



TURN YOUR DATA INTO INSIGHT



Our organization is committed to using iDashboards because of the insight it provides, allowing us to make better, more informed decisions that affect all areas of operation. We have seen an immediate return on our investment with iDashboards.

-IT Director, Bingham Memorial Hospital

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An iDashboards Whitepaper

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1. Overview

Organizations around the world are rapidly adopting business intelligence dashboards to provide insight into their daily and long-term operations. In recent years, dashboards have become even more common among the public as an increased number of service providers offer dashboards to their customers to monitor metrics such as sales, credit card expenses and monthly bills. Government agencies are also implementing dashboards in an effort to promote transparency to the public.

By definition, a dashboard is a visual display of the most important information needed to achieve one or more objectives, consolidated and arranged on a single screen so the information can be monitored at-a-glance.

Dashboards have become a preferred user interface for presenting information. Dashboards can positively change the way we view, disperse and work with information. They allow for a better understanding of data and greatly reduces the amount of time spent gathering and analyzing data.

2. Exponential Growth in Data

Following Moore's law, as computing power doubles every two years, so does the ability to collect and process greater amounts of data. This in turn has led to growth in the applications of the collected data in every field.

However, as decision makers are faced with such varied information, a key challenge remains in presenting the information. Software companies continually try to improve their report formats, using charts and graphs to provide a user-

friendly interface to data and information. One offshoot of such innovation is the dashboard.

Business intelligence has adopted the dashboard concept of displaying data to the driver of an automobile through a collection of gauges and meters.

3. Business Dashboards

Organizations are increasingly adopting business intelligence dashboards to gain insight into their data and monitor performance. Dashboards are now being utilized to track and gain an at-a-glance view of key performance indicators (KPIs), saving time and resources. iDashboards has been adopted and well received by organizations such as financial services, government, healthcare, education, manufacturing, retail, utility, energy, transportation and logistics, just to name a few.

Dashboard displays can include tables, charts, maps and other innovative visual cues such as thermometers, traffic lights, speedometers, etc. Such a dashboard may also contain links to other pertinent information, summaries, highlights, personalized information and external URLs.

Dashboards can be customized for each organization. Common dashboards utilized by our customers are customer orders, executive scorecard, production analysis, supply chain and logistics, cost of materials analysis, financial metrics, sales commission analysis, human resources summary, product sales, employee productivity scorecard and resource monitoring.



Overwhelming spreadsheets



Visually rich, graphical dashboards

4. Managing Through Metrics

Successful management requires developing appropriate metrics to measure performance relative to objectives. Creating metrics and aligning them with organizational objectives is key in establishing an effective monitoring system. A scorecard is a popular term for describing such a monitoring system and mapping it to individual responsibilities.

Dashboards are particularly effective in delivering a scorecard to a wide audience. It is common to expect that different user groups within an organization will require different sets of metrics and dashboards. The creation of a diverse and rich collection of KPIs makes dashboards an essential driver for change and positive transformation.

5. Dashboard Users

Dashboards are not only for top-level executives, even though it is the traditional perception of dashboards. Dashboards are increasingly becoming a tool for tactical and operational levels within the organization besides the strategic level.

Administrators, directors, managers, executives and IT personnel will find dashboards helpful. However, each department must be able to see the metrics relevant to itself, and individuals within the department must have secured access to the metrics they own.

Dashboards must, therefore, be deployed within a framework of relevance, roles, privileges and security. Simply put, each user with access to a dashboard will have permission to view metrics that he or she owns and will not be able to obtain/view information that is unauthorized for that individual.

6. Differences Between Dashboards and Reports

There is a common notion that a dashboard is a collection of reports on a single screen. Put together a collection of spreadsheets with some charts in the mix, and it becomes a dashboard. Such a presentation may meet a very basic definition of a dashboard, but it fails in delivering the essence of a metrics dashboard.

Dashboards can be utilized as a very effective means of communicating information for which spreadsheets or reports are ill-equipped. Reports may be effective at presenting raw data but fail to deliver dynamic insight into the data. With recent advances in data visualization, new forms of conveying information are available that are far more effective.

A well-designed dashboard uses color and graphical symbols to create a whole new paradigm of information portrayal, next to which the reporting paradigm pales. Such dashboards require very little user training and have a much higher adoption rate. They engage the user in an interactive and media-rich interface and deliver information empowerment to business users.

Moreover, dashboards provide drilldown into details, enabling root-cause analysis. Such ready access to accurate and in-depth information far outperforms the reporting paradigm to which we have, until now, been accustomed.

SELECT CUSTOMERS



7. Introduction to iDashboards

Through award winning engineering, and patented technology, iDashboards is making it easier to understand data. iDashboards offers easy-to-build, dynamic dashboards that create context for any user – in any organization – so they can draw real meaning from raw data.

8. Applications of iDashboards

Given the visual power of iDashboards to take raw data and convert it into user insight and knowledge, the applications are as diverse as an organization's needs. The following are some sample application areas:

- Balanced Scorecard
- Executive Reporting
- Financial Intelligence
- Supply Chain Management
- Process & Quality Control
- Facility Performance
- Service Level Agreement
- Employee Scorecard
- Sales & Marketing Intelligence
- IT Systems Monitoring
- Enterprise Resource Planning
- Market Research & Analysis
- Project Management

iDashboards can easily communicate and extract data from any standard data storage, including relational databases, flat data files, Microsoft Excel, XML, legacy data systems, etc. This provides iDashboards the ability to serve as the common user interface on a layer of diverse and disparate data sources.

9. Empowering Employees

With a clear definition of KPIs, businesses are empowering employees to optimize across various organizational objectives. The visibility of performance through dashboards allows everything to be out in the open, with employees working toward the same goals as management.

10. Key Features of iDashboards

iDashboards supports a rich collection of data-viewing capabilities using patented Visual Intelligence technology. Users may customize their views with its library of chart types, including tables, 3-D views, geographic maps, metric tickers, animated speedometers, thermometers, presentation charts and customized data displays.

Microsoft Excel Integration

iDashboards supports the import and export of data to and from Microsoft Excel. A user can import an Excel spreadsheet into any data window within iDashboards and display that data using any of the different data visual formats. The imported data and its associated display preferences can then be saved within iDashboards for future reference and for sharing with other authorized users.

100% Browser Based

The iDashboards client application functions completely in a web browser. It is developed using Adobe's Flex technology and the dashboard interface is presented through the Flash player. Over 98% of installed web browsers already have the Flash plug-in, and it is a free download.

Role-Based Security and Privileges

iDashboards requires user-authentication before allowing application access. It supports multiple levels of user roles:

- **Viewer:** Ability to view and interact with dashboards in categories they have permissions to open. They have no chart customization privileges.
- **Business User:** All the abilities of the Viewer, plus the ability to customize chart characteristics for themselves.
- **Analyst:** All the abilities of the Business User, plus the ability to create new charts/dashboards that point to live data sources.
- **Admin:** All the abilities of the Analyst, plus the ability to create and manage users, assign privileges and control user access.

Data Drilldown

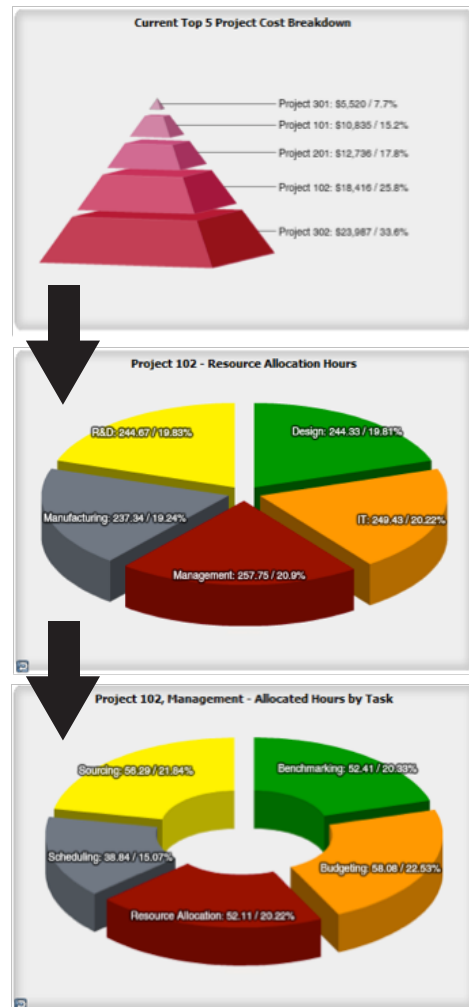
iDashboards supports data drilldown through tables, charts and maps. Any data point displayed in a report or chart within the dashboard can be connected to a different chart or report. Similar to a hyperlink, when a user hovers his or her mouse over the linked data point, the cursor changes to indicate that further information can be viewed by clicking (drilling down) on the data point. There is no limit on the levels of drilldown (such as drilling down through data based on year, quarter, month, day, etc.). The retrace path is intuitively presented to the user through each step of the drilldown.

View versus Save Privilege

Categories are like folders, with several dashboards contained within a category. Administrators can assign a user to have view or save privileges to a category.

View implies that the user can simply view the dashboards and associated charts within that category.

Save implies that the user can create new dashboards and charts, or modify existing dashboards and charts within that category.



Example of a drilldown. Current Top 5 Project Cost Breakdowns can drilldown by project number. In this case, the second image shows a drilldown into Project 102 by Resource Allocation Hours, followed by a final drilldown into hours by task for Management.

Ease of Use

iDashboards is extremely intuitive and user-friendly for all levels of users. It can be deployed to a large user base with very little formal training.

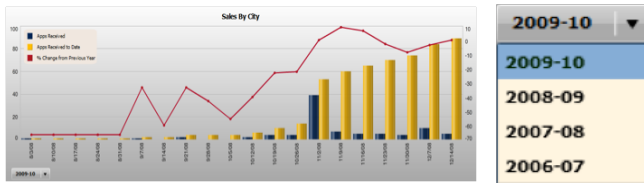
Scalable

iDashboards can be deployed on a small scale for ten users, or on a large scale serving thousands of users with a single iDashboards deployment. The plug-in-based Flash Engine is designed to provide a fast response with an interactive user experience. The visual displays and graphics are generated in real-time within

users' web browsers by the iDashboards Flash Engine. The communication between the iDashboards Flash Engine and the iDashboards Server is through XML.

Data Pivoting and Filtering

iDashboards provides the capability to create a pivot within the displayed charts and reports, which is effectively a data filter that is presented to users. By selecting any value displayed within a pivot drop-down, the chart or report is instantly refreshed with data applicable to the selected value. For example, the drop-down could display years and the chart could display percentages or performance metrics. This feature could also be used to represent dynamic cross tabulations.



Example of a pivot.

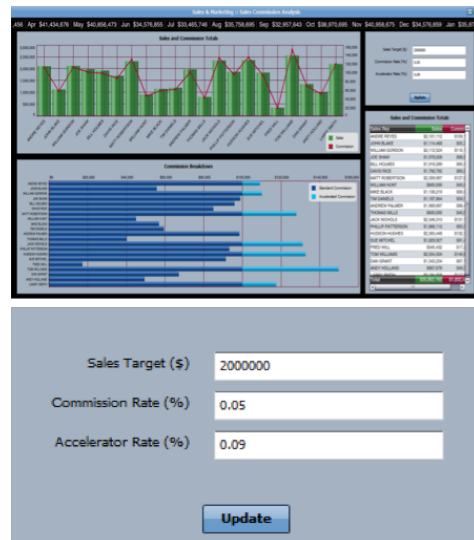
Real-Time Alerts

Dashboards can provide a new level of activity monitoring that has historically been beyond the reach of business users. With real-time alerts, dashboard users are able to configure alerts based on desired thresholds for the KPIs. Such alerts monitor the data at specific points in time and send an email or SMS text message when those thresholds are reached.

Whether a user is logged into the dashboard or not, they will be notified instantly when a problem arises. This introduces a whole new level of information leverage that end users may achieve from iDashboards.

Real-Time Analytics

Real-time analytics provide the user with the ability to perform dynamic calculations on real-time data. Conditional logic may be applied to real-time data to derive new indicators (for example, pass or fail). Analytical results are delivered with intuitive visual displays.



Real-time analytics provide the ability to perform dynamic calculations on real-time data. The sales and marketing example allows for a sales analysis in the percentage of commission and acceleration rates of change as well as a calculated sales target amount.

Reporting

iDashboards allows the user to get a reporting view of the dashboard data. Drilldowns from a dashboard to a report can be viewed in HTML and PDF. The user may schedule a PDF report to automatically email designated recipients using a custom schedule. The user may also perform basic summary statistics (mean, median, count, etc.) within a report.

11. Software Requirements

There are 3 requirements to deploy iDashboards:

1. On the Client side: any web browser with the Adobe Flash player 10.0 or higher.
2. On the server side: a relational database, such as Microsoft SQL Server, Oracle and MySQL.
3. On the server side: a J2EE web application server such as IBM Websphere, BEA Weblogic, Sun ONE, Apache Tomcat, etc. The Apache Tomcat application server is bundled with iDashboards.

iDashboards Server can be deployed in a Windows, Unix or Linux environment.

See it in action. Download a FREE 30 day trial at iDashboards.com.