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TEXAS

The University of Texas at Austin

Path arg updates

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XALT: Outline



XALT

- ▶ This is an update from the last meeting in March.
- ▶ Wrong before: Python3 has two options that take arguments
- ▶ `python3 -c "print(3.0/2)"`
- ▶ `python3 -m "json.tool" run.json`
- ▶ It is currently available under the testing branch

Reminder: XALT does the filtering for you

- ▶ This consists of two parts in your site Config.py file
- ▶ Changes to path_patterns
- ▶ Add in a new group of patterns: path_arg_patterns

Adding the CUSTOM tag to path_patterns

```
path_patterns = [  
    ['CUSTOM', r'.*\python[0-9][^/][^/]*'],  
    ...  
]
```

- ▶ Only paths that have the “CUSTOM” tag will get further filtering
- ▶ A site can have as many “CUSTOM” tags as they like

The new `path_arg_pattern`

```
path_arg_patterns = [  
    ['JUMP_1', r'.*\python[0-9][^/;][^/;]*;-m'],  
    ['SKIP', r'.*\python[0-9][^/;][^/;]*;-c'],  
    ['SKIP', r'.*\python[0-9][^/;][^/;]*;.*\share\.*'],  
    ['PKGS', r'.*\python[0-9][^/;][^/;]*;.*\data\.*'],  
    ['PKGS', r'.*\python[0-9][^/;][^/;]*;'],  
]
```

- ▶ The pattern is `path + “;” + arg` as shown above
 1. SKIP any python scripts that have `/share/` as part of the path
 2. KEEP any python scripts that have `/data/` as part of the
 3. KEEP any python scripts that have neither of the above
- ▶ Note the change in how the executable pattern is written!
- ▶ The first python line skips over `-m` option and continues parsing
- ▶ The second python line with `-c` says to ignore this command.

Rules

- ▶ For “CUSTOM” tags the arguments are each processed
- ▶ Arguments that start with minus [-] are ignored
- ▶ All other arguments would be abspath and checked for existence before being run through path_arg_patterns
- ▶ Not perfect but reasonably safe

Show this in action

- ▶ xalt_configuration_report output
- ▶ example_run.txt

Other news

- ▶ Testing XALT on M1 Mac with UTM running linux
- ▶ Problem was that XALT writes an assembly watermark
- ▶ Converted # comments to /* comments */
- ▶ This updated xalt.s now builds on Arm based linux
- ▶ I will test XALT on other ARM platforms in the next month

Other news (II)

- ▶ Once path arg testing is complete
- ▶ And XALT now runs on several ARM platforms
- ▶ The next version of XALT will be 3.0

Conclusions

- ▶ Available now in the testing branch of XALT
- ▶ It works with the cases I have tested with
- ▶ Some support for skipping over arguments.
- ▶ Please test it out.

Future Topics?

- ▶ Next Meeting will be on June 15, 2023 at 10:00 am U.S. Central (15:00 UTC)