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Network Spatial Service

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THE BEST RUN SAP

Content

1 Introduction

> **i** Note
>
> If you have been directed here by a system message that appears when opening the Geometry tab of the AIN Work Order page, please see sections Prerequisites [page 5] and Minimum Configuration [page 7] to resolve this. The displayed message means that you need to manually input the required Network Spatial configuration to use the map on the Geometry tab.

As the use of maps and location-tracking services become increasingly part of daily life, people have come to expect the same versatility and ease-of-use from their business process systems. The objective of the new **Network Spatial Service** is to meet these expectations. They will combine the ability of a map to quickly convey context, scale and locality with the power and reach of the SAP Business Network to geo-spatially enable collaborative business processes.

The Network Spatial Service offers a re-usable set of services and configurable map components to visualize geo-spatial data. A subscription to an SAP Business Network application (for example, Asset Intelligence Network) is all that is needed to unlock these new capabilities as they come as part of the standard bundle.

Using the Network Spatial Service, you can configure and customize the visualisation of SAP's geo-spatial data and business processes in a way that best suits you by using its highly extensible, highly secure open framework to enhance existing SAP applications. Additionally, non-SAP information (that is, from corporate, public and real-time spatial or sensor data sources) can also be quickly configured to appear alongside SAP data in the same map.

Currently, the SAP Visual Business and the increasingly popular Mapbox mapping platforms are supported in this release, providing you with both a no-cost and a low-cost entry point into geo-spatial system capabilities. If you wish, both these platforms can be configured within the same map so that you can quickly switch between them, offering you the best of both options. Support for other platforms, with more extensive functions and services, is also planned in future releases.

2 Prerequisites

2.1 Host names

To configure the Network Spatial map renderer, you will need to know your subscribed region. With this information you will be able to ascertain the correct Network Spatial host name for your renderer configuration.

The required Network Spatial host name for each region is provided below:

- AP10 (Sydney) - `https://bnc-nss-map.cfapps.ap10.hana.ondemand.com/`
- EU10 (Frankfurt) - `https://bnc-nss-map.cfapps.eu10.hana.ondemand.com/`
- EU20 (Netherlands) - `https://bnc-nss-map.cfapps.eu20.hana.ondemand.com/`
- US10 (US East) - `https://bnc-nss-map.cfapps.us10.hana.ondemand.com/`
- US20 (US West) - `https://bnc-nss-map.cfapps.us20.hana.ondemand.com/`

> ℹ Note
>
> Only the subscribed regions mentioned above are currently supported by the Network Spatial Service.

2.2 Roles

Configuration Roles

To access and use the **Configure Network Maps** app, you will need to assign the following roles:

- `NetworkSpatialServiceConfigRead`
- `NetworkSpatialServiceConfigEdit`
- `NetworkSpatialServiceConfigDelete`

> → Recommendation
>
> Assigning these roles to at least one user or group is a prerequisite for using the Network Spatial Service. However, SAP recommends these roles only be assigned to IT support staff or GIS specialists.

Map User Roles

To see and use the Network Spatial Service map within an application (for example, the Geometry tab of the AIN Work Order app), you will need to assign the following roles:

- `NetworkSpatialServiceSpatialRead`
- `NetworkSpatialServiceSpatialEdit`
- `NetworkSpatialServiceSpatialDelete`

> → Recommendation
>
> SAP recommends these roles for all users.

2.3 Licensing

There is no additional licensing required to use the Network Spatial map if you are satisfied with the mapping functionality provided by SAP Visual Business, as this is included in your SAP Business Network subscription.

SAP also offers a choice of map providers. Other map providers generally offer a more comprehensive range of geo-spatial features (additional map styles, map edit functions, geo-coding, route determination, real-time traffic and weather updates, higher resolution satellite imagery etc.). However, these generally require additional licensing. Customers can therefore choose to use Mapbox as their map provider on a 'bring-your-own-license' basis.

3 Minimum Configuration

Asset Intelligence Network - Work Order Geometry tab

This section provides a quick guide to the minimum configuration required to start using the Network Spatial map on the AIN Work Order / Work Order Operation app's Geometry tab . When your organization first opens the Geometry tab, you will encounter a system message directing you to this document. To prevent this message from re-appearing, the minimum configuration below will have to be manually entered. Once entered, your organization will then be able to use the Network Spatial map.

> → Tip
>
> If more details are required on the various settings, go to the relevant subsection in Configuration Details [page 11]

3.1 Minimum Configuration - Renderer

Create and save a new Renderer on *Renderer* tab with the following entries:

- Name: `Visual Business`
- Description: `SAP Visual Business Renderer`
- API Key: `<Leave Blank>`
- URL: `<Hostname>/nsc/map/vb/`
- Default Center Latitude: `<General Work Latitude>`
- Default Center Longitude: `<General Work Longitude>`
- Default Zoom Level: `<General Work Longitude>`
- Default Style: `<Leave Blank>`

> → Tip
>
> Specify the co-ordinates of the region where your work is mostly located for your Default Latitude & Longitude settings (for example, if you worked mostly around the Greenwich, England region, your default coordinates would be Latitude: 51.5 Longitude: 0.0). You should also specify the Default Zoom level that is mostly relevant for the scope of your work (for example, a setting of 5 out of a possible 20 will show continental regions such as North Africa; a higher value will zoom in more).

3.2 Minimum Configuration - Layers

Create and save a new Layer on *Layers* tab with the following entries:

Current Object's Points

- Name: `Points - Current Object`
- Description: `<Optional description - The use of {{id}} and {{type}} in the 'Service URL' field filter for Point geometries of the Object currently opened>`
- Type: `Circle`
- Source Type: `Network Spatial Service`
- Service URL: `/odata/v4/userspatialservice/BusinessObjects?$filter=appReferenceObjectId in ({{id}})&$expand=geometries($filter=geometryType eq 'ST_Point')`
- Layout JSON: `<Leave Blank>`
- Paint JSON: `<Leave Blank>`
- Custom Source JSON: `<Leave Blank>`
- Attribution: `<Leave Blank>`
- JSON Config: `<Leave Blank>`

Current Object's Lines

Create and save a new Layer on *Layers* tab with the following entries:

- Name: `Current Object's Lines`
- Description: `<Optional description - The use of {{id}} and {{type}} in the 'Service URL' field filter for Line geometries of the Object currently opened>`
- Type: `Line`
- Source Type: `Network Spatial Service`
- Service URL: `/odata/v4/userspatialservice/BusinessObjects?$filter=appReferenceObjectId in ({{id}})&$expand=geometries($filter=geometryType eq 'ST_LineString')`
- Layout JSON: `<Leave Blank>`
- Paint JSON: `<Leave Blank>`
- Custom Source JSON: `<Leave Blank>`
- Attribution: `<Leave Blank>`
- JSON Config: `<Leave Blank>`

Current Object's Polygons

Create and save new Layer on *Layers* tab with the following entries:

- Name: `Polygons - Current Object`
- Description: `<Optional description - The use of {{id}} and {{type}} in the 'Service URL' field filter for Polygon geometries of the Object currently opened>`
- Type: `Fill`

- Source Type: `Network Spatial Service`
- Service URL: `/odata/v4/userspatialservice/BusinessObjects?$filter=appReferenceObjectId in ({{id}})&$expand=geometries($filter=geometryType eq 'ST_Polygon')`
- Layout JSON: `<Leave Blank>`
- Paint JSON: `<Leave Blank>`
- Custom Source JSON: `<Leave Blank>`
- Attribution: `<Leave Blank>`
- JSON Config: `<Leave Blank>`

3.3 Minimum Configuration - Scenarios

Scenarios

Create and save a new Scenario on *Scenarios* tab with the following entries:

- Name: `Default Map`
- Description: `<Optional description - Default Scenario for SAP Visual Business Renderer>`
- Renderer: `Visual Business`
- Enable Draw Toolbar: `Yes (tick box)`
- Enable Bounding Box: `Yes (tick box)`
- Bounding Box Padding: `200`
- Add the following Layers (by clicking on the *Create* button):
  - **`Current Object's Points`**
  - **`Current Object's Lines`**
  - **`Current Object's Polygons`**
- Leave the **Group Name** attribute blank for all added layers
- Leave the **Locked** attribute for all added layers to 'No' (untick boxes)
- Set the **Include in BBox** attribute for all added layers to 'Yes' (tick boxes)
- Leave **Actions** selection blank

3.4 Minimum Configuration - Applications

Applications

AIN Work Order Operations app

Create and save a new Application on *Applications* tab with the following entries:

- Name: `Operation App`
- Description: `AIN Operation App`
- Type: `Asset Intelligence Network`
- Screen Name: `OperationObject`
- Add the following Scenario (by clicking on the *Create* button):
  - `Default Map`

AIN Work Order app

Create and save a new Application on **Applications** tab with the following entries:

- Name: `Work Order App`
- Description: `AIN Work Order App`
- Type: `Asset Intelligence Network`
- Screen Name: `WorkOrderObject`
- Add the following Scenario (by clicking on the *Create* button):
  - `Default Map`

4 Configuration Details

This section contains detailed information on the reason for and the use of the configuration tabs and fields. Consult this section if you require more than what the Minimum Configuration provides.

4.1 Configuration Details - Renderers

Context

A Renderer is required to provide base maps and map services for embedded Network Spatial Service maps. Standard renderer options include:

- SAP Visual Business
  - Provides simple map services and HERE base maps
  - Usage license is included in AIN license
- Mapbox
  - Provides comprehensive set of map services (for example, Search, Places, Traffic), pre-built map styles and map edit functions
  - Requires a separate Mapbox license

> → Recommendation
>
> SAP makes the following recommendations about Network Spatial map renderers:
>
> - Use SAP Visual Business if you have limited geo-spatial experience or have simple mapping requirements
> - Use Mapbox if you have a Mapbox license and experience or have more advanced mapping requirements

Procedure

1. Click on the *Configure Network Maps* tile.
2. Navigate to the *Renderers* tab.
3. Click on the *Create* button. A Draft **Unnamed** renderer appears in the *Details* section.
4. In the *Details* section, fill in the following fields:

Field name	Description
Name	Enter a name for the Renderer.
Description	Enter a description for the Renderer. Include relevant details to distinguish it from other renderers (for example, the Mapbox style used).
API key	Enter API Key **i Note** Mapbox only; not relevant for SAP Visual Business. This will be the Mapbox customer's Public Token Key (starting with "pk") as provided by Mapbox. This authorizes the use of Mapbox APIs.
URL	Enter Renderer URL. This will be dependent on the renderer type and Host Name: • SAP Visual Business: **`<Hostname>/nsc/map/vb/`** • Mapbox: **`<Hostname>/nsc/map/`** **i Note** See Prerequisites [page 5] for Host Name details
Default Center Latitude	Enter the default latitude that the map will center on if there is no Bounding Box defined (see Configuration Details - Renderers [page 11] for Bounding Box details). **→ Tip** Specify the region where your work is mostly located.
Default Center Longitude	Enter the default longitude that the map will center on if there is no Bounding Box defined (see Configuration Details - Scenarios [page 16] for Bounding Box details). **→ Tip** Specify the region where your work is mostly located.
Default Zoom Level	Enter the default zoom level that the map will open at if there is no Bounding Box padding defined (see Configuration Details - Scenarios [page 16] for Bounding Box padding details). These settings depend on the configured renderer: • **SAP Visual Business**: 1 (the World) - 20 (25 meters) • **Mapbox**: Settings can be found here **→ Tip** Specify the zoom level mostly relevant for the scope of your work.
Default Style	Enter map style.

Field name	Description
	i Note **Mapbox only**; not relevant for SAP Visual Business. Click here for options.

5. Choose *Create*. The renderer is created and added to the list of renderers.
6. To view or change details about a renderer, choose the renderer in the list or use the *Search* field to find it. The *Details* section displays the selected renderer which can be edited or deleted by pressing the *Edit* or *Delete* button.
7. Press *Save* to save any changes or *Cancel* to exit without saving changes.

Results

The renderer is created or saved.

4.2 Configuration Details - Actions

Context

An action allows a user to interact with a map or a geometry on the map (that is, using right-click). Standard options in Network Spatial Service Release 1 are limited to:

- URL Navigation
  - Navigates to a particular URL
- Semantic Navigation
  - Navigates to a semantically-defined destination (for example, the selected Work Order in S/4HANA)

→ Recommendation

Configuring an action is optional and is not recommended for use in Release 1. SAP will be releasing examples and more functionality for actions in subsequent releases.

Procedure

1. Click on the *Configure Network Maps* tile.

2. Navigate to the *Actions* tab.
3. Click on the *Create* button. A Draft **Unnamed** action appears in the *Details* section.
4. In the *Details* section, fill in the following fields:

Field name	Description
Name	Enter a name for the action.
Description	Enter a description for the action. Include relevant details to distinguish it from other actions.
Type	Select from the following options: • URL Navigation • Semantic Navigation
Business Object Type	Select from the following options: • Global – action is available by right-clicking anywhere in the map • Work Order – action can only be executed by right-clicking on a Work Order geometry in the map
Semantic Object	Enter the semantic object that you want to navigate to.
Action	Enter the action you want to perform with the sematic object you navigate to.
URL	Enter the URL used for URL navigation.
Parameters	Enter the parameters you want to pass to the semantic object.

5. Choose *Create*. The action is created and added to the list of actions.
6. To view or change details about an action, choose the action in the list or use the *Search* field to find it. The *Details* section displays the selected action which can be edited or deleted by pressing the *Edit* or *Delete* button.
7. Press *Save* to save any changes or *Cancel* to exit without saving changes.

Results

The action is created or saved.

4.3 Configuration Details - Layers

Context

A layer is a visualised geo-spatial dataset that overlays a base map. For the Network Spatial Service, this includes Work Order geometries that you create within the map as well as other datasets (for example, weather patterns, population densities). These datasets can be sourced from public and private sources. Work Order geometries must be configured in a layer to be shown on the map.

Procedure

1. Click on the *Configure Network Maps* tile.
2. Navigate to the *Layers* tab.
3. Click on the *Create* button. A Draft **Unnamed** layer appears in the *Details* section.
4. In the *Details* section, fill in the following fields:

Field name	Description
Name	Enter a name for the layer.
Description	Enter a description for the layer. Include relevant details to distinguish it from other layers.
Type	Select the geometry type from the following options: • Circle (that is, point) • Line • Fill (that is, polygon) • Background • Symbol • Raster • Fill-Extrusion • Heatmap • Sky
Source Type	Select the Source Type from the following options: • **Network Spatial Service**: Retrieves geometries you have created or changed from the Network Spatial Service repository • **GeoJSON**: An open standard format designed for representing simple geographical features, along with their non-spatial attributes. • **Custom Source**: An option to include a custom data source
Service URL	Enter the URL for the data source.
Layout JSON	Enter the Layout JSON. Click here for properties. → Tip Mapbox only; not relevant for SAP Visual Business
Paint JSON	Enter the Paint JSON. Click here for properties. → Tip Mapbox only; not relevant for SAP Visual Business
Custom Source JSON	Enter the Custom Source JSON.

Field name	Description
Attribution	Enter any required Attribution for the Custom Source JSON.
JSON Config	Enter any required JSON Config for the Custom Source JSON.

5. Choose *Create*. The layer is created and added to the list of layers.
6. To view or change details about a layer, choose the layer in the list or use the *Search* field to find it. The *Details* section displays the selected layer which can be edited or deleted by pressing the *Edit* or *Delete* button.
7. Press *Save* to save any changes or *Cancel* to exit without saving changes.

Results

The layer is created or saved.

4.4 Configuration Details - Scenarios

Context

A scenario is a collection of configured layers and actions, bundled together with a renderer to create a package of geo-spatial data.

Procedure

1. Click on the *Configure Network Maps* tile.
2. Navigate to the *Scenarios* tab.
3. Click on the *Create* button. A Draft **Unnamed** scenario appears in the *Details* section.
4. In the *Details* section, fill in the following fields:

Field name	Description
Name	Enter a name for the scenario.
Description	Enter a description for the scenario. Include relevant details to distinguish it from other scenarios.
Renderer	Select from the previously configured renderers.

Field name	Description
Enable Draw Toolbar	Tick this box to allow a map to be edited instead of displayed in read-only mode → Tip Even if this box is ticked, the parent application screen which contains the map maintains control of the edit rights. Consequently, the parent application dynamically puts the map's scenario into read mode if the user is not authorized to edit, even if this box is ticked. Unticking this box means all users will be unable to edit the map.
Enable Bounding Box	Tick this box to enable a Bounding Box for the scenario. Enabling a Bounding Box will zoom and pan the map to show all objects on a relevant layer when the map is opened, or the Home icon is clicked.
Bounding Box Padding	Enter a numeric value that will determine the amount of padding to include when sizing the Bounding Box.
Layers	Select one or more previously configured layers.
Layers – Group Name	Enter a common group name in this field to group relevant layers. This allows multiple layers to be grouped together and thus appear under the group name as a single layer in the map. Example An object may have several types of geometries (that is, point, line and polygon). All these individual layers can be grouped together and shown as a single layer on the map.
Layers – Locked	Tick this box to lock a layer in the map. A locked layer cannot be unselected in the map. It will always be shown.
Layers – Include in BBox	Tick this box to flag the selected layer as relevant for the Bounding Box function. The Bounding Box size will be set to include all objects on all relevant layers.
Actions	Select one or more previously configured actions.

5. Choose *Create*. The scenario is created and added to the list of scenarios.
6. To view or change details about a scenario, choose the scenario in the list or use the *Search* field to find it. The *Details* section displays the selected scenario which can be edited or deleted by pressing the *Edit* or *Delete* button.
7. Press *Save* to save any changes or *Cancel* to exit without saving changes.

Results

The scenario is created or saved.

4.5 Configuration Details - Applications

Context

Application configuration is required to link the Network Spatial Service map to a screen within a parent application.

Procedure

1. Click on the *Configure Network Maps* tile.
2. Navigate to the *Applications* tab.
3. Click on the *Create* button. A Draft **Unnamed** application appears in the *Details* section.
4. In the *Details* section, fill in the following fields:

Field name	Description
Name	Enter a name for the configured application screen.
Description	Enter a description for the application configuration. Include relevant details to distinguish it from other application entries.
Type	Select from the available options: • Asset Intelligence Network (AIN) **i Note** Currently only AIN is supported. Other Network apps and custom apps will be supported in subsequent releases.
Screen Name	Input the Screen Name that the parent application will pass to the map. The map control will then retrieve the application's configured scenarios with this Screen Name.
Scenarios	Select one or more previously configured scenarios.
Scenarios – Default	Click on the Radio button to identify one of the selected scenarios as the default (that is, the map will open with this scenario shown).

5. Choose *Create*. The application entry is created and added to the list of applications.
6. To view or change details about an application, choose the application in the list or use the *Search* field to find it. The *Details* section displays the selected application which can be edited or deleted by pressing the *Edit* or *Delete* button.
7. Press *Save* to save any changes or *Cancel* to exit without saving changes.

Results

The application is created or saved.

5 Configuration Examples

5.1 Configuration Example - Layers

In the *Configure Network Maps* app, Mapbox's Layer styling can be used. To configure a layer using the Layout JSON and Paint JSON fields, please refer to the Mapbox Layers Style Specification .

Some of these styling fields can be used with the standard Visual Business renderer but its library does not support all layer properties. Where it is not supported, default Visual Business styling will be applied to the configured map.

Network Spatial Service Source Type

Field Name	Value	Expected Result
Name	Other Object's Point	
Description	Shows objects on the map that are not the current object displayed in the parent app (for example, shows all work orders other than the Work Order displayed in the AIN Work Order's Geometry tab)	
Type	Circle	Mandates use of a Point geometry
Source Type	Network Spatial Service	
Service URL	/odata/v4/userspatialservice/BusinessObjects?$filter=not (appReferenceObjectId in ({{id}}))&$expand=geometries($filter=geometryType eq 'ST_Point')	Filters the OData service to retrieve and visualize all of point geometries of the map's nominated business object type (for example, work order) that do not have the current business object's ID
Layout JSON		
Paint JSON	{"circle-color": "#67869b", "circle-blur": 0.5, "circle-stroke-width": 1}	Will set point's colour, fade/shadow (that is, blur) and outline width.
Custom Source JSON		
Attribution		

Field Name	Value	Expected Result
JSON Config		

Custom Source Type

Field Name	Value	Expected Result
Name	USA Weather (Live Update)	
Description	Live weather data from the National Oceanic and Atmospheric Administration	
Type	Raster	Mandates use of a raster image
Source Type	Custom Source	
Service URL		
Layout JSON		
Paint JSON	{"raster-opacity": 0.85}	Will set Raster image to an 85% transparency
Custom Source JSON	{"type":"raster","tiles":["https://idpgis.ncep.noaa.gov/arcgis/rest/services/radar/radar_base_reflectivity_time/ImageServer/exportImage?bbox={bbox-epsg-3857}&size=256,256&format=jpgpng&transparent=true&bboxSR=3857&imageSR=3857&f=image"],"tileSize":256}	Will retrieve Raster image from the publicly available NOAA URL, then set the bounding box, transparent ability, format and size.
Attribution		
JSON Config		

GeoJSON Source Type

Field Name	Value	Expected Result
Name	World Airports	
Description	World Airports	
Type	Symbol	Mandates use of a symbol/icon
Source Type	GeoJSON	

Field Name	Value	Expected Result
Service URL	https://raw.githubusercontent.com/jplim/geojson-data/master/world-airport.geojson	URL for GeoJSON data source
Layout JSON	{"icon-image": "airport-15"}	Sets icon image
Paint JSON	{"text-color": "#ffff99"}	Can use HTML-style hex values, RGB, RGBA, HSL, and HSLA colour formats. Predefined HTML colour names (for example, 'yellow', 'blue') are also permitted.
Custom Source JSON		
Attribution		
JSON Config		

Conditional GeoJSON Source Type

Field Name	Value	Expected Result
Name	World Airports - Conditional formatting	
Description	World Airports using different colours based on a country code condition	
Type	Circle	Mandates use of a Point geometry
Source Type	GeoJSON	
Service URL	https://raw.githubusercontent.com/jplim/geojson-data/master/world-airport.geojson	URL for GeoJSON data source
Layout JSON		
Paint JSON	{"circle-stroke-width": 1, "circle-color": ["match", ["get", "country_code"], "CN", "#ffff99", "US", "blue", "AU", "red", "#67869b"]}	Sets thickness of a point outline and, depending on the data provided in the GeoJSON layer (that is, country_code), the layer's geometries are 'painted' in different colours (for example, US airport geometries will be blue, whereas Australia airports will be red).
Custom Source JSON		
Attribution		
JSON Config		

6 Network Spatial Map

6.1 Map Renderers Controls

Some map renderers come with their own map controls, independent of those provided by the Network Spatial Service. This section contains information on these controls.

6.1.1 Visual Business

Figure 1 below shows a screenshot example of the standard Visual Business renderer.

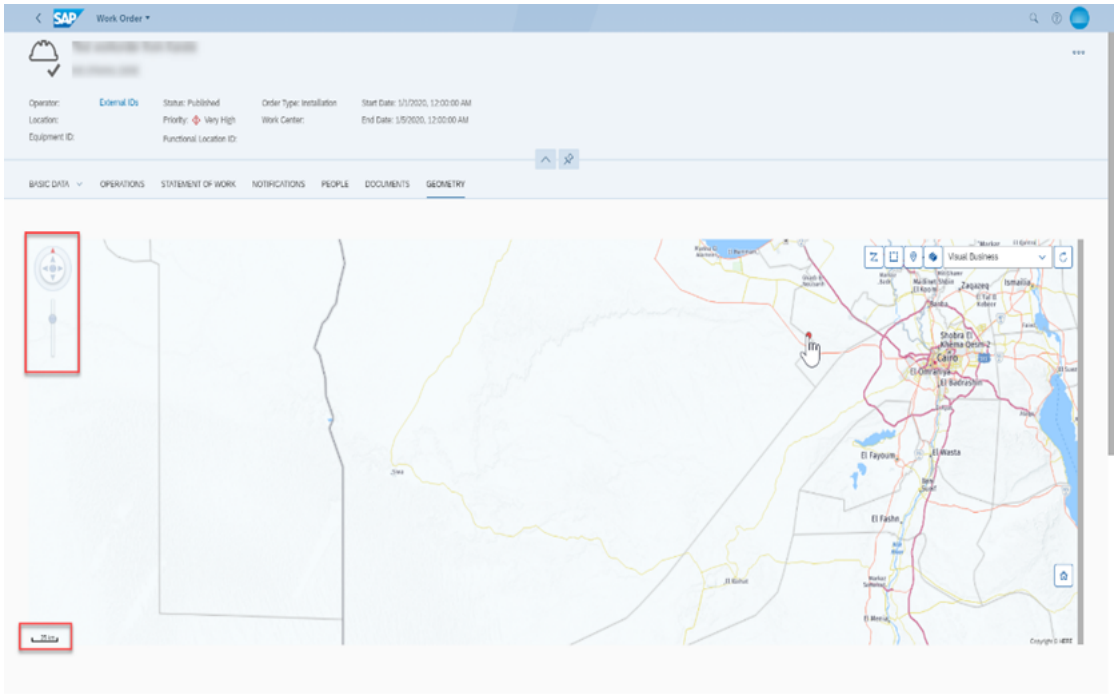

Figure 1 - Standard Visual Renderer Example

The red highlighted boxes on the left-hand side of the map are the standard Visual Business map controls for zoom and pan functions (the lower red box shows the zoom scale). These functions can also be performed by a mouse using left button drags (pan) and scroll wheeling (zoom).

6.1.2 Mapbox

Figure 2 below shows a screenshot example of the Mapbox map renderer (that is, satellite style).

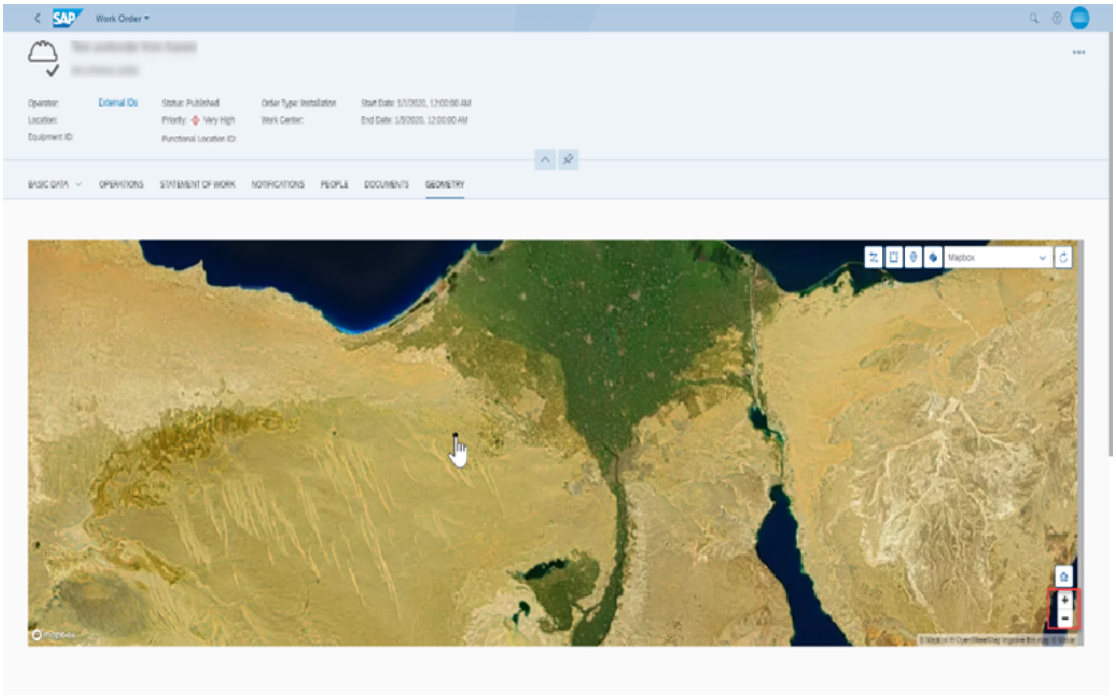

Figure 2 - Mapbox Map Renderer Example

Highlighted in a red box on the lower right-hand side of the map is the standard Mapbox map control for zoom functions. Pan and zoom functions can be performed by a mouse using left button drags (pan) and scroll wheeling (zoom).

6.2 Network Spatial Map Controls

6.1.2 Home

Clicking on the *Home* icon will automatically zoom the map to the pre-set scenario settings for the Bounding Box (see Configuration Details - Scenarios [page 16]). If no Bounding Box settings have been entered, the map will apply the pre-set renderer settings for Default Longitude/Latitude and Zoom (see section Configuration Details - Renderers [page 11]).

6.2.2 Refresh

Clicking on the *Refresh* icon ↻ will refresh the map layers by checking for the latest updates. Any new objects or data will be displayed in the layers.

6.2.3 Scenarios

Clicking on the *Scenario* drop-down box will show the list of scenarios that have been configured for this map (see section Configuration Details - Applications [page 18]).

6.2.4 Layers

Clicking on the *Layers* icon will display the scenario's configured layers (see section Configuration Details - Layers [page 14]). These can then be switched on or off as required, provided they are not locked on by the scenario configuration (see section Configuration Details - Scenarios [page 16]).

6.2.5 Edit Controls

Clicking on the Edit controls allows you to place different geometry types on the map. From left to right these types are Line, Polygon and Point geometries. You add geometries to a map by clicking on a specific position on the map.

When adding a Line or a Polygon geometry, a single click will define a geometry node, a double click will complete the geometry definition.

Geometry Information

Adding a geometry will also open the *Geometry Information* pop-over on the left-hand side of the map. Here you have the option of defining *Key/Label* pairs to give more information about the geometry by clicking on the *Add* button. You can define multiple *Key/Label* pairs if required.

You can also move the geometry around the map by using the left button mouse drag until you are satisfied with its position. When you click the *Save* button the geometry will be saved and locked in place. Clicking ✕ in the *Geometry Information* header will remove the pop-over.

Clicking on a displayed geometry will re-open the *Geometry Information* pop-over and allow you to edit the *Label* entry. Clicking *Delete Geometry* will delete the saved geometry.

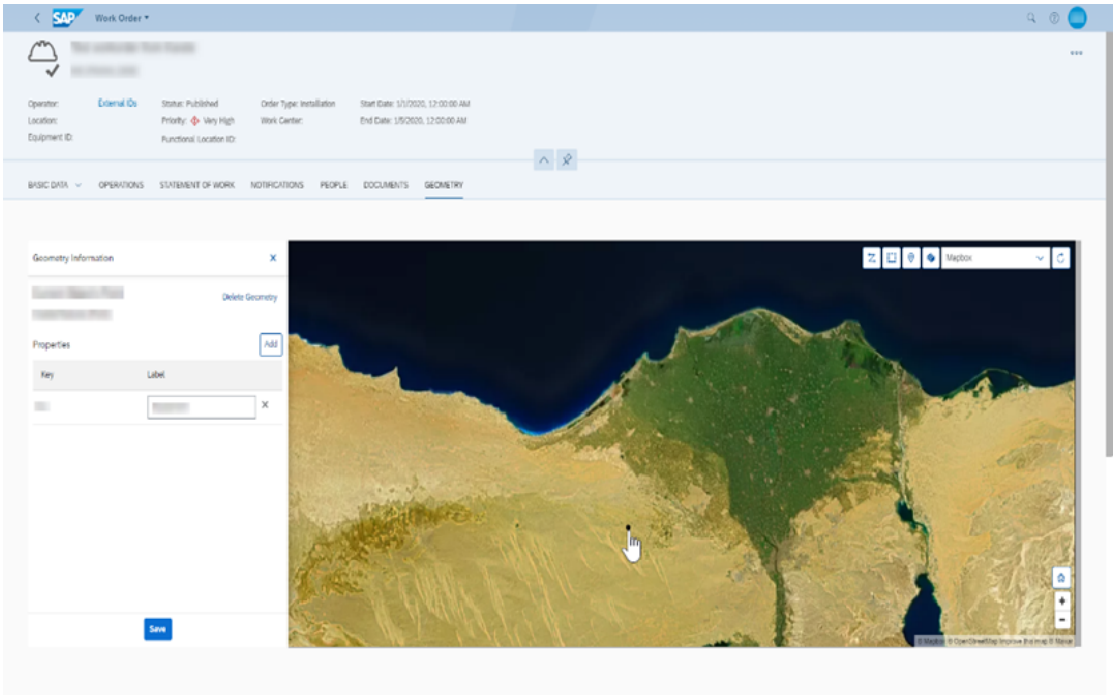

Figure 3

6.3 Network Spatial Map Control Behavior

When opening the Network Spatial Map, the displayed Network Spatial controls will be determined by two factors:

- If only a single scenario is configured for an application, the *Scenarios* dropdown is not needed and thus not shown.
- If the map is opened in read-only mode due to the scenario configuration setting or user permissions set by the parent application, the Edit icons are not shown.

7 Support

7.1 General

If you need to report any Network Spatial issue, create BCP incidents on the Support Portal under the following component:

- `SBN-FND-NSS`

7.2 Personal Data Management

7.2.1 AIN

The Network Spatial Service does store personal data whenever geometries are created, updated or deleted. However, this personal data is only usernames, stored in its change logging fields. For any Network Spatial Service map in AIN, the management of this data is controlled by AIN. Consequently, you can view or delete this data via the standard AIN Data Protection and Privacy process.

Prerequisites

- Subscribe to the 'Personal Data Manager' (PDM) application in the subaccount (AIN/LBN).
- Ensure one of the following PDM roles is assigned to use this application:
  - PDM_Administrator
  - PDM_CustomerServiceRepresentative
  - PDM_OperatorsClerk
- See here for more guidance on Data Protection & Privacy.

Related Information

Data Protection and Privacy

Important Disclaimers and Legal Information

Hyperlinks

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