GRID Asset Extracts

Project Plan

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**Task:** Automate extracting and then exporting all critical and high priority GRID assets to Comanche and AGO.

**Purpose:** Produce up to date feature classes and services of GRID assets to be consumed by TxDOT employees, contractors, and the public.

*Structure the organization on Comanche & AGO for all GRID Assets*

* Local geodatabase that stores initial asset extract: C:\GRID\_Exports\GRID\_Exports.gdb.
* Name of the feature dataset containing all extracts on Comanche: “GRID\_Asset”.
* Name of the feature classes: “TxDOT\_(Asset\_Name)”.
  + This matches the name of the service on AGO.
  + The standard schema can be found here:<https://txdot.sharepoint.com/sites/division-tpp/DM-Admin/DM%20Wiki%20Library/GRID%20-%20Asset%20Schema.aspx>. The majority of assets will reflect this schema, with a few exceptions (see the [Asset excel spreadsheet](file:///T:\DATAMGT\MAPPING\Projects\2019\2019_GRID_Assets_Extract\Project%20Plan_cb.docx) for more information).
    - The feature classes may omit some values found in GRID, for example, values of ‘0’ for Maximum Speed Limit, null values, unknown values… etc.
    - This could change as the project advances, depending on user’s input and identified need.
* Archive all old versions of the feature classes on Comanche, which will allow easy access for all employees.
  + The geodatabase will be zipped up and stored on the T:/ (Stephen is incorporating this into his script).
  + They will also be stored in the Comanche archives, currently done via Jeremy’s script.

*Produce a Feature Dataset/ Service of GRID Assets on Comanche/AGO*

* Produce an extract of each critical and high priority GRID asset.

**DELIVERABLES:**

1. Feature class for each critical/high-priority asset on Comanche
2. Authoritative service for each critical/high-priority asset on AGO
3. .aprx on a shared location

*Automate the process*

* Stephen is producing the script to push extracted GRID data to AGO.
  1. Working first to successfully export each quarterly asset from the T:/ to AGO.
  2. Then working to successfully export each asset to AGO from Comanche.
* Jessica and Laura are responsible for the script to extract data from GRID and export it to a local .gdb/T:/, Comanche.
  1. Working first to successfully export each asset locally and to the T:/ with a manual trigger.
  2. Then working to successfully export each asset all the way to Comanche.
* Task scheduler set up on lab computer to run the script daily, which will then extract and export the assets according to the schedule.

**DELIVERABLES:**

1. Two python scripts to be combined into one
   1. The combining of the script may come after the deadline, as a second phase of the project.
2. Schedule finalized and published on [wiki page](https://txdot.sharepoint.com/sites/division-tpp/DM-Admin/DM%20Wiki%20Library/GRID%20-%20Asset%20Export.aspx)

*Update the documentation*

* Document the process for extracting single assets manually using the python script.
  + Possibility of separate script which has the push to T:/, Comanche and AGO commented out or disabled….

**DELIVERABLES:**

1. Wiki Pages
   1. [Project Page](https://txdot.sharepoint.com/sites/division-tpp/DM-Admin/DM%20Wiki%20Library/GRID%20-%20Asset%20Export.aspx)
   2. Assets Pages

**Progress Tracking:** Weekly check in with Chris, twice weekly meetings with Stephen and Laura

**Project Start Date**: 3/28/2019

**Project Length:** 3 months

**Target Completion Dates:**

**April 11th**

* Extract and export each asset successfully (to a local location).
  + Document those assets which are still failing.
* Push quarterly assets to T:/ and Comanche.

**April 22ndth**

* Extract and export each asset successfully to T:/ and Comanche.
* Set up .aprx on a shared location.
* Push quarterly assets to AGO manually.

**April 29th**

* Task scheduler set up on lab machine to run python script daily and push to T:/ and Comanche.
  + This is in time to export all the quarterly assets ‘automatically’ during the first week of May.

**May 10th**

* Push quarterly assets to AGO using Stephen’s script.
  + The goal is to overwrite the authoritative services on AGO, not just push up to personal account.
* Automated push of quarterly assets to Comanche using the main script.
  + This will require spreading awareness of the schedule, and informing Comanche users that they will be disconnected from the ‘GRID\_Extract’ feature dataset on certain days before-hand.

**June 14th - Goal Completion Date**

* Combine scripts to push remaining assets to Comanche/AGO.
* Update the metadata, including the description on the wiki pages and the SQL query.
* Use task scheduler, run python script daily on the lab machine.
* Fully updated documentation.

**Work Assignments:**

Jessica Lane – scripting and documentation, project lead

Laura Roedl – scripting, process improvements, documentation review

Stephen Ross – scripting the process to push to AGO, documentation review

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| --- | --- |
| **Number of Updates to be Made** | N/A |
| **Number of Analysts Doing Work** | 3 |
| **Number of Days to Complete Project** | 60 |
| **Number of Updates Completed per Day** | N/A |

**Resources:**

GitHub - <https://github.com/jess8d7/GRIDExtracts>

Project Folder - [T:\DATAMGT\MAPPING\Projects\2019\2019\_GRID\_Assets\_Extract](file:///T:\DATAMGT\MAPPING\Projects\2019\2019_GRID_Assets_Extract)

Trello board (Jessica’s PM tool) - <https://trello.com/b/xaxL9v54/grid-asset-extracts>

Wiki page - <https://txdot.sharepoint.com/sites/division-tpp/DM-Admin/DM%20Wiki%20Library/GRID%20-%20Asset%20Export.aspx>

**Summarized Deliverables:**

1. A feature class on Comanche for all assets.
2. An authoritative service on AGO for all assets.
3. One script which combines both efforts to extract/export to Comanche and push the data to AGO.
4. Updated wiki pages for each high priority/critical asset which includes updated asset description and SQL query.

**Notes:**

These dates are contingent upon successful extract of each GRID asset. Some assets aren’t successfully exporting, and thus we’re still in a troubleshooting phase.

Some services don’t have the standard schema, and thus currently require further post-processing which is currently a manual process. This either needs to change or the post-processing needs to be scripted. This is documented in the [Asset excel spreadsheet](file:///T:\DATAMGT\MAPPING\Projects\2019\2019_GRID_Assets_Extract\AssetListandStatus.xlsx).