



2/29/2024

CSEC NG9-1-1 GIS Data Hub Training



Agenda

- **Benefits of the GIS Data Hub Upgrade**
- **GIS Data Hub / HubHelper Tool Overview**
- **Quality Control Checks Overview**
- **Exception Codes**
- **Additional Important Information**
- **Demo**
- **Next Steps**



GIS Data Hub Benefits



Benefits of the GIS Data Hub Upgrade

Efficient quality control processing

- Typically, complete within 30 minutes or less

Access to previous QC results & GIS Data Summary Report

- Current and last 20+ results

Access to a Statewide Dataset

- Can be downloaded

Dynamic dashboard

- Viewing critical and warning errors over various time periods (up to 12 months)

Full QC no longer needed

- Error reports are generated differently and do not produce the same false errors

GIS Data Hub Overview



GIS Data Hub Overview



***Most results will be available within 30 minutes or less.**

Access to GIS Data Hub

GIS Data Hub Link

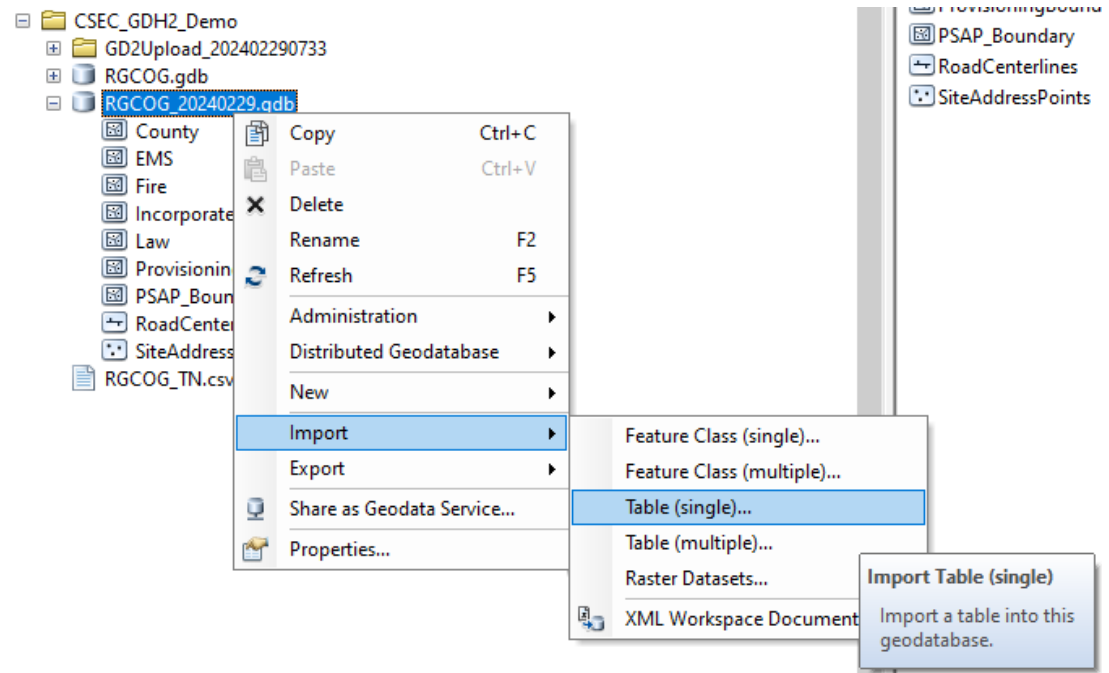
- <https://csec-tx.gdh.geocomm.cloud/>

User Accounts

- Accounts set up for current GDH 1 users
- Permissions are set to allow individual users to upload data, download results, and receive notifications

Preparing GIS Data without HubHelper

- Create a folder for you upload with a blank .gdb inside
 - Do not create a feature dataset
- Import your NG911 features into the .gdb
- Import your ALI as a .gdb Table
- Zip your upload folder

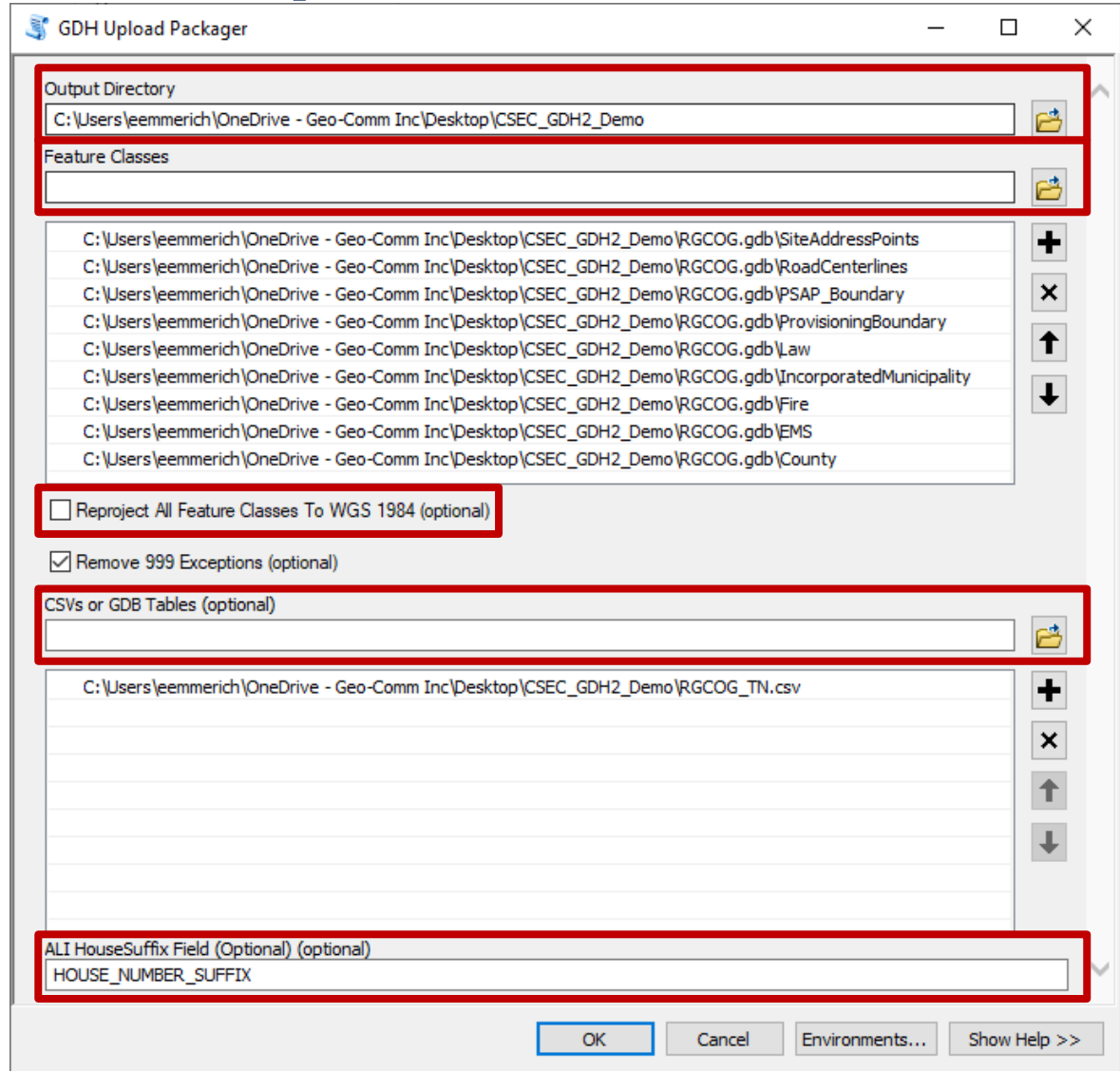


Preparing GIS Data with HubHelper

- HubHelper
 - GDH Fallout CSV to GDB
 - GDH Upload Packager

- DemoData.gdb
 - All.csv
 - GD2Upload_202108051136.zip
 - MSAG.csv

- GDH2_Upload.gdb
 - County
 - EMS
 - Fire
 - IncorporatedMunicipality
 - Law
 - ProvisioningBoundary
 - PSAP_Boundary
 - RGCOG_TN
 - RoadCenterlines
 - SiteAddressPoints



Important! If HubHelper fails, ensure there are no spaces or hyphens in the directory location. If additional assistance is needed, please contact GeoComm (csecteam@geocomm.com).

Access to GIS Data Hub

GEOCOMM

GIS Data Hub

Email address
csecteam@geocomm.com

Password
.....

[Forgot password?](#)

Continue

Don't have an account? [Sign up](#)

GIS Data and Database Uploads | Consistency is Important!

GEOCOMM GIS Data Hub Help Erin Emmerich CSEC: DETCOG

Submit New Data

Analytics


Data Packages

Dashboard

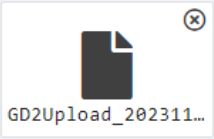
Submit New Data

Upload your complete map data files for processing.

Upload and Submit



Drop your file here or click to browse.



Browse to the zip file or drag and drop the zip file that contains your GIS data.


Supports a single zip file up to 5 GB.

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GIS Data and Database Uploads

Submit New Data

Upload your complete map data files for processing.



Upload Success

Your file has been added to the queue for processing. Once completed, you will receive an email with your results.

OK

rowse.

Supports a single zip file up to 5 GB.

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GIS Data and Database Uploads



- Feature class names must remain the same each upload.
- If you make a change to the feature class name or fields, please notify GeoComm via email at CSECTeam@geocomm.com to indicate what field mapping changes are needed
- Multiple feature data sets will result in halting QC
- All feature classes and tables must be uploaded every time
 - **EMS**
 - **Fire**
 - **Law**
 - **Provisioning Boundary**
 - **PSAP Boundary**
 - **Road Centerlines**
 - **Site/Structure Address Points**
 - **ALI**
 - County Boundary (optional)
 - Incorporated Municipality Boundary (optional)

QC Results Notification E-mail

Message when datasets contain critical errors:

GIS Data Processing Discrepancies Found - CSEC & DETCOG

 no-reply@geocomm.cloud
To  jstreeb@detcog.gov;  cmalone@detcog.gov; CSEC Team

Reply Reply All Forward  




Wed 10/4/2023 11:40 AM



Your GIS data upload to GeoComm GIS Data Hub was processed; however, discrepancies were found that caused processing to stop. Please review and correct your GIS data and upload the corrected GIS data.

For your reference, the run ID is: cec11c17-6291-4ebf-b7de-3365dfdafaed


Message when datasets are critical error free:

GIS Data Processing Successful with QC_Fallouts - CSEC & DETCOG

 no-reply@geocomm.cloud
To  jstreeb@detcog.gov;  cmalone@detcog.gov; CSEC Team

Reply Reply All Forward  

Wed 11/15/2023 11:35 AM

 Click here to download pictures. To help protect your privacy, Outlook prevented automatic download of some pictures in this message.

Your GIS data upload to GeoComm GIS Data Hub was processed successfully with discrepancies found.

For your reference, the run ID is: f85f3fe6-2426-4743-856c-4ec7519f062d

Once received, log into GIS Data Hub and navigate to the Analytics tab and select a Data Target > CSEC.

Downloading Results

GEQCOMM GIS Data Hub

Submit New Data

Analytics

Data Packages ▾

Dashboard

Analytics

View summaries and download detailed fallout reports from your latest data runs.

Select a Data Target ▾

CSEC EGDMS

Downloading Results

The screenshot shows the 'Analytics' section of the GEQCOMM GIS Data Hub. A sidebar on the left contains 'Submit New Data', 'Analytics' (highlighted), 'Data Packages', and 'Dashboard'. The main content area is titled 'Analytics' and includes a dropdown menu set to 'CSEC EGDMS'. Below this, there are two report cards. The first card, for 'CSEC EGDMS' (Run Id: 4bb6f57b-83c5-4686-917b-daa63e14cf15), has a red box around the 'GIS Data Summary Report' link and another red box around the 'GIS Fallout Report' button. The second card is partially visible on the right. A large tip box at the bottom explains the order of downloading reports.

Submit New Data

Analytics

Data Packages

Dashboard

Analytics

View summaries and download detailed fallout reports from your latest data runs.

CSEC EGDMS

CSEC EGDMS
Run Id: 4bb6f57b-83c5-4686-917b-daa63e14cf15

GIS Data Summary Report
Overview of your GIS Data Run

GIS Fallout Report

Run Date: 02/28/2024 01:01:01 pm

Run Date: 02/28/2024 11:49:55 am

CSEC EGDMS

This report can be used to see the error types & number of errors, view the ALI synchronization rates and calculate the GIS data accuracy.

This report is needed to create the QCFallouts.gdb.

Tip: If both reports are needed/wanted, download the GIS Fallout Report first and then go to the GIS Data Summary Report.

Using the GIS Data Summary Report

< Back to Analytics

Analytics / GIS Data Summary Report: def26a45-0842-45f2-abc9-14972629d0f9

Job Reports

GIS Data Summary Report

Fields can be turned on and off.

Report can be exported and further customized.

All columns can be used to sort. Sorts are maintained in the export.

Layer Name	QC Name	Elapsed Time (s)	Fallout Count	Features Analyzed	Sync Percent	QC Severity Level
ALI	ALI to SSAP synchronization	4.462	2,881	2,980	3%	warning
ALI	ALI to RCL Synchronization	4.915	2,848	2,980	4%	warning
COUNTY	Globally Unique ID	0.191	0	1	100%	critical
COUNTY	Single Layer Polygon Gap	0.186	0	1	100%	warning
COUNTY	Null Value in Field	0.26	0	1	100%	warning
COUNTY	Null Value in Field	0.275	0	1	100%	warning

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Using the GIS Data Summary Report

Layer Name	Elapsed Time (s)	Failout Count	Features Analyzed	Sync Percent	QC Severity Level
ALI	1.563	56	3388	0.833	warning
MSAG	1.672	38	892	0.573	warning
SSAP	3.723	30	7158	0.957	warning
ESB	2.26	8	2680	0.968	warning
ESB	0.635	5	3388	0.984	warning
ESB	1.322	1	7158	0.998	critical
ESB	0.139	1	2680	0.997	warning
ESB	0.706	1	2680	0.998	warning
ESB	0.084	1	2686	0.998	critical
ESB	0.5	1	2680	0.999	warning
ESB	0.624	1	2680	0.999	critical
ESB	1.294	1	2680	1	critical
ESB	0.093	1	1	1	critical
ESB	0.332	1	6	1	critical
ESB	0.097	1	6	1	critical
ESB_EMS	0.117	1	6	1	critical
ESB_EMS	0.095	1	6	1	critical
ESB_EMS	0.125	1	6	1	critical
ESB_EMS	0.344	1	6	1	critical
ESB_EMS	0.099	1	6	1	critical
ESB_EMS	0.096	1	6	1	critical
ESB_EMS	1.391	1	6	1	critical
ESB_EMS	0.191	1	6	1	critical
ESB_EMS	0.384	1	6	1	critical
ESB_EMS	0.349	1	6	1	warning
ESB_EMS	0.254	1	6	1	warning
ESB_EMS	0.112	1	6	1	warning
ESB_EMS, ESB_FIRE, ESB_LAW	0.407	1	21	1	critical

Elapsed Time (s) is simply the amount of time in seconds the check was processing.

To calculate the GIS accuracy:

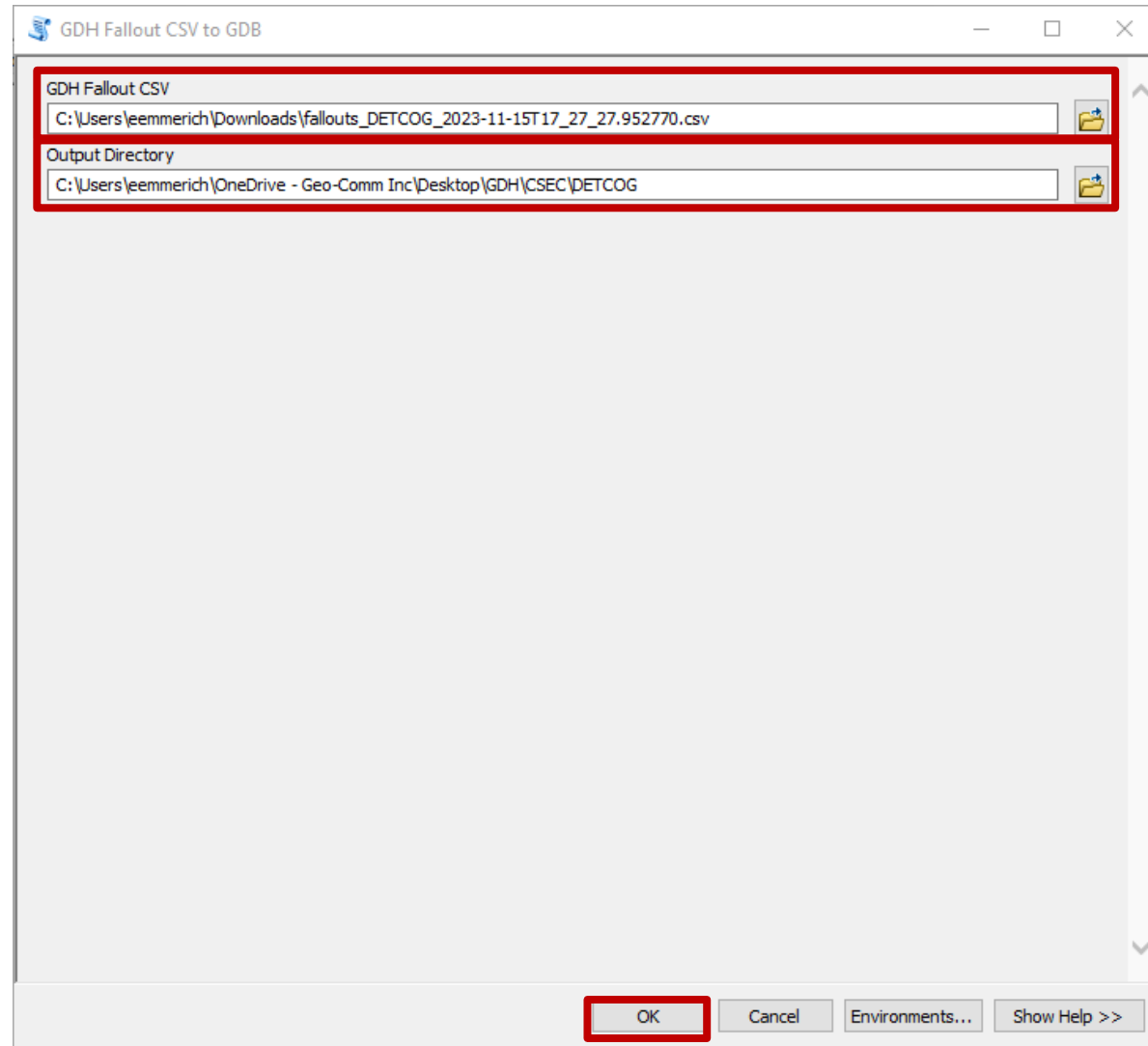
The synchronization rates for the ALI and MSAG can be found under the Sync Percent column)

- Use the following calculation:
- $\frac{((\text{SUM}(E2:E154) - (\text{SUM}(D2:D154))))}{\text{SUM}(E2:E154)}$

Creating a GDB from the CSV

- HubHelper
 - GDH Fallout CSV to GDB**
 - GDH Upload Packager

- GDHQCFallouts.gdb
 - Acceptable_Values
 - ALI_to_RCL_Synchronization
 - ALI_to_SSAP_synchronization
 - Features_broken_at_Polygon
 - Features_Outside_of_Polygon
 - MSAG_to_RCL_synchronization
 - Polygon_overlap_check
 - Single_Layer_Polygon_Gap
 - Transformation_Validation_Task
 - Unacceptable_Values



Data Packages

- Jurisdiction's last critical error free geodatabase
 - Named CSEC_EGDMS.gdb.zip
- HubHelper Tool
- GIS Data Hub Quick Guide
- Statewide Geodatabase

GEOCOMM GIS Data Hub

The screenshot displays the GIS Data Hub interface. On the left is a navigation sidebar with the following items: 'Submit New Data', 'Analytics', 'Data Packages' (highlighted in blue with an upward arrow), 'Available Packages', and 'Dashboard'. The main content area is titled 'Available Packages' and is divided into two sections. The first section, 'GIS Data Hub Packages', contains a single package card for 'CSEC_EGDMS.gdb.zip' with a timestamp of '02/26/2024 01:08:51 PM'. The second section, 'CSEC Supplied Packages', contains three package cards: 'csec_statewide.zip' (02/28/2024 11:19:55 AM), 'hubhelper.zip' (12/19/2023 10:20:11 AM), and 'gis_data_hub_quick_guid...' (07/11/2023 03:48:39 PM). Each package card features a GDB icon and a refresh icon.

Available Documentation

- GIS Data Hub Help

GEQCOMM GIS Data Hub

Get Started Submit New Data Features QC Checks **Resources**

Search

GIS Data Hub

Version 2.5

Use help to find information, procedures, product PDF, and more to assist you with using the application. Within help, you can browse content topics, download a PDF guide or print single help topics.

Quick Links

- Explore The Workspace
- Submit New Data
- Map Your Data Layers
- Map a Target Field in a Data Layer
- Run and Process a Data Target
- View Quality Control Check Descriptions
- View Quality Control Check Reports
- Print a Topic or the Complete Help Guide

Get Started Submit New Data Features QC Checks **Resources**

Contact Us

PDFs

PDFs

The following PDF is available for download from the application's online help.

- [GeoComm GIS Data Hub User Guide](#)

Quality Control Checks



Quality Control Check

- Ingest failures
- Critical QC checks
- Warning QC checks

Quality Control Check – Ingest Failures

Process stopped/GeoComm

Team notified

- Corrupt data in a file geodatabase
- Tables uploaded that are not .gdb tables
- Data schema changes
 - layer name and field name changes
- Missing projection of GIS Data

Process continues and information provided in results

- Invalid geometry in any layers
 - empty and invalid
- Stacked address points with the exact same attributes

Quality Control Check – Critical QC Checks

QC Check Name	Description	QCed Layers	Severity
Polygon Compare (Overlaps)	Compares one polygon layer to another for overlap coverage	PSAP, Fire, Law and EMS against Provisioning	Critical
Polygon Compare (Gaps)	Compares one polygon layer to another for gap coverage	PSAP, Fire, Law and EMS against Provisioning	Critical
Polygon Overlap Check	Checks for overlaps within the same polygon layer	PSAP, Fire, Law, and EMS	Critical
Null Value in Field	Checks for null values in all mandatory fields	PSAP, Fire, Law, EMS, SSAP, and RCL	Critical
Feature Outside of Polygon	Checks for features that outside of the boundary of the Provisioning Layer	SSAP and RCL	Critical
Duplicate Values	SSAP Duplicate check using MSAG Community as refinement	SSAP	Critical
Address Range Overlaps	Checks for overlapping ranges using MSAG Community as refinement. Two checks are set up to find overlaps in both the legacy fields and CLDXF fields	RCL	Critical
Global Unique ID	Checks that Unique IDs are globally unique across the entire dataset	All Layers	Critical

Quality Control Check – Warning QC Checks

QC Check Name	Description	QCed Layers	Severity
Null Value in Field	Checks for null values in all mandatory fields	Provisioning, Incorporated Municipality	Warning
Polygon Overlap Check	Checks for overlaps within the same polygon layer	Provisioning, Incorporated Municipality	Warning
Single Layer Polygon Gap	Checks for gaps within the same polygon layer	EMS, Fire, Law, and PSAP	Warning
Feature Broken at Polygon	Checks for roads not broken at polygon layers	EMS, Fire, Law, PSAP, Inc Muni, County, Provisioning	Warning
Field Comparison	Checks for ranges that are higher in the to field than the from field	RCL	Warning
Segment Snapped to adjacent segment – same layer	Checks for connectivity between line segments	RCL	Warning
SSAP to RCL Synchronization	Checks that the roads and address points are synchronized using MSAG Community and ESN	SSAP and RCL	Warning

Quality Control Check – New QC Checks

QC Check Name	Description	QCed Layers	Severity
Acceptable Values	Verifies the correct Discrepancy Agency ID is populated	All Layers	Warning
Acceptable Values	Verifies the correct County values are populated	County	Warning
Acceptable Values	Verifies the correct State values are populated	County, Fire, Law, EMS, PSAP, SSAP, RCL	Warning
Acceptable Values	Verifies the correct Country values are populated	County, RCL	Warning
Acceptable Values	Verifies the correct Service URI values are populated	Fire, Law, EMS, and PSAP	Critical
Acceptable Values	Verifies the correct Service URN values are populated	Fire, Law, EMS, and PSAP	Critical
Acceptable Values	Verifies the correct Parity values are populated	RCL	Warning
No Value	Verifies a value is populated for the Service URI and Service URN	Fire, Law, EMS, and PSAP	Critical
Multipart Geometry	Warning error that returns features with multi-parts	County, Fire, Law, EMS, PSAP, Inc Muni, Provisioning	Warning
Empty Geometry	Warning error that returns features with empty geometry	All Layers	Warning

Quality Control Check – Legacy Database Synchronization

- **ALI to Road Centerline Synchronization**
 - *ALI to RCL*
- **ALI to Site/Structure Address Points Synchronization**
 - *ALI to SSAP*

MSAG Community is utilized for refinement

GIS Data Exceptions



GIS Data Exceptions

- **At the current time GIS Data Hub does not have the ability to process exception codes**
 - *Except* for the 999 code to remove features from processing
- Additional exception codes will be available for use directly within GIS Data Hub in the future.
- Recommendations for migration:
 - Leave existing data as is, package and upload to see which critical errors must be resolved
 - For Duplicate Address Points where 402 exist, add the 999 exception code | 402,999

Additional Important Information



Important Information

- Google Chrome should be used
- Legacy Fields must always be in all caps
 - Legacy Street Name Pre Directional
 - Legacy Street Name
 - Legacy Street Name Type
 - Legacy Street name Post Directional
 - MSAG Community
 - *If the values are not in all caps, the ALI to Site/Structure Address Point and Site/Structure Address Points to Road Centerline Synchronizations will not process correctly*
- Acceptable Values check also finds leading and trailing spaces.
 - If an error is found but visually looks correct, check for spaces

Important Information

- ServiceURN
 - No longer auto populated through GIS Data Hub. RPCs are responsible for populating this now

	AT&T	Motorola
Fire	urn:nena:service:responder.fire	urn:emergency:service:sos.fire
Law	urn:nena:service:responder.police	urn:emergency:service:sos.police
Medical	urn:nena:service:responder.ems	urn:emergency:service:sos.ems
PSAP	urn:nena:service:responder.psap	urn:emergency:service:sos.psap

Important Information

- ServiceURI
 - New QC check will check this value against the uploading jurisdiction to make sure the correct value is with the correct jurisdiction
- Global Unique ID
 - This check now checks against all UIDs in your dataset
- Discrepancy Agency ID & Agency ID should be a valid URL
 - All DAID values have been configured in GDH 2

Demo of GIS Data Hub 2



Next Steps



Transition Schedule

December	March
CVCOG	AACOG
DETCOG	ATCOG
GCRPC	BVCOG
NRPC	CBCOG
PBPRC	CTCOG
PRPC	ETCOG
RGCOG	HOTCOG
SETRPC	MRGDC
SPAG	TCOG
STDC	
WCTCOG	

Next Steps for March RPCs

- Go to GIS Data Hub: <https://csec-tx.gdh.geocomm.cloud/> and reset your password
- Download HubHelper and GIS Data Hub Quick Guide from GIS Data Hub (under Data Packages)
- Package your GIS data and ALI
- Upload package to GIS Data Hub
- Once email notification is received, log into GIS Data Hub
- Download the results under Analytics
- Convert results to a geodatabase using HubHelper
- Correct any critical errors
- Upload to GIS Data Hub

Questions + Discussion



FOR MORE INFORMATION CONTACT:

GeoComm CSEC Team Email: CSECTeam@geocomm.com