ATT-YANG Design Studio Dependency Installation Guide

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ATT-YANG Design Studio Dependency Installation Guide

Dependency Installation Requirements and Steps:

1. Eclipse version Juno or later must be installed
    a. Latest version https://www.eclipse.org/downloads/
        i. The AT&T YANG Design Studio was tested with Eclipse Java EE IDE for Web Developers
        ii. Other Eclipse versions might also work, but have not been tested
    b. Select correct release for your operating system (Windows/Linux, 32/64 Bit). For example, select the IDE for JAVA EE Developers version. Note that you will be required to unzip the files to your computer.
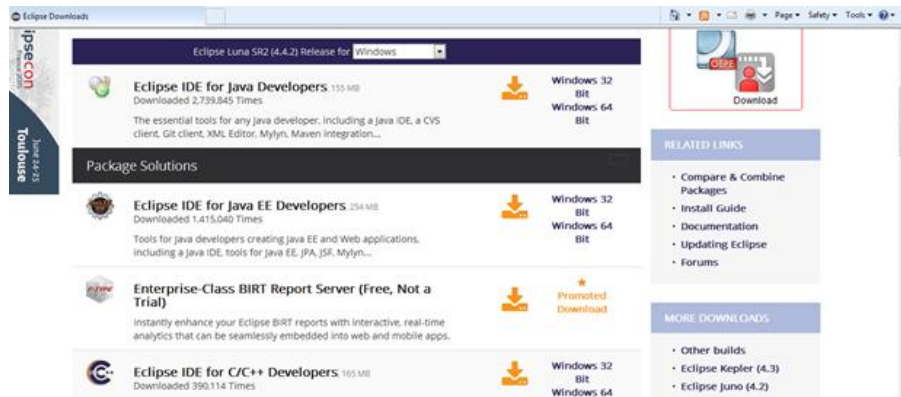
    c. Older versions can be found on the right side under Related Links
    d. Unzip the folder and you are ready to go
2. Core Plugins (pre-installed with Eclipse) must be up to date
    a. This comes with Eclipse so don't need to worry too much about this
3. XText must be installed (current version 2.6.2) – *this takes a while depending on your internet connection speed, so be patient*
    a. There are 2 methods that can be used to find Xtext for installation:
        i. Method 1:
            1. In Eclipse, go to Help→Install New Software
            2. Check for the URL to the Xtext update site at the following: http://www.eclipse.org/Xtext/download.html
            3. Click "Add", and paste the URL obtained from the above step, for example as of this writing it is: http://download.eclipse.org/modeling/tmf/xtext/updates/composite/releases/
            4. it'll take a few minutes to find the right Xtext
            5. Select and install the Xtext/Xtext Redistributable and Xtext/Xtext Complete SDK (the SDK is not needed if no new development is done)
   ii. Method 2:

1. In Eclipse, go to Help->Eclipse Marketplace, as shown in the sample screenshot below.
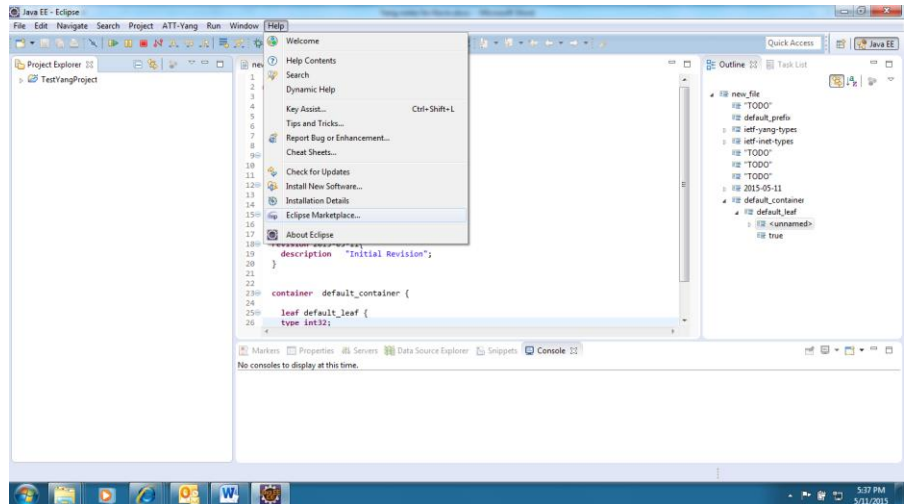
2. It takes a few minutes, and once it returns, type Xtext in the Find box and select the Go button to the right as shown in the sample screen shot below.
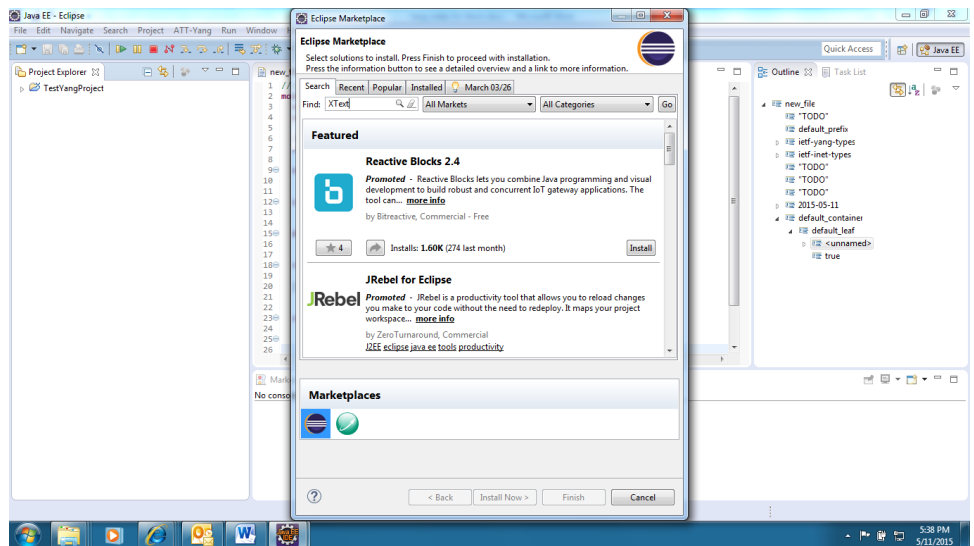

3. When Eclipse Marketplace finds and displays the correct version of XText, select Install in the Xtext box. Note that if XText has been previously loaded on your computer, the INSTALL button is not provided as shown in the screen shot below.
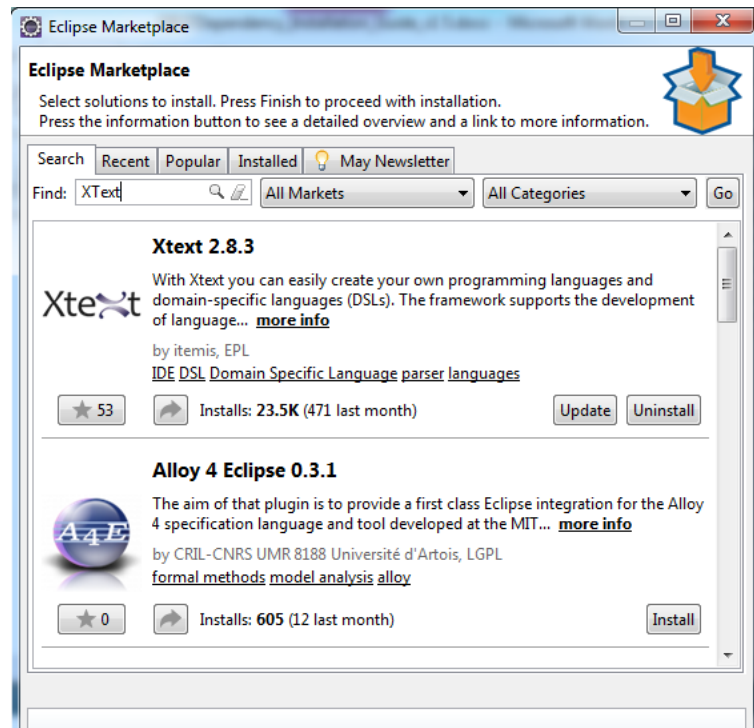
4. Python 2.7+ must be installed (you might need elevated rights to install Python)
   a. Check to see if you have python by opening up the cmd or terminal
   b. Type in "python"
   c. If python is installed, you will see something along the lines of "Python x.y.z"
   d. This is your version number and if it's 2.7 or higher proceed to next step
   e. If nothing appears, you will need to install python
      i. https://www.python.org/download/
      ii. Download the correct release for your operating system
      iii. Either 3.4+ or 2.7+ should both be fine
      iv. Note: You may need admin rights to install python successfully
      v. If you install Python version 3.4, you should be able to skip this step; however, you should ensure that your path was updated properly. Using a version of Python older than 3.4 will likely not update your path to execute it. If your PATH was not updated to the PYTHON executable file, please update it. For example, you should see something like: C:\PYTHONxx\ (where xx is the version number) in PATH list. For example, in Windows, go to Computer, then System, then Advanced System Settings.
         1. Select the Environmental Variables button.
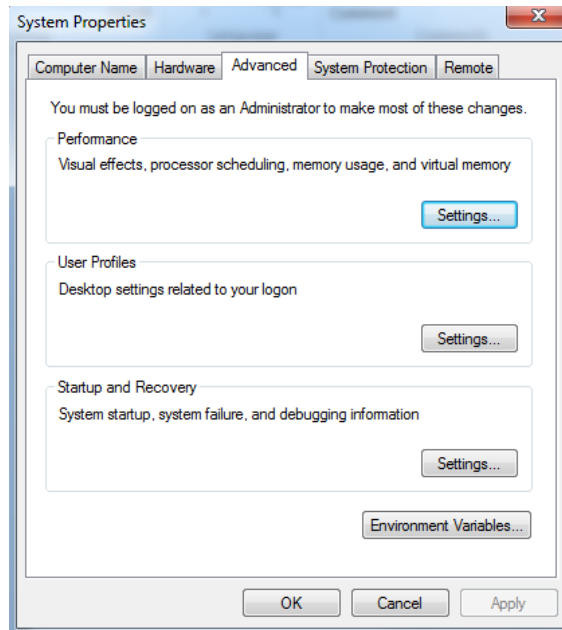
2. Under the System Variables window, use the scroll to find and select Path as shown in the screen shot below. Select the Edit button.
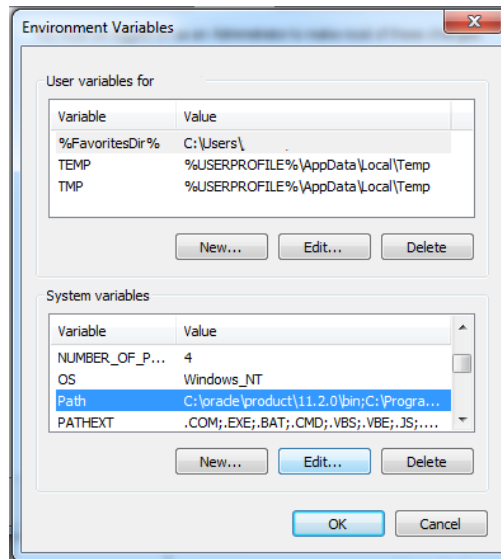
3. A window with the path opens (the path is highlighted). Include in the path the following text: ;c:\Pythonxy\, where xy = the Python version number. Then select the OK button to close it.
4. Close the Environmental Variables windows by selecting OK.
5. Close the Systems Properties window by selecting OK.

5. Pyang must be installed
    a. Use the distribution provided with this plugin (file name: pyang-master.zip)
        i. Note: The latest version of pyang-master available at the following site has not yet been tested with this plugin: https://github.com/mbj4668/pyang *(used to be at: http://code.google.com/p/pyang/downloads/list)*
    b. Extract pyang from the downloaded zip file into a temporary directory ($TMP)

c. For Linux, follow instructions on the README to install
d. For windows, you can change the install directory to the one that suits you – For example, C:\PYANG\   ($PYANG-DIR)
    i. Extract via a Unzip program into $TMP
    ii. Install via: C:\PYTHONxy\PYTHON.EXE setup.py install --prefix=$PYANG-DIR as shown in the screenshot below. NOTE that "xy" corresponds to the Python version, e.g., 27, 34.

    iii. After pyang has been installed, copy $PYANG-DIR\SCRIPTS\pyang $PYANG-DIR\lib\site-packages\pyang.py. Recommend using the cmd prompt to execute the Copy.
    iv. Change directory to $PYANG-DIR\lib\site-packages\
    v. Run pyang with: PYTHON PYANG.PY –help and validate output
    vi. Validate proper PYANG installation:
        a) Copy module-test.yang, supplied with distribution, into $PYANG-DIR\lib\site-packages\
        b) Run: PYTHON PYANG.PY module-test.yang
        c) If it returns with no error (as shown in screenshot below), the installation has been completed successfully

d) Please ensure you successfully install pyang before proceeding to next steps

vii. Remember the path to where you installed your pyang (**referred to a <PYANG-DIR> below**)

6. <mark>If you do not need the UML .PNG generation function, you can skip Step 7 and proceed to the Installation Steps for the Plugin</mark>

7. [**OPTIONAL STEP – If you want the UML PNG feature to work**] Installing UML and PNG file generation packages:

    a. Download **Plantuml.jar** (MIT License version) into a directory of your choice, such as: *%USERPROFILE%\My Documents\BIN* (**referred to a <PLANTUML-DIR> below**)

        i. http://plantuml.sourceforge.net/download.html

    b. Download **Graphviz for Windows** into the directory where you downloaded plantuml.jar to (e.g., *<PLANTUML-DIR>*):

        i. http://www.graphviz.org/Download_windows.php

    c. Unzip into a *GRAPHVIZ* subdirectory of <PLANTUML-DIR> (i.e., <PLANTUML-DIR>*GRAPHVIZ*)

    d. Setup the following variable in the AUTOEXEC.BAT (follow the instructions for setting YANG_MODPATH if needed):

        i. SET GRAPHVIZ_DOT= <PLANTUML-DIR>\GRAPHVIZ\\bin\dot.exe

<mark>**If YANG Module imports cannot be found, set up symbolic path to $YANG_MODPATH which is a directory containing all your imports.**</mark>

a. Windows (SET IN Start/Computer/Properties/Advanced System Properties/Environment Variables/User Variables -> New User Variable):
YANG_MODPATH = %USERPROFILE%\<Path to your directory>
Example: %USERPROFILE%\My Documents\KLD\SDN-VIRTUALIZATION\ YANG-IDE\yang-test-files

b. $YANG_MODPATH <set up path according to your version of Linux/Unix>. For example, in *bash_profile*, etc.

ACKNOWLEDGEMENT