Mantevo Release Checklist 2012-05-24

We plan to release the Mantevo Miniapps suite in October 2012. In preparation for that release, we expect each participating miniapp to complete the following checklist of items.

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. Mantevo->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. Makefiles: Stand-alone and with the Suite.
   1. Top-level makefile contains switches for MPI, CUDA, etc.
   2. Have a make test target: verbose and silent.
8. Copyright: Complete? If there are any miniapps that need an accelerated review process, please let me know.
9. YAML Mail List: We should consider whether or not we should establish one or more mail lists for users to send performance results to.