



Location Intelligence
Infrastructure Asset Management

Confirm[®]

Confirm Mapping Interface
v22.20a.AM

Information in this document is subject to change without notice and does not represent a commitment on the part of the vendor or its representatives. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, without the written permission of Confirm.

© 2022 Confirm. All rights reserved.

Products named herein may be trademarks of their respective manufacturers and are hereby recognized. Trademarked names are used editorially, to the benefit of the trademark owner, with no intent to infringe on the trademark.

Open Source Attribution Notice

The Confirm suite of products contain the following open source software:

- Feature Data Objects v 3.5.0, which is licensed under GNU Lesser General Public License, Version 2.1, February 1999 with the unRAR restriction. The license can be downloaded from: <http://fdo.osgeo.org/licenceAndGovernance.html>. The source code for this software is available from <http://fdo.osgeo.org/content/fdo-350-downloads>
- MrSID software (specifically the mrsid32.dll) is used under license and is Copyright © 1995-2002, LizardTech, Inc., 1008 Western Ave., Suite 200, Seattle, WA 98104. All rights reserved. MrSID is protected by U.S. Patent No. 5,710,835. Foreign patents are pending. Unauthorized use or duplication prohibited.

Patented technology in the Software was developed in part through a project at the Los Alamos National Laboratory, funded by the U.S. Government and managed by the University of California. The U.S. Government has reserved rights in the technology, including a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced throughout the world, for or on behalf of the United States, inventions covered by the patent, and has other rights under 35 U.S.C. § 200-212 and applicable implementing regulations.

For further information, contact Lizardtech.

- NodaTime, version number 1.3.10, which is licensed under the Apache license, version number 2.0. The license can be downloaded from <http://www.apache.org/licenses/LICENSE-2.0>. The source code for this software is available from <http://nodatime.org/>.
- Chromium Embedded Framework, version 3, which is licensed under the New BSD License. The license can be downloaded from <http://opensource.org/licenses/BSD-3-Clause>. The source code for this software is available from <http://code.google.com/p/chromiumembedded/downloads/list>.
- Xilium.CefGlue, version 3, which is licensed under the MIT License (with portions licensed under the New BSD License). The licenses can be downloaded from <http://opensource.org/licenses/MIT> and <http://opensource.org/licenses/BSD-3-Clause>. The source code for this software is available from <http://xilium.bitbucket.org/cefglue/>.
- D3 Data Driven Documentation, version 3.4.1, which is licensed under the New BSD License. The license can be downloaded from <https://github.com/mbostock/d3/blob/master/LICENSE>. The source code for this software is available from <http://d3js.org/>.
- OpenLayers, version 2.12, which is licensed under the Modified BSD License. The license can be downloaded from <http://svn.openlayers.org/trunk/openlayers/license.txt>. The source code for this software is available from <http://trac.osgeo.org/openlayers/browser>.
- OpenLayers, version 3, which is licensed under the BSD 2-Clause Licence. The license which can be downloaded from <https://github.com/openlayers/ol3/blob/master/LICENSE.md>. The source code for this software is available from <https://github.com/openlayers/ol3>.
- Proj4js, version 1+, which is licensed under the Apache License, Version 2, January 2004. The license can be downloaded from <http://www.apache.org/licenses/LICENSE-2.0.html>. The source code for this software is available from <http://trac.osgeo.org/proj4js/>.
- requireJS, version 2.1.2, which is licensed under the MIT License or the New BSD License. The license can be downloaded from <https://github.com/jrburke/requirejs/blob/master/LICENSE>. The source code for this software is available from <http://requirejs.org/>.

- Apache Cordova, version 8.1.2, which is licensed under the Apache License, Version 2, January 2004. The license can be downloaded from <http://www.apache.org/licenses/LICENSE-2.0.html>. The source code for this software is available from <http://phonegap.com/download/>.
- Xilium.CefGlue, version 75.1, which is unlicensed. The source code for this software is available from <https://gitlab.com/xiliumhq/chromiumembedded/cefglue>.
- Chromium Embedded Framework, version 75.0, which is licensed according to the following criteria:

Copyright (c) 2008-2014 Marshall A. Greenblatt. Portions Copyright (c) 2006-2009 Google Inc. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- * Neither the name of Google Inc. nor the name Chromium Embedded Framework nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The source code for this software is available from <http://opensource.spotify.com/cefbuilds/index.html#>

July 27, 2022

Table of Contents

Confirm Mapping Interface

Installation	6
Coordinate System	11
Tools	12
Map Feature Groups to Layers	13
Sync Features	15
Create / Edit Feature	16
Update Multiple Features in Confirm	18
Troubleshooting	20

Confirm Mapping Interface

Confirm Mapping Interface allows the linking of data between Confirm and MapInfo / ArcMap / ArcGIS Pro mapping layers via the use of a ConfirmWeb service.

In this section

Installation	6
Coordinate System	11
Tools	12
Troubleshooting	20

Installation

Supported Platforms

	Version	Support Status
MapInfo	12.0 and above (32 bit)	Current
	12.5 and above (64 bit)	Current
ArcMap	10.2.2	Current
	10.3.1	Current
	10.4	Current
	10.5	Current
	10.6	Current
ArcGIS Pro	2.4	Current

Pre-requisites

In order to install the software the following pre-requisites are required:

- A supported version of MapInfo / ArcMap
- Microsoft .NET framework 4.8

Once the pre-requisites are installed, it will be possible to install the Confirm Mapping Interface by running the ConfirmMapInfoInterface.exe or ConfirmArcMapInterface.exe installer.

MapInfo Specific Pre-requisites

The following pre-requisites are only required by the MapInfo version of the tools:

- Microsoft Visual C++ 2010 Redistributable
- Microsoft Visual C++ 2013 Redistributable
- Microsoft Visual C++ 2015 Redistributable

Note: When running on Windows 64bit, both the 32bit (x86) and the 64bit versions of the 2013 and 2015 redistributables are required.

- MapXtreme 8.1

Note: All pre-requisites will be provided with the Confirm Installation media.

Installation

Installation is split into two components:

1. Confirm Mapping Interface, the client tools required to be installed alongside a MapInfo / ArcMap / ArcGIS Pro installation.
2. Web Service, the client tools will use the web service to access the Confirm database.

Note: Currently the Confirm Connector or ConfirmConnect® web services contain the software required for the Confirm Mapping Interface tools to communicate with the Confirm database. It is recommended to install this as a separate web service. Please see their respective installation documentation.

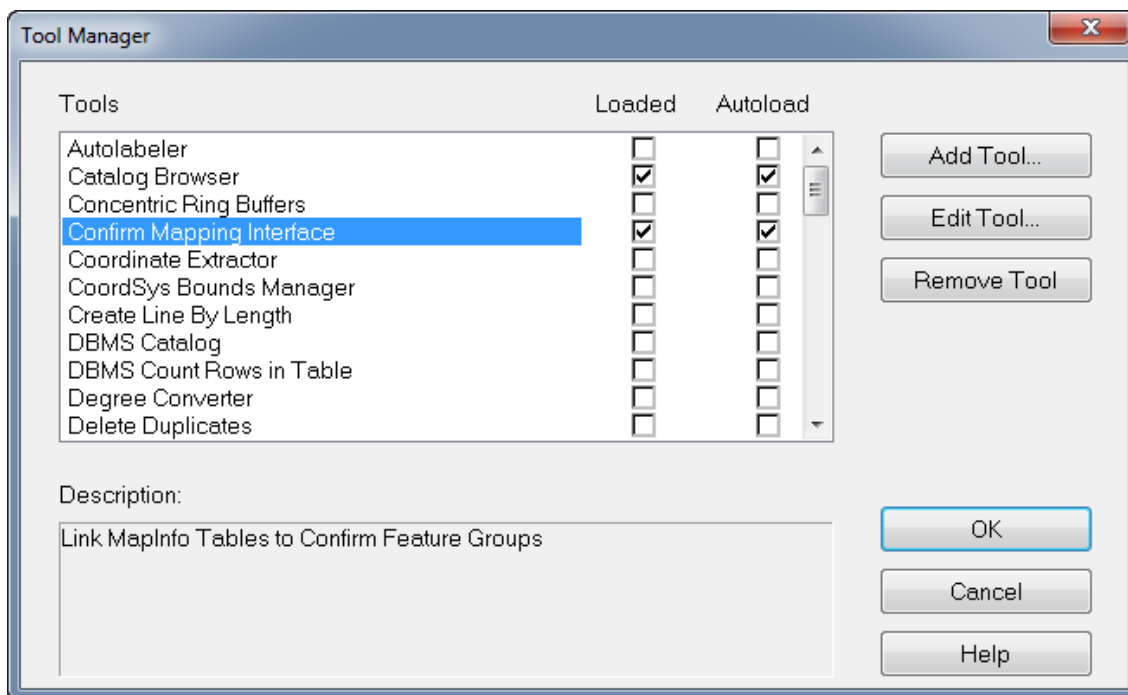
Installing the Confirm Mapping Interface tools

Run the supplied installer and follow the on screen instructions.

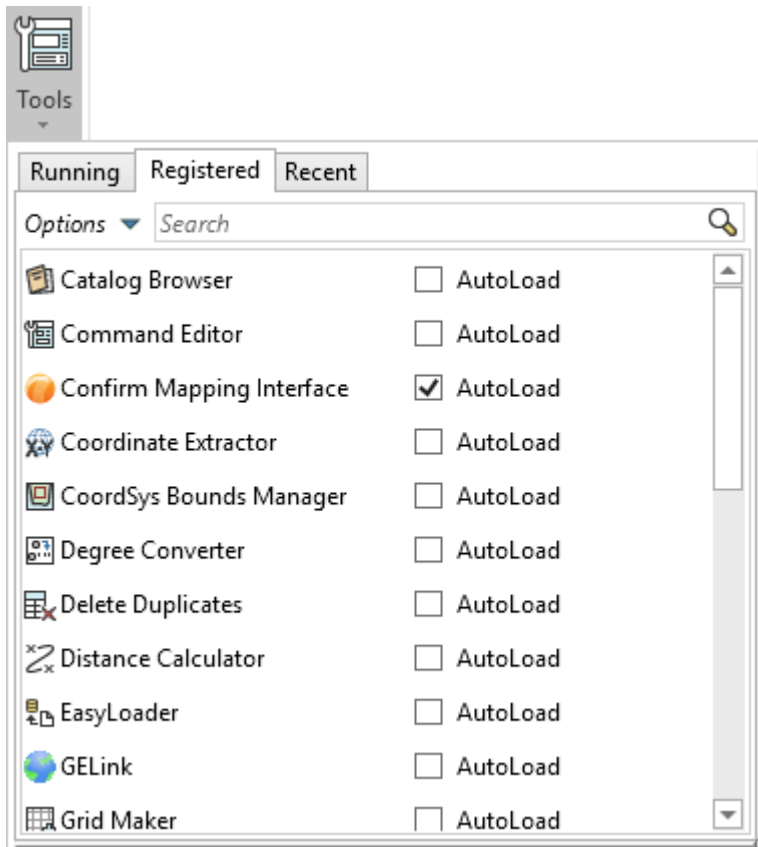
MapInfo Specific Installation Steps

The installer will register the Confirm Map Interface with the MapInfo Tool Manager and automatically load the toolbar when MapInfo starts. Use the Tool Manager to configure the Confirm Map Interface Autoload settings.

For 32 bit versions of MapInfo:



For 64 bit versions of MapInfo:



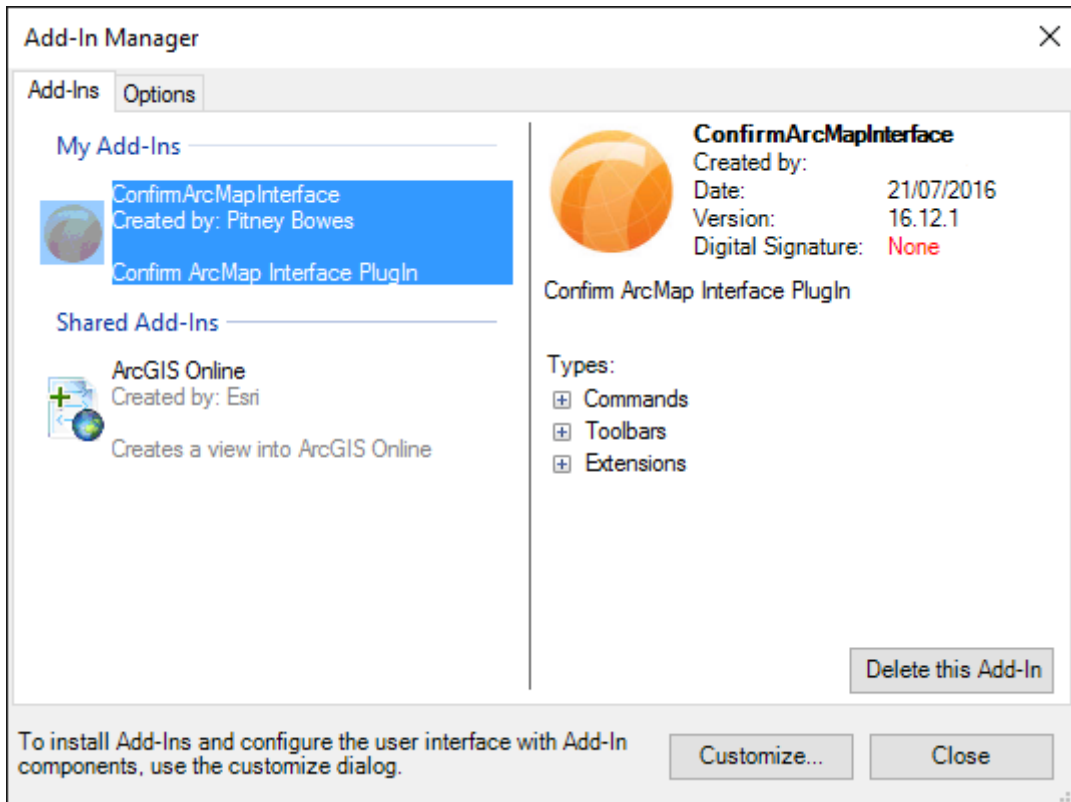
ArcMap Specific Installation Steps

The installer will configure the Confirm Mapping Interface extension for ArcMap to automatically load the toolbar. No further installation steps are needed.

It is possible for the Confirm ESRI Add-In to remain registered with ArcMap after uninstalling the product.

The tools will not work in this scenario and it is possible to manually remove the tools using the following instruction.

1. Open ArcMap
2. In the Toolbar select Customize | Add-In Manager
3. Select the Confirm Mapping Interface
4. Click Delete this Add-In

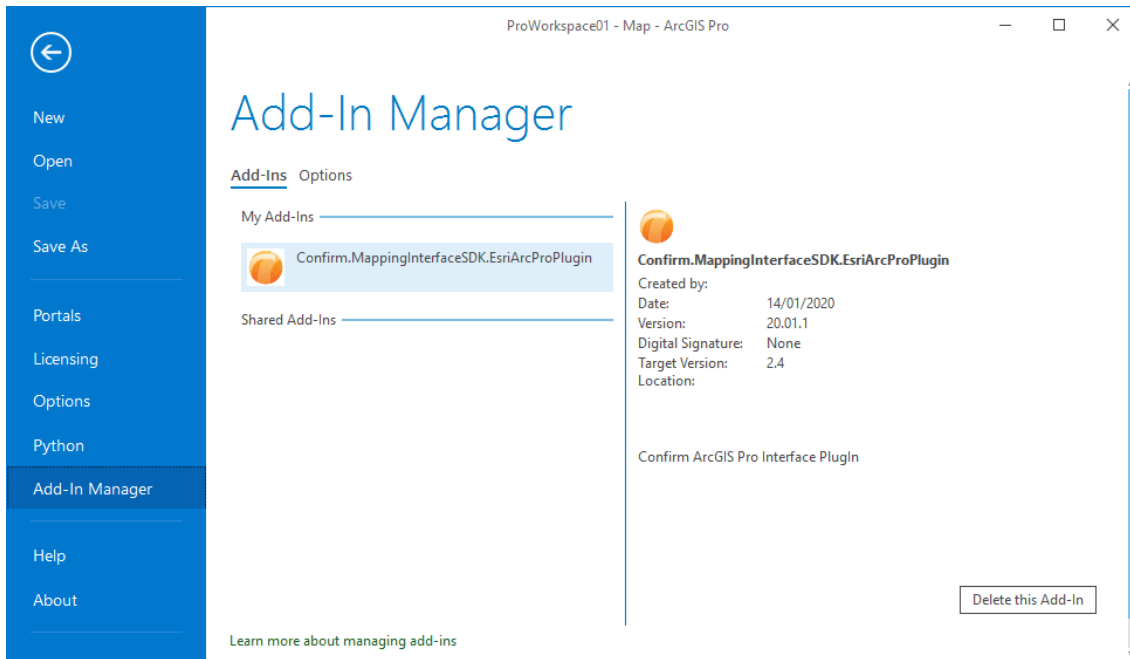


ArcGIS Pro Specific Installation Steps

The installer will configure the Confirm Mapping Interface extension for ArcGIS Pro to automatically load the toolbar. No further installation steps are needed.

It is possible for the Confirm Add-In to remain registered with ArcGIS Pro after uninstalling the product. The tools will not work in this scenario and it is possible to manually remove the tools using the following instruction.

1. Open ArcGIS Pro
2. Select the 'Project' tab and click on 'Add-in Manager'
3. Select the Confirm Mapping Interface
4. Click 'Delete this Add-In'



Coordinate System

The Confirm database uses a map system setting to determine which coordinate system the geometry data is stored in. The Confirm Mapping Interface Tools assumes that all map layers are also in that same coordinate system. This means that your maps must use the same coordinate system as Confirm to ensure feature geometry is updated correctly.

Tools

Configuring the Interface

Once both the Web Service and Confirm Mapping Interface have been installed, you then need to configure the tools to communicate with Confirm by using the **Map Feature Group to Layer** tool (cog icon).

Sign In

The first time you perform any action with the Confirm Mapping Interface tools, you will be presented with a Sign In form containing the following fields:

The screenshot shows a web browser window titled "Confirm" with a yellow border. Inside the window, the "Confirm" logo is at the top left. Below it is a horizontal line, followed by the text "Sign in" in a purple font. There are four input fields stacked vertically: "Service URL" containing "http://ConfirmWebServer/arcmap", "Username" containing "JohnSmith", "Password" containing six asterisks, and "Tenant" containing "TestData". At the bottom of the form is a "Sign in" button with a dotted border.

- URL - the URL of the Web Service that has been setup to work for the mapping link.
- Username - a Confirm user created for updating features in Confirm.
- Password - the password required for your username.
- Tenant - A database connection configured on the Web Service to access Confirm.

Note: All of the above would be provided by the Confirm administrator. Also, the sign in form will be presented the first time you use any of the Confirm Mapping Link tools in your current session.

After you've Signed in the tools will remember those details and continue to use them until MapInfo / ArcMap is closed and re-opened.

Map Feature Groups to Layers

The first step is to ensure you have one or more layers loaded into your map (using the same **Coordinate System**) which you plan on syncing data to and from the main Confirm system. With the layers loaded click on the Map Feature Groups to Layers button.

The Layer Mappings form will appear:

Feature Group	Map Layer	
Benches		Edit Fields
Cycle Track		Edit Fields
Elementary Street Unit		Edit Fields
Footway		Edit Fields
Gully		Edit Fields
Road Section	SDE102.SDE.RoadSections	Edit Fields
SL - Street Light	StreetLights	Edit Fields

Save Cancel

Here you can set which Confirm Feature Groups will link to which Map Layers:

- **Feature Groups** listed are those with the "Use Confirm Database Map Layer" option enabled.
- For ArcMap and ArcGIS Pro, the list of available Map Layers will only show those which match the geometry type for the chosen Confirm Feature Group. **For example:** The SL - Street Light Feature Group has been configured to work with Point geometry, so the Map Layer drop down will only show layers that contain point data.

Feature Field to Layer Field

With a Map Layer linked to the Confirm Feature Group, it is now necessary to link the Layer Fields to the Feature Fields. To do this, click the Edit Fields button (only enabled if a layer has been selected). This will display the Layer field mappings form as shown below:

Layer Field	Data Type	Feature Field
ASSET_ID	String	Central Asset Id
DEADT	String	
END_DATE	Date	End Date
FEATURE_GP	String	Feature Group Code
FEATURE_ID	String	Feature Id
LOCATION	String	Location
NUMBER	Double	

Back

The feature group and layer name you are editing will be shown at the top of the form.

The **Layer Field** and **Data Type** columns display all of the fields available in your chosen map layer and their corresponding Data Type. The Feature Field displays any currently linked Confirm Feature fields with the drop down showing any that may be linked.

Note: The Dead flag will sync as either 'true' or 'false' so the field in the layer must be of string data type and have a length of at least 5 characters.

Note: Only one Feature Field value can be linked to a Layer Field but it is possible to link multiple Layer Fields to the same Feature Field value.

Note: When used, Alias names will be displayed in the Layer Field list instead of the column name. Alias names containing spaces are not supported and will not be displayed.

It is possible to link to the Confirm Attribute Code or Name values. These values must be an exact match in both systems excluding case sensitivity. **For example:** Map layer value of "1.5Metres" will work when Attribute value in Confirm is "1.5metres" or "1.5Metres". It will not work when the value in is Confirm "1.5 Metres".

The Back button on this form will return to the Layer Mappings form where you can Save or Cancel any changes.

Mandatory Feature Fields

- **Central Asset Id:** This is used as the unique identifier between the Map Layer and the Confirm Feature. This must be linked to a Layer Field containing a unique value for every feature in your Map Layer/s. In the screenshot above, this is shown as ASSET_ID
- **Revision No:** This is used to keep track of when a feature was last updated so that only Confirm Features that have changed since the last synchronisation are downloaded. This must be a numeric field in the Layer.
- **FeatureTypeCode:** This is used by the **Update Feature in Confirm** tool and must contain a valid value for all new Features in the selection prior to using this tool to create new Features in Confirm.

Note: It is strongly recommended that the Layer Field linked to the Central Asset Id is indexed in the Map Layer to improve performance during synchronisation

ESRI Feature Class Subtypes and Domains

Refer to ESRI documentation if you're unfamiliar with Subtypes and Domains. These essentially allow you to create drop down values to select from when editing mapping data.

When editing, the Description value is shown in the drop down but this value is not sent to Confirm, instead the Code value will be sent. This means the attribute values in Confirm will need to match the Code value shown on the Domain used by the Feature class being edited.

MapInfo Pro and Date fields

When using SQL Server Spatial data, linking date fields must be configured as Date/Time fields in the SQL Server database.

ArcGIS Pro and Date/Time Fields

ArcGIS Pro only supports Date fields (as opposed to Date/Time fields) so any Date/Time values mapped to Date fields will have their time value removed.

Confirm pre-requisites

In order for Confirm and the Mapping Interface tools to work together, the following Confirm configuration is required:

- An Adhoc Inspection Route for the Work Group assigned to the Confirm Mapping Interface user/s.
- Inspection Batch seed number ranges specified in the Condition Survey Seed screen for the chosen users Work Group.

Sync Features

Once the **Feature Group to Map Layer** configuration has been completed it will now be possible to Sync data from Confirm to the Map Layers. Using the Sync features button, all Layers which have been linked to Feature Groups will be updated with the latest details stored in the Confirm

database. All Features that match via the Central Asset Id on your Map Layers will be updated if changes have been detected in Confirm.

Create / Edit Feature

Once the Map Layer to Confirm Feature configuration has been completed it will be possible to create or edit a feature on the map layer and send the updated details back to Confirm, this process will also sync the details back to the map layer.

Note: The Create / Edit Feature option is not available in the Confirm Mapping Interface for ArcGIS Pro.

Creating a new feature

Once a new feature has been created in a map layer, it is then necessary to create that feature in Confirm. To do this, select the newly created feature. Click on the Create / Edit Feature button, this will launch the Create Feature form.

The screenshot shows a window titled "Confirm" with a "Create Feature" form. The form is organized into two main sections: "Feature" and "Attributes".

Feature Section:

- Feature Name:** BERTHA ROAD, MARGAM, PORT TALBOT
- Feature Id...:** (empty text field)
- Plot Number...:** (empty text field)
- Feature Type:** SL - Bollard (SLBO)
- Select Classification:** (dropdown menu)
- Location...:** (empty text field)
- notes...:** (empty text area)

Attributes Section:

- Number of:** 0
- SL - Column:** Select value

Note: In ArcMap you must finish editing before using this tool.

Within the Create Feature form you will be able to set the features details as per the form. The "Site" and "Feature Type" fields, shown as "Bertha Road, Margam, Port Talbot" and "SL - Bollard (SLBO)" in the above screenshot, are mandatory and must be entered before being able to complete the feature.

Note: Some of the Attributes may also be mandatory and are shown as highlighted in red. These will also need to be populated before you are able to complete the feature.

Once the feature is complete the form will close after a short time indicating the feature has been created, a Sync is then automatically performed to populate all fields linked to the map layer for all features that have changes since the last sync.

Editing an existing feature

Editing an existing feature works much in the same way as creating a new one, the only difference being is that you do not need to create the feature prior to using the Create / Edit button. Simply select your existing mapped feature and click the Create / Edit button. The Edit Feature form will appear containing all of the existing feature details pre-populated. Make the required changes and Complete the feature. A Sync is again performed to update all the mapped feature details with the new changes you've just made.

Update Multiple Features in Confirm

Once the Map Layer to Confirm Feature configuration has been completed it will be possible to update one or more features in Confirm using data stored in the Map Layer columns without needing to manually populate a user interface.

The "Update Multiple Features in Confirm" button is enabled when one or more features are selected on the map.

Using the map selection tools, it is possible to select multiple features and send the mapped details (shown in the Feature and Feature Attribute lists below) to Confirm.

Note: A maximum of 300 features may be selected, should you exceed this number the tool will not be available.

When the selection contains new Features, those which do not currently exist in Confirm and which do not already contain a Site Code value, you will be prompted to select a Site against which these new Features will be created.

Note: This tool relies on a single layer linked with a single Feature Group. If two layers are linked to the same Feature Group, features on that layer will be ignored.

The following fields are updated in Confirm when using this tool:

- Feature Fields
 - Location
 - Notes
 - Feature Id
 - Dead Flag
 - Feature Type Code
 - Geometry
- Feature Attribute Fields
 - Pick Attribute Code
 - Text Attribute Value
 - Measurement Value
 - Date Value

Once the upload is complete, a confirmation window will appear indicating its success or any errors should they occur.

Creating New Features

Using this tool to create new Features requires the following conditions to be met:

- Feature Type Code must be **linked to the layer** and a value entered for each new Feature in the selection.

Note: In ArcMap, it is possible to setup one or more feature templates for each map layer to automatically populate the Feature Type Code as the features are drawn.

- The Feature Type of the new Feature/s must exist in the **linked Feature Group**.
- All new Features in the selection must belong to the same Site or alternatively each Feature's Site Code must already be populated in the layer.

Note: The selection may still contain 'existing' Features on multiple sites.

Note: Mandatory attributes are not enforced when creating Features using this method. Users can use the single feature **Create/Edit button** to ensure that mandatory attributes are always included.

Troubleshooting

See the log file for details

It is possible for a message to appear asking to review log file for further details. This log file can be found in the users appdata directory. For example: %localappdata%\ConfirmMappingInterface.

This can occur where the data from Confirm will not import into the Map layer because the data was too big for the layer. For example: The Features notes field may be linked to a map layer column which only allows 100 characters but Confirm allows up to 2000.

In this scenario it is advised to work with the Confirm administrator to check the data types you are setting up in the Map layers will cater for the data fields in Confirm. The Schema Report tool in Confirm can be used to identify data fields to help with this task.