Agile ETL for Data Visualization

The explosive growth and adoption of interactive visualization products, such as Tableau, QlikView, and Spotfire, has been driven by the need for business users to access data, perform analysis, and publish results with less dependence on scarce technical resources. Yet, in many cases, business users are still dependent on IT resources to acquire, understand and prepare the disparate data required to perform the analysis that drives true business insight. Enabling business users to work with detailed data is the critical next horizon in the Big Data and Agile BI revolution. Lavastorm addresses that problem head on, complementing interactive visualizations to enable you to achieve the full potential of your investments. The Lavastorm Analytics Engine enables you to quickly and easily bring together new data sources, ensure the quality of the data, and increase the transparency of your work. In doing so, you can take your data visualization investment to a new level of productivity and impact through agile and transparent ETL and advanced analytic capabilities.

The Challenges

While visualization products provide a tremendous amount of value on their own, you may still wrestle with data challenges & analytic limitations on a regular basis.

Incomplete & Incompatible Data

In many organizations, data sources tend to be siloed, stored in different formats, scattered across locations, and exposed through varying access mechanisms. To truly unleash the power of a visualization product investment, you must be able to quickly acquire, prepare, and combine these disparate data sources into a meaningful dataset that can be further explored using the visualization products. More importantly, the inability to leverage a full suite of data sources will lead to an incomplete & incorrect picture being articulated by the visualization tool.

The “ETL” House of Cards

Businesses are often constrained by ETL tools and data processes of the past. They are unreliable and often fail. Worse, they provide limited visibility into the underlying details of the ETL process when failures do occur. Additionally – they are complicated systems and few people have the technical aptitude required to investigate failures when they do occur and determine and eliminate the root cause. These “black box” solutions, therefore, lead to recurring ETL failures and continuous delays. Plus, because ETL tools are not appropriate for the business analysts, they make analysts more dependent on IT and restrict the ability of analysts to evaluate the data they need for particular decisions. Finally, these outdated approaches restrict analysis to a static schema and often require a metadata mapping effort that steals time from the desired data discovery and analysis.

Beyond Data Integration

Constructing a clean, federated dataset for reporting purposes is really only part of the story, essentially “step one”. Deriving real, actionable value from this data for more valuable insight and direction is a key component to making the most of a visualization tool investment. Visualization tools and traditional ETL tools limit the capability to implement complex business rules, statistical analysis for predictive analytics, or even leveraging external web services for key insight.

Customer Success

“The Lavastorm Analytics Engine exposes data anomalies that we wouldn’t see with a traditional BI system. With Lavastorm we can easily expose and fix gaps in the data – which, if unnoticed, could lead to millions of dollars in losses.” Torbjörn Stenström, Operational Development, E.ON

“Lavastorm makes it incredibly easy to integrate data natively. I don’t think there’s another analytic product like this that would allow you to get ramped up with so little help and be able to do so much so quickly.” Troy Mayers, Sales Analytics Mgr, Allstream

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Maximize the Value of Your Visualizations

The Lavastorm Analytics Engine is a powerful, visual and versatile analytic environment and a key element of the Lavastorm Analytics Platform. It complements data visualization products by providing an agile ETL capability and advanced analytic proficiency that are required to solve many of today’s business problems. Through a visual interface that significantly reduces the scripting required, the Lavastorm Analytics Engine enables analysts to acquire and combine data 10 times faster than traditional script-based data integration or ETL tools. Its advanced analytic capabilities enable analysts to map & examine multifaceted business processes and perform complex statistical analysis through a straightforward visual configuration.

**Added Value via Transparency & Advanced Analytics**

The Lavastorm Analytics Engine provides the following added capabilities to frontline analysts:

- **Analyze multiple data sources** – Quickly acquire and cleanse data from any source essential for the analysis.
- **Add Transparency to the ETL Process** – Provide traceability and reliability to increase the confidence of the underlying data & ultimately, the resulting analysis & reports.
- **Analyze & Discover Schema-Free** - Rapidly add or change data sources in your analysis on the fly with Lavastorm’s database-less environment.
- **Accelerate Analytic Development 10-Fold** – Substantially reduce the time it takes to react to shifting requirements by removing the need for custom development & systems changes.
- **Solve Complex Problems** – examine intricate business processes, perform complex statistical analysis in a single environment to uncover the insight your business needs.
- **Publish Directly** - Publish directly to QVX and TDE file formats so the data & results can be quickly visualized in QlikView and Tableau, respectively.

### FEATURES

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<thead>
<tr>
<th>FEATURES</th>
<th>BENEFITS</th>
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<tbody>
<tr>
<td>Visual design environment</td>
<td>Analytic application and ETL process creation is far easier and faster compared to traditional developer-only tools – more than 10 time faster in many cases – using Lavastorm’s visual design approach. Visual data-handling workflows can be quickly modified to keep pace with rapidly changing data models and processing logic.</td>
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<td>Pre-built connectors</td>
<td>Business analysts can easily tap into a wide array of data sources (e.g. databases, warehouses, spreadsheets, traditional or cloud-based ERP / CRM applications, and online services) using out-of-the-box connectors.</td>
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<td>Quality assessment and transformation</td>
<td>Immediately determine the quality of your data with pre-built assessment tools and then quickly transform incomplete, poor quality sources into a robust, trustworthy data set.</td>
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<td>Data federation without coding</td>
<td>Bring together data sets without having to rely on developers in order to deliver new insights. Match records based on unique identifiers or use sophisticated, configurable “fuzzy logic” to join data sets to provide a complete, integrated view of a process or transaction.</td>
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<td>Direct integration with popular data visualization tools</td>
<td>Direct integration to Tableau (TDE format) &amp; QlikView (QVX format) is provided out of the box, making the handshake with your visualization tool reliable &amp; seamless. Other products can be supported by publishing results in industry standard formats.</td>
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<td>Comprehensive Analysis</td>
<td>Data quality and integration is only “Step 1” with the Lavastorm Analytics Engine. Its extensive library of pre-built, drag &amp; drop analytic functions make complex analysis a breeze &amp; allow analysts to spend more time on value-added activities.</td>
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<td>Reusability, automation, and scalability</td>
<td>Data management and analytic building blocks built in Lavastrom can be shared with other, automated to run unattended, and scaled up to deal with massive data sets.</td>
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