Overview

• NNDC currently maintains 42 websites

  • Database access
    • ENSDF, ENDF, EXFOR, NSR

  • Visualization/calculations
    • NuDat 2/3, CapGam

  • Publications/conferences
    • CSEWG, USNDP
Streamlined Deployment

• Previous deployment process stalled while:
  • Retrieving updates from version control
  • Re-compiling Java server code
  • Restarting external servers
Version Control

• Website projects now use Git for version control
  • Quicker at pulling latest updates to code
  • Supports branches for testing/development

“Oh, hey! This works!”

“This was a bad idea!”
Standardized Development

• Gradle Build Tool used to manage website code
  • Quick re-compilation of Java code
  • Easy integration with Git
  • Able to package entire webapp folders
Goal: System Portability

• The ability to move NNDC websites onto new servers
  • “If a meteor hits BNL...”
  • Not necessary (yet)

• The “development pipeline” should be platform-independent!
  • No hard-coded file paths
  • Must be able to run on Windows, MacOS, Linux
  • Must be able to rebuild on a different computer
Fortran Manager

• Java library for communicating with Fortran executables
  • Uses gfortran compiler for backwards-compatibility
  • Automatically re-builds scripts when deployed

• If necessary, can be repeated for other languages (i.e. C)
Progress

• Moving to GitLab – **DONE!**
• Using Gradle Build Tool – **34/42**
• WAR packaging – **34/42**
• Legacy code integration
  • LogFT, QCcalc, HSICC – **TESTING**
  • Sigma – **IN PROGRESS**
  • EXFOR – **TO DO**