Mantevo Release Checklist 2014-11-17

Prior to release, we expect each participating miniapp/minidriver to complete the following checklist of items. To request an exception to an item on the checklist, contact the Mantevo Project Lead. Once granted, exceptions need not be requested for subsequent releases, unless requested by the Mantevo Project Lead.

1. Reference implementation: Should provide an optional MPI build, OpenMP build, or both, or neither. Four target executables should be possible.
2. Correct behavior verification via manufactured solution: The miniapp should be able to compare output against some gold standard and warn the user if results are incorrect.
3. YAML output: Should include computer system information, including processor description, any other details about hardware as available, compilers used. See the MiniFE output for details.
4. Documentation:
   1. Compilation instructions.
   2. Usage instructions, including sample output for a known set of input parameters.
   3. Description of miniapp functionality:
      1. What it computes.
      2. What target app (specifically or generally, or both) behavior it intends to model.
      3. Known modeling strengths and weaknesses (including citations if any).
5. Derived versions: Derivative versions of the reference version should be wholly self-contained. However, in the repository, it may make sense to keep some files in a common directory and use a script to generate the self-contained distribution directories. In the distribution tarfile, the directory structure should be
   1. package\_name->
      1. package\_name\_ref,
      2. package\_name\_CUDA
      3. …
6. Generation scripts: Be able to generate each version of miniapp as independent packages.
7. Two tarballs should be submitted for each release. If one or both tarballs have no changes since the previous release, inform the Mantevo release coordinator that the previous versions will be used. Test both tarballs prior to submission. Testing is the responsibility of the development team.
   1. Reference version only (see 1 above)
   2. All versions, including reference (if there are no variants beyond those in the reference version, submit only the reference tarball)
8. Makefiles (Stand-alone)
   1. Top-level makefile contains switches for MPI, CUDA, etc.
   2. Have a make test target: verbose and silent.
9. Copyright: Complete? Codes should be through copyright and licensing, and be approved for unlimited release. Contact the Mantevo release coordinator if the license for your code is not LGPL or BSD.
10. YAML Mail List: Consider whether or not we should establish one or more mail lists for users to send performance results to.
11. Release notes: For the first release of a code, provide an overview of what the code does. For subsequent releases, note new variants or changes to existing variants.