
A White Paper on the Real-Time Plant Monitor

Prepared By



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Executive Overview

The **Real-Time Plant Monitor** is an application designed to immediately provide plant operators with a simplified view of production information across multiple plants and multiple projects. Viewable from anywhere within the organization, the **Real-Time Plant Monitor** makes current information common knowledge for everyone on your team. Upper management, foreman, and project managers know instantaneously about plant production at any given time during the day.

The **Real-Time Plant Monitor** is a read-only view of data, which is drawn from your EIS load-out system. This data is based on load-out Tickets, providing information on project and customer IDs, names, number of loads, tons per customer, and class of materials. Summary views display project names, customer names, project numbers, total tons, and total loads.

The RTPM allows multiple users to work with and view data simultaneously. Overall, **Real-Time Plant Monitor** is a great tool to increase your productivity and keep everyone in your company up to date. Since RTPM provides data on the fly to plant operators are virtually eliminated thereby, allowing them to focus on managing the plant.

Common Sense Views

The **Real-Time Plant Monitor** interface provides a simplified means of viewing production information. Each plant is shown with a different color theme, making it easier to correlate the tickets from the 10 Most Recent Tickets grid with the originating plant.

The Interface

Designed as a web page, the interface can be viewed by a user just like a web page. Developed as an ASP.Net solution, the **Real-Time Plant Monitor** is an optimized interface with great response time for the user. The interface includes a refresh button for those who need the display updated more frequently than once a minute. A snapshot of the default page is shown in Figure 1. Figures 2 and 3 provide additional views.

The Process

The **Real-Time Plant Monitor** is a read-only view of data from your load-out system, so there is not much to process from the user's perspective. Data is drawn from the load-out system and displayed in a convenient format. Once installed and integrated into your network, your network users can view the **Real-Time Plant Monitor** just as they view any web page: open the web browser, such as Internet Explorer, then select or enter the page address and hit Enter. The top of all **Real-Time Plant Monitor** pages contain links to the other views. Simply point and click.

What Kind of Data is Displayed?

Unreleased Tickets (F.1)

The Ticket is the core of the **Real-Time Plant Monitor** Application, and incorporates the following additional views of information. Plant Listings (Figure 1) – The customer ID, customer name, number of loads, tons per customer, and class of material loaded is displayed. The total number of loads and total tonnage for each plant is displayed, and from this, the Average Tons per Truck is calculated. The 10 Most recent Tickets grid (Figure 1) displays details for the last ten loads let from the plant. This information is useful to personnel in the field, informing them of what is on the way to the job site, assuming they have the proper connectivity to your network. Users can also choose to view more than the default of 10 records.

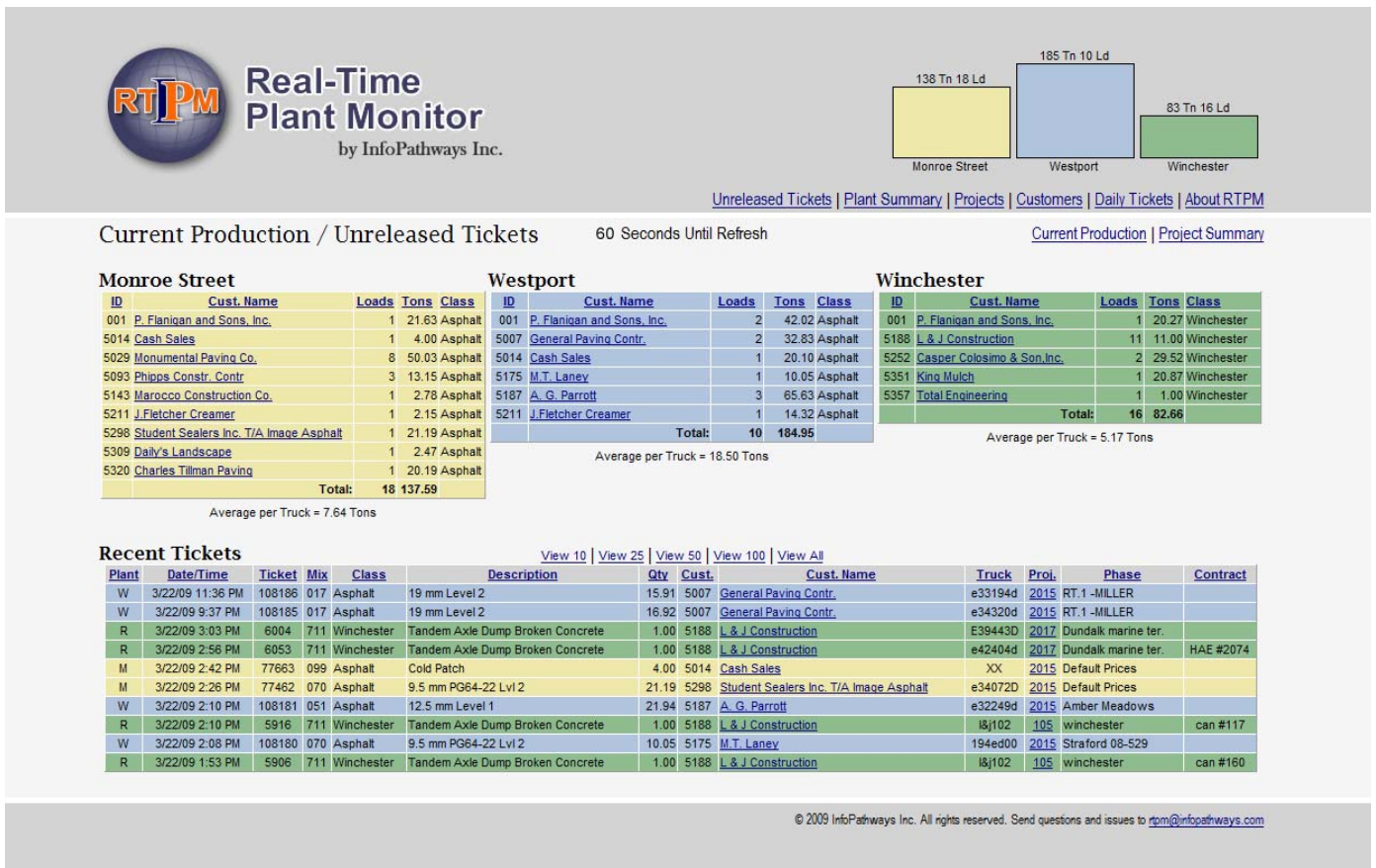


Figure 1

Project Summary (F.2)

Tonnage Summary by Project (Figure 2) – This chart provides a graphical view of the tonnage loaded out by Project (Job). Each row in the chart shows you the Project Name, Project Number, Total Tons per Project and Total Loads per Project, as well as a bar giving a visual indicator as to which project accounts for the most production.

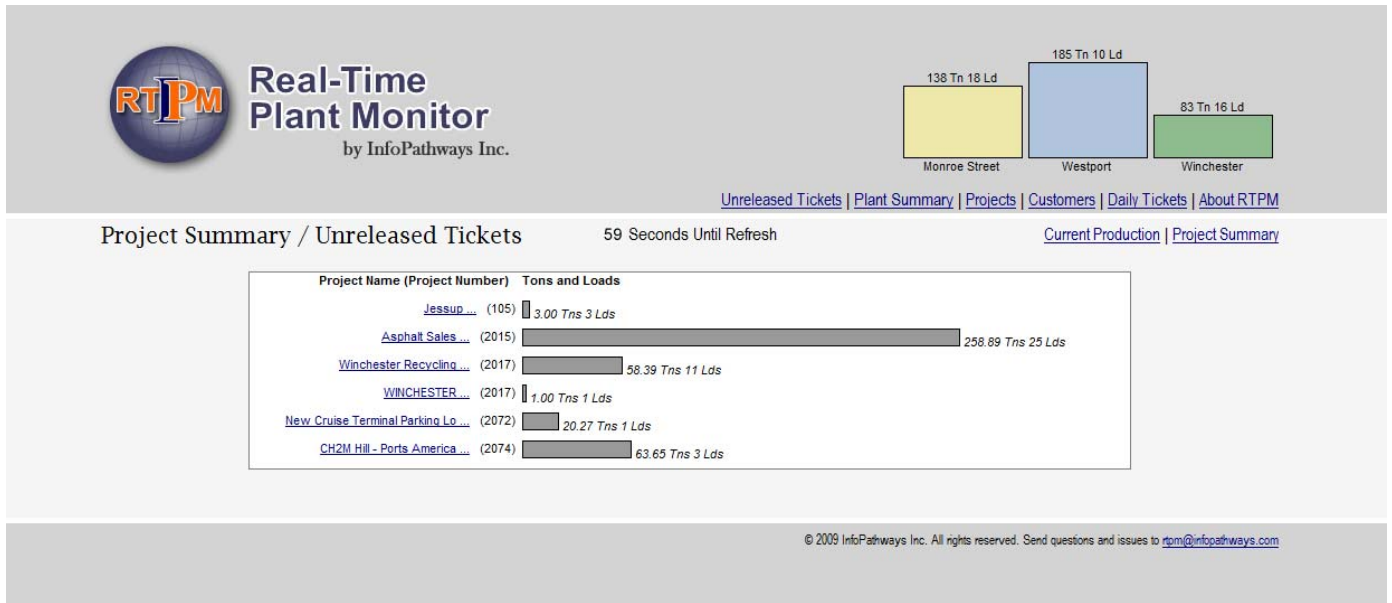


Figure 2

Daily Tickets (F.3)

This view allows the user to view the tickets generated for the current calendar date. The user may also select another date from those provided at the top of the chart. Note that the bar graph in the upper right corner also reflects the relative tonnage dispensed from each plant.

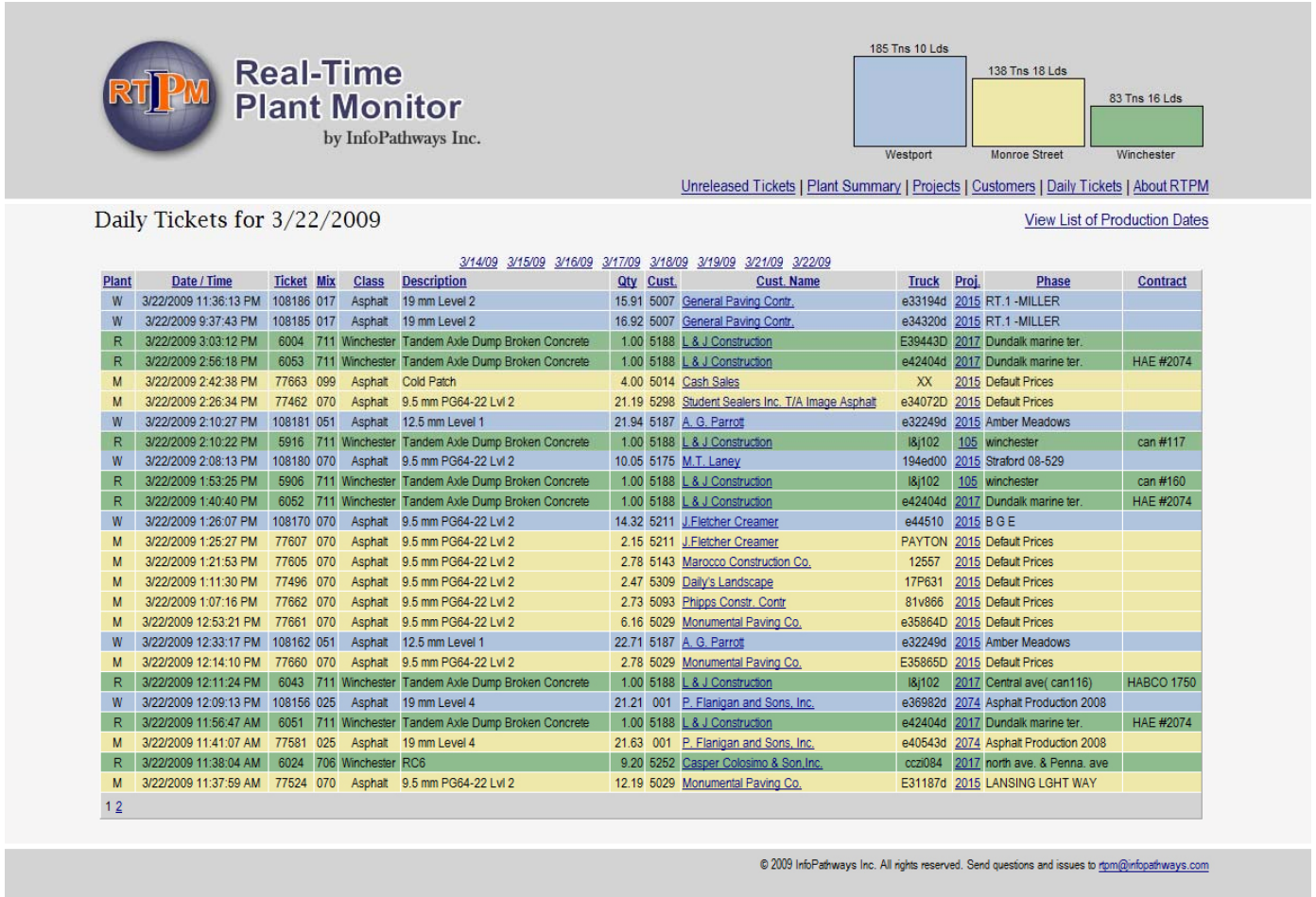


Figure 3

The Project List Page (F.4)

This page provides a list of all projects with Transactions in the Libra EIS database. The projects are sorted alphabetically by default. Note that the column headers are links that allow the user to select the column by which the list is sorted. The Project Name values also serve as hyperlinks to the details for that project; simply click a link to view more details about a project.

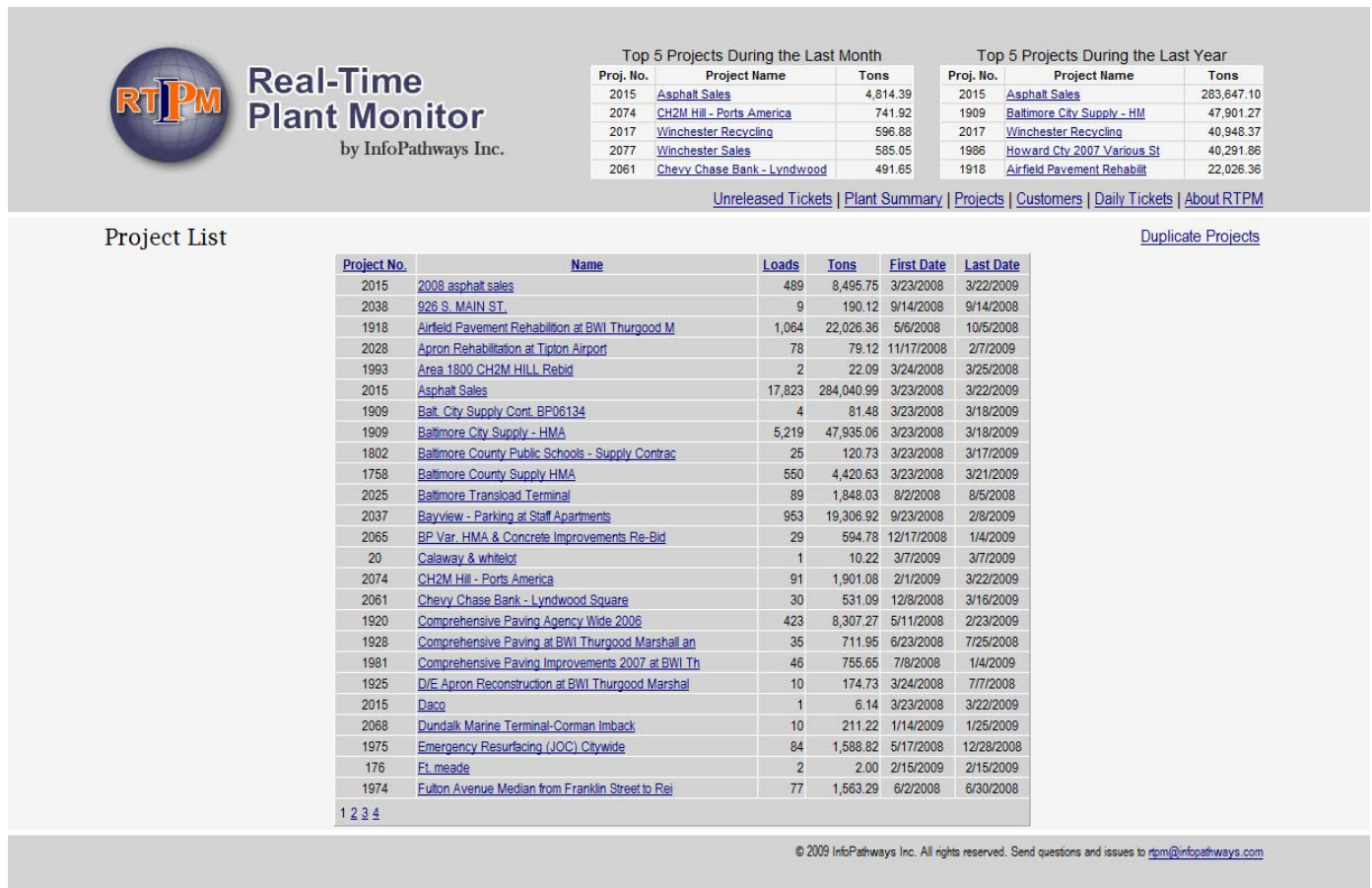


Figure 4

The columns provided in this view are generally self-explanatory. The goal is to show an overview of the production attributed to each project. The Loads are the total number of truck loads (total number of tickets) of product. The Tons column shows the total sum of tons for the project. The First Date column indicates the first date on which a ticket was generated for the project, and the Last Date column shows the last date on which a ticket was generated for the project.

A note on the sorting feature

The first time you click a column header, the data grid is sort alphabetically in ascending order, from a to z. Numbers come before alphas. Numbers sort from smallest to largest. The second time you click the same header, the data grid sorts in descending order, or from largest to smallest value.

The Project Detail Page (F.5)

This page provides a great summary about the selected Project. The chart in the upper right corner of the page shows the comparative volume this project took from each plant in tons and loads. The middle of the page shows the selected project number and name, as well as the date range within which this project has acquired material from all plants. The three charts provide different summaries of the transactions for this project: a summary by type of material, a summary of transaction by month/plant and a summary of transactions by truck ID.

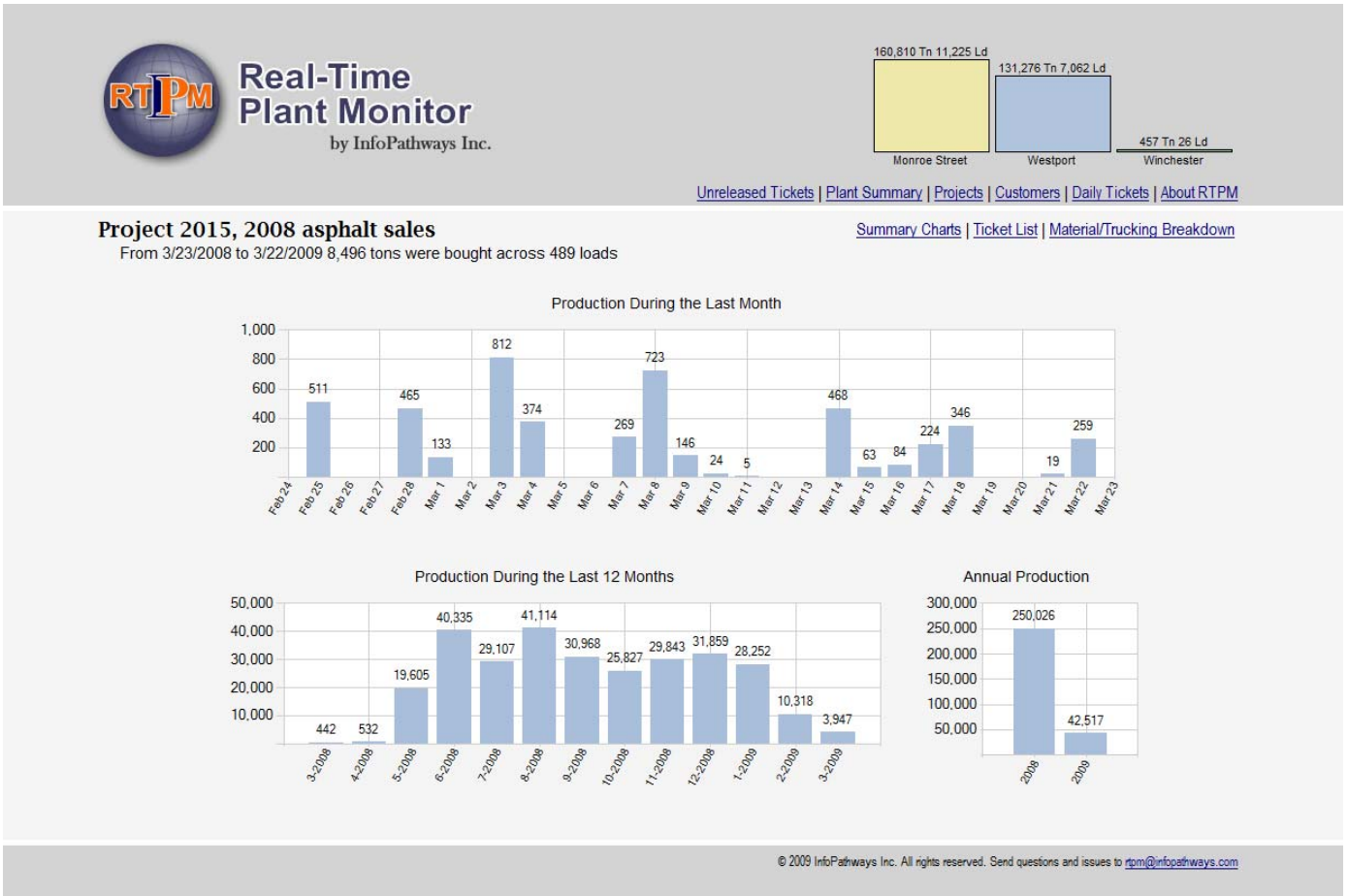



Figure 5

The Customer List Page (F.6)

This page provides a list of all customers with Transactions in the Libra EIS database. The customers are sorted alphabetically by default. Note that the column headers are links that allow the user to select the column by which the list is sorted. The Customer Name values also serve as hyperlinks to the details for that customer; simply click a link to view more details about a customer.



**Real-Time
Plant Monitor**
by InfoPathways Inc.

Top 5 Customers During the Last Month

Cust. No.	Customer Name	Tons
001	P. Flanigan and Sons, Inc.	1,641.92
5029	Monumental Paving Co.	1,329.03
5175	M.T. Lanev	1,018.67
5364	ICP Corp.	585.05
5014	Cash Sales	361.36

Top 5 Customers During the Last Year

Cust. No.	Customer Name	Tons
001	P. Flanigan and Sons, Inc.	232,675.78
5175	M.T. Lanev	69,876.48
1054	Bato City Highways	47,891.68
5029	Monumental Paving Co.	34,058.93
5038	American Asphalt Paving Co.	31,017.84

[Unreleased Tickets](#) | [Plant Summary](#) | [Projects](#) | [Customers](#) | [Daily Tickets](#) | [About RTPM](#)

Customer List [Duplicate Customers](#)

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [All Customers](#)

Customer Number	Name	Loads	Tons	First Date	Last Date
5187	A. G. Parrot	454	9,392.18	4/30/2008	3/22/2009
5339	Accu Bld Excavation	1	20.21	5/27/2008	9/2/2008
5311	Affordable Asphalt Maint. Corp.	1	8.02	5/5/2008	5/5/2008
5165	Aggregate Transport	475	10,064.06	7/26/2008	1/27/2009
5090	Allied Contractor, Inc.	65	677.95	5/11/2008	3/7/2009
5038	American Asphalt Paving Co., LLC	1,729	31,017.84	4/30/2008	3/18/2009
5026	Angelozzi Brothers	13	21.21	5/4/2008	3/10/2009
5214	Arbor Valley Landscaping Co., Inc.	18	164.76	3/24/2008	3/22/2009
5005	Asher Construction, Inc.	2	7.06	8/3/2008	8/3/2008
5318	Asphalt & Concrete Service, Inc.	11	181.31	5/27/2008	6/22/2008
5296	Aurora Paving LLC	19	219.13	9/9/2008	1/12/2009
1062	Baltimore County Finance	452	3,483.72	3/24/2008	3/21/2009
5197	Baltimore County Public Schools	25	120.73	3/23/2008	3/17/2009
1077	Baltimore County-Utilities	98	936.91	3/23/2008	3/16/2009
1066	Bato City Education	12	10.83	3/24/2008	12/14/2008
1054	Bato City Highways	5,207	47,924.23	3/23/2008	3/18/2009
5349	Barnes Paving & Trucking, Inc.	257	4,835.05	5/26/2008	3/18/2009
5122	Bay City Construction Inc	1	19.94	1/19/2009	1/19/2009
5282	Bilbar Construction	6	28.84	5/3/2008	11/9/2008
5227	Bowen and Kron Enterprises	8	30.28	6/22/2008	3/21/2009
5280	Burgmeister-Bell	23	273.48	6/23/2008	3/17/2009
5232	BW Paving	1	3.97	11/1/2008	11/1/2008
5347	C. Jones Trucking, LLC	11	184.60	3/31/2008	7/8/2008
5301	Carp-Seca Corp.	1	11.71	9/9/2008	9/9/2008
5048	Carroll-Independent	6	83.26	6/29/2008	9/1/2008

[1](#) [2](#) [3](#) [4](#) [5](#) [6](#)

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Figure 6

The columns provided in this view are generally self-explanatory. The goal is to show an overview of the production attributed to each customer. The Loads are the total number of truck loads (total number of tickets) of product. The Tons column shows the total sum of tons for the customer. The First Date column indicates the first date on which a ticket was generated for the customer, and the Last Date column shows the last date on which a ticket was generated for the customer.

The Customer Detail Page (F.7)

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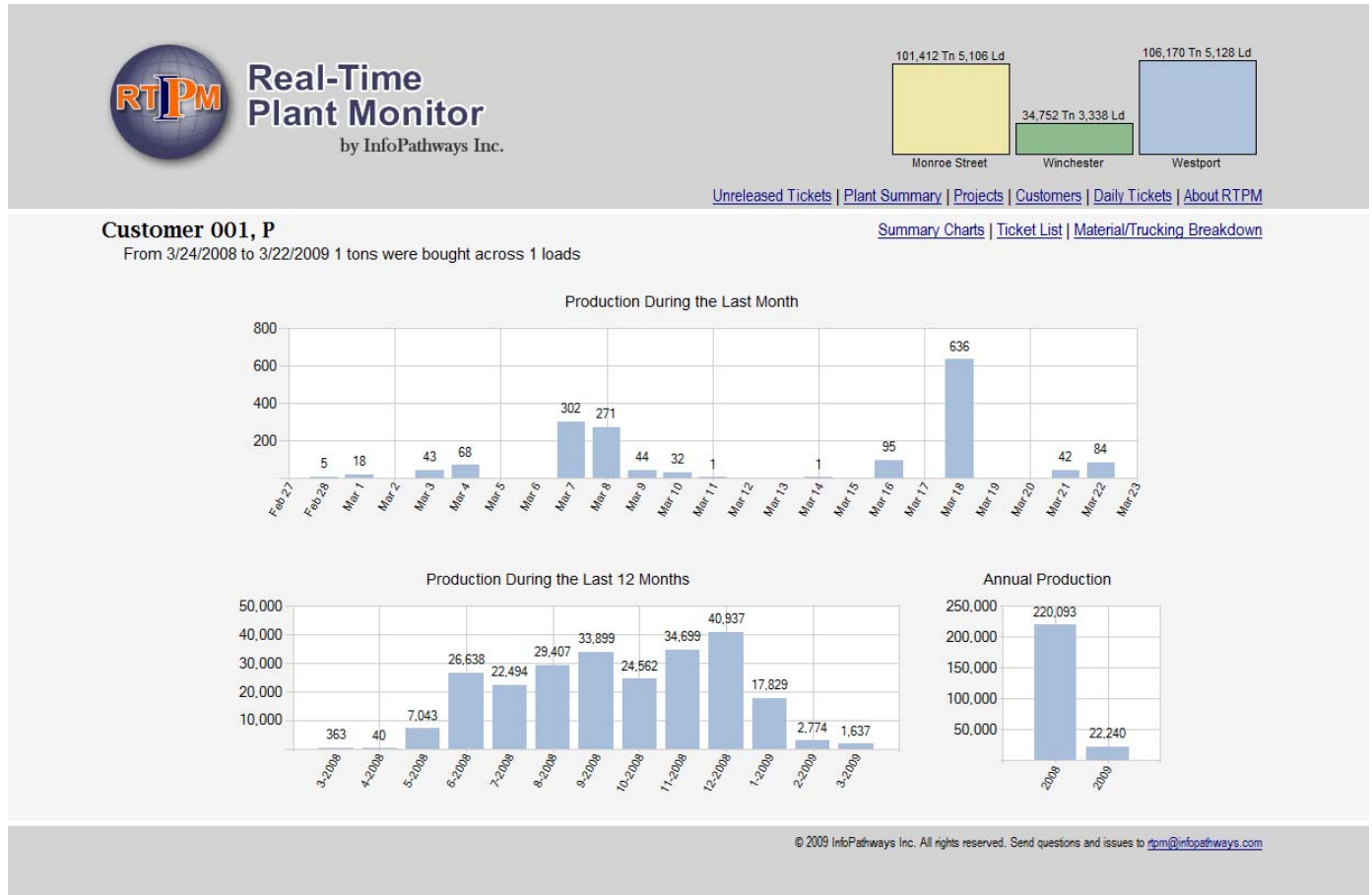


Figure 7

Integration Considerations

The **Real-Time Plant Monitor** needs a data source. Your load-out system may include everything needed. However, if it does not, we can help you with discovering the information required to support the interface.

A computer on your network needs to perform as a web server in order to serve the **Real-Time Plant Monitor** interface to your network users. The application uses few resources, thus avoiding overloading your server.

Multi-User Environment

The **Real-Time Plant Monitor** allows multiple users to view plant production simultaneously. You can have any number of users take advantage of the application. The display automatically refreshes itself once every 60 seconds for those users who leave the display open for a long period of time.

Portability

The **Real-Time Plant Monitor** can be moved, given that all associated pieces of the application and underlying database are moved in accordance with our prescribed procedures. We will be glad to assist you through any move.

Backup and Security of Data

The **Real-Time Plant Monitor** database is stored in and managed via Microsoft SQL Server 2000. MS SQL Server provides management features that include automated maintenance routines and backup of live databases. This means that your database can be backed up even while employees are working in the program. We can configure a backup routine for you, or we can provide a white paper on how to accomplish your backups.

Conclusions

InfoPathways' **Real-Time Plant Monitor** provides the following benefits:

- **Ease of Browsing the Web** – The **Real-Time Plant Monitor** runs in the web browser and requires no software be added to the user's computer.
- **General Access** – All members of your organization may have access to the **Real-Time Plant Monitor**. If needed, security can be added to limit the users who have access.
- **Increased Productivity** – When anyone in your organization can view the **Real-Time Plant Monitor**, there is a reduced need to disrupt the plant operators. The information is self served.
- **Increased Awareness of What's Happening at Your Plants** – Everyone who needs to know can know. Tonnage per customer, tonnage per project, average tonnage per load, most recent loads that have left the plant, and more.

For More Information

Go to RTPM.InfoPathways.com to learn more about the Real-Time Plant Monitor.

For more information on Libra Systems, Generation 3 (Gen3), and Enterprise Information Server (EIS), please contact:

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For more information on InfoPathways LLC, Real-Time Plant Monitor (RTPM), Close Out Application, Outside Sales Application or on the integration of all these functions please contact:

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