PREPARATION TESTING

YAX Team

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Introduction

The purpose of the preparation step of YAX is primarily to validate the parameters the user has provided to a particular run.

There are several tasks that are completed behind the scenes of the preparation step. After successful validation of all user provided parameters the runid is registered to the database. The empty artifacts are also registered to the database.

In the case of an error when validating parameters preparation will report these problems for user review. The user will receive notification that these errors occurred and a log file will be generated containing as verbose a report as possible. If no errors are encountered no report will be presented and no log file will be generated.

Testing environment and purpose

- Testing pipeline
    - A “dirty DAG” has been created that will test multiple relationships that are expected in the final YAX pipeline.
    - These include but are not limited to:
        - Branching paths
        - Merging paths
        - Multiple independent modules
        - Multiple dependencies on one artifact
        - Multiple dependencies on one parameter
- Four test modules
    - Modules have minimal functionality and function only to show evidence of the state systems successful use of them
    - These modules contain parameters including:
        - Int
        - Str
        - Float
        - File
        - Directory
        - Executable
- Six test artifacts
    - Currently hold data for testing purposes only, can be expanded to allow to testing of later steps
    - These artifacts contain parameters including:
        - Int
        - Str
        - Float
        - File
        - Directory
        - Executable
- SQLite
    - RunID is registered to database
    - All artifacts are registered to database

Expected outcome and relevance

Seven tests will be run in total, one pass and one fail for each parameter type.

For the passing test no log file will be created and no error message displayed.

For each failing test an error messages will be displayed alerting the user to the occurrence of an error and the specific error will be recorded in the log.

YAX Testing Pipeline

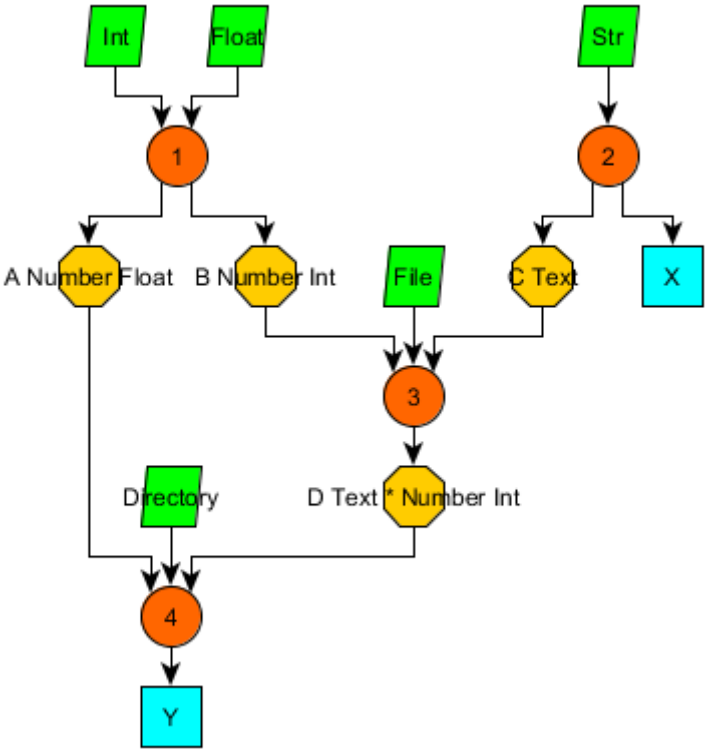

FIGURE 1 YAX TEST PIPELINE DESCRIPTION

In Figure 1 all five possible input parameters are utilized (represented in green). The four modules, 1, 2, 3, and 4, representing possible paths used in the YAX pipeline. There are two final output files, x and y, which are created at two different levels of the test pipeline (represented in blue). There are four internal artifacts, A, B, C, and D, which are produced and consumed by the various modules (represented in yellow).