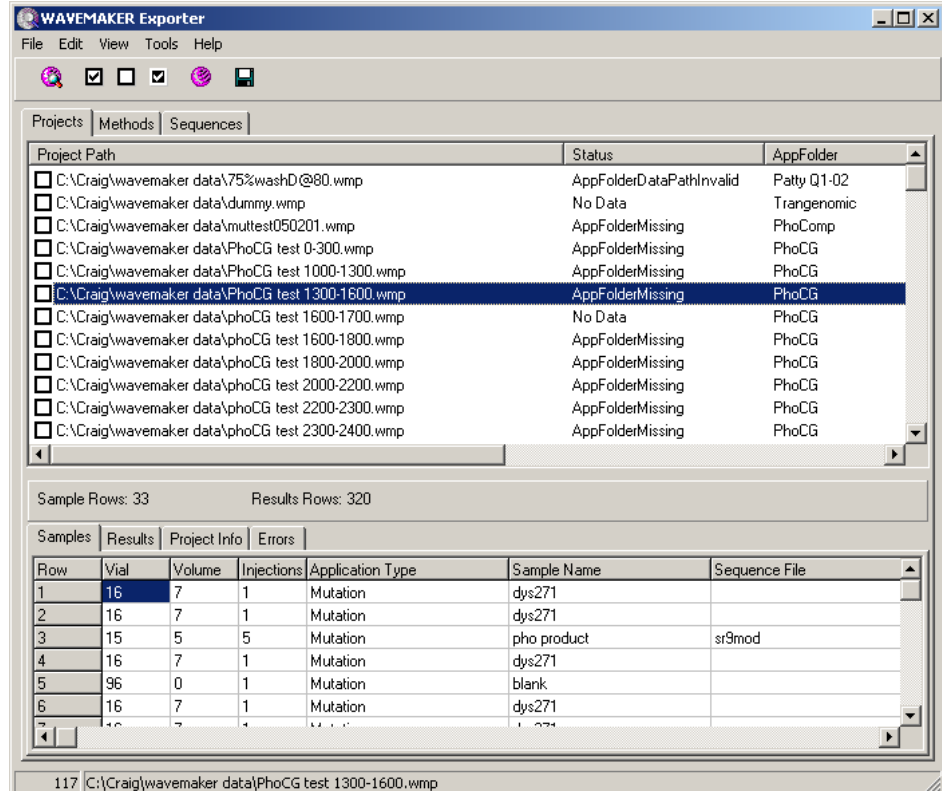
The user should acknowledge the “OK” button and return to the main application window.

3.3 SELECTING THE DATA FOR EXPORT

After the scanning operation has been run, a listing of all the Projects, Methods, and Sequences available for export is displayed.

3.3.1 Projects

The “Projects” data tab displays a list of WAVEMaker project files (*.wmp) that are present on the selected disk(s):



For each project displayed (each line of the upper display), there are a number of attributes that provide descriptive information to the user:

Project Path. This field provides the path and name of each project found during the scanning process.

Status. The status field indicates whether there is sufficient data integrity to successfully export the data. All values other than “OK” indicate a potential problem that should be investigated prior to selecting the data for export.

The following table provides a listing of all status messages:

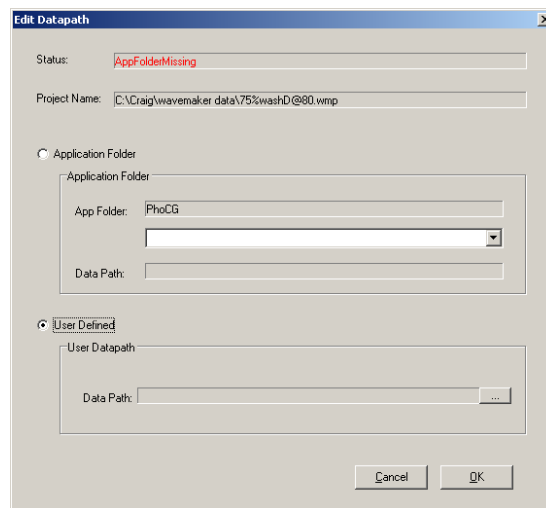
Attribute Name	Description	Consequence	User Response
AppFolderData-PathInvalid	The Application path is in the registry, but points to an invalid file path	Data cannot be exported	Reset correct data path to data directory (See “DataPath” section below)
AppFolderMissing	The Application path is not in the HSM registry	Data cannot be exported	Set data path to data directory (See “DataPath” section below)

SOURCE DATA SELECTION

Attribute Name	Description	Consequence	User Response
DataErrorsFound	Errors (or data incompatibilities) were found in the associated virtual methods	Injection will not be exported	View Errors subtab to list errors
DataPathInvalid	Data path points to an invalid file path	Data cannot be exported	Reset to correct data path (See “DataPath” section below)
No Data	The injections have not been run for the particular project (i.e. no injection results)	Data cannot be exported	N/A
OK	Data was found without a problem.	Data will be exported	N/A
SeriesMissing	One of the data series (injection results) are missing	Only injections with associated data will be exported	Recover files that are missing and re-export data if desired.
VerNotSupported	Project was prior to WAVEMaker 4.0 and is not supported by the WMEExporter tool	Data cannot be exported	N/A

AppFolder. The Appfolder attribute describes the Application folder name set in the HSM Administrator application. Typically, application folders are used as organizing areas for storing project and related data.

DataPath. This describes the directory path to the injection results. This is typically set as the “Data” directory in the Application directory; but is not always the case. It is possible to place the data directory in other locations. If the path is not found automatically, it can be manually set by right clicking the selected project in the table and selecting the “Edit Datapath” menu item. The following dialog will be displayed:



The user may select the “User Defined” radio button and subsequently edit the Data Path to point to the stored data files. Note: it is important that the path is set to the correct location, typically to the directory above the “Data” directory. This will result in a status of “OK” if all the data is present. This operation will be required if the application has a status of AppFolderMissing or AppFolderPathNotValid

The projects may be selected for export individually or as a group.

Individual selection. The checkboxes to the left of the project path may be individually selected by left-clicking the mouse in the checkbox. Only projects with a valid status can be selected for export. Invalid projects are NOT selectable.

Group selection. All valid projects can be selected for export at one time by selecting the icon in the toolbar. WARNING: It is recommended that limited numbers of projects be exported to prevent excessive time and system resource usage!

In addition to the project listing, there is a tabbed pane at the bottom of the window containing read-only project information for samples, results, project info (i.e. project details) and errors. These details can be viewed by clicking on the desired project path in the upper pane.

Samples. A listing of all Wavemaker Samples for the project selected is presented in the Samples subtab.

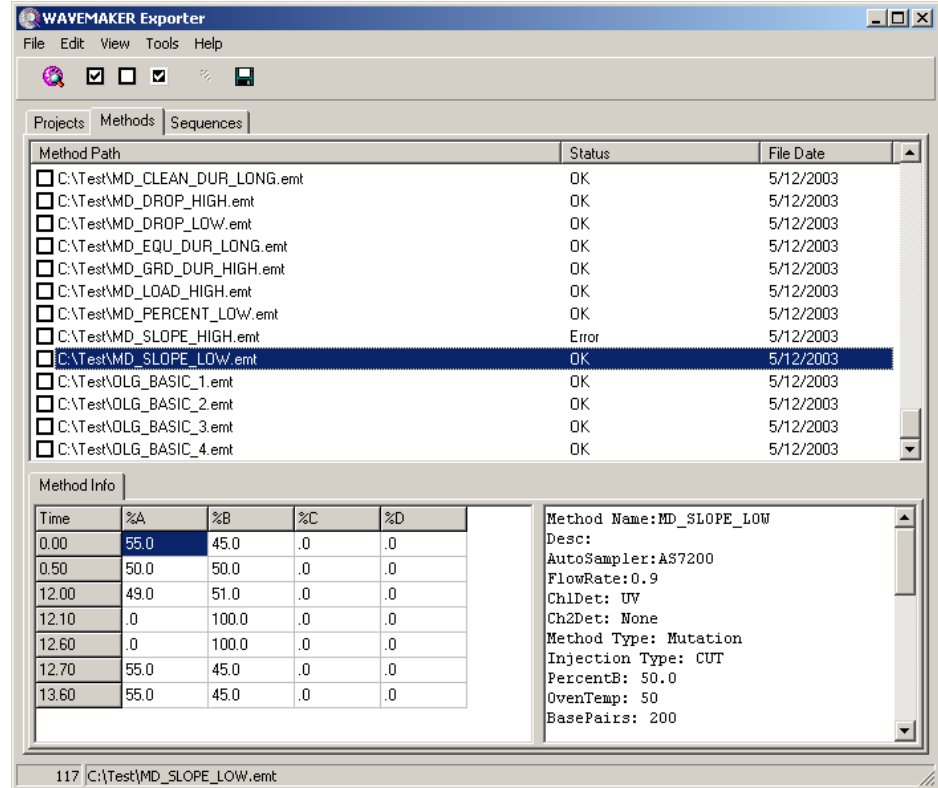
Results. A listing of all Wavemaker injection results associated with the selected project is displayed.

Project Info. A detailed listing of project-specific attributes is provided in the Project Info subtab

Errors. This subtab contains a listing of errors associated with the data in the selected project. This provides details to the user why the associated injection(s) will not result in a successful export and associated import into Navigator.

3.3.2 Methods

The “Methods” data tab displays a list of WAVEMaker method files (*.emt) that are present on the selected disk(s):



For each method displayed (each line of the upper display), there are a number of attributes that provide descriptive information to the user:

Method Path. This field provides the path and name of each method file found during the scanning process.

Status. The status field indicates whether there is sufficient data integrity to successfully export the data. A value of “Error” indicates a failure, and data will NOT be exported.

File Date. This displays the date of the method files

The methods may be selected for export individually or as a group.

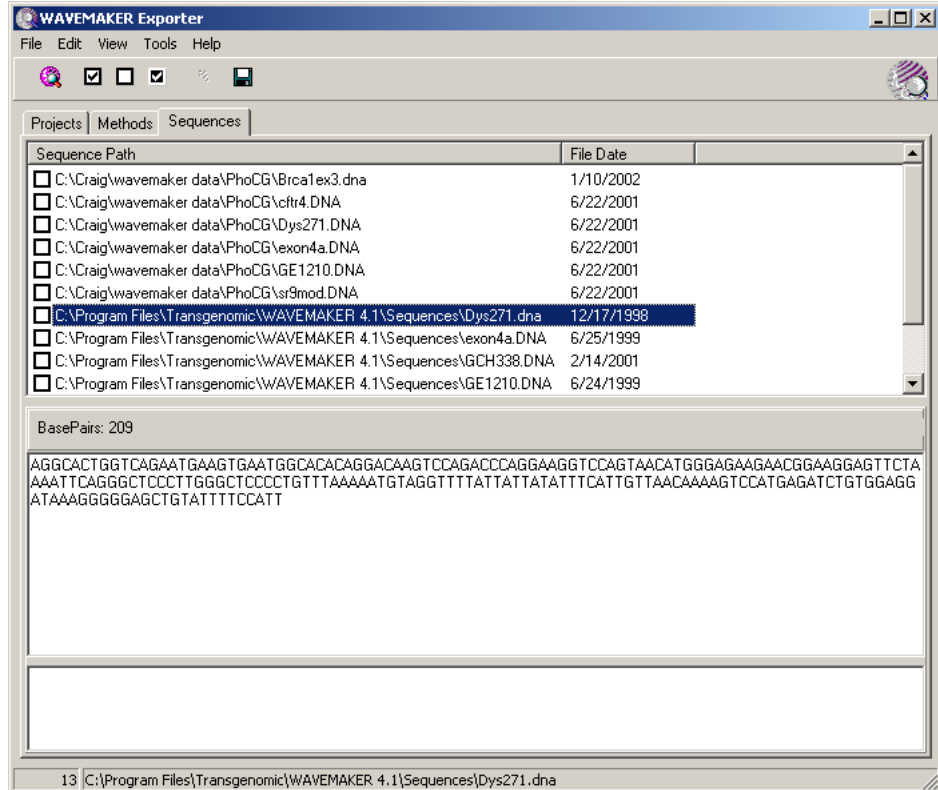
Individual selection. The checkboxes to the left of the method path may be individually selected by left-clicking the mouse in the checkbox.

Group selection. All valid methods can be selected for export at one time by selecting the icon in the toolbar.

In addition to the method listing, there is a split pane at the bottom of the window containing read-only method information. This can be perused at the users' discretion by clicking on the Method Path in the upper pane. When an error has been detected, another tab labelled "Errors" will also be displayed for the method that is highlighted.

3.3.3 Sequences

The "Sequences" data tab displays a list of WAVEMaker sequence files (*.dna) that are present on the selected disk(s):



For each sequence displayed (each line of the upper display), there are a number of attributes that provide descriptive information to the user:

Sequence Path. This field provides the path and name of each sequence file found during the scanning process.

File Date. This displays the date of the method files

The sequences may be selected for export individually or as a group.

Individual selection. The checkboxes to the left of the sequence path may be individually selected by left-clicking the mouse in the checkbox.


Group selection. All sequences can be selected for export at one time by selecting the icon in the toolbar.

In addition to the sequence file listing, there is a pane at the bottom of the window containing read-only sequence data, including the number of base pairs, the sequence data and any associated sequence description. This can be perused at the users' discretion by clicking on the desired Sequence Path in the upper pane.


4.0 GENERATING DATA FILES

Data for Projects, Methods, and Sequences are exported independently; although the process for export is similar. In each case a data file will be produced which can then be imported into Navigator.

4.1 Project Export


1. Select the Projects tab
2. Select (check) the projects destined for export
3. Select the menu item "File/Export"; alternatively select the  icon.
4. Provide a name and path for the export file and select "Save". The data file (*.wpe) will then be saved to disk

4.2 Method Export

1. Select the Methods tab
2. Select (check) the methods destined for export
3. Select the menu item "File/Export"; alternatively select the  icon.

Provide a name and path for the export file and select "Save". The data file (*.wme) will then be saved to disk

4.3 Sequence Export

1. Select the Sequences tab
2. Select (check) the Sequences destined for export
3. Select the menu item "File/Export"; alternatively select the  icon.

Provide a name and path for the export file and select "Save". The data file (*.wae) will then be saved to disk

5.0 IMPORTING DATA INTO NAVIGATOR

The Navigator Import Export Utility version 1.5.1a can be used to import the projects, methods and sequence data into a Navigator database. Please see associated Navigator documentation for a full description of the functionality and usage of this utility.

Importing Projects. Start the Navigator Import/Export Utility and connect to the appropriate database. Select the "Import/Projects" menu option, which will provide an

Open file dialog allowing selection of the *.wpe file exported from the WME exporter application (It may be necessary to move this file to a location accessible by the Navigator Import/Export Utility). Select the “Open” button and the associated data will be imported.

NOTE: It may be necessary to run Peak Analysis Options in Navigator prior to using the data in post-run analysis workflows. Please consult the user’s guide for more information about these options.

Importing Methods. Start the Navigator Import/Export Utility and connect to the appropriate database. Select the “Import/Methods” menu option, which will provide an Open file dialog allowing selection of the *.wme file exported from the WME exporter application. Select the “Open” button and the associated method data will be imported.

Importing Sequences (Amplicons). Start the Navigator Import/Export Utility and connect to the appropriate database. Select the “Import/Amplicons” menu option, which will provide an Open file dialog allowing selection of the *.wae file exported from the WME exporter application. Select the “Open” button and the associated amplicon data will be imported.

6.0 TROUBLESHOOTING

Out of Memory Errors - The conversion utility uses a large amount of memory during the translation process. If out-of-memory errors occur, then it is suggested that fewer projects be exported simultaneously. The projects can be exported serially (one after the other) if necessary. Please note that it is recommended that a minimum of data be transferred from Wavemaker to Navigator.

No Data Exported - Occasionally, an incorrect data path will be set by the user. This may result in a project exported without any data. To correct this situation, simply edit the data path (right click the project and select “Edit DataPath”) to a directory typically above the “Data” directory. If all the data is present, a status of “OK” will result and the data should export as expected.

Import Errors - A log file (userName@connectionName.log) is produced during import that is available in the Transgenomic/Navigator directory. This file will be helpful when provided to customer support to help solve Navigator data import problems.

7.0 MISCELLANEOUS NOTES

1. Sequences in Wavemaker become amplicons in Navigator. The user should select the option to import Amplicons using the Navigator Import/Export utility.
2. All methods associated with injections are imported as virtual methods into Navigator.
3. New 384 well trays are created by default upon import into Navigator.

MISCELLANEOUS NOTES

4. The Navigator sizing applications will only work correctly with imported data if the gradient used is a 2% linear (Universal Linear) gradient.
5. If an “I/O ERROR” is received while attempting to set an AppFolder directory; the workaround is to simply close and reopen the WMExporter application.
6. The menu item “Tools/Open Wavemaker” and the “Open Wavemaker” icon are only available from the Projects tab when Wavemaker resides on the same computer as WMExporter. This allows the user to open a selected project in Wavemaker.