Unified Pipeline Tools add-in

This add-in is designed to work with ArcGIS Pro 3.1 and above.

When working with Pipeline Referencing and Utility Network data, you can access commonly used tools from both environments in one tab with the Unified Pipeline Tools add-in. Once installed, you can also customize the add-in in ArcGIS Pro.

Before the add-in, common workflows required that you switch between different tabs.

The following are workflow examples of the process with the add-in:

- **Validate** network topology for a dirty area created by pipeline realignment:

  Explore – **Create** – **Realign Route** - **Validate**

- Set up connectivity and create route after new pipelines are placed:

  Terminal Connections - **Modify Controller** – **Validate** – **Create Route**

Installation

To use the Unified Pipeline Tools add-in with ArcGIS Pro, you will need to first download compressed file contents, extract the folder containing the installer, and run the installer.

The following steps outline this in detail:

1. Download the contents from this location.
2. Close any ArcGIS Pro projects that are open.
3. Browse to the downloaded UnifiedPipelineTools folder and extract its contents.
4. Browse to and double-click **UnifiedPipelineTools.esriAddInX** to run the installer.
5. Click **Install Add-In** on the **Esri ArcGIS Add-In Installation Utility** dialog box.
   The add-in is installed.
6. Click **OK**.
7. Open ArcGIS Pro.

After the add-in is installed, it shows up as a tab on the ArcGIS Pro ribbon. The Utility Pipeline Data Model (UPDM) solution is not required to use the add-in. The availability of tools in the add-in is determined by the associated data and licenses.
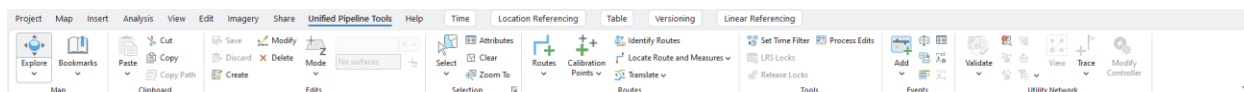

Figure 1 Unified Pipeline Tools tab after the add-in is installed

> **Note:**
>
> You can also choose to further manage the Unified Pipeline Tools add-in in ArcGIS Pro.

Tools in the Unified Pipeline Tools tab

Tool	Description
Navigate and Edit tools	
Explore	Move, pan, identify feature attributes via a pop-up, and zoom in and out of maps and scenes.
Bookmarks	Open the gallery of existing bookmarks and the options to manage them or create more. Bookmarks are navigation shortcuts to a position on a map or perspective in a scene that you can quickly return to or share with others.
Copy	Copy selected features to the clipboard.
Paste	Paste features from the clipboard to the same layer.
Cut	Copy selected features to the clipboard and remove the selected features from the source map.
Copy Path	Copy the path of selected features to the clipboard.
Create	Open the **Create Features** pane containing feature templates with which you can create features.
Modify	Open the **Modify Features** pane containing standard editing tools as well as specialized tools available with extensions.
Delete	Delete selected features or parts of a multipart feature.
Save	Save the edits you make to a map or a scene including added or removed layers or maps, and changes to data sources.
Discard	Discard the edits you make to a map or a scene including added or removed layers or maps, and changes to data sources.
Mode	Assign default z-values when you create z-aware features, or set the elevation mode to apply a constant z-value, or get z-values dynamically from an elevation surface layer.
Elevation value	Provide a z-value to be set as the constant elevation for the newly created features.
Map Surfaces	Select a surface from the available elevation map surfaces to get z-values from the map.

Get Z From View	Obtain a constant elevation from the available map surfaces.
Select	Select features on the map or choose a selection method.
Attributes	View attribute values or edit them in the **Attributes** pane.
Clear	Clear selected features.
Zoom To	Zoom to selected features.
Pipeline Referencing tools	
Create Route	Create routes in an LRS Network using centerline features that define the location and geometry of a route.
Extend Route	Extend a route in ArcGIS Pipeline Referencing by adding length to the beginning or end of it.
Realign Route	Realign a single route or several adjoining routes that are part of the same line.
Reassign Route	Reassign all or a portion of a route or line to the immediate upstream or downstream of another route or line.
Retire Route	Retire a route segment, an entire route, or multiple adjoining routes that belong to the same line for the specified time frame.
Reverse Route	Reverse the route direction.
Add Calibration Points	Add calibration points to a route.
Edit Calibration Points	Edit and modify route calibration points.
Delete Calibration Points	Delete calibration points on a route.
Identify Routes	Identify routes, their measures, and locking information. Click the **Identify Routes** tool and then a route.
Locate Route and Measures	Search for a route and locate measures on it.

Translate	Translate between route ID and route name, as well as line ID and line name. Measures can also be translated between coincident or intersecting routes of the same or different networks.
Set Time Filter	Configure the time view for LRS-managed layers.
LRS Locks	Review and release line, route, and event locks.
Release Locks	Release any lock whose releasable state value is **Yes**. Learn more about releasable states
Process Edits	Run common post route editing tools in one click. This tool appears in the Unified Pipeline Tools tab with ArcGIS Pro 3.4 and above.
Add Events	Add events of the following type: • Point • Line • Multiple points • Multiple lines
Split	Split a line event into two adjoining events.
Merge	Combine multiple adjoining events into a target event.
DynSeg	Create an output where the events on a route are dynamically segmented together into one record set. The tool returns separate records at any measure along the event where any of the attributes change.
Attribute Sets	Use a collection of event layer attributes to create multiple events with a set of additional, organization-specific attributes in a single edit.
Configure Replacement	Categorize event layers before event replacement. The measures for the route do not change during event replacement.
Replace	Update events that were part of a replaced pipe using an event replacement configuration that groups event layers so that multiple events can be retired or replaced by new events in a single editing operation.
Utility Network tools	

Validate	Keep the network topology updated for analytic events. Dirty areas serve as an indicator that the content you see on the map does not match what is stored in the network topology.
Error Inspector	Validate and fix geodatabase topology errors individually or several at one time.
Terminal Connections	Set a terminal connection between a line and a terminal on a device feature, change the terminal to which the line is connected, or disconnect a line from a device terminal.
Modify	Launch the **Modify Associations** pane to manage containment associations between existing network features.
Enter Containment	Enter the containment edit mode to automatically create the containment association when creating content features inside an existing container.
Exit Containment	Exit containment edit mode.
Display Content	Show or hide containment association content. This enables or disables display filters configured using the association status attribute to turn content feature display on and off based on their visibility property.
View	View connectivity or structural attachment associations on the map.
Trace Locations	Set starting points, barriers, or clear all trace locations.
Modify Controller	Modify an existing subnetwork controller in the **Modify Subnetwork Controller** pane.