

FME World Tour 2015

InlineQuerier

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Agenda

- InlineQuerier transformer
 - ◆ Opportunità
 - ◆ Esempi


InlineQuerier


blog.safe The Safe Software Blog



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Google February 14, 2012

InlineQuerier 

 Connect Input

FME 2012 Special: InlineQuerier

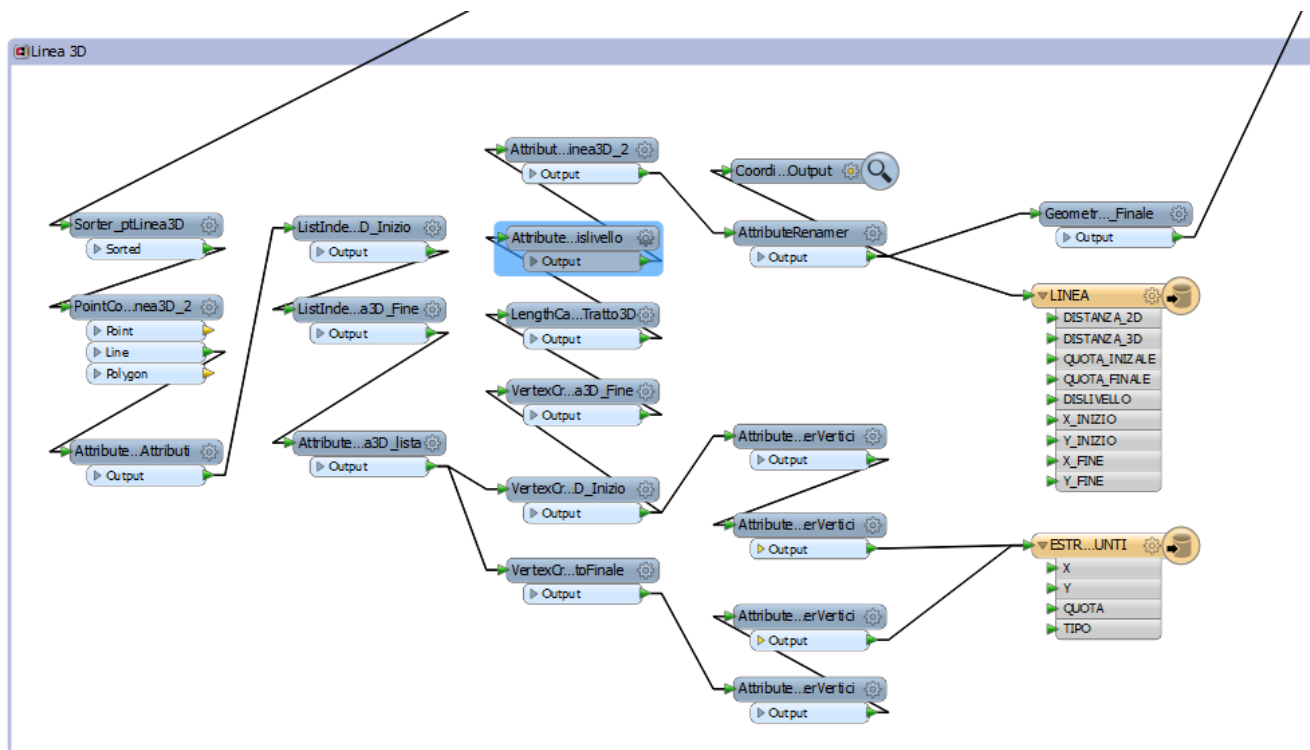
Hi all,

*The **InlineQuerier** is a new transformer for FME2012, and a potentially very useful one too. It is a way to incorporate multiple datasources and extract information from them using a **SQL query**. The idea is that this will be way more flexible than using multiple **FeatureMergers**, **Testers**, and **Joiners**.*

InlineQuerier

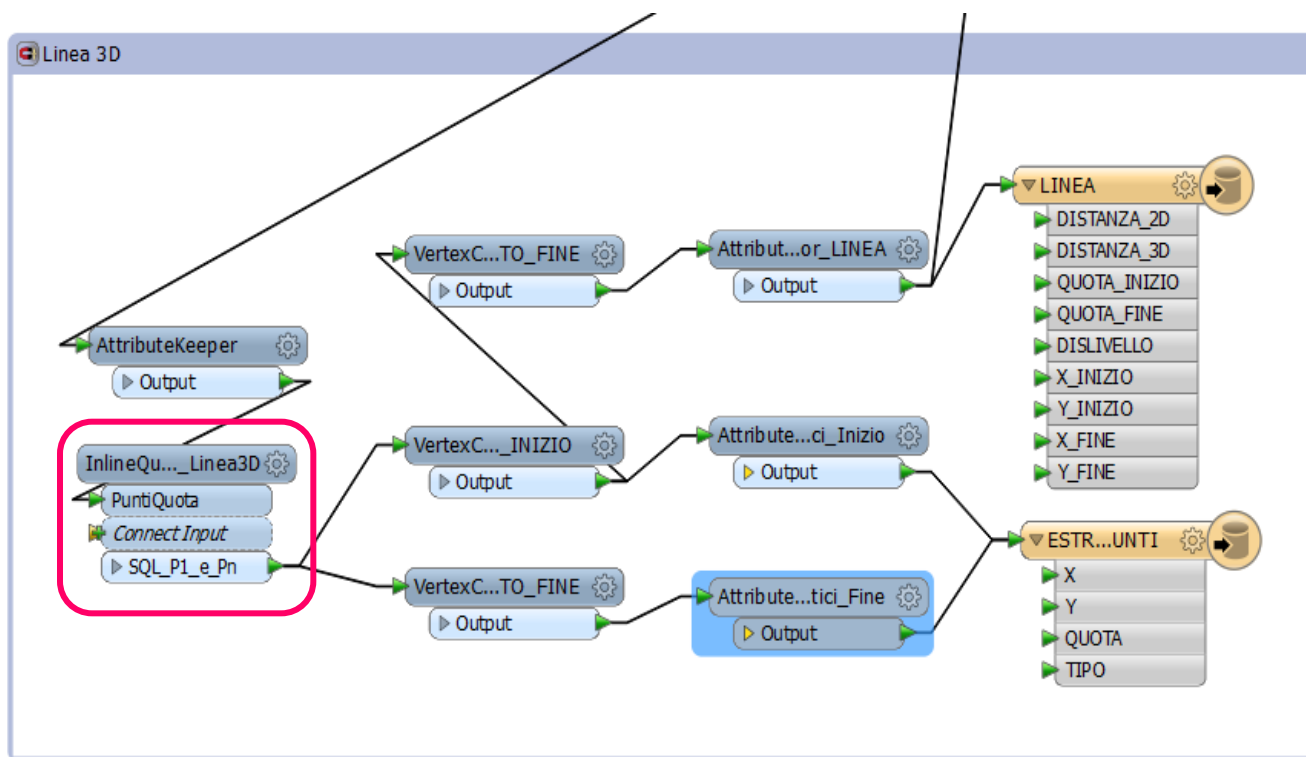
In pratica, si riducono le transformer

Prima ...



InlineQuerier

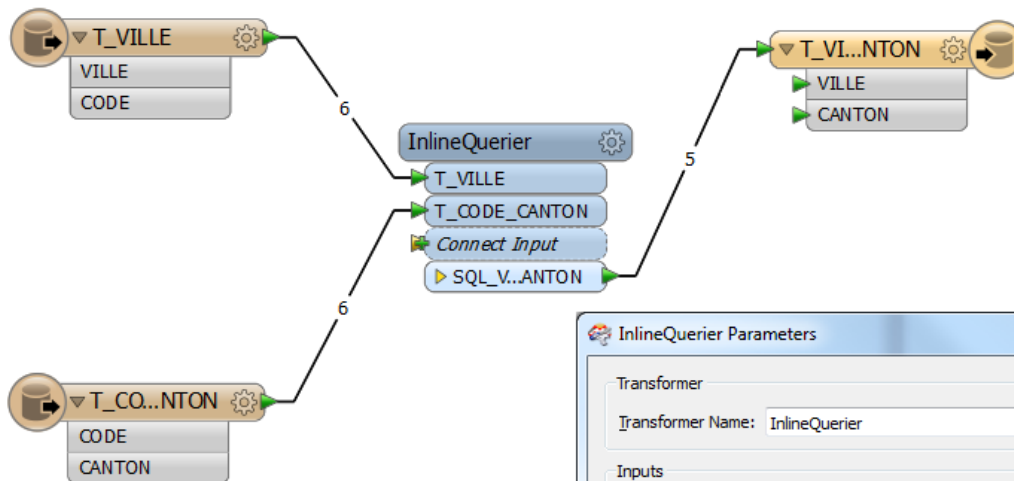
... dopo



InlineQuerier

	A	B
1	VILLE	CODE
2	Fribourg	FR
3	Lausanne	VD
4	Bellinzona	TI
5	Sion	VS
6	Bienne	BE
7	Aarau	AG
8		
9		

	A	B
1	CODE	CANTON
2	BE	Berne
3	FR	Fribourg
4	TI	Ticino
5	VD	Vaud
6	VS	Valais
7	NE	Neuchâtel
8		



	A	B
1	VILLE	CANTON
2	Bellinzona	Ticino
3	Bienne	Berne
4	Fribourg	Fribourg
5	Lausanne	Vaud
6	Sion	Valais

InlineQuerier Parameters

Transformer Name:

Inputs

Table	Columns
T_VILLE	VILLE,varchar(11),CODE,varchar(3)
T_CODE_CANTON	CODE,varchar(3),CANTON,varchar(10)

Outputs

Output Port	SQL Query	Geometry
SQL_VILLE_CANTON	SELECT VILLE... (MultiLine)	First Feature
		First Feature

Buttons: Import..., Generate, OK, Cancel

SQL Query

```

1 SELECT VILLE
2     , CANTON
3 FROM T_VILLE
4     JOIN
5     T_CODE_CANTON
6     ON T_VILLE.CODE
7     = T_CODE_CANTON.CODE
8 ORDER BY VILLE
    
```

InlineQuerier

Connect Input

InlineQuerier

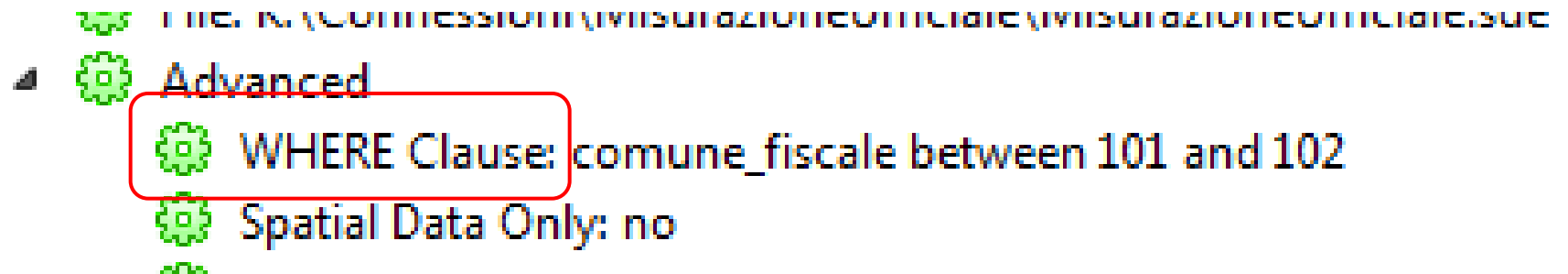
Query con **Structured Query Language**

```
SELECT colonne  
  FROM tabella  
[ WHERE condizione ]  
[ GROUP BY colonne [HAVING Condizione] ]  
[ ORDER BY colonne ]
```

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In FME Workbench

[**WHERE** condizione]



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In ArcGIS Desktop

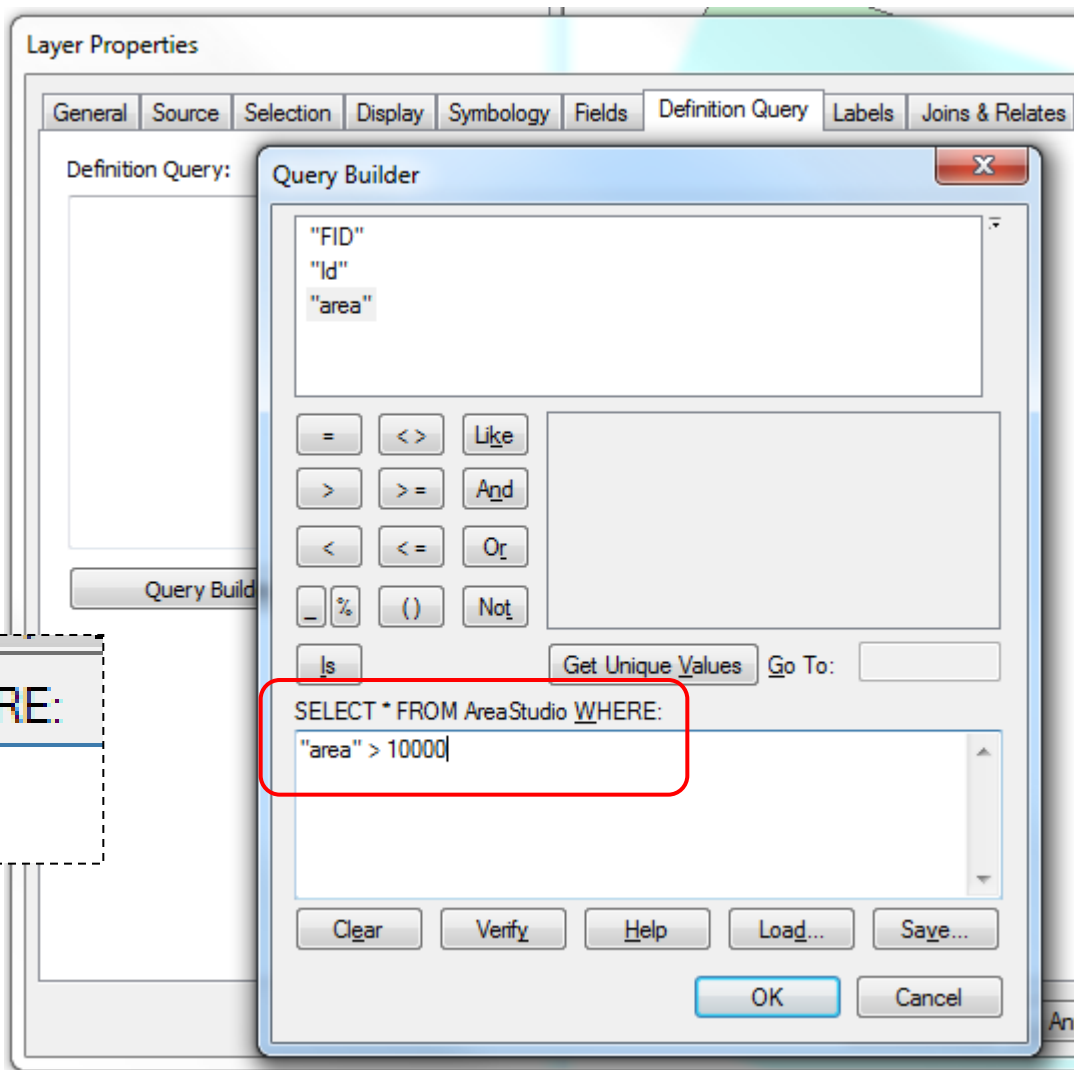
SELECT colonna

FROM tabella

[**WHERE** condizione]

```
SELECT * FROM AreaStudio WHERE:
```

```
"area" > 10000|
```



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Esempio: relazioni alfanumeriche tra dati

```
SELECT VILLE
      , CANTON
FROM T_VILLE
JOIN
      T_CODE_CANTON
ON T_VILLE.CODE
   = T_CODE_CANTON.CODE
ORDER BY VILLE
```

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Esempio: calcoli

```
SELECT SUP_WUI_TOT / 10000 AS SUP_WUI_CS  
      , SUP_WUI_5   / 10000 AS SUP_WUI_CS_5  
      , SUP_WUI_5   / SUP_WUI_TOT * 100 AS SUP_WUI_CS_5_PCT  
FROM ...
```

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Esempio: data e orario

Variabile: DATA_ORA

Forma in FME: AAAA-MM-GG hh:mm:ss

2015-06-12 15:12:25



InlineQuerier

Esempio: data e orario (2015-06-12 10:12:25)

DATA: **2015-06-12** GIORNO_SETTIMANA: **VENERDI**

```
SELECT DATE( DATA_ORA ) AS DATA
      , CASE CAST ( STRFTIME( '%w' , DATA_ORA) AS INTEGER )
          WHEN 0 THEN 'DOMENICA'
          WHEN 1 THEN 'LUNEDI'
          WHEN 2 THEN 'MARTEDI'
          WHEN 3 THEN 'MERCOLEDI'
          WHEN 4 THEN 'GIOVEDI'
          WHEN 5 THEN 'VENERDI'
          WHEN 6 THEN 'SABATO'
          ELSE '???'
        END AS GIORNO_SETTIMANA
FROM . . .
```

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Esempio: data e orario (now)

ADESSO: **2015-06-12 15:50:31**

OGGI: **2015-06-12**

ORARIO: **15:50:31**

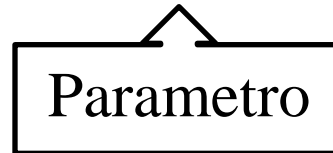
DOPO_DOMANI: **2015-06-14**

```
SELECT datetime('now', 'localtime') AS ADESSO
,      date('now', 'localtime') AS OGGI
,      time('now', 'localtime') AS ORARIO
,      date( datetime('now', 'localtime'), '+2 days' ) AS DOPO_DOMANI
FROM . . .
```

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Esempio: data e orario (Publish/Private parameter)

```
WHERE      datetime( DATA_TIME_1 )  
          BETWEEN datetime( DATA_TIME_2, '-$(RangeTemporale) minutes' )  
             AND datetime( DATA_TIME_2, '+$(RangeTemporale) minutes' )
```



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Esempio: selezioni avanzate

```
SELECT NomeCP  
  FROM Comprensori  
WHERE NomeCP NOT IN ( SELECT NomeCP_Sedi  
                        FROM ListFound  
                      )
```


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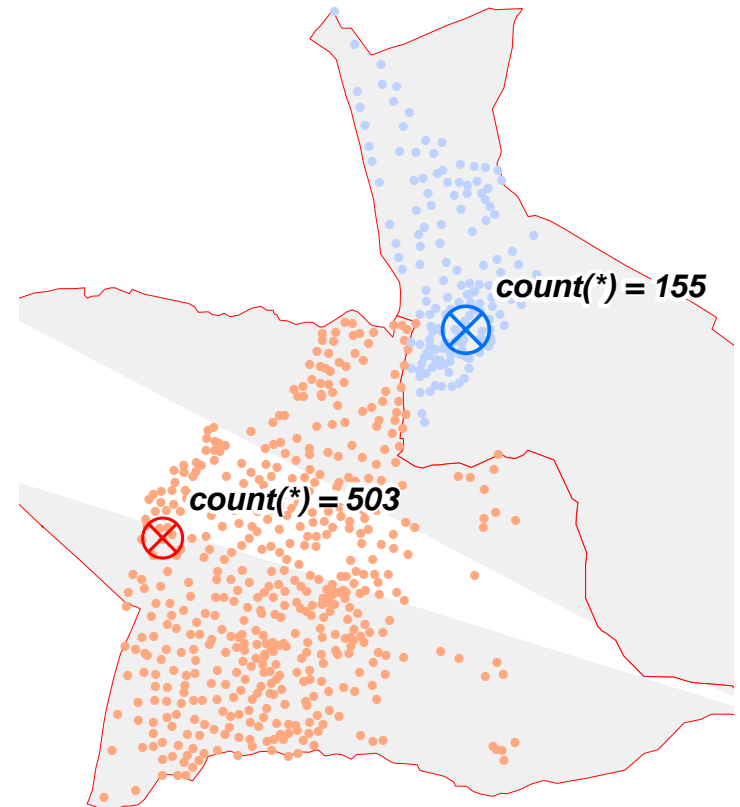
Esempio: aggregazione (Attributes only)

```
SELECT COMUNE_FISCALE
      , SEZIONE
      , COUNT( * ) AS CASI
FROM PUNTI_FISSI_GEOMETRA_PUNTI
GROUP BY COMUNE_FISCALE
      , SEZIONE
```

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Esempio: aggregazione (one feature only, no aggr.)

```
SELECT COMUNE_FISCALE
      , SEZIONE
      , count( * ) AS CASI
      , fme_feature_content
FROM PUNTI_FISSI_GEOMETRA_PUNTI
GROUP BY COMUNE_FISCALE
      , SEZIONE
```



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Esempio: aggregazione con condizione

```
SELECT COORDINATA_X
       , COORDINATA_Y
FROM PUNTI_FISSI_GEOMETRA_PUNTI
GROUP BY COORDINATA_X
        , COORDINATA_Y
HAVING MIN( COMUNE_FISCALE || '_' || SEZIONE || '_' || NUMERO_PUNTO)
<>
       MAX( COMUNE_FISCALE || '_' || SEZIONE || '_' || NUMERO_PUNTO)
```

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Esempio: tabella à la volé

```
SELECT *
  FROM CentroidiQuartieri AS T1
     JOIN
       ( SELECT Identificativo
         , Quartiere
           FROM CentroidiQuartieri
         GROUP BY Identificativo
         , Quartiere
         HAVING count(*) > 1
       ) AS T2
  ON T1.Identificativo = T2.Identificativo
 AND T1.Quartiere      = T2.Quartiere
```

Riepilogo

- InlineQuerier transformer
 - ◆ Flessibilità e tenuta a giorno
 - ◆ Vale la pena di investire