



Multi-Module Exporter

History, Capabilities, and Possibilities v1.0

Michael Sutherland
Galactic Solutions Group LLC
michael@galactic-solutions.com
+1 248-853-2283



History

Objective

- ❁ Create a utility in DOORS for ad-hoc queries and reporting across multiple Modules.
- ❁ Allow a complex Filter criteria to be applied to multiple Modules, without having to store the Filter Criteria in a View in each Module.
 - Modules must share a common Information Model, with regards to Attributes in Filter Criteria and Export List.

Origins

- Started in August 2000 as a script to export requirements from DOORS Modules to a Lotus Notes Database.
 - Although a direct OLE interface from DOORS to Lotus Notes was technically possible, it was decided to export the information to an “intermediate form”, which was a specially formatted Word Document.
 - A Lotus Notes script is then run to complete the import.

Development History

- From August 2000 until March 2001, script evolved as a non-interactive export, with no User Interface.
- MMX v1.0 released in March 2001.
 - Flexible user interface to select Export criteria.
 - Lotus Notes exports only.
 - Successful deployment with periodic upgrades.
- MMX v2.0 released in December 2001.
 - Major update to add direct OLE export to Word for generic reporting.
- MMX v2.2 released in August 2002.
 - Latest version, with core functionality in service for two years.
- MMX v3.0 planned for December 2002.
 - Major update to add direct export to Excel.

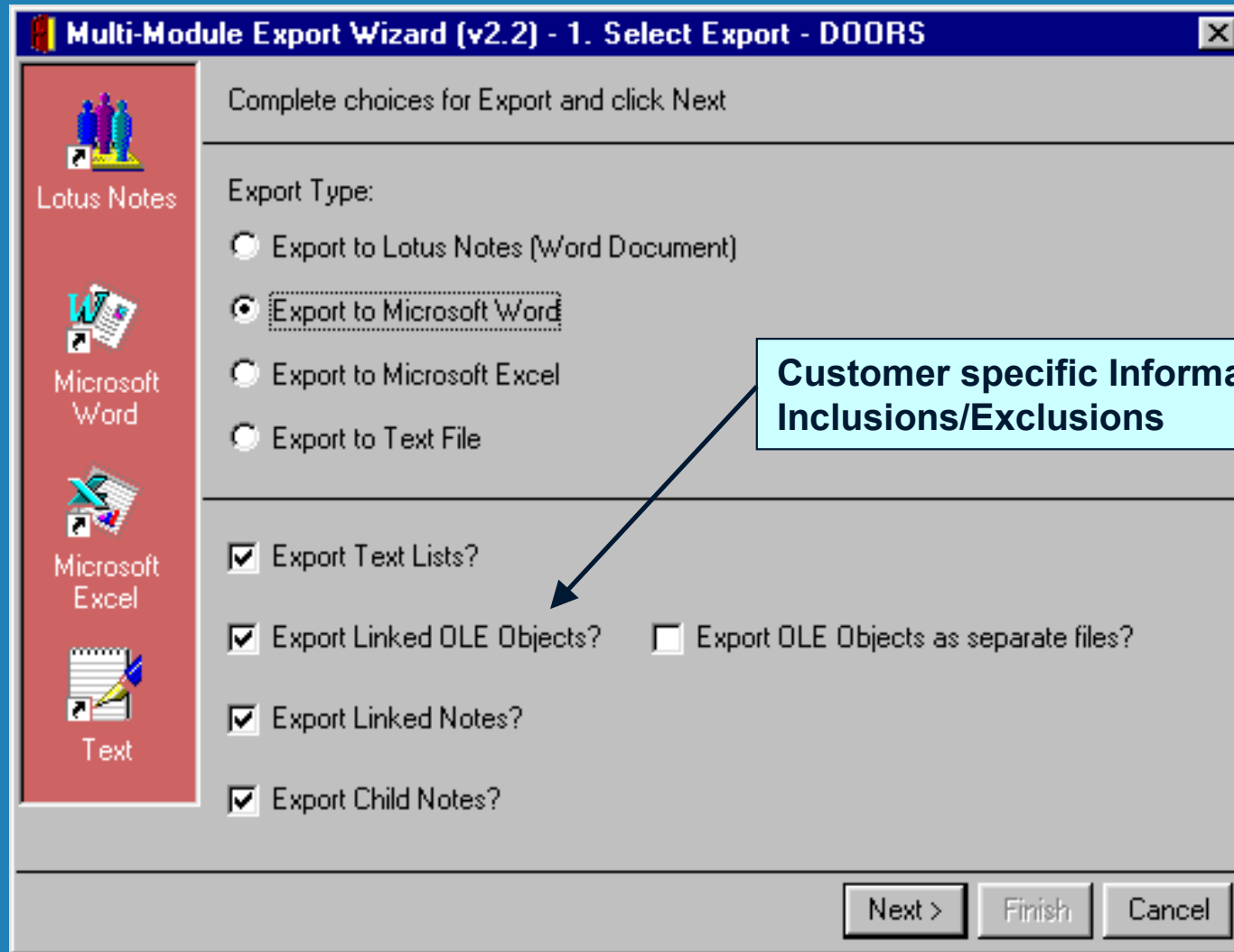


Capabilities

Export Process Requirements

- ☉ Selection of target Export environment
 - Lotus Notes, Word, Excel, Text file
- ☉ Selection of Modules
 - Export from baseline or current Version
- ☉ Building of Filter criteria for application to each Module
 - Consistency checking against Information Model
- ☉ Selection of Attributes to Export
- ☉ Selection of Filenames

Step 1 - Choose Export Format



Step 2 - Select Modules

Select and order those Modules to Export. Use Shift-Click and Ctrl-Click to select multiple Modules.

Modules appearing in the list are generated from those in and below the current Folder.

Modules found in Folders named Inactive, Common, Links, Partitioning, or Templates are excluded.

The 'Select All' button selects all Modules in the list for Export. The 'Unselect All' button deselects all Modules in the list.

The 'Baseline Selected' button sets the selected Modules to be exported from the most recent Baselined Version.

The 'Current Selected' button sets the selected Modules to be exported from the current Version.

Version	Name
Baseline	/EasyStart/Requirements/System Requirements
Baseline	/EasyStart/Requirements/Use Cases
Current	/EasyStart/Requirements/User Requirements

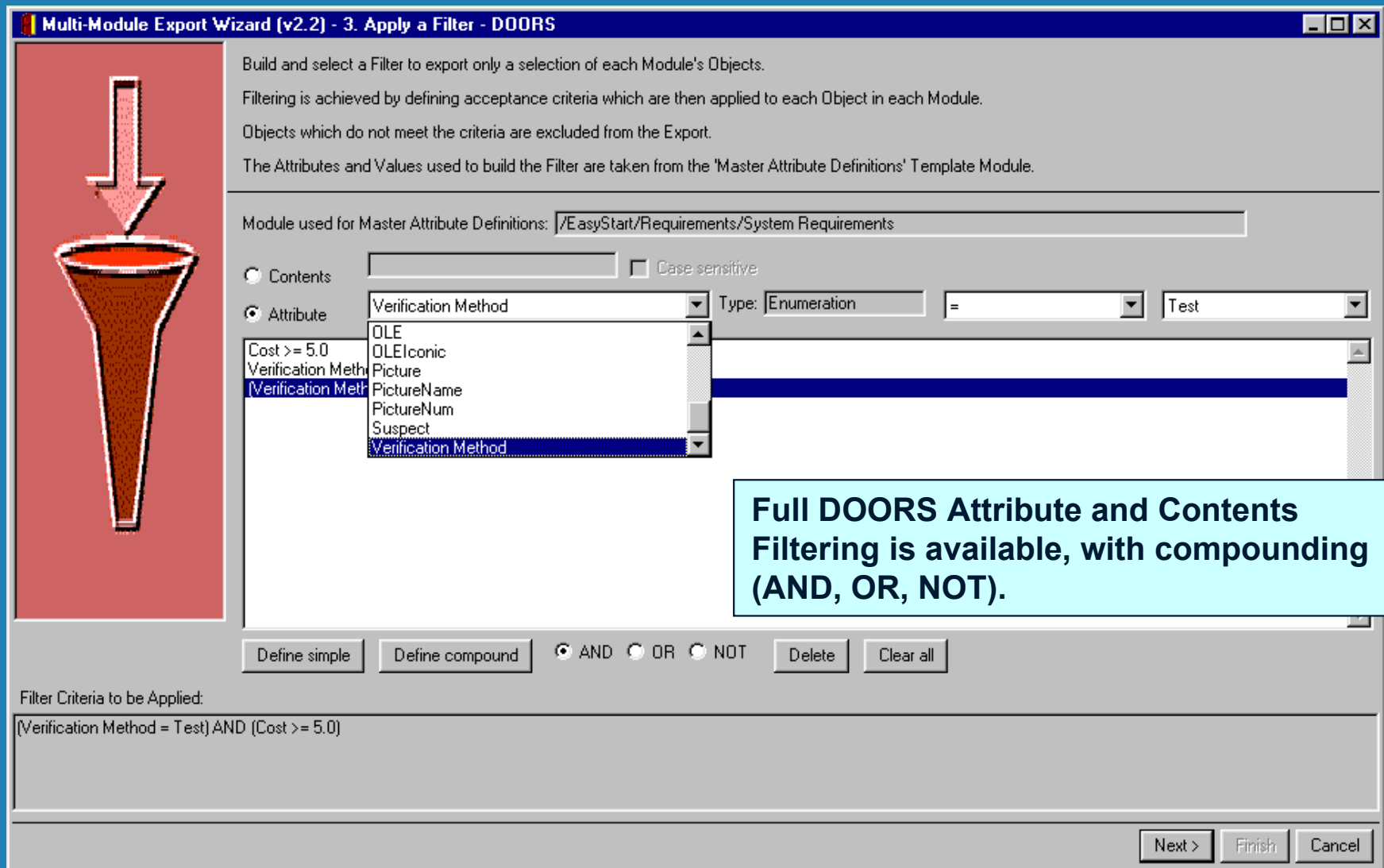
Select All Unselect All Set selected to Baseline Set selected to Current

Next > Finish Cancel

List of Modules gathered recursively (including Modules in sub-folders), from folder where script was started.

Each Module can be individually set to export from the most recent Baseline or the current Version.

Step 3 - Build Filter Criteria



Multi-Module Export Wizard (v2.2) - 3. Apply a Filter - DOORS

Build and select a Filter to export only a selection of each Module's Objects.
Filtering is achieved by defining acceptance criteria which are then applied to each Object in each Module.
Objects which do not meet the criteria are excluded from the Export.
The Attributes and Values used to build the Filter are taken from the 'Master Attribute Definitions' Template Module.

Module used for Master Attribute Definitions: /EasyStart/Requirements/System Requirements

Contents Case sensitive

Attribute

Verification Method Type: Enumeration = Test

Cost >= 5.0
Verification Meth
Verification Meth
Verification Meth
Picture
PictureName
PictureNum
Suspect
Verification Method

Full DOORS Attribute and Contents Filtering is available, with compounding (AND, OR, NOT).

Define simple Define compound AND OR NOT Delete Clear all

Filter Criteria to be Applied:
(Verification Method = Test) AND (Cost >= 5.0)

Next > Finish Cancel

Step 4 - Select Attributes to Export

Multi-Module Export Wizard (v2.2) - 4. Select Attributes - DOORS

The Attributes in the 'Attributes to Export' list will be exported in the order they appear.

The Up and Down arrows are used to order of selected Attributes in the 'Attributes to Export' list.

The 'Main' Attribute indicates the Main column in a DOORS Module (Object Number, Object Heading, Object Text, etc.)

Attributes that appear before the 'Main' Attribute will be prefixed, and those that appear after will be suffixed.

The Right arrow adds selected Modules to the 'Attributes to Exclude from Export' list.

The Left arrow removes selected Modules from the 'Attributes to Exclude from Export' list.

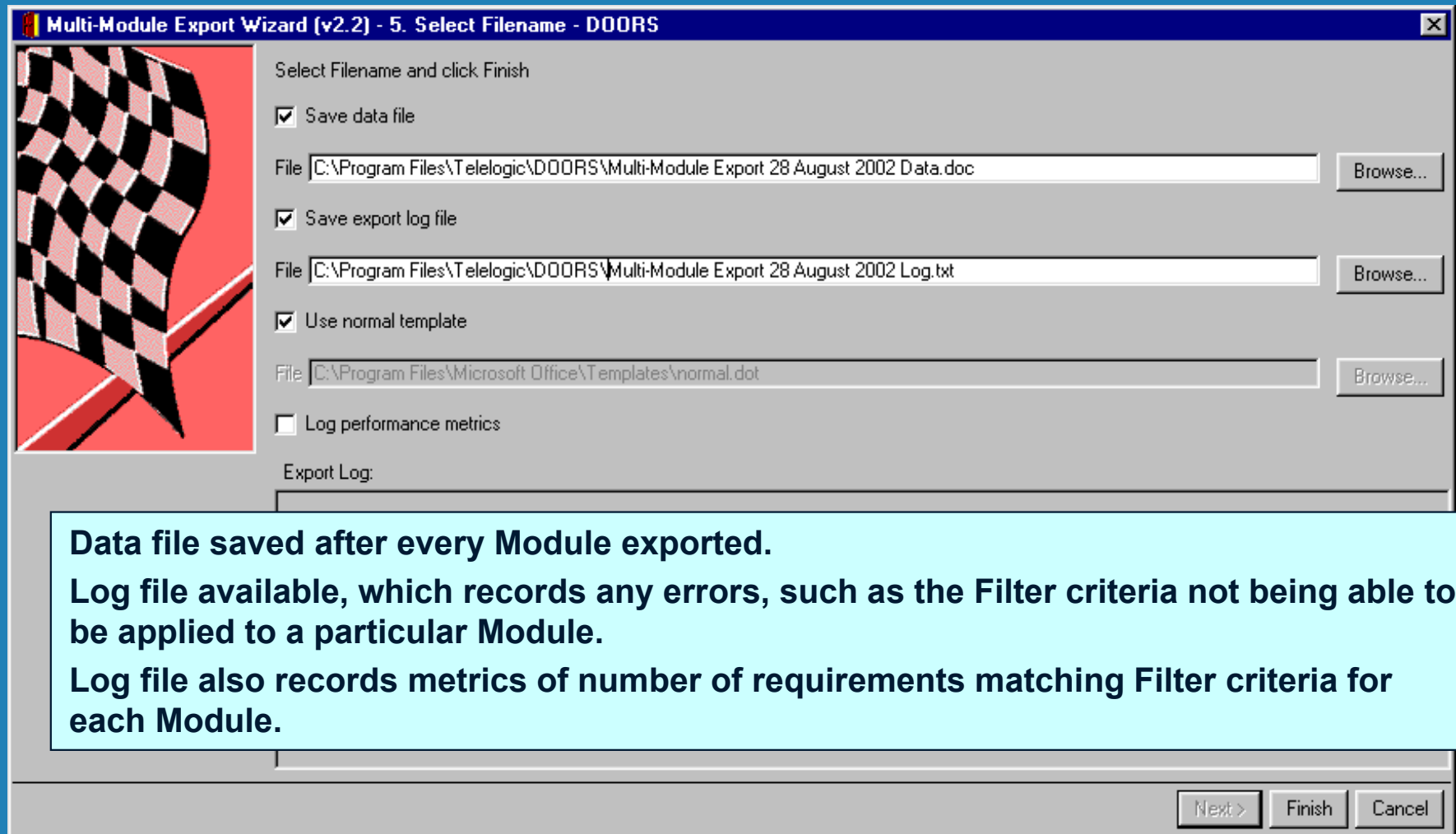
Attributes to Export: Cost, Main, Verification Method

Attributes to Exclude from Export: Created By, Created On, Created Thru, Industrial Area, Last Modified By, Last Modified On, OLE, OLEIconic, Object Heading, Object Identifier, Object Level, Object Number, Object Short Text, Object Text, Old Id, Picture, PictureName, PictureNum, Suspect

Callout: Attributes to export are selected from list on right, and ordered relative to the "Main" column in list on left. Attribute are "prepending" or "postpending" to Object Text (in brackets)

Buttons: Select All, Unselect All, Up, Down, Next >, Finish, Cancel

Step 5 - Select Filenames



Multi-Module Export Wizard (v2.2) - 5. Select Filename - DOORS

Select Filename and click Finish

Save data file
File: C:\Program Files\Telelogic\DOORS\Multi-Module Export 28 August 2002 Data.doc [Browse...]

Save export log file
File: C:\Program Files\Telelogic\DOORS\Multi-Module Export 28 August 2002 Log.txt [Browse...]

Use normal template
File: C:\Program Files\Microsoft Office\Templates\normal.dot [Browse...]

Log performance metrics

Export Log:

Next > Finish Cancel

Data file saved after every Module exported.

Log file available, which records any errors, such as the Filter criteria not being able to be applied to a particular Module.

Log file also records metrics of number of requirements matching Filter criteria for each Module.

Unique Capabilities

- Export multiple Modules to Word, Excel or Text, using complex Filter Criteria
- Export from baselines or current versions
- Exports URLs as hyperlinks in Word
- Prepend and/or postpend Attribute Values
- Saves document after every Module
- Export Metrics, count matches against query
- Error Logging, reports inconsistencies in common Information Model
- Export OLE Objects inline, to separate files, or not at all.



Possibilities

Future Developments

- Update for DOORS 6.0 (September 2002).
- Export to Excel (December 2002).
- Export to Word (as needed, minor update).
 - Option to export Attributes as in Book form, where Attributes are “rolled under” the Object Heading/Text
- Most importantly, the Multi-Module exporter is being readied for sale to the general public (January 2003, or earlier if interest dictates).
 - Participants in the *Initial Public Offering* will lead new requirements for initial public version v3.x

Contact

- For those interested in participating in the *Initial Public Offering* of the Multi-Module Exporter, please contact:

Michael Sutherland
Galactic Solutions Group
michael@galactic-solutions.com
+1 248-853-2283