ITK 3.20 to ITKv4 Transition Plan

Phase-I: Sequestering Reference Applications

- Fork, Freeze and Sequester Reference ITK-Exercising Code
  - ITK **Testing** directory
  - ITK **Examples** directory
  - Insight Applications
  - Slicer3 clone
  - ITK-SNAP Clone
  - Brains clone
- Configure them all to submit Nightly builds to the TKv4 External Builds section of the repository.
- This will be the reference for Backward Compatibility.
- From now on, classes that break these tests, must provide **Migration Form** (**) before they make it into Master.

Phase-II: Basic Clean Up

- Release ITK 3.20: July 15
- Fork ITK 3.20 into a Git repository
- Remove work-arounds for lack of partial specialization
- Remove conditional code related to deprecated compilers
  - (VS6, VS7, BCC 5.5, Sun CC, IRIX)
- Remove over-sized image data files from
  - Testing/Data/Input and Examples/Data
  - (any image larger than 100K)
  - This is done to avoid the large size of a Git repository with history.
  - or remove them All (?) and move them to a downloadable module ?

Phase-III: Update CMake Flags

- Update CMake requirement to 2.8.2
- Move CMake Flags defaults forward:
  - Consolidated Morphology ON
  - ITK_USE_REVIEW:BOOL=ON
  - ITK_USE_REVIEW_STATISTICS:BOOL=ON
  - ITK_USE_OPTIMIZED_REGISTRATION_METHODS:BOOL=ON,
  - ITK_USE_PORTABLE_ROUND:BOOL=ON
  - ITK_USE_CENTERED_PIXEL_COORDINATES_CONSISTENTLY:BOOL=ON
  - ITK_USE_TRANSFORM_IO_FACTORIES:BOOL=ON
- Or remove the flags altogether and remove the code that corresponds to their OFF behavior.

Phase-IV: Update third party libraries

- Update GDCM 1.2 to GDCM 2.0
- Update OpenJpeg to V2
- Add JPEGImageIO (from NAMIC Sandbox)
- Update TIFF
- Update PNG
- Update JPEG

Phase-V: Create Topic Branches

- Fork Git and create topic branch for WrapITK team
- Fork Git and create topic branch for Level Sets team
- Fork Git and create topic branch for Registration team
- Fork Git and create topic branch for SimpleITK team
- Create Emtpy Git Master Repository
- Implement Stringent Testing Infrastucture in Master

Phase-VI: Modularize

- Move Code/Review directory to a separate module.
- Review Kernel classes
- Move Kernel classes into Master
- Define groups for Core Modules
  - For i to N: Review Module: Move Module into Master
  - Configure CMake acquisition of modules outside Core
- Release ITK 4.0: Alpha

Migration Form

MUST include:

Why? : Justification for the change

What? : Description of what was changed

How now? : Description of how to achieve now equivalent functionality in ITK v4.

Migration forms must adhere to a common format.

(Wiki form ?, GoogleDoc form?) It must be exportable to Latex and PDF, HTML.

Use Plone (?) (Documentaiton management system ? DMS) (Drupal ?).

References to classes must be hyperlinked to
Doxygen documentation of ITK 3.xx and ITKv4.

Migration pages will be compiled into a "Migration Guide", then enriched with an overall description of the refactoring initiative.