ETSI GR NFV-IFA 016 V2.5.1 (2018-08)

Network Functions Virtualisation (NFV) Release 2; Information Modeling; Papyrus Guidelines

Disclaimer

The present document has been produced and approved by the Network Functions Virtualisation (NFV) ETSI Industry Specification Group (ISG) and represents the views of those members who participated in this ISG.
It does not necessarily represent the views of the entire ETSI membership.

Reference
RGR/NFV-IFA016ed251

Keywords
information model, model, NFV

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Contents

Intellectual Property Rights

Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (https://ipr.etsi.org/).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

Foreword

This Group Report (GR) has been produced by ETSI Industry Specification Group (ISG) Network Functions Virtualisation (NFV).

Modal verbs terminology

In the present document "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document gives guidelines for the use of Papyrus [i.1] when creating or maintaining NFV UML® [i.2] information model.

2 References

2.1 Normative references

Normative references are not applicable in the present document.

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] Papyrus Eclipse™ UML® Modeling Tool.

NOTE: Available at https://www.eclipse.org/papyrus/.

[i.2] Eclipse™ Modeling Tools.

NOTE: Available at https://www.eclipse.org/downloads/packages/.

[i.3] OMG™ Unified Modeling Language™ (UML®) specifications 2.5.0.

NOTE: Available at http://www.omg.org/spec/UML/.

[i.4] ONF™ TR-515: "Open Networking Foundation Papyrus Guidelines 1.2" September 2016.

[i.5] ETSI GR NFV-IFA 017: "Network Functions Virtualisation (NFV) Release 2; Information Modeling; UML Modeling Guidelines".

[i.6] Eclipse™ Gendoc website.

NOTE: Available at http://www.eclipse.org/gendoc/.

[i.7] ETSI GR NFV-IFA 015: "Network Functions Virtualisation (NFV) Release 2; Management and Orchestration; Report on NFV Information Model".

[i.8] ETSI GR NFV-IFA 024: "Network Function Virtualisation (NFV) Release 2; Information Modeling; Report on External Touchpoints related to NFV Information Model".

3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

IDE	Integrated Development Environment
JVM	Java Virtual Machine
MS	Microsoft®
ONF™	Open Networking Foundation

UML® Unified Model Language

4 Overview

The present document provides information for putting in operation and for using the Open Source tool Papyrus [i.1] and the Gendoc plugin [i.6].

The Papyrus tool is used to edit the NFV Information Model and Gendoc [i.6] is an Eclipse™ plug-in integrated with Papyrus that allows generating MS Word® documentation of a model from a template.

The UML® Modeling Guidelines are defined in ETSI GR NFV-IFA 017 [i.5].

The ONF™ Papyrus Guidelines (see ONF™ TR-515 [i.4]) have been used as a basis for these guidelines.

5 Getting Papyrus running

5.1 Introduction

The Open Source UML® tool Papyrus (see [i.1] is a plug-in for the Open Source integrated development environment (IDE) Eclipse™.

Current tool versions:

- Papyrus version 3.2.x or 3.3.x
- Gendoc version 0.6.x (V0.6.0)

This clause explains how to get Papyrus running and how to create a model.

5.2 Downloading Papyrus

The instructions to download Papyrus can be found in the Papyrus Download page:

https://www.eclipse.org/papyrus/download.html.

The basic procedure is to setup Papyrus with update sites as summarized on the download page:

- The most basic procedure for installing Papyrus consists in installing the Eclipse Modeling Package for your own platform.
- Then, use the discovery interface ("Help" > "Install Modeling Component") and select Papyrus.
- Install the latest release from Papyrus. See instructions below "Papyrus Update sites".

These steps will be detailed in this clause.

The Oxygen Eclipse Modeling Tools can be downloaded from the Oxygen download page:
https://www.eclipse.org/downloads/packages/release/Oxygen/3.

NOTE: The "Eclipse™ Modeling Tools" package needs to be downloaded, not any other package.

Figure 5.2-1: Eclipse Oxygen Modeling Tools Download Page

Eclipse Oxygen Modeling Tools requires a 1.8 compatible JVM.

Once downloaded, Eclipse™ cannot be "installed" on the target machine. The zip-file needs to be extracted in a new folder as shown on figure 5.2-2:

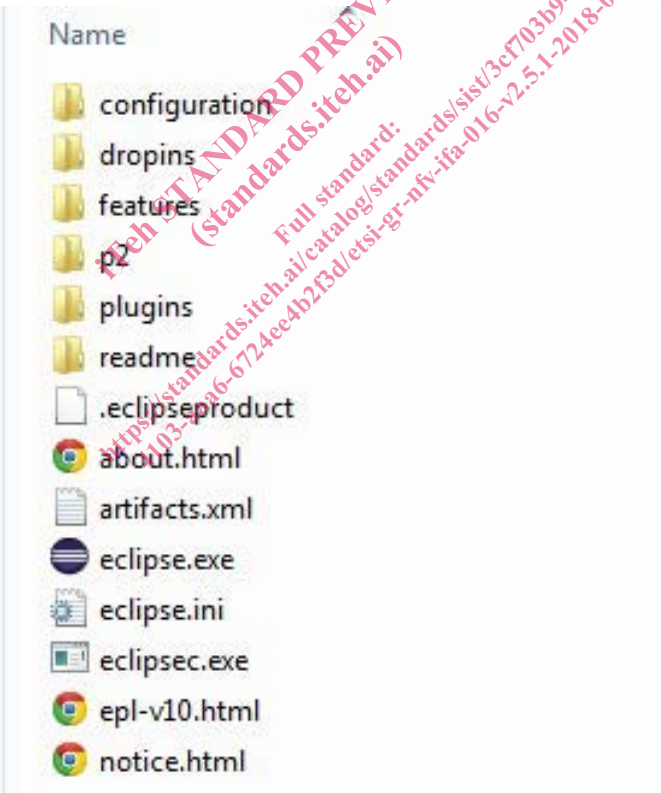


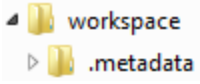
Figure 5.2-2: Content of the Eclipse Folder after Extracting the Zip-file

To launch Eclipse™, double-click on the Eclipse.exe file.

The initial Eclipse Welcome icon, shown in figure 5.2-3 appears.

Figure 5.2-3: Initial Eclipse Welcome Icon

After launching Papyrus, a default workspace folder is created in the home directory (…/users/<users name>/). The workspace configuration information is contained in the .metadata folder (which is automatically created):



Any empty (need not be empty but is recommended) folder - anywhere - can be used as the workspace-folder. The workspace can be selected during the start of Papyrus.

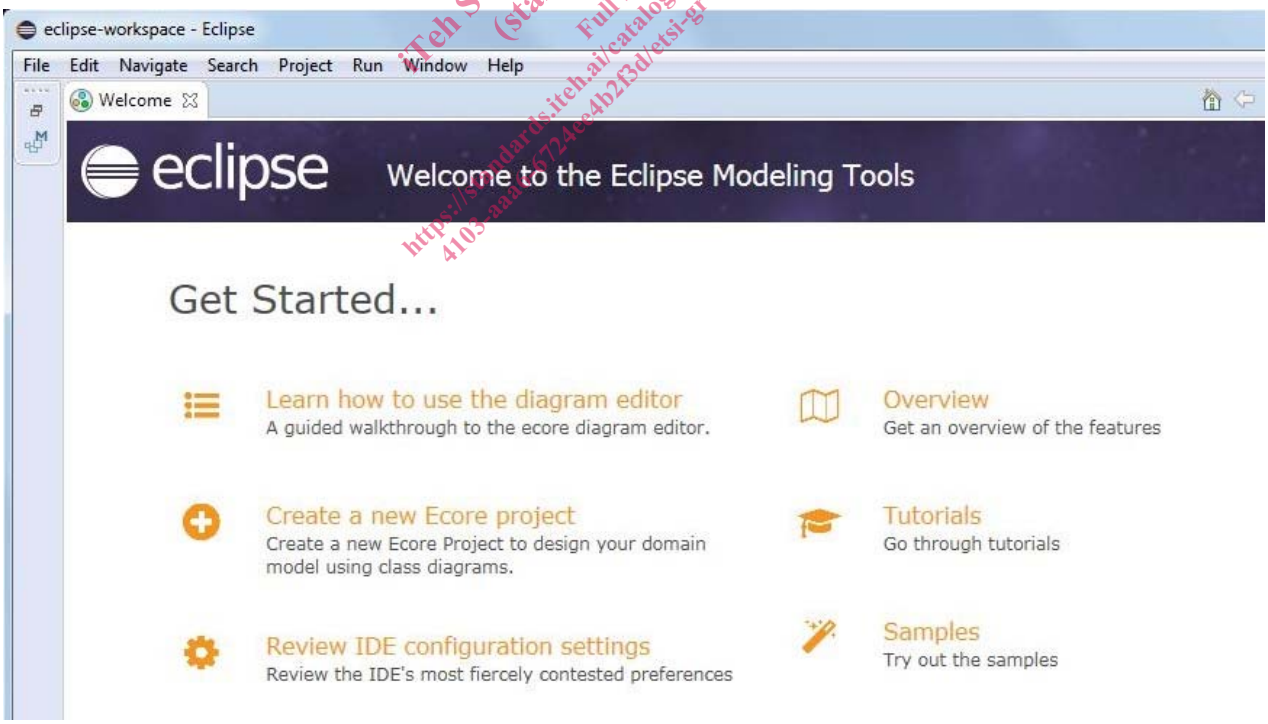


Figure 5.2-4: Initial Welcome page of Eclipse

Figure 5.2-4 shows the initial welcome page of Eclipse.

Close the Welcome tab at the upper left corner. Eclipse™ is now ready for initial installation of Papyrus.

To add Papyrus, click menu Help and then Install Modeling Components as shown in figure 5.2-4a, figure 5.2-5, figure 5.2-7 and figure 5.2-8.

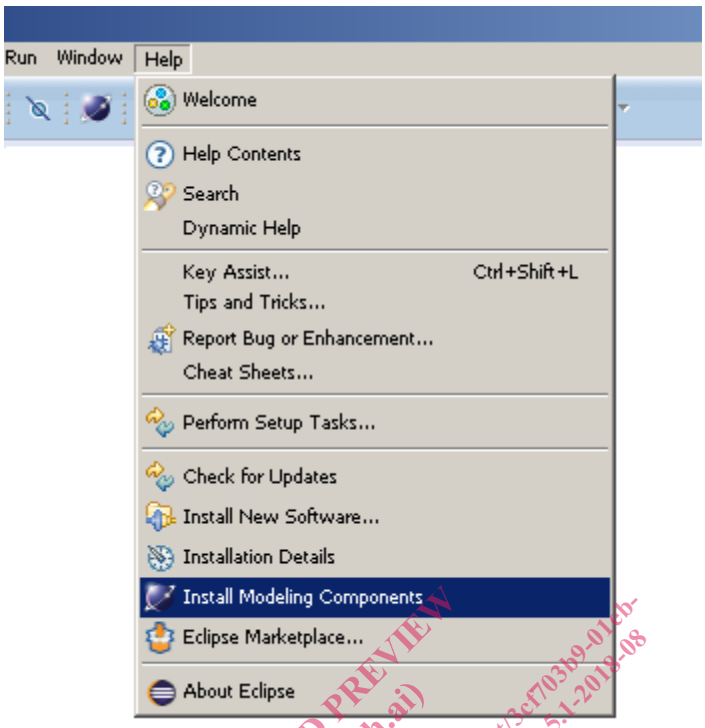


Figure 5.2-4a: Installing Papyrus (1)

Select Papyrus and click Finish.

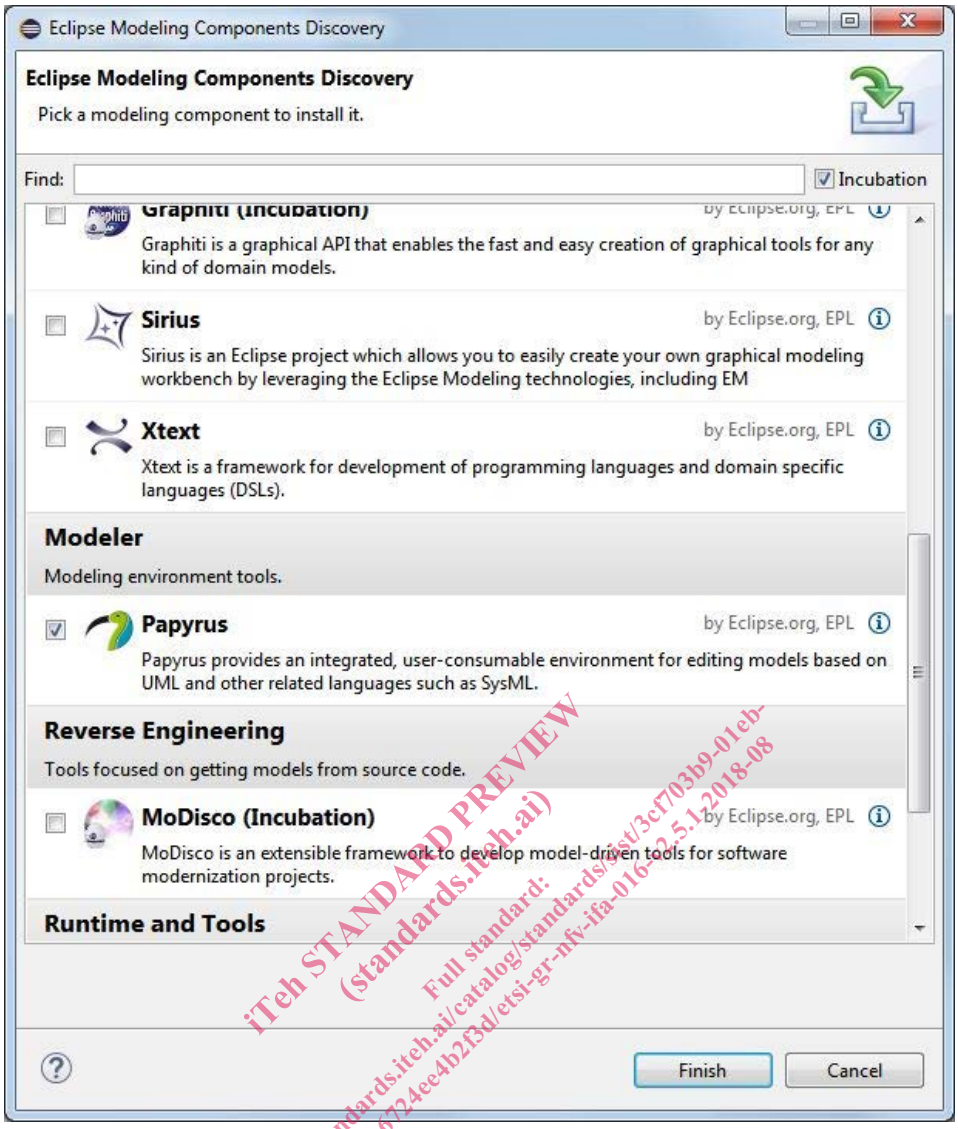


Figure 5.2-5: Installing Papyrus (2)

If a proxy to access internet is needed, it can be configured under Windows, Preferences, then General, Network Connections as shown on figure 5.2-6.

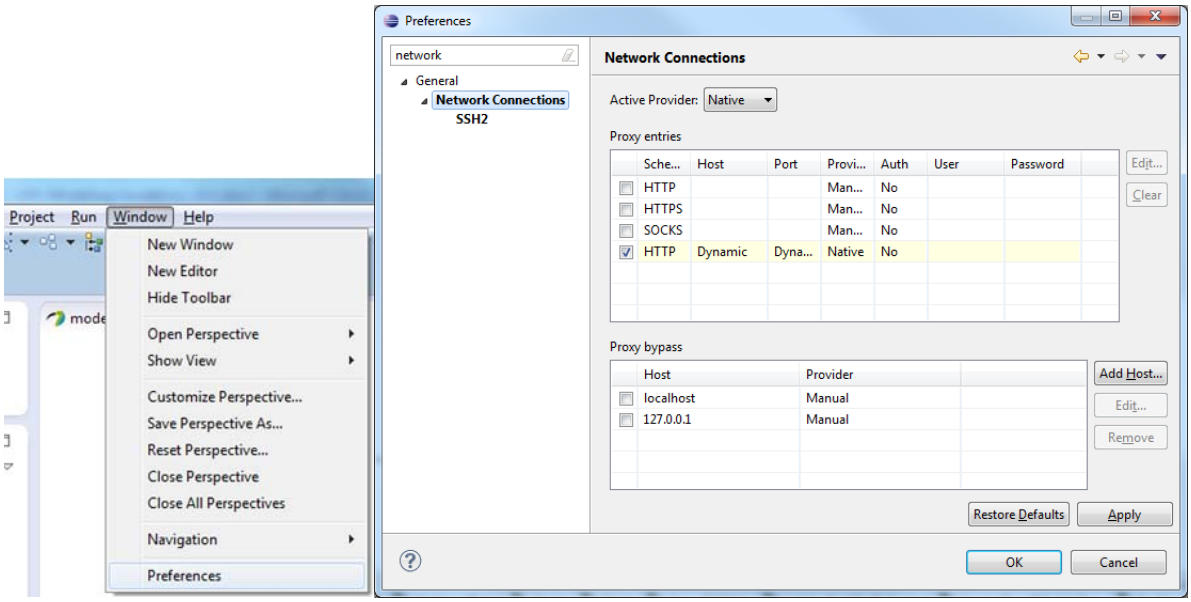


Figure 5.2-6: Proxy configuration

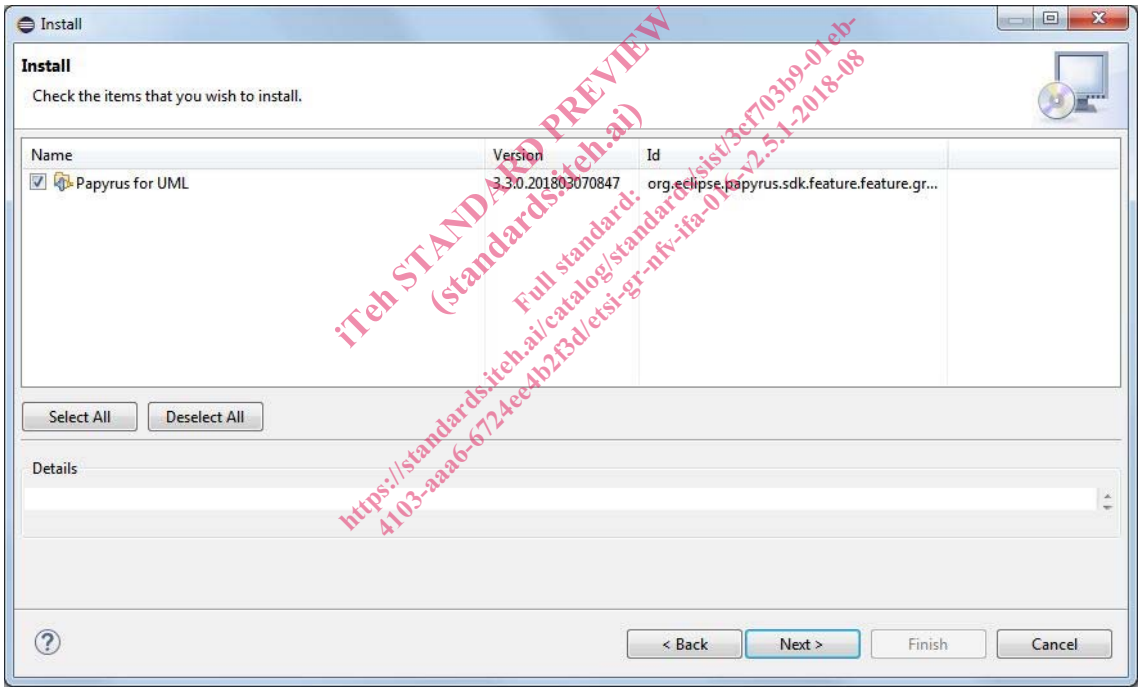


Figure 5.2-7: Installing Papyrus (3)