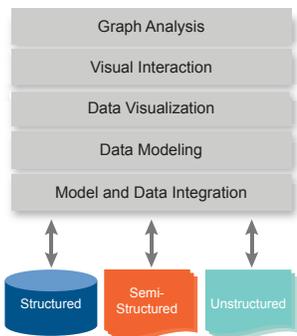# Tom Sawyer Visualization

Providing the power of advanced data visualization for faster discovery of insights and relationships
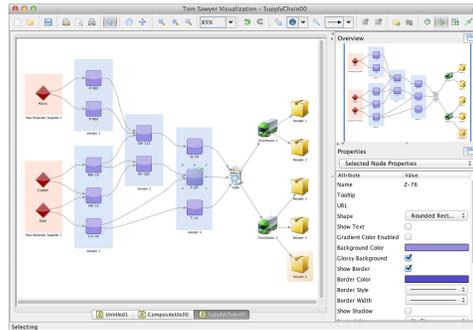
Reference Architecture

Tom Sawyer Visualization is designed to build data relationship visualization applications requiring high levels of performance, quality, and scalability.

The Tom Sawyer Software reference architecture simplifies the development of applications that can be deployed on the web and desktop.

Graph Analysis

Visual Interaction

Data Visualization

Data Modeling

Model and Data Integration

Structured

Semi-Structured

Unstructured

Mulitple Devices

Tom Sawyer Visualization is an API-based Software Development Kit (SDK) for building high-performance, enterprise-class data visualization applications. It enables developers to add sophisticated user interface presentation services into their applications. Tom Sawyer Visualization is ideal for developers who need to build visualization applications with precise requirements and involving a high degree of customization.

Tom Sawyer Visualization provides a graphical nested drawing data model and interfaces for high-speed batch loading and interactive diagramming. The interactive system provides command processing and multi-level undo and redo. Application developers can access a rich set of tools for selection, highlighting, viewing and editing. They can also create custom toolbars, tooltips, and context menus for their applications to enable domain-specific application behaviors.

Advantages

- **Superior Performance and Scalability**

  Take advantage of the industry's best graph visualization and layout software for unmatched quality, performance, and scalability. Build applications that can format and interactively render drawings with thousands of nodes, edges, and labels.
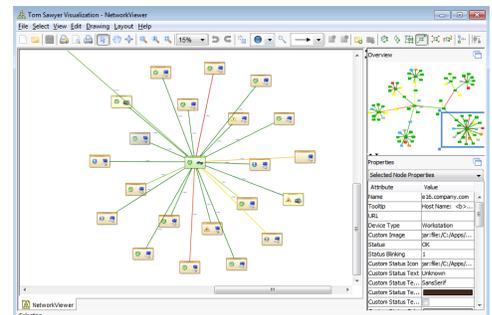
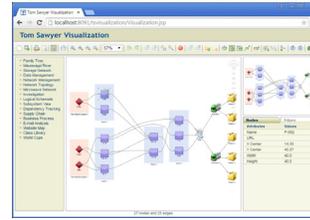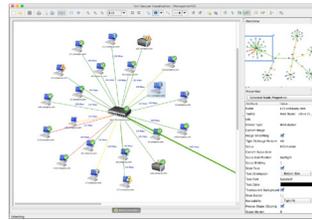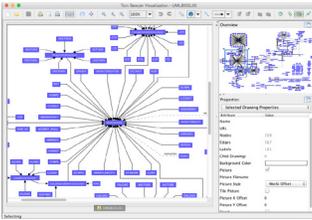- **Faster Time to Deployment**

  Simplify the development of customized visualization applications with robust, easy-to-use API libraries and a rich set of prebuilt interactive components. Reduce development time and lower risk by quickly and easily creating applications with customized interactions that meet the end users' exact requirements.

- **Greater Stability**

  Develop with an established API library that has been used to build line-of-business applications by leading software companies.

Capabilities

- **Rich, Graphical Nested Drawing Data Model**

  Construct rich nested drawing representations in support of numerous application domains and complex use cases.

- **Batch Loading and Interactive Diagramming Interfaces**

  Quickly populate drawing representations from large data sources. Easily capture a user's interactive gestures within the drawing canvas.

- **High-Speed Rendering Architecture**

  Use the fine-tuned rendering architecture to interactively support drawings with tens of thousands of nodes, edges, and labels.

- **Selection, Viewing, and Editing**

  Include smooth and reliable selection, viewing, and editing methods. Overview windows and property inspectors support an integrated experience.

- **Custom Tool Creation and Context Menu Support**

  Create custom toolbars and context menus to perform application-specific actions, launch programs, and open URLs.

- **Advanced Event Management System**

  Track graphical, structural, and topological changes made to drawings in the application data model.

- **Flexible and Scalable Automatic Layout**

  Incorporate services providing scalable, global, incremental, and constraint-based automatic layout, labeling, and routing.

- **Powerful Printing and Exporting Facilities**

  Build applications with multi-page print preview and printing. Drawings can be saved in GIF, JPEG, PDF, PNG, SVG, and XML formats.

Specifications

- **Platforms**
  - 32-bit and 64-bit Java 2 virtual machines
  - Server Operating Systems
    - Apple OS X 10.10, 10.11
    - Microsoft Windows 7, 8.1, 10
    - Microsoft Windows Server 2008, 2012
    - Oracle Linux 6.6, 7.0
    - Oracle Solaris 10, 11
    - Red Hat Enterprise Linux 6.6, 7.0
    - SUSE Linux Enterprise 11 SP3
  - Application Servers
    - Apache Tomcat 8.0
    - Eclipse Jetty 9.1.3
    - IBM WebSphere 8.5.5
    - Microsoft IIS 7.0, 7.5, 8.0, 8.5, 10.0
    - Oracle WebLogic 12*c*
    - Red Hat JBoss 7.1
    - Red Hat WildFly 9
  - Client Environments
    - Apple Safari
    - Google Chrome
    - Microsoft Edge
    - Microsoft Internet Explorer 8, 9, 10, 11
    - Mozilla Firefox
    - Opera
  - Product Editions
    - ActiveX
    - MFC
    - Java
    - JSP

- **Standards**
  - JDK 7.0, 8.0
  - GIF, JPEG, PDF, PNG, SVG, XML

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