

YANG Lifecycle

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YANG Coordination

- YANGsters Home Page
 - <https://1.ieee802.org/yangsters/>
- YANGsters Calls
 - <https://1.ieee802.org/yangsters/yangsters-call-information/>
- YANGsters Mailing List
 - <https://1.ieee802.org/yangsters/yangsters-mail-list-information/>
- YANGsters FAQ
 - <https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/>

YANG Lifecycle Introduction

- YANG files are integral parts of a IEEE Standards document
- YANG files that are in-line in the Standard are the YANG of record
- The YANG files that are in-line in the Standard are also attached to the standard's PDF.
- The use of an on-line repository (github or IEEE 802.1 hosted file server) is for convenience, the YANG file in-line the published standard is the final word

IEEE YANG Development High Level Overview

- Guidelines
- Writing YANG
- YANG Diagrams and Figures
- Verifying YANG
- Including YANG in Framemaker
- Repositories

Guidelines

- Module Naming
 - <https://1.ieee802.org/yangsters/yangsters-guidelines/yang-module-naming-guidelines/>
- YANG Contact Information
 - <https://www.ieee802.org/1/files/public/docs2020/yangsters-smansfield-yang-contact-0420-v02.pdf>
- URN Naming
 - <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/tutorials/ieeeeurn.pdf>
- Prefix Naming
 - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#YANG_Prefix
- YANG Terminology
 - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#YANG_Terminology
- Copyright
- Revision
 - <https://www.ieee802.org/1/files/public/docs2020/yangsters-smansfield-yang-revision-guidelines-0820-v01.pdf>
- IEEE Guidelines
 - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#YANG_Guidelines

YANG Diagrams and Figures

- YANG Structure Diagram
 - Example Visio files are available
- UML-Like Diagrams
 - [https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#UML-like Diagram Description](https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#UML-like-Diagram-Description)
 - Example Visio files are available
- YANG Trees
 - Produced using pyang

Verifying YANG

- Pretty Printer
 - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#Tool_IEEE_YANG_Pretty_Printer
 - Produces MIF files and formats the YANG
- Take the pretty printed yang files and validate using
 - pyang
 - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#Tool_pyang
 - yanglint (libyang)
 - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#Tool_yanglint_libyang.
- For extra validation, create sample JSON or XML instance data and load using yanglint
 - This exercises constraints that would be missed by just syntax checking the YANG

Including YANG in Framemaker

- Convert the UML-Like diagrams into jpg
- Paste in tree/yang (or use Import)
 - [https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#Framemaker and YANG files](https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#Framemaker%20and%20YANG%20files)

Repositories

- YANG Catalog's Github Repository (<https://github.com/YangModels/yang>)
 - https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-faq/#YANG_Catalog_GitHub_Repository
 - <https://1.ieee802.org/yangsters/yangsters-guidelines/yangsters-repository-guidelines/>
 - Start of Project
 - Create a directory for your project if needed
 - Copy in any published modules from the published directories that will be modified by your project
 - Keep in mind that others may be modifying the same files, so keep the YANGsters notified, so that rebasing can occur when YANG files are updated
 - If your project uses other draft projects use the `check_pyang_extra_flags` file to make the checking script aware of the directory where the other YANG files are located
 - Update the `check.sh` script in the `.../yang/standard/ieee` directory to add your project if needed
 - This is the script that is run automatically when new versions of YANG files are loaded into the git repository (uses `pyang`), so checking your files before uploading is a must
 - Once the Standard has been approved (at least at the level of SA Editing)
 - Update the Revision statement and date
 - Once the Standard is published
 - Remove the draft YANG files from the repository
 - Put all the published YANG in the proper published directory (`.../yang/standard/ieee/802.1/` for example)
- IEEE 802.1 YANG Repository (<https://1.ieee802.org/yang-modules/>)
 - Copy latest files to the location in the link above.
 - If there is an existing YANG file, add the revision date to the old file and upload the new file without a date in the file name.