**Radiation Review Application and Library Build**

**Prerequisites**:

* A clone of the repository [https://Github.com/hnordquist/Radiation-Review](https://github.com/hnordquist/Radiation-Review). The repo is organized in three folders:
* Common – – Shared source and libraries for Rad Review application executable and COMs
* Rad COMs – – A Visual Studio 2010/13/15 solution with five projects, one project for each of five COM modules used by the Radiation Review application
* RadReview – – A Visual Studio 6 C++ project for the main Radiation Review application
* The COM and DCOM items required to build the main program RAD.exe executable are found in Common\misc\Integrated Review COMs. The Visual C++ dev configuration uses these libraries.

**Radiation Review main program (RAD.exe)**

the two items above, plus

* MSXML installation (usually c:\program files\msxml 6.0)
* **Visual Studio 6 C++ with SP6**
* Install all in a Windows XP VMWare image for best results

**Radiation Review COM DLLs**

the repo and the COM and DCOM items above, plus

* **Visual Studio 2010, 2013 or 2015, C++ compiler, linker and tools, with applicable Service Packs**

**Building the application executable and DLLs**

**Build Radiation Review**

Using VS C++ 6, open the Radiation Review workspace at RadReview\RadReview.dsw

Clean the RAD project

Build RAD debug or release, using the batch build or the appropriate menu selections

The release RAD.exe is built in RadReview\RAD\Release

The debug RAD.exe is built in RadReview\RAD\Debug

To test, manually copy the resulting executable to your runtime location (usually c:\irs\rad)

**Build the RAD COMs**

Define an environment variable %COMLIBSLOCATION% in your user shell environment set to the path to the “<your path>Common\misc\Integrated Review COMs”. E.g. “C:\Users\jfl\Documents\GitHub\Radiation-Review\Common\misc\Integrated Review COMs”, or, “..\..\Common\misc\Integrated Review COMs”. Use a full path or a relative path. If this concept is new to you, ask for help.

Using VS C++ 2010/13/15, open the VS 2010/13/25 solution file at RAD COMs\RAD COMs.sln

The Platform Toolset property must be set for each compiler version. The value 100 corresponds to the basic VS 2010 setting. For VS 2013 and 2015 other choices are available, and may be used, subject to prep testing by the developer before deployment.

Use the batch build command (select either the debug or release configurations on the list) and hit clean. CoVIFMImport may fail if the build order is confused. Do a rebuild to catch it again.

**Test**

Rad Review is designed to run in a Los Alamos National Laboratory Integrated Review Software configuration. Testing Rad Review and the related COM libraries will use an installed configuration.

To test Rad Review copy Release\RAD.exe, or Debug\RAD.exe, to (e.g.) c:\irs\rad. The five RAD COMs are always to be located in in (e.g.) c:\irs\comlibs. Start Rad Review by double-clicking the rad.exe file in c:\irs\rad.

On an uninitialized system Radiation Review will copy all the databases and configuration to a new folder named c:\general. In this case, always shut down Radiation Review and restart to ensure access to the complete configuration.

**Contributing**

**Bug fixes, improvements may be provided to Github via a pull request. The Radiation-Review repository custodian (H. Nordquist, LANL.gov), or the other repo contributor, J. Longo , IAEA.org), will respond and take the necessary steps to test and integrate changes into the master branch.**