

TABLE OF CONTENTS

Introduction 1

 ENOVIA VPLM 2

 Manual Format 3

 Logging into ENOVIA VPLM 4

 ENOVIA Portal Screen 6

 Portal Toolbar 7

 Workbook Toolbar 8

Customizing the ENOVIA Portal 15

 Customizing Workbooks 15

 Creating Custom Workbooks 21

 General ENOVIA Navigation 25

 General Settings 30

Product Class Editor 37

 Standard Toolbar 41

 Product Class Editor Toolbar 42

 Properties Pane 44

 1 – Domain 44

 2 – Characteristics 45

Product Editor 63

 Where Used 80

 Locks 84

 Find 86

 Locate Part 89

 Hide & Show Documents 92

 Collapse / Show 104

 Presentation Filters 109

 Contexts 113

 Generic Components 120

Part Editor 127

 Accessing the Part Editor from the Product Editor 135

Interoperability 137

 Send To CATIA V5 138

 Send To CATIA V5 as Assembly 143

 Sending Generic Components to CATIA V5 147

 Send Documents & Part References to CATIA V5 152

 Opening Non-CATIA documents 155

 ENOVIA Interoperability Tools 158

 CATIA Interoperability Tools 164

DMU Filters	171
Attributes Filter	172
Configuration Filter	175
Discipline Filter	183
Volume Filter	184
Zone Filter	189
Simultaneous DMU Filters	192
ENOVIA Search Tree	195
Ownership	203
Locks	203
Owner	205
Transferring Ownership	206
Problems	209
Problem 1	209
Appendix A - ENOVIA Portal Settings	211
General Settings	211
Product Editor Settings	212
Part Editor Settings	216

Introduction

ENOVIA VPLM Basic Concepts

Upon completion of this course the student should have a full understanding of the following topics:

- Log in and Log out of ENOVIA VPLM
- Understand the different object types of ENOVIA and their function
- Understand and utilize different applications within ENOVIA VPLM
- Understand the Product Class Structure
- Understand the Product Structure
- Send product definition data from ENOVIA to CATIA
- Search the database

ENOVIA VPLM

ENOVIA VPLM (**E**nterprise in**N**ovation **V**IA **V**irtual **P**roduct **L**ifecycle **M**anagement) can best be defined as a database that holds all the data related to a deliverable product. This data can be in the form of CAD files, engineering documents, trade studies, etc. Since ENOVIA holds all data pertinent to a product, it also acts as the interoperability agent between the ENOVIA database and the associated application the data is derived from. This allows for a single source for data storage and retrieval.

ENOVIA VPLM as a whole can be considered an object-oriented database. This means that all “things” put in the database are treated as a single object with attributes. Being an object-oriented database allows ENOVIA VPLM to hold all different types of files. All objects in ENOVIA VPLM will have a specific object type. There are a number of key object types that will be discussed throughout this book.

ENOVIA VPLM (ENOVIA for short) as an application is actually made up of four different parts. There is an ENOVIA database which holds all the meta data and attributes for all the documents, files, and parts stored in the vault. The database also manages users, permissions, and other ENOVIA specific objects such as product classes, actions, change orders, and other additional items. The ENOVIA vault is the physical file storage location held on the server. The vault will contain an encrypted form of all the data managed by the database. The third part of ENOVIA VPLM is the ENOVIA server itself. The server process is what manages communication between the client, the database and the vault. You never access the database or vault directly, you always communicate with the ENOVIA server. The last part of ENOVIA VPLM is the client. The client is what you will use anytime you want to interact with the ENOVIA database or vault.

ENOVIA is also one of many tools utilized to manage a product’s lifecycle. This management process is termed Product Life cycle Management (PLM). All product data managed by ENOVIA is placed into a life cycle stage, and then as the data matures, the life cycle is promoted. Once the part is ready for production, the product data will be passed through a release process to facilitate the final checks of that part. As a part gets changed for future needs, new revisions are created and again, the process will start over. Eventually the product data will be placed into retirement, where again, ENOVIA will handle the retirement of the product and all related documents. All told, ENOVIA will manage a product from the initial conceptual drawings and sketches, through 3D modeling, until the retirement of the product.

Manual Format

It is important to understand the format of the manual in order to use it most effectively. This manual is designed to be used along with an instructor; however, you will need to do a lot of reading as well, in order to fully understand ENOVIA VPLM. The exercises in this book will list steps for you to complete, along with explanations that try to inform you what you have just done and what you are getting ready to do. The actual steps are in bold type and the information that follows the steps is for your benefit. Anything that appears in *italics* refers to a message ENOVIA provides—this includes information in pull-down menus, pop-up windows and other messages.

An example of a step and its explanation are shown below (note: normally the lines will not be there):

Select a location to the right of the origin. This specifies the other end point of the line. You will continue specifying locations in order to complete your profile. It should appear similar to the diagram shown below.

As you can see, the desired action blends in with the text except that it appears in bold. The information following the step explains what that step accomplished and where you are going next. It is important for you to read this information to help in your understanding of ENOVIA.

Also, you will find that the exercises build upon themselves. Later exercises often assume you know how to do certain steps which have been covered in earlier exercises. If you did not quite pick up what you needed to know from an exercise, you will probably wish to review it several times before moving on to the more advanced sections. As you progress through the manual, it expects that you are learning and therefore you are able to do a lot more with fewer steps. Eventually, you are expected to be able to perform actions without any steps.

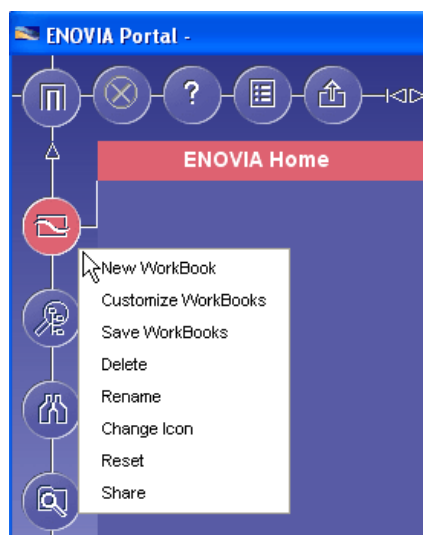
Customizing the ENOVIA Portal

Customizing Workbooks

Adding or removing the visible workbooks is a good fundamental customization that can be performed. By creating a custom workbook, you will have a storage location for bookmarks, as well as the ability to create a custom set of tools to help aid you in your day to day ENOVIA work.

With the third mouse button, select on the WorkBook toolbar. This will display the contextual menu for the workbooks. Take a moment to look them over.

Note: You select on one of the icons to get all of the options. If you right mouse select on a blank area, you will only receive a partial list.



New Workbook

This will create a new workbook to allow you to save bookmarks or place links in the workbook

Customize Workbooks

This will allow you to turn off or remove workbooks from the workbook toolbar

Save Workbooks

This commits all changes to the ENOVIA server

Delete

This will delete the selected workbook

Change Icon

This will allow you to change the icon of the selected workbook

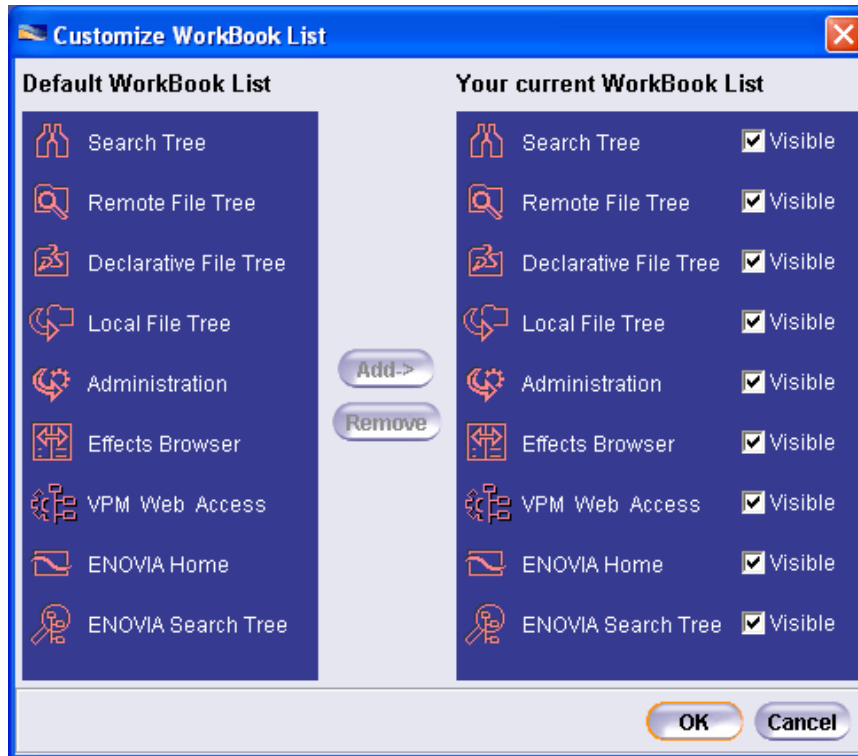
Reset

This resets the selected workbook back to its original configuration

Share

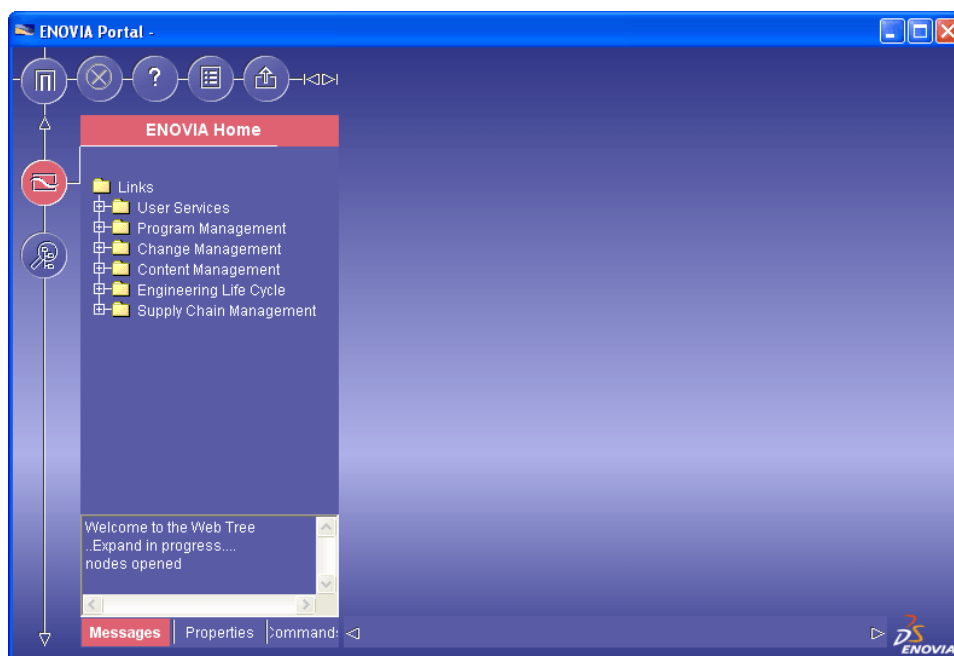
This will share the workbook so that others may be able to utilize the same workbook configuration

With the workbook contextual menu up, select *Customize Workbooks*. This will display the *Customize Workbook List* window.



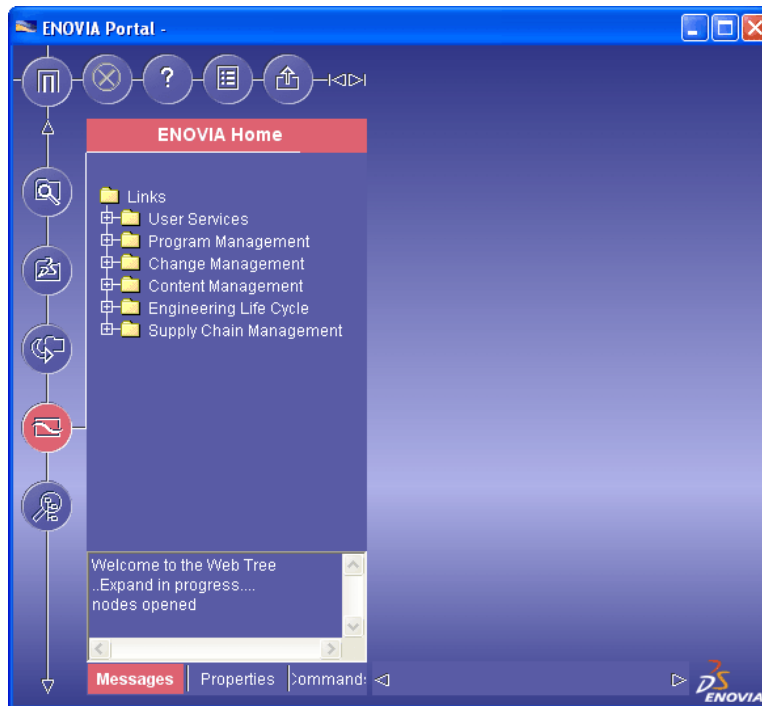
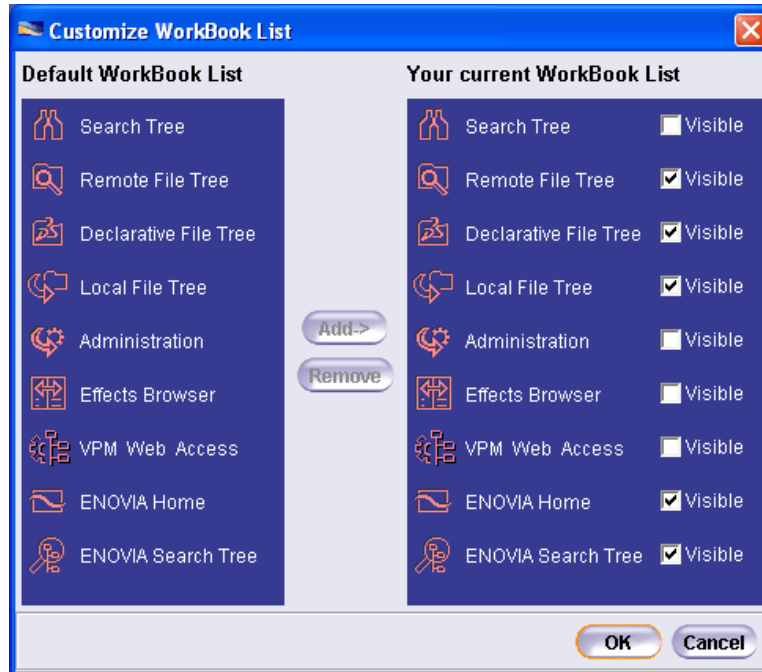
The list on the left is the available workbooks that you can add to your current workbook list.

Uncheck the *Visible* checkbox for all items except *ENOVIA Home* and *ENOVIA Search Tree*. Select *OK* when done. This will change your ENOVIA Portal to only show the ENOVIA Home and ENOVIA Search Tree workbooks.



Right select on the Workbooks toolbar, then select *Customize Workbooks*. Again, the *Customize WorkBook List* will appear.

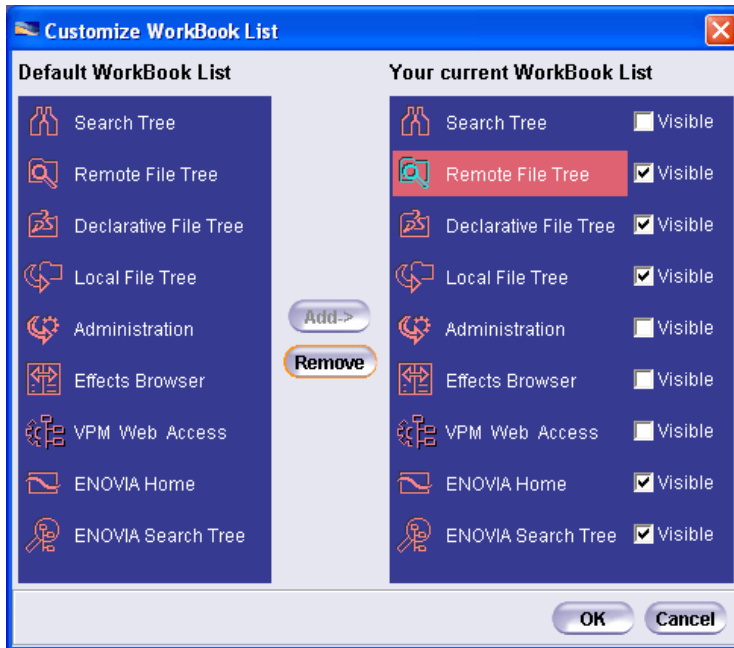
Turn on visibility for the *Remote File Tree*, *Declarative File Tree*, and *Local File Tree*. Select *OK* when done. This will turn on the three file trees.



Since the ENOVIA Home and ENOVIA Search Tree are the two most important, you generally want just those two workbooks available. You can also remove the workbooks to remove them from the list.

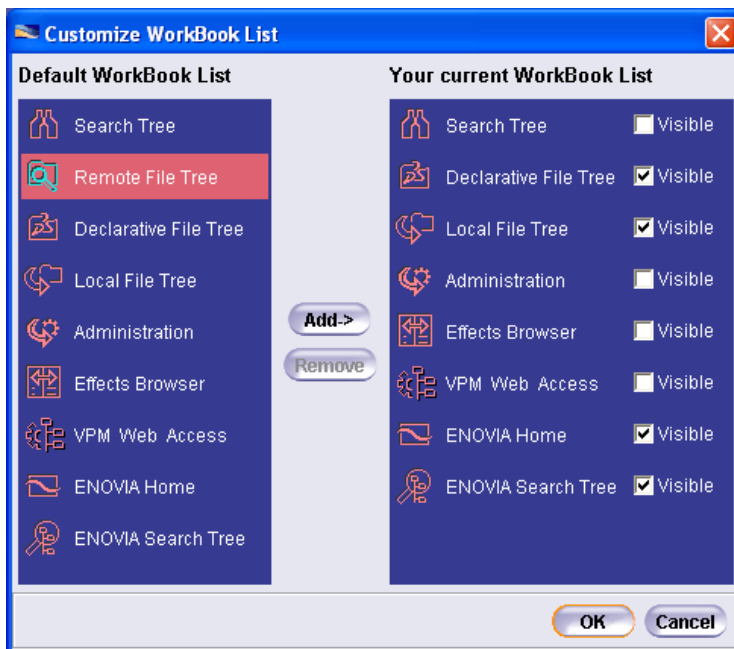
Go to the *Customize Workbook List* window. Remember, you will have to right click on the Workbook toolbar, then select on *Customize Workbooks*.

Select on the *Remote File Tree* workbook from the current workbook list. This will activate the *Remove* button.

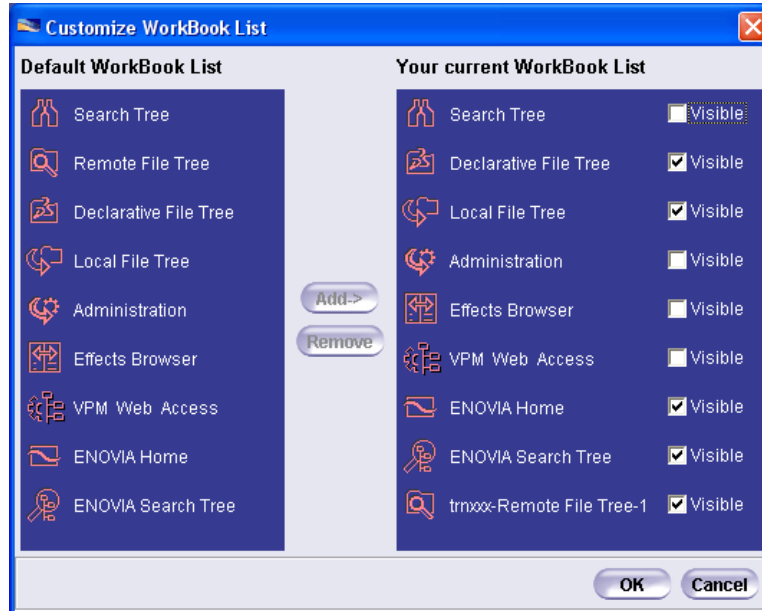


Select *Remove*, then select *OK* when done. This will remove the *Remote File Tree* from the list of current workbooks.

Go to the *Customize Workbook List* window, then select on *Remote File Tree* from the *Default Workbook List*. When you select on items from the *Default Workbook List*, the *Add->* button will activate.



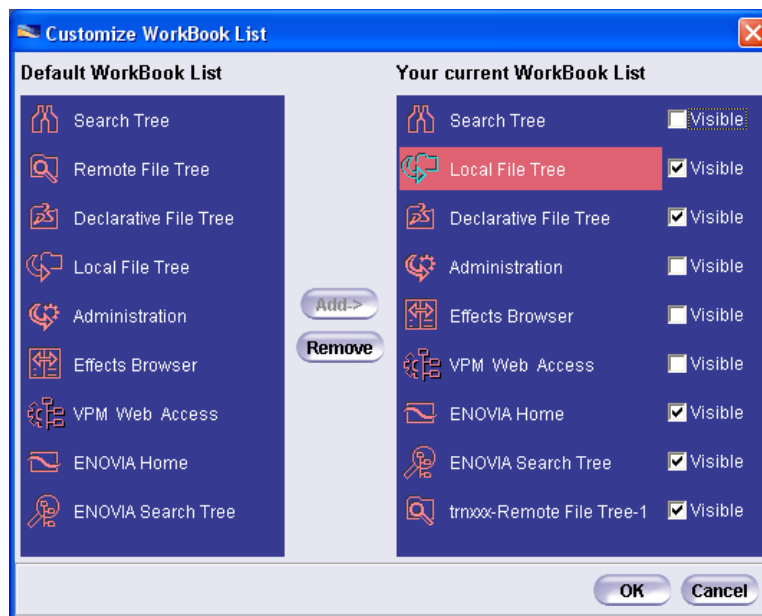
Select Add->. This will add the *Remote File Tree* back to the list of current workbooks. Notice something different?



When items are added back to the workbook list, they will be uniquely named with the current username, and a dash number at the end. The item will also appear at the bottom of the list.

Right click on the *Local File Tree* from the current workbook list. This will bring up the contextual menu for the items in the workbook list.

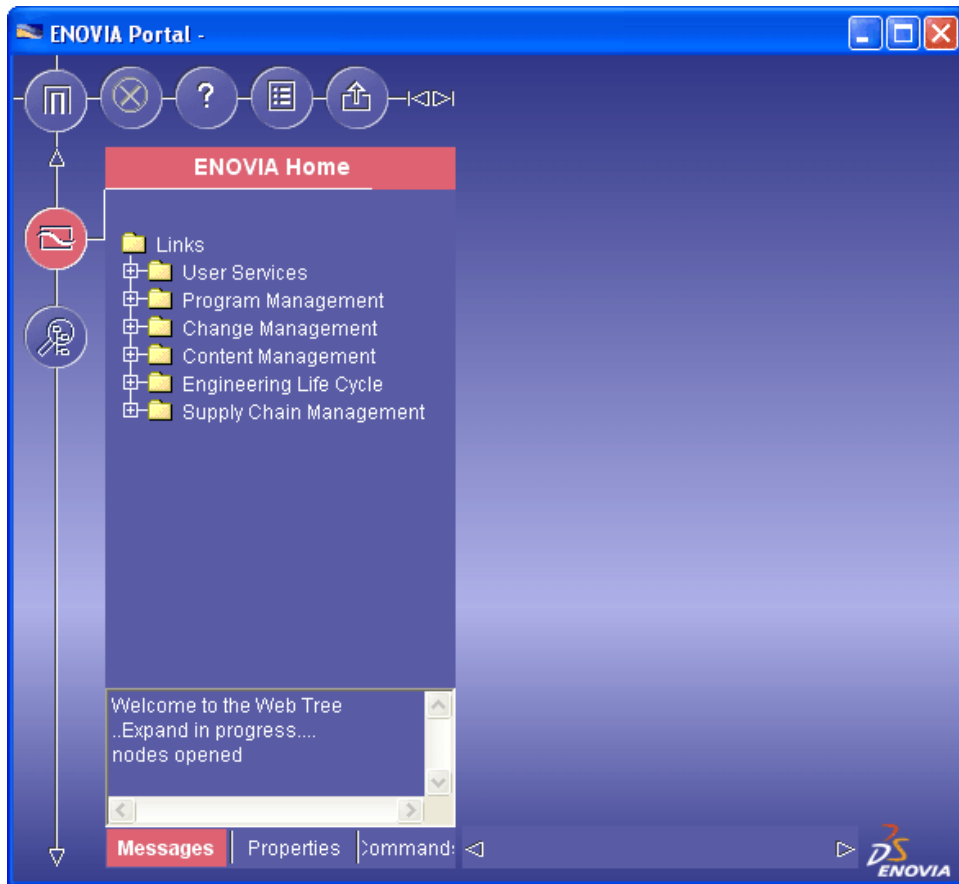
Select *Move Up*. This will move the *Local File Tree* above the *Declarative File Tree*.



Note: You can also drag the various workbooks up and down in the list to re-arrange them.

Since the ENOVIA Home and ENOVIA Search Tree are the two most important workbooks, you will want to go ahead and turn off all workbooks except those two.

Turn off all workbooks but the *ENOVIA Home* and *ENOVIA Search Tree* and select *OK*. How you do this is up to you. You can either turn off visibility or you can remove them from the list. You should only end up with the two icons in your ENOVIA Portal when done.

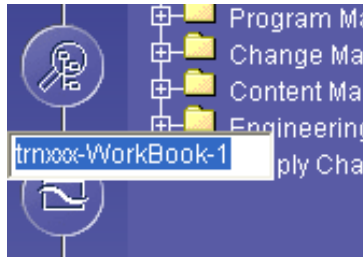


Since the ENOVIA Home and ENOVIA Search Tree are the most used workbooks, it is generally a good idea not to clutter the workbook area with unnecessary workbooks. If you find that you ever need another workbook, you can always turn the visibility of that workbook back on or add the necessary workbenches if they were removed from the current workbench list.

Creating Custom Workbooks

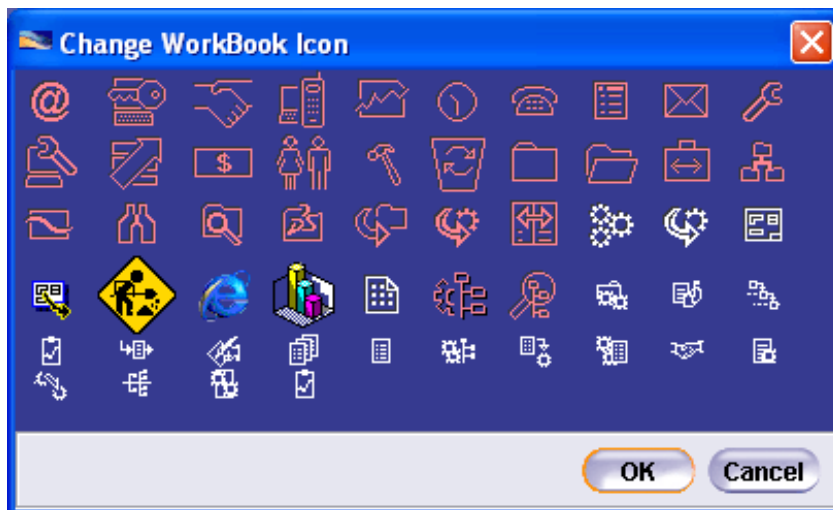
There are times when you want to create a workbook just for items you use frequently. This is where a custom workbook comes in handy. You can also create new items in the workbook, such as bookmarks.

Right click on the Workbook toolbar, then select *New Workbook*. This will create a new workbook in the list. As soon as you create the workbook, you can rename it. For the moment, you will look at renaming the workbook after creation.




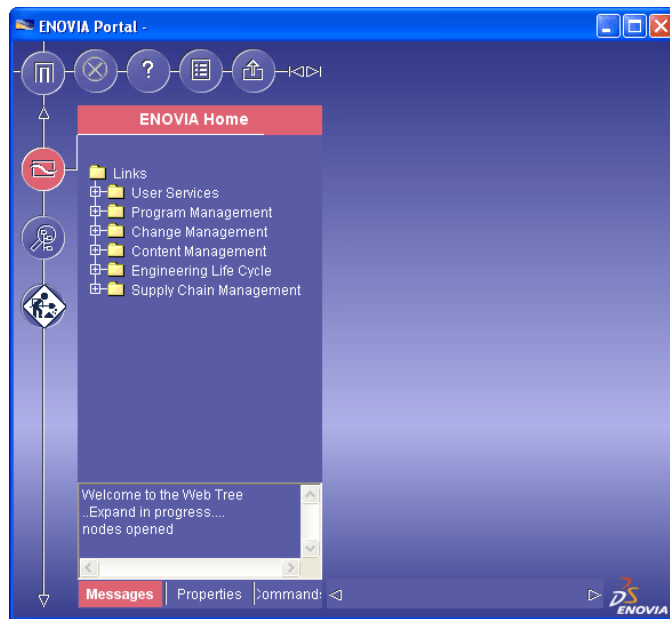
Select anywhere in the blank area on the WorkBook toolbar. This will create the new workbook. Notice that the icon is the same as the ENOVIA Home icon. This can be a cause for confusion.

Right click on your new workbook, then select *Change Icon*. This will allow you to change the icon to something unique.



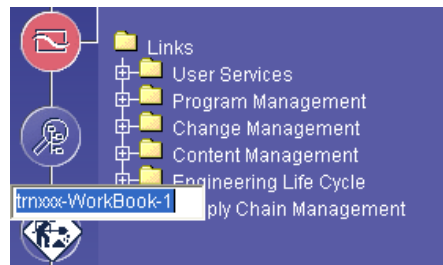
This book will utilize the yellow worker icon. You may choose to use something else. If you do, please remember that your icon will not match the icon used in the book.

Select the yellow worker icon. Select *OK* when done.  This will give the workbook a unique icon. Remember, you may choose to use a different icon, however, your icon will not match the icon used in the book.



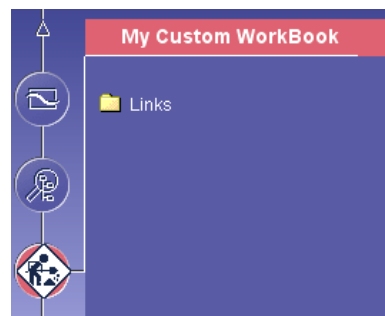
Now that the icon is unique, take a quick look at renaming it.

Right click on the new workbook, then select *Rename* from the contextual menu. This will display the rename field so you may enter a new name.



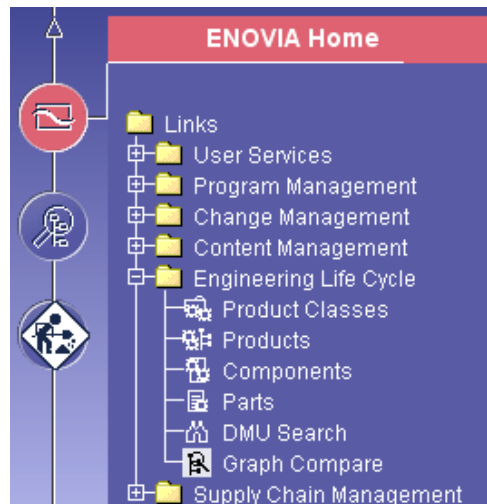
Change the name to My Custom WorkBook and select **Enter on the keyboard.** This will give your workbook a different name.

Select on your custom workbook. Notice there is a *Links* folder, however, there are no links available.



When a custom workbook is created, you will have to add links as necessary. Most custom workbooks are used for bookmarks and other non-generic items. Since you are not ready to create bookmarks just yet, you will add a few links from the ENOVIA Home workbook into your custom links workbook.

Select on the ENOVIA Home workbook. Expand the *Engineering Life Cycle* folder. If you remember from the introduction, the *Engineering Life Cycle* branch holds most of the tools for working directly with the data in the ENOVIA database.



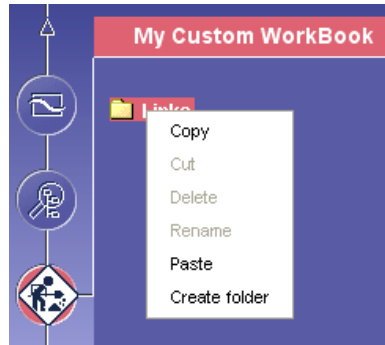
Right click on *Product Classes*. This will display the contextual menu for the Product Class Editor. Since all of the applications within the ENOVIA Home workbook work the same way, take a moment to look at the various options available.



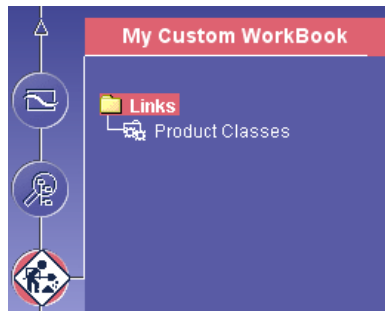
- Activate* Launches the application
- Modify Bookmark* Modifies the path the link points to. You do not ever want to modify the bookmark on a default application, otherwise you might not be able to run the application. Modifying the bookmark is reserved for custom ENOVIA applications, or custom links placed in the workbook.
- Copy / Cut* Copies or cuts the link from the workbook. Once copied or cut, it can be pasted back into another folder.
- Delete* Removes the item from the list. This option is similar to a cut, however, it does not allow for a paste.
- Rename* Renames the application. Keep in mind, if you rename your applications, although it may make more sense to you, they will differ from the defaults, and thus may make support more difficult.

Select Copy. This will copy the Product Classes application to the clipboard.

Select your custom workbook from the workbooks toolbar. Right click on the *Links* folder at the top of your custom workbook. This will display the contextual menu for the folder.



Select Paste. This will paste the link for the Product Classes into your custom workbook.



Add one more link to your custom workbook.

Switch back to the ENOVIA Home workbook. Expand the *User Services* branch. Right click on the *Publish Subscribe* application, then select *Copy*. This will copy the Publish Subscribe application.

Paste the Publish Subscribe application into your workbook. Remember, you will have to select on your *Links* branch, then right click to paste the application.

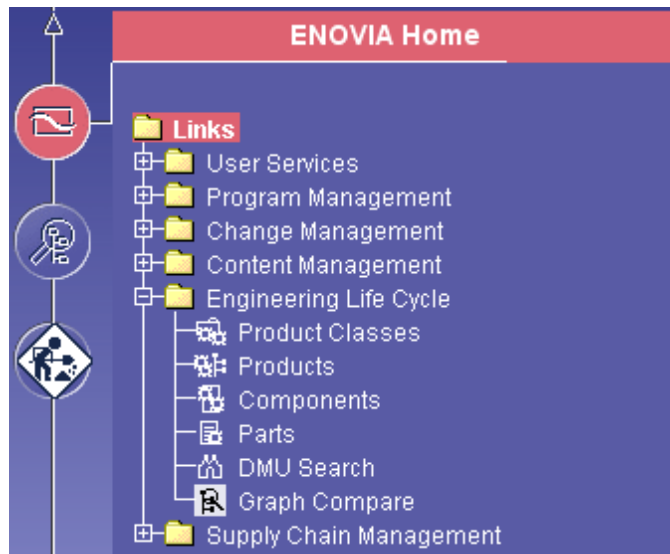


As you work through this book, you will find there are certain applications that you will utilize more than others. If you find you would like to create more links in your workbook, please feel free to do so. Be sure to keep in mind, your workbook will be different from other people’s workbooks. When initially learning, it is generally best to keep from creating a lot of custom workbooks, but rather to use the generic workbooks. This allows you to better help others and receive help while utilizing the same workbook structure.

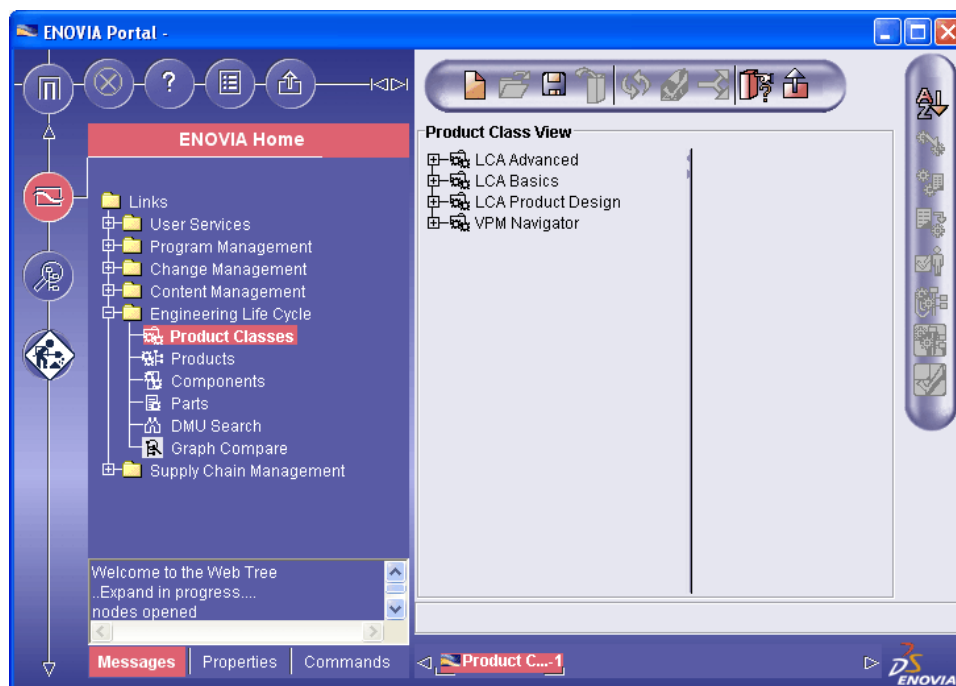
General ENOVIA Navigation

Now you are ready to take a look at some general navigation in ENOVIA. It is useful to be able to adjust window pane sizes, as well as adjust the number of windows visible.


Select on the ENOVIA Home workbook, then expand the *Engineering Life Cycle* branch. Since the *Engineering Life Cycle* branch is where you will perform most of your work, you will look at activating and closing a few of the applications found there.

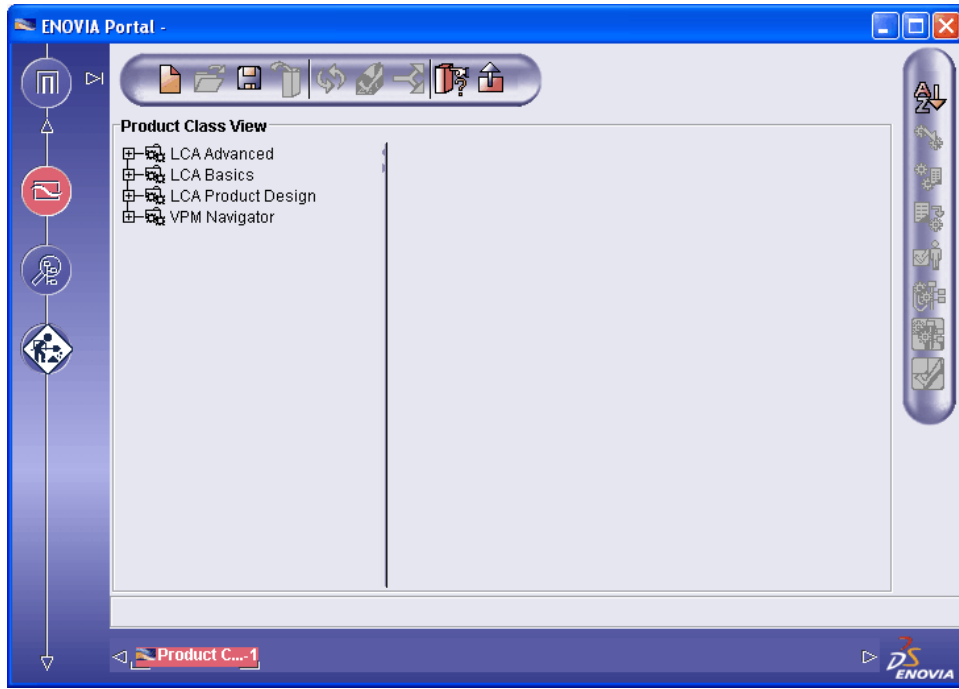


Right click on the *Product Classes* application, then select *Activate*. The product classes application will be discussed in the next section, for now, you are just working on opening and closing applications. This will launch the product classes application into the active application zone.



With the application active, now take a look at manipulating the display to make the application more visible.

Select the Collapse icon in the portal toolbar.  This will collapse the portal toolbar and the active workbook to allow for more room for the active application.

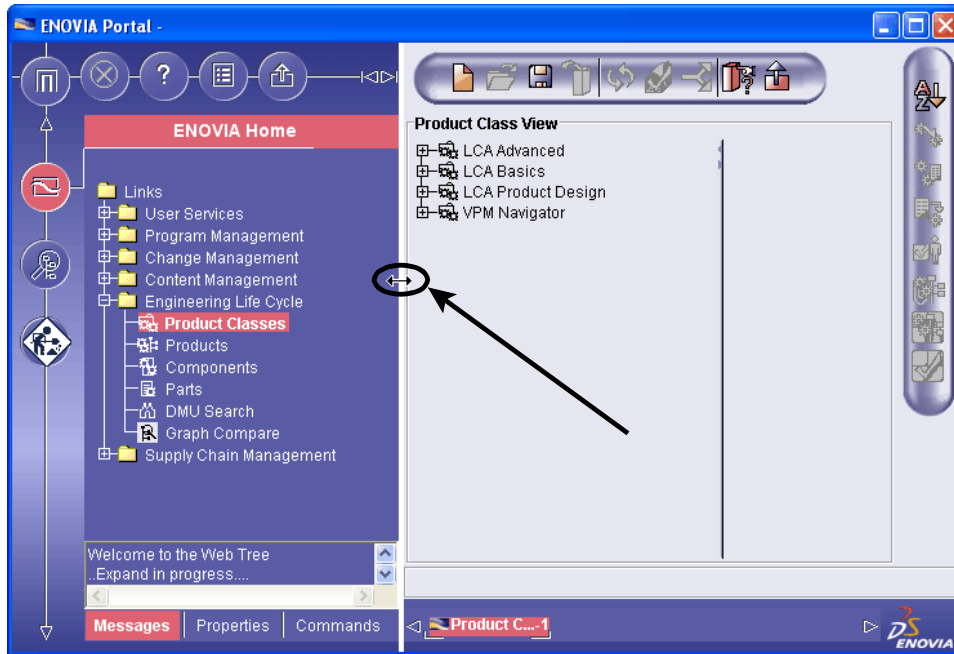


Many times, you will find it useful to collapse the portal toolbar to have extra space for the applications running.

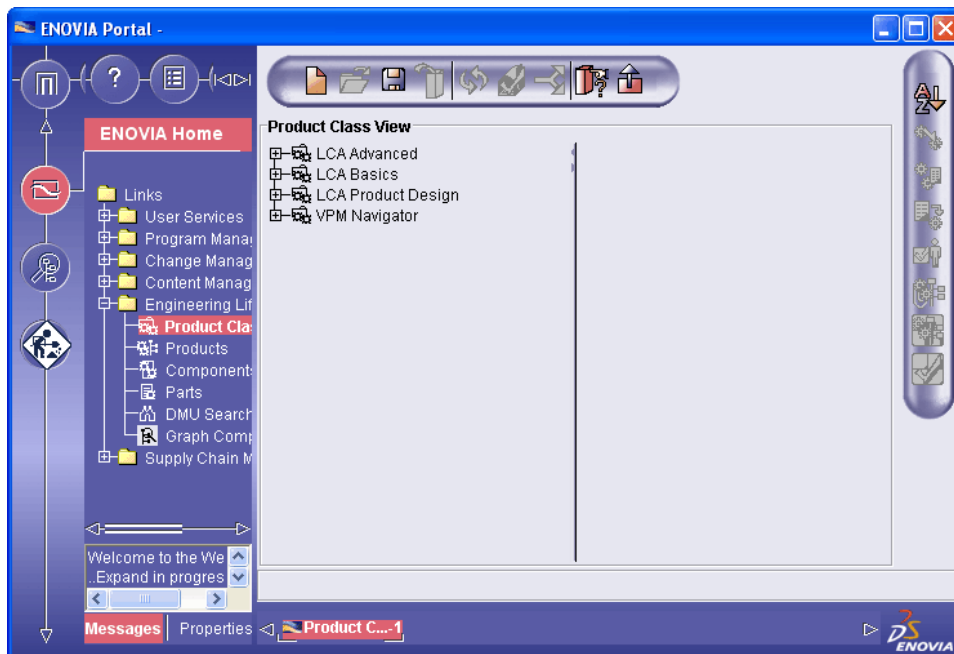
Select the Expand icon in the portal toolbar.  This will expand the portal toolbar and the active workbook back out.

You can also just change the size of your active workbook area by dragging the dividing bar. You will try that next.

Point your cursor to the bar between the active application and the active workbook.
Your cursor should turn to a double arrow slider icon as shown in the image.



Select and drag the bar to the left. This will shrink the active workbook area, as well as the ENOVIA portal toolbar.

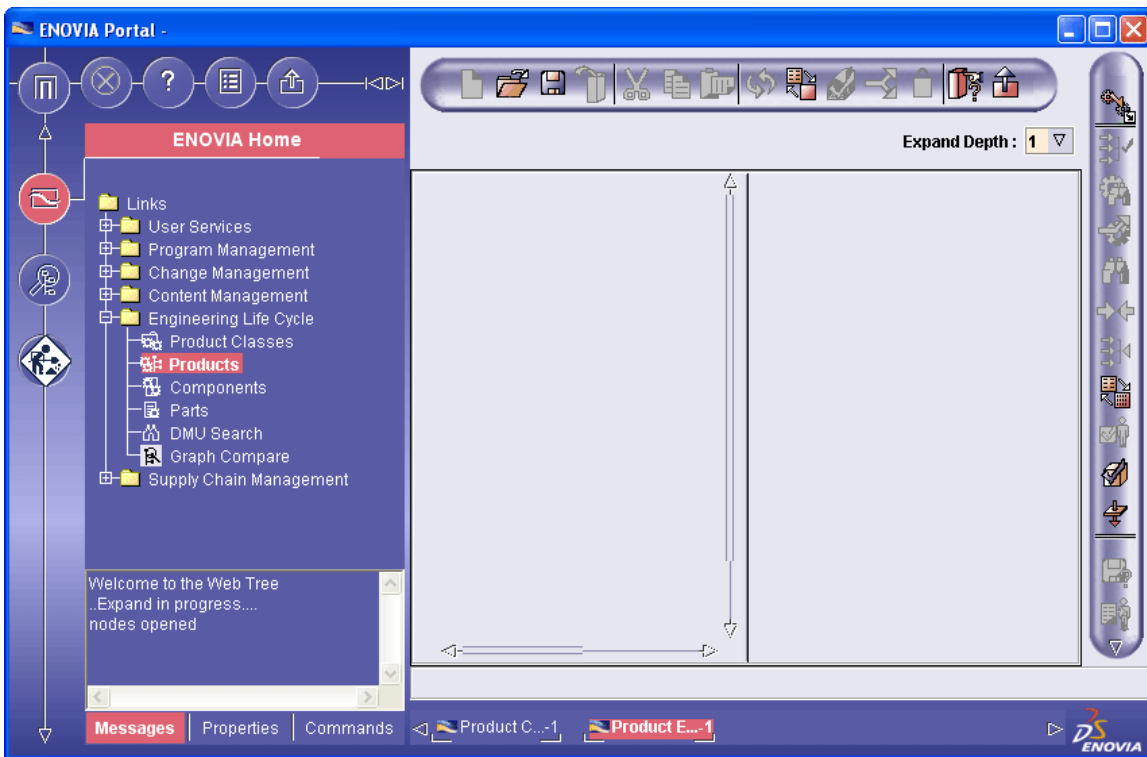


Note: Exact placement of the slider is not necessary. Your ENOVIA portal may not appear exactly as shown based on placement.

You can also slide the bars in the middle of the application windows. Feel free to practice moving the window areas around.

Slide the active workbook area back out until all the text in the ENOVIA Home workbook is visible. It is generally a good idea to be able to read all of the text.

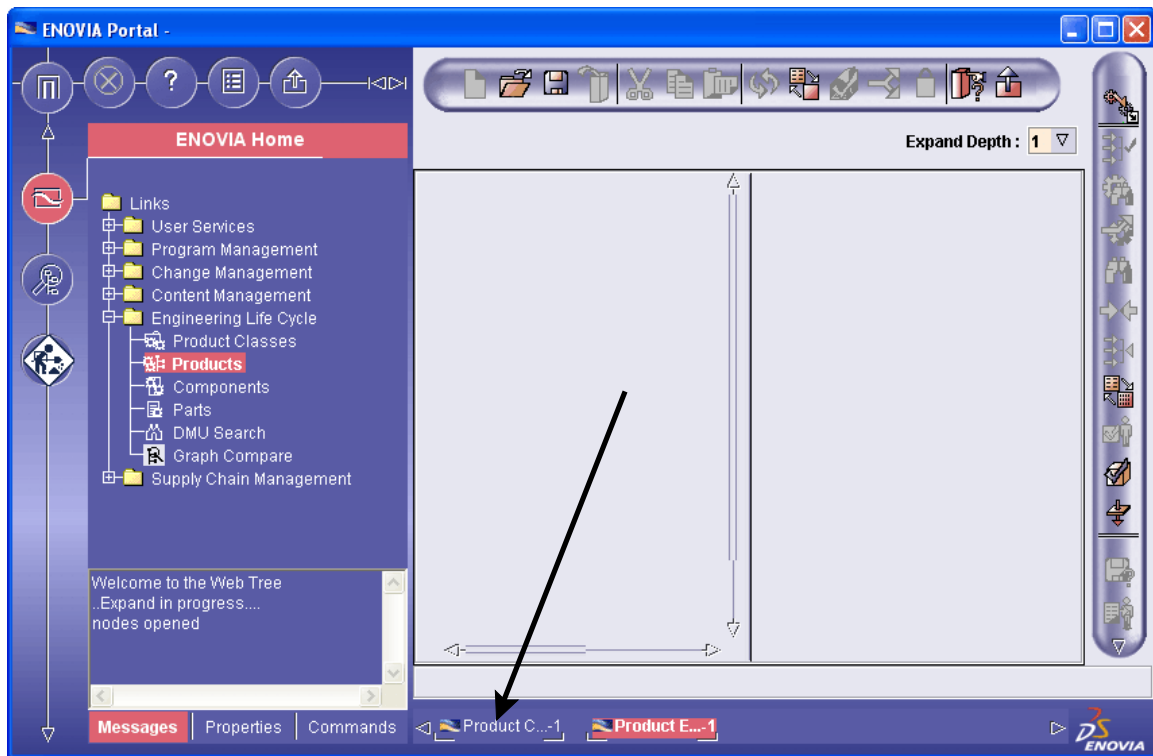
Activate the products application. All you will need to do is right click on the products branch under the *Engineering Life Cycle* folder then select activate. This will activate the product editor and place it on top of the product class editor.



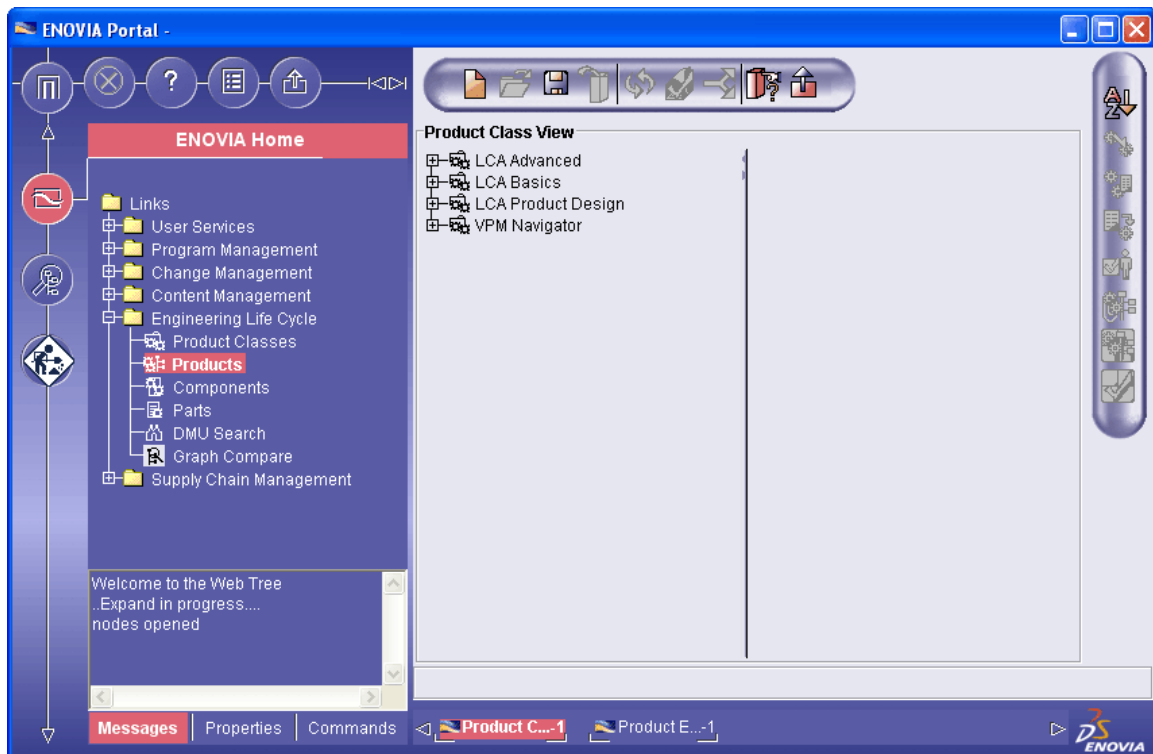
Notice the product editor is placed in the active application windows area at the bottom of the *ENOVIA Portal* screen. A running list of all active applications are kept here.

Notice the name of the applications are shortened. The names will always be decreased to the same size, regardless of how large you make your ENOVIA screen.

Select the **Product Class Editor** from the active application window area. This is shown in the image below.



This will change your active application back to the product class editor. You can switch between as many applications as necessary.

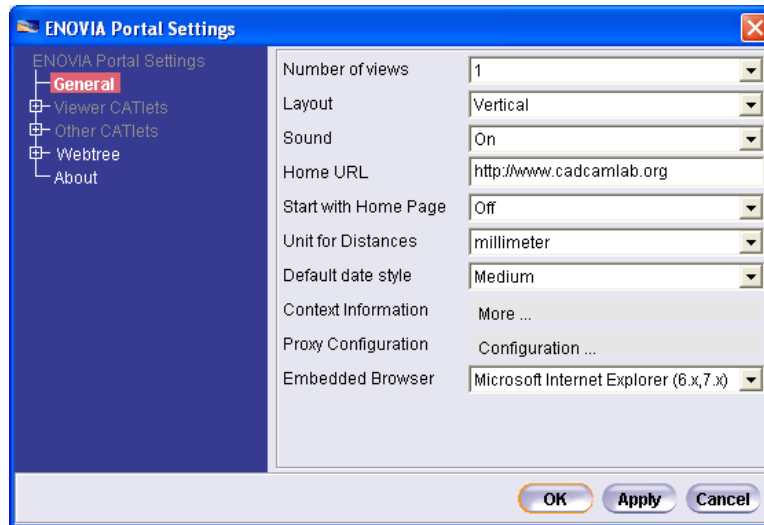


Now you will take a look at some of the general portal settings.

General Settings

The general settings allow you to change some of the fundamental and generic settings for ENOVIA.

Select the Settings icon from the ENOVIA portal toolbar and select *General*.  This will display the general settings for the ENOVIA portal.

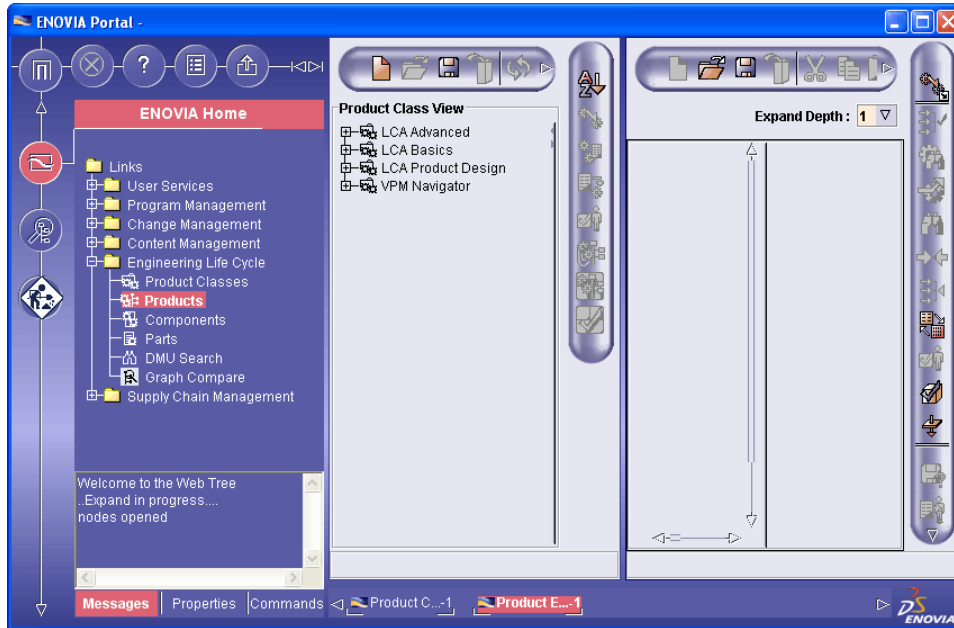


Take a moment to look at some of the settings.

<i>Number of views</i>	Defines the number of active applications displayed simultaneously. You can only choose between one and two views.
<i>Layout</i>	Defines the layout of the views, either horizontal or vertical
<i>Sound</i>	Turns sounds on or off in ENOVIA
<i>Home URL</i>	This defines the web page that ENOVIA launches when you select the ENOVIA home icon
<i>Start with Home Page</i>	Defines if the home page will be displayed on startup or not
<i>Unit for Distances</i>	Defines the default units ENOVIA will use
<i>Default date style</i>	Defines how dates will be displayed
<i>Context information</i>	Displays information about the currently logged in user, server, project, and other session information
<i>Proxy Configuration</i>	Allows the configuration of a proxy server to be defined. This is for using ENOVIA outside of a company firewall and proxy server.
<i>Embedded Browser</i>	Defines the browser used when in ENOVIA

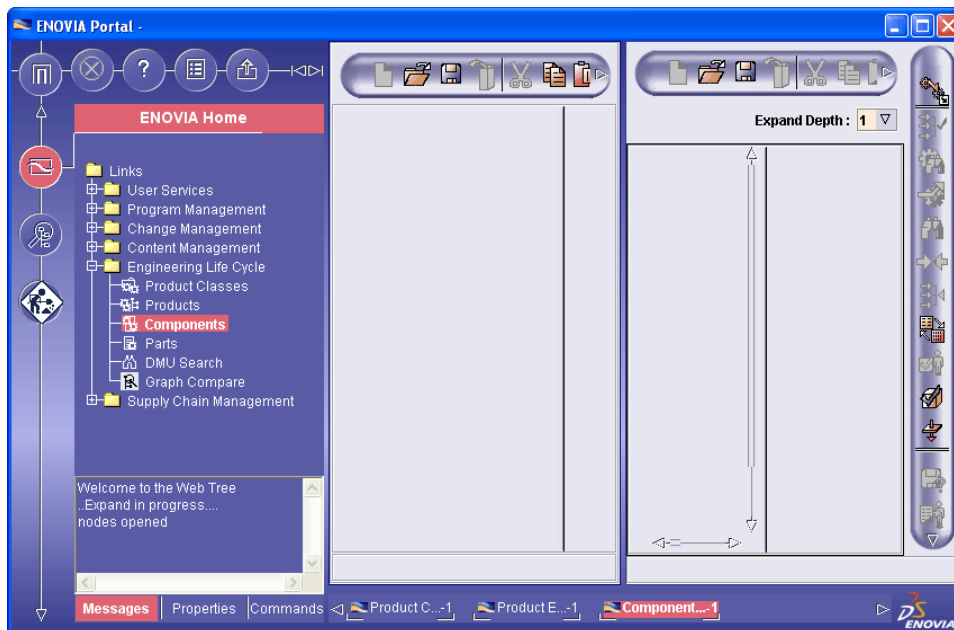
Change the Number of views to 2. This will change the active application area to show two windows.

Select OK when done. This will change the window to show both the product class editor and the product editor simultaneously.



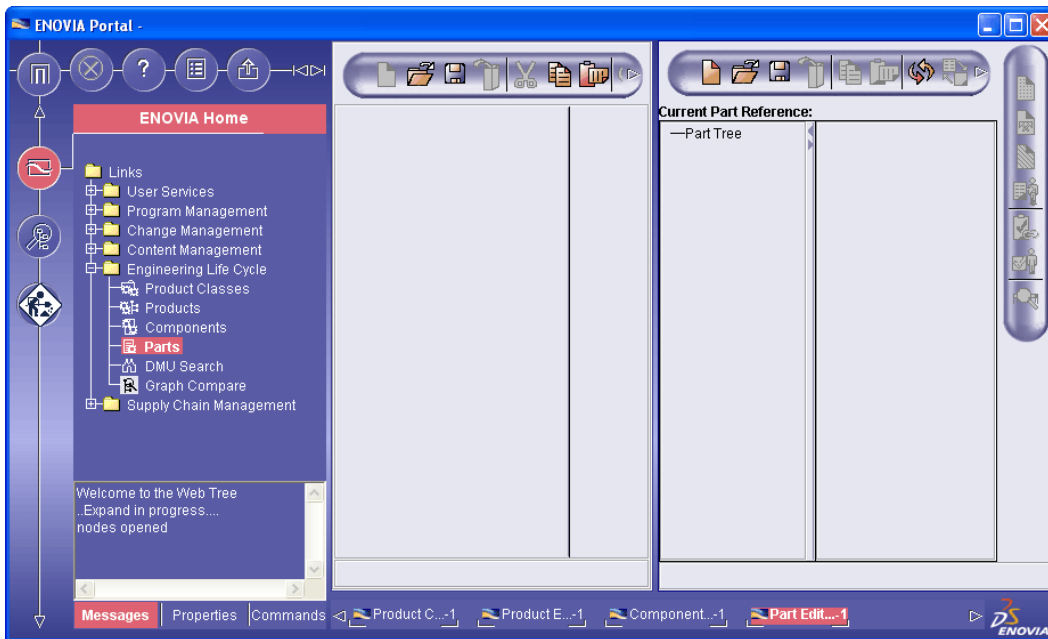
The size of each window can be adjusted by dragging the solid bar between the two active applications.

Activate the Components application from the ENOVIA Home workbook. Notice which window it covered up.

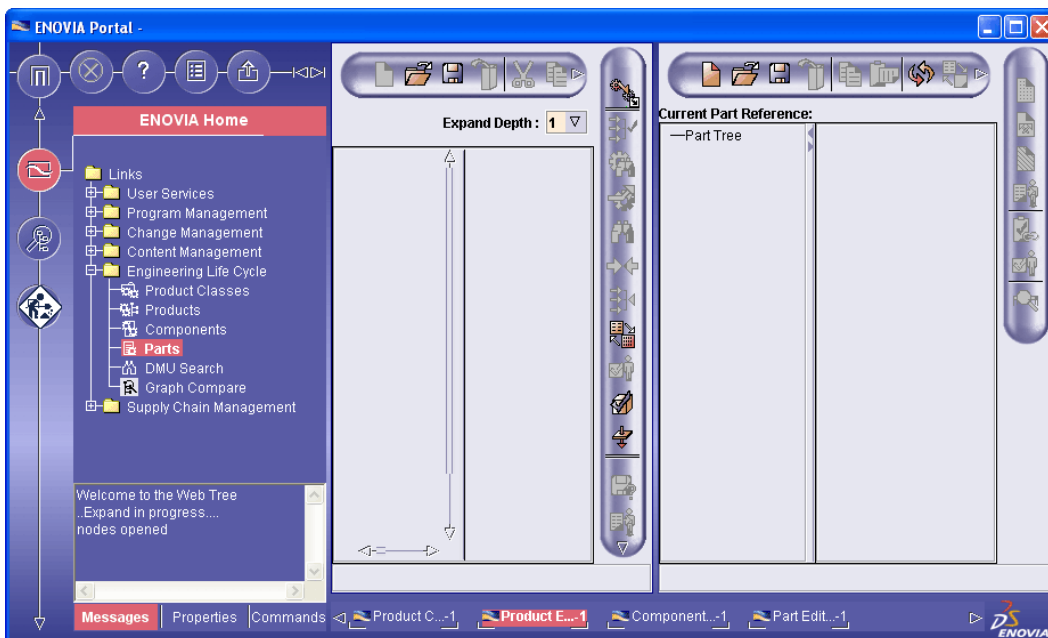


The component editor is in the left hand window. Now watch what happens when you launch another editor.

Activate the **Parts** application from the ENOVIA Home workbook. The parts editor activates on top of the product editor (the right hand window).



Select on the product editor (**Product E...-1**) from the active application windows area. If you remember right, the product editor was on the right hand pane before you activated the part editor.



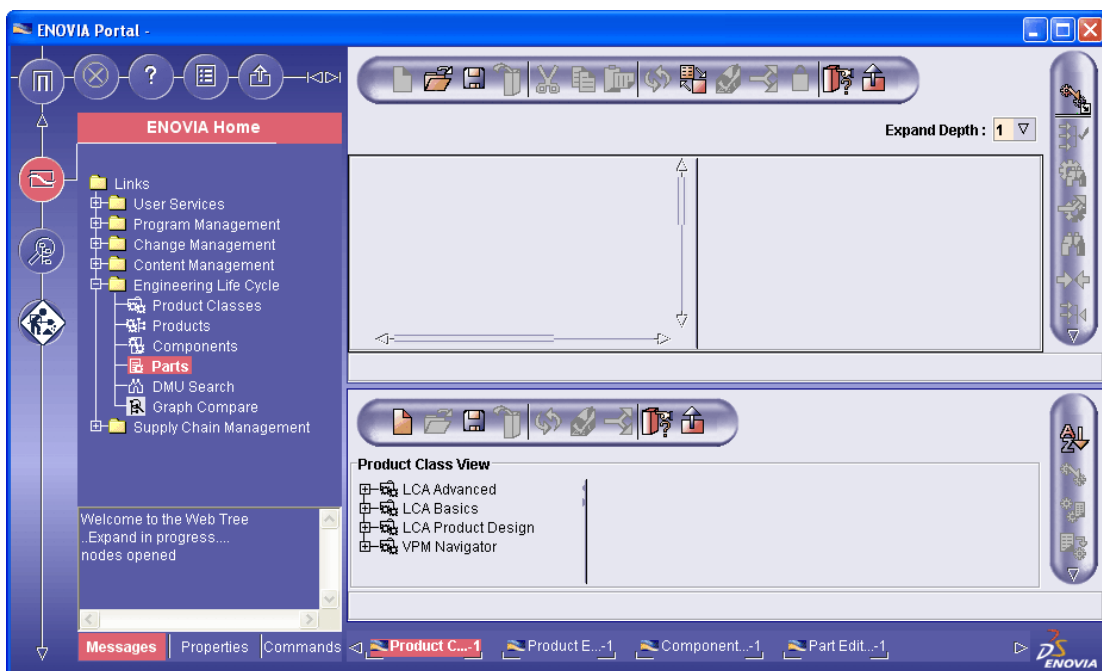
Notice where the product editor is now? The product editor is in the left hand application area. Why did the window move from the right window to the left window? When working with two windows, ENOVIA will always replace the inactive window with the new application. This means that since the product editor is active (highlighted in the active application windows area), the next window selected, or the next application activated will replace the part editor since it is not active. Test this theory.

Select the product class editor window (*Product C...-1*) that is already active. Just select the product class editor from the active application windows area.



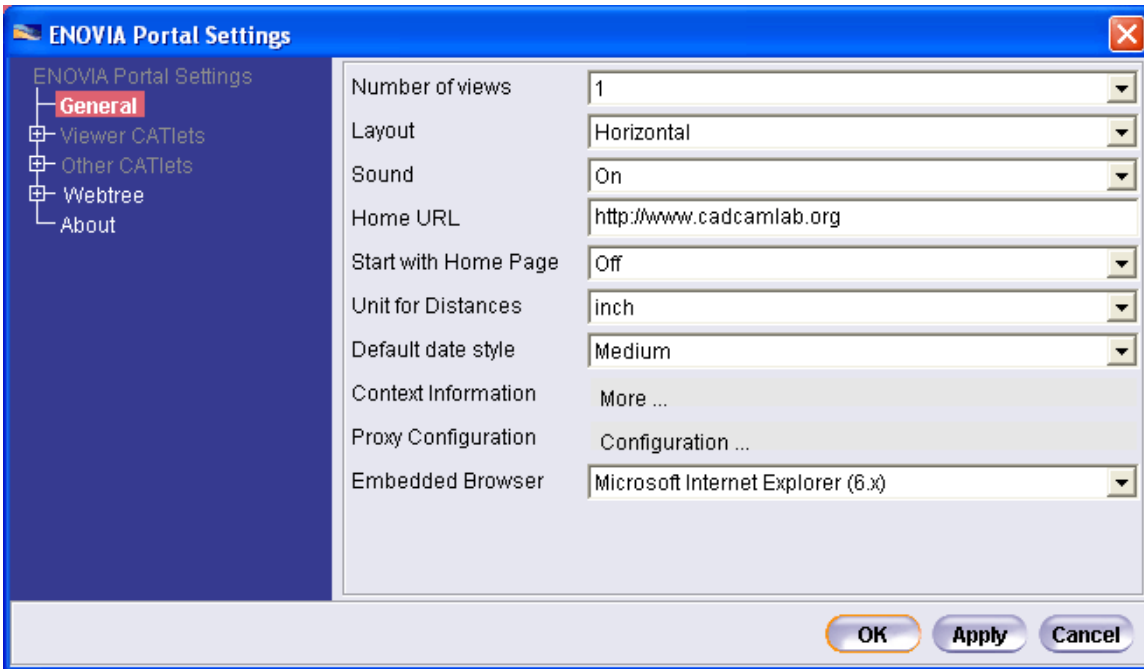
Working with two windows can sometimes become confusing. It is highly recommended that while learning ENOVIA you utilize just one window at a time. Before switching back to one window, take a look at a horizontal layout.

Select the Settings icon, then change the layout to *Horizontal*. Select *OK* when done. This will change the two windows to have a horizontal layout rather than a vertical layout.

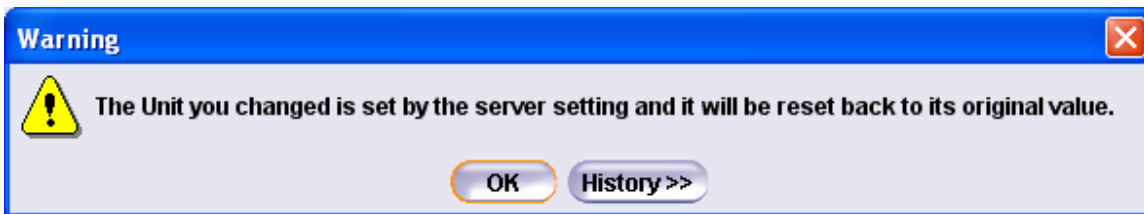


As mentioned earlier, working with two windows can become very frustrating and confusing. It is highly recommended that you learn with just one window active.

Change the *Number of views* back to one. While in the *ENOVIA Portal Settings* window, you should also take the opportunity to change your *Unit for Distances* to *inch*. This will save you from having to change the units later in this book.

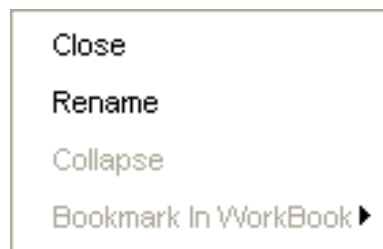


Be sure to select *OK* when finished. A *Warning* window appears.



Select *OK*. Now you are ready to close the active windows.

Select, then right click on the part editor window (*Part Edit...-1*). You must select on the part editor first, otherwise, you will be closing the active application (in this case the product class editor). This will display the contextual menu for the window.



Close

Closes the window and exits the application

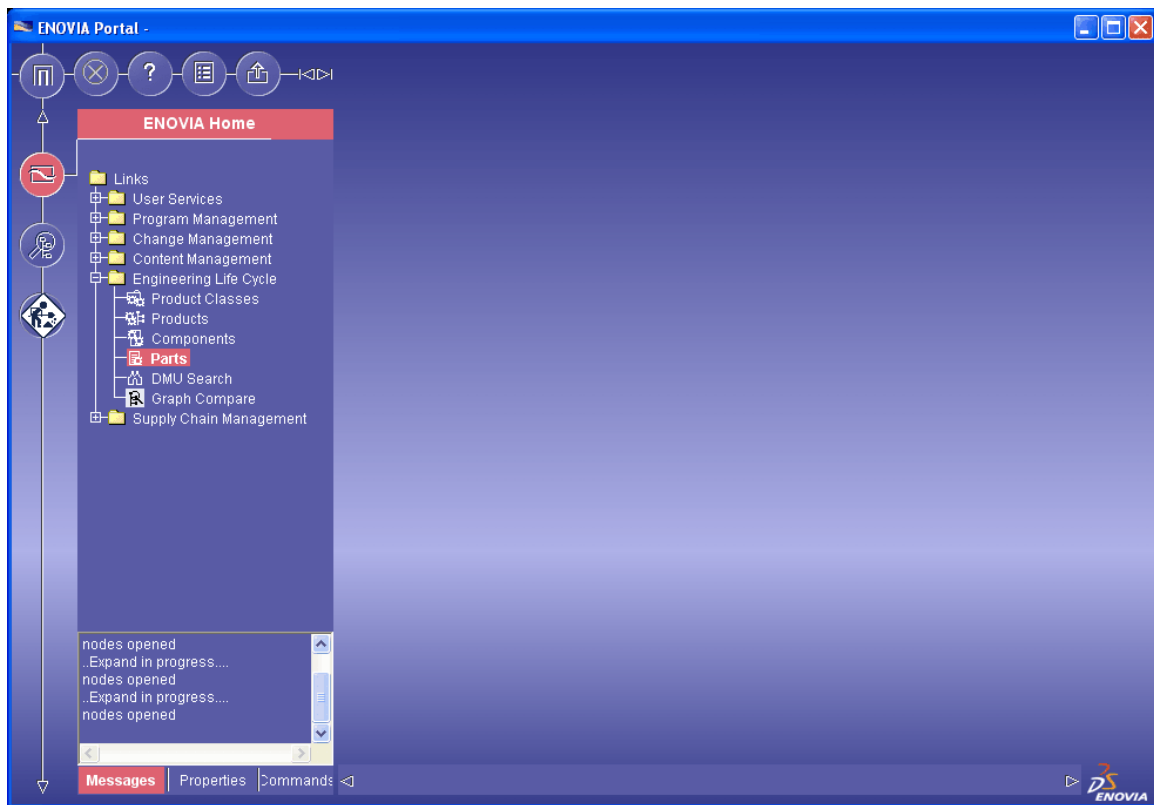
Rename Renames the window. If you rename an active application, the new name will only exist for the life of the application. If you close the window, the new name will be gone. This is also the case if you close ENOVIA. It is not recommended that you spend a lot of time renaming your windows since they will not stay renamed.

Collapse When the window tiling functionality is added to ENOVIA, this will collapse, or minimize the active window.

Bookmark in Workbook Allows you to bookmark the window in a workbook

Select Close. This will close the window.

Close all the other windows. This will take you back to a blank active application area.



At this point, you are ready to start utilizing ENOVIA to access product classes and products.