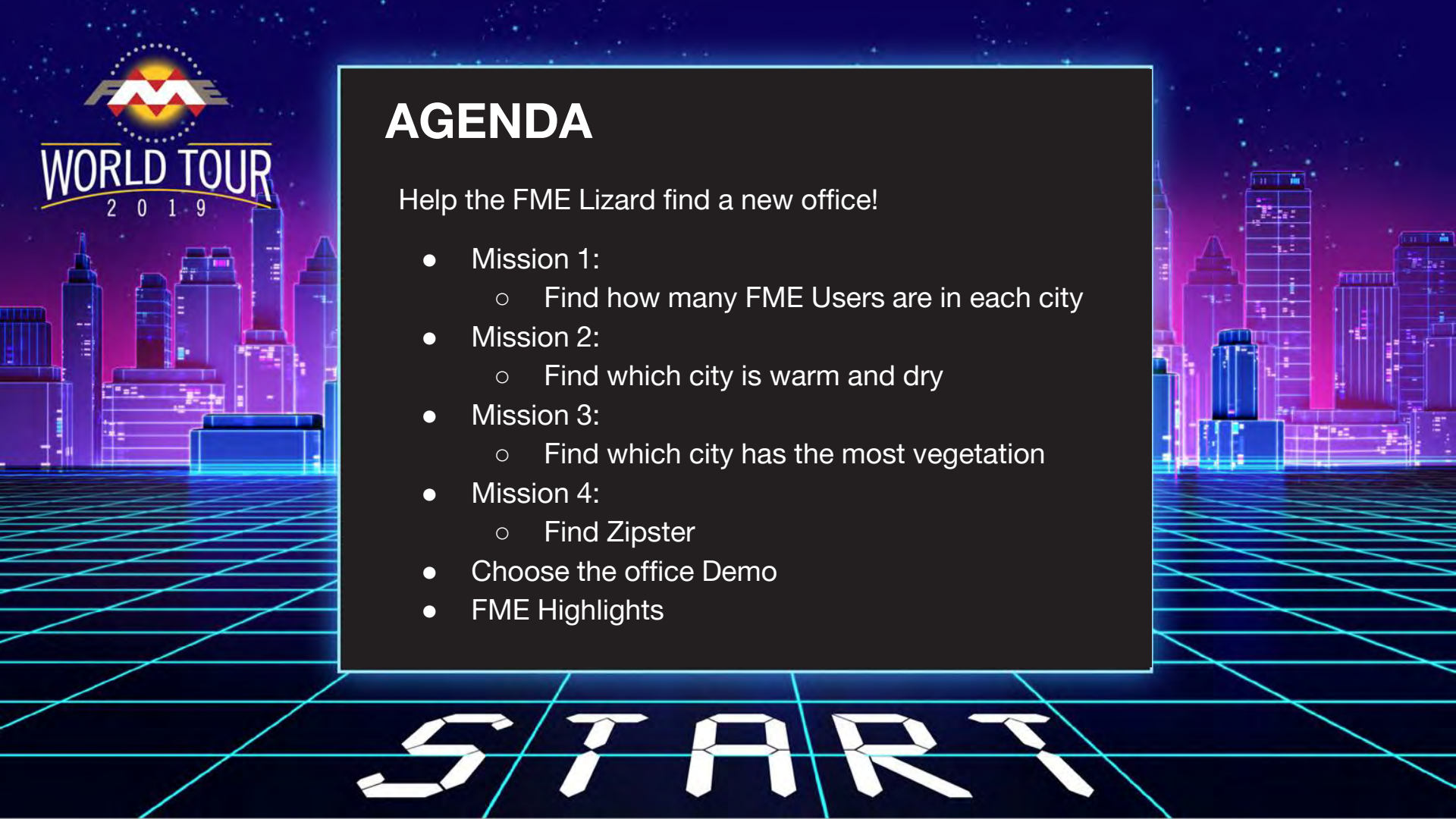
SAFE SOFTWARE

Level 2: FME 2019 Scenarios

FME Desktop


WORLD TOUR
2019
AGENDA
Help the FME Lizard find a new office!
Mission 1:
Find how many FME Users are in each city
Mission 2:
Find which city is warm and dry
Mission 3:
Find which city has the most vegetation
Mission 4:
Find Zipster
Choose the office Demo
FME Highlights
START

The FME Lizard is on the Move!

But where should its next office be?

FME to the Rescue!

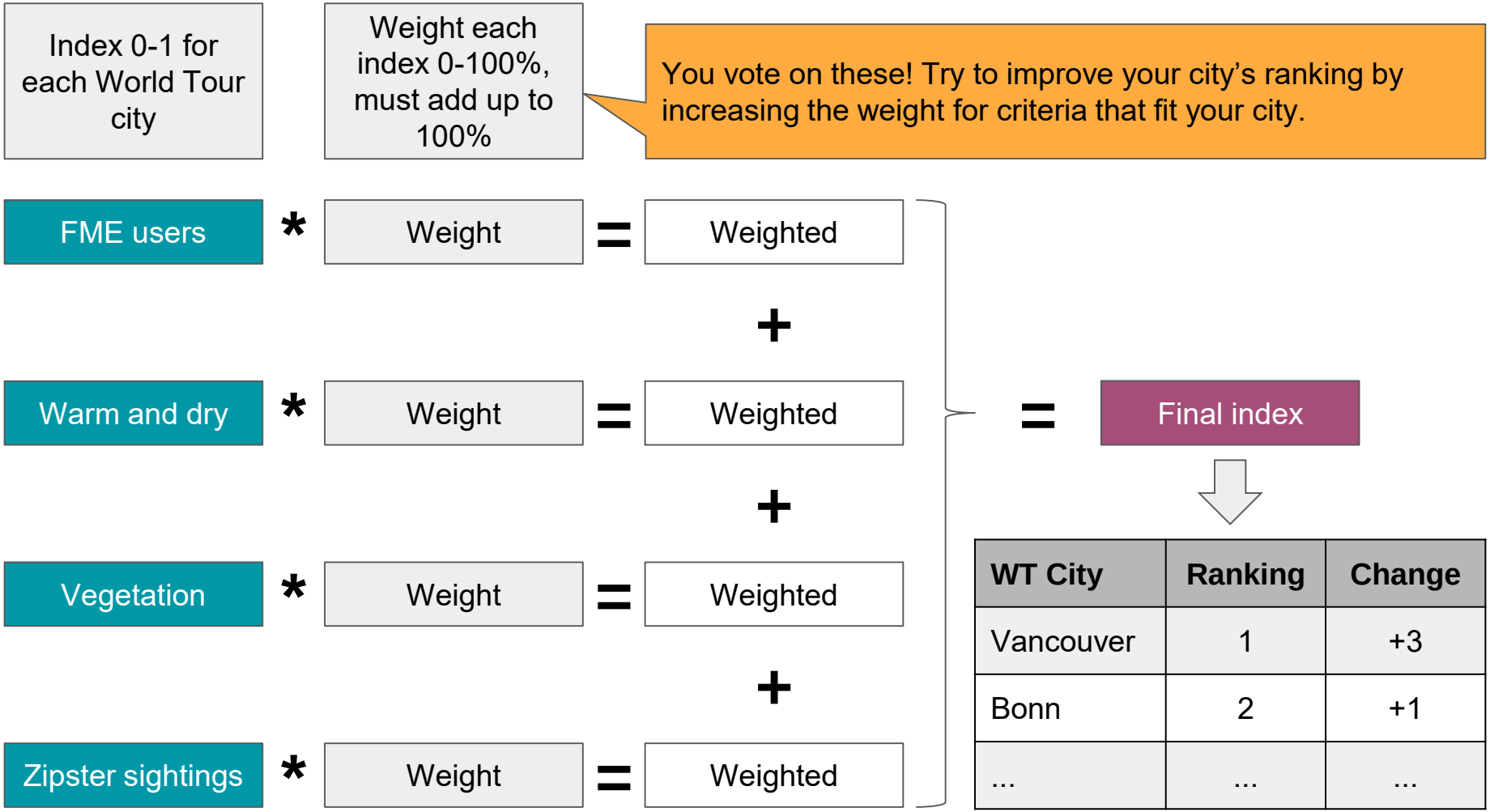
Let’s build a workspace to help the FME Lizard find a new office. (Caveat: the FME Lizard is picky and has very specific needs.)

FME Lizard's New Office: Location Selection Criteria

1. FME Lizard likes FME users and wants them nearby.
2. Warm and dry.
3. Fresh supply of vegetation.
4. FME Zipster sightings.

May the best city win

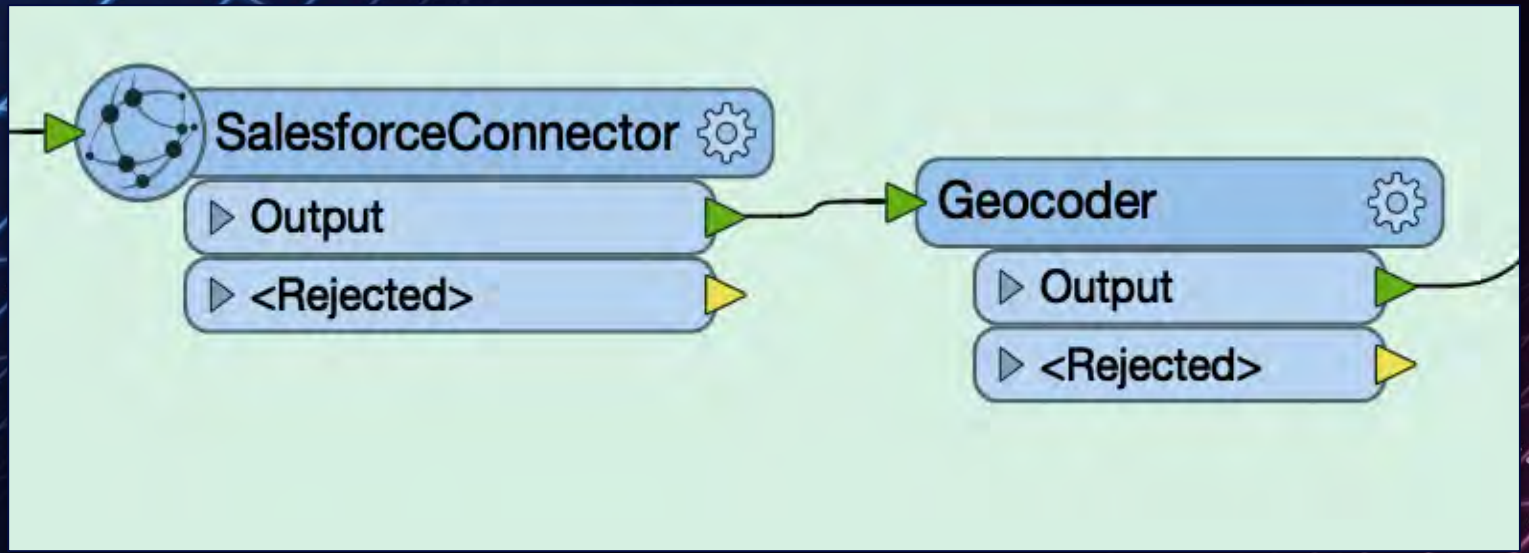
- Generate index ranking all FME World Tour cities.
- You can game the system by assigning a weight to the indexes.
- Vote at fme.ly/wtvote now!



WT City	Ranking	Change
Vancouver	1	+3
Bonn	2	+1
...	...	...

Mission 1

How many FME Users are in each city?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Output
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Geocoder
Output
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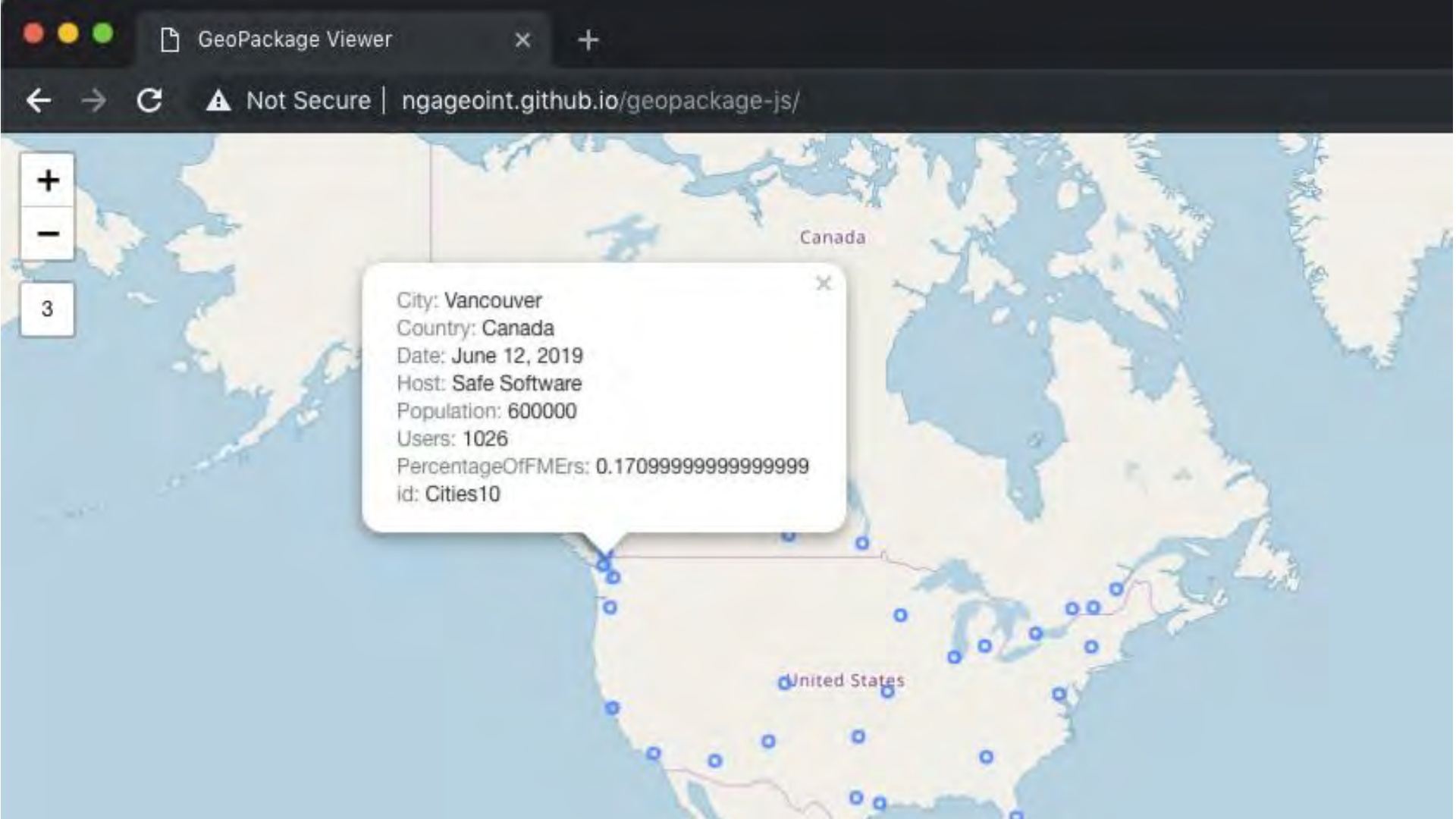
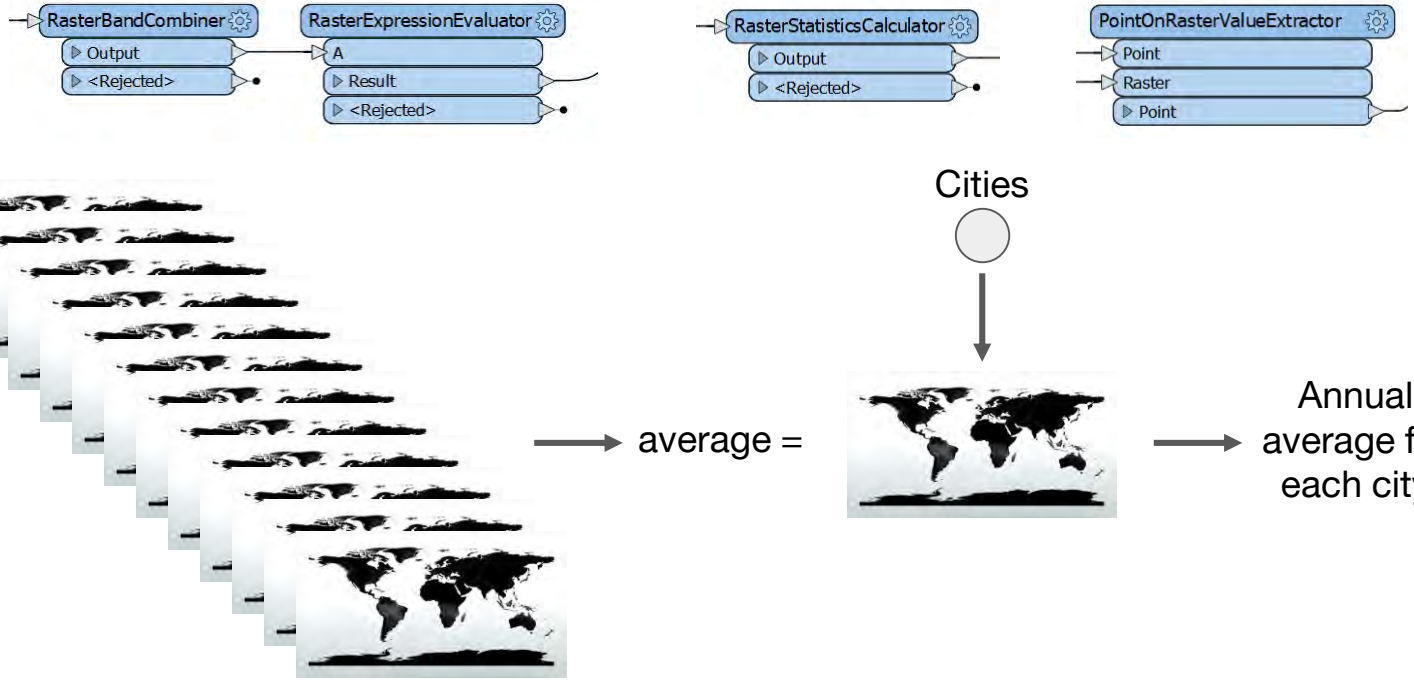

GeoPackage Viewer
Not Secure | ngageoint.github.io/geopackage-js/
+
−
3
Canada
City: Vancouver
Country: Canada
Date: June 12, 2019
Host: Safe Software
Population: 600000
Users: 1026
PercentageOfFMErs: 0.17099999999999999
id: Cities10
United States

Mission 2

Which city is warm and dry?

Fick, S. E., & Hijmans, R. J. (2017). WorldClim 2: new 1-km spatial resolution climate surfaces for global land areas. *International Journal of Climatology, 37*(12), 4302-4315.


RasterBandCombiner
Output
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RasterExpressionEvaluator
A
Result
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RasterStatisticsCalculator
Output
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PointOnRasterValueExtractor
Point
Raster
Point
Cities
average =
Annual average for each city

Precipitation raster

Temperature raster

Warm and dry index

Lizard_Habitat [CSV2] - CSV

Columns...

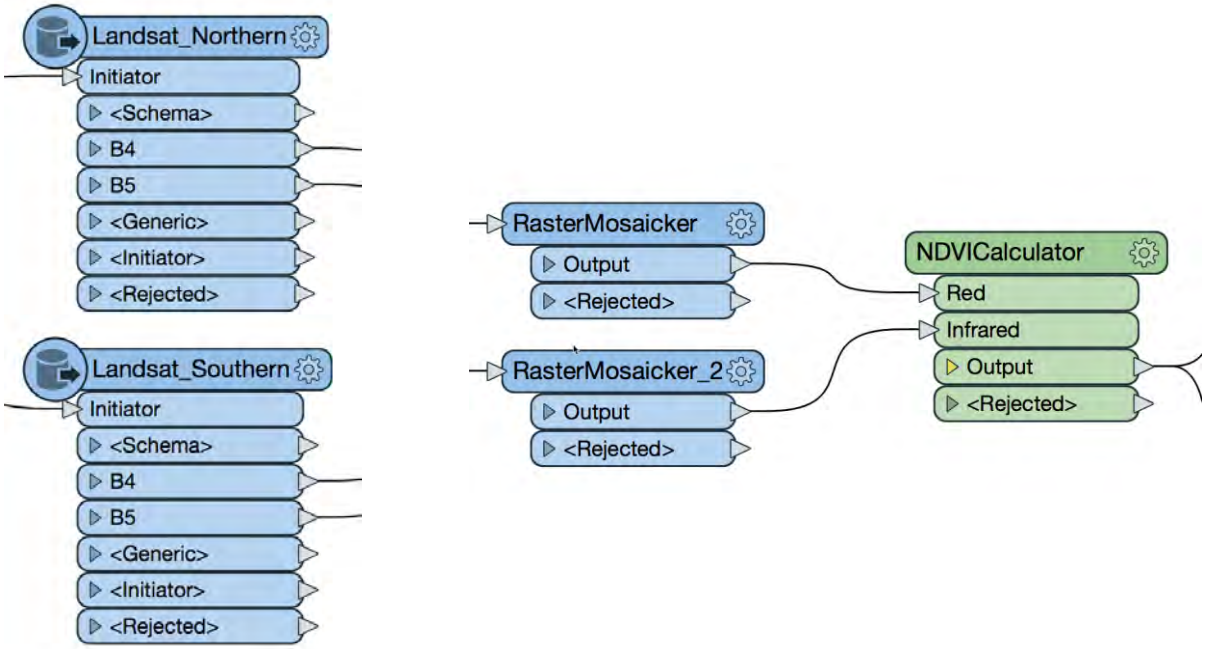
	City	Country	Date	Host	Population	precip_norm	temp_norm	Habitat Index
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

in any column

75 row(s)

Mission 3

What city has lots of vegetation?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B4
B5
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Landsat_Southern
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B5
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RasterMosaicker_2
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NDVICalculator
Red
Infrared
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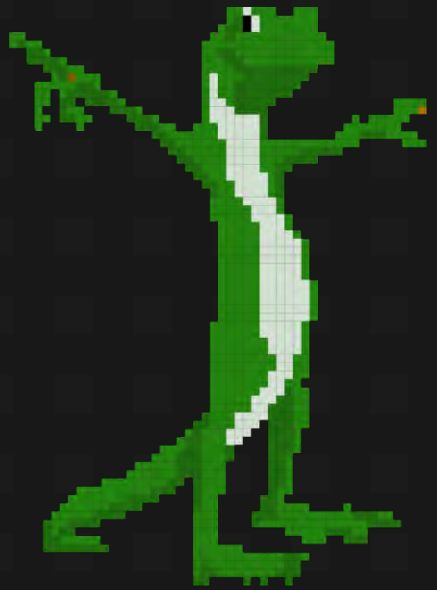
1
1



Mission 4

Where is Zipster?

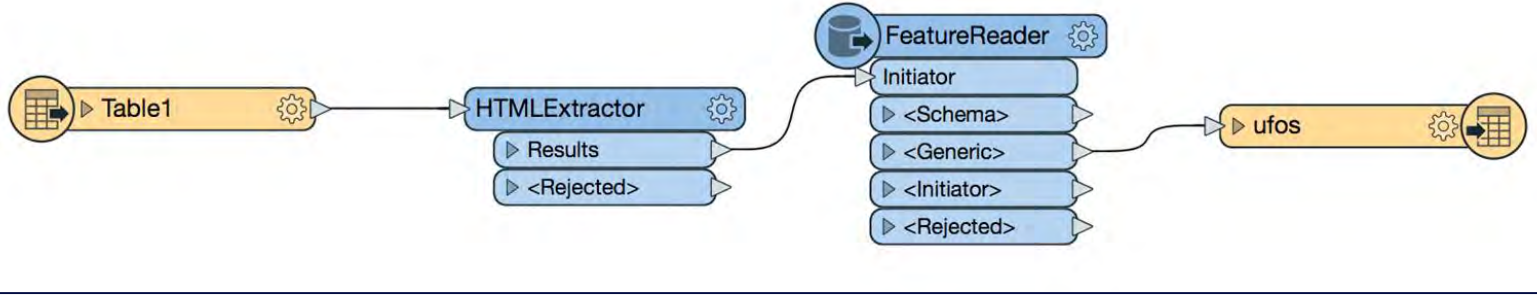


Table1
HTMLExtractor
Results
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FeatureReader
Initiator
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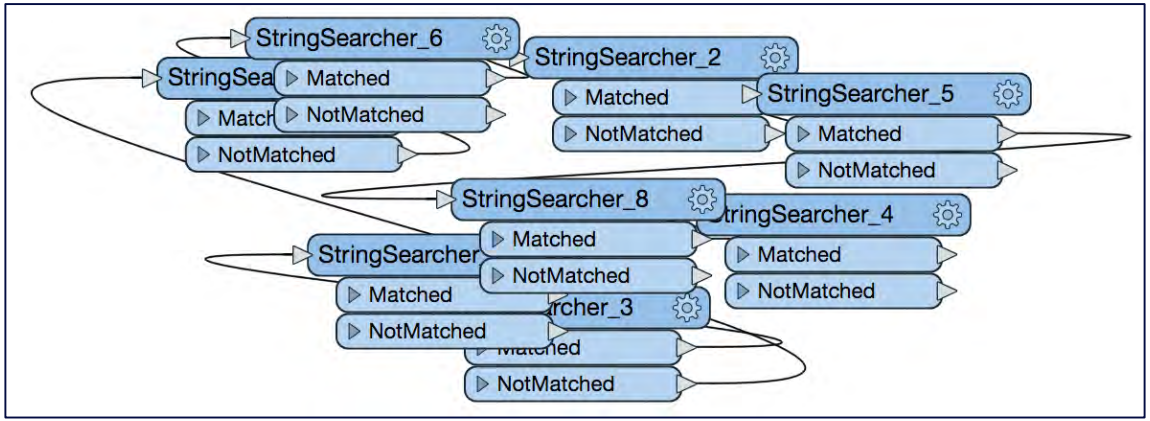
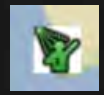
ufos


StringSearcher_6
StringSea
Matched
Matc
NotMatched
NotMatched
StringSearcher_2
Matched
NotMatched
StringSearcher_5
Matched
NotMatched
StringSearcher_8
Matched
NotMatched
StringSearcher
Matched
NotMatched
tringSearcher_4
Matched
NotMatched
rcher_3
NotMatched

GREENLAND
ICELAND
FINLAND
RUSSIA
LATVIA
LITHUANIA
BELARUS
UKRAINE
KAZAKHSTAN
MONGOLIA
KYRGYZSTAN
TAJIKISTAN
ARMENIA
GEORGIA
CYPRUS
SYRIA
ISRAEL
IRAQ
IRAN
AFGHANISTAN
PAKISTAN
CHINA
KOREA
JAPAN
TUNISIA
LIBYA
EGYPT
SAUDI ARABIA
OMAN
YEMEN
INDIA
BANGLADESH
MYANMAR
LAOS
TAIWAN
CAMBODIA
PHILIPPINES
SRI LANKA
BRUNEI
INDONESIA
TIMOR-LESTE
PAPUA NEW GUINEA
SOLOMON ISLANDS
VANUATU
NEW CALEDONIA
AUSTRALIA
NEW ZEALAND
MEXICO
CUBA
DOMINICAN REPUBLIC
HONDURAS
NICARAGUA
COSTA RICA
PANAMA
VENEZUELA
COLOMBIA
FRENCH GUIANA
ECUADOR
PERU
BRAZIL
BOLIVIA
CHILE
PARAGUAY
URUGUAY
ARGENTINA
FALKLAND ISLANDS
SENEGAL
GUINEA
BENIN
LIBERIA
MALI
NIGER
CHAD
SUDAN
ERITREA
DJIBOUTI
ETHIOPIA
CAMEROON
CONGO (BRAZZAVILLE)
BURUNDI
KENYA
ANGOLA
MALAWI
MOZAMBIQUE
MADAGASCAR
BOTSWANA
LESOTHO
FIJI



DESKTOP 2019
DESKTOP 2019
SAFE SOFTWARE
USER 1
USER 2
FASTER-EASIER-DARKER
25c
25c
Checkpoint
Over to
Workbench

Demo Recap

- Integrated multiple sources
- Transformation tips and tricks:
  - Feature Caching and Partial Runs
  - Visual Preview
  - Bookmarks and Annotations
  - Database and Web Connections
  - FeatureReader and FeatureWriter
- Displayed data in a friendly way

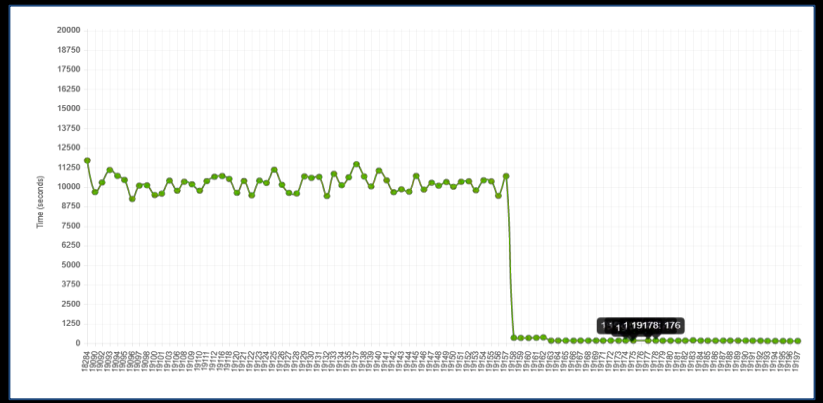
FME 2019
Highlights

Performance

"EVERY FME RELEASE WILL BE **FASTER THAN THE PREVIOUS** OR WE WON'T SHIP IT!"

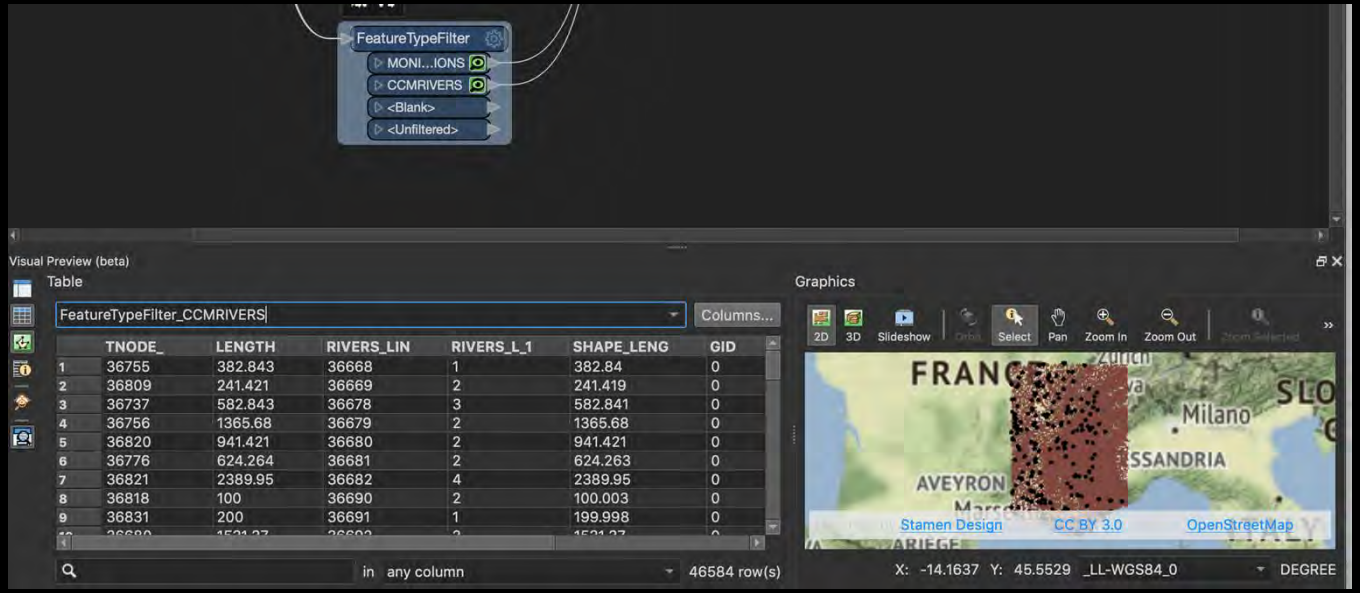
Dale Lutz / Don Murray

2018+

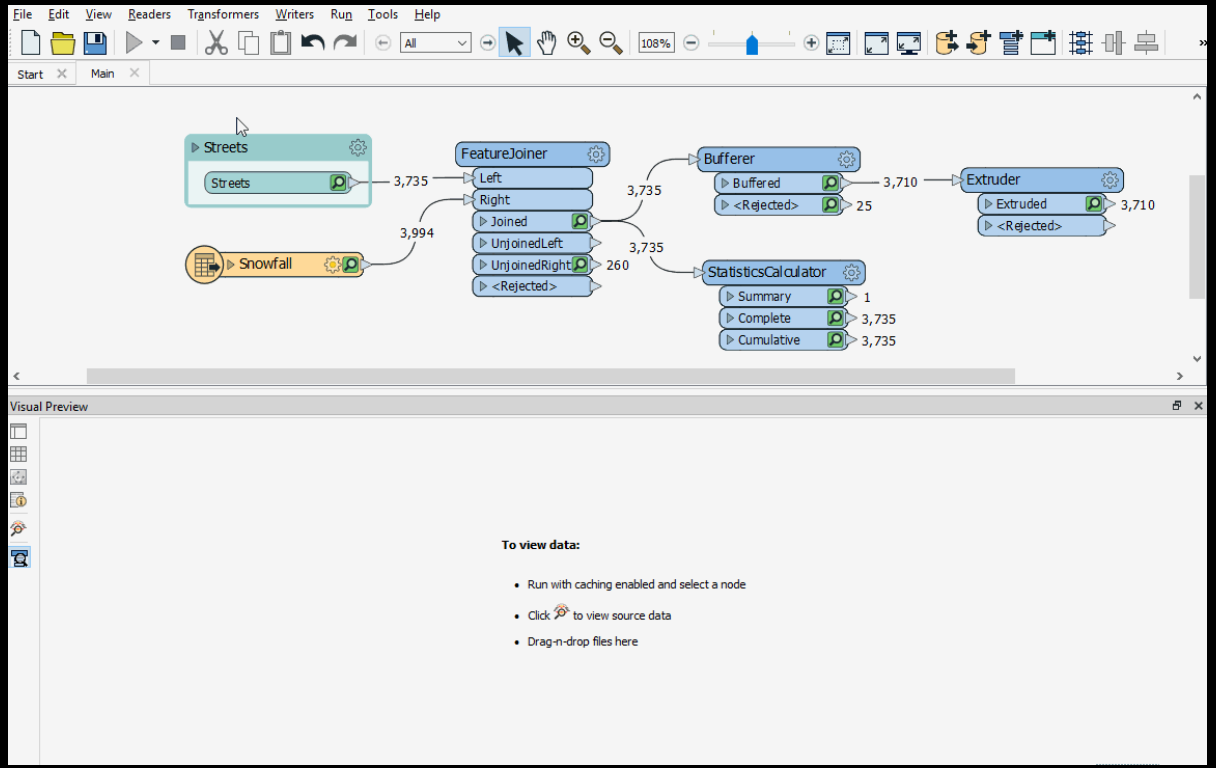


FME 2019: The Interface

Dark Mode

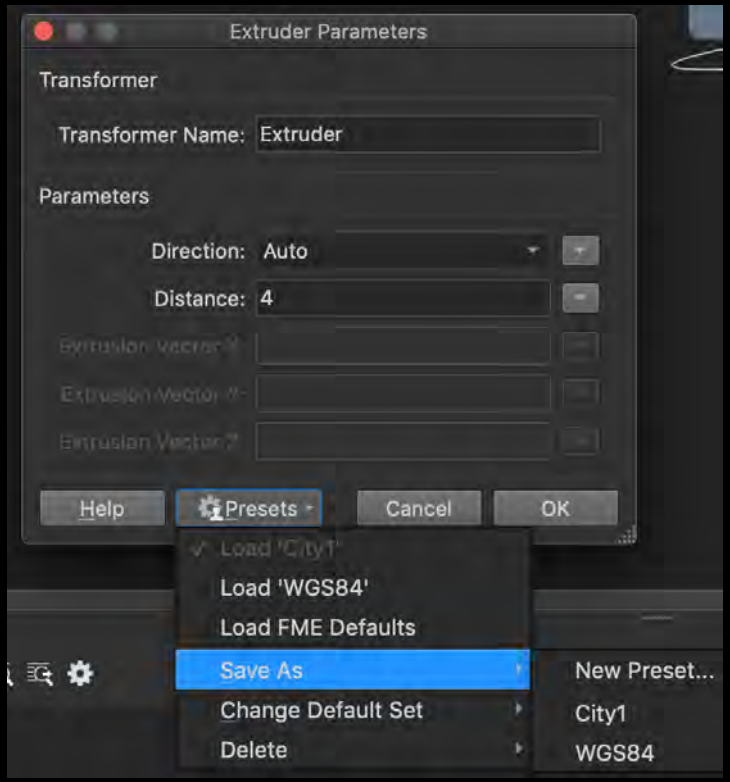

FeatureTypeFilter
MONI...IONS
CCMRIVERS
<Blank>
<Unfiltered>
Visual Preview (beta)
Table
FeatureTypeFilter_CCMRIVERS
Columns...
TNODE_ LENGTH RIVERS_LIN RIVERS_L_1 SHAPE_LENG GID
1 36755 382.843 36668 1 382.84 0
2 36809 241.421 36669 2 241.419 0
3 36737 582.843 36678 3 582.841 0
4 36756 1365.68 36679 2 1365.68 0
5 36820 941.421 36680 2 941.421 0
6 36776 624.264 36681 2 624.263 0
7 36821 2389.95 36682 4 2389.95 0
8 36818 100 36690 2 100.003 0
9 36831 200 36691 1 199.998 0
in any column
46584 row(s)
Graphics
2D
3D
Slideshow
Select
Pan
Zoom In
Zoom Out
Milano
AVEYRON
Stamen Design
CC BY 3.0
OpenStreetMap
X: -14.1637 Y: 45.5529 _LL-WGS84_0
DEGREE

Visual Preview

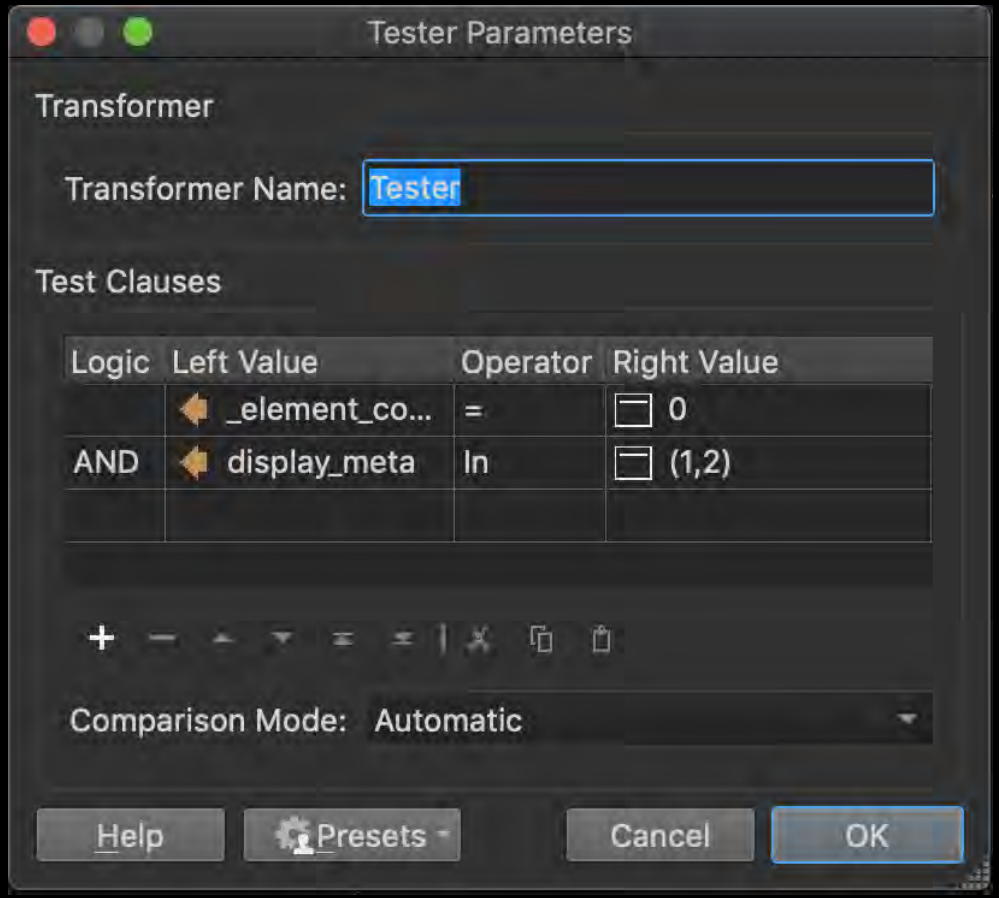


Animate Mode

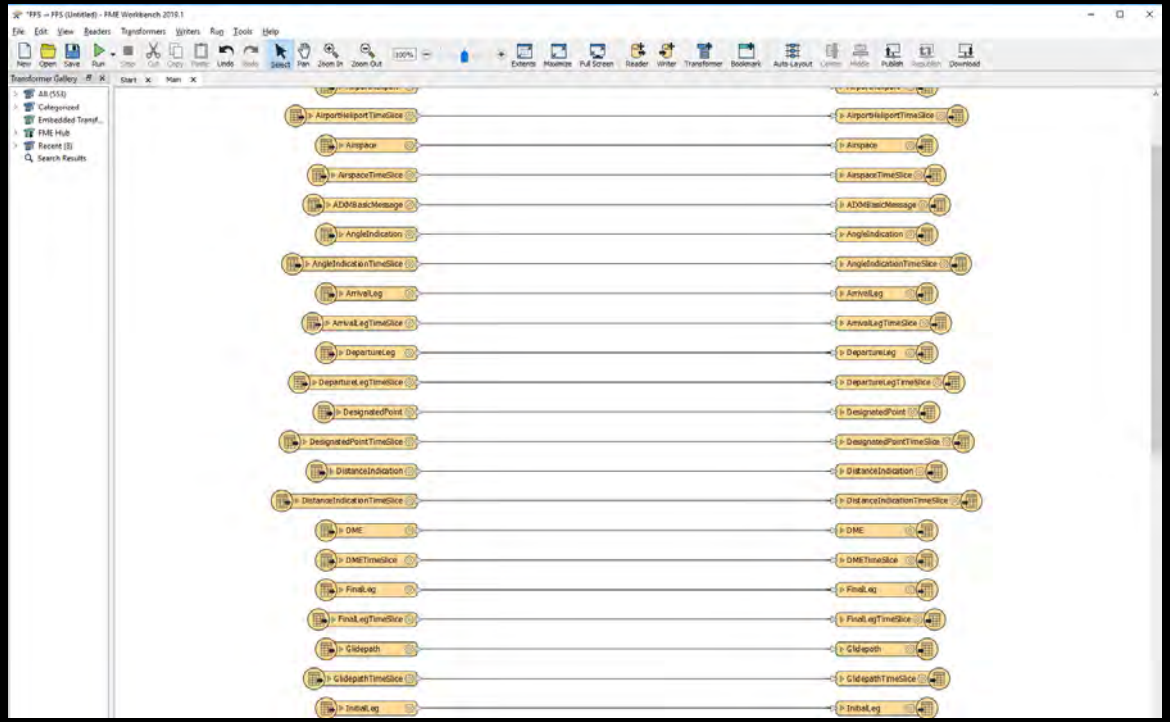
Save Parameter **Presets**



Tester
transformer

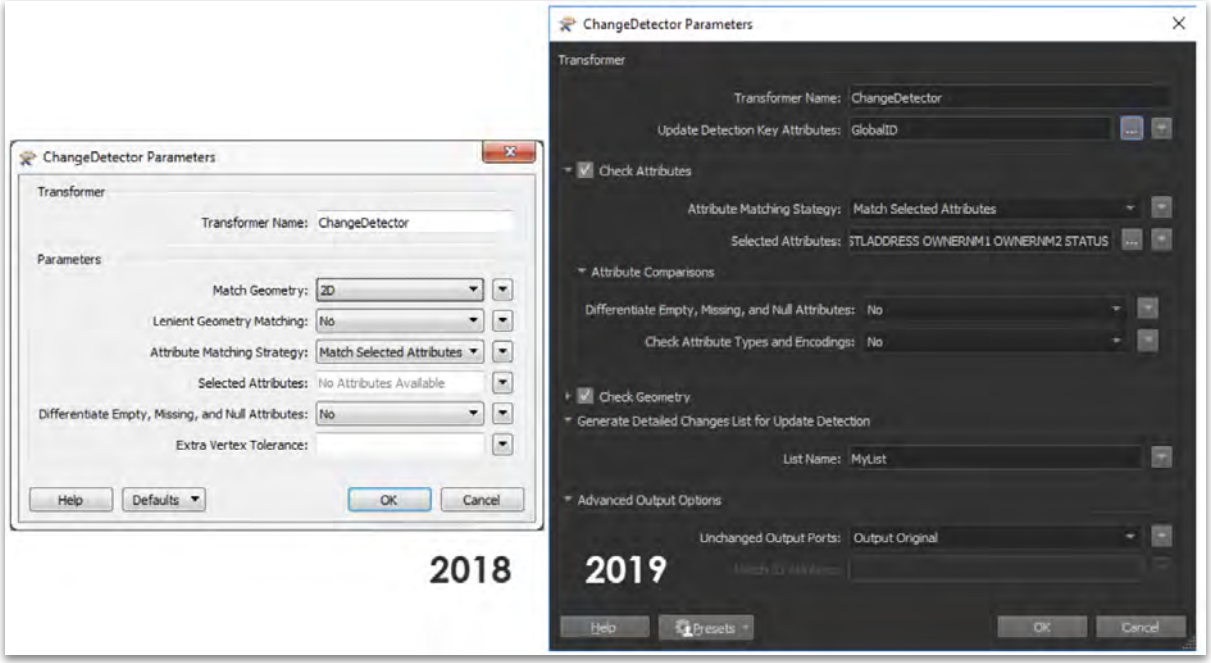


Auto-sized Transformers & Feature Types



New in 2019

ChangeDetector



Decompression

DGN Mesh Reading

TopoJSON

DWML(R)

Socrata
(New API)

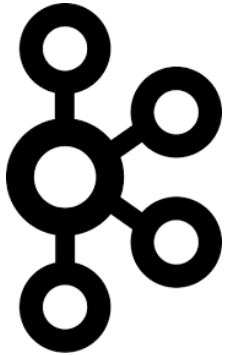
OGC WCS(R)

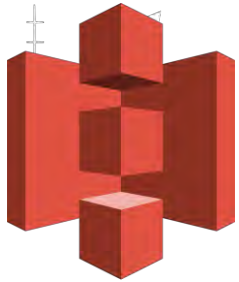
Garmin POI
Binary(R)

FME AR(R)

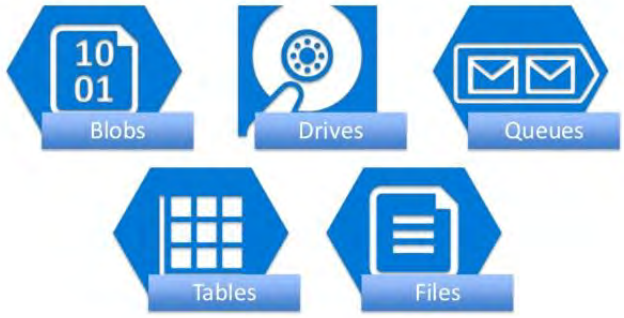
New Connectors

- AzureBlobStorageConnector
- AzureFileStorageConnector
- CesiumIonConnector
- CityworksConnector
- GoogleCloudStorageConnector
- S3Connector
- AzureQueueStorageConnector *(coming soon)*
- KafkaConnector *(coming soon)*
- TrelloConnector *(coming soon)*





Cityworks®
Empowering GIS

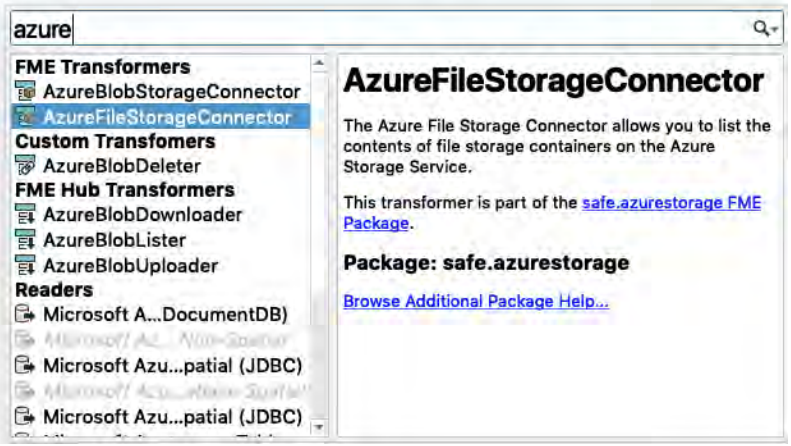


CESIUMJS

FME Packages

Delivering transformers, reader/writers, and connections to you ***faster***.

- Zipped *.fpkg* files available via FME Hub.
- Get fixes and new features into your hands within hours, not months.
- Developers can contribute their own content to FME.
- Currently released as FME Packages:
  - S3Connector
  - CesiumIonConnector
  - RasterObjectDetector series
  - NLP series



THE END

Questions?

Now let’s take a look at FME Server...