

MIKE Urban Anwendertreffen 15. Mai 2009

Verschiedene Methoden des Netzimports aus AutoCAD
nach MIKE Urban

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Methoden des Netzimports aus AutoCAD nach MIKE Urban

- Unterschiedliche Verwaltung von Raum- und Sachinformationen in CAD und GIS.
- Direkter Import einer definierten dxf-Datei nach MIKE Urban.
- Indirekter Import einer unbekannten dwg-Datei nach MIKE Urban, dabei werden die Daten in ArcGIS bearbeitet und anschließend nach MIKE Urban importiert.



Unterschiede in der Datenstruktur von AutoCAD und MIKE Urban

- AutoCAD: Lagerichtige Linien und Texte beschreiben Form und Sachinfos von Objekten (----- AZ DN100).
- Mike Urban: Infos über Lage, Form und Art sind in Tabellen gespeichert und werden räumlich dargestellt.

	AutoCAD	MIKE Urban
Punkt	Block mit Einfügepunkt	Knoten
Linie	Polylinie	Leitungen
Text	Freistehender Text	Annotation

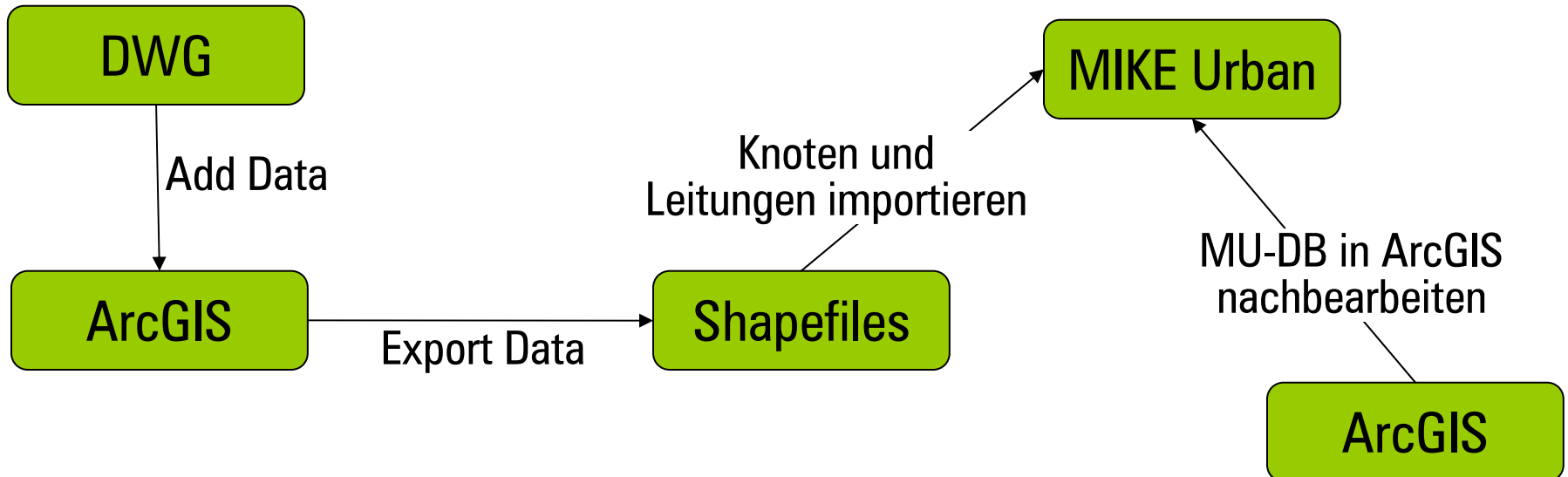


Import-Methoden schematisch dargestellt

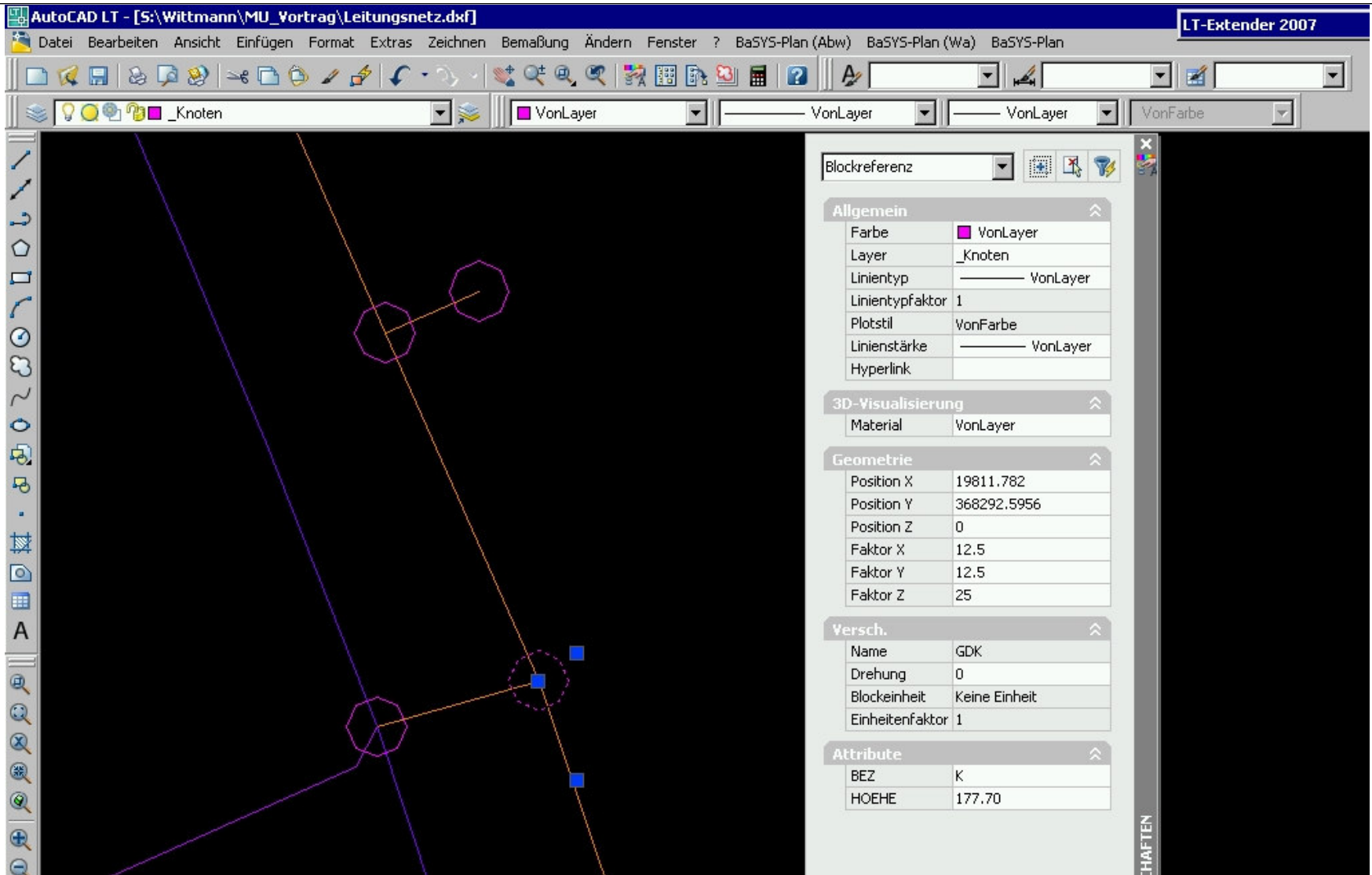
Direkter Import



Indirekter Import



Direkter Import – CAD Grundlage, Knoten als Blöcke mit der Geländehöhe als Attribut



AutoCAD LT - [S:\Wittmann\MU_Vortrag\Leitungsnetz.dxf] LT-Extender 2007

Datei Bearbeiten Ansicht Einfügen Format Extras Zeichnen Bemaßung Ändern Fenster ? BaSYS-Plan (Abw) BaSYS-Plan (Wa) BaSYS-Plan

Blockreferenz

Allgemein

Farbe	VonLayer
Layer	_Knoten
Linientyp	VonLayer
Linientypfaktor	1
Plotstil	VonFarbe
Linienstärke	VonLayer
Hyperlink	

3D-Visualisierung

Material	VonLayer
----------	----------

Geometrie

Position X	19811.782
Position Y	368292.5956
Position Z	0
Faktor X	12.5
Faktor Y	12.5
Faktor Z	25

Versch.

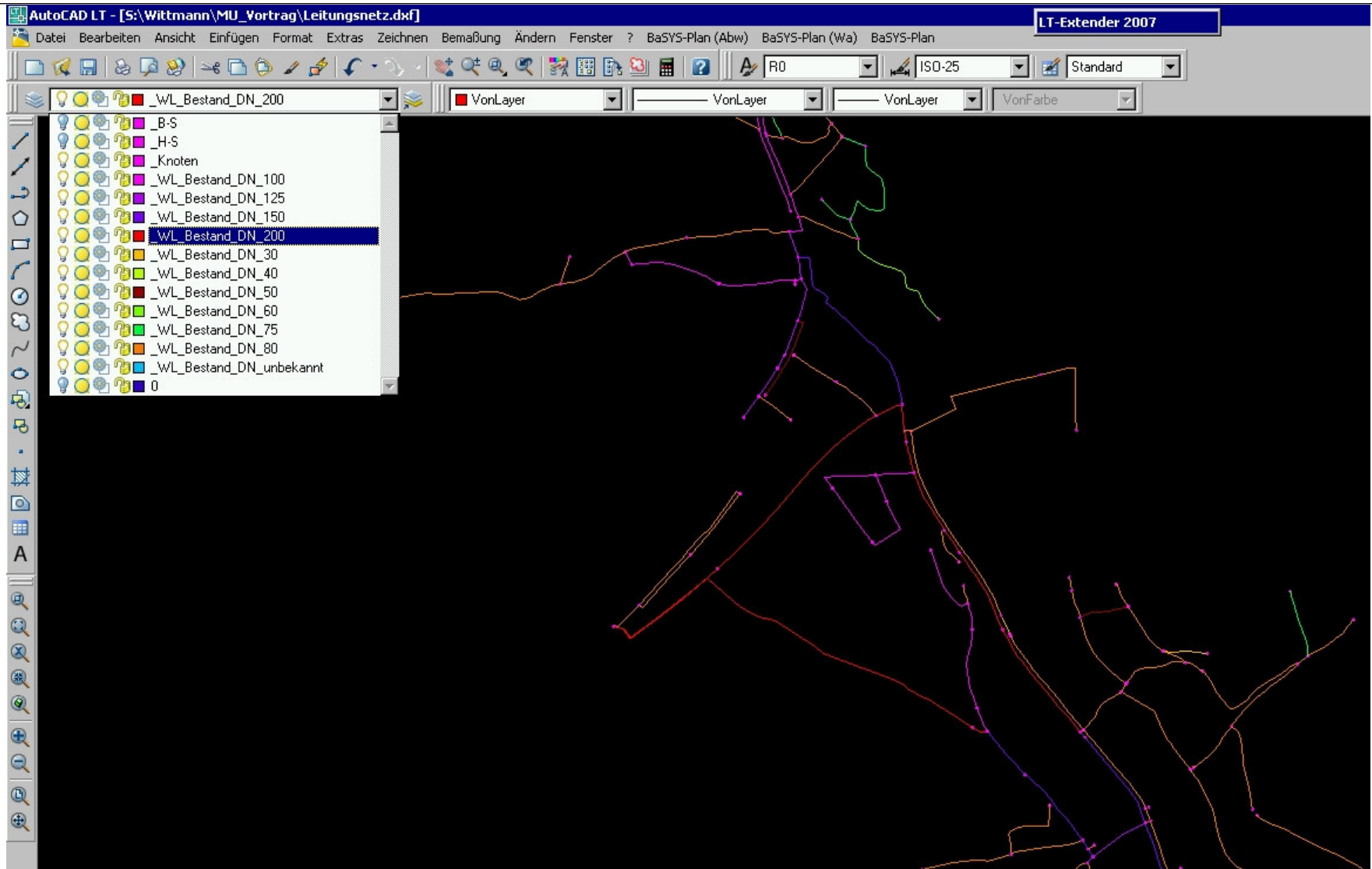
Name	GDK
Drehung	0
Blockeinheit	Keine Einheit
Einheitenfaktor	1

Attribute

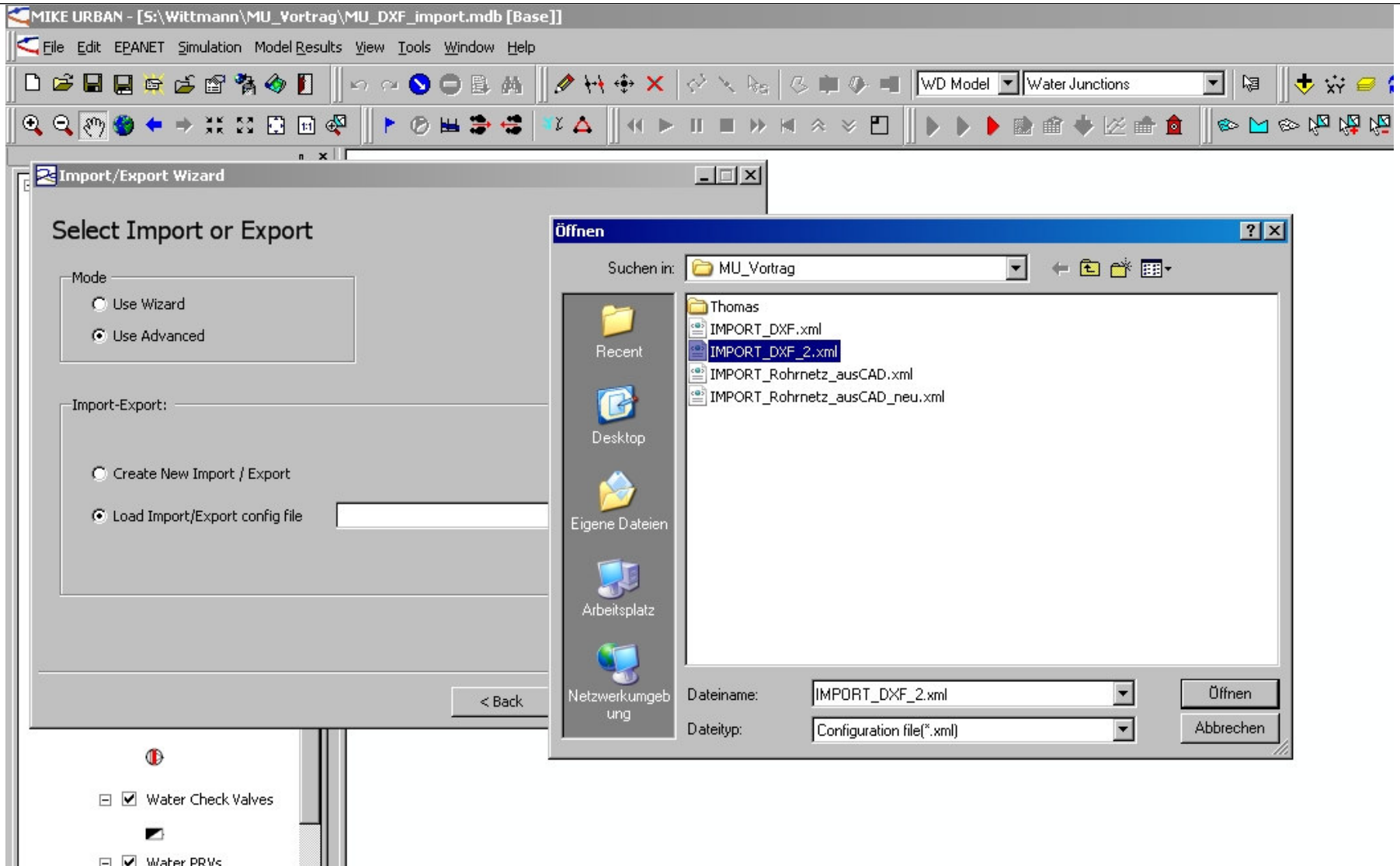
BEZ	K
HOEHE	177.70

CHAFTEN

Direkter Import – CAD Grundlage, Leitungen einer Dimension auf eigenem Layer mit entspr. Namen



Direkter Import – bestehende Konfigurationsdatei laden



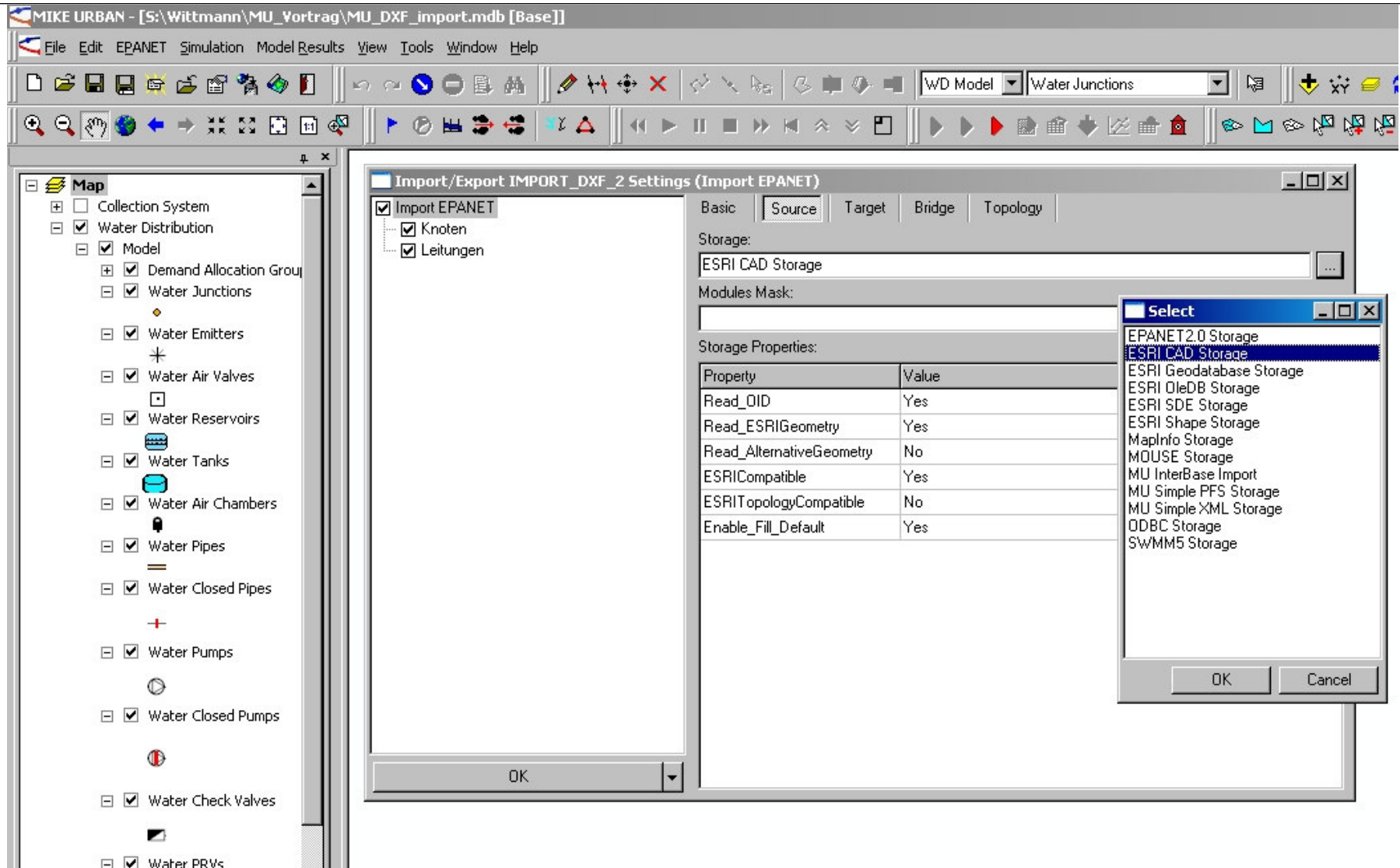
Direkter Import – Quellverzeichnis der dxf-Datei

The screenshot displays the MIKE URBAN software interface. The main window title is "MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]". The menu bar includes File, Edit, EPANET, Simulation, Model, Results, View, Tools, Window, and Help. The toolbar contains various icons for file operations and simulation control. On the left, a "Map" tree view shows a hierarchical structure of model components, all of which are checked:

- Collection System
- Water Distribution
 - Model
 - Demand Allocation Group
 - Water Junctions
 - Water Emitters
 - Water Air Valves
 - Water Reservoirs
 - Water Tanks
 - Water Air Chambers
 - Water Pipes
 - Water Closed Pipes
 - Water Pumps
 - Water Closed Pumps
 - Water Check Valves
 - Water PRVs

The "Import/Export IMPORT_DXF_2 Settings (Import EPANET)" dialog box is open, showing the "Basic" tab. The "Import EPANET" checkbox is checked, and its sub-items "Knoten" and "Leitungen" are also checked. The "Source" field is set to "S:\Wittmann\MU_vortrag\" and the "Target" field is set to "RunTime Workspace". Under "Transfer Mode", the radio button for "Import and replace existing data" is selected. The "Show Details" checkbox at the bottom right is also checked.

Direkter Import – CAD als Quellformat zuweisen



MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]

File Edit EPANET Simulation Model Results View Tools Window Help

WD Model Water Junctions

Map

- Collection System
- Water Distribution
 - Model
 - Demand Allocation Group
 - Water Junctions
 - Water Emitters
 - Water Air Valves
 - Water Reservoirs
 - Water Tanks
 - Water Air Chambers
 - Water Pipes
 - Water Closed Pipes
 - Water Pumps
 - Water Closed Pumps
 - Water Check Valves
 - Water PRVs

Import/Export IMPORT_DXF_2 Settings (Import EPANET)

Basic Source Target Bridge Topology

Import EPANET

- Knoten
- Leitungen

Storage: ESRI CAD Storage

Modules Mask:

Storage Properties:

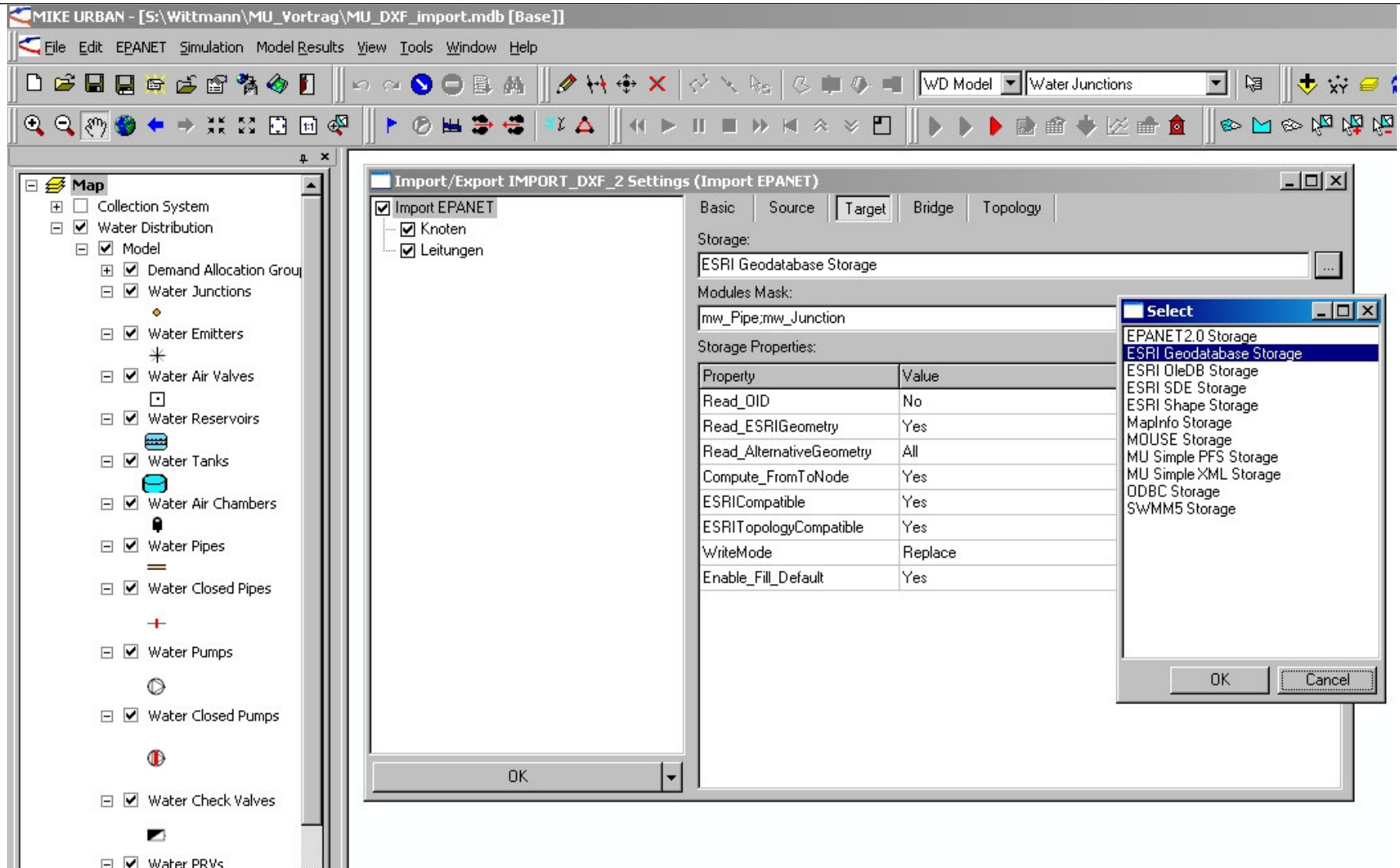
Property	Value
Read_OID	Yes
Read_ESRIGeometry	Yes
Read_AlternativeGeometry	No
ESRISCompatible	Yes
ESRITopologyCompatible	No
Enable_Fill_Default	Yes

Select

- EPANET 2.0 Storage
- ESRI CAD Storage
- ESRI Geodatabase Storage
- ESRI OleDb Storage
- ESRI SDE Storage
- ESRI Shape Storage
- MapInfo Storage
- MOUSE Storage
- MU InterBase Import
- MU Simple PFS Storage
- MU Simple XML Storage
- ODBC Storage
- SWMM5 Storage

OK Cancel

Direkter Import – GeoDB als Zielformat zuweisen



The screenshot displays the MIKE URBAN software interface. The main window shows a project titled "MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]". The "Import/Export IMPORT_DXF_2 Settings (Import EPANET)" dialog box is open, with the "Target" tab selected. The "Storage" field is set to "ESRI Geodatabase Storage". A "Select" dialog box is also open, showing a list of storage options with "ESRI Geodatabase Storage" selected.

The "Import/Export IMPORT_DXF_2 Settings (Import EPANET)" dialog box has the following settings:

- Import EPANET
 - Knoten
 - Leitungen

Basic Source **Target** Bridge Topology

Storage: ESRI Geodatabase Storage

Modules Mask: mw_Pipe;mw_Junction

Storage Properties:

Property	Value
Read_OID	No
Read_ESRIGeometry	Yes
Read_AlternativeGeometry	All
Compute_FromToNode	Yes
ESRISCompatible	Yes
ESRITopologyCompatible	Yes
WriteMode	Replace
Enable_Fill_Default	Yes

The "Select" dialog box shows the following list of storage options:

- EPANET2.0 Storage
- ESRI Geodatabase Storage**
- ESRI OleDB Storage
- ESRI SDE Storage
- ESRI Shape Storage
- MapInfo Storage
- MOUSE Storage
- MU Simple PFS Storage
- MU Simple XML Storage
- ODBC Storage
- SWMM5 Storage

Direkter Import – Art wie Quell- und Zielverzeichnis miteinander verbunden werden

MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]

File Edit EPANET Simulation Model Results View Tools Window Help

WD Model Water Junctions

Map

- Collection System
- Water Distribution
 - Model
 - Demand Allocation Group
 - Water Junctions
 - Water Emitters
 - Water Air Valves
 - Water Reservoirs
 - Water Tanks
 - Water Air Chambers
 - Water Pipes
 - Water Closed Pipes
 - Water Pumps
 - Water Closed Pumps
 - Water Check Valves
 - Water PRVs

Import/Export IMPORT_DXF_2 Settings (Import EPANET)

Basic Source Target Bridge Topology

Import EPANET

- Knoten
- Leitungen

Bridge:

Standard MU DM Bridge

Bridge Properties:

Property	Value

Global Variables:

Name	Type

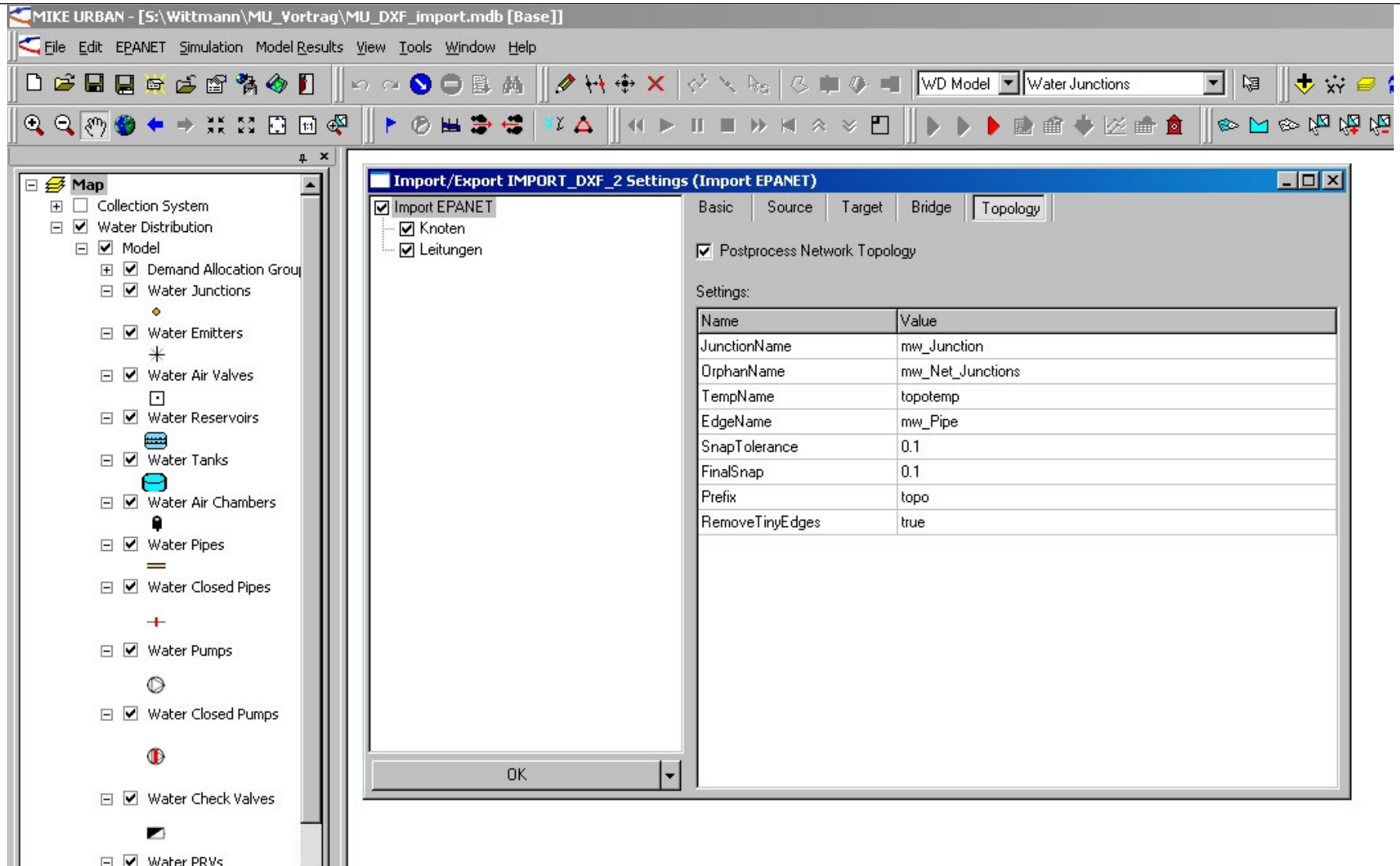
Select

- Standard MU DM Bridge
- EPANET 2.0 Bridge
- MOUSE2003 Bridge

OK Cancel

OK

Direkter Import – durch den Import die Topologie bereinigen



The screenshot displays the MIKE URBAN software interface. The main window title is "MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]". The menu bar includes "File", "Edit", "EPANET", "Simulation", "Model", "Results", "View", "Tools", "Window", and "Help". The toolbar contains various icons for file operations, navigation, and simulation. On the left, a "Map" panel shows a tree view of the model components, including "Collection System", "Water Distribution", "Model", "Demand Allocation Group", "Water Junctions", "Water Emitters", "Water Air Valves", "Water Reservoirs", "Water Tanks", "Water Air Chambers", "Water Pipes", "Water Closed Pipes", "Water Pumps", "Water Closed Pumps", "Water Check Valves", and "Water PRVs".

The "Import/Export IMPORT_DXF_2 Settings (Import EPANET)" dialog box is open, showing the "Toplogy" tab. The "Import EPANET" section is checked, and the "Knoten" and "Leitungen" sub-items are also checked. The "Postprocess Network Topology" checkbox is checked. The "Settings" table is as follows:

Name	Value
JunctionName	mw_Junction
OrphanName	mw_Net_Junctions
TempName	topotemp
EdgeName	mw_Pipe
SnapTolerance	0.1
FinalSnap	0.1
Prefix	topo
RemoveTinyEdges	true

The dialog box has an "OK" button at the bottom.

Direkter Import – Punkte der Knotentabelle zuweisen

The screenshot displays the MIKE URBAN software interface. The main window shows a project titled "MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]". The menu bar includes File, Edit, EPANET, Simulation, Model, Results, View, Tools, Window, and Help. The toolbar contains various icons for file operations and simulation control. On the left, a "Map" panel shows a tree view of the project structure, including "Collection System", "Water Distribution", "Model", "Water Junctions", "Water Emitters", "Water Air Valves", "Water Reservoirs", "Water Tanks", "Water Air Chambers", "Water Pipes", "Water Closed Pipes", "Water Pumps", "Water Closed Pumps", "Water Check Valves", and "Water PRVs".

The "Import/Export IMPORT_DXF_2 Settings (Import EPANET/Knoten)" dialog box is open, showing the "Basic" tab. The "Import EPANET" checkbox is checked, and the "Knoten" and "Leitungen" sub-items are also checked. The "Source" field is set to "Leitungsnetz.dxf\Point" and the "Target" field is set to "mw_Junction". The "Section Mode" section has "Clear" selected. The "Source Filter", "Source Sorting", and "Source Distinct" fields are empty. The "Load Target Data Before Conversion" and "Save Target Immediately After Conversion" checkboxes are unchecked. A "Select" dialog box is overlaid on the main dialog, showing a list of source options: "Leitungsnetz.dxf\Annotation", "Leitungsnetz.dxf\MultiPatch", "Leitungsnetz.dxf\Point", "Leitungsnetz.dxf\Polygon", and "Leitungsnetz.dxf\Polyline". The "Leitungsnetz.dxf\Point" option is selected. The "OK" and "Cancel" buttons are visible at the bottom of the "Select" dialog.

Direkter Import – Feldzuweisung: Blockattribut „Höhe“ zu „Geländehöhe“

The screenshot shows the MIKE URBAN software interface. The main window title is "MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]". The menu bar includes File, Edit, EPANET, Simulation, Model, Results, View, Tools, Window, and Help. The toolbar contains various icons for file operations, navigation, and simulation. On the left, a "Map" panel shows a tree view of the model components, including Collection System, Water Distribution, Model, Demand Allocation Group, Water Junctions, Water Emitters, Water Air Valves, Water Reservoirs, Water Tanks, Water Air Chambers, Water Pipes, Water Closed Pipes, Water Pumps, Water Closed Pumps, Water Check Valves, and Water PRVs. The "Import/Export IMPORT_DXF_2 Settings (Import EPANET/Knoten)" dialog box is open, showing the "Assignment" tab. The "Import EPANET" section is checked, and "Knoten" and "Leitungen" are also checked. The "Assignment" field contains the following text: "SHAPE = SHAPE", "Asset = Layer + ' ' + Handle", and "Elev = HOEHE". The "OK" button is visible at the bottom of the dialog box.

Direkter Import – Leitungen der Rohrtabelle zuweisen

MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]

File Edit EPANET Simulation Model Results View Tools Window Help

WD Model Water Junctions

Map

- Collection System
- Water Distribution
 - Model
 - Demand Allocation Group
 - Water Junctions
 - Water Emitters
 - Water Air Valves
 - Water Reservoirs
 - Water Tanks
 - Water Air Chambers
 - Water Pipes
 - Water Closed Pipes
 - Water Pumps
 - Water Closed Pumps
 - Water Check Valves
 - Water PRVs

Import/Export IMPORT_DXF_2 Settings (Import EPANET/Leitungen)

Basic Assignment Geocoding Source Target

Import EPANET

- Knoten
- Leitungen

Source: Leitungsnetz.dxf\Polyline

Target: mw_Pipe

Section Mode

- Clear
- Append
- Update
- .Update Only

Source Filter: Layer :: Layer <> '_Knoten'

Source Sorting:

Source Distinct:

Load Target Data Before Conversion

Save Target Immediately After Conversion

Select

- Leitungsnetz.dxf\Annotation
- Leitungsnetz.dxf\MultiPatch
- Leitungsnetz.dxf\Point
- Leitungsnetz.dxf\Polygon
- Leitungsnetz.dxf\Polyline

OK Cancel

OK Show Details

Direkter Import – Feldzuweisung: Layernamen den Rohrdurchmessern zuordnen

The screenshot shows the MIKE URBAN software interface. The main window is titled "MIKE URBAN - [S:\Wittmann\MU_vortrag\MU_DXF_import.mdb [Base]]". The menu bar includes File, Edit, EPANET, Simulation, Model, Results, View, Tools, Window, and Help. The toolbar contains various icons for file operations, navigation, and simulation. On the left, the "Map" panel shows a tree view of the model components, with "Water Pipes" selected. The "Import/Export IMPORT_DXF_2 Settings (Import EPANET/Leitungen)" dialog box is open, showing the "Assignment" tab. The "Import EPANET" section is checked, and "Leitungen" (Pipes) is selected. The "Assignment" tab contains the following text:

```
SHAPE = SHAPE
Asset = Layer + ' ' + Handle
Diameter = 30 WHERE Layer = '_WL_Bestand_DN_30'
Diameter = 40 WHERE Layer = '_WL_Bestand_DN_40'
Diameter = 50 WHERE Layer = '_WL_Bestand_DN_50'
Diameter = 60 WHERE Layer = '_WL_Bestand_DN_60'
Diameter = 75 WHERE Layer = '_WL_Bestand_DN_75'
Diameter = 80 WHERE Layer = '_WL_Bestand_DN_80'
Diameter = 100 WHERE Layer = '_WL_Bestand_DN_100'
Diameter = 125 WHERE Layer = '_WL_Bestand_DN_125'
Diameter = 150 WHERE Layer = '_WL_Bestand_DN_150'
Diameter = 200 WHERE Layer = '_WL_Bestand_DN_200'
```

The dialog box has an "OK" button at the bottom.

Direkter Import – Leitungsnetz mit Knotentabelle

The screenshot displays the MIKE URBAN software interface. The main window shows a map of a water distribution network with various components like pipes, junctions, and tanks. A 'Map' panel on the left lists these components with checkboxes. A 'Junction data [Base]' dialog box is open on the right, showing fields for identification and connectivity (Asset ID, Junction ID, X coordinate, Y coordinate, Description, Pressure zone) and model data (Type, State, Demand coefficient, Minimal pressure, Elevation, Surface elevation). Below the dialog is a table of junction data.

Junction ID	Asset ID	Data source	Description	Elevation	Surface Elev	Pressure z	DZoneID
604	_Knoten 7F8	<Null>	<Null>	194,80	<Null>	<Null>	<Null>
605	_Knoten 809	<Null>	<Null>	195,00	<Null>	<Null>	<Null>
606	_Knoten 80D	<Null>	<Null>	196,20	<Null>	<Null>	<Null>
607	_Knoten 811	<Null>	<Null>	196,70	<Null>	<Null>	<Null>
608	_Knoten 815	<Null>	<Null>	191,40	<Null>	<Null>	<Null>
609	_Knoten 819	<Null>	<Null>	186,30	<Null>	<Null>	<Null>
610	_Knoten 81D	<Null>	<Null>	197,20	<Null>	<Null>	<Null>
611	_Knoten 821	<Null>	<Null>	195,60	<Null>	<Null>	<Null>
612	_Knoten 825	<Null>	<Null>	197,60	<Null>	<Null>	<Null>
613	_Knoten 829	<Null>	<Null>	187,10	<Null>	<Null>	<Null>
614	_Knoten 82D	<Null>	<Null>	185,60	<Null>	<Null>	<Null>
615	_Knoten 831	<Null>	<Null>	198,40	<Null>	<Null>	<Null>

Direkter Import – Leitungsnetz mit Leitungstabelle

The screenshot displays the MIKE URBAN software interface. The central map shows a complex network of water pipes. On the left, a 'Map' panel lists various components like Collection System, Water Distribution, Model, Demand Allocation Group, Water Junctions, Water Emitters, Water Air Valves, Water Reservoirs, Water Tanks, Water Air Chambers, Water Pipes, Water Closed Pipes, Water Pumps, Water Closed Pumps, Water Check Valves, Water PRVs, Water PSVs, Water PBVs, and Water FCVs. On the right, the 'Pipes [Base]' dialog box is open, showing identification and connectivity details for a selected pipe. Below the dialog, a table lists the pipe data.

Pipes [Base] Identification & connectivity

Asset ID: Data source:
Pipe ID: Status:
From node: To node:
Description: Pressure zone ID:

Geometrical properties

Length: Diameter:

Hydraulics & friction losses

Material: Formulation:
Construction year: Roughness:
Wall thickness: Loss coefficient:
Wave speed: Pressure normal:

Miscellaneous

Demand coeff. 1: State:
Demand coeff. 2: Check valve Closed
Street name:

Pipe ID	Description	CDate	Constructio	Asset ID	Data source	Demand
655	<Null>	01.01.2008	<Null>	WL_Bestand_DN_100 3F	<Null>	1
656	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 29F	<Null>	1
657	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 73F	<Null>	1
658	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 24B	<Null>	1
659	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 B3D	<Null>	1
660	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 7B9	<Null>	1
661	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 26B	<Null>	1
662	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 25E	<Null>	1
663	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 27D	<Null>	1
664	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 7C6	<Null>	1
665	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 B49	<Null>	1
666	<Null>	01.01.2008	<Null>	WL_Bestand_DN_80 763	<Null>	1

Direkter Import – Großverbraucher und Bedarfsstatistik

MIKE URBAN - [S:\221-230\228-2007\Berechnungen\Leitungsnetz_1.mup]

Datei Bearbeiten Anlage WD EPANET Simulation Ergebnisse Ansicht Werkzeuge Fenster Hilfe

WD Modell | WD Knoten

Map

- Fire Flow Results
- EPANET Results
 - Leitungsnetz_1-Base.res
 - Node: Pressure
 - Siedlungsentwässerung
 - Wasserversorgung
 - Modell
 - Bedarfszuweisungs-Grupp
 - WD Bedarfszuordnu
 - WD Knotenabindun
 - WD Rohrverknüpfur
 - WD Knoten
 - WD Emitter
 - WD Luftventile
 - WD Reservoir
 - WD Behälter
 - WD Luftkammern
 - WD Rohre
 - WD Geschlossene Rohre
 - WD Pumpen
 - WD Geschlossene Pump
 - WD Kontrollventile

Knoten [Basis]

Knoten | Emitter | Entlüftungsventile

Elementkennung und Lage im System

Anlagen ID: Datenquelle:

Knoten ID: Datenstatus:

X Koordinate:

Y Koordinate:

Beschreibung: Druckzone:

Modelldaten

Typ: Markierung:

Bedarfskoeffizient: Knotenhöhe:

Minimaldruck: Geländehöhe:

Neu
Löschen
Befehle...
Schließen

Bedarfsstatistik [Basis]

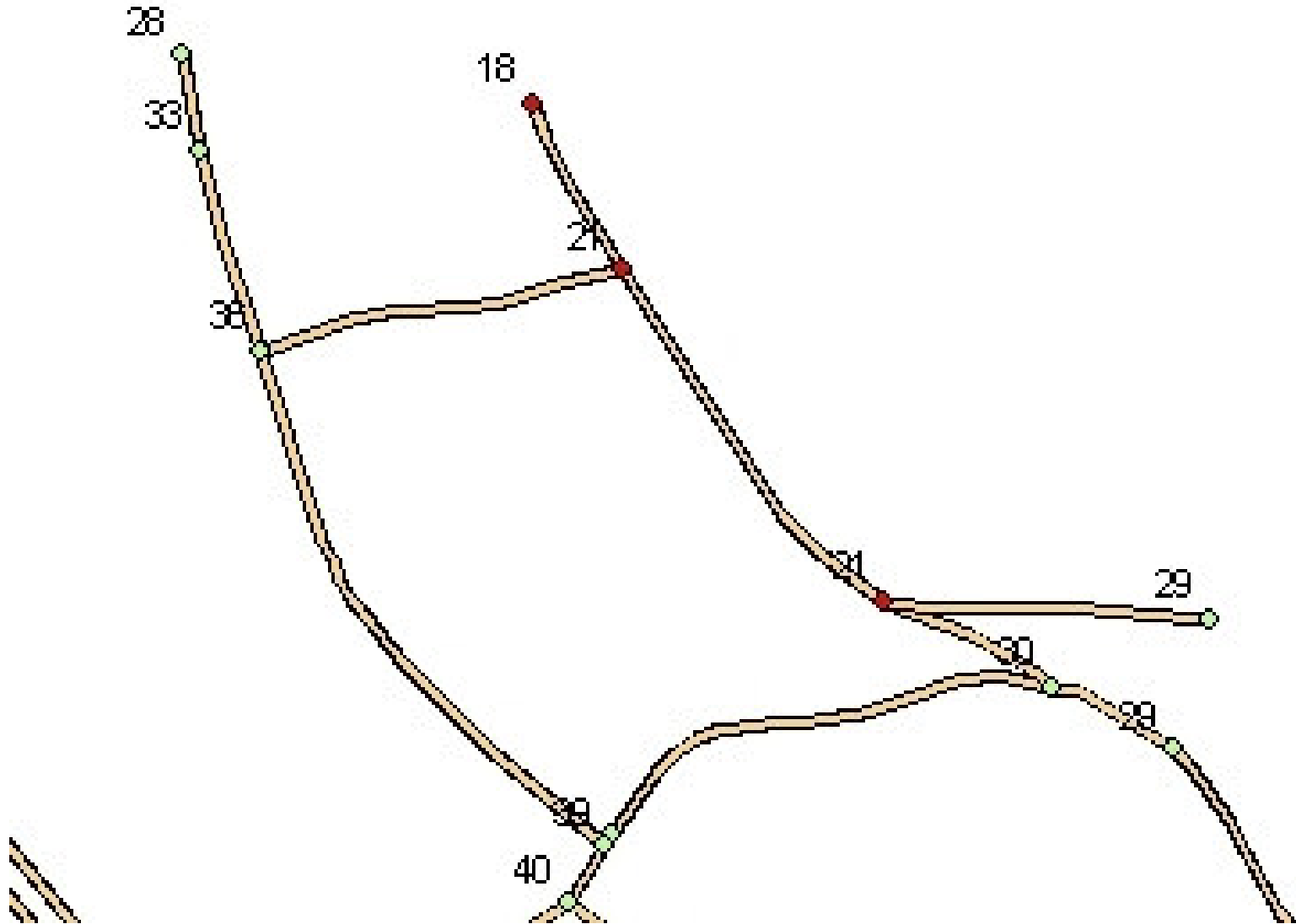
Aktualisieren | Neu aufteilen | Schließen

Bedarf	Beschreibung	Kategorie	Zeitprofil
0,18		<Null>	<Null>
5,80		Grossverbra	<Null>

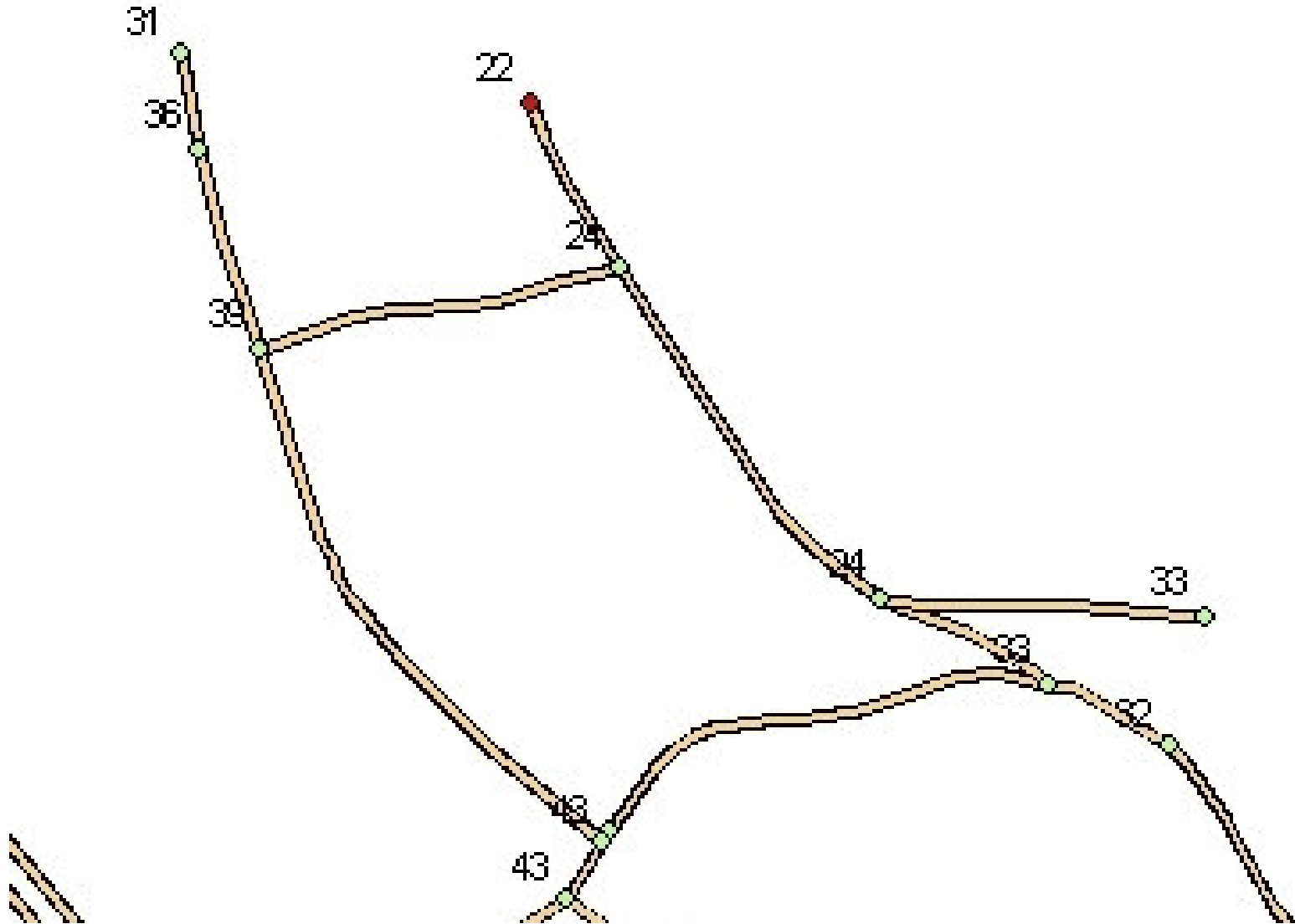
RecTyp	Druckzone	Kategorie	Min. Bedarf	Max. Bedarf	Mittlerer Be	Gesamtbed	Neuer mittl.	Neuer G
Kategorie 1		<Null>	21,373	21,373	21,373	21,373	<Null>	<Null>
Kategorie 1		Grossverbraucher	5,800	5,800	5,800	5,800	<Null>	<Null>
Druckzone 1			27,173	27,173	27,173	27,173	<Null>	<Null>
Gesamtnetz			27,173	27,173	27,173	27,173	<Null>	<Null>

Knoten ID: *	Anlagen ID	Datenquelle	Beschreibung	Knotenh
441	Knoten 9E9	<Null>	<Null>	195
442	Knoten 9E5	<Null>	<Null>	202
443	Knoten 9C9	<Null>	<Null>	176
444	Knoten 9E1	<Null>	<Null>	185
445	Knoten 9D9	<Null>	<Null>	181
446	Knoten 9D5	<Null>	<Null>	177
447	Knoten 9D1	<Null>	<Null>	177,50
448	Knoten 9DD	<Null>	<Null>	184,40
449	Knoten A59	<Null>	<Null>	176,60
450	Knoten 999	<Null>	<Null>	177,20
451	Knoten 0	<Null>	<Null>	176,50
452	Knoten AR5	<Null>	<Null>	175,90

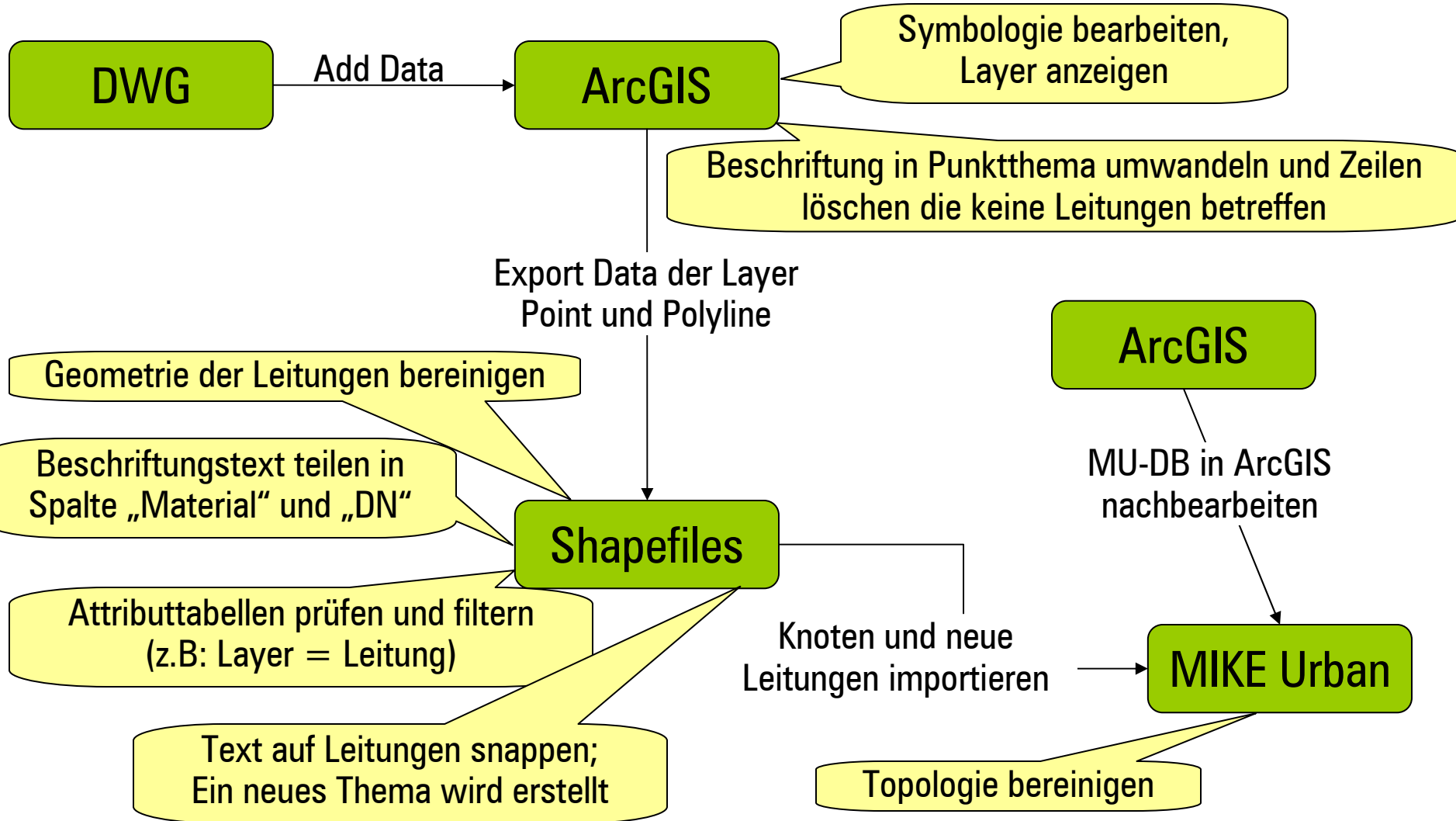
Direkter Import – Ergebnis; Druckhöhen ohne neuem Hochbehälter



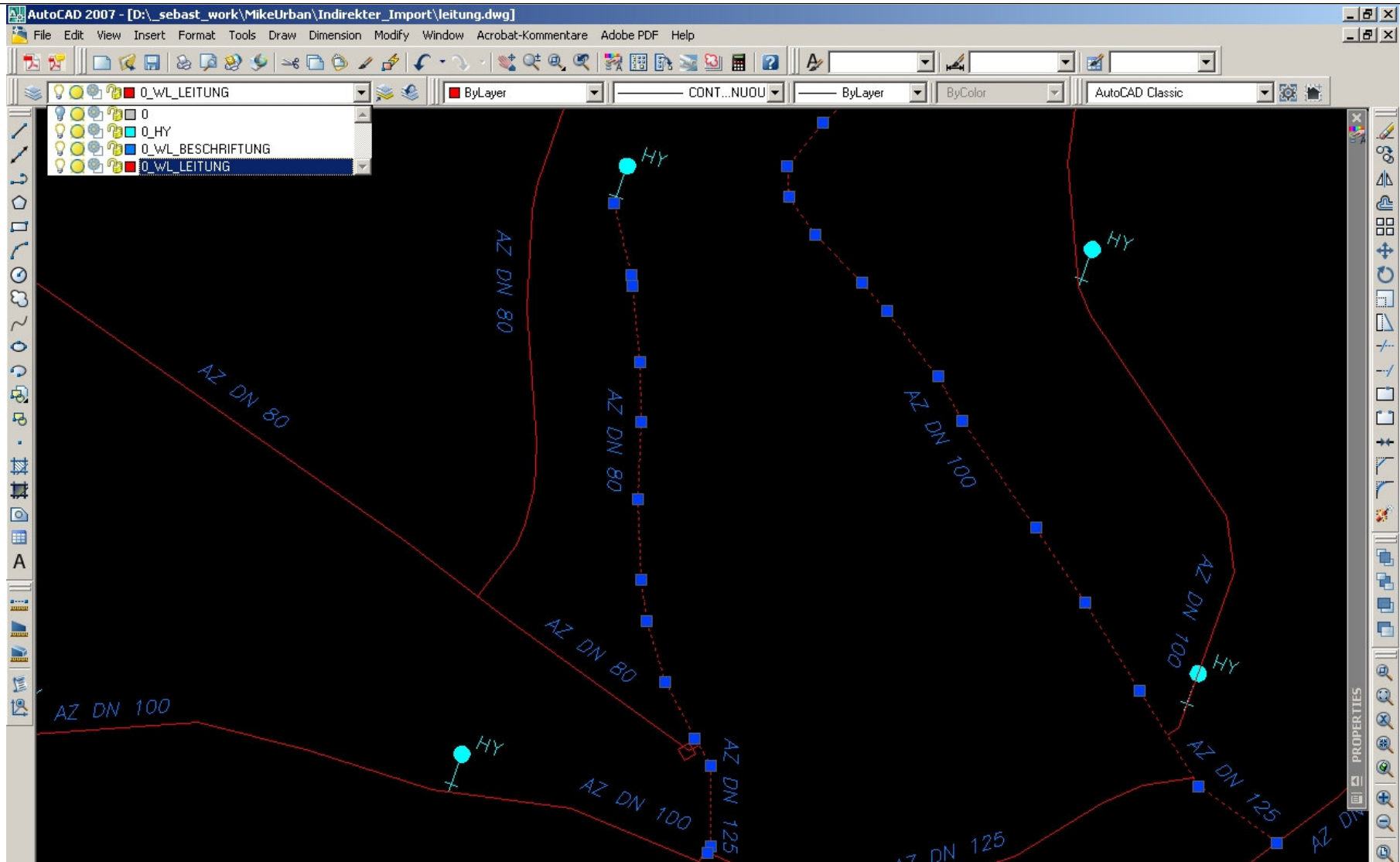
Direkter Import – Ergebnis; Druckhöhen mit neuem Hochbehälter



Indirekter Import schematisch dargestellt



Indirekter Import – ursprüngliches CAD-Leitungsnetz



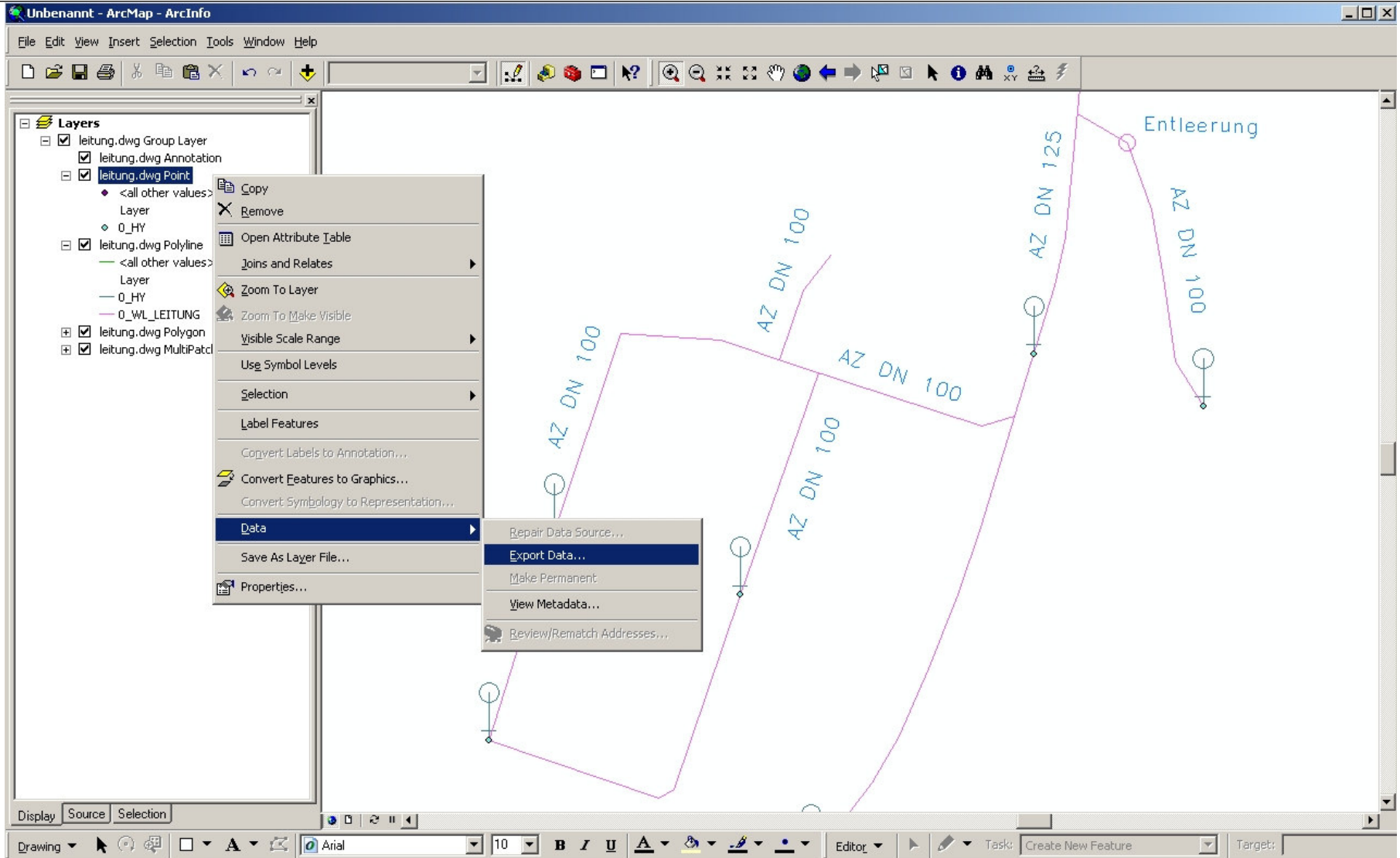
Indirekter Import – Symbologie mit ArcGIS bearbeiten

The screenshot displays the ArcGIS interface with the 'Layer Properties' dialog box open for a 'leitung.dwg Polyline' layer. The 'Symbology' tab is active, showing the 'Draw categories using unique values of one field' option. The 'Value Field' is set to 'Layer'. A table below lists the categories and their counts:

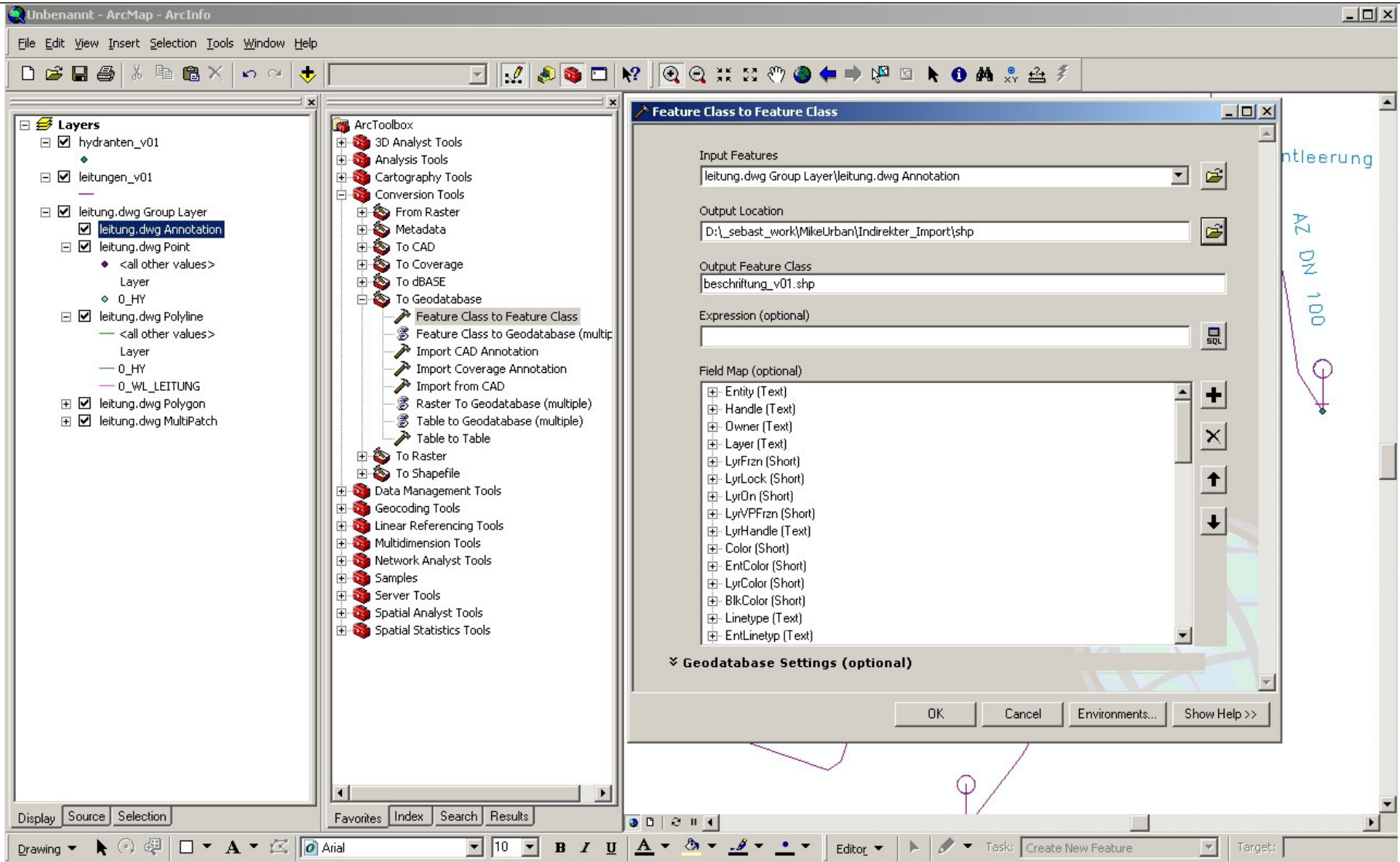
Symbol	Value	Label	Count
<input checked="" type="checkbox"/>	<all other values>	<all other values>	0
<input checked="" type="checkbox"/>	<Heading>	Layer	58
<input checked="" type="checkbox"/>	0_HY	0_HY	26
<input checked="" type="checkbox"/>	0_WL_LEITUNG	0_WL_LEITUNG	32

The background map shows a network of red lines representing pipelines. Two lines are labeled 'AZ DN 125' and 'AZ DN 100'. A blue circle is labeled 'Entleerung'. The 'Layer Properties' dialog box is positioned over the map, with its 'OK', 'Abbrechen', and 'Übernehmen' buttons visible at the bottom.

Indirekter Import – aus Punkt- und Polylinien-Layer Shapefiles generieren



Indirekter Import – Beschriftungs-Layer in Punktthema umwandeln



Indirekter Import – Leitungen.shp; Layerattribute prüfen

The screenshot shows the ArcMap interface with the 'Select by Attributes' dialog box open. The dialog box is set to 'Layer' and the WHERE clause is '"Layer" = "0_HY"'. The 'Attributes of leitungen_v01' table is visible below the dialog box, showing the attributes for the selected records.

FID	Shape	FID	Entity	Handle	Layer	LyrF
0	Polyline	0	Polyline	21	0_WL_LEITUNG	
1	Polyline	0	Insert	31	0_HY	
2	Polyline	0	Polyline	3B	0_WL_LEITUNG	
3	Polyline	0	Circle	3C	0_WL_LEITUNG	
4	Polyline	0	Circle	48	0_WL_LEITUNG	
5	Polyline	0	Insert	4A	0_HY	
6	Polyline	0	Insert	4B	0_HY	
7	Polyline	0	Insert	4C	0_HY	
8	Polyline	0	Insert	4D	0_HY	
9	Polyline	0	Polyline	4E	0_WL_LEITUNG	
10	Polyline	0	Polyline	4F	0_WL_LEITUNG	
11	Polyline	0	Polyline	51	0_WL_LEITUNG	
12	Polyline	0	Polyline	52	0_WL_LEITUNG	
13	Polyline	0	Insert	57	0_HY	
14	Polyline	0	Insert	58	0_HY	
15	Polyline	0	Polyline	59	0_WL_LEITUNG	
16	Polyline	0	Polyline	5A	0_WL_LEITUNG	
17	Polyline	0	Polyline	5B	0_WL_LEITUNG	
18	Polyline	0	Circle	5D	0_WL_LEITUNG	
19	Polyline	0	Insert	5F	0_HY	
20	Polyline	0	Polyline	60	0_WL_LEITUNG	
21	Polyline	0	Insert	6B	0_HY	
22	Polyline	0	Insert	6C	0_HY	
23	Polyline	0	Polyline	6E	0_WL_LEITUNG	
24	Polyline	0	Insert	6F	0_HY	

Color	LyrColor	BlkColor	Linetype	EntLinetype	LyrLnType	BlkLin
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	10	0	CONTINUOUS	CONTINUOUS	CONTINUOUS	
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER
-1	130	-1	CONTINUOUS	CONTINUOUS	CONTINUOUS	BYLAYER

Indirekter Import – Beschriftung.shp; Textattribute prüfen

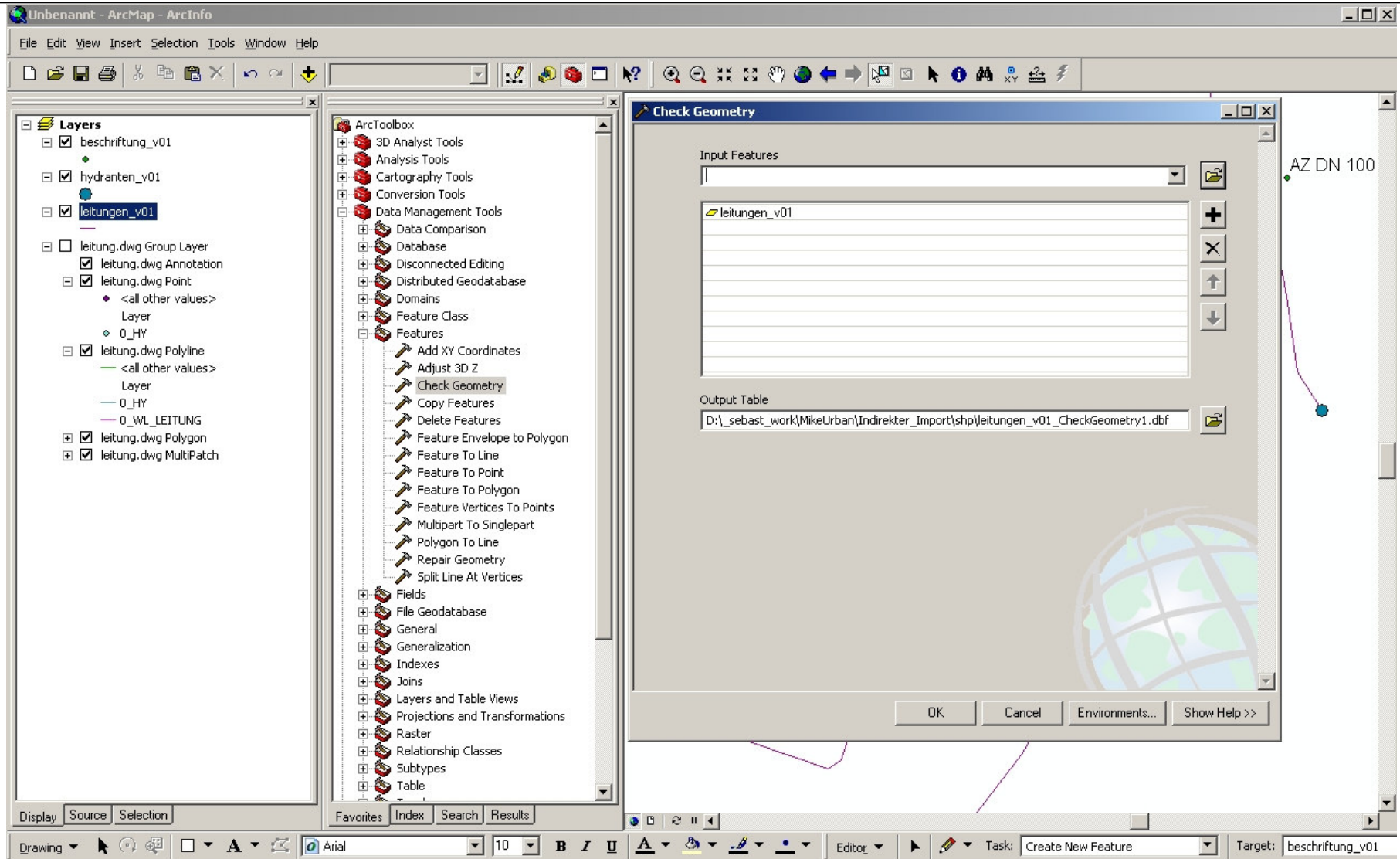
The screenshot shows the ArcMap interface with the 'Select by Attributes' dialog box open. The dialog box contains the following text:

```
Enter a WHERE clause to select records in the table window.  
Method: Create a new selection  
"ScaleY"  
"ScaleZ"  
"Style"  
"FontID"  
"Text"  
"Height"  
= <> Like 'AZ DN 100'  
> >= And 'AZ DN 125'  
< <= Or 'AZ DN 150'  
_ % ( ) Not 'AZ DN 80'  
_ % ( ) Not 'Anschlußschacht'  
_ % ( ) Not 'Drucksteigerung'  
_ % ( ) Not 'Entleerung'  
Is Get Unique Values Go To:  
SELECT * FROM beschriftung_v01 WHERE:  
"Text" NOT LIKE 'AZ%'  
Clear Verify Help Load... Save...  
Apply Close
```

The 'Attributes of beschriftung_v01' table is displayed below the dialog box. The table has the following columns: ExtZ, DocName, DocVer, ScaleX, ScaleY, ScaleZ, Style, FontID, Text, Height, TxtAngle, and TxtWidth. The table contains 47 records, with 8 records selected (highlighted in blue).

ExtZ	DocName	DocVer	ScaleX	ScaleY	ScaleZ	Style	FontID	Text	Height	TxtAngle	TxtWidth
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 100	5	296,811129	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 150	5	60,077857	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 150	5	60,077857	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 150	5	58,523872	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 150	5	6,134225	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 150	5	60,077857	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	329,434262	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	48,619693	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	345,070356	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	345,070356	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	289,780518	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	290,022141	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	59,787956	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	14,065651	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	329,938678	1
1	leitung.dwg	D:\sebast_w	1	1	1	NORM	1	AZ DN 80	5	332,757549	1
1	leitung.dwg	D:\sebast_work\MikeUrban\Indirekter_Import\leitung.dwg	1	1	1	NORM	1	Drucksteigerung	5	358,625788	1
1	leitung.dwg	D:\sebast_work\MikeUrban\Indirekter_Import\leitung.dwg	1	1	1	NORM	1	Entleerung	5	358,625788	1
1	leitung.dwg	D:\sebast_work\MikeUrban\Indirekter_Import\leitung.dwg	1	1	1	NORM	1	Entleerung	5	358,625788	1
1	leitung.dwg	D:\sebast_work\MikeUrban\Indirekter_Import\leitung.dwg	1	1	1	NORM	1	Entleerung	5	358,625788	1
1	leitung.dwg	D:\sebast_work\MikeUrban\Indirekter_Import\leitung.dwg	1	1	1	NORM	1	Forsthausstraße	5	358,625788	1
1	leitung.dwg	D:\sebast_work\MikeUrban\Indirekter_Import\leitung.dwg	1	1	1	NORM	1	Spülung	5	358,625788	1
1	leitung.dwg	D:\sebast_work\MikeUrban\Indirekter_Import\leitung.dwg	1	1	1	NORM	1	Spülung	5	358,625788	1

Indirekter Import – Leitungen.shp; Leitungsgeometrie checken



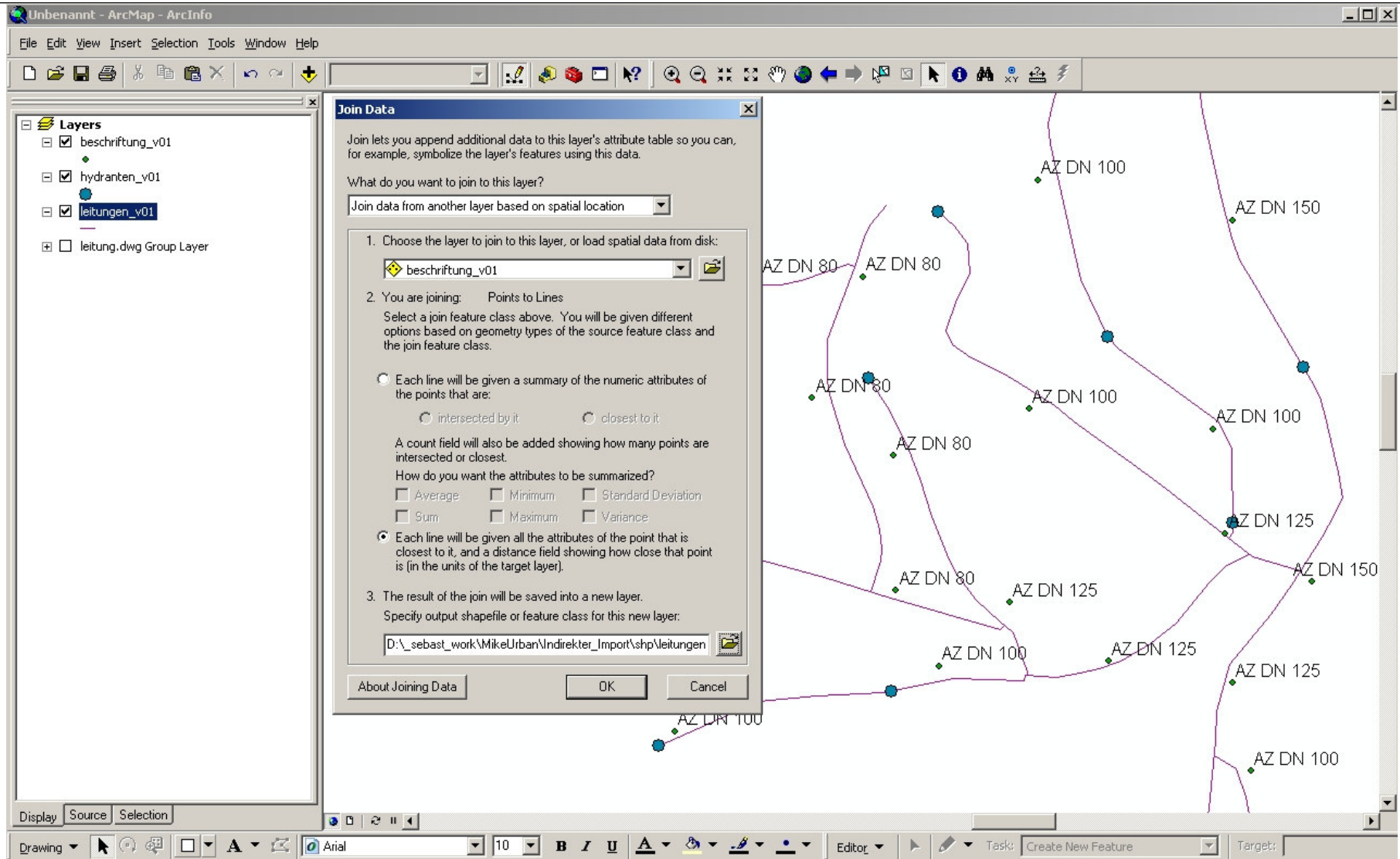
Indirekter Import – Beschriftung.shp; Beschriftungstext teilen

The screenshot shows the ArcMap interface with the Field Calculator dialog box open. The dialog box is set to calculate a new field using a VBA script. The script splits the 'Text' field into two parts based on a comma. The 'Material' field is set to the first part of the split, and the 'Dimension' field is set to the second part. The 'Calculate selected records only' checkbox is checked.

The data table below shows the results of the calculation for 33 records. The 'Text' field contains values like 'AZ DN 100', 'AZ DN 80', and 'AZ DN 125'. The 'Material' field contains 'AZ' and the 'Dimension' field contains values like 100, 80, and 125.

ObjectID	SpaceFct	TextMemo	Material	Dimension
0	0	AZ DN 100	AZ	100
0	0	AZ DN 80	AZ	80
0	0	AZ DN 80	AZ	80
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 125	AZ	125
0	0	AZ DN 125	AZ	125
0	0	AZ DN 125	AZ	125
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 80	AZ	80
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 125	AZ	125
0	0	AZ DN 80	AZ	80
0	0	AZ DN 80	AZ	80
0	0	AZ DN 80	AZ	80
0	0	AZ DN 80	AZ	80
0	0	AZ DN 80	AZ	80
0	0	AZ DN 80	AZ	80
0	0	AZ DN 80	AZ	80
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 100	AZ	100
0	0	AZ DN 80	AZ	80

Indirekter Import – Leitungen mit nächststehenden Beschriftungstexten verbinden

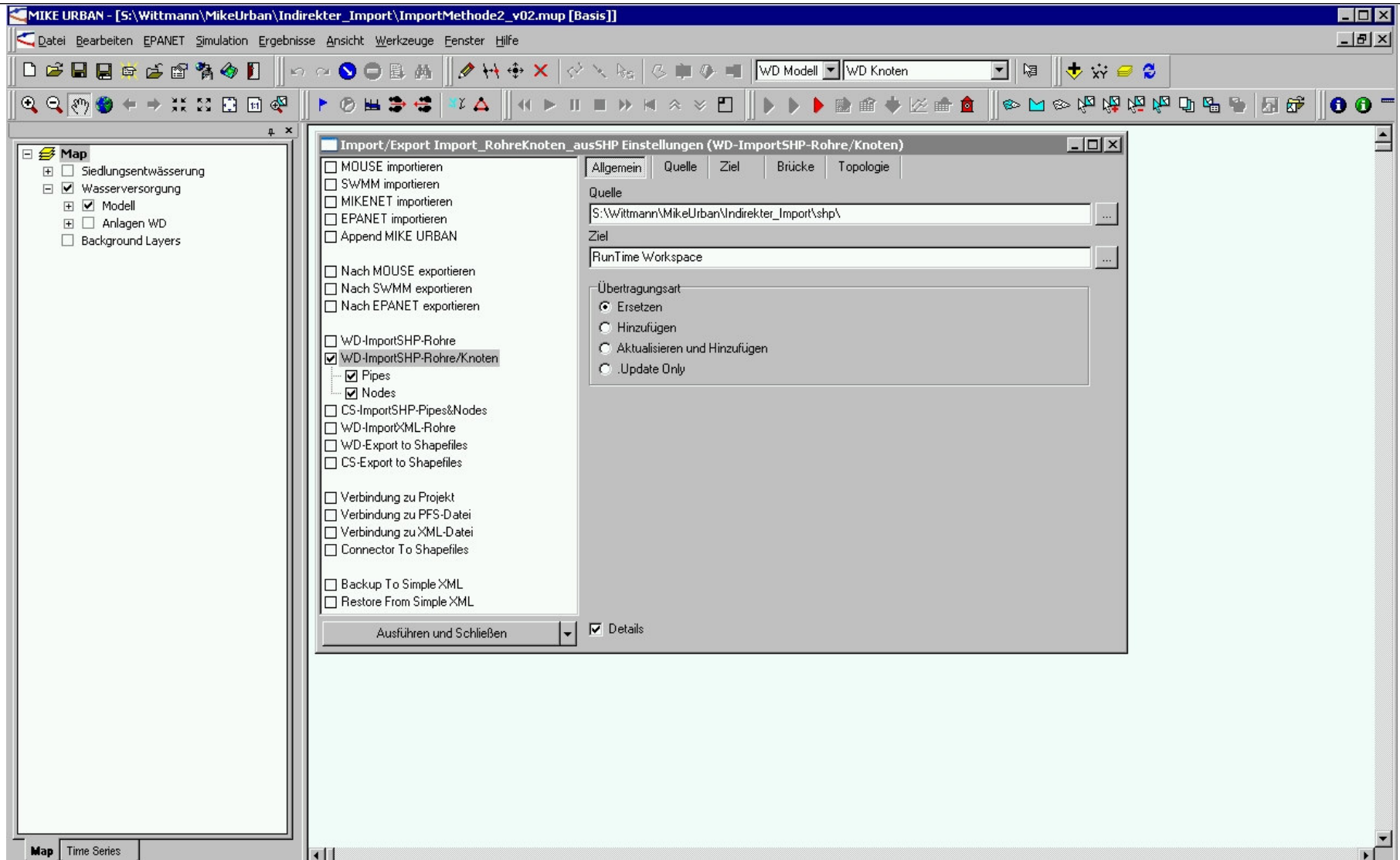


Indirekter Import – zugewiesene Leitungsbeschriftung anzeigen und überprüfen

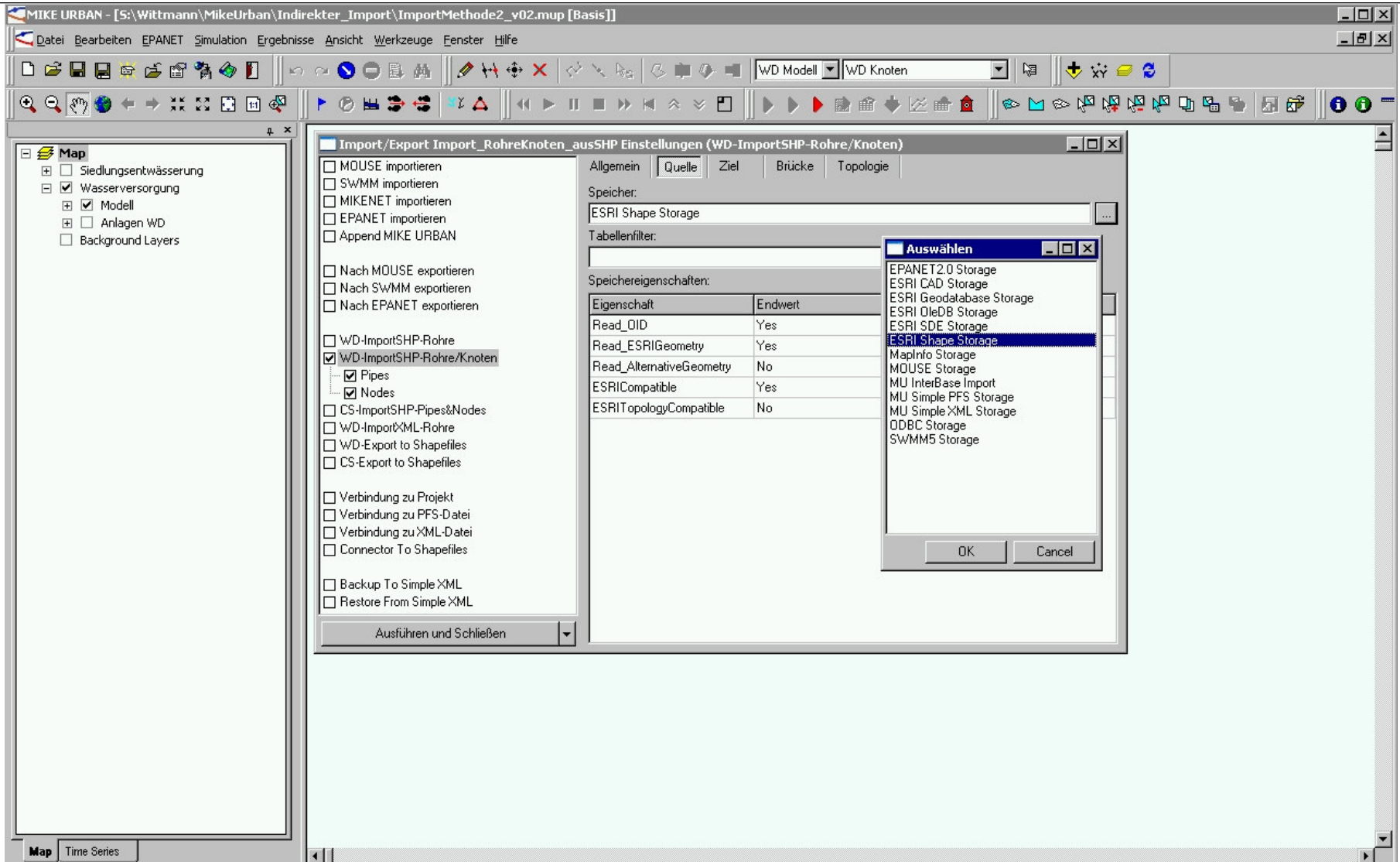
The screenshot displays the ArcMap interface with a map of a pipe network. The map shows several pipes of different diameters (80, 100, 125, 150) and their associated labels (AZ DN 80, AZ DN 100, AZ DN 125, AZ DN 150). The labels are color-coded to match the pipe diameter. A data table is visible in the bottom-left corner, showing the relationship between the pipe dimension and the label text.

tach	TxtDir	LnSpace	SpaceFct	TxtMemo	Material	Dimension	Distance
0	0	0	0	AZ DN 125	AZ	125	1,533201
0	0	0	0	AZ DN 125	AZ	125	2,744424
0	0	0	0	AZ DN 150	AZ	150	3,683573
0	0	0	0	AZ DN 125	AZ	125	3,79765
0	0	0	0	AZ DN 80	AZ	80	4,258372
0	0	0	0	AZ DN 80	AZ	80	4,272092
0	0	0	0	AZ DN 80	AZ	80	4,313914
0	0	0	0	AZ DN 100	AZ	100	5,098067
0	0	0	0	AZ DN 100	AZ	100	5,264766
0	0	0	0	AZ DN 80	AZ	80	5,356945
0	0	0	0	AZ DN 100	AZ	100	5,4045
0	0	0	0	AZ DN 80	AZ	80	6,178841
0	0	0	0	AZ DN 150	AZ	150	6,544374
0	0	0	0	AZ DN 80	AZ	80	6,863626
0	0	0	0	AZ DN 100	AZ	100	6,91479
0	0	0	0	AZ DN 80	AZ	80	7,965793
0	0	0	0	AZ DN 100	AZ	100	9,466112
0	0	0	0	AZ DN 100	AZ	100	10,365742
0	0	0	0	AZ DN 80	AZ	80	12,113635
0	0	0	0	AZ DN 100	AZ	100	14,314416
0	0	0	0	AZ DN 150	AZ	150	15,92848
0	0	0	0	AZ DN 150	AZ	150	50,101489

Indirekter Import – Shapeimport nach MIKE Urban



Indirekter Import – Shapefiles als Quellformat zuweisen



Indirekter Import – GeoDB als Zielformat zuweisen

The screenshot shows the MIKE URBAN software interface. The main window is titled 'MIKE URBAN - [S:\Wittmann\MikeUrban\Indirekter_Import\ImportMethode2_v02.mup [Basis]]'. The 'Import/Export' dialog box is open, showing the 'Ziel' (Target) tab. The 'Speicher:' field is set to 'ESRI Geodatabase Storage'. The 'Tabellenfilter:' field is set to 'mw_Pipe;mw_Junction'. The 'Speichereigenschaften:' table is shown below.

Eigenschaft	Wert
Read_OID	No
Read_ESRIGeometry	Yes
Read_AlternativeGeometry	All
ESRICompatible	Yes
ESRITopologyCompatible	Yes
WriteMode	Replace

The 'Auswählen' (Select) dialog box is open, showing a list of storage formats. 'ESRI Geodatabase Storage' is selected.

Map

- Siedlungsentwässerung
- Wasserversorgung
 - Modell
- Anlagen WD
- Background Layers

Import/Export Import_RohreKnoten_ausSHP Einstellungen (WD-ImportSHP-Rohre/Knoten)

Allgemein Quelle Ziel Brücke Topologie

Speicher:
ESRI Geodatabase Storage

Tabellenfilter:
mw_Pipe;mw_Junction

Speichereigenschaften:

MOUSE importieren
 SWMM importieren
 MIKENET importieren
 EPANET importieren
 Append MIKE URBAN

Nach MOUSE exportieren
 Nach SWMM exportieren
 Nach EPANET exportieren

WD-ImportSHP-Rohre
 WD-ImportSHP-Rohre/Knoten

- Pipes
- Nodes

CS-ImportSHP-Pipes&Nodes
 WD-ImportXML-Rohre
 WD-Export to Shapefiles
 CS-Export to Shapefiles

Verbindung zu Projekt
 Verbindung zu PFS-Datei
 Verbindung zu XML-Datei
 Connector To Shapefiles

Backup To Simple XML
 Restore From Simple XML

Auswählen

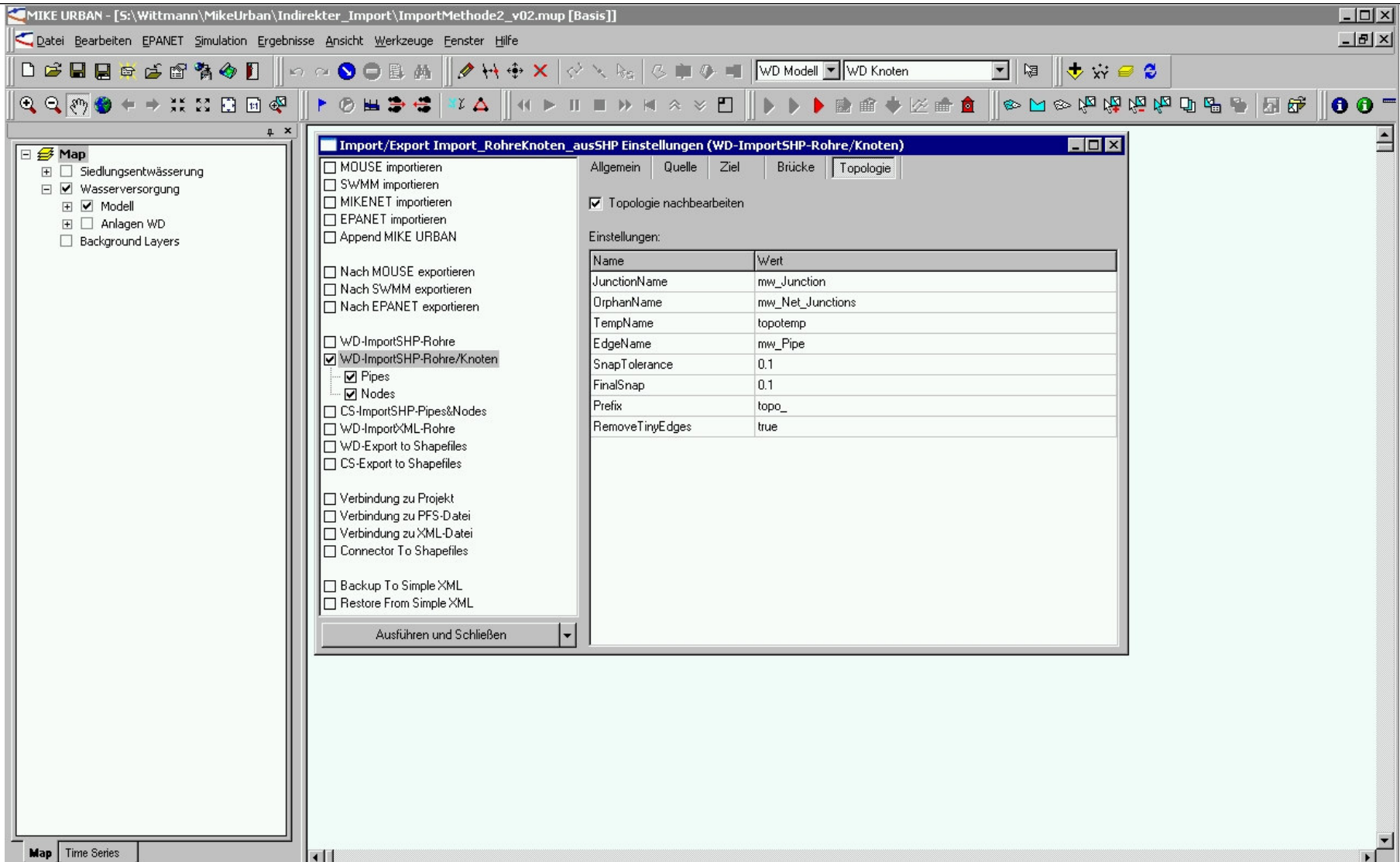
- EPANET2.0 Storage
- ESRI Geodatabase Storage
- ESRI OleDb Storage
- ESRI SDE Storage
- ESRI Shape Storage
- MapInfo Storage
- MOUSE Storage
- MU Simple PFS Storage
- MU Simple XML Storage
- ODBC Storage
- SWMM5 Storage

OK Cancel

Ausführen und Schließen

Map Time Series

Indirekter Import – durch den Import nach MIKE Urban die Topologie bereinigen



MIKE URBAN - [S:\Wittmann\MikeUrban\Indirekter_Import\ImportMethode2_v02.mup [Basis]]

Import/Export Import_RohreKnoten_ausSHP Einstellungen (WD-ImportSHP-Rohre/Knoten)

MOUSE importieren
 SWMM importieren
 MIKENET importieren
 EPANET importieren
 Append MIKE URBAN

Nach MOUSE exportieren
 Nach SWMM exportieren
 Nach EPANET exportieren

WD-ImportSHP-Rohre
 WD-ImportSHP-Rohre/Knoten

- Pipes
- Nodes

CS-ImportSHP-Pipes&Nodes
 WD-ImportXML-Rohre
 WD-Export to Shapefiles
 CS-Export to Shapefiles

Verbindung zu Projekt
 Verbindung zu PFS-Datei
 Verbindung zu XML-Datei
 Connector To Shapefiles

Backup To Simple XML
 Restore From Simple XML

Ausführen und Schließen

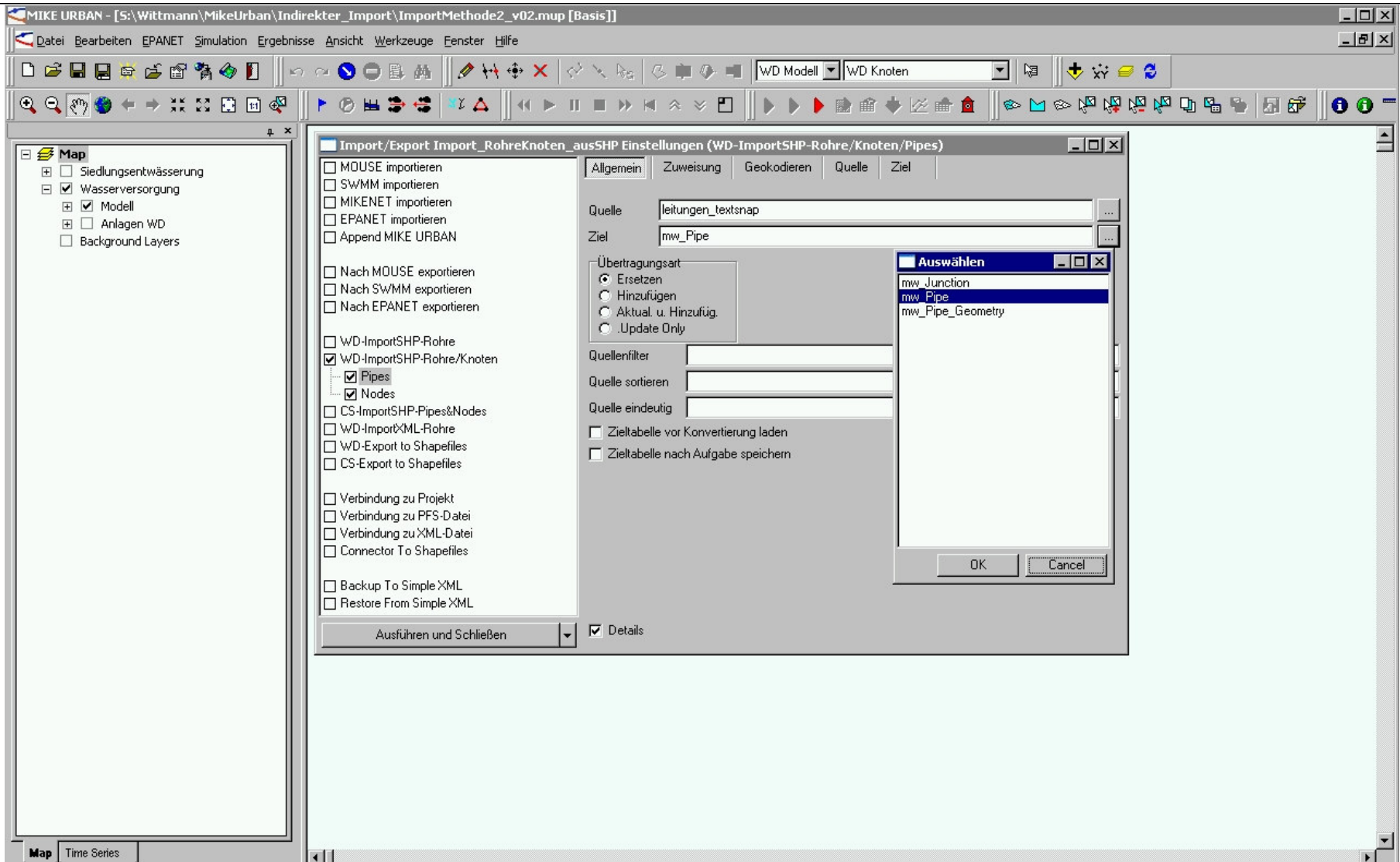
Allgemein Quelle Ziel Brücke **Topologie**

Topologie nachbearbeiten

Einstellungen:

Name	Wert
JunctionName	mw_Junction
OrphanName	mw_Net_Junctions
TempName	topotemp
EdgeName	mw_Pipe
SnapTolerance	0.1
FinalSnap	0.1
Prefix	topo_
RemoveTinyEdges	true

Indirekter Import – Leitungen der Rohrtabelle zuweisen



Indirekter Import – die generierten Felder „Durchmesser“ und „Material“ zuweisen

MIKE URBAN - [S:\Wittmann\MikeUrban\Indirekter_Import\ImportMethode2_v02.mup [Basis]]

Datei Bearbeiten EPANET Simulation Ergebnisse Ansicht Werkzeuge Fenster Hilfe

WD Modell WD Knoten

Import/Export Import_RohreKnoten_ ausSHP Einstellungen (WD-ImportSHP-Rohre/Knoten/Pipes)

Allgemein Zuweisung Geokodieren Quelle Ziel

shape = shape
diameter = Dimension
material = Material

MOUSE importieren
 SWMM importieren
 MIKENET importieren
 EPANET importieren
 Append MIKE URBAN

Nach MOUSE exportieren
 Nach SWMM exportieren
 Nach EPANET exportieren

WD-ImportSHP-Rohre
 WD-ImportSHP-Rohre/Knoten
 Pipes
 Nodes
 CS-ImportSHP-Pipes&Nodes
 WD-ImportXML-Rohre
 WD-Export to Shapefiles
 CS-Export to Shapefiles

Verbindung zu Projekt
 Verbindung zu PFS-Datei
 Verbindung zu XML-Datei
 Connector To Shapefiles

Backup To Simple XML
 Restore From Simple XML

Ausführen und Schließen

Map Time Series

Indirekter Import – Hydranten der Knotentabelle zuweisen

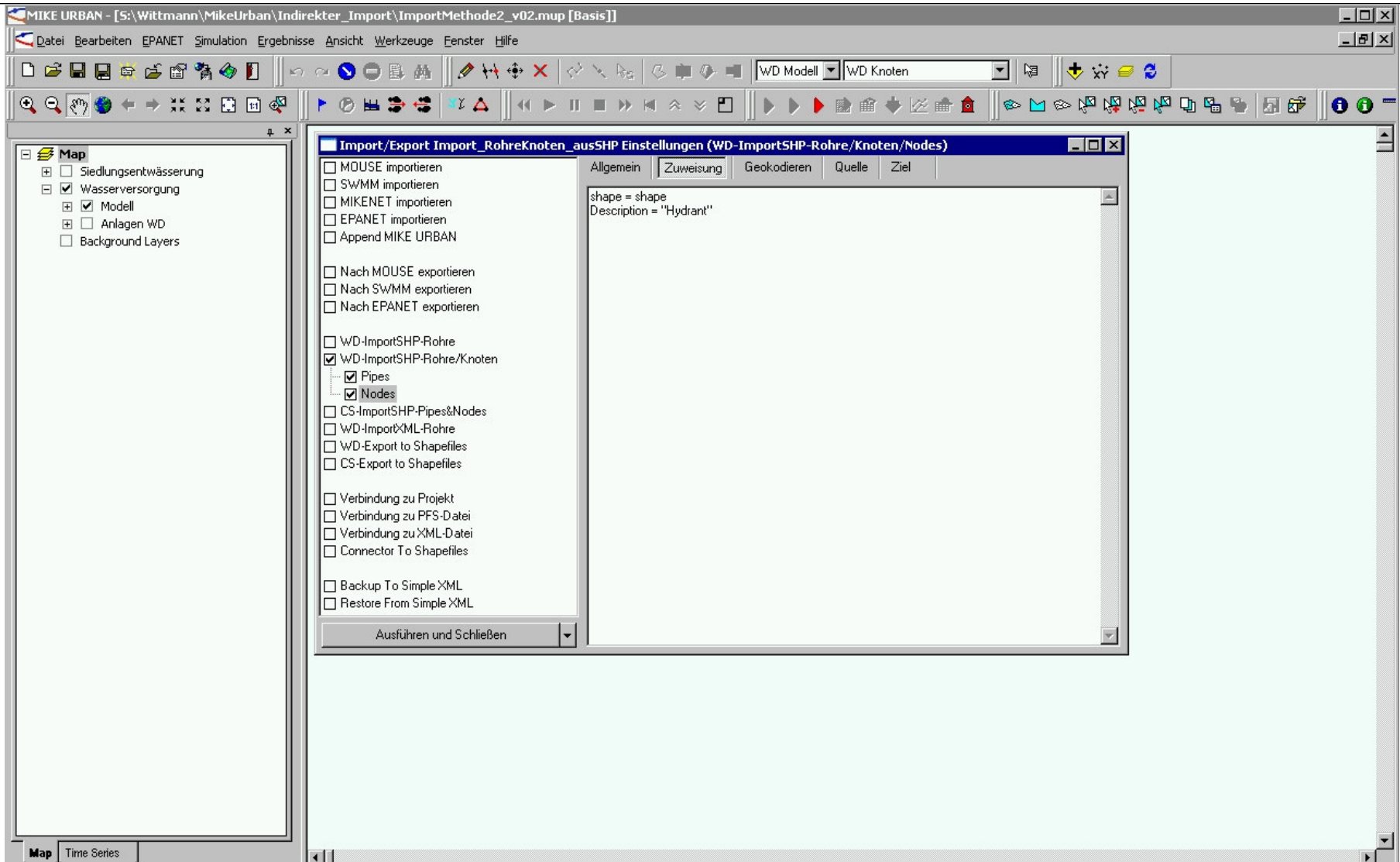
The screenshot displays the MIKE URBAN software interface. The main window title is "MIKE URBAN - [S:\Wittmann\MikeUrban\Indirekter_Import\ImportMethode2_v02.mup [Basis]]". The menu bar includes "Datei", "Bearbeiten", "EPANET", "Simulation", "Ergebnisse", "Ansicht", "Werkzeuge", "Fenster", and "Hilfe". The toolbar contains various icons for file operations and simulation control. The "WD Modell" dropdown is set to "WD Knoten".

The "Import/Export Import_RohreKnoten_ausSHP Einstellungen (WD-ImportSHP-Rohre/Knoten/Nodes)" dialog box is open, showing the following settings:

- MOUSE importieren
- SWMM importieren
- MIKENET importieren
- EPANET importieren
- Append MIKE URBAN
- Nach MOUSE exportieren
- Nach SWMM exportieren
- Nach EPANET exportieren
- WD-ImportSHP-Rohre
- WD-ImportSHP-Rohre/Knoten
 - Pipes
 - Nodes
- CS-ImportSHP-Pipes&Nodes
- WD-ImportXML-Rohre
- WD-Export to Shapefiles
- CS-Export to Shapefiles
- Verbindung zu Projekt
- Verbindung zu PFS-Datei
- Verbindung zu XML-Datei
- Connector To Shapefiles
- Backup To Simple XML
- Restore From Simple XML

The "Allgemein" tab is active. The "Quelle" field is set to "hydranten_v01" and the "Ziel" field is set to "mw_Junction". The "Übertragungsart" section has "Ersetzen" selected. The "Quellenfilter", "Quelle sortieren", and "Quelle eindeutig" fields are empty. The "Zieltabelle vor Konvertierung laden" and "Zieltabelle nach Aufgabe speichern" checkboxes are unchecked. The "Auswählen" dialog box is open, showing a list of options: "mw_Junction", "mw_Pipe", and "mw_Pipe_Geometry". "mw_Junction" is selected. The "OK" and "Cancel" buttons are visible at the bottom of the "Auswählen" dialog.

Indirekter Import – Hydranten im Bemerkungsfeld kennzeichnen



Indirekter Import – Hydranten und neu erzeugte Knoten

MIKE URBAN - [S:\Wittmann\MikeUrban\Indirekter_Import\ImportMethode2_v02.mup [Basis]]

File Bearbeiten EPANET Simulation Ergebnisse Ansicht Werkzeuge Fenster Hilfe

WD Modell WD Knoten

Map

- Siedlungsentwässerung
- Wasserversorgung
 - Modell
 - Bedarfszuweisungs-Gruppe
 - WD Bedarfszuordnung
 - WD Knotenanbindung
 - WD Rohrverknüpfung
 - WD Knoten
 - Description
 - <Null>
 - Hydrant
 - WD Emitter
 - *
 - WD Luftventile
 -
 - WD Reservoir
 -
 - WD Behälter
 -
 - WD Luftkammern
 -
 - WD Rohre
 - Diameter
 - 80,000000
 - 100,000000
 - 125,000000
 - 150,000000
 - WD Geschlossene Rohre
 - +
 - WD Pumpen
 -
 - WD Geschlossene Pumpen
 -

Knoten [Basis]

Knoten | Emitter | Entlüftungsventile

Elementkennung und Lage im System

Anlagen ID: Datenquelle:

Knoten ID: Datenstatus:

X Koordinate: Y Koordinate:

Beschreibung: Druckzone:

Modelldaten

Typ: Markierung:

Bedarfskoeffizient: Knotenhöhe:

Minimaldruck: Geländehöhe:

Bedarf Beschreibung Kategorie Zeitprofil

Knoten ID: *	Anlagen ID	Datenquelle	Beschreibung	Knotenhöhe	Geländehöhe	Druckzone *	DZor
74	<Null>	<Null>	Hydrant	<Null>	<Null>	<Null>	<Null>
75	<Null>	<Null>	Hydrant	<Null>	<Null>	<Null>	<Null>
76	<Null>	<Null>	Hydrant	<Null>	<Null>	<Null>	<Null>
77	<Null>	<Null>	Hydrant	<Null>	<Null>	<Null>	<Null>
78	<Null>	<Null>	Hydrant	<Null>	<Null>	<Null>	<Null>
topo_1_0	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
topo_1_1	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
topo_1_10	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
topo_1_11	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
topo_1_12	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
topo_1_13	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>
trnn_1_14	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>

Indirekter Import – Leitungen entsprechend der Topologie aufgebrochen

MIKE URBAN - [S:\Wittmann\MikeUrban\Indirekter_Import\ImportMethode2_v02.mup [Basis]]

File Bearbeiten EPANET Simulation Ergebnisse Ansicht Werkzeuge Fenster Hilfe

WD Modell | WD Knoten

Map

- Siedlungsentswässerung
- Wasserversorgung
 - Modell
 - Bedarfszuweisungs-Gruppe
 - WD Bedarfszuordnung
 - WD Knotenanbindung
 - WD Rohrverknüpfung
 - WD Knoten
 - Description
 - <Null>
 - Hydrant
 - WD Emitter
 - WD Luftventile
 - WD Reservoir
 - WD Behälter
 - WD Luftkammern
 - WD Rohre
 - Diameter
 - 80,000000
 - 100,000000
 - 125,000000
 - 150,000000
 - WD Geschlossene Rohre
- WD Pumpen
- WD Geschlossene Pumpen

Rohre [Basis]

Elementkennung und Lage im System

Anlagen ID: Datenquelle:

Rohr ID: Datenstatus:

Von: Nach:

Beschreibung: Druckzonen ID:

Abmessungen

Länge: Durchmesser:

Hydraulik und Reibungsverluste

Material: Verlustansatz:

Baujahr: Rauigkeit:

Wandstärke: Verlustkoeffizient:

Wellengeschw.: Betriebsdruck:

Diverses

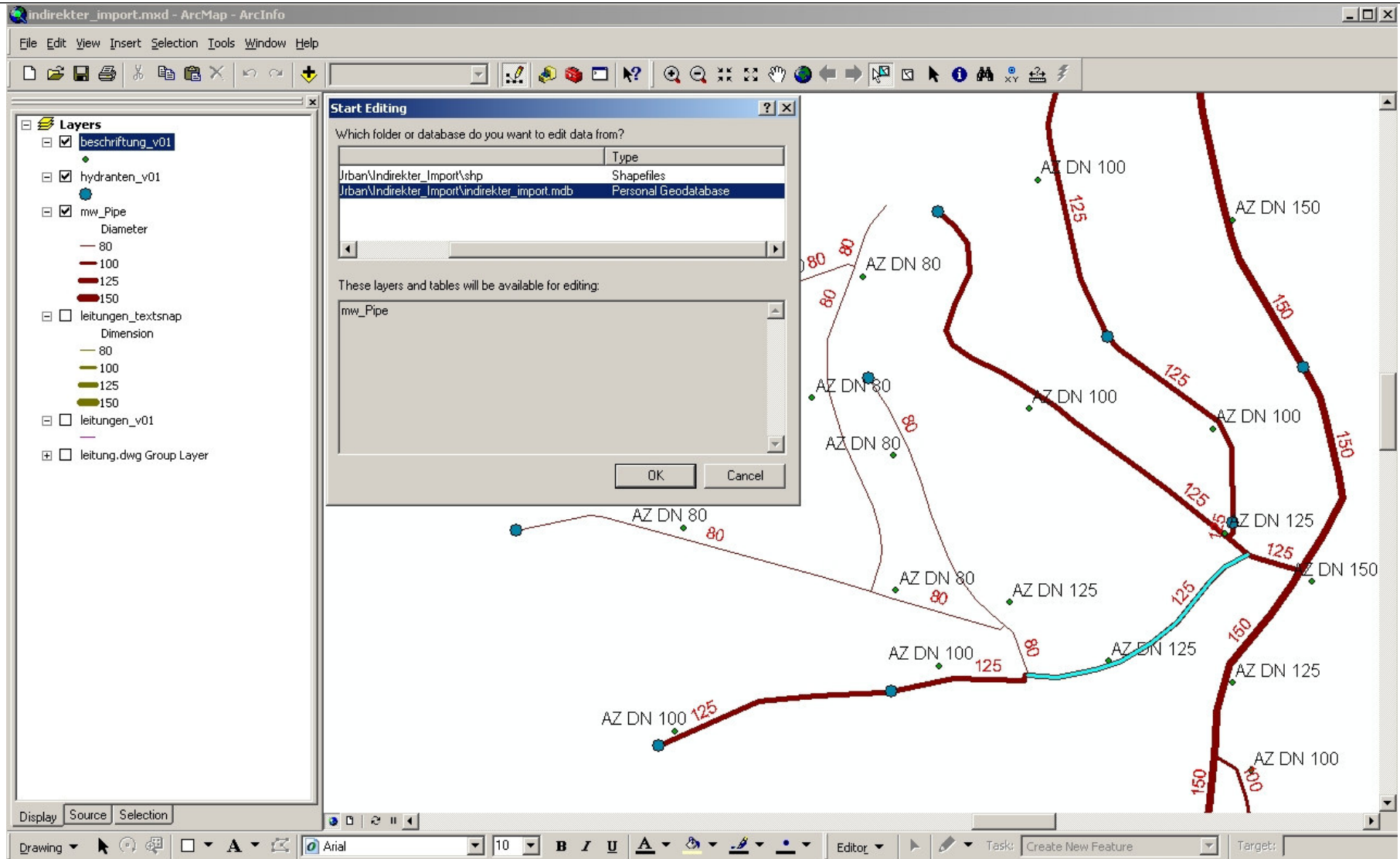
Bedarfskoeff. 1: Markierung:

Bedarfskoeff. 2: Rückstauklappe: Geschlossen

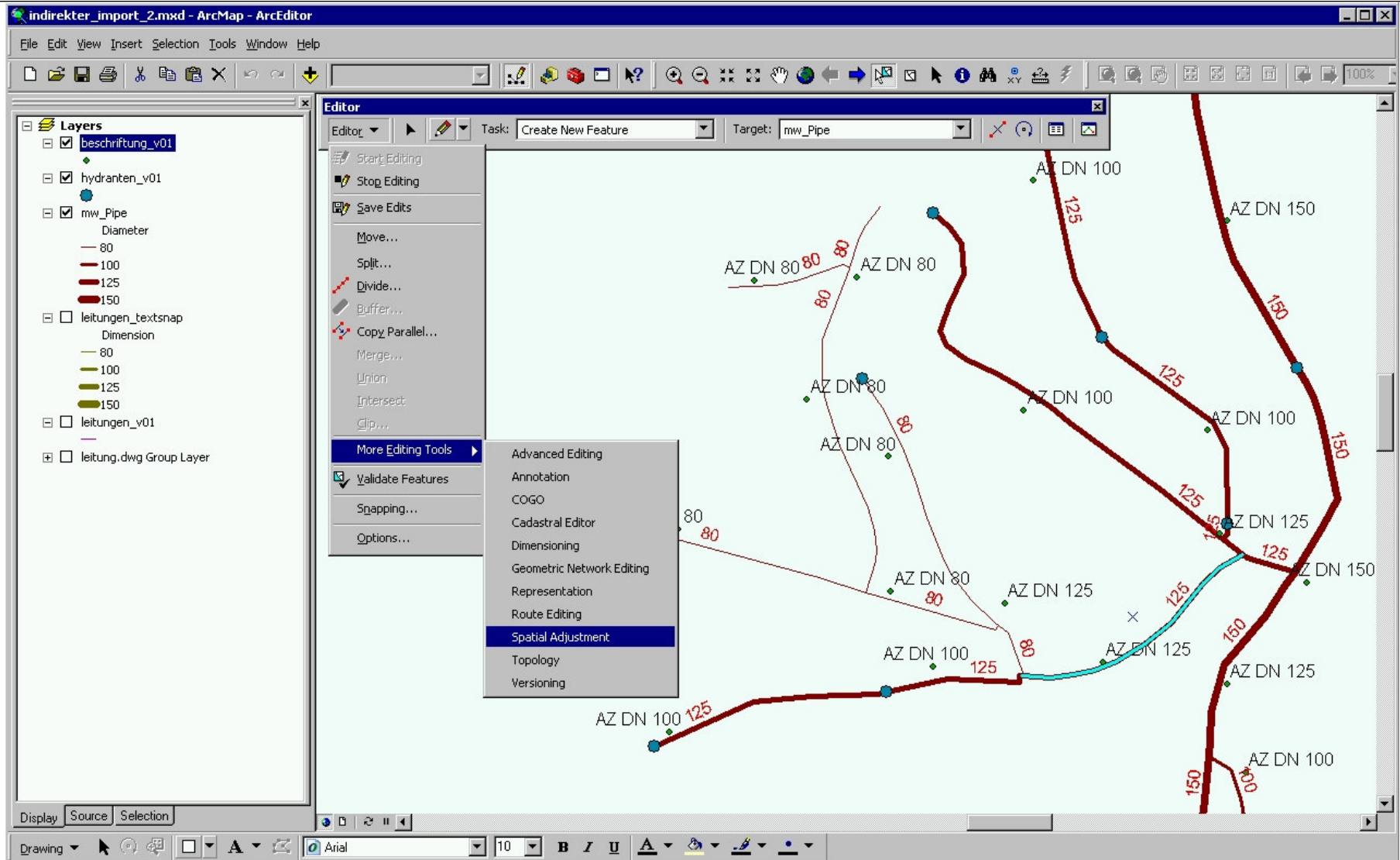
Straße:

Rohr ID *	Beschreibung	Cdatum	Baujahr	Anlagen ID	Datenquelle	Bedarfskoeff. 1
62	<Null>	01.01.2008	<Null>	<Null>	<Null>	
63	<Null>	01.01.2008	<Null>	<Null>	<Null>	
64	<Null>	01.01.2008	<Null>	<Null>	<Null>	
65	<Null>	01.01.2008	<Null>	<Null>	<Null>	
66	<Null>	01.01.2008	<Null>	<Null>	<Null>	
67	<Null>	01.01.2008	<Null>	<Null>	<Null>	
topo_1_0	<Null>	01.01.2008	<Null>	<Null>	<Null>	
topo_1_1	<Null>	01.01.2008	<Null>	<Null>	<Null>	
topo_1_10	<Null>	01.01.2008	<Null>	<Null>	<Null>	
topo_1_11	<Null>	01.01.2008	<Null>	<Null>	<Null>	
topo_1_12	<Null>	01.01.2008	<Null>	<Null>	<Null>	
topo_1_13	<Null>	01.01.2008	<Null>	<Null>	<Null>	

Indirekter Import – MU-Rohrgeometrie in ArcGIS darstellen (add Data / mu_Geometry / mw_Pipe)



Indirekter Import – MU-Rohrattribute in ArcGIS nachbearbeiten

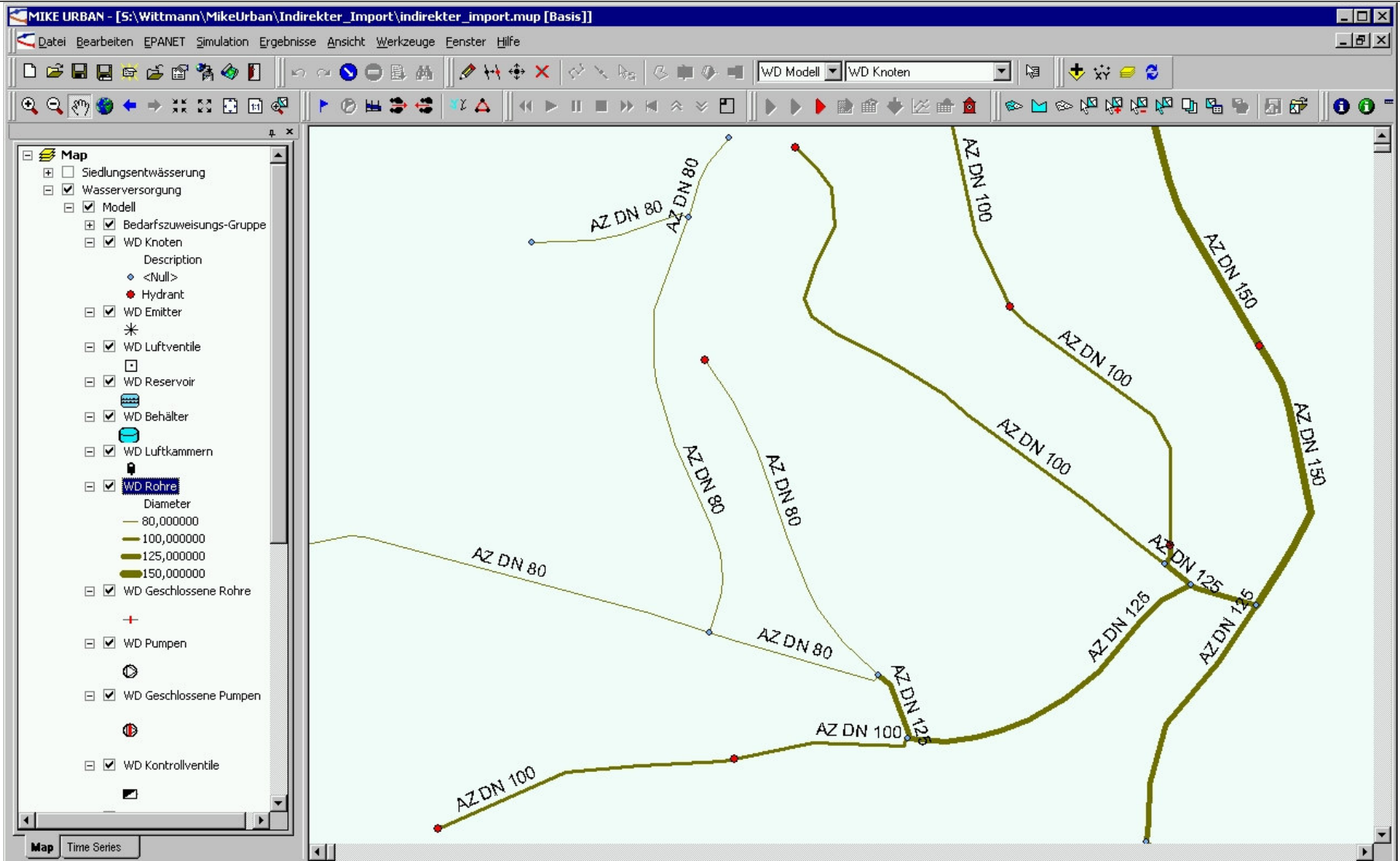


Indirekter Import – MU-Rohrattribute in ArcGIS nachbearbeiten

The screenshot shows the ArcGIS interface with the following components:

- Layers Panel:** Lists layers including 'beschreibung_v01', 'hydranten_v01', 'mw_Pipe' (with diameter legend: 80, 100, 125, 150), 'leitungen_textsnap', 'leitungen_v01', and 'leitung.dwg Group Layer'.
- Editor Panel:** Shows 'Task: Create New Feature' and 'Target: mw_Pipe'.
- Spatial Adjustment Panel:** Contains spatial adjustment tools.
- Attribute Transfer Mapping Dialog:**
 - Source Layer:** 'beschreibung_v01'
 - Target Layer:** 'mw_Pipe'
 - Source Fields:** TxtAttach, TxtDir, LnSpace, SpaceFct, TxtMemo
 - Target Fields:** Coeff4, CVNo, Thickness, GroupID, L, LCoeff, PN, PZoneID
 - Matched Fields:** Dimension (Source) to Diameter (Target), Material (Source) to Material (Target)
 - Transfer Geometry:**
- Map View:** Displays a network of pipes with labels such as 'AZ DN 80', 'AZ DN 100', 'AZ DN 125', and 'AZ DN 150'.

Indirekter Import – korrigierte Rohrdurchmesser in MIKE Urban dargestellt



Indirekter Import – korrigierte Rohrdurchmesser in MIKE Urban dargestellt

MIKE URBAN - [S:\Wittmann\MikeUrban\Indirekter_Import\indirekter_import.mup [Basis]]

Datei Bearbeiten EPANET Simulation Ergebnisse Ansicht Werkzeuge Fenster Hilfe

WD Modell WD Knoten

Map

- Siedlungsentwässerung
- Wasserversorgung
 - Modell
 - Bedarfzuweisungs-G
 - WD Bedarfzuord
 - WD Knotenabw
 - WD Rohrverknüp
 - WD Knoten
 - Description
 - <Null>
 - Hydrant
 - WD Emitter
 - WD Luftventile
 - WD Reservoir
 - WD Behälter
 - WD Luftkammern
 - WD Rohre
 - Diameter
 - 80,000000
 - 100,000000
 - 125,000000
 - 150,000000
 - WD Geschlossene Ro
 - WD Pumpen
 - WD Geschlossene Pu

Rohre [Basis]

Elementkennung und Lage im System

Anlagen ID: Datenquelle:

Rohr ID: Datenstatus:

Von:

Nach:

Beschreibung: Druckzonen ID:

Abmessungen

Länge: Durchmesser:

Hydraulik und Reibungsverluste

Material: Verlustansatz:

Baujahr: Rauigkeit:

Wandstärke: Verlustkoeffizient:

Wellengeschw.: Betriebsdruck:

Diverses

Bedarfskoeff. 1: Markierung:

Bedarfskoeff. 2: Rückstauklappe: Geschlossen

Straße:

Rohr ID *	Beschreibu	CDatum	Baujahr	Anlagen ID	Datenquelle	Bedarfskoe	Bedarfsf
topo_2_18	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_19	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_20	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_21	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_22	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_23	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_24	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_25	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_26	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_27	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1
topo_2_28	<Null>	01.01.2008	<Null>	<Null>	<Null>	1,000	1,1

