

Customer Case Study ActiveAnalysis



ActiveAnalysis Allows InfoPlanIT to Provide Visual Analysis for Both Windows and the Web

Fast Facts

Customer: InfoPlanIT, LLC

Web site: <http://infoplanit.com/>

Industry: Business Intelligence solutions

Customer Profile

InfoPlanIT originally provided Business Intelligence solutions for small and mid size manufacturers and financial departments, and now also serves large organizations in both the public and private sectors.

Solution Profile

Our newest product, Visual Analyzer, allows users to connect to any data source and analyze data using simple drag-and-drop operations. Users can connect to SqlServer, Oracle, Microsoft Access, Microsoft Analysis Services, and LocalCube files. Once they've established a connection to a data source, they can drop fields from a table or query and build visualizations of that data through charts and pivot tables.

Software

Technologies used:

- ActiveAnalysis
- XML
- Microsoft .NET Framework
- ASP.NET

"With the inclusion of charts and a rich client-side ASP.NET component to go with the Windows Forms component, we knew that ActiveAnalysis was going to be something special."

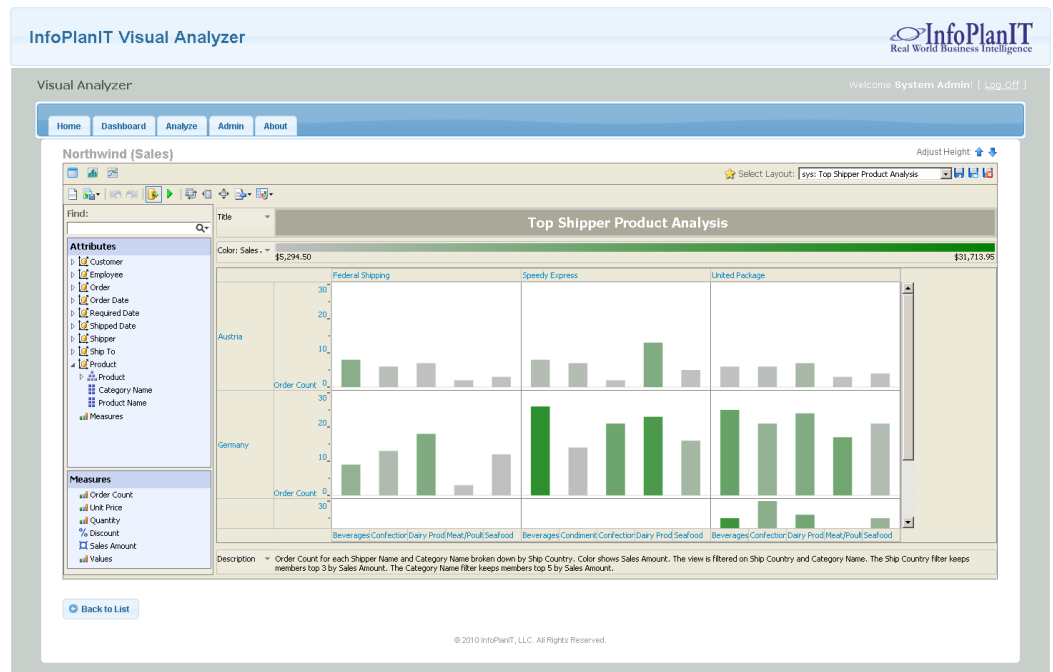
Lucas Hardbarger, Software Architect, InfoPlanIT, LLC

Business Situation

InfoPlanIT, LLC specializes in delivering business intelligence solutions for small to medium sized businesses. Our flagship product, Business Analyzer v3, was rolled out globally and is still in use today in the United States, throughout Europe, and in Asia.

Business Analyzer enables users to connect to

any database and analyze that data in a dynamic and ad-hoc manner. The product showcases a powerful pivot table piece that utilizes the power and performance of DynamiCube 3.0. Users are able to build layouts from a DynamiCube display and then take that data and transform it into various charts and graphs from other component vendors.



Customer Case Study

ActiveAnalysis

Dashboard Zoom Dialog

Top 10 Product Analysis

Product	Sales Amount
Camembert Pierrot	\$46,825.48
Chang	\$16,355.96
Gnocchi di nonna Alice	\$42,593.06
Gorgonzola Telino	\$14,920.88
Guaraná Fantástica	\$4,504.37
Jack's New England Clam Chowder	\$8,680.35
Pavlova	\$17,215.78
Raclette Courdavault	\$71,155.70
Rhönbräu Klosterbier	\$8,177.49
Tarte au sucre	\$47,234.97

Business Challenges

Our original product was offered only as a Windows Forms application. We did not extend the solution out to the Web, as there was simply too much overhead, and the resulting solution wouldn't be as clean as we'd like. The ActiveX solution required too much code duplication for us to extend the same functionality to the Internet Explorer browsers (assuming ActiveX was allowed on the client). Ultimately, our users were limited to using our application on a single machine with a Windows operating system..

For our new product, Visual Analyzer, we decided to go back to the drawing board and rewrite our application from the ground up to offer a richer set of features and a solution for ASP.NET.

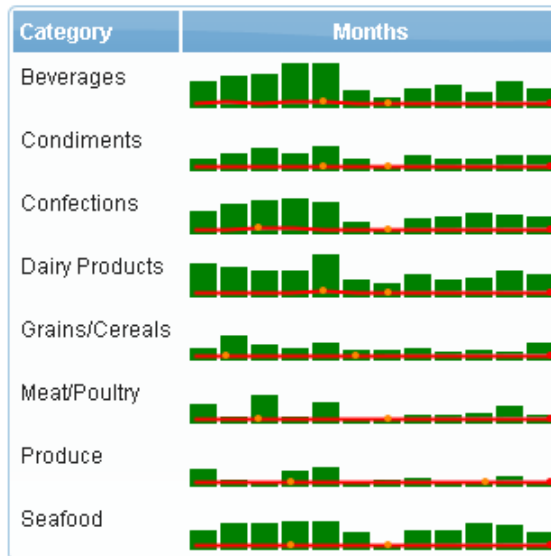
We needed to:

- deliver charts and graphs to our users from both the desktop and the browser
- enable a Windows user to build layouts from a cube on the desktop
- save a layout that could then be published to the web
- make the control look and act the same in both environments

[Benchmarks](#)
[BulletCharts](#)
[Charts](#)
[Sparklines](#)
[Tables](#)

Product Category Analysis

Note: Product Category showing Category on the rows. Months from January through December are shown. The Bar is Quantity Ordered and the Line is the Order Count.



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“GrapeCity’s no-hassle licensing model is simply the best approach to licensing out there!”

Lucas Hardbarger, Software Architect,
InfoPlanIT, LLC

Why GrapeCity products?

We looked around and considered our options before ultimately deciding to use GrapeCity Data Dynamics Analysis v1.0. We looked at various third-party .NET pivot table controls, but we really wanted something that could deliver a rich charting solution as well as rich pivot tables. We considered various chart controls for ASP.NET, but at the time there were only a few options available on the market. They were either too expensive, or too young.

A few third-party tools offered nice charting controls that connected to these various types of data sources, but lacked a solid pivot table display.

We needed:

- A rich charting solution as well as rich pivot tables.
- Something that could connect to a relational database as well as an OLAP database using the same tool.
- The ability to analyze text files as well as CSV files.
- A Windows Forms solution to complement our new ASP.NET solution.

Data Dynamics had proven that they were the leaders in delivering a rock solid OLAP component. We had worked very closely with them while developing our first version of Business Analyzer using an older version of

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Northwind Employee Sales Benchmarks

Note: Each employee is given a benchmark that they are expected to meet.

Employee Name	Sales Amount	Goal Amount	Difference	Did Pass
Andrew Fuller	\$166,537.80	\$175,000.00	(\$8,462.20)	✘
Janet Leverling	\$202,812.80	\$200,000.00	\$2,812.80	✔
Laura Callahan	\$126,862.30	\$150,000.00	(\$23,137.70)	✘
Margaret Peacock	\$232,890.80	\$225,000.00	\$7,890.80	✔
Nancy Davolio	\$192,107.60	\$175,000.00	\$17,107.59	✔
Robert King	\$124,568.20	\$125,000.00	(\$431.80)	✘

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Customer Case Study

ActiveAnalysis



“A lot of effort went into customizing our solution around XML. ActiveAnalysis cushioned this approach with its tight integration with XML and its file system.”

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DynamiCube 2.0.

As the control was improved, we too were able to improve our overall application. We made many feature requests and submitted various bug reports to Data Dynamics during the development of Business Analyzer, and they were always very responsive and professional in delivering solid updates for their components. This enabled us to deliver a solid upgrade to our users as DynamiCube 3.0 was released with its nice set of features.

Our relationship continued during the development of Data Dynamics Analysis (now ActiveAnalysis). We provided lots of ideas and feedback during the beta period and Data Dynamics, and later, GrapeCity, really listened to what we needed. When the product was available for purchase, we were one of the first adopters of Data Dynamics Analysis (now ActiveAnalysis). This new product was similar to their DynamiCube product in that users could dynamically build cross tabs of summarized data. Our users understood the concepts of dragging fields to various locations to build displays. With the inclusion

of charts and a rich client-side ASP.NET component to go with the Windows Forms component, we knew that ActiveAnalysis was going to be something special.

GrapeCity's no-hassle licensing model is simply the best approach to licensing out there! For less than \$1,000 [US], we were able to purchase a license that would support a true Business Intelligence solution for both Windows and the Web. We knew first hand that the support staff at GrapeCity was second to none. Their support staff has always been the most well informed and driven support team that we've dealt with. Likewise, the quality of components that GrapeCity sells are all world renown. ActiveAnalysis was no exception.

Solution

Our newest product, Visual Analyzer, allows users to connect to any data source and analyze data using simple drag-and-drop operations. Users can connect to SqlServer, Oracle, Microsoft Access, Microsoft Analysis Services, and LocalCube files. Once they've

established a connection to a data source, they can drop fields from a table or query and build visualizations of that data through charts and pivot tables. At any time, the user can save their current view (known as a "layout") to disk. A single connection can have multiple layouts attached to it.

Each user has their own set of "User Layouts." These are predefined XML files that users can load into the

Shared	Rename	Delete	Layout Name	Created On
<input checked="" type="checkbox"/>			Discount vs. Order Count Analysis	Thursday, October 07, 2010 2:26:01 AM
<input checked="" type="checkbox"/>			Employee Product Sales Analysis	Thursday, October 07, 2010 1:56:32 AM
<input checked="" type="checkbox"/>			Employee Sales Totals	Thursday, October 07, 2010 10:24:49 PM
<input checked="" type="checkbox"/>			Product Category Analysis	Thursday, October 07, 2010 11:39:42 PM
<input checked="" type="checkbox"/>			Top 10 Product Analysis	Thursday, October 07, 2010 2:02:02 AM
<input checked="" type="checkbox"/>			Top 5 Most Generous Employees	Thursday, October 07, 2010 2:36:29 AM
<input checked="" type="checkbox"/>			Top Shipper Product Analysis	Thursday, October 07, 2010 1:21:42 AM
<input checked="" type="checkbox"/>			Total Sales vs. Discount per Quarter	Thursday, October 07, 2010 1:51:18 AM

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Northwind Sales Dashboard

[Audit Information](#)

Note: Analyze all aspects of Northwind orders. From Top 10 Customers to Top 10 Employees. See where excessive discounts result in more sales, and more...

Employee Sales Benchmarks

Employee Name	Sales Amount	Goal Amount	Difference	Did Pass
Andrew Fuller	\$166,537.80	\$175,000.00	(\$8,462.20)	✘
Janet Leverling	\$202,812.80	\$200,000.00	\$2,812.80	✔
Laura Callahan	\$126,862.30	\$150,000.00	(\$23,137.70)	✘
Margaret Peacock	\$232,890.80	\$225,000.00	\$7,890.80	✔
Nancy Davolio	\$192,107.60	\$175,000.00	\$17,107.59	✔
Robert King	\$124,568.20	\$125,000.00	(\$431.80)	✘

Products On Order vs. Products In Stock

Product	Inventory
Aniseed Syrup	██████████
Chang	██████████
Chocolade	██████████
Gnocchi di nonna Alice	██████████
Gorgonzola Telino	📌 No Data
Gravad lax	██████████
Ipoh Coffee	██████████
Longlife Tofu	██████████
Louisiana Hot Spiced Okra	██████████
Mascarpone Fabioli	██████████
Maxilaku	██████████
Outback Lager	██████████
Queso Cabrales	██████████
Røgede sild	██████████
Scottish Longbreads	██████████
Sir Rodney's Scones	██████████
Wimmers gute Semmelknödel	██████████

Product Category Analysis

Category	Months
Beverages	██████████
Condiments	██████████
Confections	██████████
Dairy Products	██████████
Grains/Cereals	██████████
Meat/Poultry	██████████
Produce	██████████
Seafood	██████████

This dashboard shows you various ways to Visualize Data! There are tool tips describing what is contained in each Analysis Panel. You can Zoom to a table of the underlying data or Analyze the data right on the web!

Employee Discounts

Employee	Quarters
Robert King	██████████
Anne Dodsworth	██████████
Steven Buchanan	██████████
Margaret Peacock	██████████
Laura Callahan	██████████

Top 10 Products

Product	Sales Amount
Camembert Pierrot	~50,000
Chang	~15,000
Gnocchi di nonna Alice	~45,000
Gorgonzola Telino	~15,000
Guaraná Fantástica	~5,000
Jack's New England Clam Chowder	~10,000
Pavlova	~18,000
Radlette Coudravault	~75,000
Rhönbräu Klosterbier	~10,000
Tarte au sucre	~50,000

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ActiveAnalysis PivotView control.

If the user is granted SystemAdmin privileges, they can save layouts as “System Layouts,” which are shared with other users on the system who can load that layout and begin analyzing the connection. System Layouts are saved to a global repository and can be viewed by anybody logged into the system.

For example, a System Layout might display a chart of sales figures for the entire company (e.g. ‘January 2010 Sales Figures’). A User Layout, on the other hand, might only contain information about a certain set of data that is important to the user, but might not necessarily pertain to other users (e.g. ‘My 2010 Sales Figures’).



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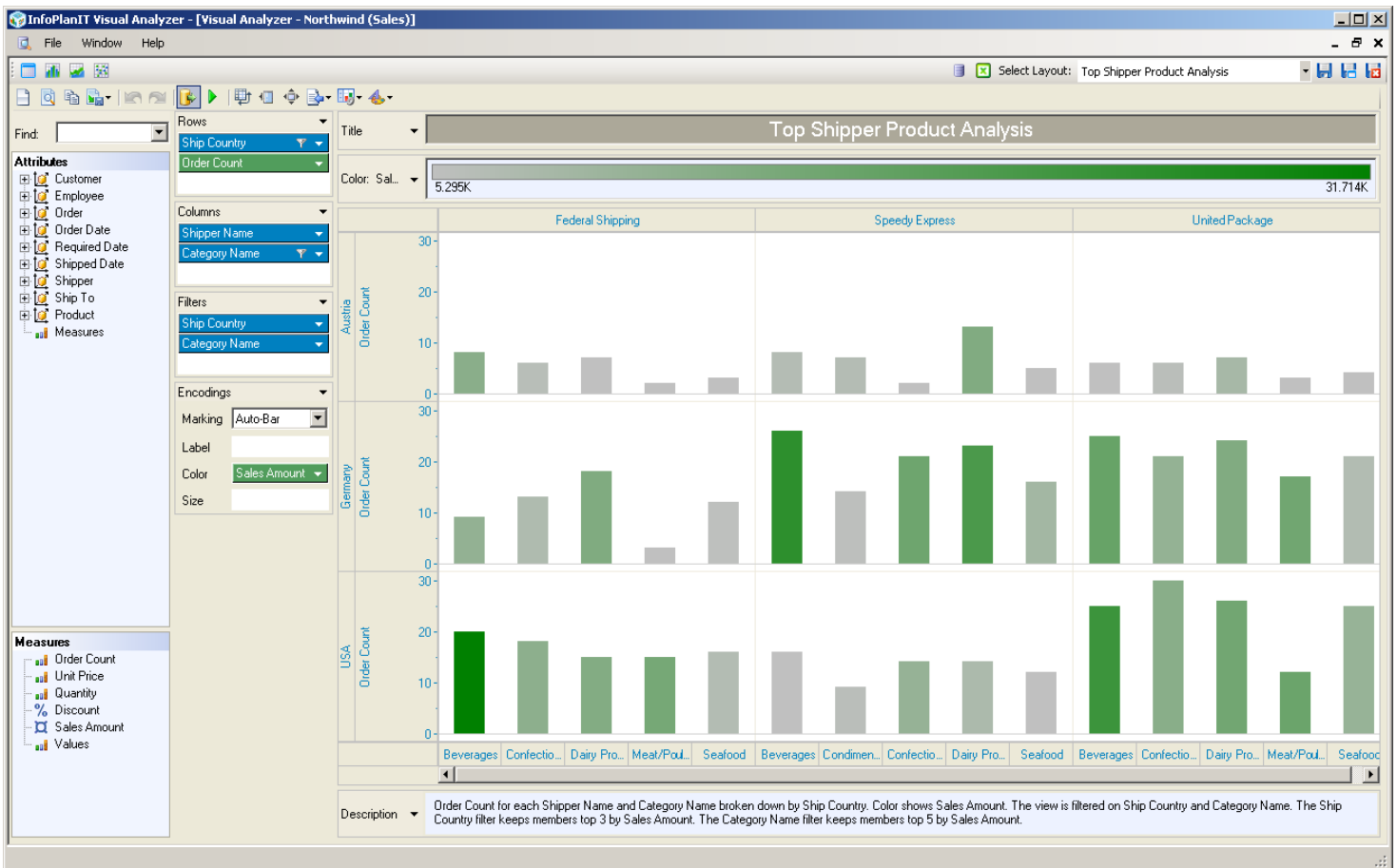
Lucas Hardbarger, Software Architect,
InfoPlanIT, LLC

A lot of effort went into customizing our solution around XML. ActiveAnalysis cushioned this approach with its tight integration with XML and its file system. It has taken us about 2 years to get our product to where it is today, because our solution is very robust with group level security feeding layouts and dashboards to various types of users.

ActiveAnalysis allowed us to take full advantage XML. Connections and Layouts are stored and retrieved as raw XML files. Our product extends the serialization a bit, and we were able to attach metadata to these XML files for our own needs. The fact that our files are XML allows us to manage the files very easily using basic FileSystem security.

Once the user has connected to a data source, they can easily load and save XML configurations that store filter definitions, drill levels, and various other settings that make up the current display. ActiveAnalysis provided us with a huge selling point for our product, and with XML at its core, it fit perfectly into our backend architecture.

Our product stands apart from our competition in that we are able to provide both a client solution and a server solution that looks and acts the same in both environments. An administrative user might create various connections and layouts locally on their machine using our Windows Visual Analyzer. Once they have built a set of data-rich displays, they can publish (or copy) these



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XML files to a Web server and immediately allow all users to view those layouts on the Web.

Our first version of Visual Analyzer is best scaled towards small to mid-sized companies. Since our solution is currently 100% file based, there will inevitably be bottlenecks when too many users are logged in trying to manage the file system. Since all of our settings are serialized to XML, it will be very easy for us to scale our solution to a relational database. We are currently working on developing a SqlServer version that would allow our solution to scale to thousands of concurrent users connecting to any number of connections and layouts.

For most of our current users, we offer the ability to connect to relational databases and local cubes and it seems to work quite well for them. We offer the ability to connect to Analysis Services, but not many users have had a need for this just yet. We take comfort in knowing that ActiveAnalysis works best when connected to Analysis Services, so when our users are ready to make the switch, there will be very little for us to do in order to deliver multidimensional data to our users.

Benefits

- Visual Analyzer can be installed on any PC or Windows Web Server that supports ASP.NET MVC 1.0.
- The ability to visually analyze any amount of data in a web browser with a feature-rich and responsive user interface makes our latest product stand apart from our competition.
- Had we stuck with using our old ActiveX approach, our users would still be limited to a Windows client-side

solution running legacy COM technology through COM Interop.

We have taken the appropriate steps to ensure that our solution will not be outdated anytime soon. The latest version of ActiveAnalysis offers a Silverlight control that we plan to make use of in a future release. It should be very easy to upgrade to this technology knowing that XML is still at the core of all ActiveAnalysis functionality. Even if we have to make a few tweaks, we should be able to load every connection and layout in the new control. Not many products can do the things that ActiveAnalysis can do.

InfoPlanIT has no doubt that we have chosen the best product on the market for our Business Intelligence needs.

Looking Ahead

There is no end in sight for where we plan to take our product line. With Silverlight and WPF gaining popularity from end users, we are very eager to begin developing our next version which will showcase the new ActiveAnalysis Silverlight control. ActiveAnalysis plays a key role in the success of our product. Without it, we wouldn't be able to offer "next generation" visual analysis to our users like we do today. The robust API and flexibility of the ActiveAnalysis XML-based approach has revolutionized the way we deliver Business Intelligence to our users.