# Appendix A – Ordering and Installing

*Sparx Enterprise Architect* is easy to order and to install. The following sections provide tips on specific things to consider.

## What to Buy

Sparx offers a number of different editions of *Enterprise Architect*. The most recent pricing levels are available at: http://www.sparxsystems.com/products/ea/editions/?source=ea14

The current pricing tiers have changed from those of a few years ago. In fact, the product pricing has been reduced and the feature content increased – a very customer-friendly move. Within the current tiers as listed on the website [1]:

- **Corporate** – should be able to handle almost everything in this book except parametrics, which are an advanced feature of SysML.
- **Unified** – should be able to handle everything in this book and includes simulation capabilities.
- **Ultimate** – will be most interesting for deployment to larger teams.

Once you have purchased the license, Sparx will send you an email with your license key number as well as instructions for downloading and installing the product.

If you are part of a larger organization with license key management infrastructure, a floating key license version is available as well.

## Maintenance

Like most similar commercial tools, the product comes with one year of free support and upgrades. After the first year has finished, in order to continue to get support and upgrades, you will need to pay an annual maintenance fee.

## Node Locking

Unlike many similar tools, *Enterprise Architect* is not node locked. However, as of version 14, the tool now has an activation code. The end user license agreement for version 14 allows for the use on a single computer and one personal backup computer. Here is the text from the end user license agreement:

> *As the primary user of the computer or device on which the Software Product is installed, You may make a second copy for your exclusive use on either a home or portable computer.* [2]

[1] Website edition information as of 8 October 2018

[2] Text from end user license agreement for version 14 as of 13 May 2018

Note that Sparx also offers very reasonably priced floating licenses. If your team is large enough to support a license key server, floating licenses could be an attractive alternative for your team.

## Windows Environment

Generally, I have found *Enterprise Architect* to be very simple and robust and not sensitive to the particular configuration of my machine. However, just for the record, I am writing this book using a Lenovo X1 Carbon 6th generation notebook.

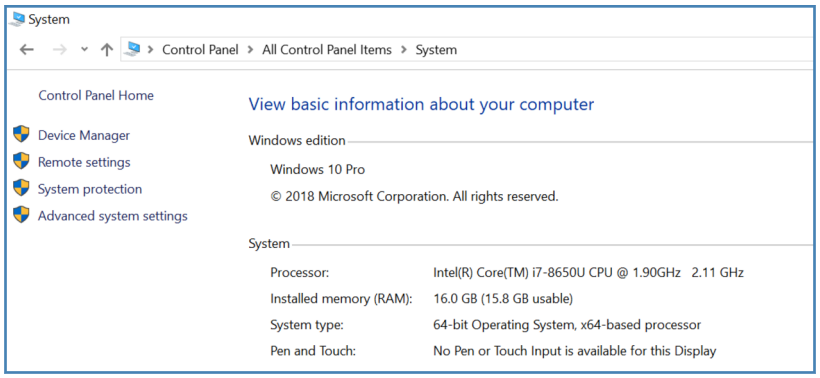


*Figure A-1 – The author's machine*

## Installing the Tool

Installation of *Enterprise Architect* is generally quite straightforward. If you encounter problems, you can simply send an email to support@sparxsystems.com. I have found Sparx support to be quite helpful, generally responding by the next business day and sometimes responding within a few hours.

### *Downloading the Installation File and User Guide*

After you purchase the tool, you will receive an email with logon credentials to a secure website.

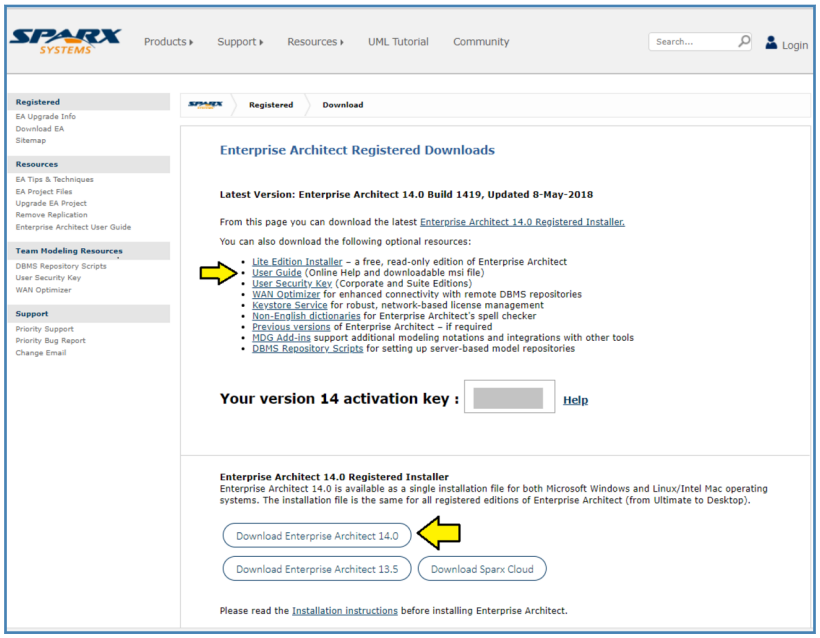


*Figure A-2 – Sparx download website*

From this website, you can download the installation file. You can also download the user manual which can be handy if you do a lot of work on airplanes or in other locations with limited internet connectivity. Be sure to note your activation code (My code is grayed out in Figure A-2.)

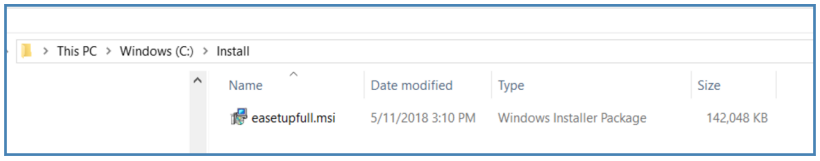


*Figure A-3 – Move installation file to a convenient temporary directory*

After downloading the installation file, move it to a convenient temporary directory. Double-click on the installation file to start the installation process.

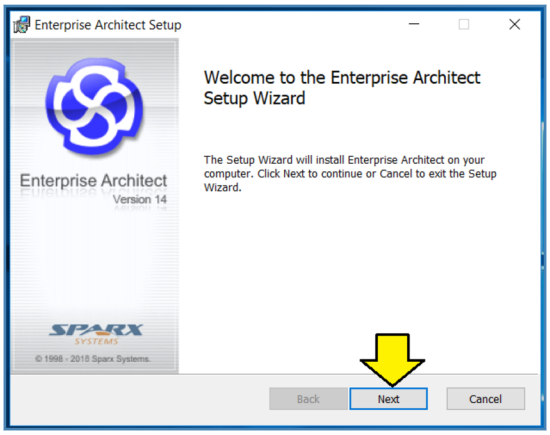


*Figure A-4 – Click Next to continue*

After a few seconds of preparation, a confirmation screen will appear. Click "Next" to continue.

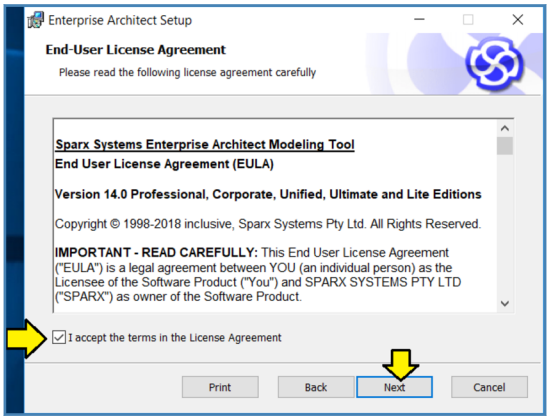


*Figure A-5 – Accept terms and click Next to continue*

Next, the end user license agreement (EULA) appears. The Sparx EULA is a very reasonable five pages in length, is written in plain English, and contains no strange or unusual provisions. After reviewing the agreement, click the radio button to accept it and click "Next" to continue.

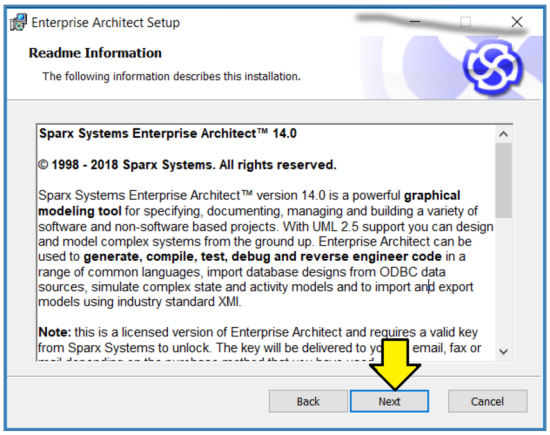


*Figure A-6 – Review Readme and click Next to continue*

Review the Readme text and click "Next" to continue.

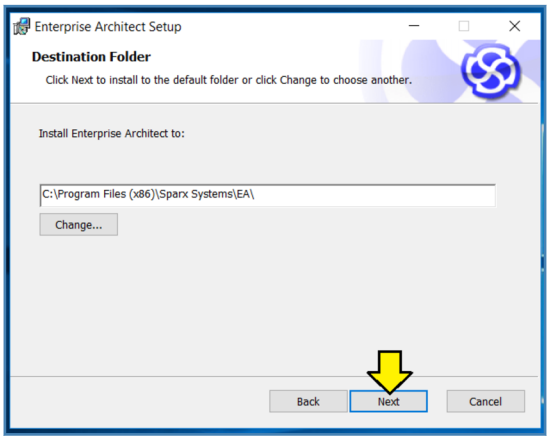


*Figure A-7 – Accept installation directory and click Next to continue*

Accept or change the installation directory and click "Next" to continue.

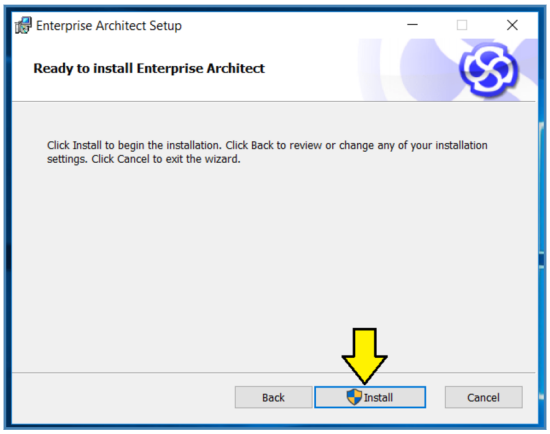


*Figure A-8 – Click Install to continue*

Click "Install" to start the installation. A Windows security pop-up will appear. Enter a valid administrator password to approve installation of the software.

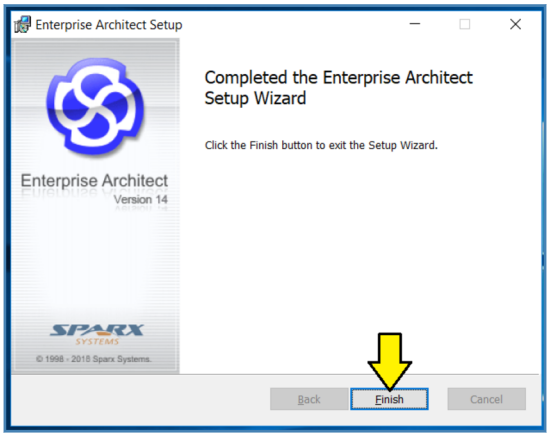


*Figure A-9 – Click Finish*

Click "Finish" to complete the installation.

## Desktop Launch Icon

The Sparx installation will create an icon on your Windows desktop.

You can also start the tool from Windows 10 start by typing the first few letters of "Enterprise Architect" and selecting the tool when it pops up.

*Figure A-10 – EA icon*

## Version Activation

When you start or update *Enterprise Architect* you may be presented with a version activation screen.

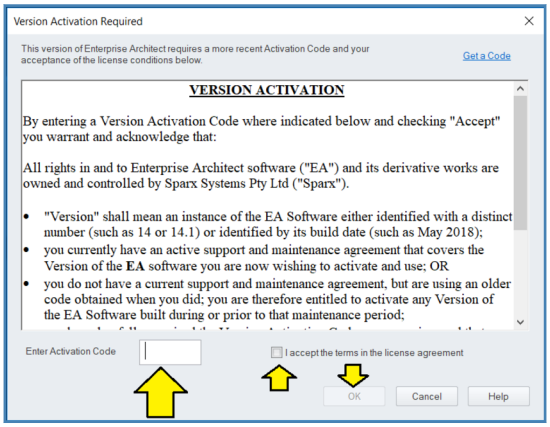


*Figure A-11 – Version activation panel*

Enter the activation code from Figure A-2 on page 3 as shown in Figure A-11.

## Program Look and Feel

*Enterprise Architect* has a variety of "look and feel" options. The screenshots in this book are taken with the default Microsoft® Visual Studio 2016 look and the "Colorful" theme.

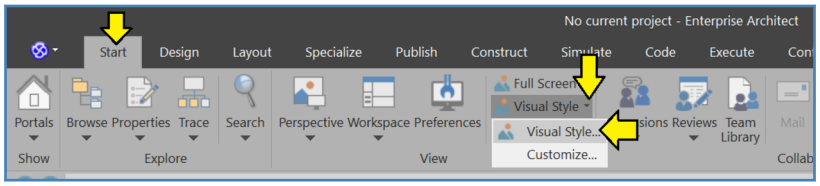


*Figure A-12 – Select visual style*

From the "Start" ribbon, pull down the "Visual Style" menu and select "Visual Style...".

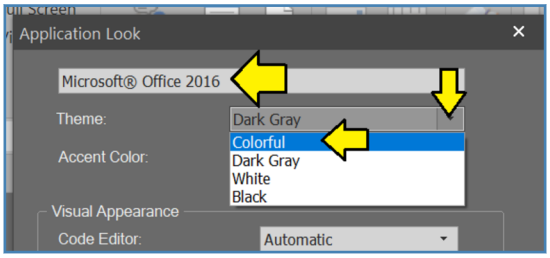


*Figure A-13 – Select colorful theme*

In the "Application Look" window pull down the "Theme:" menu and select "Colorful". Click "OK" to apply the setting and close the window.

## Unicode Support

*Enterprise Architect* uses the Microsoft JET engine from Microsoft Access as its underlying database. *Enterprise Architect* ships with and is setup by default to use the JET3.5 engine, a rather old version. This version of JET uses the old Western European codepage and as such cannot support Unicode characters properly. [3]

*Enterprise Architect* has a setting to enable use of the JET4.0 engine which supports Unicode.

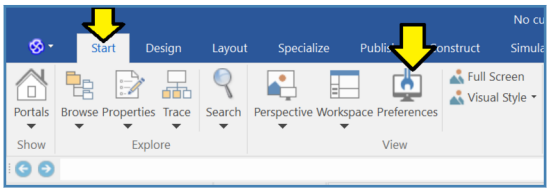


*Figure A-14 – Select Preferences from the start ribbon*

From the start ribbon select "Preferences".

[3] Feedback from Sparx Systems indicates that newer versions of *Enterprise Architect* default to JET4.0 support. Sparx also recommends using one of the DBMS options as all current databases support Unicode. Use of a DBMS is out of scope for this book, but Sparx support will be happy to help you set this up.

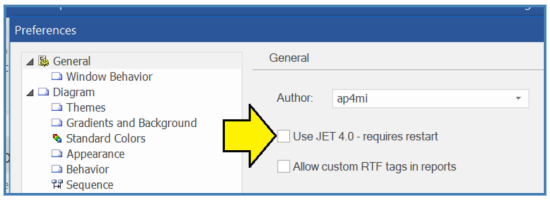


*Figure A-15 – Click use JET4.0*

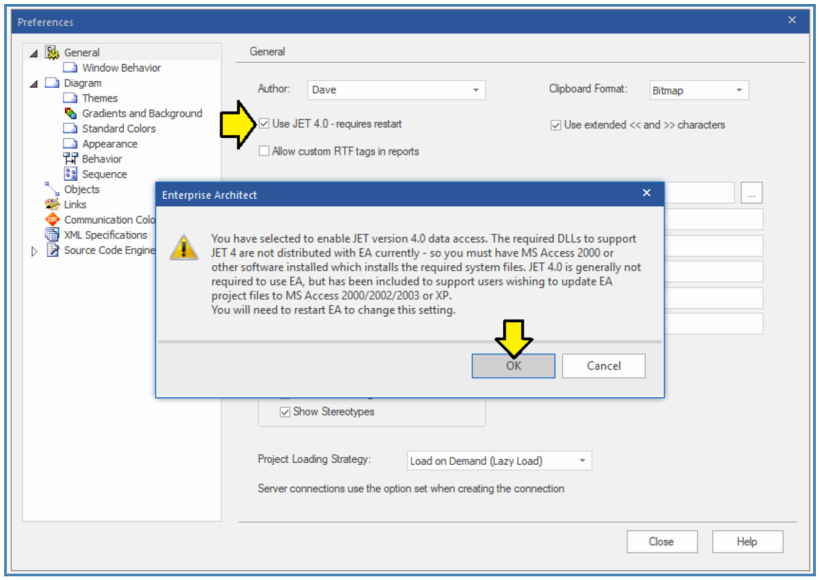


*Figure A-16 – JET4.0 DLL warning*

After enabling JET4.0 support, a warning panel will appear that explains the need for Access 2000 or greater in order to get access to JET4.0. At first this might be cause for concern if you don't have a license of Microsoft Access...

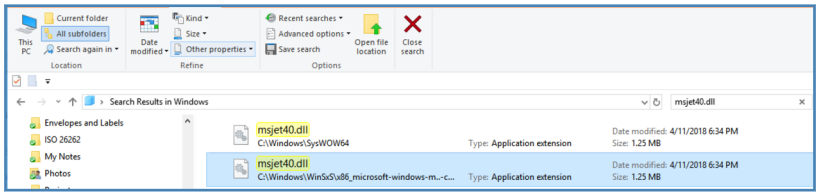


*Figure A-17 – The JET4.0 engine seems to be standard in Windows 10*

However, the observant reader will notice that "Access 2000" would be a product version that Microsoft prepared for release in the year 2000 AD and that this date was quite a while ago. As of Windows 10, the JET4.0 DLL seems to be shipped as part of the operating system.

Click "OK" to dismiss the warning and "Close" to update the setting. Exit *Enterprise Architect* and restart to fully enable JET4.0 support.

If you need to include East Asian text (Japanese, Chinese, or Korean) or bidirectional text (Hebrew, Arabic) in your model, you will obviously need to enable JET4.0 support. However, even if you think you only need English, you should enable JET4.0 support. Virtually all internet technology uses UTF-8 [4] encoding and many special punctuation marks, emoticons, and similar special symbols like "registered trademark" are now routinely encoded in Unicode rather than the old Western European codepage used by the JET3.5 engine.

**Note:** in addition to restarting *Enterprise Architect*, you will need to recreate any previously created models from scratch. Attempting to add Unicode text to a model previously created with the JET3.5 engine will not work well. [5]

## Example Unicode Model

In the examples files directory *Examples\Apx01_Install\A1.6_Unicode* you will find a small example model using Unicode characters.

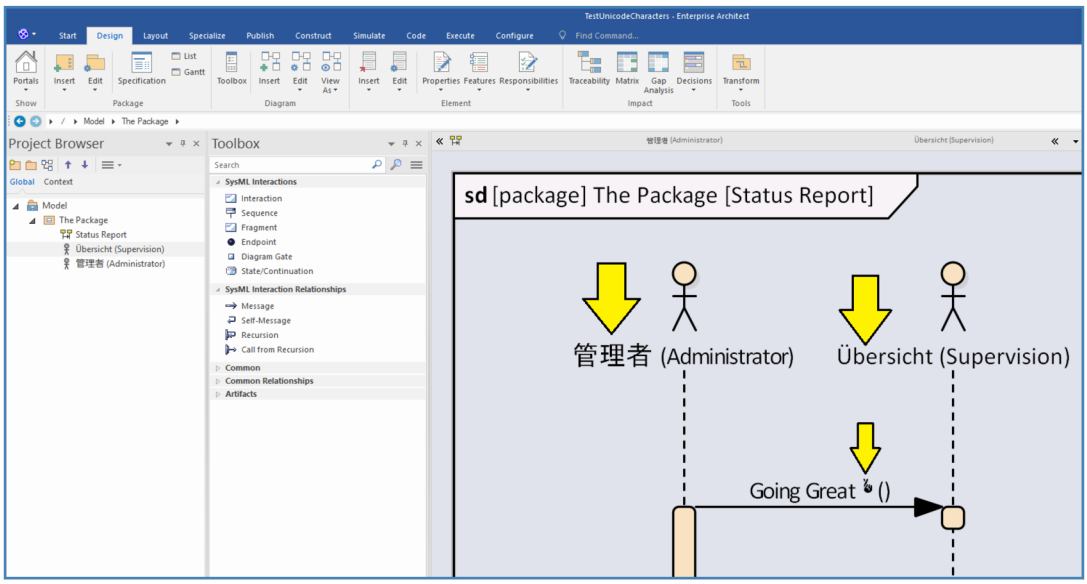


*Figure A-18 – Example of model with Unicode characters*

In the example model, we have:

[4] UTF-8 is a method of encoding that preserves 7-bit ASCII compatibility for plain English and punctuation at the cost of using two bytes per special European character and three bytes per East Asian character.

[5] If you have a significant number of legacy JET3.5 models that need to be converted for use with Unicode text, contact Sparx support for assistance.

- a Japanese administrator “管理者” (“kanrisha”);
- who is sending a status message: “Going Great”;
- to the somewhat nebulous “Übersicht” (“supervision”) in Germany.

*Figure A-19 – Emoji*

If we look carefully at the status message, however, we see that our administrator is less than entirely confident of the status and hence the message includes the emoji “fingers crossed”. [6]

## Setting XMI Export Default

If you are going to create XMI files from your models to share modeling information with other tools, it is important that you set the options to have Sparx create UTF-8 XMI files rather than using the obsolete “windows-1252” (Western European) codepage.

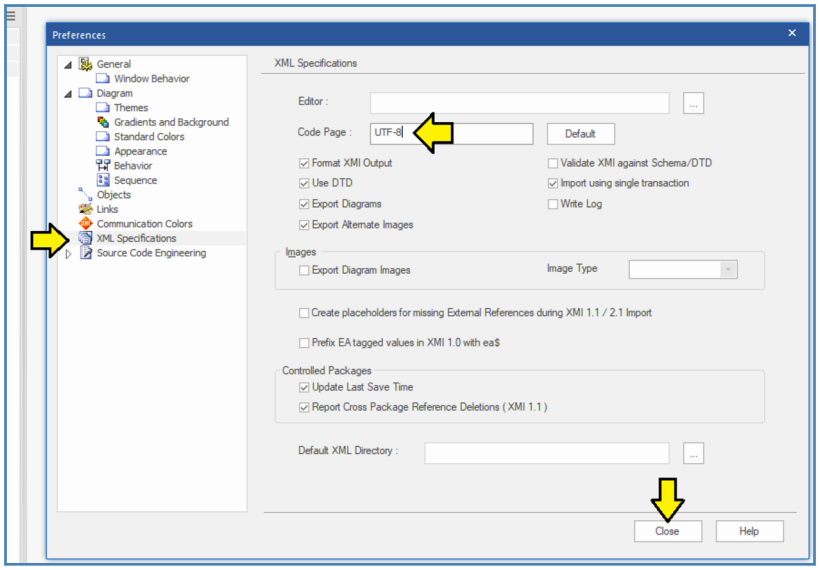


*Figure A-20 – Setting Unicode for XMI export*

In the “Preferences” window, select the “XML Specifications” tab. In the “Code Page:” field, replace “windows-1252” with “UTF-8”. Click “Close” to apply the setting and dismiss the window.

[6] The emoji “fingers crossed” is Unicode Ü. See: https://emojipedia.org/hand-with-index-and-middle-fingers-crossed/