

YANG GIT

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YANG Git Introduction

- The use of YANG in IEEE 802.1 is continuing to grow
- The pain associated with including YANG in the IEEE Standards is also continuing to grow
- Currently
 - 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.
 - Published and Draft YANG is stored in the YANG Catalog's Github repository
 - Published YANG is stored on the 1.ieee802.org website

Main Issues

1. YANG is stored in different places
 2. Very manual process
 3. Multiple projects modifying the same files at the same time
- Potential Solution for (at least) point 2 and point 3 above
 - Use an IEEE-owned and managed git repository
 - Have IEEE editors use the git repository to create/test/merge/publish the YANG

Current 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.

Decisions to make

- Use a private github that is a fork of the YANG Catalog's github
 - Easy to do
 - YANGsters representatives could manage the merging
 - A YANGsters resource would manage moving the published yang and draft yang to the YANG Catalog's repository
- Create a github that can be integrated with the YANG Catalog's github as a submodule
 - More complicated to setup
 - But more continuous integration is possible
- Use gitlab
 - Not github
 - But is sanctioned by IEEE
 - YANGster resource would have to manually move the YANG from gitlab to github

Why fix this?

- Using git the way it was intended will help
 - Reduce errors when files are modified by multiple projects at the same time
 - Integrate validations and tree creation
 - Build an area for instance creation and regression testing