



# Technical bulletin

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Contact: tech.support@malighting.com

## MA Vectorworks Export Plugin V2.x – Short Manual

### Introduction

The MA Vectorworks Export Plugin allows you to export the information of your lighting fixtures into a file format which a grandMA2 (onPC or actual console) can import into your show. So if you use grandMA 3D and you have already built your scene in Vectorworks in 3D, you don't have to manually enter the position and rotation information into the grandMA2 patch list.

### Installation

The plugin consists of a single file 'Export grandMA2 Setup (XML).vsm' which has to be copied into one of the Plugin-Folders of Vectorworks. Either into the global PlugIn-Folder which is in the installation directory of Vectorworks. Or into the user PlugIn-Folder which can be found at the following folders:

Windows:

`C:\Users\<UserName>\AppData\Roaming\Nemetschek\Vectorworks\<VersionNumber>\Plug-ins`

OS X:

`/Users/<UserName>/Library/Application Support/Vectorworks/<Year>/Plug-Ins`

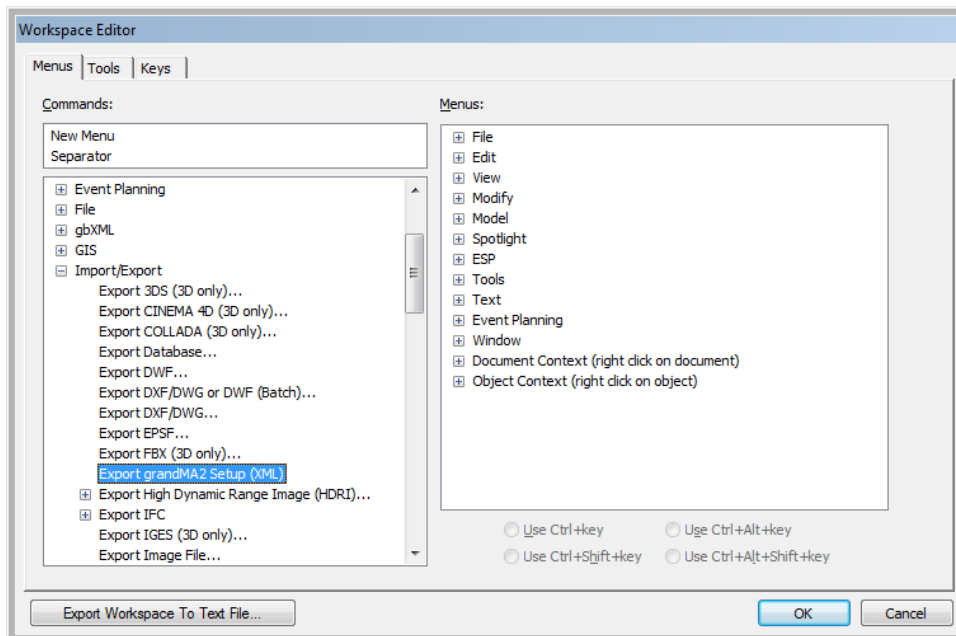
**German versions of Vectorworks up to and including 2015 are using RWeiterungen instead of Plug-Ins.**

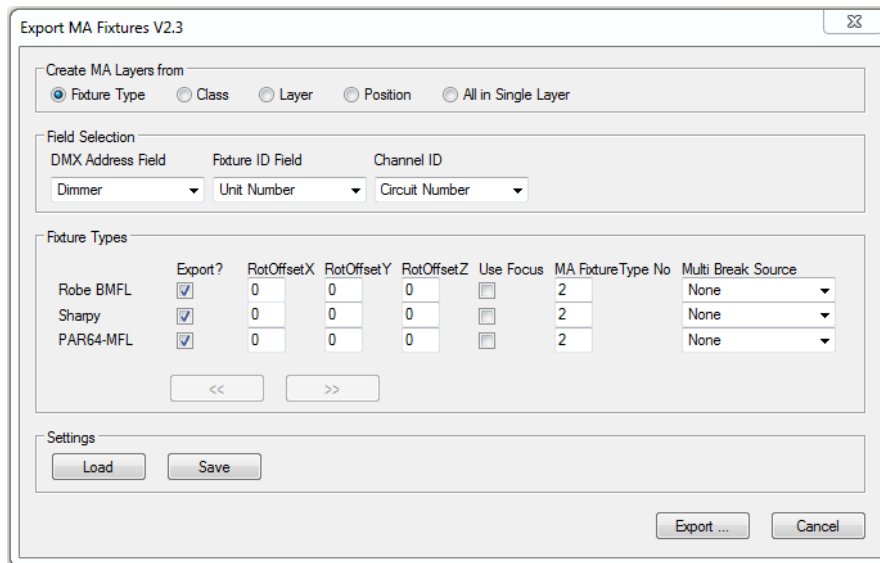
After opening Vectorworks you have to edit your Workspace to add the grandMA2 Export Menu entry to your menu structure (and optionally assign a keyboard shortcut). The Workspace-Editor is located in *Tools – Workspace*.

The grandMA2 Export Plugin presents itself as an entry in the Import/Export section. You may put it anywhere to your liking; the existing *Export* Submenu in the *File* Menu or the *Spotlight* Menu are good options.

## Export

After you created your scene including the lighting fixtures, you can export those with the plugin. Attention: the fixtures must be Spotlight Lighting Instruments, i.e. use the Spotlight Insertion Tool for your symbols or convert them (*Spotlight – Object Conversion – Convert to Instrument*; only feasible with symbols and in Top/Plan view).





Several options allow you to customize the export:

- *Create MA Layers from:* the export tool creates individual MA Fixture Layers depending on the selected property (all fixtures with the same selected property will be grouped into the same MA Layer which will get the value of the property as a name)  
*All in Single Layer:* All exported fixtures are at one single layer for import in grandMA2. Use this option to merge an additional Layer in an already existing show file.
- **Field Selection:**
  - *DMX Address Field:* the Vectorworks Spotlight field you entered the DMX address of the fixtures (the DMX Universe has to be the field *Universe*). But the export plugin also supports the notation of the universe directly into the selected address field: 2,97 or 2/97 or 2.97 for Universe 2 and start channel 97. Universe has to be a valid number. Letters for enumerating universes are not supported.
  - *Fixture ID Field:* select a field which provides the Fixture ID for your fixtures. If you want that fixtures have no Fixture ID, just select the None-field.
  - *Channel ID Field:* like FixtureID above, but for ChannelID
- *Fixture Types* List: for each detected fixture type (= Vectorworks Symbol Name) you may specify some options:
  - *Export?:* deselect the checkbox if you want to omit this fixture in export
  - *RotOffsets:* if the default orientation of your Fixture's 3D symbol differs from the default orientation of that fixture in grandMA 3D, you can enter rotation values for each rotation axes to align the orientations. The offsets will be added to the rotation values you set for each fixture.



- *Use Focus:* if selected for a fixture type, fixtures of that type which have a Focus Point assigned will be rotated to point to that focus point
- *MA Fixture Type No.:* If you already have Fixture Types in your grandMA2 Show File into which you want to import the fixtures, you may enter the Fixture Type Number of those fixtures into the fields, so that each fixture is automatically mapped to the correct MA Fixture Type. With the default value of 2 the fixture will be mapped to the generic dimmer fixture type and you have to change the fixture type in the grandMA2 patch (currently with the drawback of losing the patch address)
- *Multi Break Source:* If this Fixture Type is a Multi Break-Fixture (e.g. Dimmer with a Scroller, etc.) you can define here, which Vectorworks Spotlight field contains the second DMX Start address of this fixture.

By clicking the Export button and specifying a file name you finally export the fixtures. Please enter the filename including the extension '.XML'.



## Import into grandMA2 onPC

To be able to import the fixtures you have to copy the file into the grandMA2 onPC importexport folder. You can find that folder at:

- Windows Vista/Win7:  
*C:\ProgramData\MA Lighting Technologies\grandma\gma2\_V\_xxx\importexport*
- Windows XP:  
*C:\Document and Settings\All Users\Application Data\MA Lighting Technologies\grandma\gma2\_V\_xxx\importexport*
- In grandMA2 onPC open the command line. You have to change into Edit Setup mode. Type "*cd "EditSetup"*"  
If you used the Option „One single Layer" also type *cd „Layers"*. When having used the "One single Layer" option, it is possible to merge additional Layers without overwriting already existing ones.
- Now you can import the fixtures from the file.  
Type *import <filename-without-extension> at Layers*.  
When having used the "All in Single Layer" option, type *import <filename-without-extension> at Layer <number of Layer>*. In this case it is possible to merge additional Layers without overwriting already existing ones.  
*Note: You can actually place the file in either the "gma2/importexport" folder or the "gma2/fixture\_layers" folder of your thumb drive. If you use the "importexport" folder, your import syntax will be **Import "filename" At Layer x**; if you use the "fixture\_layers" folder, your import syntax will be **Import "filename" At x**.*

You have to type the filename without the XML extension. So if your filename is *MyFixtures.xml* you have to enter: *import MyFixtures at Layers*

If your filename contains spaces, please use quotation marks(") around the filename.

If you get a *File Not Found* error although you are sure that you have copied the file into the correct directory and you haven't mistyped the filename, then you may have to change the selected drive. To make sure that grandMA2 onPC looks at the directory given above, type *SelectDrive 1* or click on the *Internal* tab in the Backup dialog.

- Finally change to Root to exit Edit Setup mode.  
*cd Root*

You may now check in the patch dialog if your import was successful.



## Import into grandMA2 Desk

To be able to import the fixtures you have to copy the file into the `gma2/importexport` folder at your USB-Stick.

- Plug the USB-Stick into your desk.
- Open the command line. You have to change the media for importing by using the `SelectDrive`-function: type `SelectDrive`  
You will get a result like this:

```

11h56m31.216s : Logged in as User 'guest'
11h56m32.089s : Logged in as User 'administrator'
11h56m32.274s : Logged in as User 'administrator'
11h57m40.263s : Executing : SelectDrive
11h57m40.263s : Available showfile drives:
11h57m40.263s : 1 : name='Internal' path='/data/ma/actual/gma2/shows'
11h57m40.263s : 2 : name='Demoshows' path='/data/ma/actual/gma2/demoshows'
11h57m40.263s : 3 : name='Templates' path='/data/ma/templateshows'
11h57m40.281s : 4 : name='USB-STICK' path='/media/sdb1/gma2/shows'
11h57m40.281s : 5 : name='V.2.9.1.1' path='/data/ma/V_2.9.93/gma2/shows'
11h57m40.281s : 6 : name='V.2.9.1.1' path='/data/ma/V_2.9.1/gma2/shows'
    
```

4: name ='Untitled' path ='/media/sdb1/gma2/shows' is the connected USB-Stick

To change to the USB-Stick type `SelectDrive 4`

Now change into Edit Setup mode:

Type `cd "EditSetup"`

If you used the Option „One single Layer“ also type `cd „Layers“`. When having used the “One single Layer” option, it is possible to merge additional Layers without overwriting already existing ones.

- Now you can import the fixtures from the file.  
Type `import <filename-without-extension> at Layer`.  
When having used the “All in Single Layer” option, type `import <filename-without-extension> at Layer <number of Layer>`. In this case it is possible to merge additional Layers without overwriting already existing ones.  
*Note: You can actually place the file in either the “gma2/importexport” folder or the “gma2/fixture\_layers” folder of your thumb drive. If you use the “importexport” folder, your import syntax will be `Import "filename" At Layer x`; if you use the “fixture\_layers” folder, your import syntax will be `Import "filename" At x`.*



- You have to type the filename without the XML extension. So if your filename is *MyFixtures.xml* you have to enter: *import MyFixtures at Layers*  
If your filename contains spaces, please use quotation marks(") around the filename.
- If you get a *File Not Found* error although you are sure that you have copied the file into the correct directory and you haven't mistyped the filename, then you may have to change the selected drive.

Finally change to Root to exit Edit Setup mode.

*cd Root*

You may now check in the patch dialog if your import was successful.

## FAQ:

### I can't find the fixtures I want to use in Vectorworks library! What can I do?

You can use an alternative fixture in Vectorworks, and edit it:

- 1.) Insert your fixture you want to use into your VW-drawing.
- 2.) Change to the library of your drawing, right-click at the fixture -> Duplicate -> Name the new symbol -> right-click at new symbol -> Edit -> 2D
- 3.) ATTENTION: Nothing has to be selected!
- 4.) Go to the Object-Info-Window, select the Data-Tab and select the Record format „Light Info Record“
- 5.) In the area of Record Fields you can select the entry you want to edit(e.g. Name, Power consumption, etc.) and in the Record Info area below you can change the predefined values. After editing don't forget to press Enter!
- 6.) After editing all entries you want to and maybe the design of the symbol itself, leave the edit-mode with „Leave Symbol“ in upper right corner.
- 7.) Insert your new symbol into your drawing.