

NNDC Web Modernization



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Overview

- NNDC currently maintains 42 websites

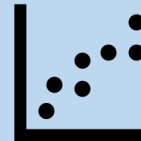
- **Database access**

- ENSDF, ENDF, EXFOR, NSR



- **Visualization/calculations**

- NuDat 2/3, CapGam



- **Publications/conferences**

- CSEWG, USNDP



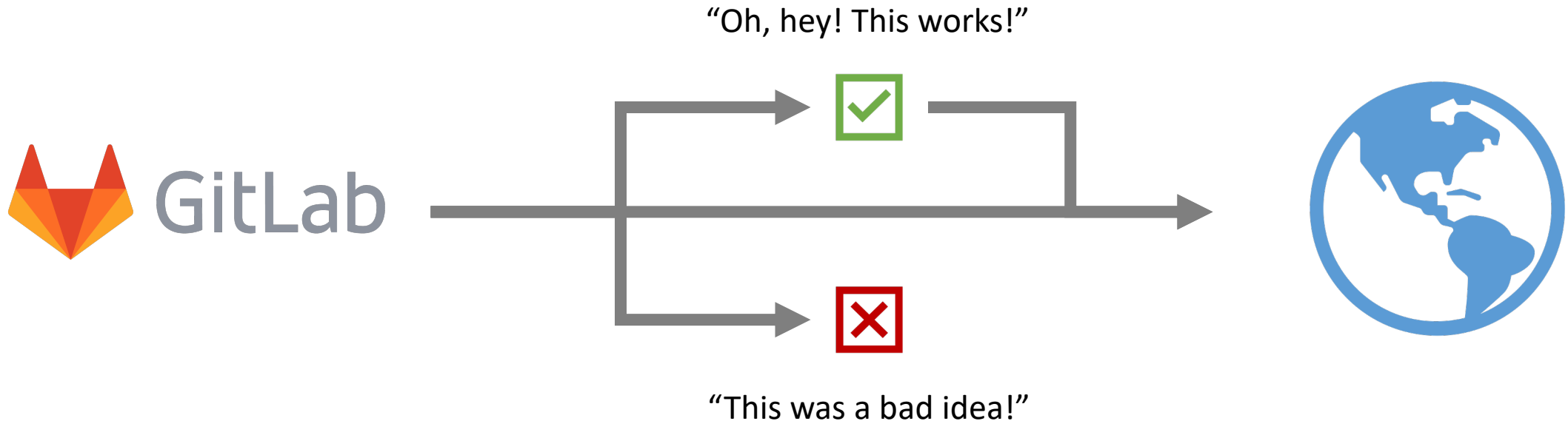
Streamlined Deployment

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



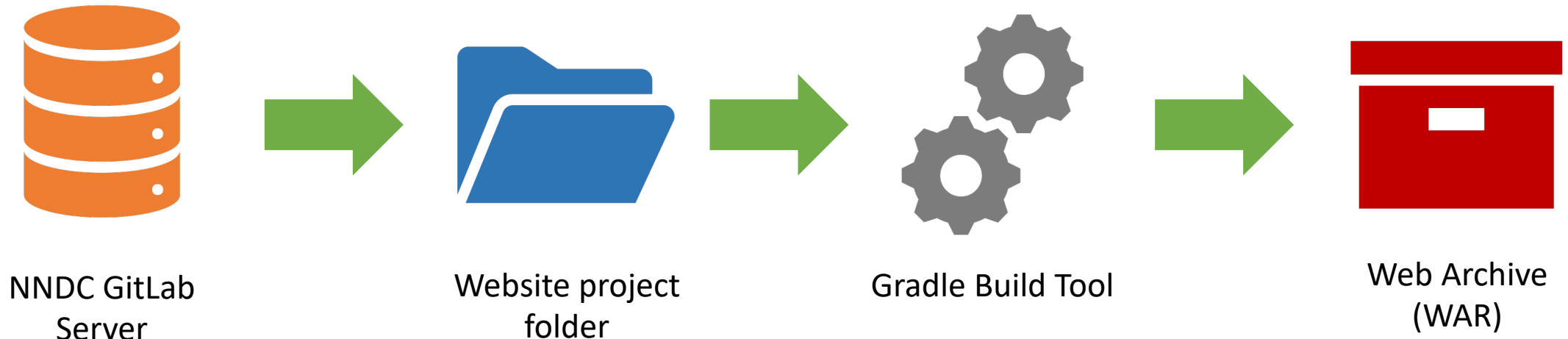
Version Control

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



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

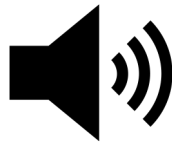
- The ability to move NNDC websites onto new servers
 - “If a meteor hits BNL...”
 - Not necessary (yet)
- The “development pipeline” should be platform-independent!
 - No hard-coded file paths
 - Must be able to run on Windows, MacOS, Linux
 - Must be able to rebuild on a different computer

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)



x4toc4.f



Sigma

Progress

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