Yellowfin

making business intelligence easy

Dash XML

June, 2015

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Embedded BI made easy

DashXML makes it easy for developers to embed highly customized reports and analytics into applications.

DashXML is a fast and flexible framework that exposes Yellowfin functionality and components including reports, filters and security management. This makes it easy for developers to create highly customised dashboards that leverage the power of Yellowfin, with the control and simplicity of a charting library.

With DashXML, developers can deliver powerful analytics inside your application, your way.

Business Intelligence designed for developers

- Embed dashboards into your application faster
- More control over layout and chart designs
- Customize analytic functionality
- Leverage Yellowifn's powerful security management
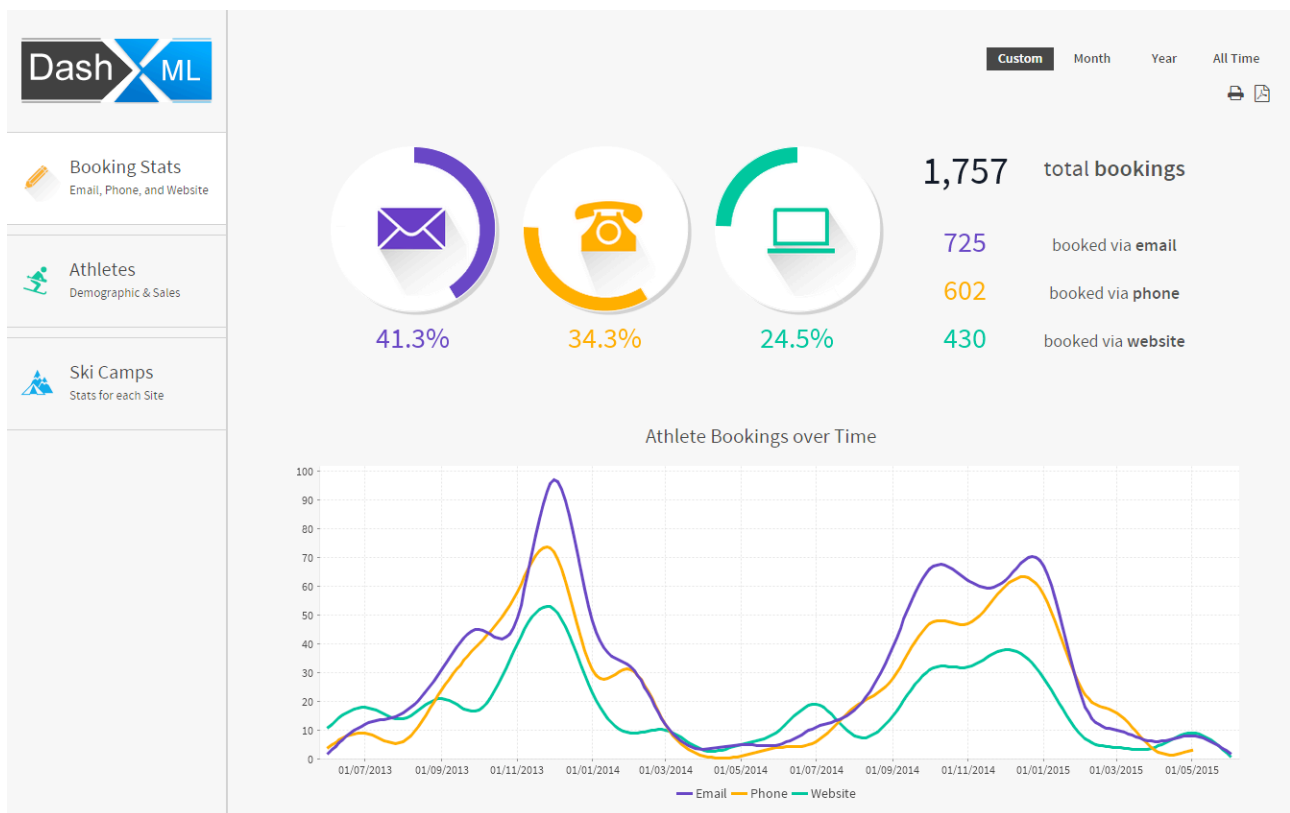
Introducing DashXML

DashXML is a java web application that communicates with Yellowfin via Web Services. It can be deployed alongside Yellowfin, or on a separate server.

The DashXML framework provides a method for creating dashboards that combine Yellowfin content and custom items without the need for programming. The dashboards are configured in a single XML document that describes each element on each tab as a widget. All layout and styling can be achieved via customised CSS.

Content Definition

Each Dashboard available in the application is defined in a single XML file. The file is loaded at startup and the definitions are cached in memory whilst the application is running. Each dashboard is a single page with an arrangement of widgets, which can include reports, text, and filter widgets. Each dashboard is accessible via a separate URL in the web browser.

Languages

The dashboard application will have no hard-coded text.
All text is configurable through the content of the XML file.

Data Security

The application allows for source filter values to be used for any given user session.
This allows report data to be filtered uniquely for each individual user that views the content.

Widgets

Dashboard

Dashboard Widgets are used to define the contents of each page to produce a dashboard. The dashboard will hold all other widgets to be displayed, called, or used on the page. It can contain as many reports as required, each styled by its own CSS class, as well as allowing for styles to be applied to the dashboard as a whole.

Dashboards can contain the following widgets:
- Sub tabs
- Text
- Export buttons
- Filters
- Reports
- Custom HTML

Each dashboard is referenced directly by a URL, and this is how navigation between pages is performed. Navigation links can be provided via the use of header or left side navigation panels, depending on design and user requirements.

Each dashboard can contain filters for sharing between widgets. Filter widgets allow the values of filters to be defined in the XML, or set via the user upon viewing dashboard. Reports that have been linked to these filters will automatically refresh when a user changes the filter values.

Dashboards are standalone entities. Nothing, including filters and hidden reports, can be shared between dashboards. However, should the dashboard designer wish to share content across dashboards, this can be achieved through the use of Sub Tab Widgets. In this scenario sub tabs can be styled to appear as individual tabs.
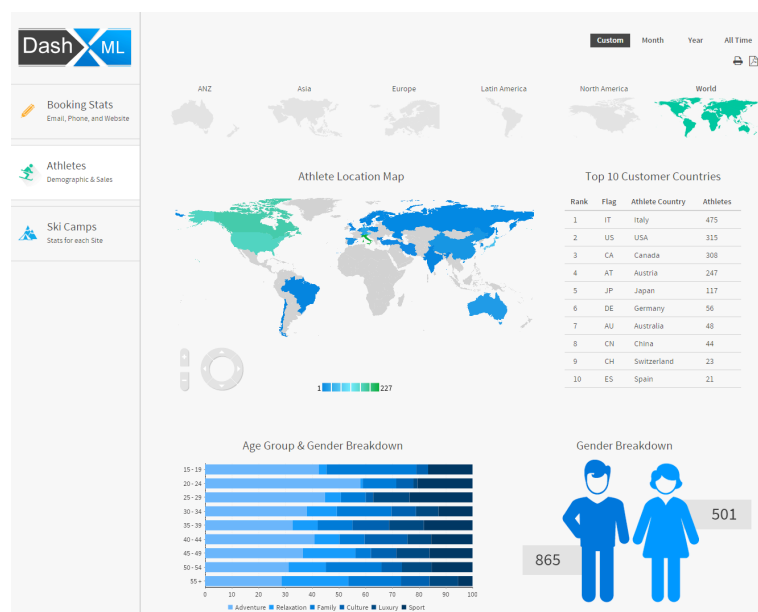
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Sub Tab Widget

Sub Tab Widgets are used for toggling between different sections of content, within a single dashboard definition – much like how sub tabs work within the standard Yellowfin interface. A button or dropdown list allows the user to switch between tabs to display different content on the screen.

Sub tab button options can contain four different elements; Title, Description, Icon and Summary value. The text and icons values are defined through the XML, but the summary value can be sourced directly from a Yellowfin report.

When using summary information, if a particular option has no results that sub tab can be hidden. This allows for sub tabs to be displayed (or hidden) on a per-user basis, or based on the results of other filters on the page.

Summary information is sourced from a hidden report, such as:

Dimension	Value
Booking Stats	65
Athletes	37
Ski Camps	12

With the resulting sub tab options displayed, like this:

Sub tabs can contain the following widgets:
- Sub tabs (unlimited number of nested layers)
- Text
- Export buttons
- Filters
- Reports
- Custom HTML

Text Widget

Text Widgets are used to display basic static text, which may include headings, descriptions, and captions. More advanced text, such as linked text or a combination of static and report data text, can be achieved using the Custom HTML Widget.

Export Widget

Export Widgets are used to display a link or button which allows users to generate an export of the dashboard to PDF, XLS or a printer.


Selecting the PDF export button will export the viewed dashboard sub tab, in its current state, with the option of using custom CSS settings. Selecting the XLS button will allow users to export an individual report, defined in the XML. The print option opens the browser print dialog, enabling the user to print the viewed dashboard sub tab in its current state.

Filter Widget

Filter Widgets provide a user interface element that feeds values to filters used by Report Widgets. The filters can be configured to display as buttons, drop down lists, and calendar date pickers. Changing the values selected in these filters will automatically cause any reports using these values to be refreshed on the dashboard display.

Filters displays can be customised, using combinations of text labels, descriptions and icons. Filters values can be defined through the XML, or set up so that the user is required to set the values when viewing the dashboard.

Filters can be used with text, numeric and date values. When defining options for a date filter, special tokens can be used to create filters based on the current date. This allows filters to use date ranges such as year to date, month to date, rolling year, and previous year. A custom date picker can also be used when selecting custom user prompt dates.
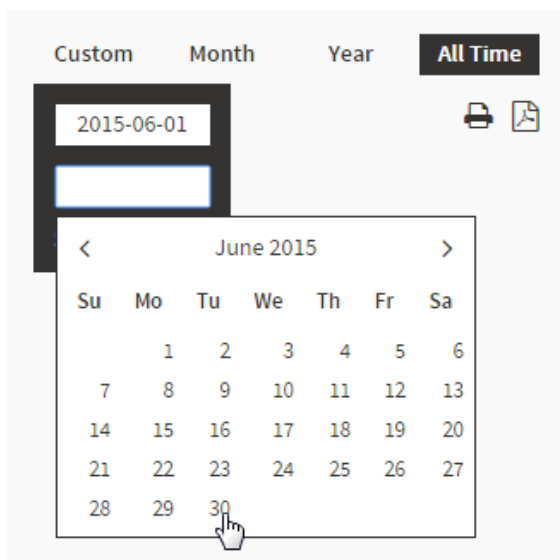
An option can be specified so that a filter value is attached to a user's session. Any filters with the same name on other dashboards will then inherit the values previously entered. This allows for a date filter on a dashboard to be automatically populated with the values entered on previously visited tabs.

Possible filter displays include; top navigation filters (see the date filters above), drop down lists, and filter buttons with optional summary information in the same way sub tab options are formatted.
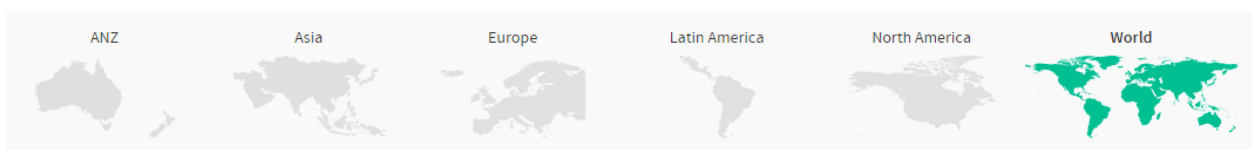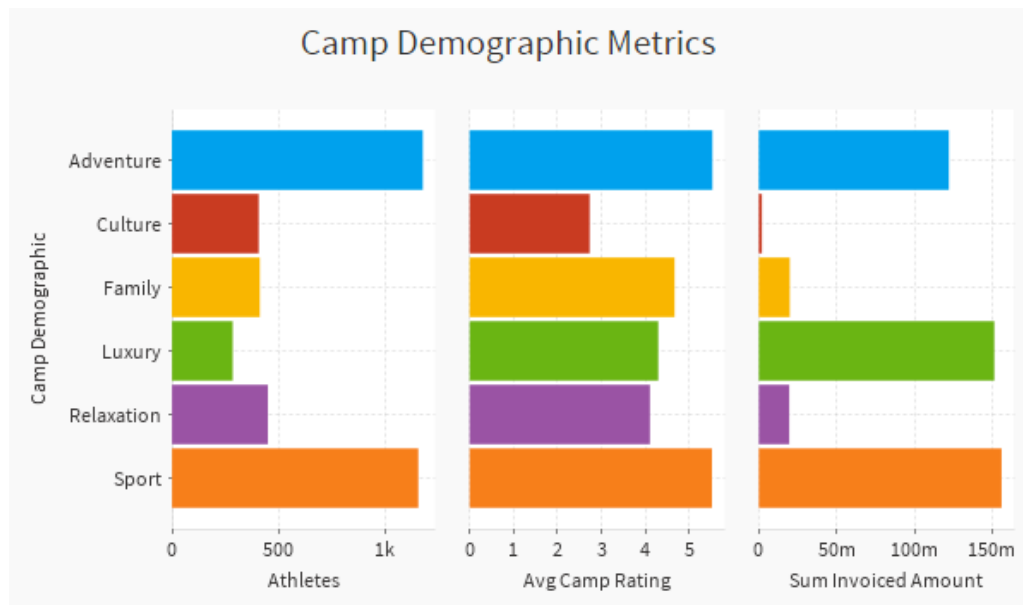
Report Widget

Report Widgets are used to include a chart, multi-chart, or tabular report results from Yellowfin on a dashboard. These results can be displayed on the dashboard, or hidden for use by other linked widgets. Linked widgets may include Filter, Tab, Modal Windows, and Custom HTML.

A report can be formatted in several ways – including as a chart, table, and map – or it can be hidden.
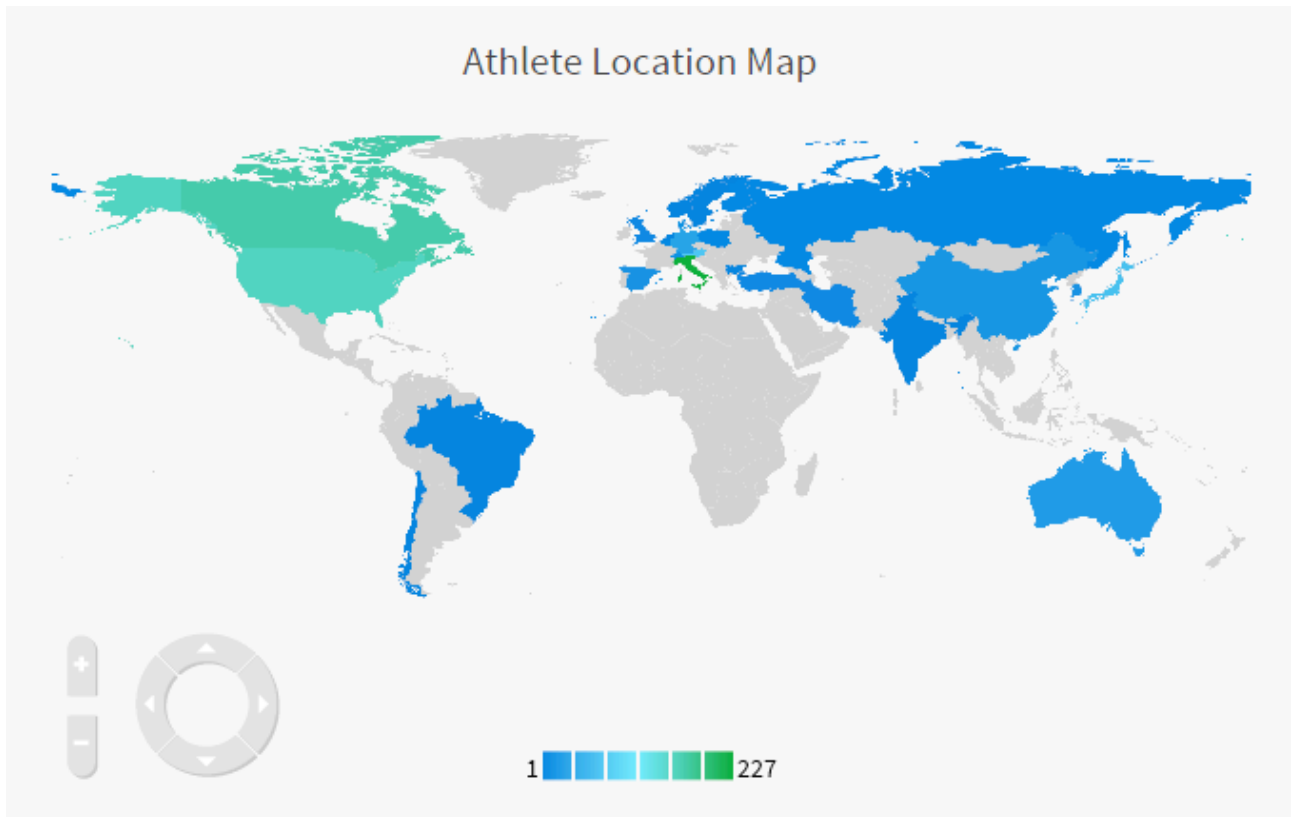
Chart

Table

Map

Modal Window Widget

Modal Window Widgets are used to display a child (pop up) window over a dashboard that displays content. A modal can be attached to a link or button on a report. The modal can be used in a 'Show All' capacity – displaying full report results in the pop up window rather than capped ones on the dashboard. Alternatively it can be used to create a drill through style relationship – displaying a child report.

Camp Rating List ✕

Camp Name	Start Date	End Date	Avg Rating	Athletes	Sales
Padola di Comelico	27/11/2015	09/12/2015	8.8	6	$63,240
Whistler BC	01/04/2012	11/04/2012	8.3	6	$77,466
Okemo	30/12/2013	13/01/2014	8.3	7	$59,892
Bork Bork Camp	19/01/2016	26/01/2016	8.0	7	$125,760
Kastelruth	28/01/2016	16/02/2016	8.0	8	$13,786,296
Keystone	26/12/2014	02/01/2015	8.0	7	$62,675
La Villa	21/12/2015	14/01/2016	8.0	6	$121,718
Mt Hood Meadows	06/02/2010	16/02/2010	7.8	6	$3,049,935
Alpe di Siusi	30/12/2012	16/01/2013	7.7	11	$90,613
Panorama	01/12/2011	29/12/2011	7.6	19	$147,030
Thunder Bay	05/01/2013	22/01/2013	7.6	13	$15,604,011
Bormio	06/01/2012	25/01/2012	7.5	6	$53,176
Mt Lacrosse	23/02/2013	16/03/2013	7.5	6	$36,733
Maso Corto	16/01/2014	04/02/2014	7.4	15	$22,253,283
Waterville Valley	27/12/2014	08/01/2015	7.3	6	$79,167
Breckenridge	20/03/2014	17/04/2014	7.3	20	$265,278
Sexten	28/11/2013	15/12/2013	7.3	7	$71,139
Mt St Anne	05/02/2014	26/02/2014	7.3	8	$77,944
Mt Tremblant	06/12/2012	23/12/2012	7.3	16	$133,535
Winter Valley	01/12/2015	25/12/2015	7.2	6	$26,150

Custom HTML Widget

Custom HTML Widgets act as containers which allow for the design of customised functionality defined by HTML5 and/or JavaScript. Report and filter data can be passed into this widget for use within that custom design.
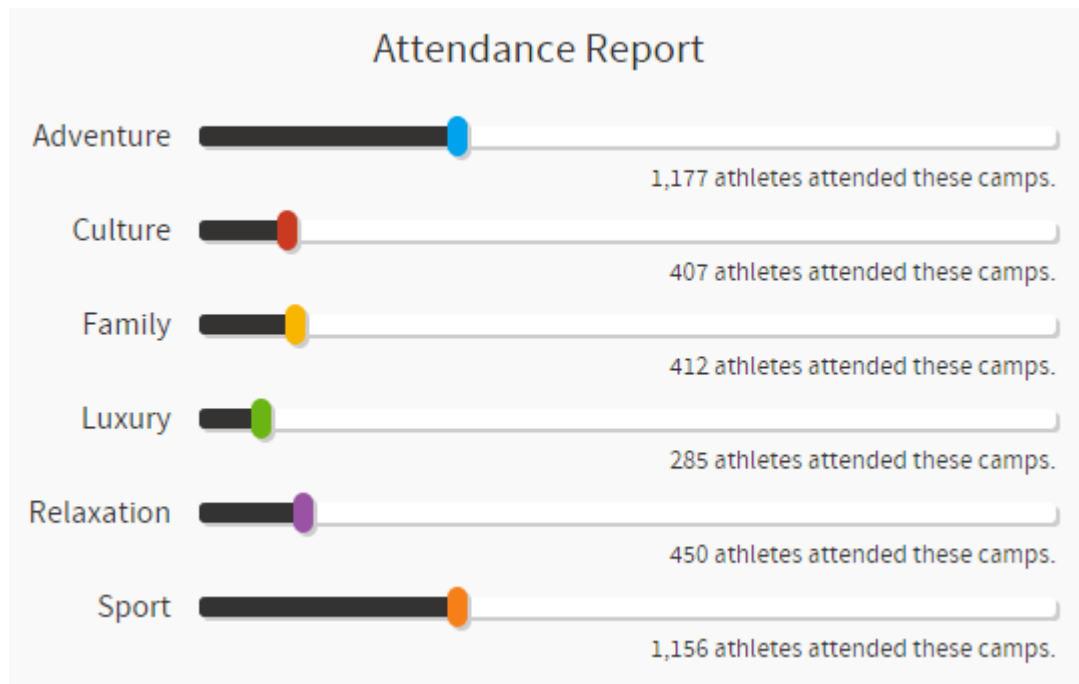
Embed your custom XML dashboard today

Yellowfin and DashXML makes it faster and easier for developers to create powerful reporting and analytics inside your application. Get started with DashXML today.

About Yellowfin

Yellowfin is a global Business Intelligence (BI) and analytics software vendor passionate about making BI easy. Founded in 2003 in response to the complexity and costs associated with implementing and using traditional BI tools, Yellowfin is a highly intuitive 100 percent Web-based reporting and analytics solution. Yellowfin is a leader in mobile, collaborative and embeddable BI as well as Location Intelligence and data visualization.

For more information, visit www.yellowfinbi.com