GUnit Architected for Mainframe Dynamic Calling (2025-02-03)

Files included in this release:

In the copybooks folder:

- **GUNITFLD.cpy** - Copybook containing required fields for interacting with GUnit; This must be installed in a library accessible to the compile and link that creates the dynamically called GUnit modules; Required by GUnit modules (***GUAxxxxx***).

- **TSFIELDS.cpy** - Copybook used by any program that is using GUnit such as *TestDyn.cbl* that test dynamic calls to GUnit; Not required by GUnit modules. See instructions below on how a program can dynamically call the GUnit modules.

In the programs folder:

- **GUAEQNUM.cbl** - Program to handle Assert Equals for Numeric fields. Meant to be dynamically called; Must be compiled and linked to load library available at run time by anyone using it. Required by GUNIT.
- **GUAEQSTR.cbl** - Program to handle Assert Equals for String fields. Meant to be dynamically called; Must be compiled and linked to load library available at run time by anyone using it. Required by GUNIT.
- **GUANENUM.cbl** - Program to handle Assert Not Equals for Numeric fields. Meant to be dynamically called; Must be compiled and linked to load library available at run time by anyone using it. Required by GUNIT.
- **GUANESTR.cbl** - Program to handle Assert Not Equals for String fields. Meant to be dynamically called; Must be compiled and linked to load library available at run time by anyone using it. Required by GUNIT.
- **GUINIT.cbl** - Program to handle initializing GUnit fields to default values. Meant to be dynamically called; Must be compiled and linked to load library available at run time by anyone using it. Required by GUNIT.
- **TestDyn.cbl** - Program to dynamically call eachof teh GUnit modules (***GUAxxxxx***); May be used to verify GUnit modules are available to be dynamically called.
- **GUAxxxxx.dylib** - *FOR GNUCOBOL USE ONLY* - Compiled versions of the GUnit modules that will be dynamically loaded when called by a GUnit Test Suite is compiled and run using the GnuCOBOL cobc -x command.

How Test Suites Call GUnit Modules

```
*>***************************************************************
*> In the WORKING-STORAGE SECTION of the program
*>***************************************************************
   copy 'GUNITFLD'. <* Fields used to interact with GUnit

*>***************************************************************
```

```
     *> In the PROCEDURE DIVISION of the program
     *>**************************************************************

     *> Initialize the fields used to interact with GUnit
     *> to their default values

        Call GU-InitializeDefaultValues     using GUnit-Test-Fields.

     *> Set the expected value for the test
        Move some-value to GU-Expected-Value-Numeric.
                           -or-
                      GU-Expected-Value-String.

     *> If you'd like to see the values used in the GUnit Asssert
         Set GU-Show-Values to True.


     *> Set up data to be used in the test

     *> Perform the process to produce a result


     *> Set the actual value from the test
        Move value-from-test to GU-Actual-Value-Numeric.
                              -or-
                         GU-Expected-Value-String.


     *> Call the appropriate GUnit module to do the Assert

        Call GU-AssertEquals-Numeric     using GUnit-Test-Fields.
             -or-
          GU-AssertNotEquals-Numeric
             -or-
          GU-AssertEquals-String
             -or-
          GU-AssertNotEquals-String
```

gnuCOBOL considerations

If testing with gnuCOBOL use the following command from the folder containing the code to compile and link:

```
cobc -x -I ../copybooks TestDyn.cbl
```

and this command to run the test program *(Note: the GUAxxxxx.dylib files must be in the same folder as the program you are running - see above comment on* ***.dylib*** *files):*

```
./TestDyn
```