
VON DER STRASSE ZUR ROUTE



Einsatz des ArcGIS Experience Builders zur Nutzung der GIP für intelligente Routinglösungen

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AGENDA



1) Anforderungen & Zielsetzung



2) Vom Straßengraphen zum Network Dataset



3) Serverseitige Bereitstellung des Straßengraphens



4) Aufbau des experience builders



5) Fazit



WELCHE ANFORDERUNGEN LIEGEN VOR



01 GIP-Straßengraph als Grundlage

- Vollständige Nutzung des GIP-Straßengraphens als Routinggrundlage
- Einheitliche Geodatenquelle für interne Anwendungen

02 Rechtfreies Routing für Mitarbeiter*innen

- Nutzung der Routingfunktionen ohne GIS-Vorkenntnisse
- Unterstützung von diversen Anwendungsfällen

03 Umsetzung mit bestehenden In- House-Ressourcen

- Minimierung von Abhängigkeiten
- No-Code-Ansatz zur raschen Entwicklung

04 Anpassbarkeit und Wartungsarmut

- Einfache Updates des Straßengraphens
- Wartungsarmer No-Code-Betrieb



VOM STRASSENGRAPHEN ZUM NETWORK DATASET



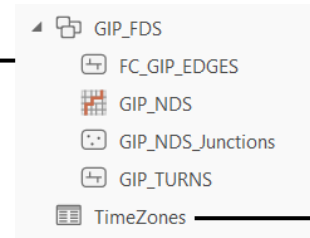
Attribute pro
Fahrzeugklasse und Kante

Einstellungen für
„Restrictions“ treffen

Festlegen von Travel
Modes

Build des Network
Datasets

- Pro Kante und Fahrzeugklasse:
 - Befahrbarkeit
 - Zeit
- Pro Kante
 - TimeZoneID
- In Feature Data Set
 - Table mit TimeZones



| MOT_Min_AVG | MOT_Speed_AVG | BIKE_Min | PED_Min | HIERARCHY | DIRECTION_MOT | DIRECTION_BIKE | DIRECTION_PED | TimeZoneID |
|-------------|---------------|----------|----------|-----------|---------------|----------------|---------------|------------|
| 0.13919 | 27 | 0.208785 | 0.751627 | 8 | B | B | B | 1 |
| 0.039646 | 27 | 0.059469 | 0.214088 | 9 | B | N | B | 1 |
| 0.405659 | 25 | 0.563415 | 2.028295 | 13 | N | B | B | 1 |
| 0.280116 | 27 | 0.420174 | 1.512625 | 6 | B | N | B | 1 |
| 0.216234 | 27 | 0.324352 | 1.167666 | 7 | B | N | B | 1 |
| 0.1119 | 27 | 0.167851 | 0.604262 | 13 | B | N | B | 1 |
| 1.702174 | 27 | 2.553261 | 9.191738 | 7 | B | B | B | 1 |
| 0.106568 | 27 | 0.159852 | 0.575466 | 4 | B | B | B | 1 |
| 0.035847 | 27 | 0.05377 | 0.193573 | 13 | B | N | B | 1 |
| 0.094158 | 27 | 0.141238 | 0.508455 | 13 | B | N | B | 1 |

| ObjectID * | MSTimeZone |
|------------|------------------------------|
| 1 | Central Europe Standard Time |



VOM STRASSENGRAPHEN ZUM NETWORK DATASET



Attribute pro
Fahrzeugklasse pro Kante

Einstellungen für
„Restrictions“ treffen

Festlegen von Travel
Modes

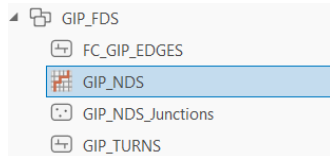
Build des Network
Datasets

– Im Network Dataset
Restrictions anlegen

– Per Field Script

– Einbahnen und
Verbote festlegen

– Für jeden
gewünschten
Fahrmodus



| Restriction | Usage |
|------------------|------------|
| BIKE_ChwWay | Prohibited |
| BIKE_Restriction | Prohibited |
| MOT_ChwWay | Prohibited |
| MOT_Restriction | Prohibited |
| PED_Restriction | Prohibited |

| Source | Type | Prohibited |
|------------------------|-----------------|-------------|
| Edges | | |
| FC_GIP_EDGES (Along) | Field Script | <Script...> |
| FC_GIP_EDGES (Against) | Field Script | <Script...> |
| <Default> | Constant | False |
| Junctions | | |
| GIP_NDS_Junctions | Same as Default | False |
| <Default> | Constant | False |

```
Value =  
SetOneway(1DIRECTION_BIKE1)  
  
Code Block  
  
def SetOneway(value):  
    if value and value.upper() in ('N', 'TF'):  
        return True  
    return False
```



VOM STRASSENGRAPHEN ZUM NETWORK DATASET



Attribute pro
Fahrzeugklasse pro Kante

Einstellungen für
„Restrictions“ treffen

Festlegen von Travel
Modes

Build des Network
Datasets

- Im Network Dataset Travel Modes festlegen
 - Verschiedene Fahrmodi anlegen
 - Zeitwerte und Distanzwerte festlegen
 - Restriktionen müssen pro Fahrmodi eingefügt werden

The screenshot shows the 'Travel Modes' configuration page in a software interface. The 'MOT_Zeit' travel mode is selected and highlighted with a red box. Under the 'Costs' section, 'Impedance' is set to 'MIV_Morgen' (minutes), 'Time Cost' is 'MIV_Morgen' (minutes), 'Distance Cost' is 'Length' (meters), and 'Length' is 'Length' (meters). Under the 'Restrictions' section, a table lists available restrictions, with 'MOT_OneWay' and 'MOT_Restriction' checked and highlighted with a red box.

| Attribute | Parameters |
|---|--------------|
| <input type="checkbox"/> BIKE_OneWay | > Prohibited |
| <input type="checkbox"/> BIKE_Restriction | > Prohibited |
| <input checked="" type="checkbox"/> MOT_OneWay | > Prohibited |
| <input checked="" type="checkbox"/> MOT_Restriction | > Prohibited |
| <input type="checkbox"/> PED_Restriction | > Prohibited |



VOM STRASSENGRAPHEN ZUM NETWORK DATASET



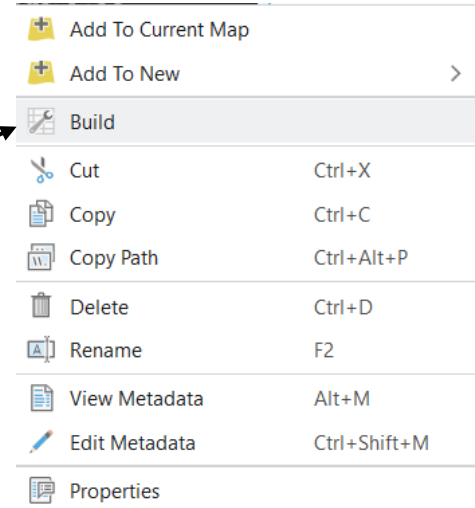
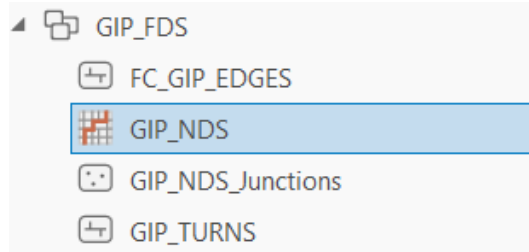
Attribute pro
Fahrzeugklasse pro Kante

Einstellungen für
„Restrictions“ treffen

Festlegen von Travel
Modes

Build des Network
Datasets

- Abschließend das
Network Dataset per
„build“ Funktion
berechnen





SERVERSEITIGE BEREITSTELLUNG DES STRASSENGRAPHENS



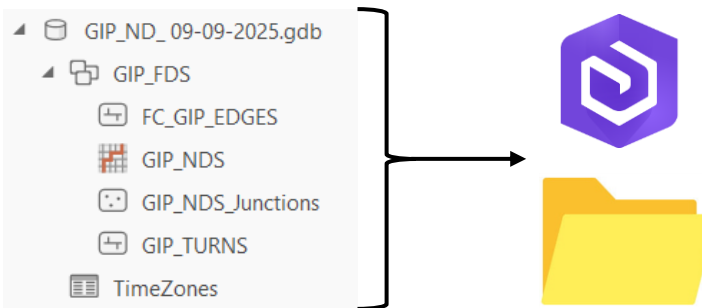
GDB des NDs in Ordner auf GIS-Server ablegen

**Portal Settings:
Utility services
Directions & Routing**

Data Store angeben

**Routing Service
publishen**

- GDB mit Graph, junctions, Turns, ND und TimeZones in Ordner auf GIS-Server ablegen
- Ordner muss am Server als Data Store eingetragen sein





SERVERSEITIGE BEREITSTELLUNG DES STRASSENGRAPHENS



GDB des NDs in Ordner
auf GIS-Server ablegen

Portal Settings:
Utility services
Directions & Routing

Data Store angeben

Routing Service
publishen

- Aufrufen der Portal Settings
 - Utility services
 - Directions and Routing
 - Update routing Services

The screenshot shows the 'Directions and Routing' configuration page in the ArcGIS Portal. The left sidebar contains a list of settings categories: Gallery, Map and scene, Items, Groups, Webhooks, Utility services, ArcGIS Online, Living Atlas, Servers, Member roles, New member defaults, Collaborations, Security, and Organization extensions. The 'Utility services' category is selected, and the 'Directions and Routing' page is displayed. The page title is 'Directions and Routing' and the subtitle is 'Configure the source of the routing services used by all members in your organization. Learn more about configuring routing services.' A red box highlights the 'configuring routing services' link, which leads to the 'Update routing services' button. Below this, a dialog box titled 'Configure routing services' is shown with a close button (X). The dialog asks 'Where are your routing services coming from?' and has three radio button options: 'ArcGIS Online', 'A network dataset that I'd like to publish' (which is selected), and 'Existing routing services (Advanced)'. At the bottom right of the dialog, there are 'Cancel' and 'Next' buttons, with the 'Next' button highlighted by a red box.



SERVERSEITIGE BEREITSTELLUNG DES STRASSENGRAPHENS



GDB des NDs in Ordner
auf GIS-Server ablegen

Portal Settings:
Utility services
Directions & Routing

Data Store angeben

Routing Service
publishen

- Data store auswählen
- Serverhost anführen
- Auf korrekte Endung für
relative Pfade achten

Configure routing services



Publish routing services based on a registered network dataset in your organization. [Learn more about publishing routing services.](#)

Network dataset

Data store item containing the network dataset

Server that will host your routing services

Network dataset relative path ⓘ

Note: Path should always use forward slashes (/).

Service properties

Service folder



SERVERSEITIGE BEREITSTELLUNG DES STRASSENGRAPHENS



GDB des NDs in Ordner
auf GIS-Server ablegen

Portal Settings:
Utility services
Directions & Routing

Data Store angeben

Routing Service
publizieren

- Gewünschte Funktionen wählen
- Routing Service publizieren

Service types

| | |
|--------------------------------|-------------------------------------|
| Closest facility | <input checked="" type="checkbox"/> |
| Last mile delivery | <input checked="" type="checkbox"/> |
| Location allocation | <input checked="" type="checkbox"/> |
| Origin destination cost matrix | <input checked="" type="checkbox"/> |
| Route | <input checked="" type="checkbox"/> |
| Service area | <input checked="" type="checkbox"/> |
| Snap to roads | <input checked="" type="checkbox"/> |
| Vehicle routing problem | <input checked="" type="checkbox"/> |

Back

Cancel

Publish Routing Services



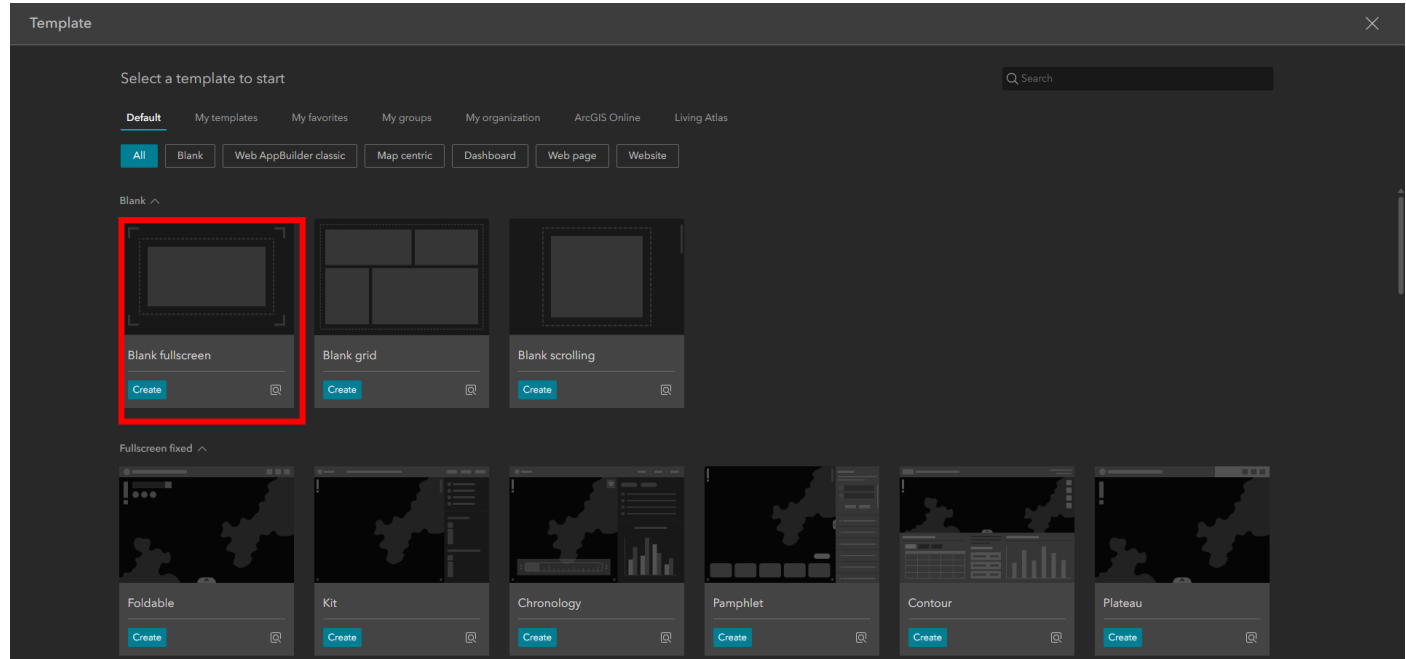
AUFBAU DES EXPERIENCE BUILDERS



Leere Vorlage wählen

Karte und Header wählen

Design im Header definieren





AUFBAU DES EXPERIENCE BUILDER



Leere Vorlage wählen

Karte und Header wählen

Design im Header definieren

The screenshot displays the Experience Builder interface for 'Untitled experience 20'. The main workspace shows a map of Austria with a yellow header bar at the top. The left sidebar contains an 'Insert widget' panel with a 'Map' widget highlighted by a red box. The right sidebar shows the 'Page' configuration panel, where the 'Header' section is highlighted by a red box, showing a height of 75 px and a yellow fill color.



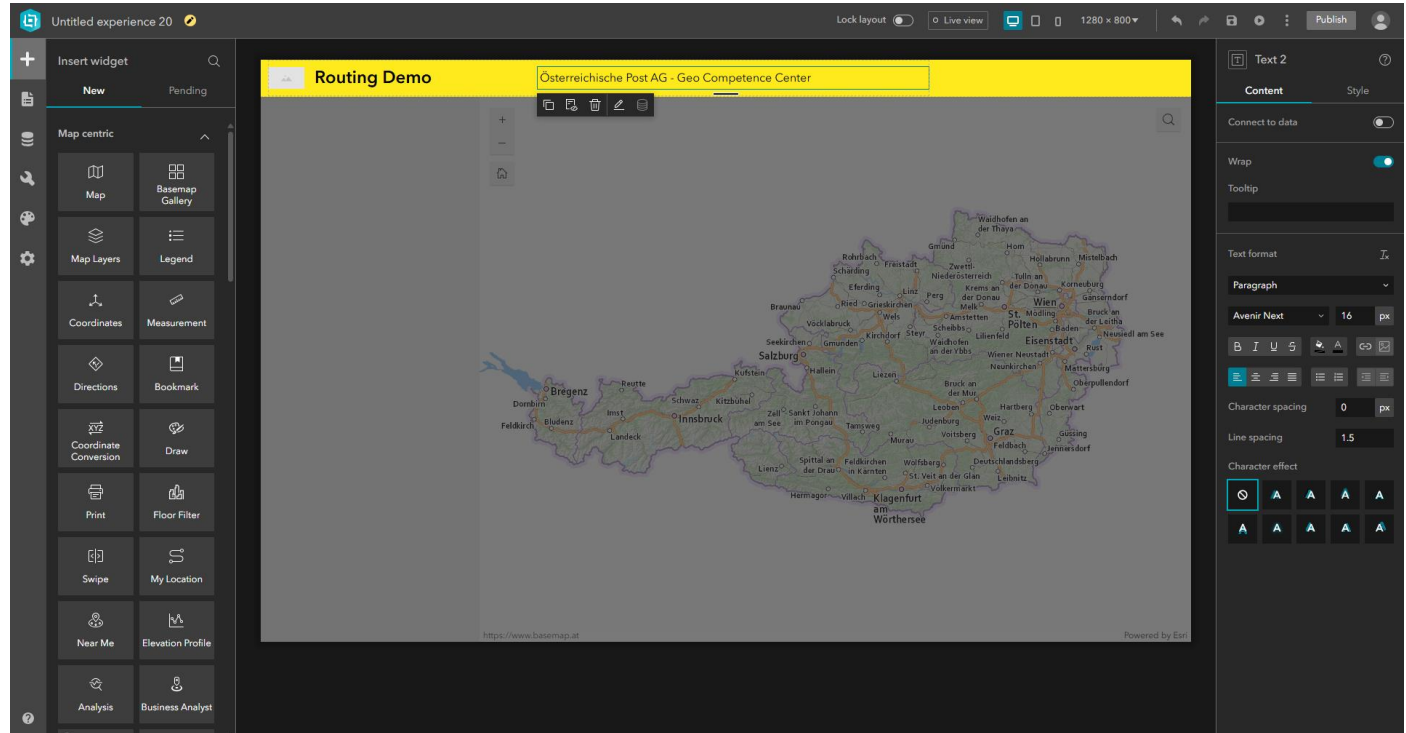
AUFBAU DES EXPERIENCE BUILDERS



Leere Vorlage wählen

Karte und Header wählen

Design im Header definieren





ANLEGEN VON SECTIONS, VIEWS UND WIDGETS



Sections:

- Views anlegen
- Views benennen

Views navigation:

- Mit Sections verknüpfen

Widgets:

- Add Data
- Analyse Widget
- In Sections einbetten

The screenshot displays the ArcGIS Experience Builder interface. The main workspace shows a 'Routing Demo' section with a map of Austria. The left sidebar contains a 'Section' widget, which is highlighted with a red box. The right sidebar shows the 'Views' panel, which is also highlighted with a red box. The 'Views' panel includes a 'New view' button and several view options: 'Upload Data', 'Find Routes', 'Service Area', and 'Closest Facility'. Below these are 'Tools' (Rename, Duplicate, Delete) and 'Arrows'.



ANLEGEN VON SECTIONS, VIEWS UND WIDGETS



Sections:

- Views anlegen
- Views benennen

Views navigation:

- Mit Sections verknüpfen

Widgets:

- Add Data
- Analyse Widget
- In Sections einbetten

The screenshot displays the ArcGIS Experience Builder interface. The main content area shows a 'Routing Demo' widget with a map of Austria and a navigation panel. The navigation panel has a red box around the 'v1' view. The left sidebar shows the 'Section' widget with a red box around the 'Views Navigation' widget. The right sidebar shows the 'Views Navigation 2' widget with a red box around the 'Section' dropdown menu.



ANLEGEN VON SECTIONS, VIEWS UND WIDGETS



Sections:

- Views anlegen
- Views benennen

Views navigation:

- Mit Sections verknüpfen

Widgets:

- Add Data
- Analyse Widget
- In Sections einbetten

The screenshot displays the ArcGIS Experience Builder interface. The main content area shows a map titled 'Routing Demo' by 'Österreichische Post AG | Geo Competence Center'. The map includes a search bar and a toolbar with 'Upload Data' and 'Find Routes' buttons. The left sidebar contains an 'Outline' panel with a 'Section' list. The 'Section' list is highlighted with a red box and includes the following items: 'Upload Data', 'Add Data', 'Find Routes', 'Service Area', 'Closest Facility', and 'Analysis 3'. The 'Analysis 3' item is highlighted in blue. The right sidebar shows the 'Content' panel for 'Analysis 3', with a 'Map' widget selected. The bottom right corner of the map area says 'Powered by Esri'.



KONFIGURATION DES ADD DATA WIDGETS



Add Data:

- Erlaubt Usern Upload von eigenen Daten

Einstellungen:

- Nur eigene Daten
- Keine URLs

Action:

- Add a trigger
- Add data to map

The screenshot displays the ArcGIS Experience Builder interface for a 'Routing Demo' experience. The main map area shows a map of Austria with various locations labeled. The left sidebar contains a list of widgets, with the 'Add Data' widget highlighted in a red box. The right sidebar shows the configuration for the 'Add Data' widget, including options for 'Way of adding data', 'Select from account', 'Input URL', 'Upload files', and 'General' settings. The 'Add Data' widget is currently empty, displaying the message 'There is currently no added data.' and a '+ Click to add data' button.



KONFIGURATION DES ADD DATA WIDGETS



Add Data:

- Erlaubt Usern Upload von eigenen Daten

Einstellungen:

- Nur eigene Daten
- Keine URLs

Action:

- Add a trigger
- Add data to map

The screenshot shows the configuration interface for an 'Add Data' widget in ArcGIS Experience Builder. The main map area displays a 'Routing Demo' for 'Österreichische Post AG | Geo Competence Center' with a map of Austria. The left sidebar shows the 'Add Data' widget selected. The right sidebar shows the configuration options for the widget, with several options highlighted in red boxes:

- Way of adding data:**
 - My content
 - My groups
 - My organization
 - ArcGIS Online
 - Living Atlas
 -
- Input URL:**
 - Upload files
- General:**
 - Allow renaming

The main map area shows a message: "There is currently no added data." with a button "+ Click to add data".



KONFIGURATION DES ADD DATA WIDGETS



Add Data:

- Erlaubt Usern Upload von eigenen Daten

Einstellungen:

- Nur eigene Daten
- Keine URLs

Action:

- Add a trigger
- Add data to map

Routing Demo Österreichische Post AG | Geo Competence Center

Upload Data Find Routes Ser >

There is currently no added data.

+ Click to add data

Select an action

Add Data

Content Style Action

Message action Data action

Add a trigger

Data added

Map

Add to map

Map

Pan to

Map

Zoom to

+ Add action



HINZUFÜGEN DES CUSTOM WEB TOOLS



Analyse Widget:

- Add Tools
- Custom web tool

Add utility:

- Network Analysis oder Link zum GP-Server wählen

Network Analysis:

- Tool wählen
- Pro Analyse Widget wiederholen

The screenshot displays the ArcGIS Experience Builder interface. The main content area shows a map titled "Routing Demo" with a yellow header and a toolbar containing "Upload Data" and "Find Routes" buttons. The left sidebar is open to the "Insert widget" panel, showing the "analysis" widget selected. The right sidebar is open to the "Select utility" panel, where the "Custom web tool" option is highlighted with a red box. At the bottom of the interface, the "Add utility" button is also highlighted with a red box.



HINZUFÜGEN DES CUSTOM WEB TOOLS



Analyse Widget:

- Add Tools
- Custom web tool

Add utility:

- Network Analysis oder Link zum GP-Server wählen

Network Analysis:

- Tool wählen
- Pro Analyse Widget wiederholen

The screenshot displays the ArcGIS Experience Builder interface. The main map area shows a 'Routing Demo' for the 'Österreichische Post AG | Geo Competence Center'. The 'Add utility' panel on the right is open, showing a list of utilities under 'My content'. The 'NetworkAnalysis' utility is highlighted with a red box. Below the list, the 'Done' button is also highlighted with a red box. The interface includes a left sidebar with navigation options like 'Map centric', 'Data centric', and 'Custom'. The top bar shows 'Untitled experience 21' and 'Live view' options.



HINZUFÜGEN DES CUSTOM WEB TOOLS



Analyse Widget:

- Add Tools
- Custom web tool

Add utility:

- Network Analysis oder Link zum GP-Server wählen

Network Analysis:

- Tool wählen
- Pro Analyse Widget wiederholen

The screenshot displays the ArcGIS Experience Builder interface. The main workspace shows a map titled "Routing Demo" with a yellow header bar. The map content area is currently blank, showing only the "Analysis" widget icon. On the left, the "Insert widget" panel is open, showing the "analysis" widget category. On the right, the "Select utility" panel is open, displaying a list of network analysis utilities. The "FindRoutes" utility is highlighted with a red rectangle. Other utilities visible include "FindClosestFacilities", "GenerateOriginDest...", "GenerateServiceAreas", "SolveLastMileDelivery", "SolveLocationAlloca...", and "SolveVehicleRouting...". The top right of the interface shows the "Publish" button and a resolution of 1280 x 800.



KONFIGURATION DES CUSTOM WEB TOOLS



Einstellungen:

- Reduktion auf das Wesentliche
- Zu viel Input kann User überfordern

Default-Einstellungen:

- Fahrmodi
- Einheiten
- Restriktionen

The screenshot displays the ArcGIS Experience Builder interface for configuring a 'FindRoutes' widget. The central map area shows a routing demo for the Österreichische Post AG | Geo Competence Center. The configuration panel on the right is highlighted with a red border and includes the following settings:

- Input:** Stops
- Measurement Units:** Minutes
- Analysis Region:** Visible
- Reorder Stops to Find Optimal Routes:** Visible
- Preserve Terminal Stops:** True



KONFIGURATION DES CUSTOM WEB TOOLS



Einstellungen:

- Reduktion auf das Wesentliche
- Zu viel Input kann User überfordern

Default-Einstellungen:

- Fahrmodi
- Einheiten
- Restriktionen

Routing Demo Österreichische Post AG | Geo Competence Center

FindRoutes

Stops

Measurement Units: Minutes

Travel Mode: Custom

Barriers

Restrictions: MOT_OneWay, MOT_Restriction



TABELLE IM EXPERIENCE BUILDER EINBETTEN



Sidebar hinzufügen:

- Am unteren Bildrand
- Nach unten Platz lassen

Table hinzufügen:

- In die Sidebar einbetten

The screenshot displays the Experience Builder interface with a routing demo widget. The widget is titled "Routing Demo" and is set to "Österreichische Post AG | Geo Competence Center". It features a map of Austria with a routing tool and various settings. The sidebar on the right is configured to be docked at the bottom, with a size of 300 px, and is currently expanded. The sidebar configuration includes a style section with a default background and a border, and a divider section.

Untertitel: Untitled experience 21

Routing Demo Österreichische Post AG | Geo Competence Center

Upload Data Find Routes Ser >

Tools History

FindRoutes

Stops

Layer

Measurement Units

Minutes

Reorder Stops to Find Optimal Routes

Preserve Terminal Stops

Preserve First

Return to Start

Travel Mode

Custom

Barriers

Point Barriers

Layer

Run

Sidepanel

Content Style

Side panel

Dock side

Size 300 px

Overlay

Resizable

Default state Expanded

Collapse button

Style

Icon

Background

Default

Hover

Border

Width 60

Height 15

Position Center

Offset X 0

Offset Y -15

Divider



TABELLE IM EXPERIENCE BUILDER EINBETTEN



Sidebar hinzufügen:

- Am unteren Bildrand
- Nach unten Platz lassen

Table hinzufügen:

- In die Sidebar einbetten

The screenshot displays the Experience Builder interface. On the left, the 'Insert widget' sidebar is open, showing a search for 'table' and a list of widget categories. The 'Table' widget is highlighted with a red box. The main workspace shows a 'Routing Demo' widget with a map of Austria and a 'Find Routes' button. The right sidebar shows the 'Table' widget configuration panel, including 'Content', 'Style', and 'Action' tabs. A yellow box highlights a warning message: 'The selected Map widget does not contain a web map or web scene.' Below this, the 'Arrangement style' section shows two preview thumbnails.



ROUTE MIT EIGENEN DATEN BERECHNEN



Daten uploaden:

- Nach Upload werden Daten autom. zur Karte hinzugefügt

Layer zur Route hinzufügen:

- Einstellungen treffen
- Berechnung ausführen

Route betrachten:

- Ergebnis exportieren

The screenshot shows the 'Routing Demo' application interface. At the top, there is a navigation bar with the title 'Routing Demo' and the subtitle 'Österreichische Post AG | Geo Competence Center'. Below the navigation bar, there are several buttons: 'Upload Data', 'Find Routes', 'Service Area', and 'Closest Facility'. The 'Upload Data' button is highlighted with a red box. In the center of the screen, there is a map of a region in Austria, showing various towns and roads. A dialog box titled 'Daten hinzufügen' is open over the map. The dialog box has a search bar and a 'Datei' button, both highlighted with red boxes. Below the search bar, there are icons for supported file formats: Shapefile, CSV, KML, GeoJSON, and GPX. The dialog box also contains the text 'Unterstützte Formate: Shapefile, CSV, KML, GeoJSON und GPX.' and 'Per Drag & Drop oder Dateisuche hochladen'. At the bottom of the dialog box, there is a '+ Hochladen' button. Below the dialog box, there is a button labeled '+ Zum Hinzufügen von Daten klicken', which is also highlighted with a red box. At the bottom of the screen, there is a table with several rows and columns, which appears to be a data export or summary table. The footer of the application shows the URL 'https://www.basemap.at' and the text 'Powered by Esri'.



ROUTE MIT EIGENEN DATEN BERECHNEN



Daten uploaden:

- Nach Upload werden Daten autom. zur Karte hinzugefügt

Layer zur Route hinzufügen:

- Einstellungen treffen
- Berechnung ausführen

Route betrachten:

- Ergebnis exportieren

Routing Demo Österreich

Upload Data **Find Routes** Service Area Closest Facility

Werkzeuge Verlauf

FindRoutes

Stops Layer

Measurement Units Minutes Reorder Stops to Find Optimal Routes

Preserve Terminal Stops Preserve First Return to Start

Travel Mode Custom

Barriers

Point Barriers Layer

Line Barriers Layer

Polygon Barriers Layer

Custom Travel Mode

Restrictions

Ausführen

Layer auswählen

File101
Punkt-Layer

| OBJECTID | ID | X | Y | PLZ |
|----------|----------------|-------------|-------------|-------|
| 1 | 10.011.717.860 | 16,026187 | 47,21797965 | 8.274 |
| 2 | 10.011.228.660 | 15,9551401 | 47,32264836 | 8.230 |
| 3 | 10.011.718.060 | 16,02665471 | 47,21721381 | 8.274 |
| 4 | 10.011.228.860 | 15,94682945 | 47,32074918 | 8.230 |

Gesamt: 300 | Auswahl: 0
<https://www.basemap.at>



ROUTE MIT EIGENEN DATEN BERECHNEN



Daten uploaden:

- Nach Upload werden Daten autom. zur Karte hinzugefügt

Layer zur Route hinzufügen:

- Einstellungen treffen
- Berechnung ausführen

Route betrachten:

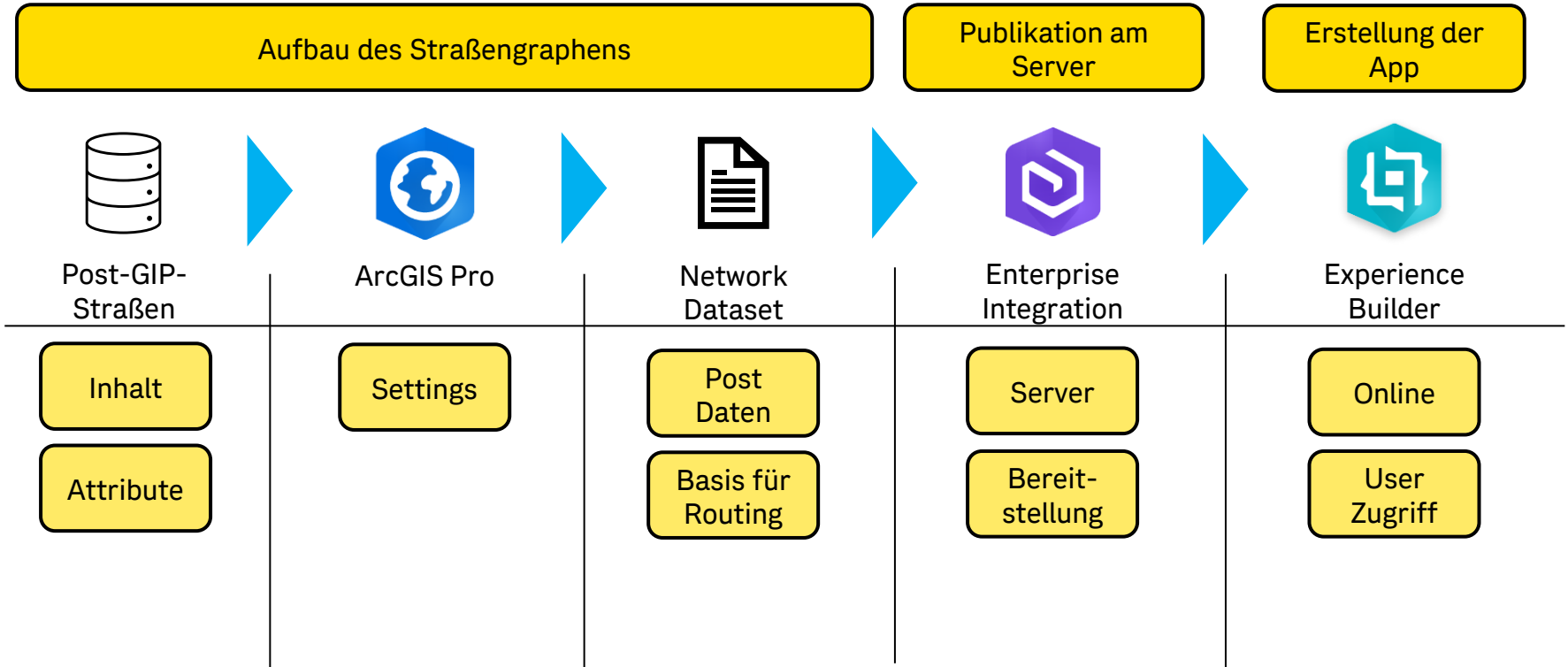
- Ergebnis exportieren

The screenshot shows the 'Routing Demo' application interface. The top bar displays 'Österreichische Post AG | Geo Competence Center'. The main area is a map showing a route with several stops. The left sidebar contains various settings and controls. The bottom right corner shows a data table with columns for ObjectID, Name, Sequence, ID, X, Y, and PLZ. A red box highlights the 'Output Stops' tab and the 'Exportieren' button in the context menu.

| ObjectID | Name | Sequence | ID | X | Y | PLZ |
|----------|--------------|----------|----------------|-------------|-------------|-------|
| 1 | Location 1 | 1 | 10.011.717.860 | 16,026187 | 47,21797965 | 8.274 |
| 3 | Location 3 | 2 | 10.011.718.060 | 16,02665471 | 47,21721381 | |
| 5 | Location 5 | 3 | 10.011.721.660 | 16,00767646 | 47,24258178 | |
| 282 | Location 282 | 4 | 10.011.496.160 | 16,00708552 | 47,26013245 | |



WIE WURDE DAS TOOL TECHNISCH UMGESETZT





WAS KONNTE MIT DEM EXPERIENCE BUILDER ERREICHT WERDEN



01 Vollständige Integration der GIP-Daten

- Nutzung der Post GIP
- Einheitlicher Straßengraph im Unternehmen

Einheitliche Datenquelle für verschiedene Systeme

02 Intuitive und rechtefreier Nutzung

- Klare und übersichtliche Oberfläche
- Keine GIS-Vorkenntnisse erforderlich
- Eigene Geodaten von Usern können direkt verwendet werden

Rechtefreiheit und Zugänglichkeit

03 In-House-Lösung mit No-Code-Entwicklung

- Umsetzung vollständig mit internen Tools
- No-Code-Ansatz mit Experience Builder beschleunigt Entwicklung

Umsetzung vollständig im Fachbereich



HERZLICHEN DANK.