



SDSFIE Online: What's New and Improved

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July 11, 2017



Agenda

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- Overview of SDSFIE Online
- What's New and Improved:
 - SDSFIE-Vector Tools & Workflows
 - Change Management
- Migration Workflow



Overview of SDSFIE Online

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- SDSFIE is a family of standards that are managed by the Installation Geospatial Information & Services (IGI&S) Governance Group (IGG)
- ***SDSFIE Online*** provides implementation support to the SDSFIE user community
- Definition in the SDSFIE Governance Plan - SDSFIE Online is a web-centric interface that enables users to:
 - Access documentation, standards
 - Participate in development/maturation of SDSFIE
 - Utilize implementation tools

...in order to support the goals of the SDSFIE family of standards



What's New and Improved: SDSFIE-Vector Tools & Workflows

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IMPROVED Browse/Generate

- Browse one approved or draft model at a time
- Generate logical (Excel) and physical (XML Workspace) models

- Data Dictionary

- Search for keywords across all approved SDSFIE-V Models

IMPROVED Model Builder

- Build a new model by adapting an existing approved model
- Import a model defined as an adaptation using an Excel template
- Create a model via import of an XML Workspace document



Adaptation Reviewer

- A reviewer-specific addition to Model Builder that provides for review/approval of submitted adaptations

- Validation Tool

- Validate an XML Workspace document against an approved model
- Describe differences between two models



Migration Tool

- Migrate a geodatabase from one version of SDSIFE-V to another



What's New and Improved: Change Management

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- New Change Management tool fielded in June; implements an automated processing of Change Requests for SDSFIE-Vector, -Metadata, -Quality, and -Raster
- All SDSIFE Online users may submit a “Draft Change Request” made up of one or more individual “Changes” to be reviewed by their Component IGG Representative
- Component IGG Representative users may submit a “Formal Change Request” made up of one or more individual “Changes” that can come from a Draft Change Request or other source
- Slides 6 & 7: overview of these two linked processes

SDSFIE | Spatial Data Standards for
Facilities, Infrastructure, and Environment

Hello kurtbuehler ▾ Log off

Edit Information
Request Access
Submit Help Desk Request
Submit Change Request

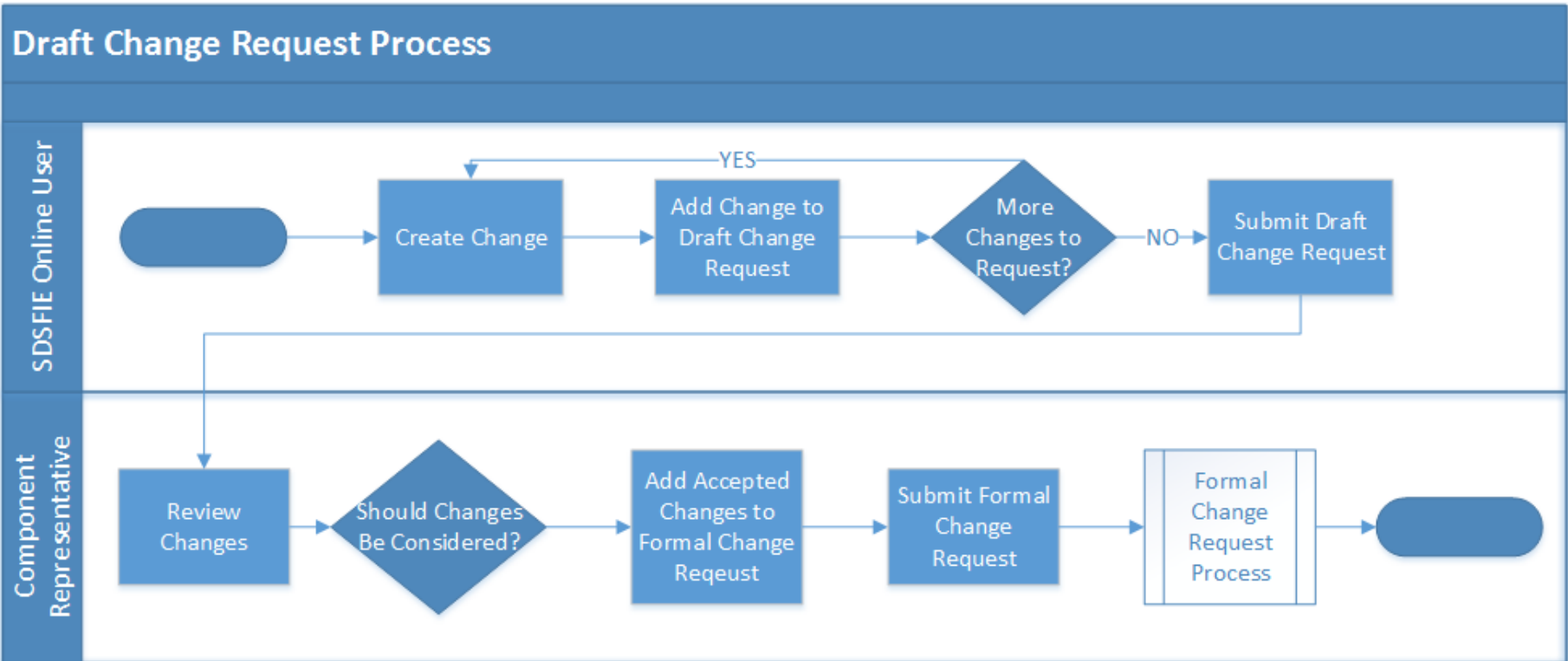
Home SDSFIE Online ▾ Standards ▾ Models & Workflows ▾ Component

Ready to get started.



Draft Change Request

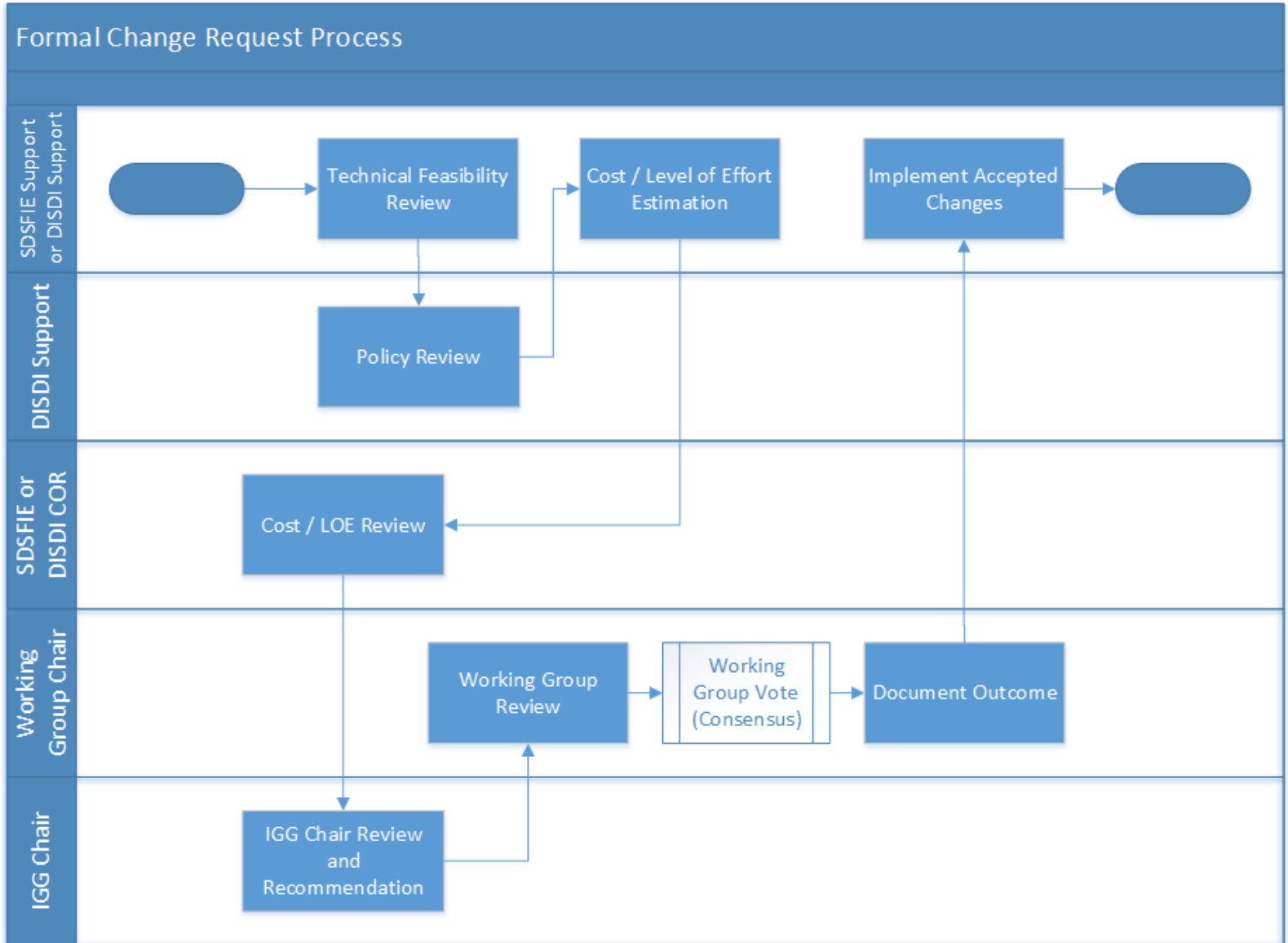
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Formal Change Request

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Migration Workflow



Migration Requirements

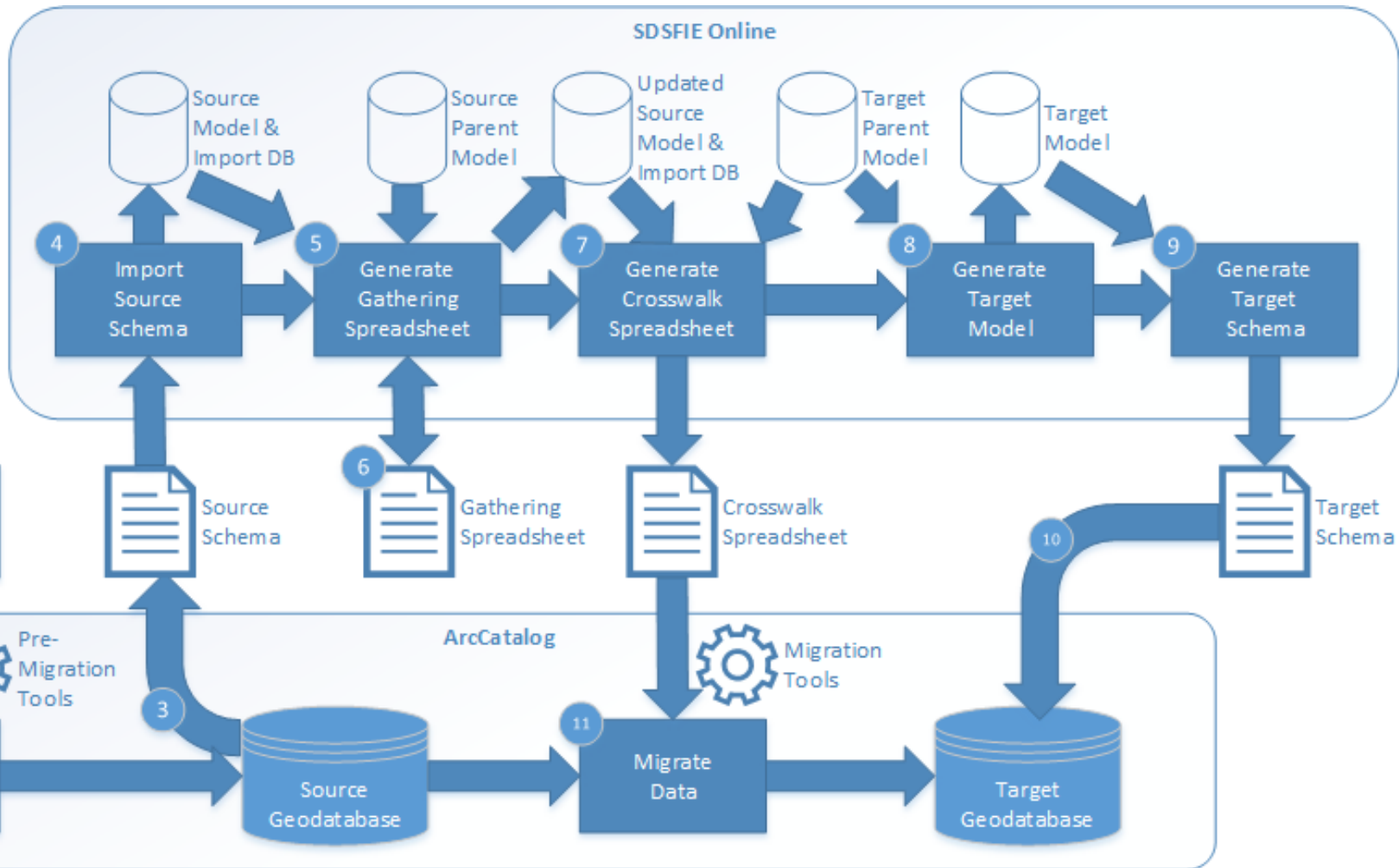
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- Migrate “Source Geodatabase” from one version to the next - result is a “Target Geodatabase”
- Assume that the Source Geodatabase is, at least partially, compliant to a single SDSFIE adaptation (Source Parent Model)
 - If the geodatabase complies to multiple versions (2.6 and 3.0, for example), then this can be handled by splitting the geodatabase and performing two migrations
- Assume that the Target Geodatabase will be, at least partially, compliant to an SDSFIE adaptation (Target Parent Model)
- Handle “multi-part” migrations
 - For example, USACE 3.1 → 3.1 Gold → 4.0 Gold → USACE 4.0
- Correctly handle merges and splits between versions and Adaptations
- Non-complying elements in the Source Geodatabase (feature/object classes, fields, etc.) should be conformed, if possible, and simply carried over if they cannot be conformed



Migration Process Overview

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Migration Workflow Summary

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- Awesome new capability that can migrate partially compliant geodatabases from one version of SDSFIE to the next
- Does NOT dispose of feature classes or fields that “do not comply”, but rather brings them along into the target
- The process is a bit involved... care should be taken to ensure the correct result
- Several iterations are planned to improve the Workflow, as time & funding allow



Questions?



BACKUP



1. Pre-migration Planning and 2. Pre-migration Preparation

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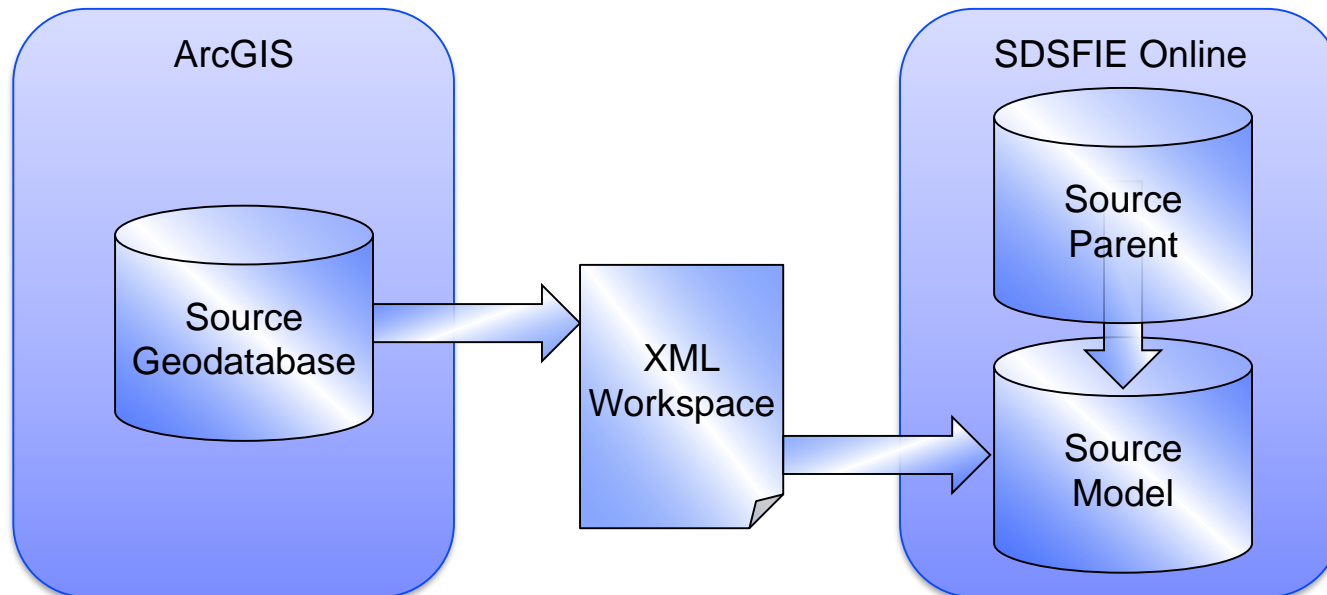
1. Recommend migrating in smaller functional sets
 - Decide what feature classes (and attributes) you want to migrate in coordination with functional experts, create a subset geodatabase for each functional set
 - Each functional set can “move at its own pace”
 - Tools will operate more efficiently
2. Run pre-migration scripts to prepare subset (Source) geodatabase
 - Populates any unpopulated sdsID
 - Stashes a copy of OBJECTID, GlobalID, sdsID
 - Stashes a copy of the feature class name in an attribute of every record
 - Prepare geodatabase for splits
 - o adds fields and domains for splits without a basis attribute
- Populate any fields added by split preparation



3. Export Source Schema and 4. Import Source Schema

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3. Export the XML Workspace for the Source geodatabase
 - Schema only with metadata
4. Import the Source Schema
 - Creates the Source Model as an adaptation of the Source Parent
 - Creates the Import DB containing information required for migration gathered from metadata and from matching to the Source Parent





5. & 6. Generate and Import Gathering Spreadsheet

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5. Generate Gathering Sheet

- Creates a spreadsheet from which to gather more information about the Source Model than can be determined from metadata and name matching with the Source Parent

6. Import Gathering Sheet

- Provide additional Source to Source Parent matching (perhaps names have changed)
- Provide definitions for entities (feature classes) and attributes (fields) that are not defined in the Source Parent Model



7. Generate Crosswalk, 8. Target Model, 9. Target Schema

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7. Generate Crosswalk Spreadsheet

- Creates a spreadsheet that contains the crosswalk information between a Source Geodatabase (as conformed to the Source Parent) and the Target Parent Model
- This is used to generate an XREF database from Esri's Data Loader
- At this point, we decide what to do with attributes from merged feature classes. Choices are a) union all attributes in the target features or b) intersect in the target and store the excess in additional (merge attribute) tables

8. Generate Target Model

- Generates an adaptation to the Target Parent Model that takes into account the conformed Source Model

9. Generate Target Schema

- Generates the XML Workspace document corresponding to the Target Model
- This is used as the schema for the Target Geodatabase



10. Import the Target Schema and 11. Run Migration Tools

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10. Import the Target Schema to Create Target Geodatabase

- Run a script to create the XREF database from the crosswalk spreadsheet (migrations containing merges require a two step migration and thus two XREF databases)
- Run a script to create the Target Geodatabase that uses knowledge of the Source Geodatabase to extract coordinate reference system information into the Target Geodatabases for all feature classes
- Run a script that maps any merge attribute tables to the Target feature classes that are involved in intersect merges and creates relationship classes to keep things in order (FUTURE)

11. Migrate Data

- Run Pre-load Validate to check the migration
- Run Data Loader to actually perform the migration
- Check the result... Might need to go back at this point and clean up the input data to fix NULL and bad values, etc...