

# 数据应用与服务

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研发经理



WGDC 2015  
地理信息开发者大会



# 多少钱才能让你远离手机1年？



**CONNECT. TRANSFORM. AUTOMATE.**



# 数据无处不在

CONNECT. TRANSFORM. AUTOMATE.



# 不计其数的 数据应用 和 数据服务

CONNECT. TRANSFORM. AUTOMATE.



# 应用和服务的背后

CONNECT. TRANSFORM. AUTOMATE.



# 数据的形态

CONNECT. TRANSFORM. AUTOMATE.



流动的数据  
才有价值

CONNECT. TRANSFORM. AUTOMATE.



自由变换的数据  
才有价值

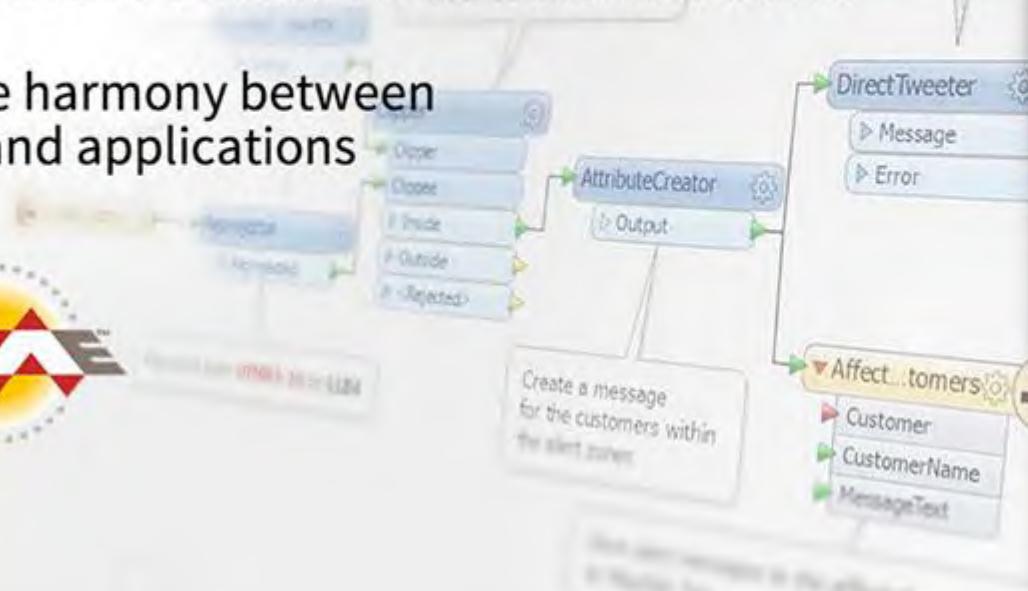
CONNECT. TRANSFORM. AUTOMATE.

# FME 做什么



CONNECT. TRANSFORM. AUTOMATE.

Create harmony between  
data and applications



INTUITIVE WORKFLOW  
AUTHORING  
**FME Desktop**



ENTERPRISE  
AUTOMATION  
**FME Server**



TAKE AUTOMATION TO  
THE CLOUD  
**FME Cloud**



CONNECT. TRANSFORM. AUTOMATE.

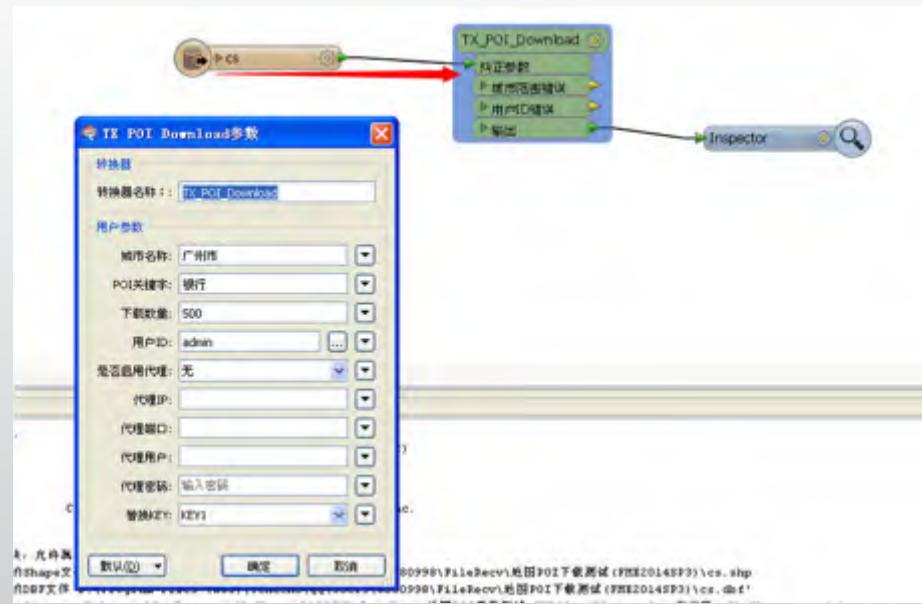
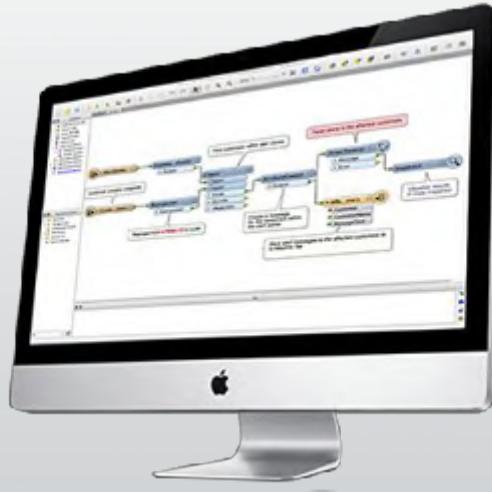
粉丝的力量



# POI数据抓取

CONNECT. TRANSFORM. AUTOMATE.

# POI数据抓取



CONNECT. TRANSFORM. AUTOMATE.

# POI数据抓取



FME Data Inspector

File View Camera Tools Settings Editor Help

Display Control

View 1 (480)  
cs (33MFC) (480)  
cs (480)

Feature Information

Feature Selected: 0 of 0

Property

Table View

CS_ID	CHECK_ID	address	name	x	y
1		广东省广州市白云区104国道(广州市公路局—	中国建设银行(广河公路营业部分局)	113.2591445019°	23.211906°
2		广东省广州市白云区白云大道北10号	中国工商银行(广州白云大道支行)	113.262355055°	23.2102364°
3		广东省广州市白云区白云大道北4号	中国银行黄石支行	113.2926222995°	23.2059465°
4		广东省广州市白云区大同街4号	中国建设银行(大同分行)	113.225911711°	23.2127564°
5		广东省广州市白云区大金钟路金钟横路118号	中国银行(广州长航支行)	113.262259370°	23.1729369°
6		广东省广州市白云区丰和广场1层	中国银行(石井支行)	113.23370999°	23.2008964°
7		广东省广州市白云区广从公路	中国农业银行	113.4541779947°	23.4105223°
8		广东省广州市白云区广从一路104国道嘉禾市场—	中国工商银行(广州嘉禾支行)	113.258741406°	23.2334661°
9		广东省广州市白云区广从一路104号	中国农业银行(广从储蓄支行)	113.283329198°	23.1615968°
10		广东省广州市白云区广从大道北142号	中国工商银行(广州鹤洲支行)	113.305669403°	23.1946895°
11		广东省广州市白云区广从大道北143号旁—	中国银行(同和支行)	113.329303098°	23.1924563°
12		广东省广州市白云区广从大道北143号旁南方—	中国建设银行(同和支行)	113.3270108953°	23.1914665°
13		广东省广州市白云区广从大道北1206号	中国农业银行(广州畜牧支行)	113.322080901°	23.1984063°
14		广东省广州市白云区广从大道北2119-212号	中国工商银行(黄石花园店)	113.381907909°	23.197533°

Log Table View

11-9204 T: 112.3793 T: 21.9285

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# POI数据抓取



A large monitor displays the FME Server web interface. The header features the FME logo and the Aliyun logo. Below the header, the text "Welcome to FME Server" is displayed. Three buttons are visible: "Run Workspace" (yellow), "Schedule Workspace" (orange), and "Create Notification" (green). Below these buttons, the word "Features" is centered. Two sections are shown: "Easy-to-Use" with a green checkmark icon and the text "Publish workspaces from FME Desktop, configure in FME Server's web interface, and let FME Server handle the rest.", and "Secure" with a shield icon and the text "Employs proven authentication methods and integrates with Active Directory to provide a secure single-sign-on experience. Get More Details". To the left of the monitor, a smartphone shows a screenshot of the FME mobile application interface, which also displays the "Welcome to FME Server" message and the same three workspace management buttons.

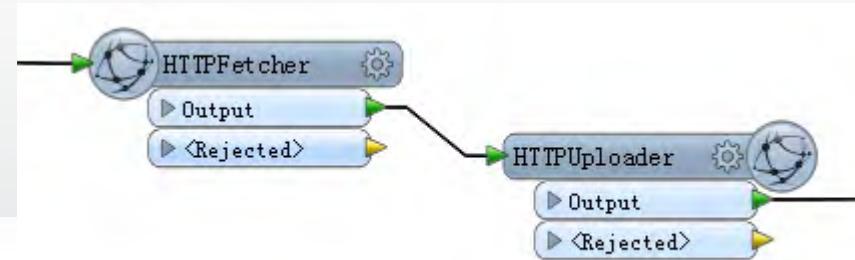
CONNECT. TRANSFORM. AUTOMATE.

社交网络



微博

CONNECT. TRANSFORM. AUTOMATE.



## 微博API

粉丝服务接口

微博接口

评论接口

用户接口

关系接口

账号接口

收藏接口

搜索接口

提醒接口

短链接口

公共服务接口

位置服务接口

地理信息接口

地图引擎接口

支付接口

OAuth 2.0授权接口

CONNECT. TRANSFORM. AUTOMATE.

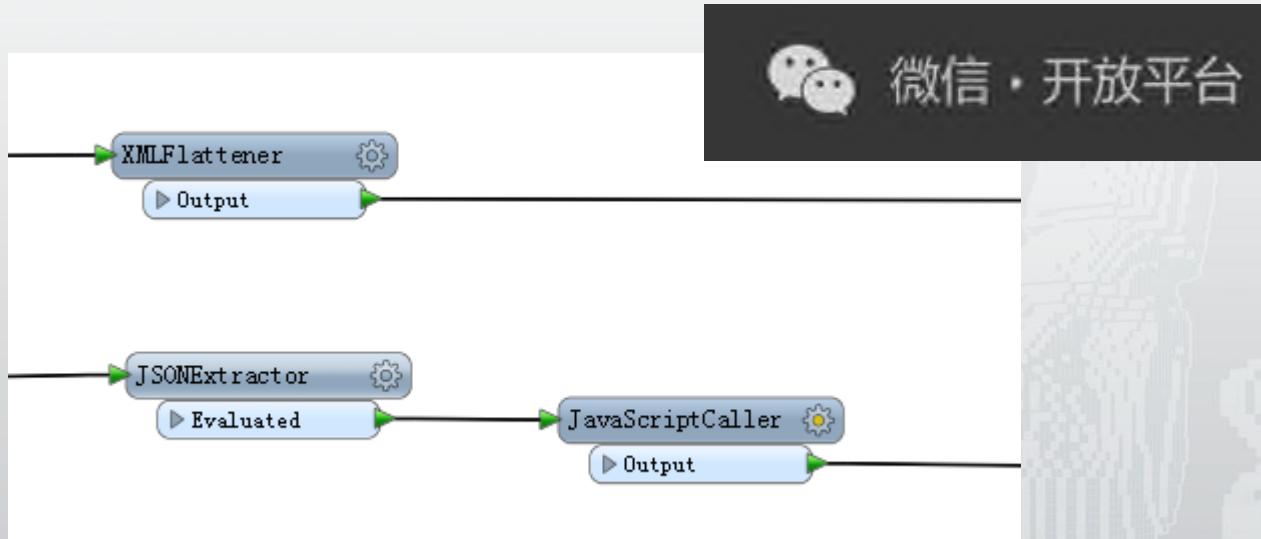
社交网络



微信

CONNECT. TRANSFORM. AUTOMATE.

微信



微信 · 开放平台

CONNECT. TRANSFORM. AUTOMATE.

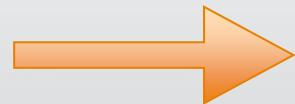
社交网络



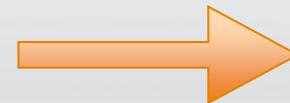
# Twitter

CONNECT. TRANSFORM. AUTOMATE.

# Twitter



API

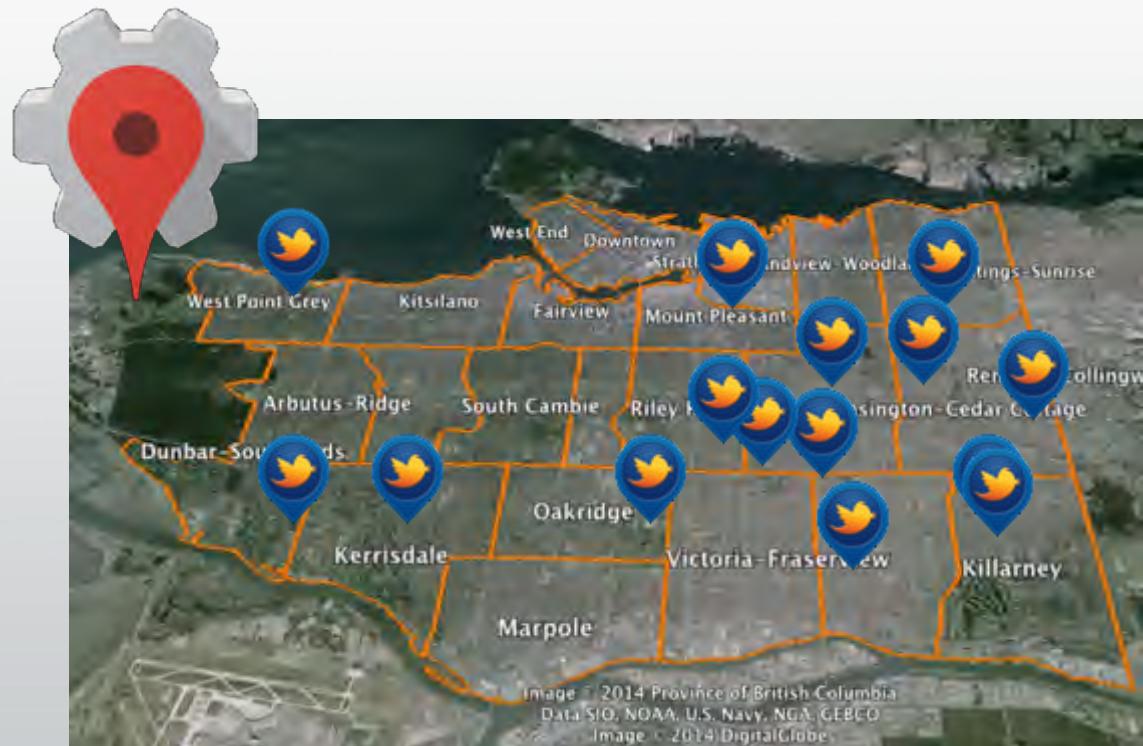


**CONNECT. TRANSFORM. AUTOMATE.**



# 社交网络

- 消息推送
  - 事件过滤
  - 空间区域
  - 时间范围



CONNECT. TRANSFORM. AUTOMATE.

BI (商业智能)



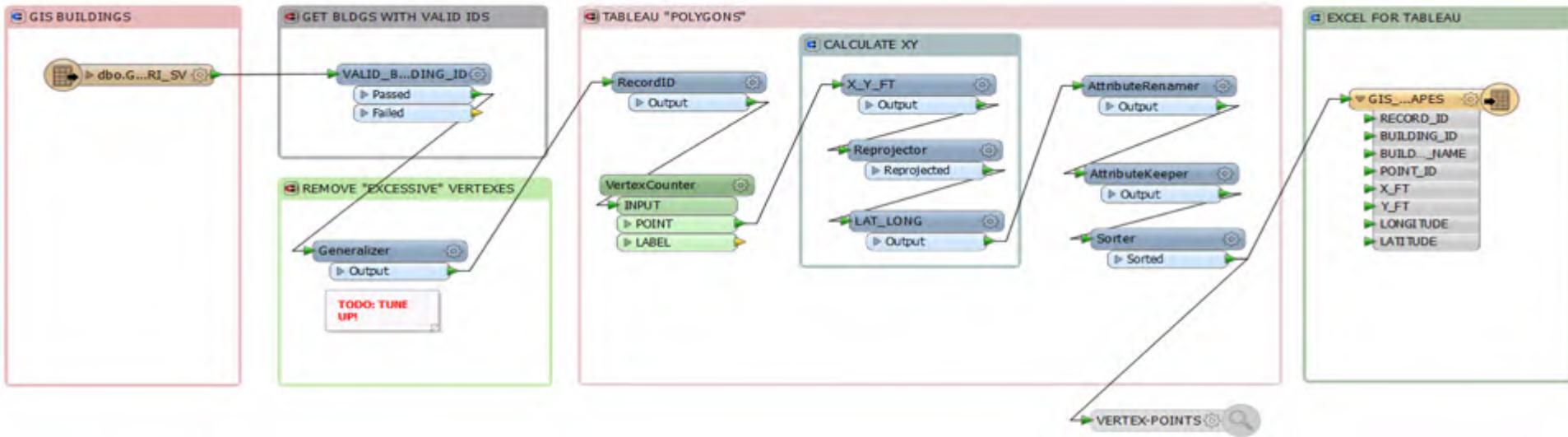
# Tableau

CONNECT. TRANSFORM. AUTOMATE.

# Tableau

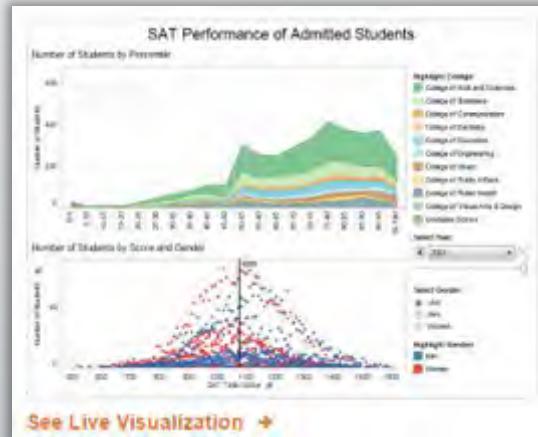
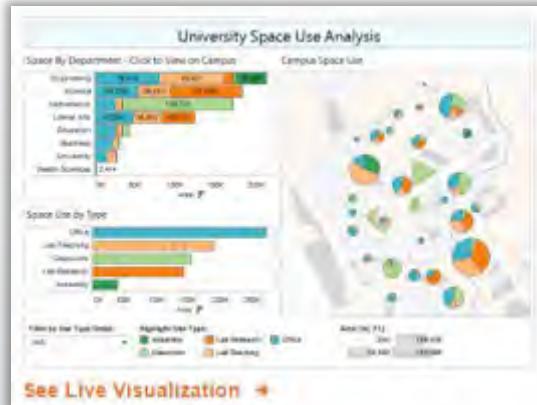
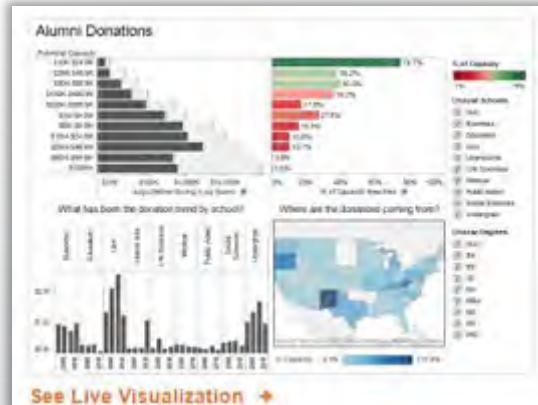


- 为BI展示提供空间数据。



CONNECT. TRANSFORM. AUTOMATE.

# Tableau



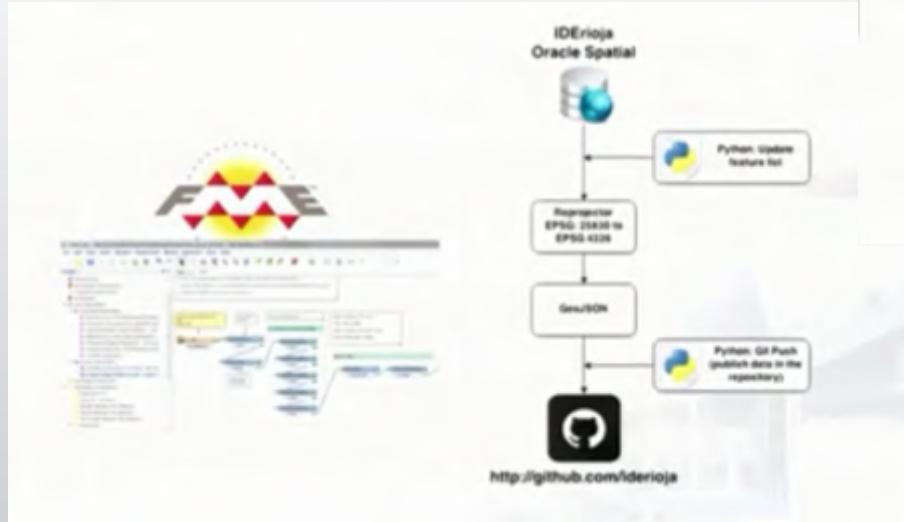
**CONNECT. TRANSFORM. AUTOMATE.**



# GitHub

CONNECT. TRANSFORM. AUTOMATE.

# GitHub



**CONNECT. TRANSFORM. AUTOMATE.**

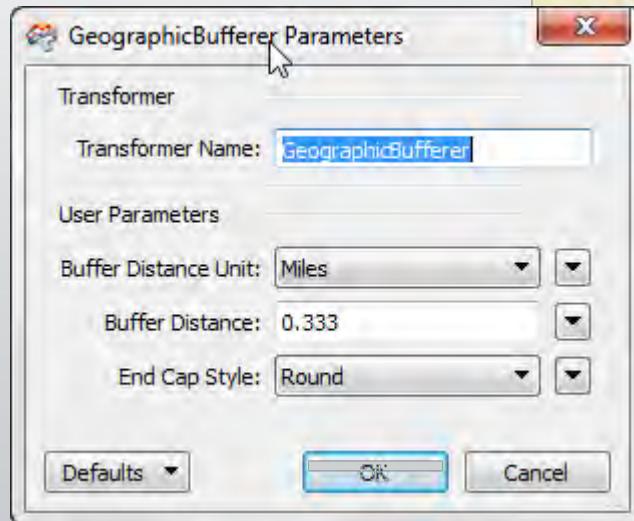
# 基于位置的服务



# LBS

CONNECT. TRANSFORM. AUTOMATE.

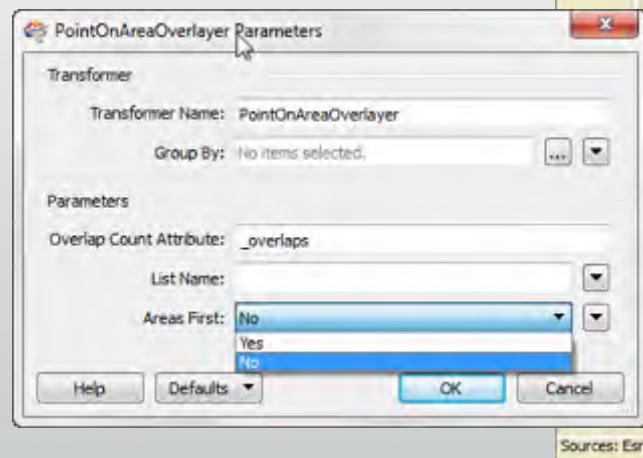
- 空间几何运算
  - GeographicBufferer



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#GMEandFME

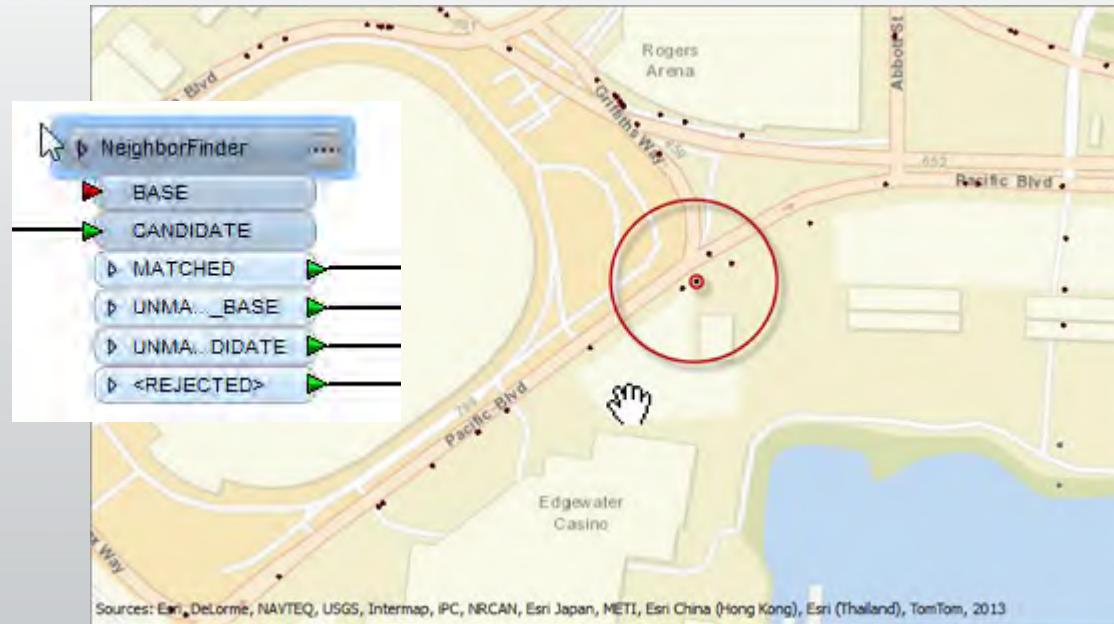
## ■ 空间过滤



CONNECT. TRANSFORM. AUTOMATE.

#GMEandFME

## ■ 邻近计算



CONNECT. TRANSFORM. AUTOMATE.

#GMEandFME



# 为可视化提供数据

- ArcGIS
- CartoDB
- Bing
- Google
- Leaflet
- MapBox
- OpenLayers

CONNECT. TRANSFORM. AUTOMATE.

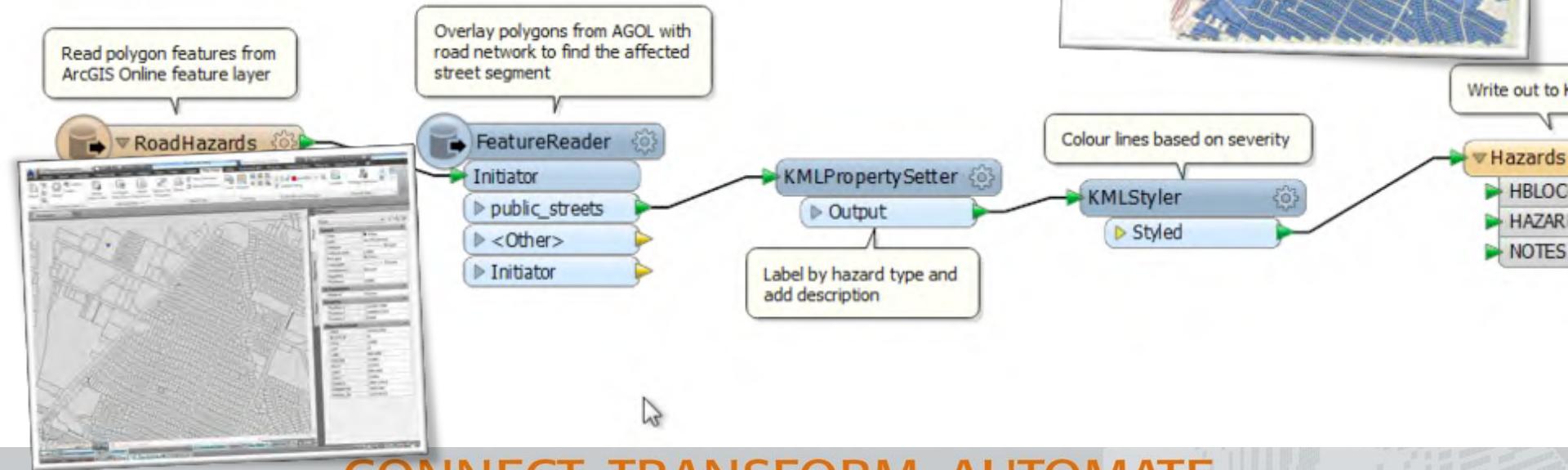
为可视化提供数据



# ArcGIS Online

CONNECT. TRANSFORM. AUTOMATE.

- Feature Service Reading / Writing



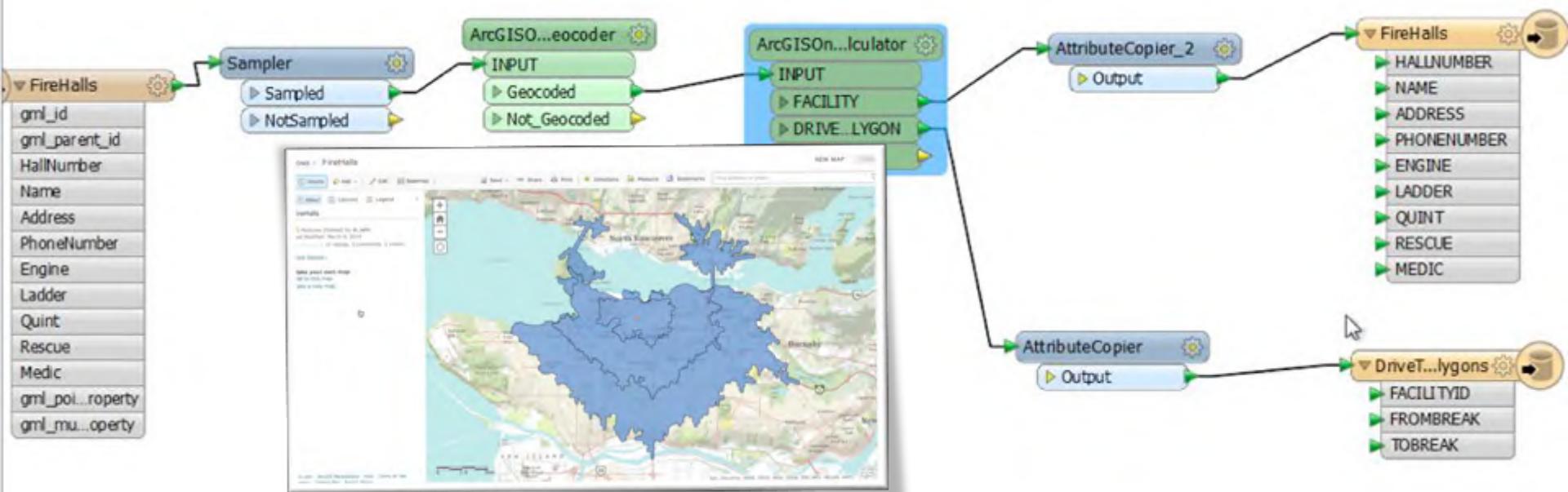
CONNECT. TRANSFORM. AUTOMATE.

#GMEandFME

# ArcGIS Online



## ■ Geocoding, Routing, and Drive Time



CONNECT. TRANSFORM. AUTOMATE.

# ArcGIS Online



## ■ Upload and Update your data

The screenshot shows the FME Workbench interface with a workflow for enriching data from ArcGIS Online. The workflow starts with an 'Address' input, followed by an 'ArcGISOnlineGeocoder' transformer, which then connects to an 'ArcGISOnlineEnricher' transformer. The 'ArcGISOnlineEnricher' transformer has three output paths: 'INPUT', 'SUCCEEDED', and 'FAILED'. The 'SUCCEEDED' path leads to an 'AttributeOutput' transformer, which is connected to a map viewer. The map viewer displays a coastal area with cities like Vancouver, Nanaimo, and Victoria. A table titled 'Feature Information' is overlaid on the map, showing demographic facts for various age groups. The 'ArcGISOnlineGeocoder Parameters' dialog is open, showing a list of enrichment data collection items, including 'Age (US, CA, GB)', 'Global Demographic Facts (All)', 'Households by Income (US, CA)', and 'Demographic Facts for Australia (AU)'. The 'AttributeOutput' transformer properties dialog is also visible, showing columns for Property and Value.

Property      Value

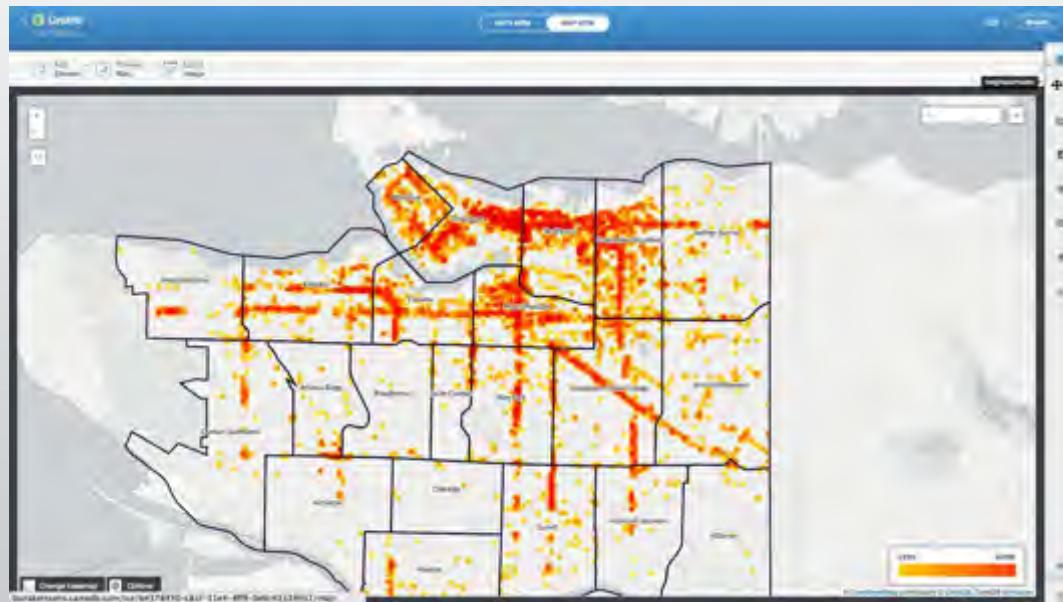
age_original_..._	1300-1895
median_..._007-01	3
household..._002-01	3044
12_002-01	1
value_007-01	18957
med_..._age_0-10_...	751
med_..._age_11-19_...	575
med_..._age_20-24_...	414
med_..._age_25-29_...	411
med_..._age_30-34_...	3143
med_..._age_35-39_...	2358
med_..._age_40-44_...	2858
med_..._age_45-49_...	2554
med_..._age_50-54_...	1954
med_..._age_55-59_...	1529
med_..._age_60-64_...	1249
med_..._age_65-69_...	1129
med_..._age_70-74_...	972
med_..._age_75-79_...	715
med_..._age_80-84_...	498
med_..._age_85-89_...	331
med_..._age_90-94_...	242
med_..._age_95-99_...	276

**CONNECT. TRANSFORM. AUTOMATE.**

# 为可视化提供数据



- CartoDB Reader/Writer



CONNECT. TRANSFORM. AUTOMATE.



Connect CartoDB to basically any data or tool, using FME

[CONTACT US](#)

## Connect CartoDB to basically any data or tool, using FME

Transform and load spatial data from GIS tools, CAD programs, databases, and much more.

[CONTACT US](#)

## CONNECT. TRANSFORM. AUTOMATE.

# 为可视化提供数据



- Google Static Maps  
插入到Excel 电子表格

A screenshot of Microsoft Excel showing a table of data with a map overlay. The table has columns A through F. Rows 9, 10, 11, and 12 contain data. Row 9 shows 'N25' in column A, '08002BBE5E56971021065872' in column B, and '0 WLEADER' in column C. Column D is empty, and column E contains the message 'Invalid Attribute: DIAMETER'. Row 10 shows 'N25' in column A, '08002B94871D991007084124' in column B, and '8 WMAIN' in column C. Column D is empty, and column E contains the message 'Invalid Geometry: Self-Intersections in 2D'. Row 11 shows 'N25' in column A, '08002BBE5E56971021065848' in column B, and '0 WLEADER' in column C. Column D is empty, and column E contains the message 'Invalid Attribute: DIAMETER'. Row 12 shows 'N25' in column A, '08002B9610BF981008124324' in column B, and '0 WLEADER' in column C. Column D is empty, and column E contains the message 'Invalid Geometry: Self-Intersections in 2D'. To the right of the table, there is a small map of a street area with various blue and red markers. The Excel ribbon at the top shows tabs for Home, Layout, Tables, Charts, SmartArt, Formulas, Data, and Review. The status bar at the bottom right shows 'Map Area 800x150'. The file tab at the top right shows 'report.xlsx'.

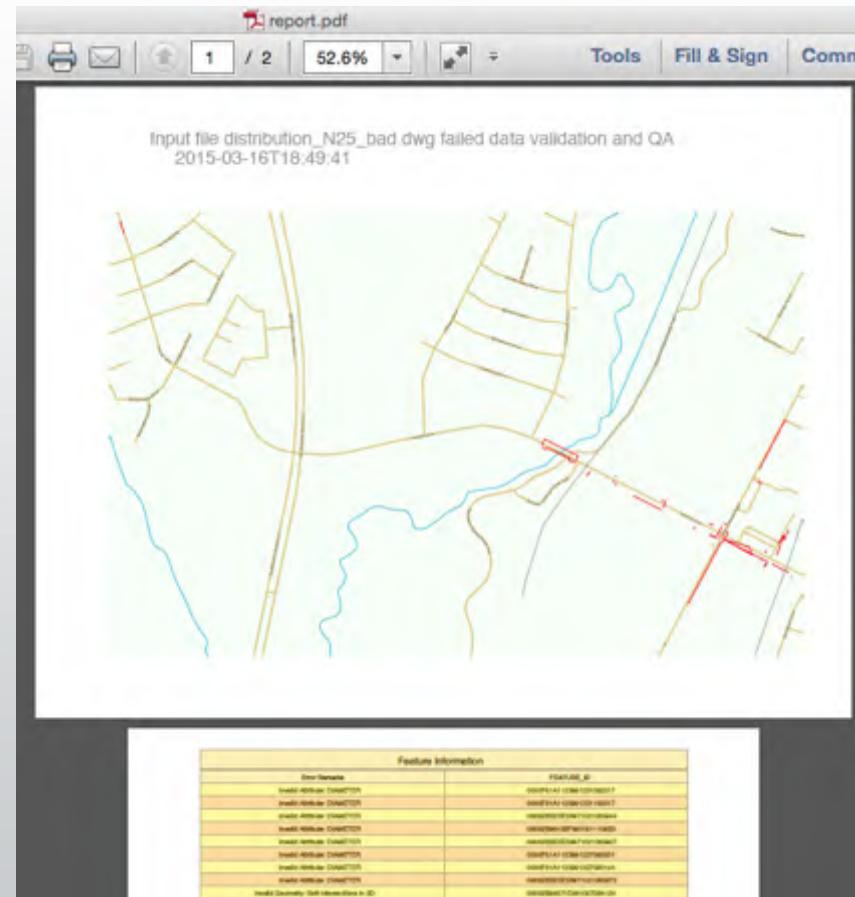
A	B	C	D	E	F
9 N25	08002BBE5E56971021065872	0 WLEADER		Invalid Attribute: DIAMETER	
10 N25	08002B94871D991007084124	8 WMAIN		Invalid Geometry: Self-Intersections in 2D	
11 N25	08002BBE5E56971021065848	0 WLEADER		Invalid Attribute: DIAMETER	
12 N25	08002B9610BF981008124324	0 WLEADER		Invalid Geometry: Self-Intersections in 2D	

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# 为可视化提供数据



- OpenStreetMap  
输出到PDF文档



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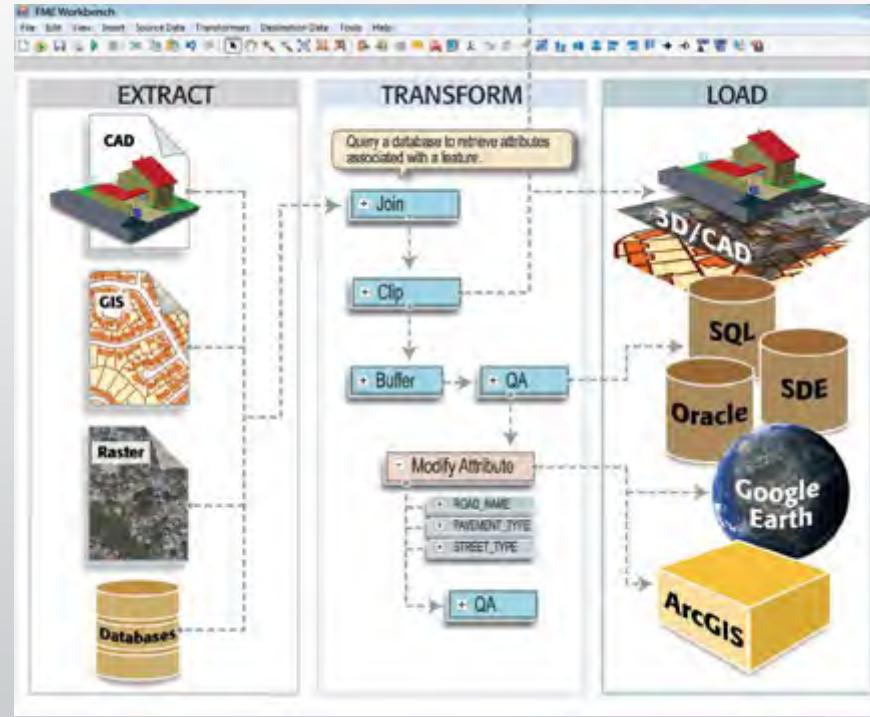
传统行业



政府、企业

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# 传统行业数据

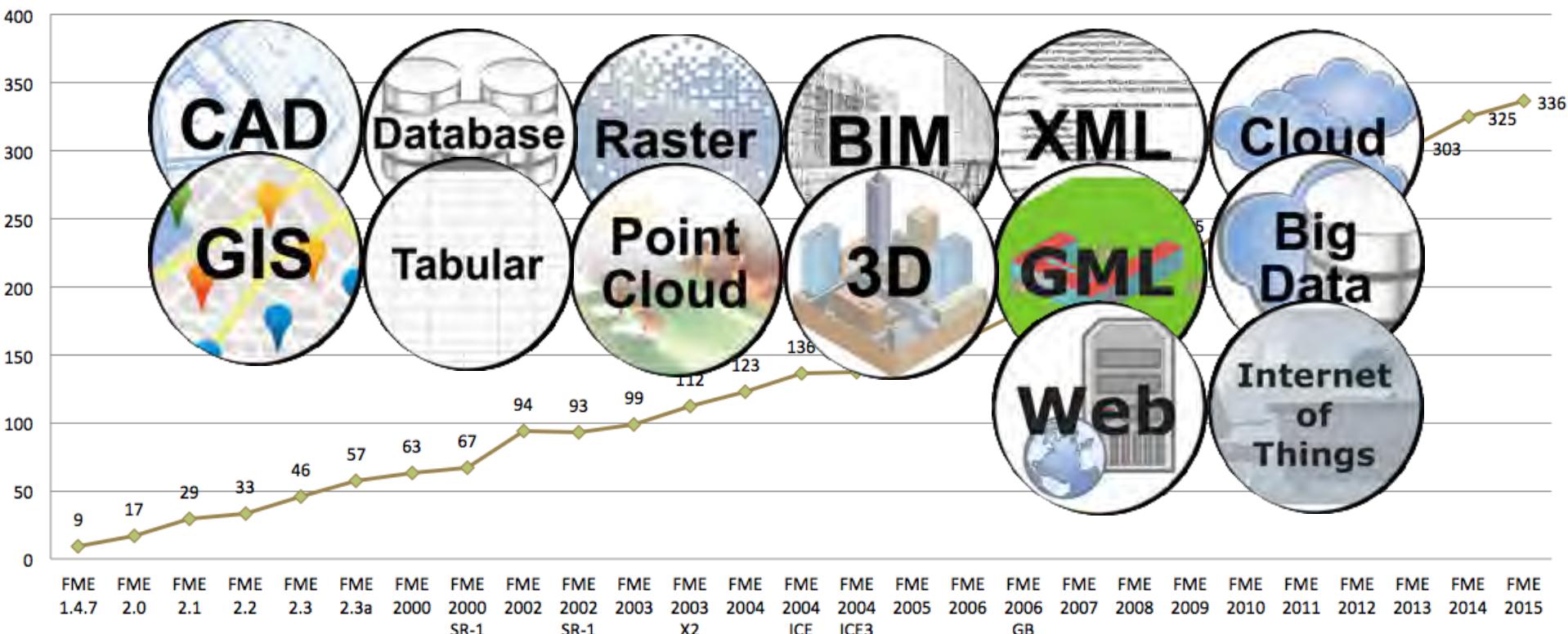


CONNECT. TRANSFORM. AUTOMATE.

# 天生好手



**CONNECT. TRANSFORM. AUTOMATE.**



**CONNECT. TRANSFORM. AUTOMATE.**



# Connect Data

CONNECT. TRANSFORM. AUTOMATE.



# Connect Your Application

CONNECT. TRANSFORM. AUTOMATE.



# We Connect World

CONNECT. TRANSFORM. AUTOMATE.

# 谢谢!



- 提问?
- 更多信息:
  - [zhouyue@antu.com.cn](mailto:zhouyue@antu.com.cn)
  - [www.fme-china.com](http://www.fme-china.com)
  - [www.safe.com](http://www.safe.com)



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