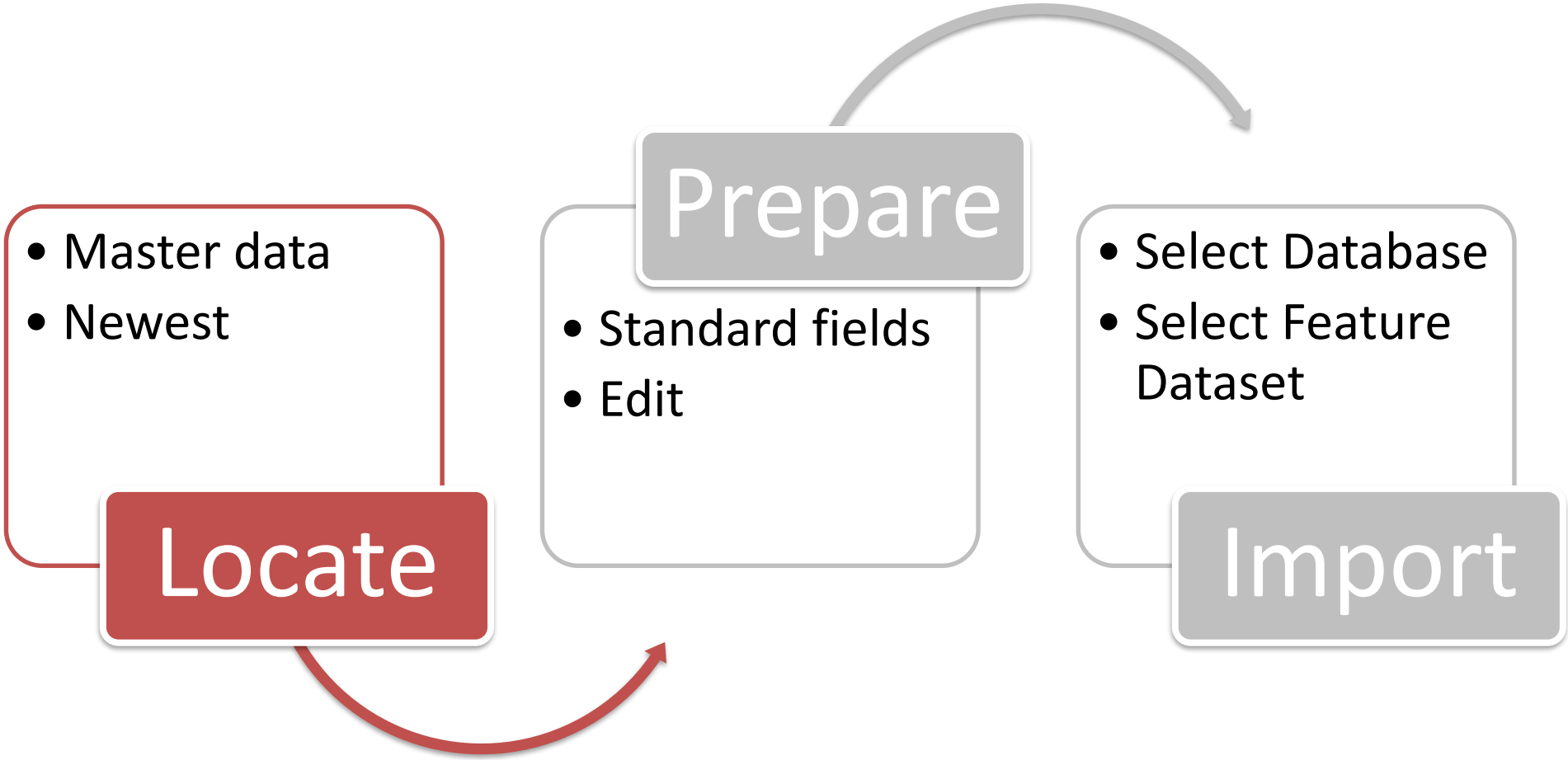
Migration Policy and Procedure

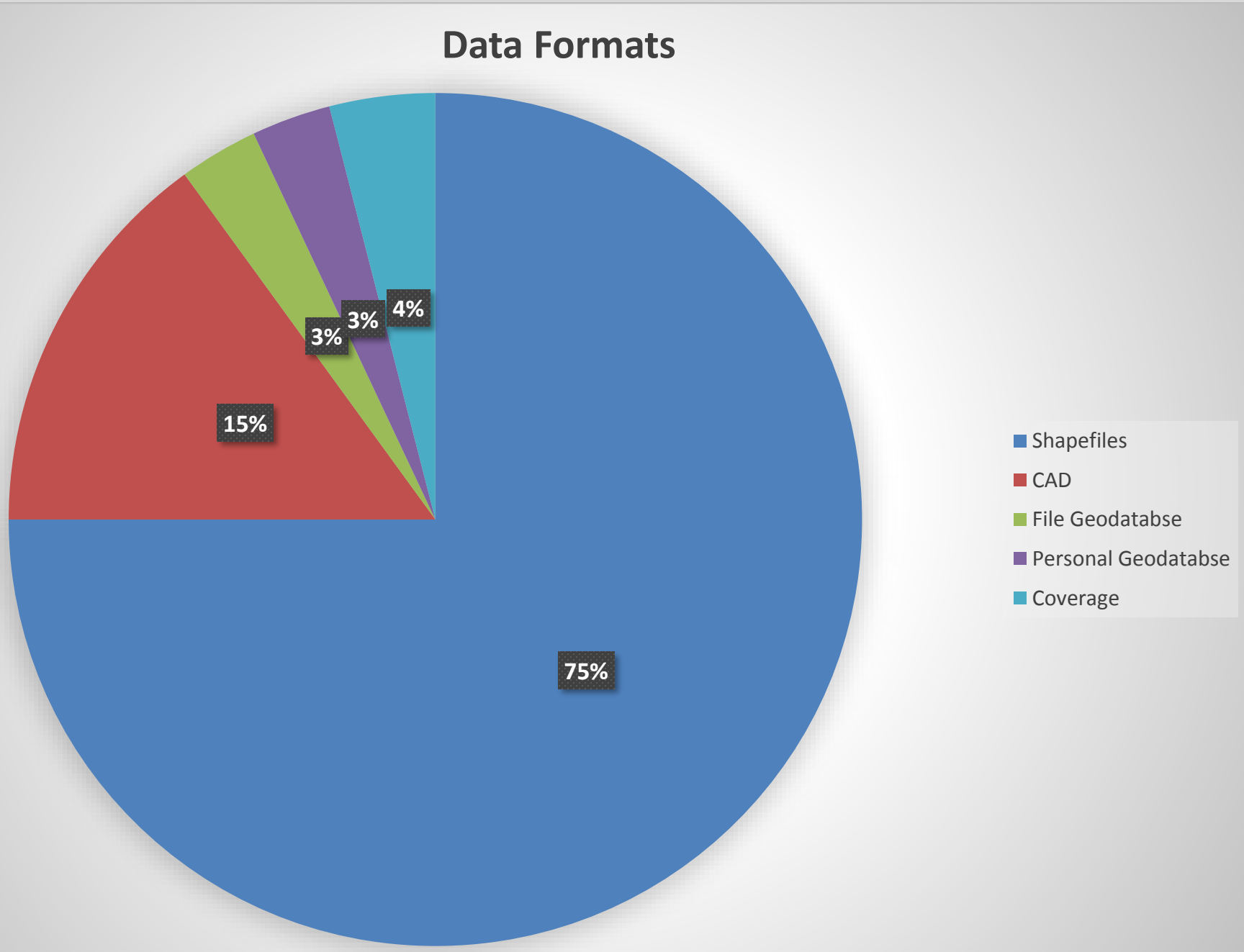
Tejon Ranch GIS Department
Locate



Tejon Ranch GIS Department
Locate

- Inventory and Prioritize
- Locate and Verify
- Download

Tejon Ranch GIS Department



Tejon Ranch GIS Department
Locate

Inventory and Prioritize the master data that will be migrated into the SDE SQL Geodatabase. This is our priority data matrix.

The data may be located in the Masterdata_Legacy folder, TerGIS2 folder, or the Incoming data folder.

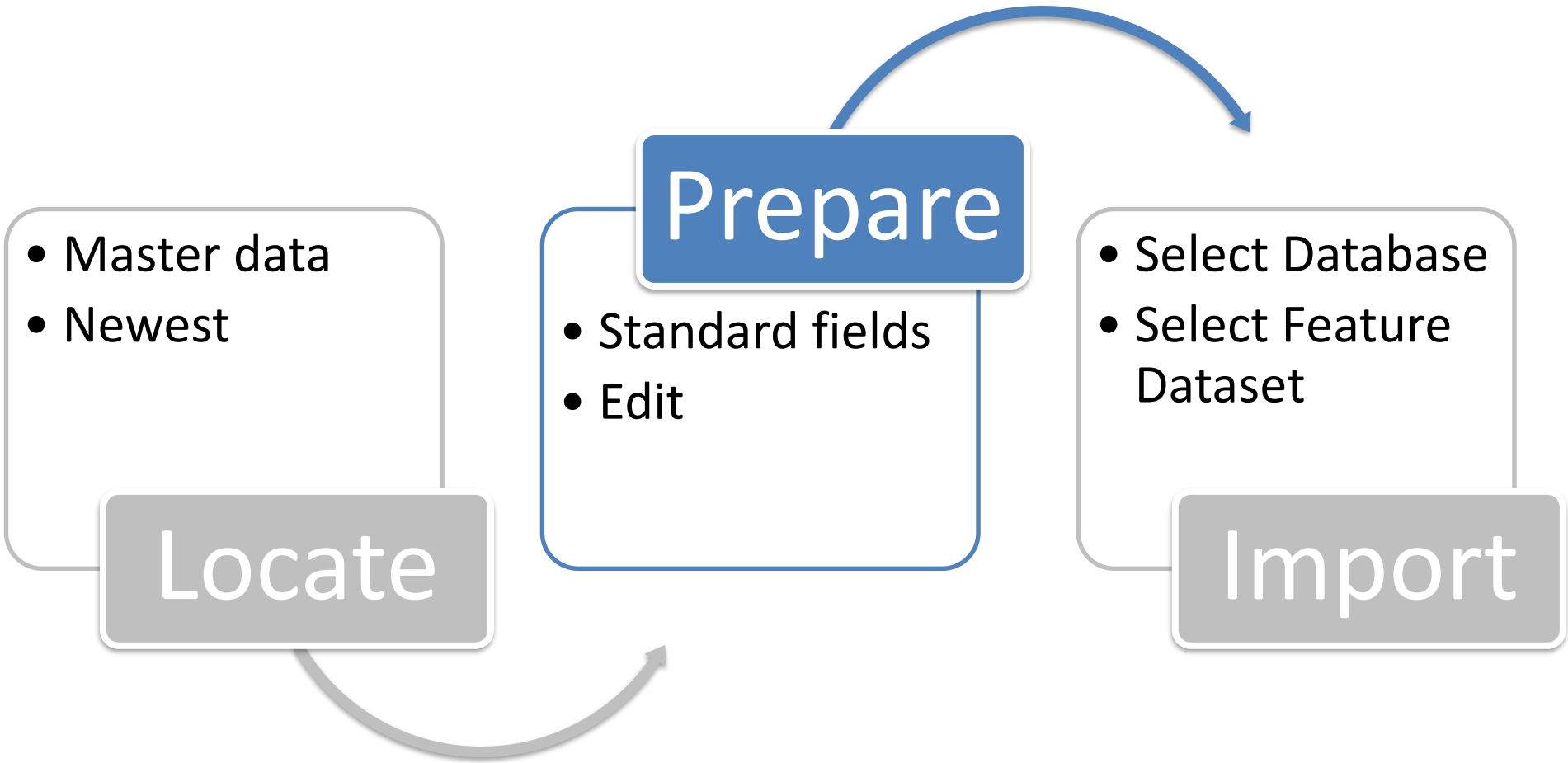
Once the data is located the data needs to be verified on whether it is the most up-to-date data.

- Check the data format
- Has the data been imported into a geodatabase
- Verify the accuracy of the data
- Verify the completeness of the data

Download newest data where applicable.

- Verify if downloaded data is in fact newer than the current data.

Tejon Ranch GIS Department
Migration Process



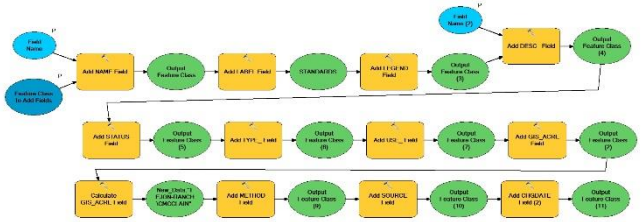
Tejon Ranch GIS Department
Prepare

- Import to File Geodatabase
- Add standard fields
- Edit

Tejon Ranch GIS Department Standard Attribute Fields

Standard Attribute Fields are added to all data that is migrated into the SDE SQL database. And placed at the beginning of the attribute table.

A model was developed to add the fields to each feature class before the feature class is imported into the SQL Database.



In Addition to the TRC model the ET Geo Wizards for ArcGIS toolbar is used to clean up the feature class fields before import into the SQL Database.

Tejon Ranch GIS Department
Standard Attributes

Data Descriptor Fields

- **NAME**, text, 50
- **LABEL**, text, 50
- **LEGEND**, text ,50 (default; longer when needed)
- **DESC_**, text, 100
- **STATUS**, text, 30
- **TYPE_**, text, 30
- **USE_**, text, 30

Field Calculated Fields

- (POINT)
  - **LAT_Y**, text, 12 (from geometry calculator)
  - **LON_X**, text, 12 (from geometry calculator)

- (POLYGON)
  - **GIS_ACRE**, double, precision 10, scale2 (from geometry calculator)

- (POLYLINE)
  - **GIS_MILE**, double, precision 6, scale 2 (from geometry calculator when lengths meet criteria)

Data Tracking Fields

- **METHOD**, text, 5 (see GIS Method Codes)
- **SOURCE**, text, 15 (see GIS Source Codes)
- **CHGDATE**, text, 10, yyyy-mm-dd

Tejon Ranch GIS Department
GIS Method Codes

GIS METHOD CODES: These codes indicate the means by which data was physically created

- **HUD** = Heads up digitized (from scanned, geo-referenced map OR imagery)
- **GPS** = Data collected via Global Positioning System EXAMPLES: GeoXH, GeoXT, iPad, Phone, GPS
- **IMP** = Import/upload data from an alternate source
- **TBL** = Upload coordinates from an alternate table/source
- **CAP** = Copy and paste data from an alternate source
- **COGO** = Coordinate geometry from bearings & distances
- **UNK** = Unknown
- **GP** = Geoprocessing tool
- **SUR** = Survey Data

Tejon Ranch GIS Department
GIS Source Codes

GIS SOURCE CODES: These codes indicate the source document type. Description of source material will be included in metadata

- **IDL** = Internet download
- **TRC** = Sample: TRC-Joe R, TRC-Phil S, TRC-GIS Dept
- **CAD** = AutoCAD Drawing received from architect/engineer/planner
- **GIS** = Alternate existing GIS data
- **DOC** = Document + num, DOC_0001_9999, DOC_YY123456789
- **IMGYY** = Orthorectified imagery + year, IMG06, IMG12, IMG99
- **MAP** = exhibit
- **UNK** = Unknown
- **GPS** = Global Positioning System collection
  Data Collected via GPS Trimble GeoXT:
  Data Collected via the iPad:

Tejon Ranch GIS Department
Additional Fields

Hyperlinks to managing documents should be built into tables when applicable.

- **DOC_LINK**, text, 175 (doc library/… and/or RIM; character widths on existing files are around 139 long; content management requires minimum of 119)

Hyperlinks to source documents should be built into tables when applicable. However this info could be added later since we don't always have the information up front.

- **SRC_LINK**, text, 175 (source document link, i.e. CAD drawing, map PDF, internet website URL, recorded document)

Photographs should be included on asset features when applicable.

- **PIC_LINK**, text 175 (photos will be filed/managed on T2 just as they are now)

Hyperlinks to managing folders should be built into tables when applicable.

- **FLDR_LINK**, text, 175 (mostly project specific)

Tejon Ranch GIS Department
Prepare

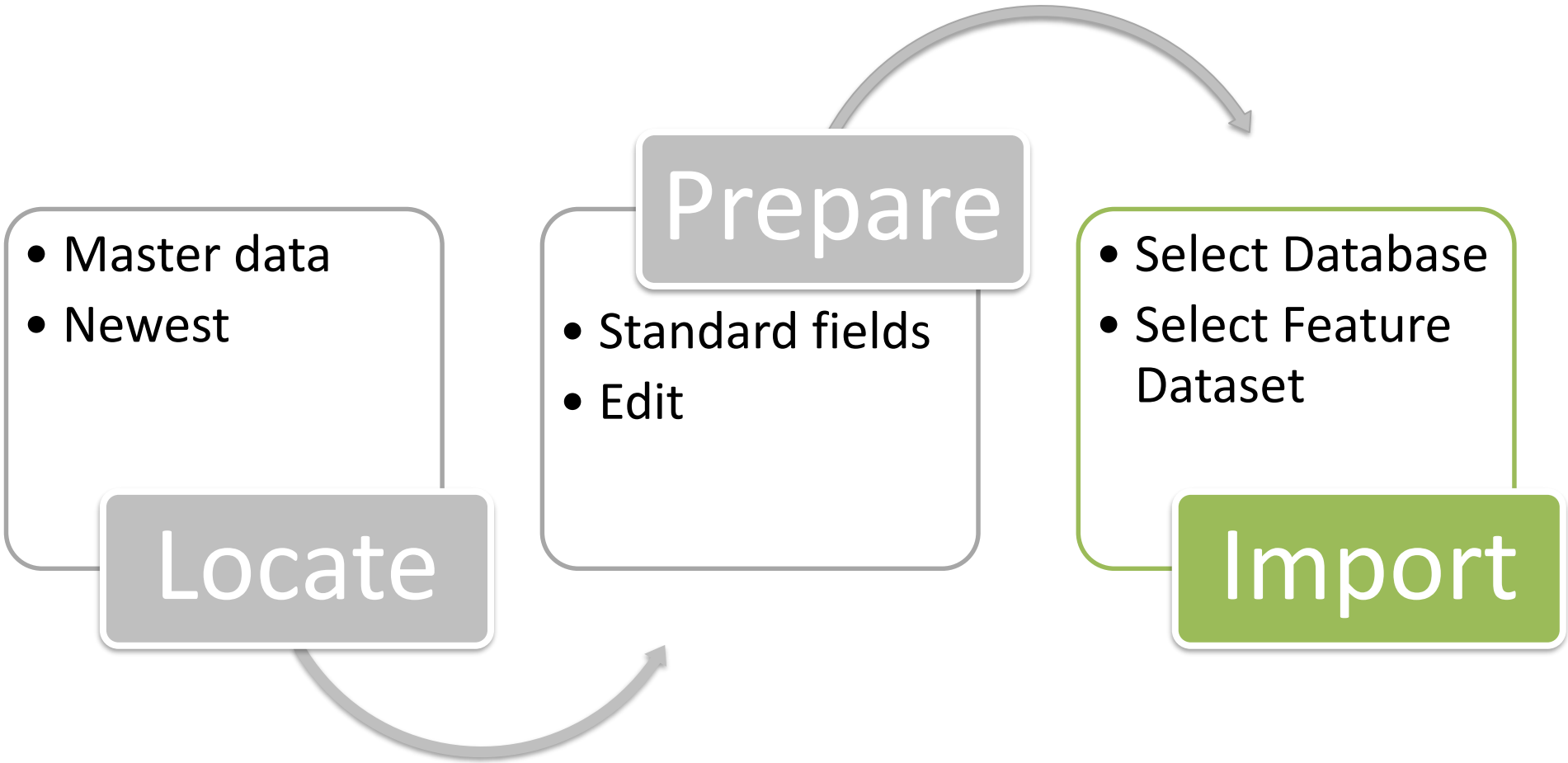
Follow the procedures to add the standard attribute fields.

If edits are needed to bring the feature class up-to-date now is the time to do this.
If edits are not needed then move on to the importing process.

Edit the data from the file geodatabase.

Once the edits are made and finished proceed to the importing process.

Tejon Ranch GIS Department
Migration Process



Tejon Ranch GIS Department
Import

- Assemble data
- Verify Database and Feature Dataset
- Import the data

Tejon Ranch GIS Department
Import

The data should be fully prepared at this point, if your not sure check the attributes, and coordinate system. Now assemble the data to be imported into the database.

Chose the database you want to import the data into.

- Does the feature class stand alone or is it added to a feature dataset

The Feature Class in the File Geodatabase is ready to be imported into the Database.

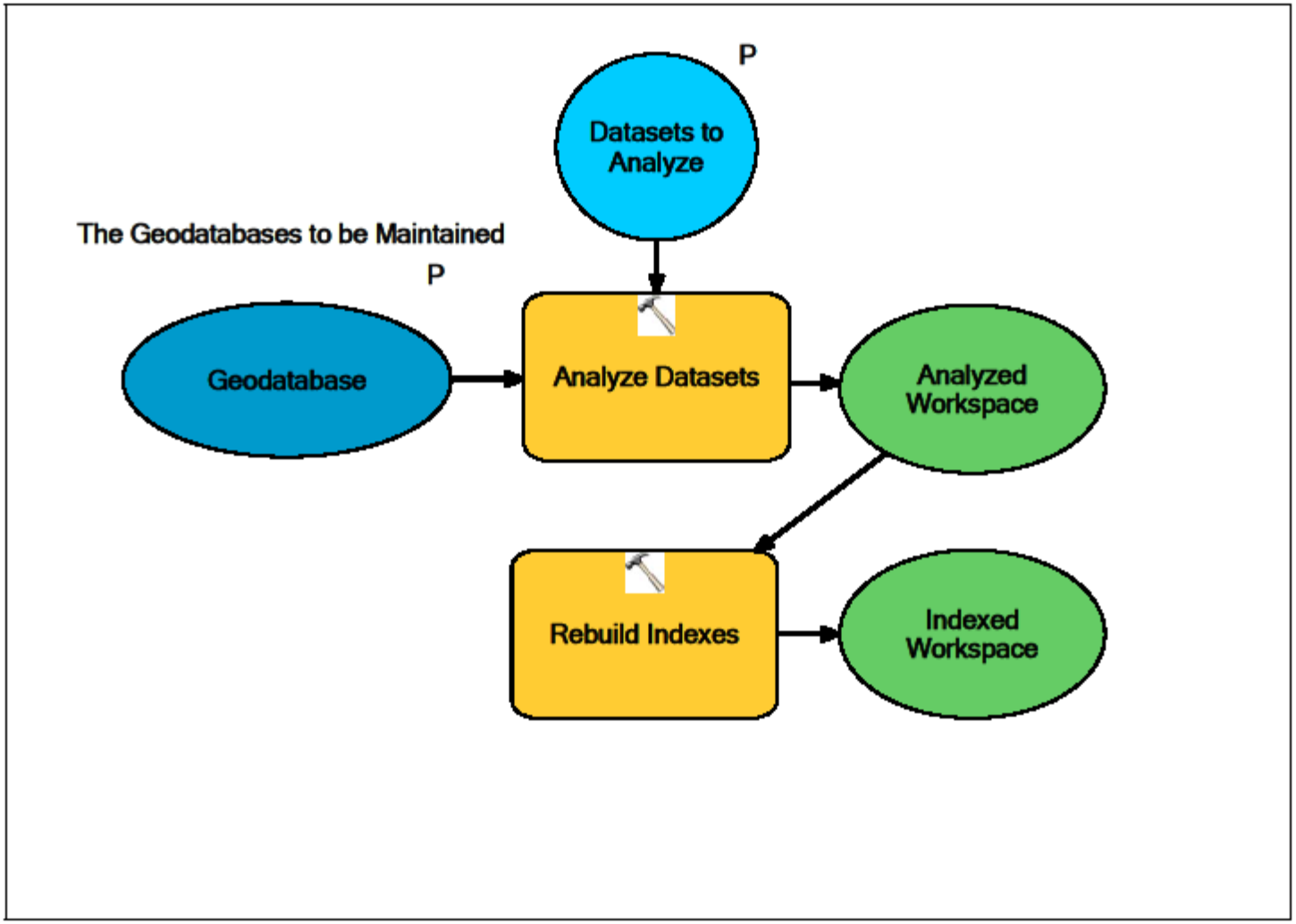
- If the feature class you're importing is ready, use the Feature Class To Feature Class or Feature Class To Geodatabase tools to import the data. The feature class you create with these tools can standalone or import into an existing feature dataset.

Post Migration QA/QC

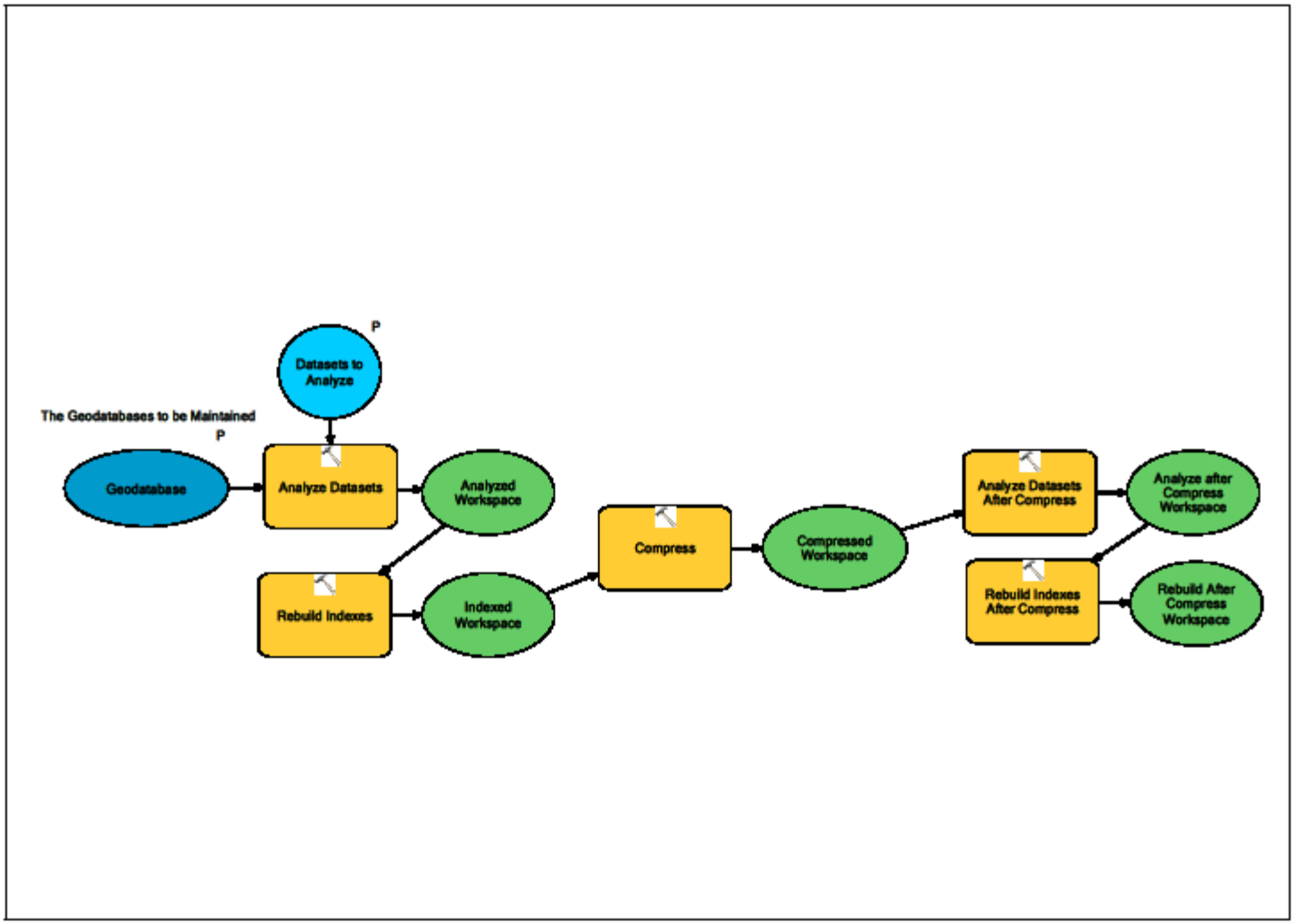
DBA Maintenance Procedures

Tejon Ranch GIS Department
Database Management

- Geodatabase Maintenance Model
- Monitor System Resources
- Backup and Restore



Database Maintenance Non-Versioned



Database Maintenance Versioned

Tejon Ranch GIS Department
Backup and Restore

Backup

- Twice a Day
  - Loss of production less than 4 hours of work

- I.T. Backup
  - 90 day retention offsite

Restore

- Option 1
  - Dataset and Feature Class individually imported to Database

- Option 2
  - Restore the whole Database

Editing: Best Practices

GIS Department SDE Versioning Hierarchy

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DBAdmin Account

- Manages SQL Server Express
- Owns Databases
- Owns Datasets and Feature Classes
- Default Version

GISAdmin Account

- Manages SDE Accounts
- Creates Data
- Owns Datasets and Feature Classes
- Post Edits
- Default Version

GIS Dept Accounts

- Review Edits
- User Version
- Child to Default Version

GIS Dept Edits

- Edit User Version, Short-Term Edits
- Edit Child Version to User Version
- Long-Term Edit sessions