



ArcGIS for INSPIRE 10.8.1 Patch 1

Release Notes

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1 Introduction

This document lists what is new in ArcGIS for INSPIRE 10.8.1 Patch 1, specify how ArcGIS for INSPIRE 10.8.1 Patch 1 aligns with the Infrastructure for Spatial Information in Europe (INSPIRE) regulations, and describes known limitations within ArcGIS for INSPIRE 10.8.1 Patch 1. For what's new in 10.8.1 and earlier releases, please refer to release notes of ArcGIS 10.8 for INSPIRE and earlier versions.

2 What's New

ArcGIS for INSPIRE 10.8.1 Patch 1 works with ArcGIS 10.8.1, this Patch focus on improving INSPIRE compliances for view service, download services, and improving geodatabase template for various data themes.

Software improvements

- 1) Updated the geodatabase template for many data themes
 - a. Annex II
 - Elevation (EL)
 - Geology (vector data only) (GE)
 - b. Annex III
 - Area Management /Restriction /Regulation Zones & Reporting Units (AM)
 - Bio-geographical regions (BR)
 - Buildings (BU)
 - Environmental Monitoring Facilities (EF)
 - Habitats and Biotopes (HB)
 - Human health and safety (HH)
 - Natural Risk Zones (NZ)
 - Production and Industrial Facilities (PF)
 - Species Distribution (SD)
 - Sea Regions (SR)
 - Utilities and Governmental Services (US)
- 2) Addressed many view service and download service validation issues and is better compliant with INSPIRE specifications.
- 3) Fixed many bugs reported

3 Test Status Report

Compliance tests were conducted against the INSPIRE validator at <https://inspire.ec.europa.eu/validator/>, please refer to the test status report for the current validation status.

4 Standards and Conformity

General

- Aligns with new ArcGIS Server system architecture.
- Multilingual support for all components: INSPIRE network services, administration/configuration pages, ArcMap INSPIRE tools.
- Administration/Configuration user interface (UI) within Esri ArcCatalog and ArcGIS Manager (web).

INSPIRE View Services

Concerning INSPIRE view services, ArcGIS for INSPIRE provides

- Implementation of INSPIRE view services following the Technical Guidance document 3.1¹.
- Support for GetFeatureInfo operation returning INSPIRE-conformant GML response on INSPIRE layers.
- Support for Web Map Service (WMS) profile as described by Technical Guidance View Service 3.1.
- Support for WMTS profile as described by Technical Guidance View Service 3.1.
- Styled Layer Descriptor (SLD) support for Annex I INSPIRE layers.
- Support for INSPIRE style (SLD based) and custom style (ArcMap.mxd).
- ArcMap INSPIRE tools for analysing INSPIRE-compliant geodatabase layers and allowing you to immediately add those to your map document.
 - Combined knowledge about INSPIRE data models and Esri geodatabase implementation.
 - Allows automatic creation of relates and joins.
- Automatic support for all relevant INSPIRE reference systems.
- Support for all capabilities/metadata extension elements.
- Display of INSPIRE layers in capabilities metadata; hides "technical" geodatabase layers.
- Support of layer scale dependencies (see <DVD Drive:>\ GDB Templates\CustomizationGuide_ArcGISForINSPIRE_LayerInfo_10_6_EN.pdf).

¹ See http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_ViewServices_v3.1.pdf.

INSPIRE Feature Download Service

Concerning INSPIRE feature download service, ArcGIS for INSPIRE provides the following:

- Implementation of INSPIRE feature download direct access service following "Technical Guidance for the Implementation of INSPIRE Download Services (version 3.1)" based on the approved standard Web Feature Service 2.0².
- Full support of INSPIRE data models and GML output.
- Feature server configuration for geodatabase and INSPIRE XML schema models.
- OGC WFS 1.1.1 and 2.0.0 interface.
- Ability to create store queries and GetFeature through stored queries (if enabled by the administrator).
- Ability to manage stored queries (if enabled by the administrator).

INSPIRE Feature Download Service: Predefined Dataset Service

Concerning INSPIRE predefined dataset service, ArcGIS for INSPIRE provides the following:

- Implementation of INSPIRE feature download predefined dataset service following "Technical Guidance for the Implementation of INSPIRE Download Services (version 3.1)".
- The functionality to execute stored queries specified by the user as an extension to the feature download service.

INSPIRE Discovery Services

Concerning INSPIRE discovery services, ArcGIS for INSPIRE provides the following:

- Implementation of INSPIRE discovery services following the Technical Guidance document 3.1.
- Improved metadata editor that supports validation and editing of unbounded multiple instances of metadata elements.

INSPIRE Annex I Data Models—Geodatabase Template Implementation

- Support the following data themes with geodatabase template, XML/HTML documentation on geodatabase structure, and GML mapping.
 - Addresses
 - Administrative Units
 - Cadastral Parcels
 - Coordinate Reference Systems
 - Geographical Grid Systems
 - Geographical Names
 - Hydrography

² See http://inspire.jrc.ec.europa.eu/documents/Network_Services/TechnicalGuidance_DiscoveryServices_v3.1.pdf.

- Protected Sites
- Transport Networks
- Version 4 support.

INSPIRE Annex II Data Models—Geodatabase Template Implementation

- Support the following data themes with geodatabase template, XML/HTML documentation on geodatabase structure, and GML mapping.
 - Elevation (ElevationVectorElements)
 - Land Cover (LandCoverNomenclature and LandCoverVector schema)
 - Geology (Geology and Hydrogeology schema)
- Version 4 support.

INSPIRE Annex III Data Models—Geodatabase Template Implementation

- Support the following data themes with geodatabase template, XML/HTML documentation on geodatabase structure, and GML mapping.
 - Agricultural and Aquaculture Facilities
 - Area Management/Restriction/Regulation Zones and Reporting Units
 - Bio-geographical regions
 - Buildings
 - Energy Resources
 - Environmental Monitoring Facilities
 - Habitats and Biotopes
 - Human Health and Safety
 - Land Use
 - Mineral Resources
 - Natural Risk Zones
 - Population Distribution and Demography
 - Production and Industrial Facilities
 - Sea Regions
 - Soil
 - Species Distribution
 - Statistical Units
 - Utilities and Governmental Services (Environmental Management Facilities and AdministrativeandSocialGovernmentServices schema)

5 Known Issues

INSPIRE Metadata v2 must be managed with Geoportal Server 2.x

Description

You must use Geoportal Server 2.x to update and manage data and service metadata aligned the INSPIRE Metadata v2.0.1 requirements. If you have an existing INSPIRE Geoportal Server 1.x instance installed and are considering upgrading to the INSPIRE Geoportal Server 2.x, read the upgrade instruction at <https://github.com/Esri/geoportal-server-catalog/wiki/Upgrade-from-Geoportal-Server-1.x-to-2.x>.

INSPIRE services must be managed with ArcGIS Desktop

Description

Please use ArcGIS Desktop (ArcCatalog, ArcMap) rather than the Web based ArcGIS Server Manager to manager INSPIRE Services, we have not added the INSPIRE capability to the Web based ArcGIS Server Manager yet, action such as saving an INSPIRE service within Web based ArcGIS Server Manager will lead to loss of some INSPIRE specific property.

View Service: GetFeatureInfo on Mixed Layer Documents

Description

An INSPIRE view service GetFeatureInfo request on more than one query layer, which includes both INSPIRE layers and non-INSPIRE layers, returns the response regarding INSPIRE layers only.

View Service: Use of INSPIRE SLD Files

Description

INSPIRE data specifications contain visualisation rules that cannot be expressed in SLD documents (see ProtectedSites layers).

Solution

If ArcGIS for INSPIRE does not find an SLD document for a specific layer, it will use the defined ArcMap visualisation rules and use them for both the INSPIRE_COMMON:DEFAULT style and default styles.

INSPIRE Geodatabase: Profile of Names and Text Strings

Description

The INSPIRE data specification Geographical Names allows the implementation of a simplified profile of the complex data type GeographicalName. For many cases, a simple implementation is sufficient and requires a significantly less complex model and database representation.

In the standard geodatabase template for the Annex I themes, the simplest profile, a text string, has been implemented. A second profile for geographic named place has been added, please read the INSPIRE Geodatabase Templates Installation Guide for details.

Similarly, string-valued properties are limited to 255 characters in the standard geodatabase for the Annex I themes. This should be sufficient for most datasets. For datasets, however, that require support for longer text value, contact Technical Support.

INSPIRE Geodatabase: Arcs in Cadastral Parcel Features

Description

In the theme Cadastral Parcels, nonlinear interpolations are allowed (circular arcs). In this release, only geometries with linear interpolations in accordance with the Simple Feature standard (ISO 19125-1) are supported.

ArcCatalog Configuration Page of INSPIRE Services Displays a Black Square

Description

In rare cases, when invoking the INSPIRE service extension configuration page of ArcCatalog, the panel just displays a black square.

Solution

Use the program JavaConfigTool to disable DirectDraw. The tool can be found at:

<installation>\ArcGIS\Desktop10.5\Bin\JavaConfigTool.exe.

1. Uncheck Use default.
2. Add the string "-Dsun.java2d.noddraw=true" to the text field Java VM arguments.
3. Click OK.
4. Restart ArcCatalog.

Running ArcGIS for INSPIRE View Service on a File Geodatabase with Administrative Boundaries May Not Work

Description

The last release of ArcGIS for INSPIRE introduced a way to dynamically qualify layer definition queries with schema and user name if such a query contains references to other tables. An example of such a query is as follows:

```
"IFCID IN (SELECT RID FROM {0}auAdmBoundaryL_nationalLevel where  
nationalLevel = '5thOrder')"
```

The placeholder string {0} will be replaced with a qualifying string when creating an ArcMap layer. As file geodatabases do not need a qualifying prefix, the placeholder will be replaced by an empty string.

Unfortunately, the software does not recognize this on service startup and won't enable this layer as an INSPIRE layer.

Solution

Do not run ArcGIS for INSPIRE AdministrativeBoundary layers on your file geodatabase or update the definition query by replacing the {0} placeholder in your file geodatabase. The following LayerInfo table entries are affected:

```
AU.AdministrativeBoundary.1stOrder  
AU.AdministrativeBoundary.2ndOrder  
AU.AdministrativeBoundary.3rdOrder  
AU.AdministrativeBoundary.4thOrder  
AU.AdministrativeBoundary.5thOrder  
AU.AdministrativeBoundary.6thOrder
```


The value of field `def_query` should be the following:

```
"IFCID IN (SELECT RID FROM auAdmBoundaryL_nationalLevel where
nationalLevel = '1stOrder') "
"IFCID IN (SELECT RID FROM auAdmBoundaryL_nationalLevel where
nationalLevel = '2ndOrder') "
"IFCID IN (SELECT RID FROM auAdmBoundaryL_nationalLevel where
nationalLevel = '3rdOrder') "
"IFCID IN (SELECT RID FROM auAdmBoundaryL_nationalLevel where
nationalLevel = '4thOrder') "
"IFCID IN (SELECT RID FROM auAdmBoundaryL_nationalLevel where
nationalLevel = '5thOrder') "
"IFCID IN (SELECT RID FROM auAdmBoundaryL_nationalLevel where
nationalLevel = '6thOrder') "
```

Feature Download Service: It Is Possible to Download Data Not Included in the .mxd File If the User Knows the Database

Description

When publishing the feature download service, three stored queries are created by default to facilitate simple download of a predefined dataset, through stored query `urn:x-ii:def:query:OGC-WFS::GetDatasetByCrs`, even though the capability response only lists those layers that are available for download, and it does not list other layers in the database. However, if the user knows the database, it is possible to download data that is not included in the .mxd file but in the same database through the service.

Solution

The current workaround is to delete the default stored query and create your own customised query.

WMTS Service Legend URL Different from the One Used by ArcGIS WMTS

Description

Currently, the INSPIRE WMTS service capability legend URL refers to the default INSPIRE style, while the WMTS service tile generation is based more on ArcMap symbology and does not recognize the INSPIRE default style. This leads to an inconsistency between WMTS map symbology and the legend URL in the capability response.

Solution

The current workaround is to customise the WMTS map symbology and tile generation to use the default INSPIRE style; the legend URL can also be customised.

INSPIRE Download Service requires an enterprise geodatabase

Description

Currently the INSPIRE Download Service requires an enterprise geodatabase such as Oracle, SQL Server, or PostgreSQL, it does not work with file geodatabase.

Solution

Use an enterprise geodatabase such as PostgreSQL.

Atom Download Service get spatial dataset operation get redirected to the wrong URL when using ArcGIS Webadaptor

Description

When using Webadaptor, you may experience that the URL returned from get spatial dataset operation for Atom download Service is incorrect, in particular the prefix section of the URL.

Solution

The workaround is to copy the downloadable file into the Webadaptor domain and make it available (e.g. <http://webadaptoromainname/myfile.zip>) and update the dataset ATOM xml accordingly and republish the service.

INSPIRE download service GetCapabilities post operation give blank response if both caching and streaming are set to true

Description

For INSPIRE download service, when both caching and streaming are set to true, GetCapabilities post operation gives blank response while get operation is working fine.

Solution

The workaround is to set either cacheGetCapabilities or streamingEnabled to false using the ArcGIS rest admin page for the service (<http://servername:6080/arcgis/admin/services/servicename.MapServer>).

INSPIRE View and Download services no longer respond to the HTTP GET binding of the OGC WMS/WFS interface when "Disable the Services Directory" is enabled in ArcGIS Server

Description

When you disable ArcGIS Services Directory by unchecking "**Services Directory Enabled**" option in ArcGIS Server, the INSPIRE View and Download services no longer respond to the HTTP GET binding of the OGC WMS/WFS interface (f parameter required), BUG-000100475.

Solution

If you need to disable the service directory, there are some additional configuration steps, please refer to <Installation location>\ESRI\ArcGIS for INSPIRE\Patches\readme.txt for more information.

Getfeaturebyid operation for INSPIRE download services published from mxd containing data from HH data theme does not return results for some feature types

Description

When an INSPIRE download service is published from mxd containing data from HH data theme, WFS Getfeaturebyid operation does not return results for some HH feature types that is related to SU, including hh:Biomarker and hh:aggregationUnit.

Solution

If you need to use Getfeaturebyid operation for HH download services, please publish HH data as a geodata service and then enable download service option.

Limitation with view and download service validation

Description

The INSPIRE services have been tested with V2020.1.2 15/04/2020 release of the validator (<https://github.com/inspire-eu-validation/community/releases/tag/v2020.1.2>), the services pass most of the test. INSPIRE recently released an updated validator two weeks before the ArcGIS for INSPIRE product release, we were able to run the validation test, but it not enough time to fix some reported errors timely to be included in the release.

Solution

This limitation does not affect how the service itself works, the issues will be investigated further whether they are the issue with the INSPIRE service itself or the validator, and to be addressed in the future as necessary.