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# **MEscopeVEST™**

## **MEscope Window**

**(August 9, 2019)**



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## Table of Contents

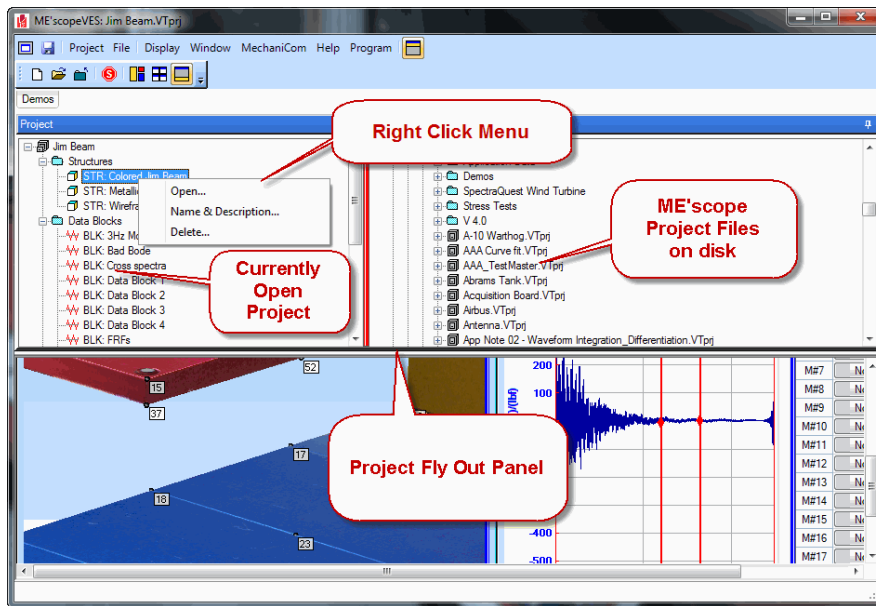
MEscope Window .....	7
Start Page.....	7
Project Flyout Panel.....	8
Right Click Menu .....	8
Menu Commands.....	8
Opening a Project .....	8
Data Files.....	9
Saving Data Files.....	10
Project Folder Tabs.....	10
Opening a Project from a Project Folder Tab .....	10
Moving a Flyout Panel.....	11
Creating a New Folder Tab.....	11
Adding a File to the open Project .....	11
Create a New File .....	11
Import a File .....	11
Add a File from Another Project .....	12
Opening a Data File in MEscope .....	12
Project   New Project .....	12
Project   Open Project .....	12
Project   Close Project.....	13
Project   Save Project .....	13
Project   Save Project As.....	13
Project   Save a Project Copy.....	14
Project   Open Models Library.....	14
Drawing Assistant Substructure Tab .....	14
Project   Save MEscope Graphics .....	14
Project   Open Last Project on Startup .....	14
Project   Run Script on Open .....	14
Project   MEscope Options .....	14
Display Tab .....	15
Language list.....	15
Menu Style list.....	15
Delete User Settings .....	15

Show More Prompts .....	15
Tile windows on Open.....	15
General Tab .....	16
User Interface Sounds.....	16
Send Error Log file to Vibrant Technology .....	16
Include Contact Email Address .....	16
Number of Edits Undo's .....	16
Backup Project file on Open.....	16
Numbers Tab .....	17
Format.....	17
Maximum Number of Digits .....	17
Project   Exit MEscope .....	17
Windows Menu .....	17
Windows   Arrange Windows   For Animation.....	17
Windows   Arrange Windows   Tile.....	17
Rules for Tiling Windows .....	17
Windows   Arrange Windows   Tile Vertically .....	18
Windows   Arrange Windows   Tile Horizontally.....	18
Windows   Arrange Windows   Cascade.....	18
Windows   Arrange Icons .....	18
Windows   Minimize All.....	18
Windows   Restore All.....	18
Windows   Open All .....	18
Windows   Close All.....	18
Windows   Open Windows .....	18
File   New   Structure .....	18
File   New   Data Block.....	19
Time Domain.....	19
Frequency Axis (FFT of Time Domain waveforms) .....	20
Triggering/Averaging .....	20
Time and Frequency Relationships.....	20
Sinusoidal Tab .....	20
Random Tab .....	20
Chirp Tab.....	21
Impact Tab.....	21
Auto spectrum Tab .....	21
File   New   Shape Table .....	21

Manual Shape Data Entry .....	21
File   New   Acquisition .....	21
File   New   Report .....	22
File   New   Script .....	22
File   Import   Structure .....	22
Importing ASCII Text Spreadsheet Files .....	22
Creating a File Template .....	23
Importing from a UFF File .....	23
Exporting a UFF File .....	23
File   Import   Data Block .....	23
Selecting Multiple Files .....	24
Measurement Selection Dialog Box .....	24
Translate Files Dialog Box .....	25
File   Import   Shape Table .....	26
File   Import   Add File .....	26
Display   Toolbars .....	27
Display   Status Bar .....	27
Display   Center MEScope Window .....	28
Script   Define Hotkeys .....	28
Hotkeys Window Commands .....	28
File   Save Hotkeys .....	28
File   Copy Hotkeys to Clipboard .....	28
File   Print Hotkeys Spreadsheet .....	28
File   Close .....	29
Edit   Add .....	29
Edit   Select .....	29
Edit   Move Up/down .....	29
Edit   Delete .....	29
Script   Define Variables .....	29
Variables Window Commands .....	30
File   Save .....	30
File   Copy Variables to Clipboard .....	30
File   Print Variables SS .....	30
File   Close .....	30
Edit   Add .....	30
Edit   Select .....	30
Edit   Move Variables Up/down .....	30

Edit   Delete .....	30
Help   Manual .....	30
Help   Show Tool Tips .....	30
Help   About.....	31
License Number.....	31
License Type.....	31
License Key .....	31
SMS Expiration .....	31
Release Date .....	31
Version .....	32
Enabled Options .....	32

## MEscope Window



*MEscope Window.*

Only the commands for a **VT-620 Visual ODS Package** are documented in this chapter.

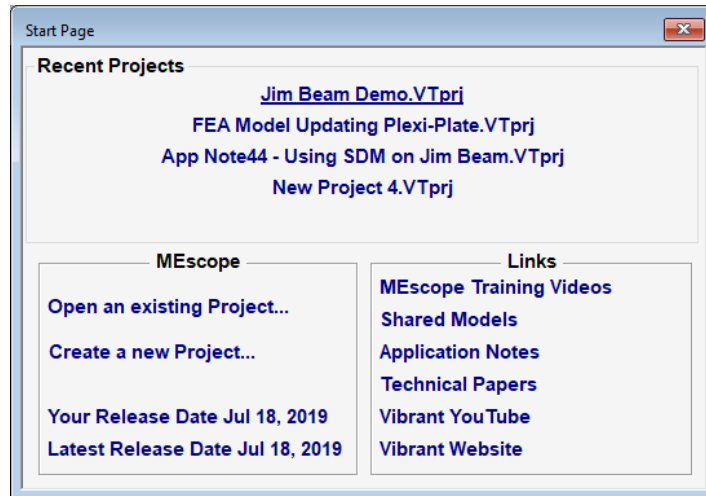
Additional commands authorized by MEscope Options are documented in separate chapters.

Check **Help | About** to verify the Options authorized by your MEscope license.

- This chapter contains descriptions of the commands in the MEscope window.
- When MEscope is running the MEscope window is open
- All other MEscope windows are contained inside the **Work Area** of MEscope window.

### *Start Page*

- When MEscope is started, the Start Page will be displayed as shown below
  - **The Recent Projects** section lists the last five Project files that were open in MEscope
  - **The MEscope** section contains "**hot spots**" for opening an existing Project from disk, or for creating a new Project. The **MEscope** section also lists **Your Release Date** and the **Latest Release Date** of software available for downloading from the Vibrant Internet site
  - **The Links** section contains **links** for assessing MEscope **Training Videos**, the **Shared Models Library**, **Application Notes**, **Technical Papers**, **Vibrant YouTube** videos, and the **Vibrant Web Site**



Start Page

### Project Flyout Panel

- **Hover** the mouse pointer over the **Project** tab to open the **Project** Flyout panel.
- The **Project** Flyout panel contains two panes, separated by a moveable **red splitter bar**.
  - The pane on the (*top or left*) lists the files in the *currently open* Project file.
  - The pane on the (*bottom or right*) lists *all of* the Project files in the *current folder* on disk.

### Right Click Menu

- **Right click** on one of the Project file names in the Project Flyout panel to display a drop down menu;
- Execute **Open** to open the Project (same as *clicking* on the Project name).
- Execute **Name & Description** to rename the Project and add a description.
- Execute **Delete** to mark the Project file for deletion from the disk.

A Project file that is marked for deletion can be un-deleted by right clicking on it.

- Execute **Open Folder** to display the disk folder where the Project file is located.

### Menu Commands

Menu command descriptions are ordered by command menu (*from left to right*), and then by the commands in each menu (*from top to bottom*).

- Each menu command is executed by choosing it from a command **menu**, by *clicking* on its **Tool** if it is on a **Toolbar** or by clicking on it in the **Ribbon** menu style

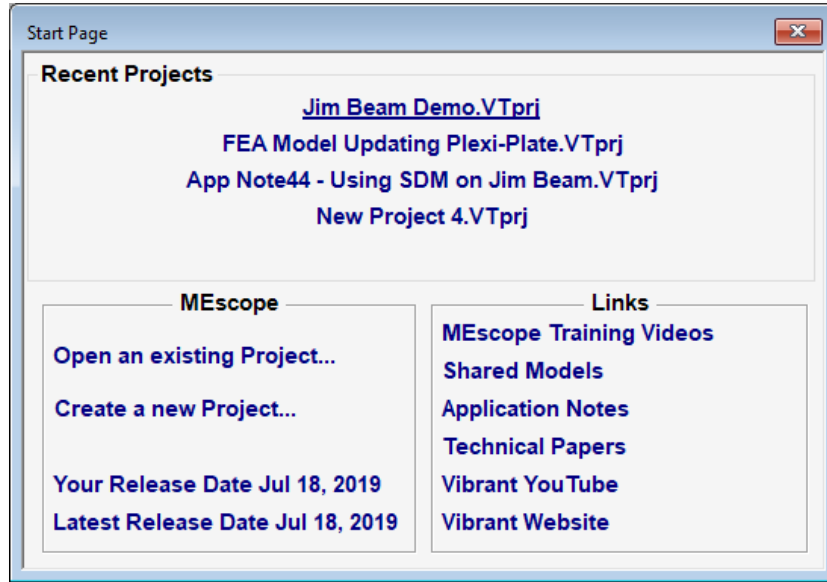
## Opening a Project

- There are several ways to open a previously saved Project file,
  1. Execute **Project | Open** in the **MEscope** window.
  2. On the **Project Flyout** panel,
    - **Double click** on the Project name in the (*right or lower*) pane.
    - **Right click** on the Project name in the (*right or lower*) pane, and select **Open** from the drop-down menu
  3. From a **Project Folder Tab**, *See* the next section for details.



4. From the **Start Page**,

- Execute **Help | Start Page** to display the **Start Page**.
- *Click* on a Project from the list of **Recent Projects**
- Or *click* on **Open an existing Project**.



*MEscope Start Page*

All work in MEscope is done in the *currently open* Project **Only one** Project can be open at a time in MEscope.

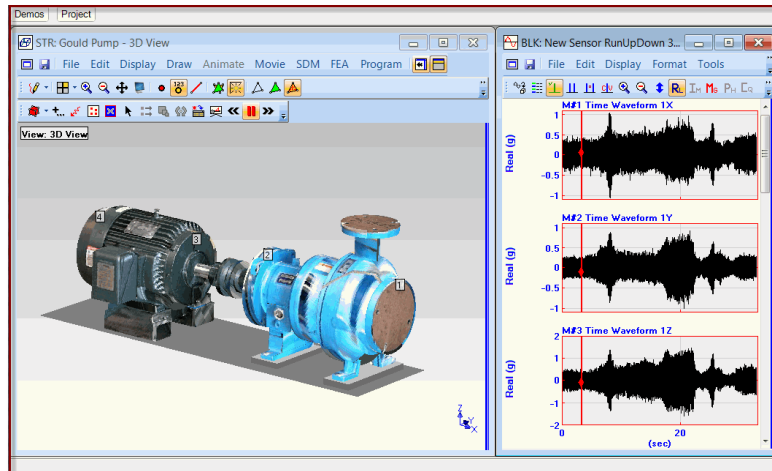
- A Project file can contain *one or more* of the following data files:
  1. Structure (**STR**) file
  2. Data Block (**BLK**) file
  3. Shape Table (**SHP**) file
  4. Acquisition window (**ACQ**) file
  5. *Script (VSL) file*
  6. Report (**RTF**) file
  7. Added Files (**MP4, PDF, JPG**, or files that run in other windows applications).

### *Data Files*

All data files in a Project are contained within the file on disk, except **Added** files. **Added** files are stored separately on disk and are opened in a separate program associated with the file type in Windows.

A separate window is used for displaying and manipulating the contents of each data file within the *currently open* Project.

When a data file is opened, a *copy* of its contents on disk is put into the computer **RAM memory** and displayed in its own window.



*MEScope with a Structure (STR) and Data Block (BLK) Window Open.*

### ***Saving Data Files***

When a Project data file is saved, its file contents in RAM memory replace the contents of the file stored in its Project file on disk.

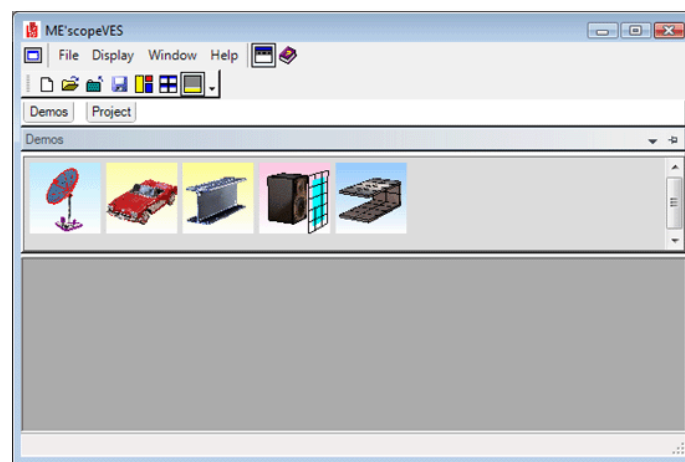
If a Project is closed without saving changes to one of its data files, the contents of that file on disk are not changed.

### **Project Folder Tabs**

- In addition to the **Project** tab, *several default Project Folder* tabs are added to the MEScope window when it is installed
- **Hovering** the mouse over a **Project Folder** tab will open a **Flyout panel** containing the MEScope Projects in that folder

#### ***Opening a Project from a Project Folder Tab***

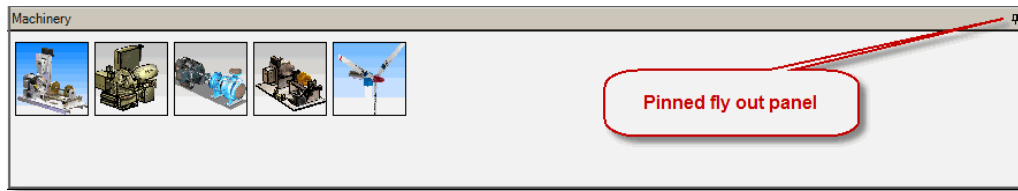
1. **Hover** the mouse pointer over one of the **Project Folder** tabs at the top of the MEScope window to open its Flyout panel
2. **Hover** the mouse pointer over each Project **thumbnail** (picture) on the panel to display its name
3. **Double click** on any Project in a Flyout panel to open the Project
4. **Move** the mouse pointer **off** the Flyout panel to close it



*MEScope Window Showing Demos Folder Flyout panel.*

### Moving a Flyout Panel

- **Hover** the mouse pointer over a Folder Tab to open its Flyout panel.
- **Click** on the **pin icon** in the **upper right corner** to pin the Flyout panel open, as shown below.



*Pinned Folder Flyout panel.*

- **Drag** the **pinned** Flyout panel into the **middle** of the Work Area.

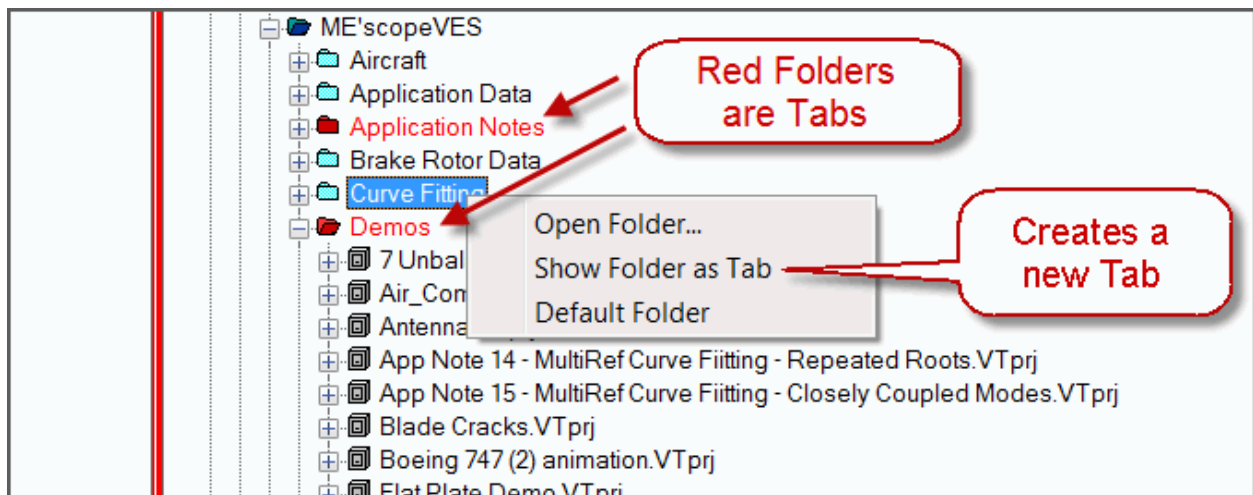
Notice that **four arrow icons** appear near the **top, bottom & sides** of the Work Area.

- **Drag** the **pinned** Flyout panel onto an **arrow icon** to attach it to the **top, bottom or a side** of the Work Area.
- **Click** on the **pin icon** again in the **upper right corner** to **un-pin** the Flyout panel.

### Creating a New Folder Tab

**Any Folder** of Project files on your computer disk can be added as a Flyout panel to the MEscope window.

- **Hover** the mouse pointer over the **Project** tab to open its Flyout panel.
- **Right click** on a **Folder** in the (**right or bottom**) pane in the Project Flyout panel.
- Select **Show Folder as Tab** from the menu.



*Right Click to Create a New Folder Tab.*

### Adding a File to the open Project

- There are several ways to add a data file to the **currently open Project** file,

#### Create a New File

- Execute one of the **File | New** commands in the MEscope window.

#### Import a File

- Execute one of the **File | Import** commands in the MEscope window.

### Add a File from Another Project

1. **Double click** on the data file in the *right (or lower)* pane on the **Project Flyout** panel.
2. Or **Right click** on the data file in the *right (or lower)* pane and execute **Add** in the drop down menu.

### Opening a Data File in MEScope

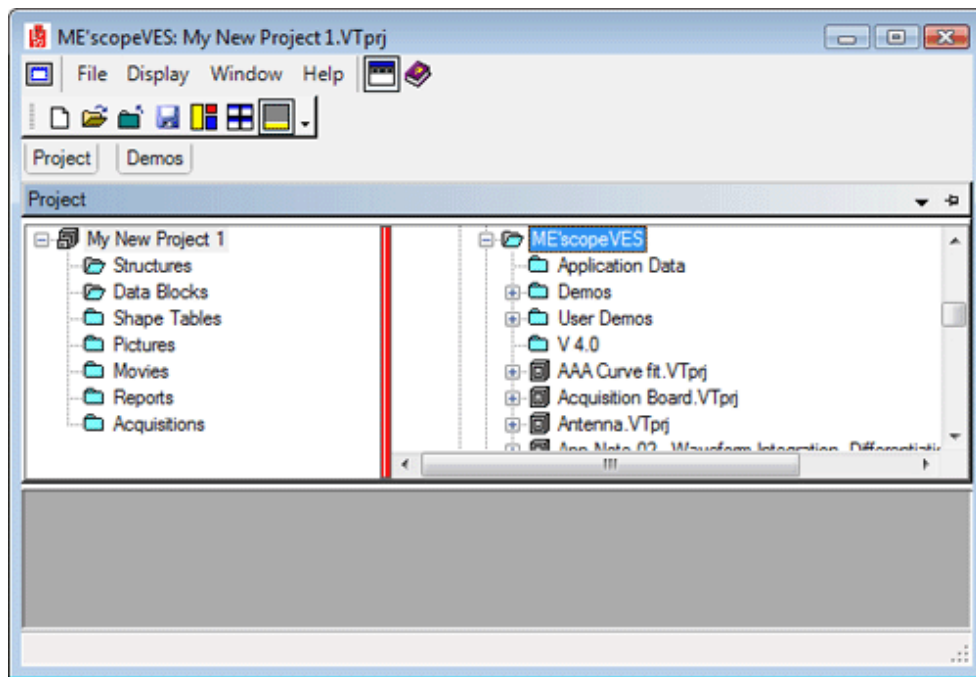
- Any data file listed on the *currently open Project* can be opened in two ways
  1. **Double click** on the data file in the *left (or upper)* pane of the Project Flyout panel.
  2. Or **Right click** on data file in the *left (or upper)* pane and select **Open** from the drop down menu.

### Project | New Project

- Creates a new (*empty*) Project file.

Each new Project file must be named and stored to disk before it can be opened.

When the new Project is created, all data files in the *currently open Project* are removed from the computer RAM memory.



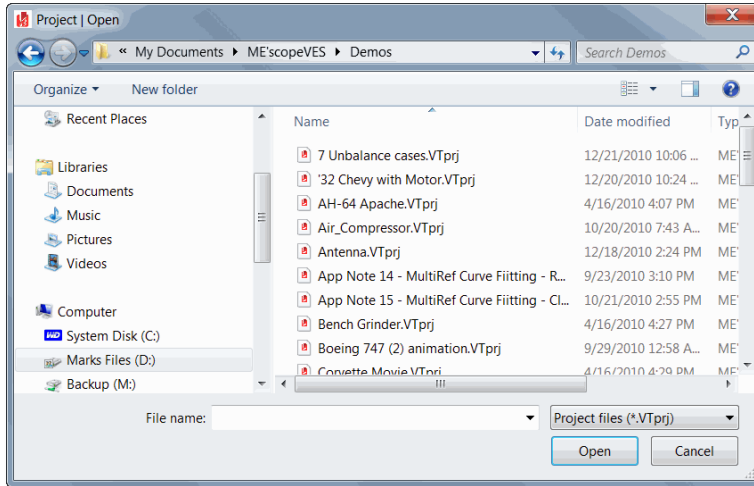
*Project Flyout Panel Showing a New (Empty) Project.*

### Project | Open Project

- Opens a previously saved Project file from disk.

All files in the current disk folder with the file extension (**VTprj**) are listed in the Windows File dialog box.

- **Double click** on the Project file name or select the file and **click** on the **Open** button.



*Project File Dialog Box.*

## Project | Close Project

- Closes the **currently open Project** file and removes its data files from the computer RAM memory.

You will be prompted to save all **new** or **modified** data files in the Project before they are removed from RAM memory.

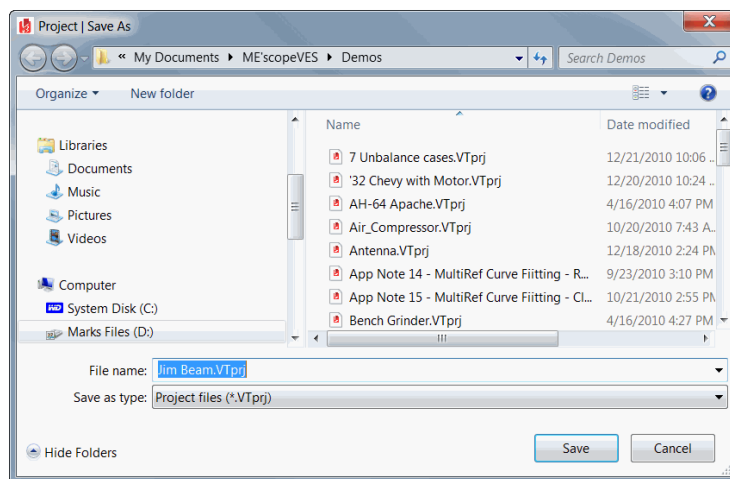
## Project | Save Project

- Saves the **currently open Project** file into a file on the disk.

**WARNING:** Routinely save your Project to avoid having to recreate any data files should a system error occur.

## Project | Save Project As

- Saves the **currently open Project** file into a file on disk with a new name
- When this command is executed, the Windows File dialog box is opened.
  1. Select the **desired folder** for storing the Project
  2. Enter the **desired name** for the Project file into the **File name** box
  3. **Click** on the **Save** button.



*Project Save As Dialog Box.*

## Project | Save a Project Copy

- Saves a copy of the *currently open Project* into a separate file on disk.

## Project | Open Models Library

- Opens the Local Models Library

The Local Models Library is a Project file named MEscope Library.VTprj.

The **MEscope Library.VTprj** file contains one or more Structure (**STR**) files.

Each **STR** file defines a 3D model.

Any structure model can be added to the **Shared Models Library** or the **Local Models Library** by executing the **File | Save in Models Library** command in a Structure window

### *Drawing Assistant Substructure Tab*

The contents of the **Local Models Library** are displayed on the **Substructure** tab when the **Drawing Assistant** tabs are displayed in a Structure window.

## Project | Save MEscope Graphics

- Saves the graphics in the **Work Area** of the MEscope window into a disk file.

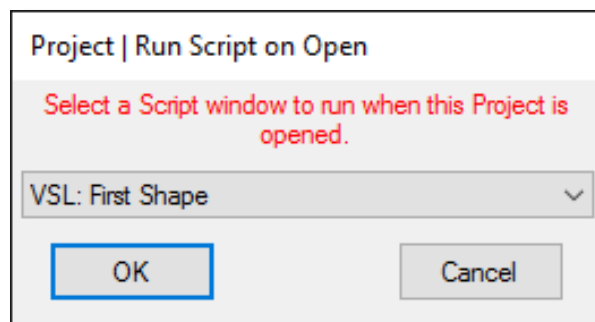
Graphics can be saved in the JPG, GIF, PNG or BMP file formats.

## Project | Open Last Project on Startup

- If this command is *checked*, the Project that was last open in MEscope is opened again when MEscope is started.

## Project | Run Script on Open

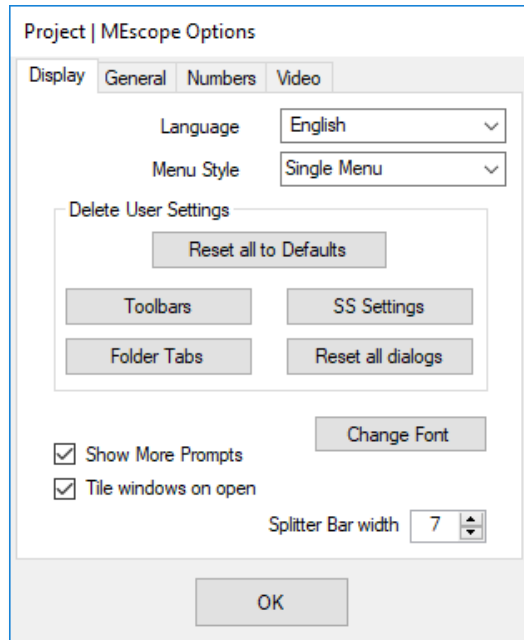
- If *checked*, the commands in a **Script window** are executed after the Project is opened from disk storage
- When this command is executed, the following dialog box will open,



- *Choose* an existing Script in the Project from the list and *click* on **OK**.
- If you choose “None” no Script will be executed when the Project is opened

## Project | MEscope Options

- Opens the MEscope Options dialog box as shown below



*MEscope Options Display Tab.*

- The MEscape Options box contains **several Tabs** with options pertaining to the operation of MEscape.

### **Display Tab**

#### **Language list**

- Displays all text in MEscape in the chosen local language.

#### **Menu Style list**

- Changes the style for displaying the commands in menus or on a Ribbon
  - Choosing the **Ribbon** style displays the commands for the *active* window in a Ribbon
  - Choosing the **Single menu** style displays the commands for the *active* window in a single menu
  - Choosing the **Window menus** style displays a command menu & Toolbar in each window.

#### **Delete User Settings**

**Toolbars, Spreadsheets, Dialogs and Folder Tabs** can be modified to display them differently in MEscape.

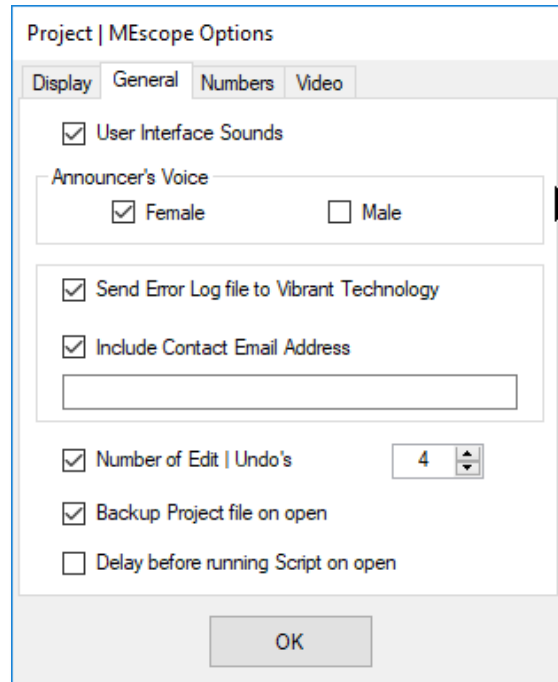
- These buttons are used to restore the **Toolbars, Spreadsheets, Dialogs and Folder Tabs** to default settings
- Toolbars can have different command tools displayed on them. (See **Command Toolbars** for details.).
- Each Spreadsheet column can be displayed or hidden, and columns can be re-ordered by drag & drop of the column headings.
- Folder Tabs are created by selecting them in the Project panel. (See **Project Folder Tabs** for details.)
- There is also a button to open all dialog boxes that may have been *checked* when open to not open again.

#### **Show More Prompts**

- If *checked*, more prompting message boxes are displayed during the execution of some commands

#### **Tile windows on Open**

- If *checked*, all open windows in a Project will be tiled in the Work Area when the Project is opened



*MEscope Options General Tab*

### **General Tab**

#### **User Interface Sounds**

- If **checked**, sounds will be made when certain commands are executed.

If an **internal error** occurs during the operation of MEscape, the computer will make an "**Uh-Oh**" sound. This sound can be eliminated by **un-checking** User Interface Sounds.

#### **Send Error Log file to Vibrant Technology**

- If **checked**, when the operation of MEscape is terminated, a log file of all internal errors that occur during the operation of MEscape will be sent to a Vibrant Technology Internet site

Software bugs that create internal errors are fixed more quickly by Vibrant Technology when you **check** this function.

#### **Include Contact Email Address**

- If **checked**, you will be notified by Email when an internal error that you reported has been fixed.

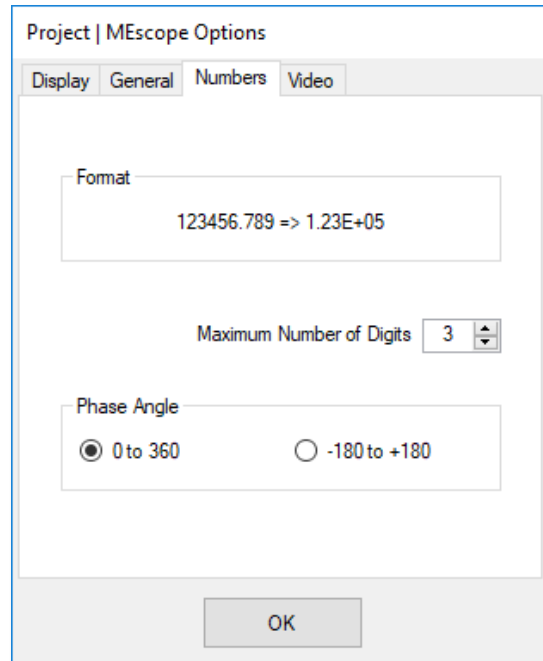
#### **Number of Edits Undo's**

- If **checked**, the number of edits specified in the box will be saved in computer memory during most editing operations.
- When **Edit | Undo** is executed in a window, a previous copy of the data is restored.

#### **Backup Project file on Open**

- If **checked** and a Project file **opens successfully** from disk storage, a **backup copy** of the Project file is stored in the same location as the Project file
- If the Project file **does not open successfully**, the backup file will be opened instead





*MEScope Options Numbers Tab*

### **Numbers Tab**

#### **Format**

- The format in which numbers will be displayed on graphs and in spreadsheets

#### **Maximum Number of Digits**

- The number of *decimal digits* that will be used to display numbers

### **Project | Exit MEScope**

- Terminates the operation of MEScope.

If *any files* in a Project have **not been Saved**, or have been **modified** since they were last saved, you will be prompted to save them before exiting.

### **Windows Menu**

#### **Windows | Arrange Windows | For Animation**

- Arranges all open **Structure** windows and **Animation Source** windows in the **Work Area**.
- Structure (**STR**) windows typically occupy the *left side* of the **Work Area**
- Data Block (**BLK**), Shape Table (**SHP**) and Acquisition (**ACQ**) windows typically occupy the *right side* of the **Work Area**

The *size* of the *active* window is preserved when windows are arranged using this command.

#### **Windows | Arrange Windows | Tile**

- Arranges all open Project windows in the **Work Area** in a tiled format.

The *upper left corner* of each window relative to all other windows is used to arrange the windows.

#### **Rules for Tiling Windows**

1. If the **Workspace width** is *greater than* its *height*, the windows are arranged *vertically*

2. If the **Workspace width** is *less than* its *height*, the windows are arranged *horizontally*
3. For a large number of windows, *several rows* will be created to maximize the area of each window

#### **Windows / Arrange Windows / Tile Vertically**

- Arranges all open Project windows *vertically* in the **Work Area**.

The *upper left corner* of each window relative to the other windows is used to arrange the windows.

#### **Windows / Arrange Windows / Tile Horizontally**

- Arranges all open Project windows *horizontally* in the **Work Area**.

The *upper left corner* of each window relative to the other windows is used to arrange the windows.

#### **Windows / Arrange Windows / Cascade**

- Arranges all open Project windows in the **Work Area** in a cascading format.

The *upper left corner* of each window relative to the other windows is used to arrange the windows.

#### **Windows / Arrange Icons**

- Arranges all minimized Project window Icons on the lower left side of the Work Area.

#### **Windows / Minimize All**

- Minimizes all open Project windows in the **Work Area** into Icons on the *lower left corner* of the Work Area.

#### **Windows / Restore All**

- Restores all open Project windows in the **Work Area** from Icons.

#### **Windows / Open All**

- Opens all Project windows in the **Work Area**.

#### **Windows / Close All**

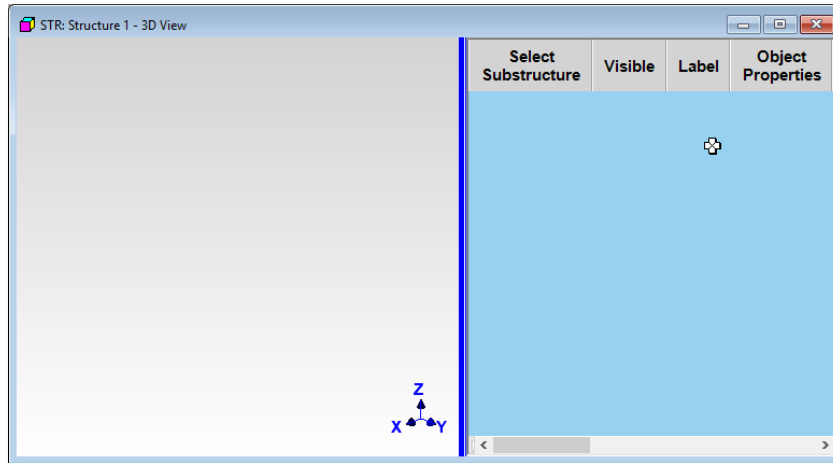
- Closes all open Project windows in the Work Area.

#### **Windows / Open Windows**

- All open Project windows in the **Work Area** are listed in this menu.
  - If a window is *minimized*, selecting it from this list will restore it to its previously opened position.
  - The currently *active* window is underlined

### **File | New | Structure**

- Creates a new Structure file and opens an (*empty*) Structure window for the new file.



*New (Empty) Structure window.*

## File | New | Data Block

- Creates a new Data Block file and adds it to the *currently open Project*.
- When this command is executed, a dialog box is opened as shown below

File | New | Data Block

Data Block Parameters

Time Domain		Frequency Domain	
Samples		Samples	
Block Size	2048 N	1024 N/2	
Seconds		Hertz	
Resolution	0.001 delta t	0.488 delta f	
Ending Value	2.05 T	500 Fmax	
Sample Rate (Samples/Second)		1E+03	

Triggering/Averaging

Pre-Trigger Delay (Samples) 0

Number of Averages 1

Sinusoidal Random Chirp Impact Auto spectrum

Samples Per Waveform = 2048

Number of Frequencies 3 Number of M#s 4

	Frequency (Hz)	Damping (%)	Magnitude	Phase
1	2	1	Random	Random
2	4	1	Random	Random
3	8	1	Random	Random

OK Cancel

*New Data Block Dialog Box.*

## Time Domain

- **Block Size (N):** The number of time samples in each Sampling Window
- **Resolution (delta t):** the increment between samples on the horizontal time axis (in **seconds**)

- **Ending Value (T):** the ending time of the horizontal time axis in each Sampling Window (in **seconds**)

### Frequency Axis (FFT of Time Domain waveforms)

- **Block Size (N/2):** The number of frequency samples (or Lines) of each **M#**
- **Ending Value (Fmax):** The ending frequency of the frequency axis of each **M#** (in **Hertz**)
- **Resolution (delta f):** The increment between frequency Lines of each **M#** (in **Hertz**)
- **Sample Rate (Samples/Second):** (Sample Rate = 2 x Fmax) (in **Hertz**)

### Triggering/Averaging

- **Pre-Trigger Delay (Samples):** Adds zero valued samples to the beginning of each Sampling Window
- **Number of Averages:** The number of Sampling Windows used for Spectrum averaging
- **Samples per Waveform:** (Averages x Block Size)

### Time and Frequency Relationships

- The following formulas are *always enforced* by the FFT algorithm.
  - $F_{max} = (N / 2) \times (\text{delta } f)$
  - $F_{max} = 1 / (2 \times (\text{delta } t))$
  - $T = N \times (\text{delta } t)$
  - $(\text{delta } f) = 1 / T$

### Sinusoidal Tab

- If this Tab is *active*, a new Data Block is created with *sinusoidal waveforms* in it.
  - **Number of Frequencies:** Number of sinusoidal frequencies
  - **Number of M#s:** Number of waveforms to be synthesized
  - **Frequency (Hz):** Sine wave frequency
  - **Damping (%):** The percentage of critical damping for each **M#s**
    - Enter 0 for no damping.
    - Enter (0<damping<100) to synthesize **Impulse Response Functions (IRFs)**
  - **Magnitude:** The sine wave magnitude
  - **Phase (degrees):** The sinusoidal phase
    - When (Number of **M#s** =1), you can enter a magnitude & phase
    - When (Number of **M#s** >1), magnitudes & phases are *randomly created* for each waveform

### Random Tab

- If this is Tab *active*, a new Data Block is created with *random time waveforms* in it.
  - **Number of M#s :** Number of **M#s** to be synthesized
  - **Magnitude:** All **M#s** are synthesized with this magnitude and a *random phase*
  - **Burst Random Width (%)**
    - Width of the *non-zero random signal* as a percentage of the Sampling Window
    - Used to make random response signals *periodic* in the Sampling Window

### Chirp Tab

- If this Tab is *active*, a new Data Block with *chirp (swept sine)* waveforms in it is created.
  - **Number of M#s** : Number of **M#s** to be synthesized.
  - **Starting Frequency (Hz)**: Starting frequency of the swept sine waveforms
  - **Ending Frequency (Hz)**: Ending frequency of the swept sine waveforms
  - **Magnitude**: Magnitude of all waveforms.
  - **Burst Chirp Width (%)**
    - Width of the *non-zero chirp signal* as a percentage of the Sampling Window
    - Used to make chirp response signals *periodic* in the Sampling Window

### Impact Tab

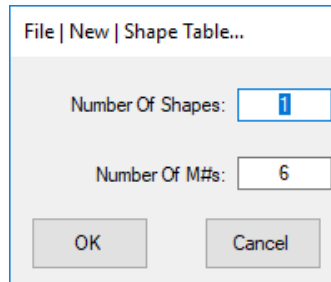
- If this Tab is *active*, a new Data Block with one *impact (pulse)* waveform in it is created.
  - **Magnitude**: Magnitude of the pulse signal.
  - **Width (samples)**: Width of the pulse, (in samples).

### Auto spectrum Tab

- If this Tab is *active*, a new Data Block with an Auto spectrum in it is created.
  - **Number of Frequencies**: Number of sinusoidal frequencies
  - The **frequency & magnitude** of each sinusoid must be entered into the spreadsheet

### File | New | Shape Table

- Creates a new Shape Table file and adds it to the *current* Project.
- When this command is executed, the following dialog box will open.



### Manual Shape Data Entry

- *Click* on a cell in the new Shape Table to *select* it, type the entry on the keyboard, and *press* the **Enter** key

### File | New | Acquisition

- Creates a new Acquisition window and adds it to the *current* Project.

An Acquisition window is used to setup and acquire multi-channel noise & vibration data using third-party front-end hardware.

New Acquisition windows can only be created if the **VES-700 or VES-780 option** is authorized by your MEscape license

## File | New | Report

- Creates a new (*empty*) Report file and adds it to the *current* Project.

A Report is used for document a test using both text and graphics.

## File | New | Script

- Creates a new (*empty*) Script window

A Script is a spreadsheet of MEscape commands that is executed by pressing its **Hotkey** on the Menu or Ribbon bar  
Hotkeys & Scripts are used to automate the use of MEscape by automatically executing multiple commands from a Script window

When a new Script window is created, a **Hotkey** is also created from which to execute the Script

When the Script is saved in the Project, its **Hotkey** is displayed on the Menu or Ribbon bar

## File | Import | Structure

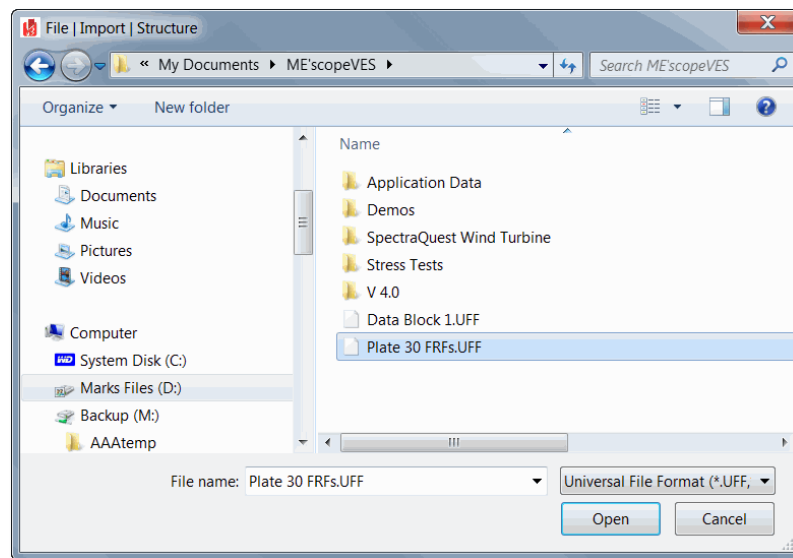
- Imports Structure data from a third-party disk file into the *currently open* Project.

After the data has been imported, it is put into a Structure (**STR**) file and need not be imported again.

- When this command is executed, the Windows File Open dialog box will open, as shown below.
  1. Choose the appropriate external file from the **File Name & Extension list** on the **lower right** of the dialog box.

The **File Name & Extension list** in the Windows File dialog box contains the names and extensions of all of the *third-party file formats* that can be imported into a Structure (**STR**) file.

2. Select a file to import and *click* on **Open** to import it.



*Import Structure File Dialog Box Showing a Structure File Selected.*

## Importing ASCII Text Spreadsheet Files

Many third-party software packages can export data in an ASCII text spreadsheet format.

Structure, Data Block and Shape Tables can each be imported from ASCII text spreadsheet files.

MEscope data files can also imported and exported in ASCII text spreadsheet format.

### Creating a File Template

1. Open any Project that contains a Structure (**STR**), Data Block (**BLK**), or Shape Table (**SHP**) file
2. Execute **File | Export** in the appropriate file window to export the file in ASCII text spreadsheet format
3. Open the file in a text processor (such as **MS Word**) or a spreadsheet program (such as **MS Excel**)
4. Paste the columns of data from the third-party spreadsheet into the MEscape text file
5. Edit the header information as required to describe the new data in the file
6. Save the ASCII text file to disk
7. Execute one of the **File | Import** commands to import the ASCII text file

### Importing from a UFF File

The **Universal File Format (UFF)** is used for exchanging data between different structural analysis applications.

MEscape can **import & export data** in the UFF format.

The most common UFF file format stores everything as **ASCII text**.

**M#** data can also be stored in a **binary data format**.

### Exporting a UFF File

1. Execute **File | Export** in any Structure, Data Block or Shape Table window
2. Choose **ASCII Universal File Format** in the **Save as type** list in the dialog box that opens, and **click** on **Save**.
3. Open the UFF file in a text processor.

Each line of data in a UFF file is arranged in **fixed field** format. This means that all characters on each line must be precisely in the correct columns to be readable.

Each UFF data type is stored as a **data set**.

Each UFF data set **begins and ends with a "-1"** line.

Each UFF data set also has a **UFF Data Set Number**, which is on the second line of the data set.

- MEscape can import and export the following numbered data sets,

<b>UFF Data Set Number</b>	<b>Type of Data</b>
15	Points
82	Lines
55	Shapes
58	Measurements

In UFF terminology, Points are called **Grid Points**, Lines are called **Trace Lines**, and mode shapes are called **Functions** at Nodal DOFs.

- Imported **Point** and **Line** data is put into a Structure file
- Imported **mode shape** data is put into a Shape Table file

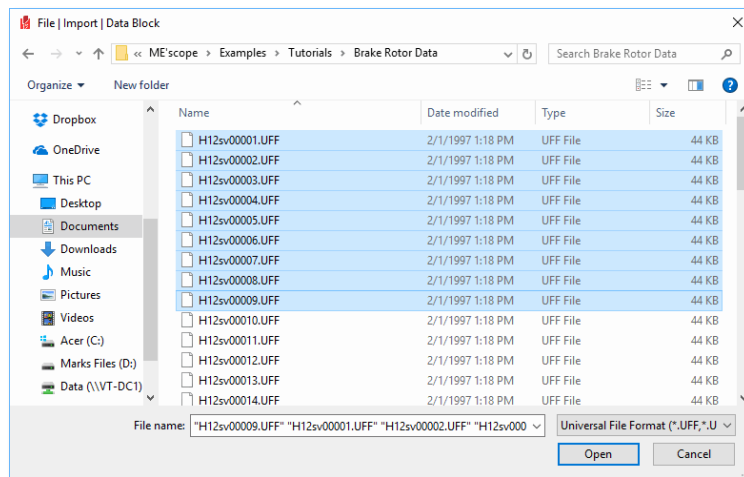
### File | Import | Data Block

- Imports time or frequency domain measurements from third-party data files.

- After the data has been imported, it is saved in a Data Block (**BLK**) file and need not be imported again.
- When this command is executed, the Windows Open dialog box will open, as shown below.
  1. Choose the appropriate external file from the **File Name & Extension list** on the **lower right** of the dialog box.

The **File Name & Extension list** in the Windows File dialog box contains the names and extensions of all of the *third-party file formats* that can be imported into a Data Block (**BLK**) file.

2. Select a file to import, and **click** on **Open** to import it



*Import Data Block Dialog Box Showing Multiple Files Selected.*

### **Selecting Multiple Files**

- Some analyzers and data acquisition systems save *only one measurement* per disk file.
  1. **Hold down** the **Shift** to **select** a **range** of files listed in the Windows Open dialog box.
  2. **Hold down** the **Ctrl** key to **select individual** files listed in the Windows Open dialog box.
  3. **Click** on the **Open** button to open the files.

### **Measurement Selection Dialog Box**

- If the selected files contain different types of measurements, the Measurement Selection dialog box will open.
  1. **Select** the **time domain** or **frequency domain** measurements tab, if both are available in the imported files.
  2. **Press** buttons in the **Translate** column to select individual measurements.
  3. **Click** on the **Translate** button to translate the *selected* files.

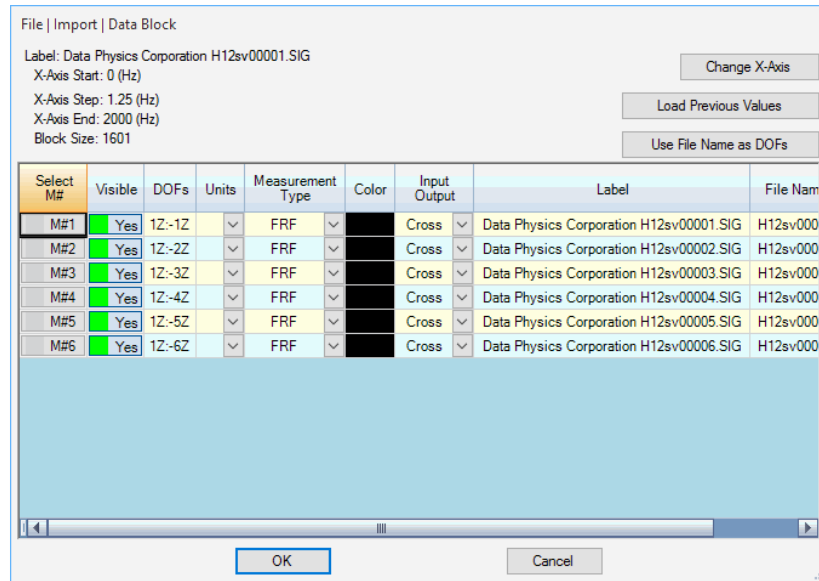


Select Data to Import										
	Translate	File Name	Label	Measurement Type	Measurements	X Start	X Step	X End	X-Axis Units	Samples
57	<input checked="" type="checkbox"/>	011Z129Z.FRF	011Z129Z.FRF	FRFs	1	0	0.0625	50	0	801
58	<input checked="" type="checkbox"/>	011Z130X.FRF	011Z130X.FRF	FRFs	1	0	0.0625	50	0	801
59	<input checked="" type="checkbox"/>	011Z130Y.FRF	011Z130Y.FRF	FRFs	1	0	0.0625	50	0	801
60	<input checked="" type="checkbox"/>	011Z130Z.FRF	011Z130Z.FRF	FRFs	1	0	0.0625	50	0	801
61	<input checked="" type="checkbox"/>	011Z131X.FRF	011Z131X.FRF	FRFs	1	0	0.0625	50	0	801
62	<input checked="" type="checkbox"/>	011Z131Y.FRF	011Z131Y.FRF	FRFs	1	0	0.0625	50	0	801
63	<input checked="" type="checkbox"/>	011Z131Z.FRF	011Z131Z.FRF	FRFs	1	0	0.0625	50	0	801
64	<input checked="" type="checkbox"/>	011Z132X.FRF	011Z132X.FRF	FRFs	1	0	0.0625	50	0	801
65	<input checked="" type="checkbox"/>	011Z132Y.FRF	011Z132Y.FRF	FRFs	1	0	0.0625	50	0	801
66	<input checked="" type="checkbox"/>	011Z132Z.FRF	011Z132Z.FRF	FRFs	1	0	0.0625	50	0	801
67	<input checked="" type="checkbox"/>	01201Z.FRF	01201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
68	<input checked="" type="checkbox"/>	02201Z.FRF	02201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
69	<input checked="" type="checkbox"/>	03201Z.FRF	03201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
70	<input checked="" type="checkbox"/>	04201Z.FRF	04201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
71	<input checked="" type="checkbox"/>	05201Z.FRF	05201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
72	<input checked="" type="checkbox"/>	06201Z.FRF	06201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
73	<input checked="" type="checkbox"/>	07201Z.FRF	07201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
74	<input checked="" type="checkbox"/>	08201Z.FRF	08201Z.FRF	FRFs	1	0	4	1.6E+03	0	401
75	<input checked="" type="checkbox"/>	06701Z.FRF	06701Z.FRF	FRFs	1	0	4	1.6E+03	0	401

*Measurement Selection Dialog Box.*

**Translate Files Dialog Box**

- Each measurement listed in this dialog box is imported into a Trace and put into a Data Block file.
- **Change X Axis Button**
  - Allows you to edit the time or frequency axis parameters (**Block Size, Start Value, Resolution, End Value**).
- **Load Previous Values Button**
  - Loads previously used spreadsheet values into the spreadsheet.
  - This is useful for restoring previously used DOFs, Units, etc.
- **Use File Name as DOFs Button**
  - Uses the imported data file name as the DOFs on each measurement.
  - DOFs are listed in the **DOFs** column of the spreadsheet.
  - Following are examples of file names that can be interpreted as Trace DOFs.
    - Roving DOF: **1Z.Ext**
    - Roving & Reference DOFs: **1Z2Z.ext, 1Z\_2Z.Ext**
    - Reference DOF: **\_2Z.Ext**
    - Measurement Set: **1Z\_2Z[1].Ext, \_2Z[1].Ext**
    - Negative Direction: **-1Z.Ext, m1Z.Ext**
    - Rotational DOF: **1rX.Ext** or **1U.Ext, 1rY.Ext** or **1V.Ext, 1rZ.Ext** or **1W.Ext**



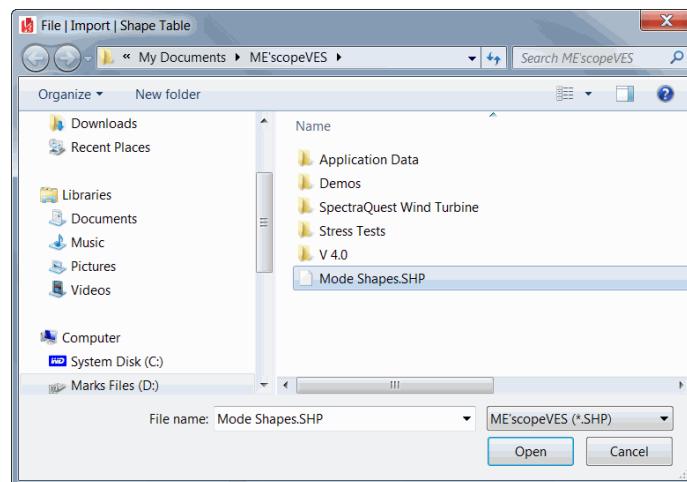
*Translate Files Dialog Box.*

## File | Import | Shape Table

- Imports Shape data from a third-party disk file into the **currently open Project**.
- After the data has been imported, it is put into a Shape Table (**SHP**) file and need not be imported again.
- When this command is executed, the Windows File dialog box will open, as shown below.
  - Choose the appropriate external file from the **File Name & Extension** list on the **lower right** of the dialog box.

The **File Name & Extension** list in the Windows File dialog box contains the names and extensions of all of the **third-party file formats** that can be imported into a Shape Table (**SHP**) file.

- Select a file to import and **click** on **Open** to import it.



*Import Shape Table Dialog Box Showing a File Selected.*

## File | Import | Add File

- Adds any third-party disk file to the **currently open Project** file

Examples of added files are Windows media (**WMV**), MS Word (**DOC**) or MS Excel (**XLS**) files

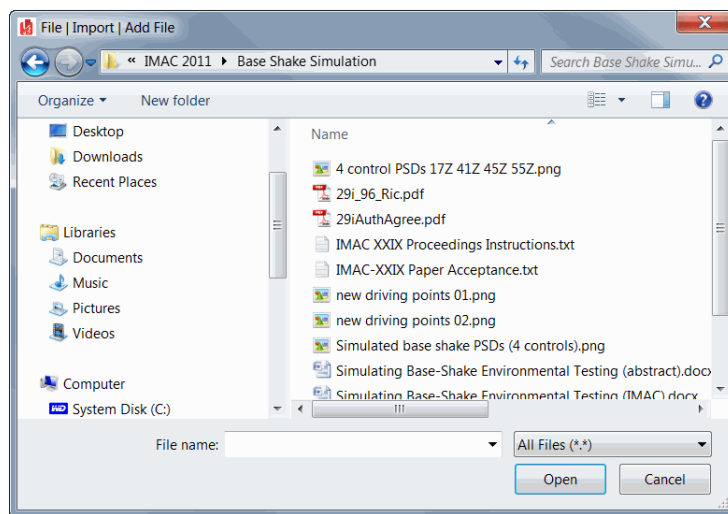
An Added File *remains separate* on disk storage.

An Added File **is referenced** by the current Project.

An Added File is opened in its own *associated* Windows program.

Each added file type must be *associated* with another Windows application program to open it from within MEscope.

- When this command is executed, the Windows File dialog box will open.
  1. Choose the appropriate external file from the **File Name & Extension list** on the *lower right* of the dialog box.
  2. **Double click** on the file name, or select it and **click** on the **Open** button.



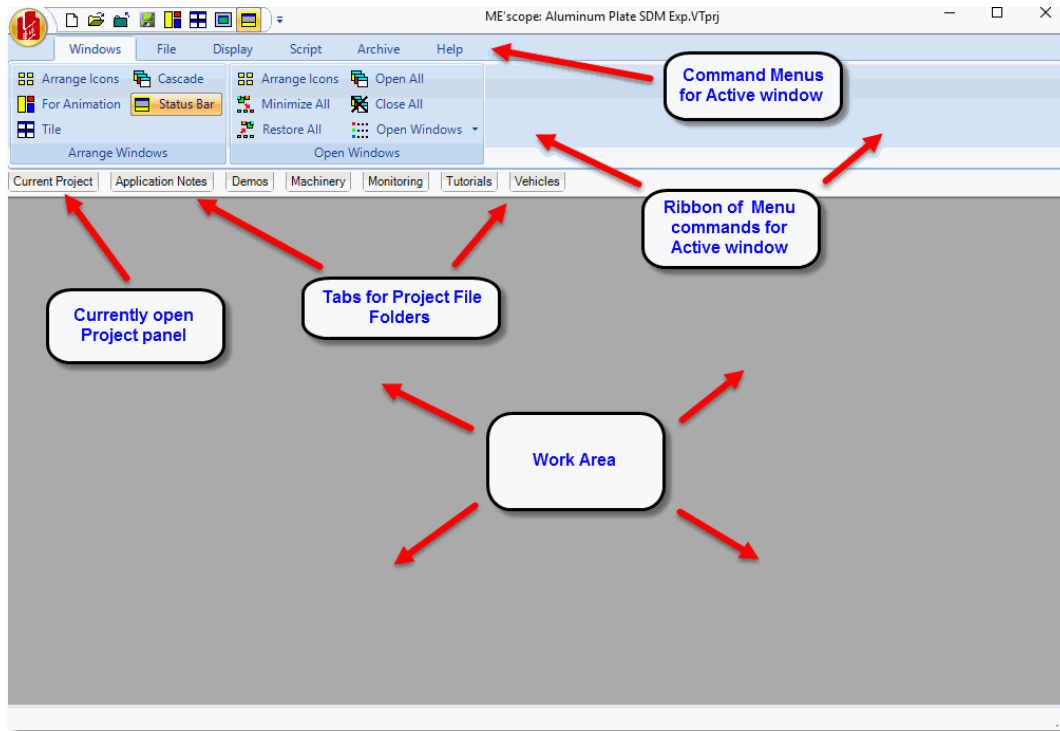
*Add File Dialog Box Showing All File Extensions Displayed.*

## Display | Toolbars

- If *checked*, Toolbars are displayed in the MEscope window

## Display | Status Bar

- If *checked*, the **Status Bar** is displayed at the bottom of the MEscope window.



*MEscope (Main) Window.*

## Display | Center MEscape Window

- Centers the MEscape window on the Windows desktop.

**Repeated** execution of this command alternately centers the window and returns it to its former position.

The commands in this menu can be added to a **Script window** to automate the execution of these and other MEscape commands.

## Script | Define Hotkeys

- Opens the **Hotkeys** window as shown below.

Each Hotkey is used to execute the commands in a **Script window**

Each Hotkey *must be assigned* to a **Script window**

The **Icon** of each Hotkey that is defined in the **Hotkeys** window is also displayed on the MEscape Menu or Ribbon bar

When a Hotkey is *pressed*, commands in the **Script window** assigned to the Hotkey are executed.

### *Hotkeys Window Commands*

#### File | Save Hotkeys

- Saves the Hotkey window in the MEscape **.VTprj** file on disk.

#### File | Copy Hotkeys to Clipboard

- Copies the Hotkey spreadsheet to the Clipboard.

#### File | Print Hotkeys Spreadsheet

- Prints the Hotkey spreadsheet on the Windows printer.

Select HotKey	Execute HotKey	HotKey Name	Script Name	Machine Name	HotKey Icon	Description
1	Execute	Startup	VSL: Startup	None	Flame	
2	Execute	BLK commands	VSL: BLK commands	None	1	Number 1
3	Execute	STR commands	VSL: STR commands	None	2	Number 2
4	Execute	SHP commands	VSL: SHP commands	None	3	Number 3
5	Execute	Script 1	None	None	4	Number 4
6	Execute	RTF commands	VSL: RTF commands	None	5	Number 5
7	Execute	Script 1	VSL: Script 1	None	6	Number 6

Hotkey Window

**File | Close**

- Closes the Hotkey window.

**Edit | Add**

- Adds a new Hotkey to the Hotkey spreadsheet.

**Edit | Select**

- These commands are used for *selecting*, *inverting selection*, and *un-selecting* Hotkeys.

**Edit | Move Up/down**

- These commands move Hotkeys up or down in the Hotkeys spreadsheet.
- Hotkeys are displayed on the Menu or Ribbon bar in the same order as their order in the spreadsheet

**Edit | Delete**

- Deletes *selected* Hotkeys from the Hotkey spreadsheet.

**Script | Define Variables**

- Opens the Global Variable window as shown below

Global Variables are used for storing parameters that are used by Script commands,  
 There are also Script commands for performing math and logical operations on Global Variables.  
 Many **Script window** commands can use a Global Variable as one of its parameters.  
 Global Variables are listed in a drop-down list for any command parameter that can use a Global Variable.

Select Variable	Variable Name	Variable Value
1	Pointer 1	0
2	Counter 1	1
3	List Index	5
4	M# DOF	1z

Global Variables Window

### Variables Window Commands

#### File | Save

- Saves the Global Variables in the MEscape .VTprj file on disk.

#### File | Copy Variables to Clipboard

- Copies the Global Variable spreadsheet to the Clipboard.

#### File | Print Variables SS

- Prints the Global Variable spreadsheet on the Windows printer.

#### File | Close

- Closes the Variables window.

#### Edit | Add

- Adds a new Global variable to the Global Variable window.

#### Edit | Select

- These commands are used for *selecting*, *inverting selection*, and *un-selecting* Global variables

#### Edit | Move Variables Up/down

- These commands move Variables up or down in the Variables spreadsheet.

#### Edit | Delete

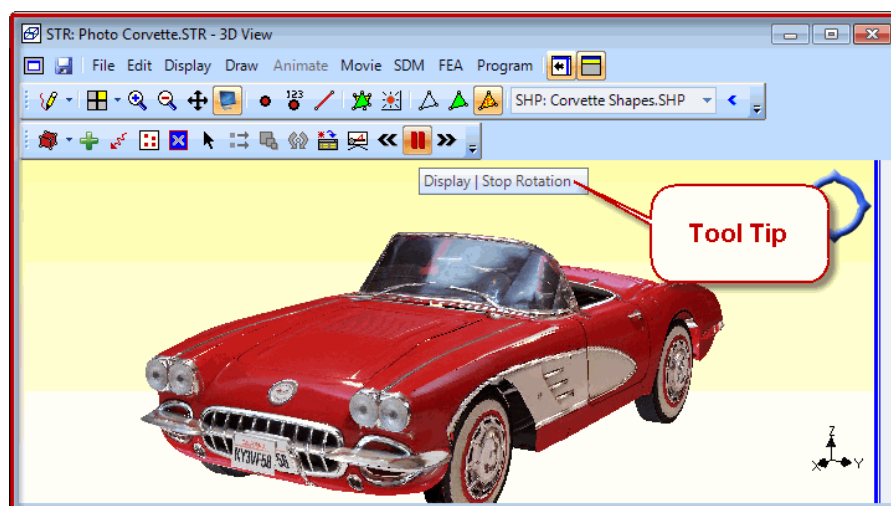
- Deletes *selected* Global variables from the Global Variable window.

### Help | Manual

- Opens the **MEscope Manual** window.
- This window contains links to all the MEscape Operating Manuals.

### Help | Show Tool Tips

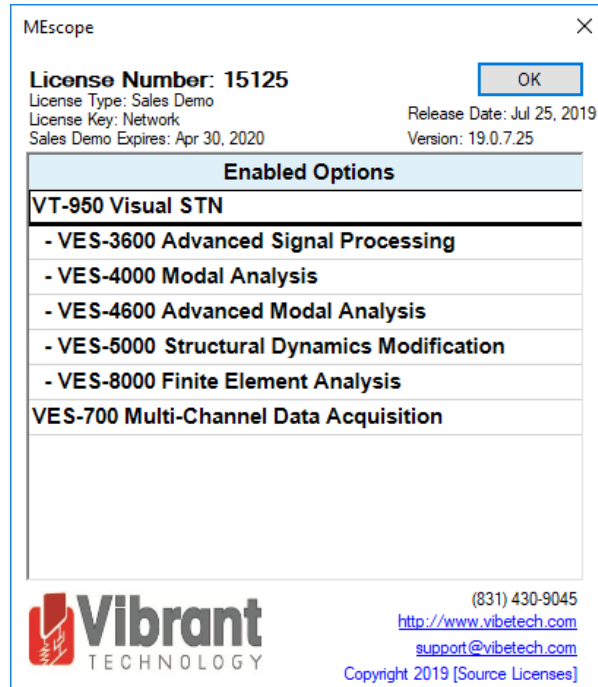
- If *checked, hover* the mouse pointer over a button on a Toolbar or ribbon to display a brief description of the command.



*MEscope Window Showing a Tool Tip.*

## Help | About

- Opens the MEscape About box, as shown below.



*About Box.*

### License Number

- The license number for your software is *unique*

If your software uses a hardware Security Key, your software license must match the serial number on your Security Key in order to authorize MEscape for operation.

### License Type

- The type of license for your software (**Single User**, **Educational**, **Network (VLS)**, or **Monthly**)

### License Key

- The name of the hardware **Security Key Network** that is required with your license
- **Network** denotes that the Vibrant License Server (**VLS**) is required with your license

### SMS Expiration

- The date *after which* you can no longer use a *newer Release Code* of software from the Vibrant Internet site.
- Your current software will operate indefinitely, unless you have a **Monthly** License.

To keep your software current with the latest improvements, is *strongly recommended* that your **Software Maintenance & Support (SMS)** be renewed annually.

### Release Date

- The Release Date is the date on which your software was released for customer shipments and also put on the Vibrant Technology Internet site for downloading.

### Version

- The Version number is a unique number assigned to the software currently installed on your computer.

### Enabled Options

- A list of all MEscape Options that are enabled by your license for operation within MEscape.
- Each Option is documented in its own Operating Manual

### Help | Start Page

- Opens the MEscape Start Page, as shown below. It contains three different sections.

### Recent Projects

- This section contains links to the *last five Project* that were opened on your computer

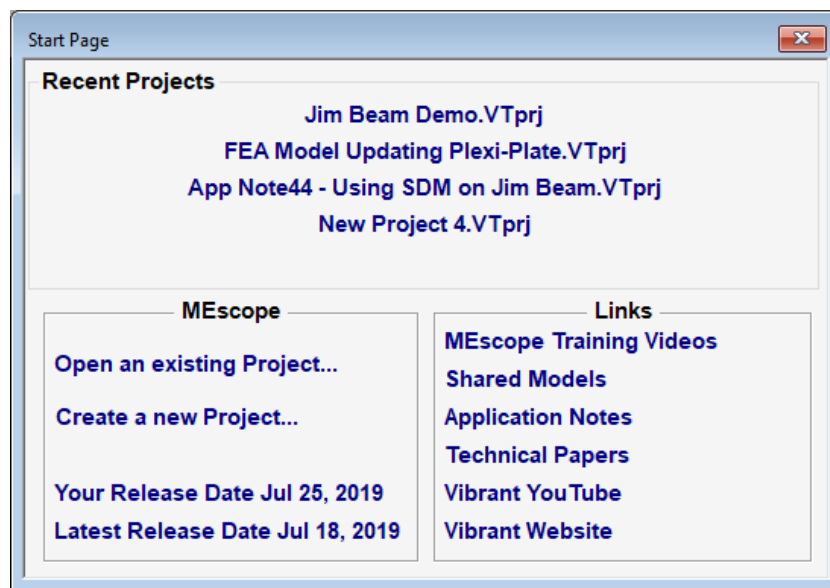
### MEscope

- This section allows you to open an existing Project that has already been stored on your computer or network, or to create a new Project
- It also lists the Release Date of your software, and the most recent Release Date available for download from the Vibrant Internet site.
- **Click** on **Latest Release Date** to download and install the latest Release Date of MEscape on your computer

### Links

- This section contains links for accessing online videos and documents

Your computer must be connected to the Internet to use these links



*Start Page*