# GLN Bulk Submission (XML) File Format

## *Overview*

The AGIISEntityInquiry.xml document provides an interface specification that is used by subscribers to submit bulk transactions directed against AGIIS entities. The AGIISEntityInquiryResponse.xml document provides an interface specification that is used by the AGIIS Directory to respond to the transactions submitted via the AGIISEntityInquiry.xml document. The definitions for these documents can be found in the http://www.agiis.org/XML/namespace/AGIISSchema.xsd document.  A "user friendly" representation of the schema definition that provides "drill down" looks into the schema is found on the AGIIS website under the menu "Links … AGIIS XML Schema (documentation)" which is located @ http://www.agiis.org//Links/AGIISSchema/AGIISSchema.html. All XML instance files uploaded to AGIIS are validated against the current AGIIS XML schema. A "developer's tool" that will verify small files against the schema can be found on the AGIIS web site under "Files … Validate XML".

All AGIIS XML documents consist of a "header" and a "body". The header is consistent from document to document and is used to communicate the unique id, the date and time the document was created, the sender, and intended recipient. The header From.PartnerInformation should reflect the subscriber submitting the file. The body structure differs according to the particular AGIIS subsystem it is intended to represent (e.g. GLN Bulk Import files contain EntityInquiry elements, Product Bulk Import files contain CompanyInformation or ProductGTINInformation elements, etc).

Submission files should be uploaded to the subscriber's /gln/inbound AGIIS FTP folder[1] at NAPD.AGIIS.ORG. Submission files are limited to 10,000 records per file and only 1 file per subscriber is permitted per cycle. Files are processed on a daily cycle at 10AM, 3PM, and 8PM (CT). If a subscriber needs to process a large number of records, please coordinate outside the regular processing cycle with AGIIS Member Services in order to get the files processed without issue with the 10K records per file edit. For each submission file processed by AGIIS, a corresponding return file is created and placed in the subscriber's /gln/outbound folder. The return file has the same name as the corresponding submission file and it is intended that the submitter download the return file and interpret the results. For example, for successful "add transactions", the submitter usually desires the GLN that has been assigned to the new entity. For GLN Bulk return files, the body consists of an array of EntityInquiryResponse elements. For each EntityInquiry element in the submission file, an EntityInquiryResponse element is generated which contains the contents of the original submission request, a copy of the "returned entity", a "return code", and a "detailed error code" (if applicable). The submitter should check the return code and error code of each transaction and interpret the results as applicable to their system. A chart is provided later in this document which details each submission "transaction type" and its expected return codes (both successful and unsuccessful).

Note that XML files should never be "manually hacked" or "Notepadded". There are many rules that XML files must adhere to that make them only suitable for creation through programming or software packages that support the export of data in XML.

The contents of XML files for AGIIS should be encoded to the UTF-8 standard. While you might not have anything other than standard ASCII encoded data in files that you upload to AGIIS, in many instances including

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[1] Subscribers wishing to use the AGIIS FTP sites must request this with Member Services prior to uploading their first file in order to have their AGIIS ftp credentials and folders created.

GLN Bulk files, it is possible that the data returned to you will contain "foreign characters", e.g. French Canadian names and addresses. Therefore, make sure that your upload and download programs are UTF-8 compatible.

## *File Naming Convention*

Files must be named in accordance with the following example:

0143971340000_20121018000001.xml

Where

0143971340000 is the submitting subscriber's EBID
20121018000001 is a date\time stamp in YYYYMMDDhhmmss format

## *Transaction Types*

The supported transaction types and their expected "outcomes" are depicted in the following chart. Note that a chart of error codes and their meanings is located at https://www.agiis.org/Links/ErrorCodes.htm and a chart of return codes at https://www.agiis.org/Links/ReturnCodes.htm.

| XML ActionRequest (Fixed Length Submission Code) | Action Meaning | Return Codes | Return Code Meaning |
|---|---|---|---|
| "Add GLN" (2002) | Add a new entity to AGIIS and enumerate with a GLN identifier. If the transaction is successful, add the entity to the subscriber's GLN entity subset. Note that the "sister transaction", "Add EBID" (which adds an entity with an EBID identifier) is not supported in GLN Bulk but can be submitted as a web service | 4010 | The new entity was successfully added to AGIIS and to the subscriber's subset |
| | | 4011 | The entity was found to already exist in AGIIS. The entity was added to the subscriber's subset |
| | | 4017 | Rejected, edit error, see detailed error code |
| | | 4028 | Rejected, the request demographics were found to be a "fuzzy match" of an existing entity |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |
| | | | |
| "Update" (2001) | Update the "target entity" with the supplied identifier with the attributes provided in the transaction | 4012 | The update was successful |
| | | 4007 | Rejected, the update, if applied, was found to create a duplicate of an existing entity |
| | | 4017 | Rejected, edit error, see detailed error code |
| | | 4023 | Rejected, the "target entity" associated with the identifier supplied in the transaction does not exist in AGIIS |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |
| | | | |

| | | 4009 | The add\update to the subset was successful |
|---|---|---|---|
| "Add to Subset" (2003) | Add a subset entry to the "target entity subset" using the with the supplied identifier and proprietary code. If the subset entry already exists, update the proprietary code | 4017 | Rejected, edit error, see detailed error code |
| | | 4023 | Rejected, the "target entity" associated with the identifier supplied in the transaction does not exist in AGIIS |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |
| | | | |
| "Delete from Subset" (2007) | Delete the subset entry from the "target entity subset" using the with the supplied identifier | 4006 | Deleted from subset at subscriber's request. |
| | | 4017 | Rejected, edit error, see detailed error code |
| | | 4023 | Rejected, the "target entity" associated with the identifier supplied in the transaction does not exist in AGIIS |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |
| | | | |
| "Demographic Search" (2004) | Retrieve the best match in the AGIIS database using the supplied demographics | 4008 | The lookup was successful, the identifier and current attributes of the selected entity are returned |
| | | 4017 | Rejected, edit error, see detailed error code |
| | | 4023 | Rejected, the "target entity" associated with the identifier supplied in the transaction does not exist in AGIIS |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |
| | | | |
| "Identifier Search" (2005) | Retrieve the current attributes of "target entity" with the supplied identifier | 4008 | The lookup was successful, the identifier and current attributes of the selected entity are returned |
| | | 4017 | Rejected, edit error, see detailed error code |
| | | 4023 | Rejected, the "target entity" associated with the identifier supplied in the transaction does not exist in AGIIS |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |
| | | | |
| "Duplicate" (2006) | Submit a directory request for manual review by AGIIS Member Services of a suspected duplicate entity | 4003 | The request has been forwarded to AGIIS Member Services for manual review |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |
| | | | |
| "Reactivate" (2013) | Request reactivation of a currently inactive entity (note that this transaction is not currently supported in GLN Bulk) | | |
| | | | |
| | | | |

| "Add Fuzzy Match" (2014) | Subscriber has already attempted to add an entity to AGIIS.  The return file provided a "Fuzzy Match" return code, 4028 - The add transaction has been determined to have a fuzzy match with the returned ID (NAPD/HP ID EBID, or GLN).  The subscriber has reviewed the fuzzy match return and has determined that it is not a duplicate of the entity they are attempting to submit. This Add transaction will automatically be sent for review by the Directory Administrator.  **This submission code should only be used after first receiving a fuzzy match return.** | 4009 | The add\update to the subset was successful |
| | | 4017 | Rejected, edit error, see detailed error code |
| | | All others | Rejected, see list of possible return codes on AGIIS web site |

## Sample Inbound Document

The following is a sample inbound submission file document containing a single transaction, an "Identifier Search". An AGIISEntityInquiryDetails element can contain multiple EntityInquiry elements (up to 10,000 per file). The "Identifier Search"

```xml
<?xml version="1.0" encoding="utf-8"?>
<AGIISEntityInquiry xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
 <Header>
  <ThisDocumentIdentifier>
   <DocumentIdentifier>20121015T1545009999</DocumentIdentifier>
  </ThisDocumentIdentifier>
  <ThisDocumentDateTime>
   <DateTime DateTimeQualifier="On">201210151545</DateTime>
  </ThisDocumentDateTime>
  <From>
   <PartnerInformation>
    <PartnerName>AgGateway</PartnerName>
    <PartnerIdentifier Agency="EBID">0143971340000</PartnerIdentifier>
    <ContactInformation>
     <ContactName>Your Contactname</ContactName>
     <TelephoneNumber>
      <NationalTelephoneNumber>9134698700</NationalTelephoneNumber>
     </TelephoneNumber>
     <EmailAddress>yourcontact@yourcompany.com</EmailAddress>
    </ContactInformation>
   </PartnerInformation>
  </From>
  <To>
   <PartnerInformation>
    <PartnerName>CSC</PartnerName>
    <PartnerIdentifier Agency="EBID">9615443970000</PartnerIdentifier>
    <ContactInformation>
     <ContactName>AGIIS Member Services</ContactName>
     <TelephoneNumber>
      <NationalTelephoneNumber>8662518618</NationalTelephoneNumber>
     </TelephoneNumber>
     <EmailAddress>member.services@aggatewy.org</EmailAddress>
    </ContactInformation>
   </PartnerInformation>
  </To>
 </Header>
 <Body>
  <AGIISEntityInquiryDetails>
   <EntityInquiry ActionRequest="Identifier Search">
    <EntityInformation ActiveFlag="Active">
     <IndustryIdentifier Agency="GLN">
      <IndustryCode>1100015589404</IndustryCode>
     </IndustryIdentifier>
    </EntityInformation>
```

```xml
      </EntityInquiry>
    </AGIISEntityInquiryDetails>
  </Body>
</AGIISEntityInquiry>
```

## *Sample Outbound Document*

The following is the outbound or "return" file document for the sample inbound document shown above. The EntityInquiryResponse element (only a single instance is shown here matching the submission file) contains the original inbound transaction in the EntityInquiry element and outbound transaction data in the EntityInformation element. The EntityInformation element contains all of the attributes associated with an entity in the AGIIS directory appropriate for the input transaction, in this case the entity that matched the "Identifier Search" request. Any "missing" elements indicate that that particular entity attribute is not populated for that entity in the directory. For example, if an entity does not have a value for SPLC Code, Latitude, and Longitude, then these data elements will not appear.

```xml
<?xml version="1.0" encoding="utf-8"?>
<AGIISEntityInquiryResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <Header>
    <ThisDocumentIdentifier>
      <DocumentIdentifier>20121015T1429160001</DocumentIdentifier>
    </ThisDocumentIdentifier>
    <ThisDocumentDateTime>
      <DateTime DateTimeQualifier="On">20121015T142916</DateTime>
    </ThisDocumentDateTime>
    <From>
      <PartnerInformation>
        <PartnerName>CSC</PartnerName>
        <PartnerIdentifier Agency="EBID">9615443970000</PartnerIdentifier>
        <ContactInformation>
          <ContactName>Member Services</ContactName>
          <TelephoneNumber>
            <NationalTelephoneNumber>8662518618</NationalTelephoneNumber>
          </TelephoneNumber>
          <EmailAddress>member.services@aggatewy.org</EmailAddress>
        </ContactInformation>
      </PartnerInformation>
    </From>
    <To>
      <PartnerInformation>
        <PartnerName>AgGateway</PartnerName>
        <PartnerIdentifier Agency="EBID">0143971340000</PartnerIdentifier>
        <ContactInformation>
          <ContactName>Your Contactname</ContactName>
          <TelephoneNumber>
            <NationalTelephoneNumber>9134698700</NationalTelephoneNumber>
          </TelephoneNumber>
          <EmailAddress>yourcontact@yourcompany.com</EmailAddress>
        </ContactInformation>
      </PartnerInformation>
```

```
    </To>
   </Header>
   <Body>
    <AGIISEntityInquiryResponseDetails>
     <EntityInquiryResponse>
      <EntityInquiry ActionRequest="Identifier Search">
       <EntityInformation ActiveFlag="Active">
        <IndustryIdentifier Agency="GLN">
         <IndustryCode>1100015589404</IndustryCode>
        </IndustryIdentifier>
       </EntityInformation>
      </EntityInquiry>
      <EntityInformation ActiveFlag="Active">
       <IndustryIdentifier Agency="NAPD/HP ID">
        <IndustryCode>0000428519469105</IndustryCode>
       </IndustryIdentifier>
       <IndustryIdentifier Agency="GLN">
        <IndustryCode>1100015589404</IndustryCode>
        <ProprietaryCode>1100015589404G</ProprietaryCode>
       </IndustryIdentifier>
       <PreferredName>BROOKRIDGE GOLF &amp; COUNTRY CLUB</PreferredName>
       <DBAName>BROOKRIDGE GOLF &amp; COUNTRY CLUB</DBAName>
       <TelephoneNumber>9134558888</TelephoneNumber>
       <EntityStatus>In Business</EntityStatus>
       <PhysicalAddress Overridden="False">
        <AddressLine1>8223 W 103RD ST</AddressLine1>
        <CityName>OVERLAND PARK</CityName>
        <StateOrProvince>KS</StateOrProvince>
        <PostalCode>662124359</PostalCode>
        <PostalCountry>US</PostalCountry>
        <FIPSCode>20091</FIPSCode>
        <CountyName>JOHNSON</CountyName>
       </PhysicalAddress>
       <MailingAddress Overridden="False">
        <AddressLine1>10500 ANTIOCH RD</AddressLine1>
        <CityName>OVERLAND PARK</CityName>
        <StateOrProvince>KS</StateOrProvince>
        <PostalCode>662124335</PostalCode>
        <PostalCountry>US</PostalCountry>
        <FIPSCode>20091</FIPSCode>
        <CountyName>JOHNSON</CountyName>
       </MailingAddress>
       <LastModifiedDateTime>20121015T140809</LastModifiedDateTime>
       <Latitude>38.94N</Latitude>
       <Longitude>94.68W</Longitude>
       <SPLC>342000000</SPLC>
       <NameOverride>false</NameOverride>
       <DuplicateExempt>true</DuplicateExempt>
       <LastVerification>
        <VerificationType>MemberServices</VerificationType>
        <VerificationLevel>Tier1</VerificationLevel>
```

```
            <CompletedDateTime>20121015T140809</CompletedDateTime>
        </LastVerification>
        <EntityClassifications>
          <EntityClassification>Consumer</EntityClassification>
        </EntityClassifications>
      </EntityInformation>
      <ReturnCode>4008</ReturnCode>
    </EntityInquiryResponse>
  </AGIISEntityInquiryResponseDetails>
 </Body>
</AGIISEntityInquiryResponse>
```

## *Required Data Elements for the Add Transaction*

Many data elements are required for a successful add transaction and they vary based on business rules determined primarily by the entity classification and verification type requested (if applicable). At a minimum the add transaction must supply the company or individual name (as appropriate) and either a mailing or physical address. To simulate the edits in the add entity process it is recommended that the "add entity workflow" be exercised on the AGIIS test website (https://agiistest.covansysec.com). The business rules enforced on the AGIIS web site are the same rules that are enforced in a bulk transaction. It may be necessary to code a decision table in the interface creating the add transaction to determine the "best fit" value for AGIIS attributes such as entity classification according to the data available on your internal system. The entity status for an add transaction should always be set to "In Business".

For all XML transactions, it is required that the format for the EntityInformation block be precisely followed in order to get the transaction syntactically correct, otherwise the file will fail validation and none of the transactions will be processed. It may be useful to perform an "Identifier Search" transaction in order to obtain a sample EntityInformation block for examination or use one of the sample files available for download at the end of this document. Finally, consult the *current* AGIISSchema.xsd document for the exact XML specification.

For add transactions on GLN entities the GLN to be assigned must be determined by the subscriber. The subscriber should supply either the complete 13 digit GLN identifier to be assigned to the new entity (in the case of subscriber owned or non-subscriber owned GLN identifiers) or the constant AGIIS_GLN in order to have AGIIS assign the next available AGIIS GLN identifier to the new entity. Additionally, the proprietary code should be populated with a value that will provide a "cross reference" to the entity as it exists in the subscriber's internal system, if applicable. Alternatively, instead of providing the proprietary code, subscribers who desire to have the newly assigned GLN identifier as their proprietary code should use the constant value USE_ID for the proprietary code so that AGIIS will automatically populate the proprietary code with the GLN assigned to the new entity.

In order to facilitate the new element "EntityClassifications" introduced with PCR185_1, if no value for EntityClassification is populated in the Add Transaction, a value of "Consumer" is defaulted.

## *Required Data Elements for the Update Transaction*

Some data elements are required for a successful update transaction that may not be readily available on the subscriber's internal system. The minimum requirements for the update transaction include the identifier of the target entity to be updated, the company or individual name (as appropriate), and either a mailing or physical address. Fields where no value is known to the internal system should be omitted from the XML. In this manner, AGIIS will first read the current attributes of the target entity and overlay only those attributes that are

supplied in the XML. An alternative to supplying only the known attributes is to supply *all attributes*. Normally this is accomplished by first obtaining all current AGIIS attributes of the entity and overlaying the attributes known to your internal system to create the update transaction. The following sequence can be followed for the "all attributes" scenario:

- First, obtain all current AGIIS data attributes for the entity to be updated by submitting an "Identifier Search" bulk transaction OR executing an "Entity By Industry ID" web service call. In both cases the GLN industry identifier is required to identify the "target entity".
- Overlay the data obtained in the "lookup" performed in the previous step with any data elements to be updated.
- Submit the update transaction.

The following data attributes are not allowed to be modified in the update transaction:
- Entity Classifications
- Entity status
- ActiveFlag

The following other special rules apply to the update transaction:
- The entity must be in the subscriber's "target entity identifier" subset
- Entities must be of entity status "In Business" in order to be eligible for update
- Entities must be of record status "Active" in order to be eligible for update

## *Sample Files*

The following sample files are available for download:
- https://www.agiis.org/Links/GLNBulk_addgln.xml
- https://www.agiis.org/Links/GLNBulk_addgln_return.xml
- https://www.agiis.org/Links/GLNBulk_update.xml
- https://www.agiis.org/Links/GLNBulk_update_return.xml
- https://www.agiis.org/Links/GLNBulk_addtosubset.xml
- https://www.agiis.org/Links/GLNBulk_addtosubset_return.xml
- https://www.agiis.org/Links/GLNBulk_deletefromsubset.xml
- https://www.agiis.org/Links/GLNBulk_deletefromsubset_return.xml
- https://www.agiis.org/Links/GLNBulk_identifiersearch.xml
- https://www.agiis.org/Links/GLNBulk_identifiersearch_return.xml
- https://www.agiis.org/Links/GLNBulk_demographicsearch.xml
- https://www.agiis.org/Links/GLNBulk_demographicsearch_return.xml