FME

US Central Study Group

#sg_us_central

AGENDA

This will be an interactive presentation please feel free to ask questions!

Intro to Myself
What is ETL?
What is FME?

01

Useful Resources
Knowledge Community
License

02

Example Projects

03

Caner Akin

Location Intelligence Analyst

Caner Akin is a Location Intelligence Analyst with over five years of experience that allows him to fulfill complementary roles of a data analyst, software developer, and GIS architecture design.

Geomatics Engineering, B.Eng.

2011-2015 Yildiz Technical University, Istanbul, Turkey

GIS-Geospatial Management, Postgraduate

2016-2017 Niagara College Canada

Geomatics Designer

2017-2021 Associated Engineering (Ont.) Ltd.

Part-time Professor

2019 - Present Conestoga College

Programming in C
Programming for Absolute Beginners

2019 - Present Niagara College

Enterprise Geodatabases & FME

Location Intelligence Analyst

2021- Present GHD

What is ETL?

Extract

Connect data in hundreds of systems, including CAD, GIS, BIM, Microsoft Office Programs, SQL, ORACLE, Rasters and more.

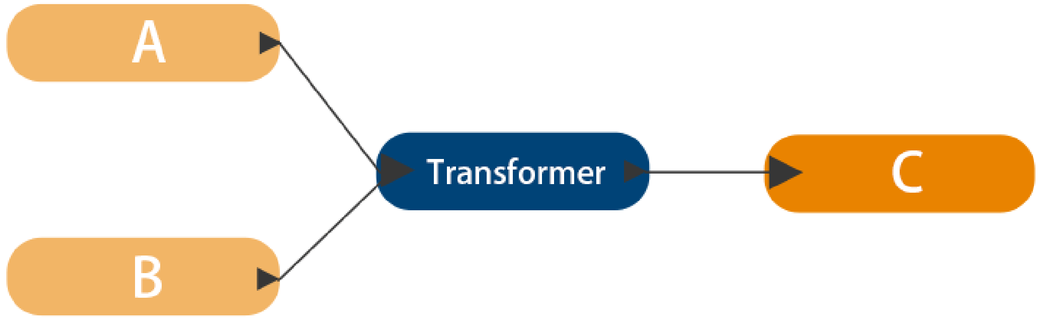
Transform

Transform data in limitless ways and manipulate projection, attributes, and data structures.

Load

Finally upload the data into the new destination(s).

A
B


A
B
Transformer
C

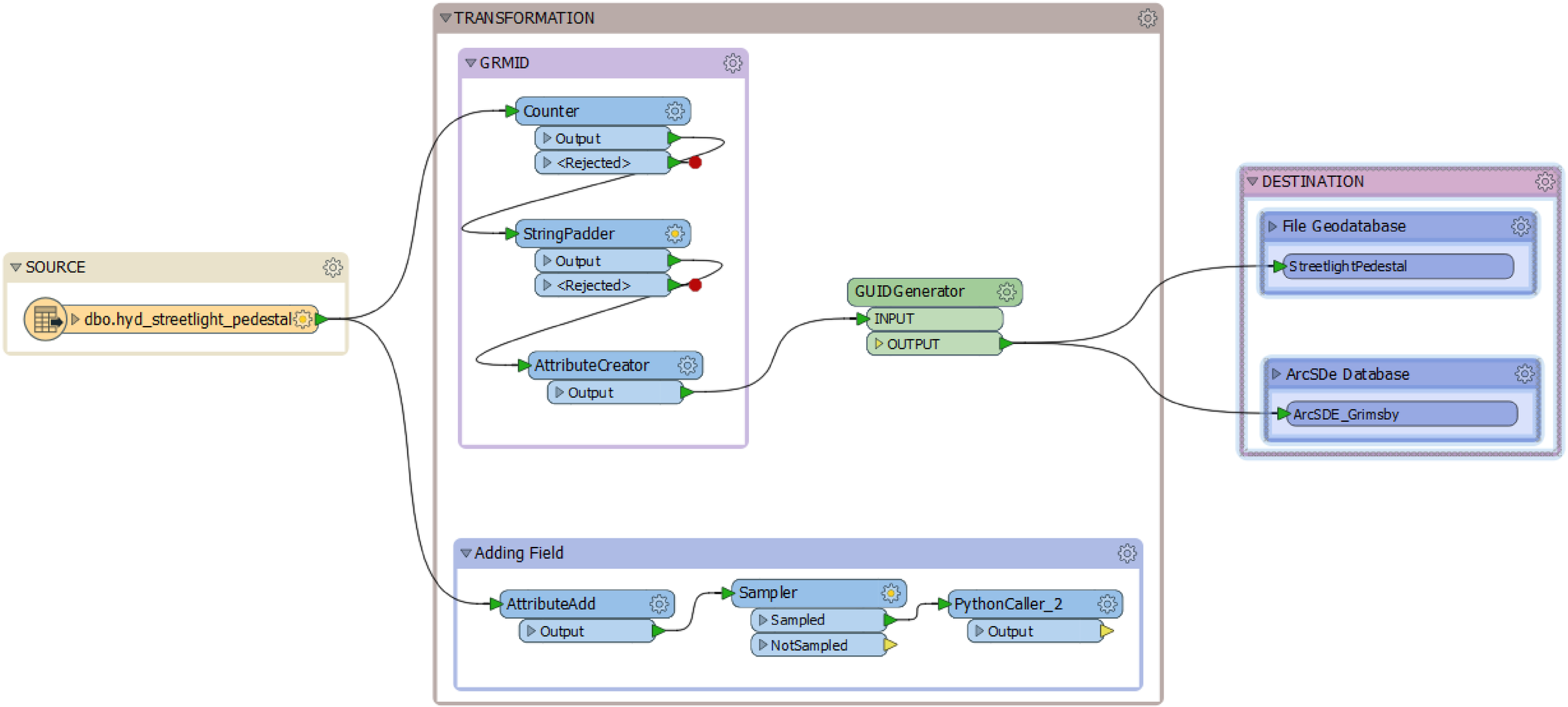
FME

Feature Manipulation Engine

Transform data in limitless ways and manipulate projection, attributes, and data structures.

Connect data in hundreds of systems, including CAD, GIS, BIM, Microsoft Office Programs, SQL, ORACLE, Rasters and more.

Develop your own transformer and improve your solutions using Python, R or SQL Scripting.


TRANSFORMATION
GRMID
Counter
Output
<Rejected>
StringPadder
Output
<Rejected>
AttributeCreator
Output
SOURCE
dbo.hyd_streetlight_pedestal
GUIDGenerator
INPUT
OUTPUT
DESTINATION
File Geodatabase
StreetlightPedestal
ArcSDe Database
ArcSDE_Grimsby
Adding Field
AttributeAdd
Output
Sampler
Sampled
NotSampled
PythonCaller_2
Output

Resources

01

Knowledge Base

You can post your question, get online support, follow the topic you are curious about.

02
Solution

Online Training

Free online training, webinar series, annual user conferences

03
Solution

Tutorials

Many tutorials and coming more

FREE LICENSES

There are multiple free licenses

- FME for Covid-19
- Trial License
- License for Home Use
- Student License
- Non-profit Research License
- Licenses for Recent Grads

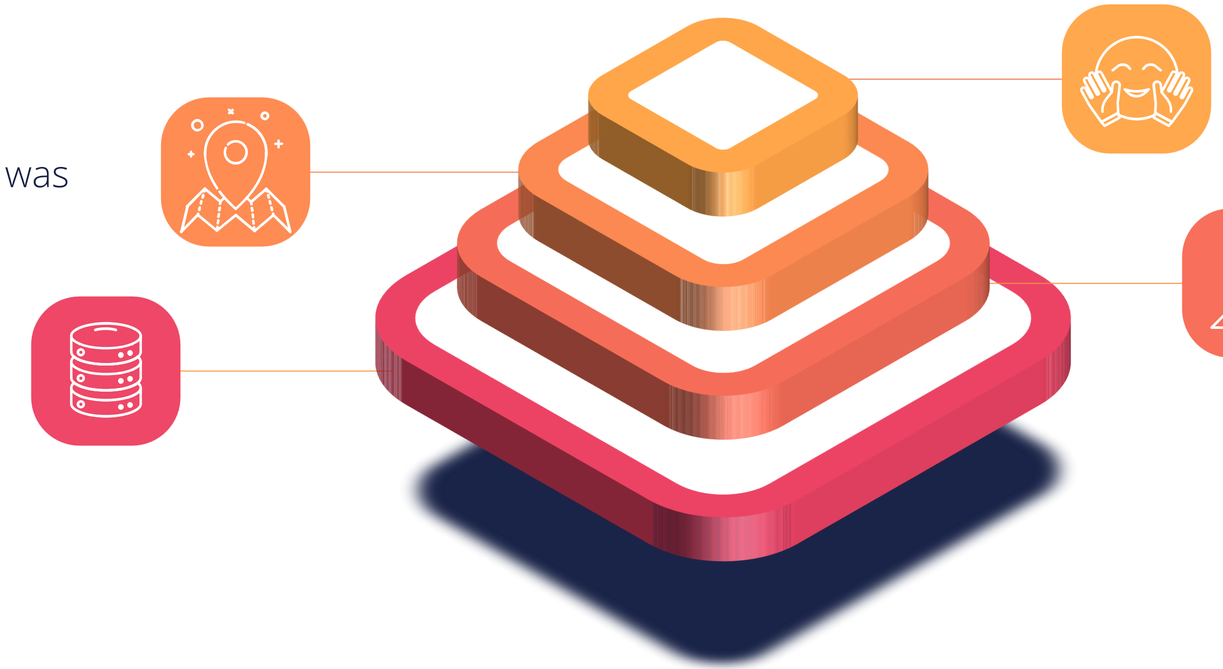
Migration to Esri using **FME** | The Town of Grimbsy

Example Project

Town's Previous Process

ArcGIS
GIS based information was processed in this level.

SQL Server
The main database



Web Server
Finally, the data was published in the web server

AutoCAD
AutoCAD was used as a spatial data distributor

The main three problems

Problems

01 AutoCAD and SQL

Using Autocad with SQL presented many challenges

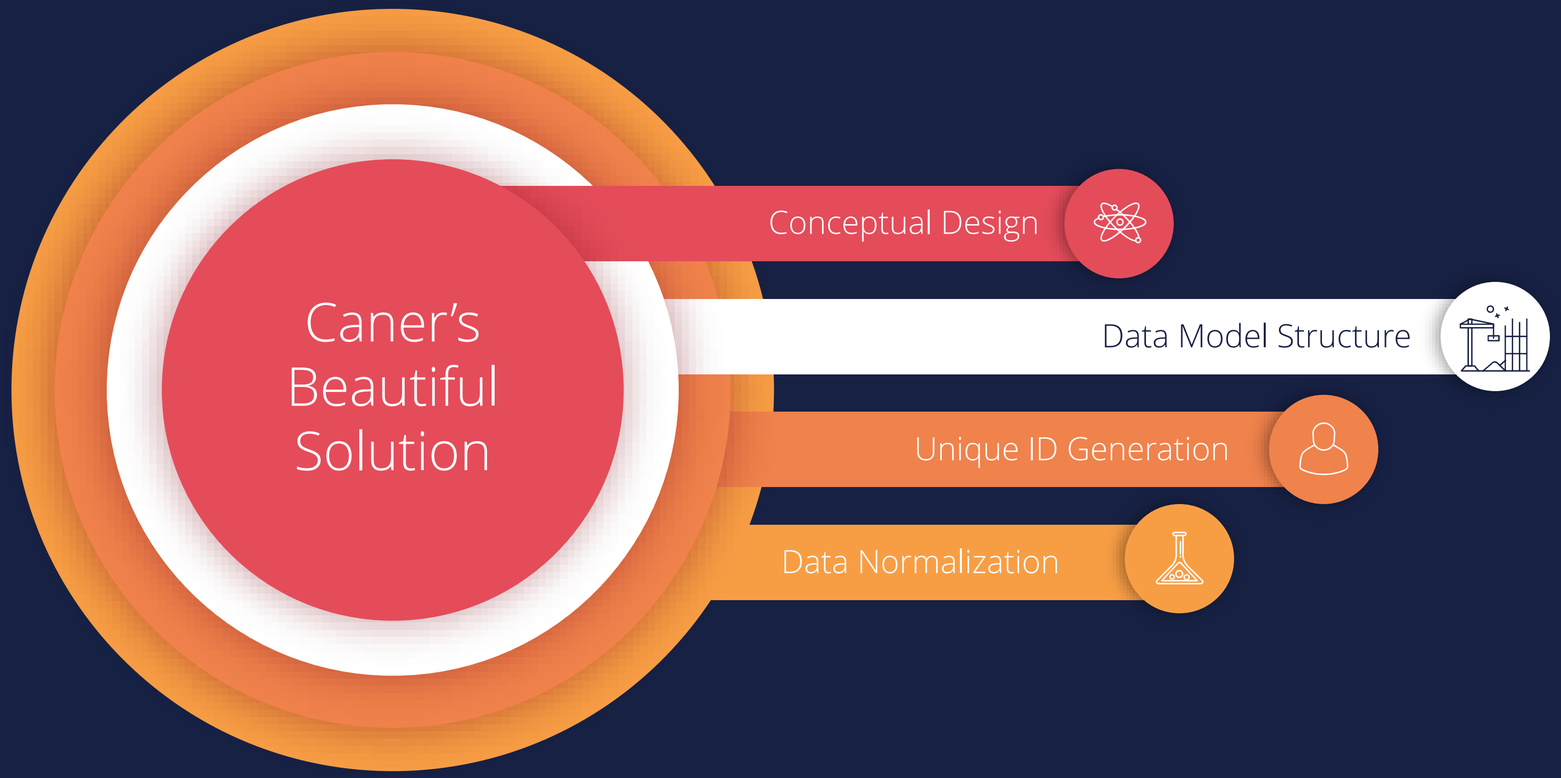
02 Lack of Normalization

Attribute naming wasn't proper for all the columns. Some of the attributes were not readable

03 Unique ID

There was no readable UniqueID

Caner Akin – Data Track | US Central Study Group
Bertelsmann Technology Scholarship



Conceptual Design

Map the information and come up with the basic understanding of the database

Data Model Structure

Use a structure that will communicate with other cities/towns and easy to understand

Unique ID

Define the primary and foreign keys and update it with a new ID

Data Normalization

Clean up the data, remove null values, define constrains, define metadata, organize all the columns

Inconsistent Data Example

	diameter
37	2000
38	2400X1500
39	1390X970
40	900X900
41	450 (375)
42	675
43	475
44	300 to 375
45	permit doesn't state
46	1200x
47	450X350
48	1400
49	1000
50	1800X1200
51	330X560
52	635x450
53	700
54	2400
55	1500
56	1700
57	2500
58	1200x1800
59	525x300
60	3000
61	1630X1120X3500
62	3.9

	instyear
83	1985 (2010)
84	2001
85	1978
86	1957+-
87	1966
88	1977
89	1979
90	Ex in 1987
91	EX in 1977
92	1987
93	Ex in 1983 (1984)
94	(1984)
95	(1983)
96	1985 (1987)
97	(1987)
98	1987 (?)
99	1983
100	1954+ (1988)
101	1988 (1988)
102	1955+ (1988)
103	(1988)
104	1988 (2002)
105	1989
106	1989 (?)
107	1956+ (1989)
108	(1989)
109	1960+ (1989)

We will continue with another example of FME

Thanks for Joining!