

AFMC GeoBase Spatial Data Replication

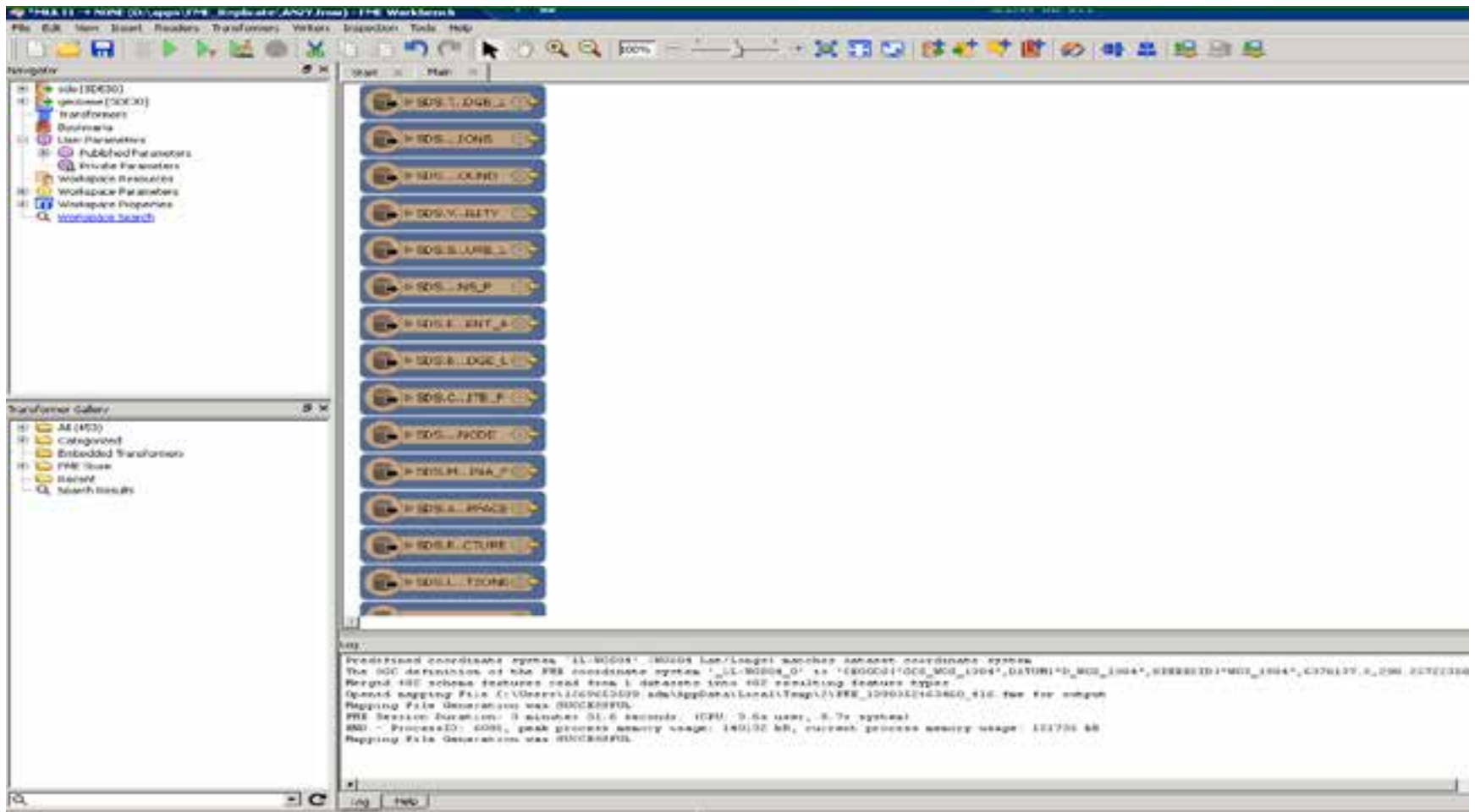
Overview

- An automated data replication process was developed by Woolpert and is being used by AFMC GeoBase to replicate the installation level vector data up to Headquarters AFMC.
- FME Workbench is used in conjunction with Oracle Connection Manager, Oracle Client Applications and ArcGIS Server (ArcSDE).

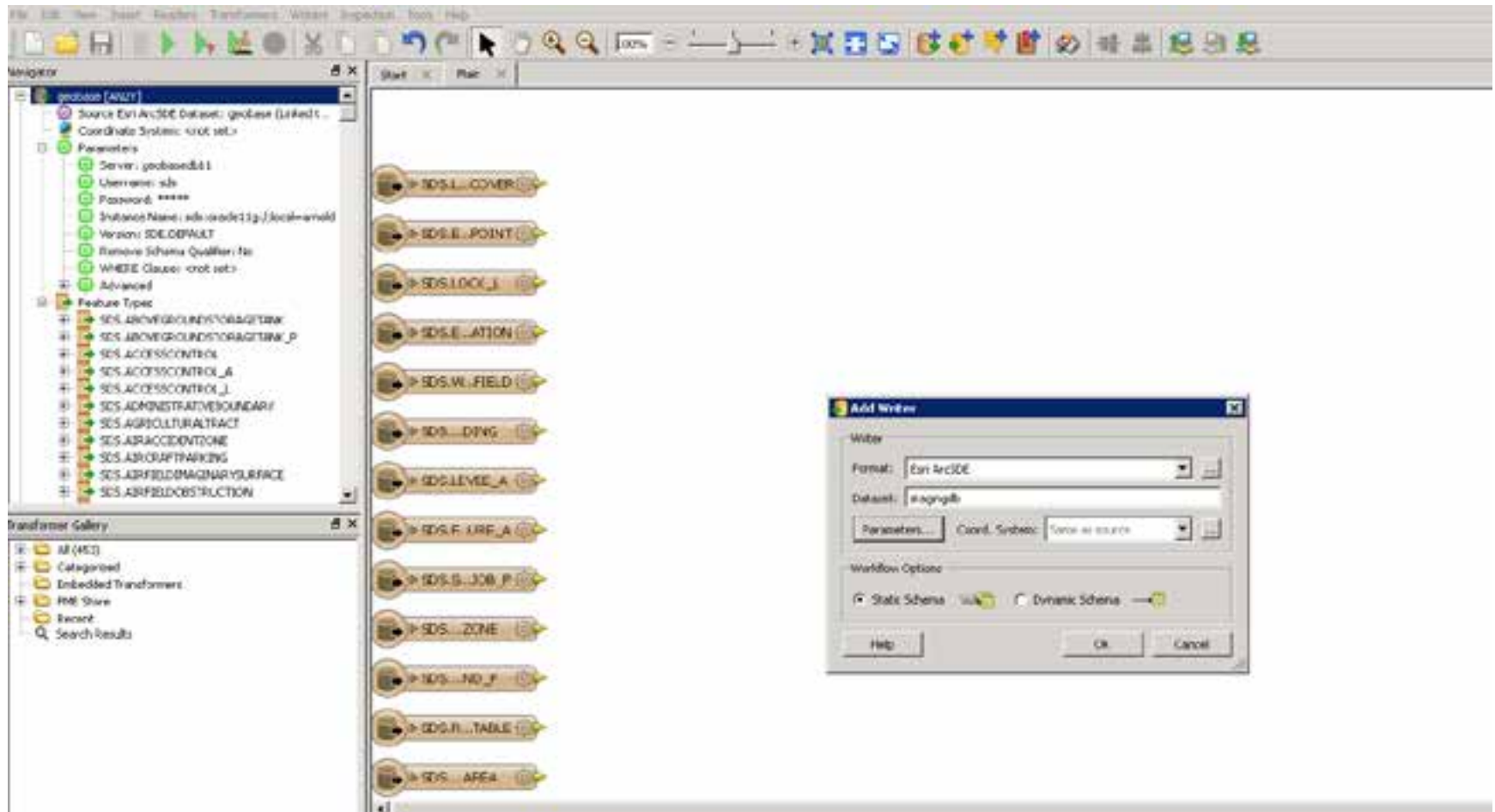
Overview Cont.

- The replicated data is consumed by web mapping services that are hosted on a standard FLEX viewer.
- The automated replication process is used to enable HQ AFMC personnel to perform quarterly data call submissions, thus alleviating the responsibility for the installations to each perform the tasks manually.

Adding a Reader in FME Workbench



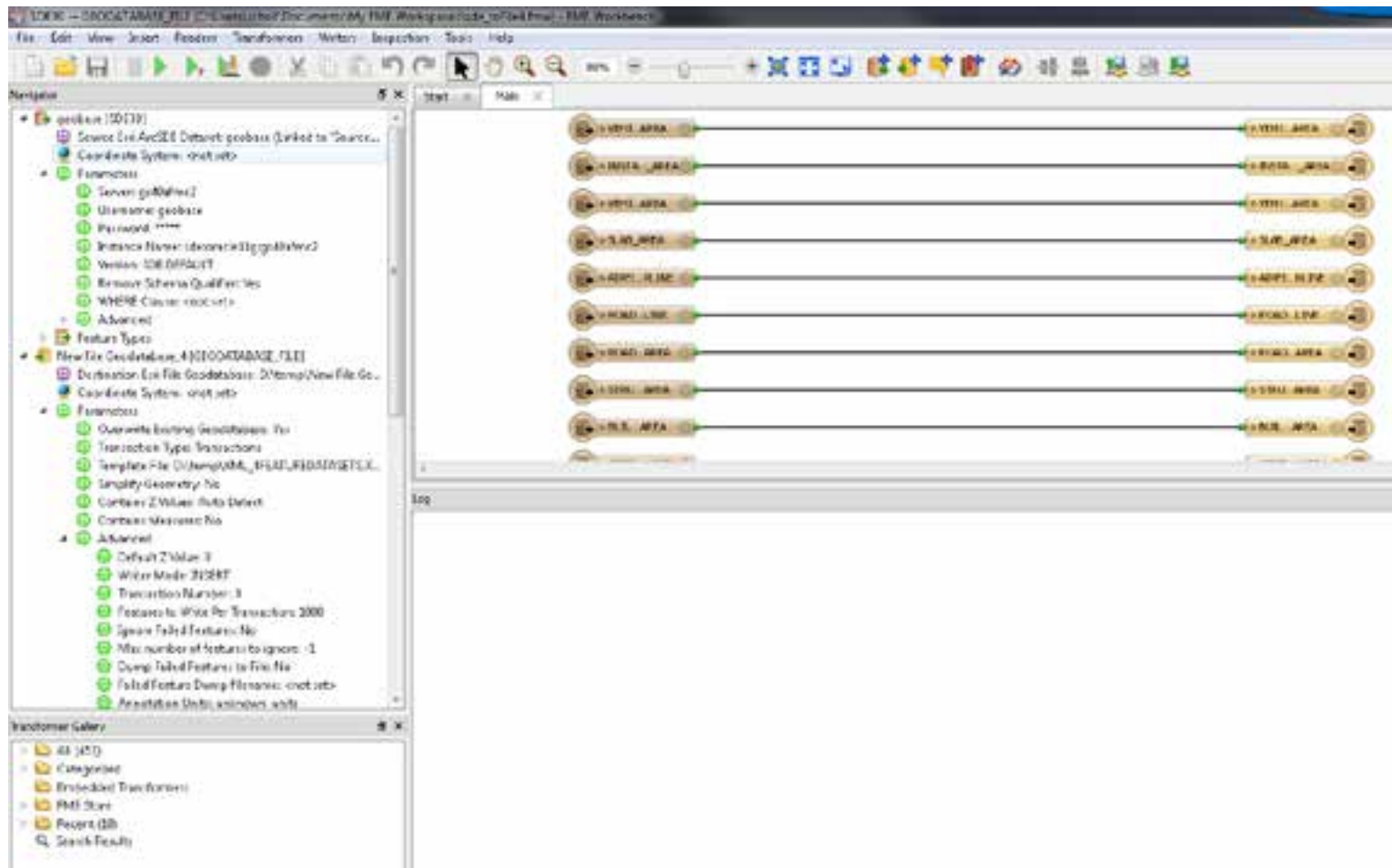
Adding A Writer in FME Workbench



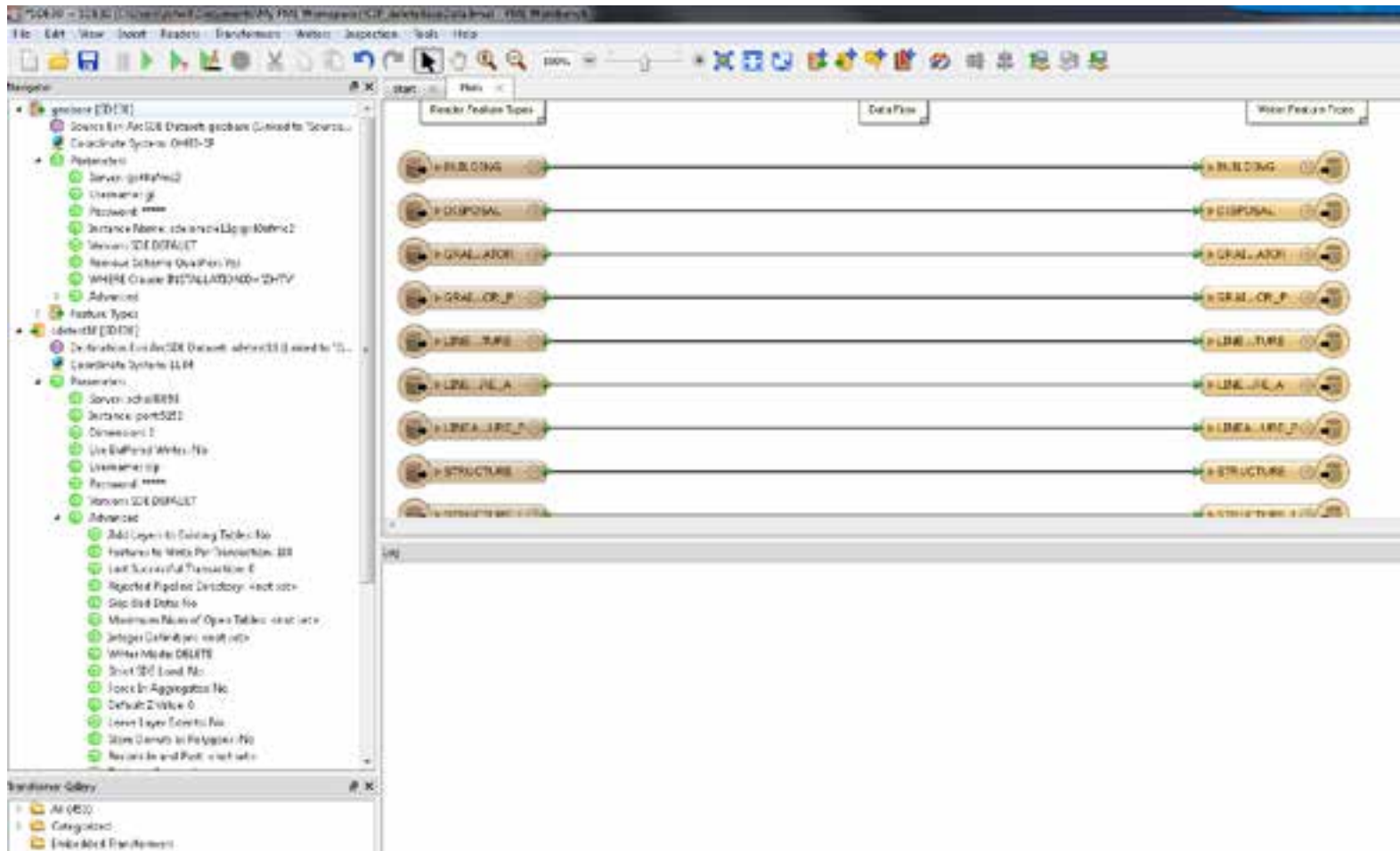
Example of feature class fields being exposed



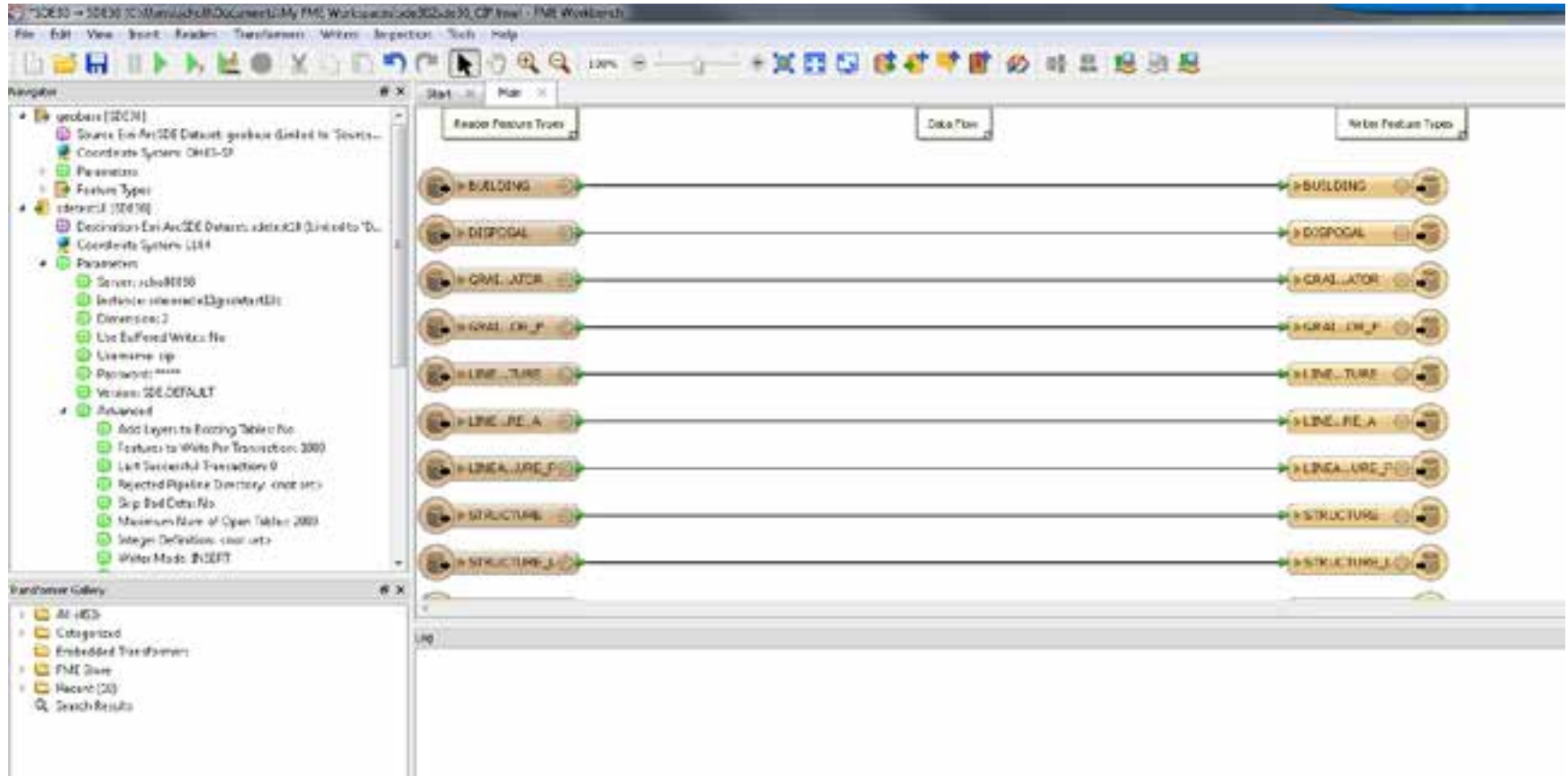
SDE to FILE Geodatabase Scenario



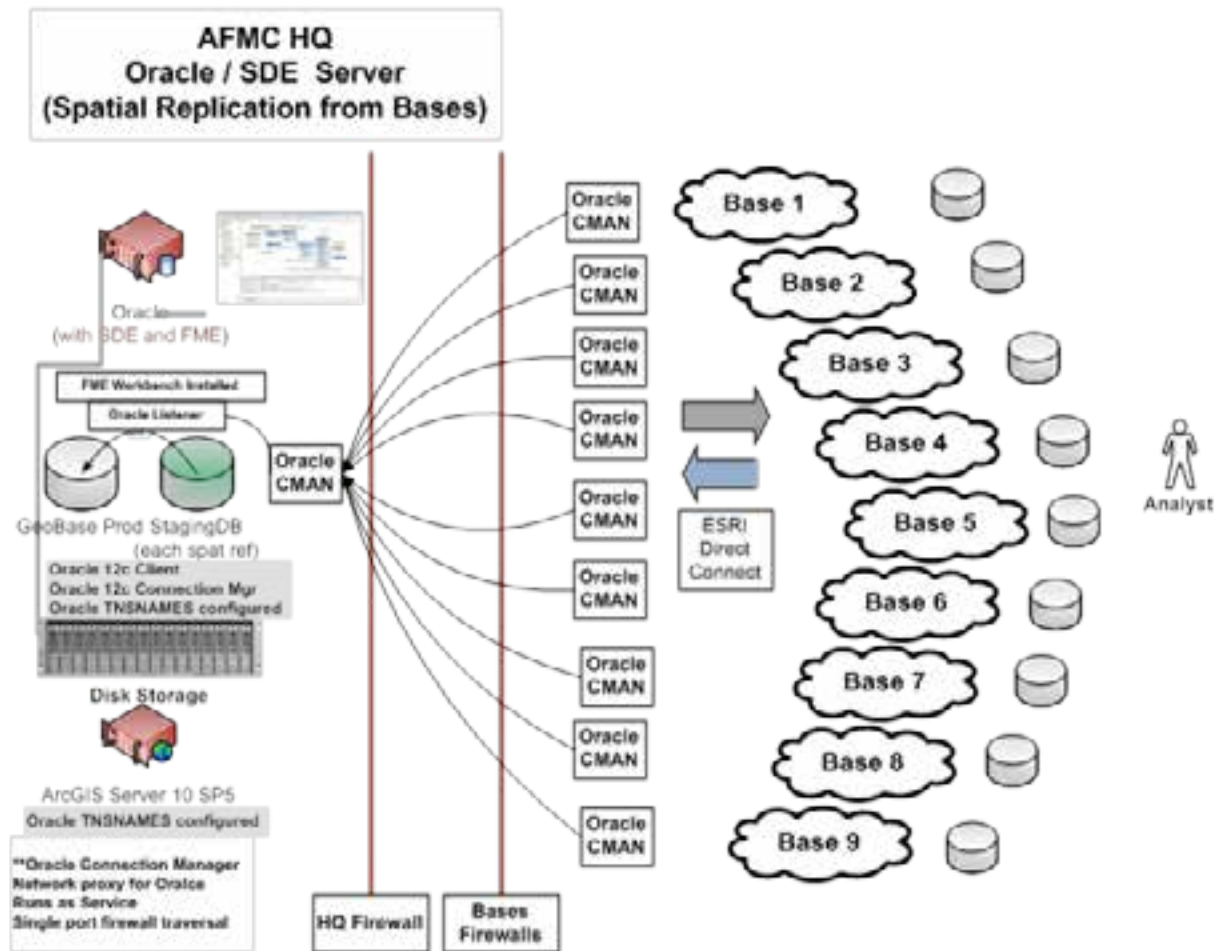
SDE to CIP—this process may change, but for now 2 step process, Delete by Base, Reload by Base DELETE by Base----



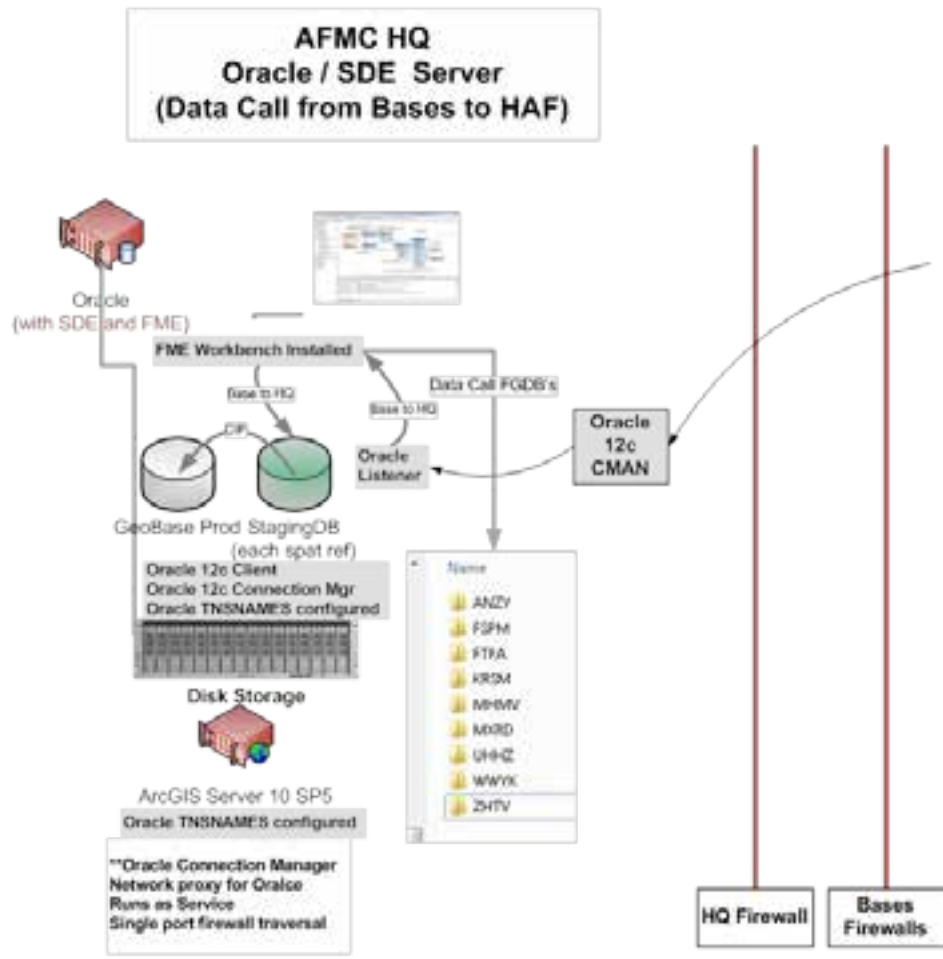
Reload by Base –emphasize coordinate system settings in Reader and Writer



Replication Process Diagram

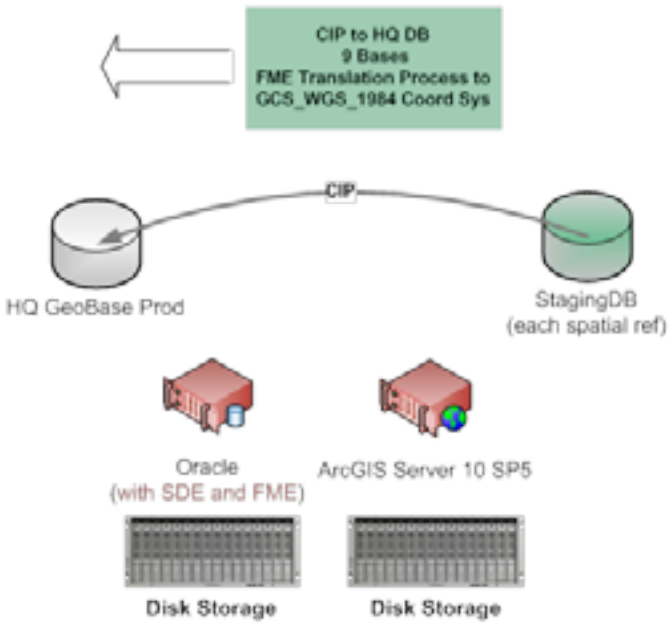


Data Call Process Diagram



Compiled Data Process Diagram

AFMC HQ
Oracle / SDE Server
9 Base CIP Deploy into GCS_WGS_1984
To Geobase Database
From Stagingdb database



- Oracle APEX will possibly be used in the near future as a front end management dashboard tool.

Replication Status Reporting

The screenshot shows a web application interface for monitoring replication status. The main heading is 'STATUS_CONTROLS'. Below it, there are several tabs: 'Status_BASE_to_STAGINGDB' (selected), 'Status CP1004', 'Status STAGINGDB TO PGDB', 'REPLICA FROM BASE', 'REPLICA STAGINGDB TO CP', and 'REPLICA STAGINGDB TO PGDB'. The selected tab displays a table with the following data:

Base Name	Last Replica	Status
Base 1	25-JUN-2014 08:02:00	DONE
Base 2	15-JUN-2014 08:02:00	DONE
Base 4	15-JUN-2014 08:02:00	DONE

At the bottom of the table, there is a small page indicator '1 - 3'.

Replication Task Management

The screenshot shows a web application interface for managing replication tasks. The main navigation bar is blue and contains several tabs: 'STATUS_CONTROLS', 'STATUS CI/PROD', 'STATUS STAGINGDB_TO_FOODS', 'REPLICA FROM BASES', 'REPLICA STAGINGDB TO CI/PROD', and 'REPLICA STAGINGDB TO FOODS'. The 'REPLICA FROM BASES' tab is currently selected.

Below the navigation bar, there is a section titled 'Table: From' with a table containing one row of data. The table has four columns: 'Enabled', 'Item Name', 'Next Run', and 'Source'. The row contains the following values: 'Y', 'BASE TO STAGE', '25-11-2014 21:11', and 'BASE TO STAGE'. There are 'Cancel', 'Delete', and 'Update' buttons to the right of the table. An 'Add New' button is located at the bottom right of the table area.

Enabled	Item Name	Next Run	Source
Y	BASE TO STAGE	25-11-2014 21:11	BASE TO STAGE