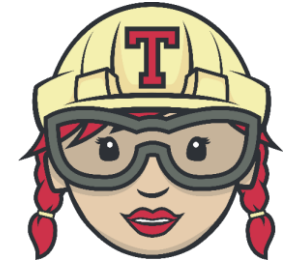**EPICS**

ci-scripts:
Shared CI scripts for EPICS modules

What?

- EPICS module helper scripts for CI services as a Git submodule

- Easy to use:
    1. Add ci-scripts as a Git submodule to your EPICS software module
    2. Copy an example configuration and adapt it to your needs
    3. Activate your repository on the CI service platform

- Features:
    - Compile against different branches or releases of EPICS Base and additional dependencies (modules like asyn, std, sequencer, etc.)
    - Define setup files with sets of dependencies (versions and locations)
    - Cross-compile to RTEMS, running tests in the qemu emulator
    - Git submodule: developments in ci-scripts can't break your module

- Supports multiple free public CI services

EPICS

Supported CI Services

- **Travis-CI** (https://travis-ci.org/)
  - Five runners on Linux/Windows (one on MacOS)
  - Host builds on Linux (gcc, clang),
    MacOS (clang) and Windows (gcc/MinGW, VS 2017)
  - Cross builds for RTEMS 4.9 & 4.10, Windows (MinGW/WINE)
  - Dependencies are cached (faster builds)

- **AppVeyor** (https://ci.appveyor.com/)
  - Only one runner (all builds are sequential)
  - Host builds on Windows Server (2012/2016/2019)
  - Compilers: gcc/MinGW, VS 2008, 2010, 2012, 2013, 2015, 2017, 2019
  - 32bit or 64bit, DLL or static, debug or optimized
  - No useful caching available

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Supported CI Services

- **GitHub Actions** (https://github.com/)
    - 20 runners on Linux/Windows (5 on MacOS)
    - Ubuntu 16/18/20, MacOS 10.15, Windows Server 2016/2019
    - Host builds on Linux (gcc, clang),
      MacOS (clang) and Windows (gcc/MinGW, VS 2017 & 2019)
    - Cross builds for RTEMS 4.9 & 4.10, Windows (MinGW/WINE)
    - Caching not supported yet

- **GitLab CI/CD** (https://gitlab.com/)
    - Docker-based runners on Linux (one VM per job)
    - Can use any Docker image from Dockerhub
    - Example uses ubuntu:bionic, compiling with gcc/clang
    - Cross builds for RTEMS 4.9 & 4.10, Windows (MinGW/WINE)
    - Dependencies are cached (faster builds)

EPICS

Status and Roadmap

Current users:

- EPICS Base and its submodules pvData, pvAccess, pva2pva, PVXS

- EPICS Modules: ASYN, autosave, busy, devlib2, ecmc, gtest, ip, lua, MCoreUtils, modbus, motor, mrfioc2, OPC UA, PCAS, softGlueZync, sscan, std, vac, xxx

- ESS: EtherCAT MC Motor Driver

https://github.com/epics-base/ci-scripts

- Cross-builds for RTEMS 5 are next

EPICS