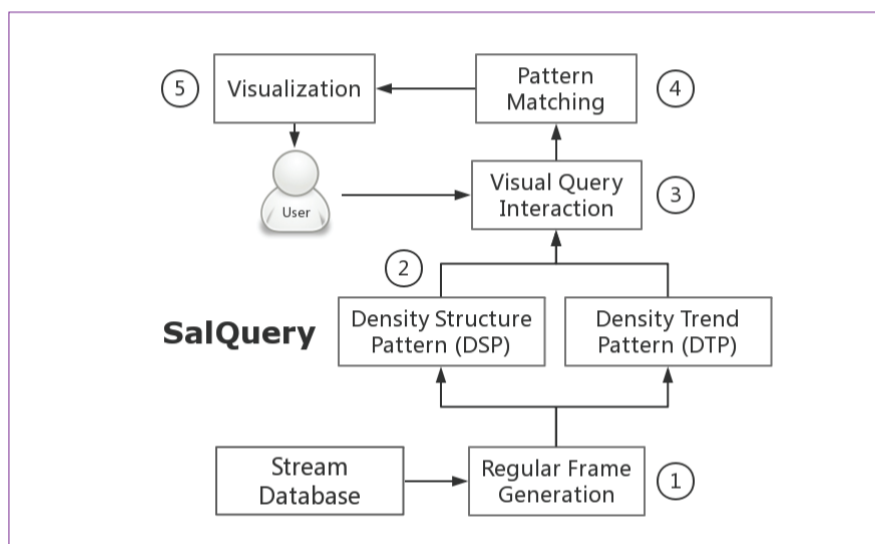


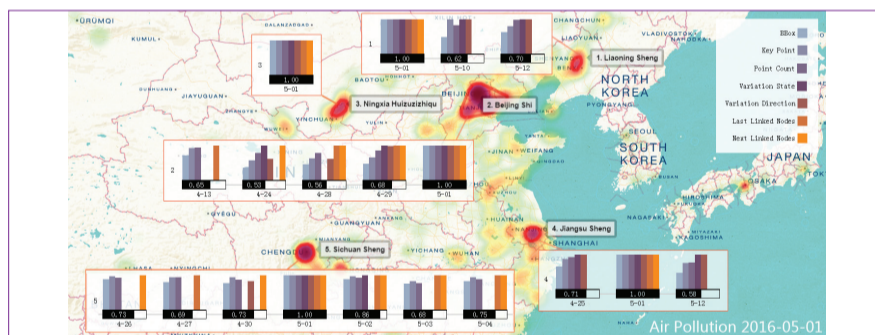
# 大規模串流數據的視覺化與視覺分析系統 VALID: Visual Analytics and Stream Visualization

實現大數據可視化以便應用及處理資料  
Visualizing big data for applications

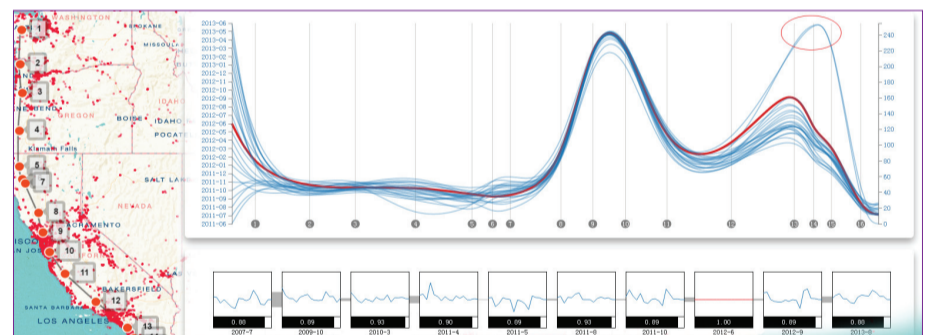
VALID是供網上應用的交動串流數據可視化系統，能分析大規模的串流數據，並提取重要的資訊，然後進行數據可視化。此軟體框架以主從式架構為基礎，融合了統計方法、串流數據分析及信息可視化技術，適用於串流數據的相似性分析和實時信息可視化查詢，對地理信息系統、實時空氣質量檢測、人流預測等應用尤為重要。



系統框架圖  
Framework overview



中國空氣污染的可視化圖像/圖示  
Visualization of air pollution in China



美國西部沿海的照片分布查詢 (數據來源: Flickr.com)  
Photo distribution querying along a coastline in the western U.S.A. (Data source: Flickr.com)

Visual Analytics and Stream Visualization (VALID) is a new web-based framework for the interactive visualization of streaming data. Based on the traditional server-client model, the platform is enhanced with effective analytical methods. It can process data streams for visual analytics and visualization, such as creating density maps and conducting similarity analyses. It makes sense of data reduction and real-time interactive visualization, and is especially important for large datasets, such as those from geographic information systems, real-time air quality monitoring equipment, human traffic prediction systems, etc.

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## 特色與優點

- 進行串流數據可視化
- 處理串流數據的多維度可視查詢

## 應用

- 空氣污染的可視化圖像/圖示及可視查詢
- 圖片數據的可視化圖像/圖示及可視查詢

## 獎項

- IEEE International Conference on Cognitive Informatics and Cognitive Computing - 優秀論文獎

## Special Features and Advantages

- Visualizes the snapshot and the evolution of data streams
- Handles visual querying of stream patterns from a spatial or temporal perspective

## Applications

- Visualization and querying of air pollution
- Visualization and querying of photo flow

## Awards

- Best Paper Award, IEEE International Conference on Cognitive Informatics and Cognitive Computing



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