

# **Release Notes**

Yellowfin 7.3

November 2016

# **Highlights**

Set your data free with Yellowfin 7.3

Yellowfin 7.3 will assist data analysts to conduct faster data analysis and create more trustworthy, stunning Business Intelligence (BI) content in less time.

Yellowfin 7.3 introduced new technical capabilities in the following areas:

- A Data Preparation Module: Be empowered to integrate, and then act on, more data sources in less time with Yellowfin's built-in Data Preparation Module.
- **Set Analysis functionality:** Quickly create comparative visualizations in a few simple steps using Yellowfin's Set Analysis function.
- **New Content Creation Canvas:** Enjoy the flexibility and freedom to quickly create customized analytical content and infographics with Yellowfin's overhauled Content Creation Canvas. No coding required.
- **API connectors:** Keep connecting your people and your data with Yellowfin 7.3's new range of API connectors with pre-built dashboards for third-party Web applications. All connectors are available from the Yellowfin Marketplace.

Discover how we're adding data preparation, Set Analysis, new API connectors and charting features to substantiate Yellowfin's position as the broadest end-to-end modern BI and analytics platform on the market.

Yellowfin launches industry's first virtualized integrated Data Preparation Module

"With this release, Yellowfin has delivered another first for the BI and analytics software industry. Yellowfin's virtualized Data Preparation Module uniquely addresses the cost, complexity, security and inefficiency issues encountered by typical approaches to data preparation. No other vendor in the market is solving data preparation challenges in the same way as Yellowfin."

- Yellowfin Co-founder and CEO, Glen Rabie

"With 80 percent of data scientists' time spent on data preparation, Yellowfin's new module is a valuable addition that data professionals should investigate. The benefit is your data scientist spends less time on data preparation, or can delegate this task to a lesser specialized data analyst or business user. Either way this is a big step forward in advanced analytics methodology."

- Independent analyst and Founder of the Data Science Institute, Dr Kevin McIsaac

# **Data Preparation Module**

Yellowfin has launched the first ever integrated and virtualized Data Preparation Module for analytics, delivering guided processes for transforming data into consistent formats suitable for exploration, analysis and report building.

Fully integrated into the metadata layer of Yellowfin's BI platform (now termed data preparation layer), the new Data Preparation Module offers clients a unique method of integrating, managing and acting on more data in less time.

Yellowfin's Data Preparation Module will enable organizations to easily model, profile, clean, shape, enrich, secure and publish all data desired for reporting and analytics in a single BI environment. The Data Preparation Module will be included as part of a standard Yellowfin license at no additional cost.

"Yellowfin's Data Preparation Module truly supports the needs of data analysts, enterprise IT and business users. Data analysts can independently prepare data for analysis in less time, IT can easily govern that data, and business users have fast access to data they can trust in order to make critical business decisions."

- Yellowfin Co-founder and CEO, Glen Rabie

Yellowfin's Data Preparation Module has been designed to overcome common challenges encountered when preparing data for analytics in three ways, by:

- Integrating data preparation processes directly into a single analytics environment
- Offering comprehensive data profiling capabilities
- Providing automated best practice metadata modeling functionality

Forget the cost and complexity of preparing your data in one tool, and then connecting it to another to satisfy your BI needs. Experience how the broadest modern BI platform on the market can take you from data source to decision all in one integrated solution.

### A virtualized approach: Leveraging Yellowfin's metadata

By integrating Yellowfin's Data Preparation Module at the metadata level (Yellowfin View), Yellowfin will enable clients to maintain unparalleled consistency, governance and security across all data and BI content. Any data preparation actions performed will be uniformly reflected across all content based on that metadata layer throughout your organization – from reports and charts, to dashboards and Storyboards.



Traditional Data Preparation for Analytics



Yellowfin

Yellowfin's virtualized approach empowers data analysts to directly connect to, prepare and analyze all data sources for analytics in a single BI environment. This enables clients to avoid the problems associated with traditional approaches to data preparation, which force organizations to undertake data migration processes, that put data governance and security at risk.

Additionally, by delivering data preparation as well as reporting and analytics capabilities in a single application, Yellowfin enables organizations to avoid the cost, complexity and data provisioning bottlenecks of a multi-tool approach.

"Not only does Yellowfin's integrated Data Preparation Module empower data analysts to deliver more analytics-ready data sources to the business in less time, it avoids the propensity for standalone 'self-service' data preparation tools to create untrustworthy and unsecure islands of disparate data. Yellowfin avoids the chaos of traditional data preparation by delivering a single source of truth for all enterprise data."

- Yellowfin Product Marketing Manager, Ivan Seow

Yellowfin's new Data Preparation Module empowers IT to maintain data governance, data analysts to build better reports and produce deeper insights faster, and business users to trust the validity of the data and accuracy of their decision-making.

View Builder: User Interface improvements

Enhancements to the View Builder deliver a faster, smoother experience, enabling users to do more with fewer clicks.

**Remodeled menu bar and new pop-out panel:** A remodeled menu bar and new pop-out panel enable you to swiftly change all Field Settings with a few clicks, and easily add table fields to any folder using drag-and-drop functionality.

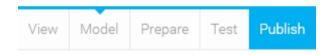
**New toggle feature:** A new toggle feature allows users to seamlessly switch between business descriptions and native database table or column names, making it easy to track data back to the specific database table and schema from which it came.



View Builder: New workflow

As part of the introduction of Yellowfin's Data Preparation Module, and re-engineering of Yellowfin's metadata layer as the data preparation layer, a new workflow has been introduced to the View Builder.

The three steps within the top navigation menu in the View Builder have been renamed, updated and expanded to four steps. From left to right, the 'Entity' step is now called 'Model', 'Fields' has been renamed and updated to the 'Prepare' step, a new 'Test' step has been introduced, and the 'Summary' step is now called 'Publish'.



**Model:** Directly connect to and model any of your data sources held within your analytics platform. Choose the attributes you want to make available to end-users for analysis. Apply any conditions to tables to ensure only relevant data is returned.

**Prepare:** Yellowfin's data profiling capabilities have been integrated into the new Prepare step of the View Builder. Confirm that the data being presented to users for analysis is complete, consistent and correct with data profiling and data preview capabilities.

**Test**: The new Test step enables users to create a test report, which they preview to determine whether they have performed the desired data transformations during the previous 'Prepare' step, before moving on to publish a new data source for reporting.

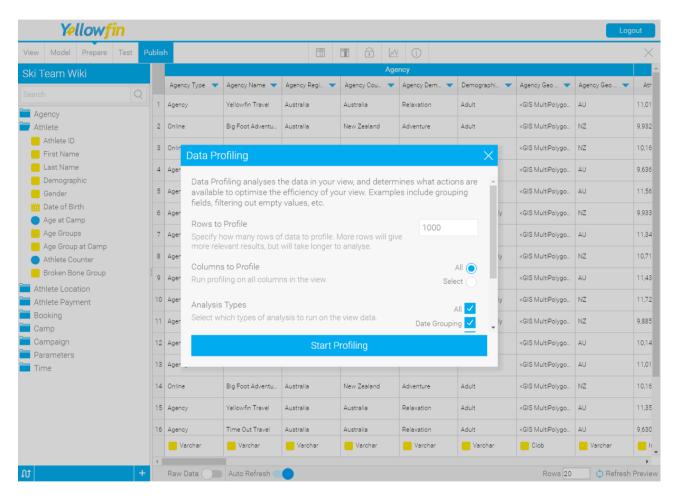
**Publish:** Provide secure access to your clean, prepared and consistent data for analytics with a single click. Give analysts across your organization uniform access to a single source of truth for all data via a governed data preparation layer.

### Data profiling

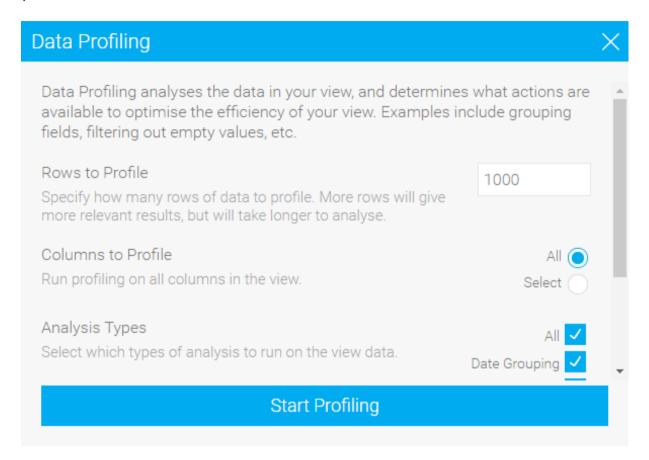
The new data profiling function analyzes the data in your Yellowfin View – providing a dynamic list of suggested actions based on selected records – to enable best practice metadata modeling. This new functionality empowers data analysts to complete better, faster data preparation for their analytics initiatives, and thereby deliver more trustworthy and insightful reports to business users in less time.

Efficiently clean, shape, format and enrich your data with Yellowfin's data profiling functionality.

**Data Preview Panel:** A new Data Preview Panel has been introduced to the View Builder, with the new data profiling icon sitting within the top menu.



**Data Profiling Pop-up:** Clicking the data profiling icon opens a pop-up window, allowing you to easily profile the entire data set at once, or selected rows and columns, for the types of analysis you want to run on the data set.

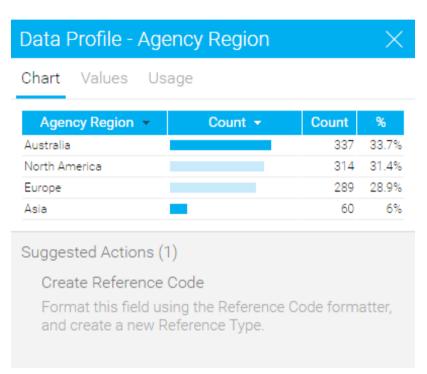


**Automatic binning:** After profiling selected data within your data set, Yellowfin automatically bins the data for each column to support fast information absorption. Immediately visualize the shape of your data, depicted as a thumbnail style chart above each column, to quickly understand the number and distribution of data profiled within each column. Effortlessly confirm whether data being presented to users for analysis is complete, consistent and accurate.

	Agency						
	Agency Type 🔻	Agency Name 🔻	Agency Regi 🔻	Agency Cou	Agency Dem	Demographi 🔻	Agency Geo 🔻
		النامالييناما		11	I		11
1	Agency	Yellowfin Travel	Australia	Australia	Relaxation	Adult	AU
2	Online	Big Foot Adventu	Australia	New Zealand	Adventure	Adult	NZ
3	Online	Big Foot Adventu	Australia	New Zealand	Adventure	Adult	NZ
4	Agency	Time Out Travel	Australia	Australia	Relaxation	Adult	AU
5	Agency	Yellowfin Travel	Australia	Australia	Relaxation	Adult	AU

### Best practice metadata modeling

The new Data Profile Panel, which is activated by clicking on the binned data at the top of each column (thumbnail chart), displays four types of information. A Chart Tab visually reflects the number and distribution of records profiled, a Values Tab provides statistics on the values within each column (such as minimum, maximum, median, average, empty and distinct values or outliers), a Usage Tab displays field usage statistics (indicates whether the field is referenced by calculated fields or added to reports) and a Suggested Actions section dynamically proposes best practice metadata modeling solutions based on the specific data profiled within each column (see below screenshot).



Types of transformations available include the ability to perform numeric and date grouping; apply filters, formatting, Case Statements and Calculated Fields; append, standardize or remove incomplete or inaccurate values; translate values held in the data source into business-friendly terminology (Reference Codes); and assess a data set for attributes (such as zip or post code data) that would enable users to enrich data by adding a <u>Yellowfin GeoPack</u>.

Be empowered to perform repeatable data preparation processes – and deliver more trustworthy and insightful reports throughout the business in less time – with Yellowfin's best practice metadata modeling.

### Advanced data visualization

Yellowfin 7.3 encompasses a number of extra enhancements and additions to Yellowfin's charting capabilities, allowing data analysts to create more insightful visualizations. Answer complex business questions faster – by building more sophisticated, insightful charts in less time – with a range of new advanced charting features.

#### Set Analysis

Yellowfin 7.3 makes it fast and easy to perform comparative analysis, within the Chart Builder, without the need for deep technical skills and Sub Queries. Quickly create comparative visualizations in a few simple steps using Yellowfin's Set Analysis function.

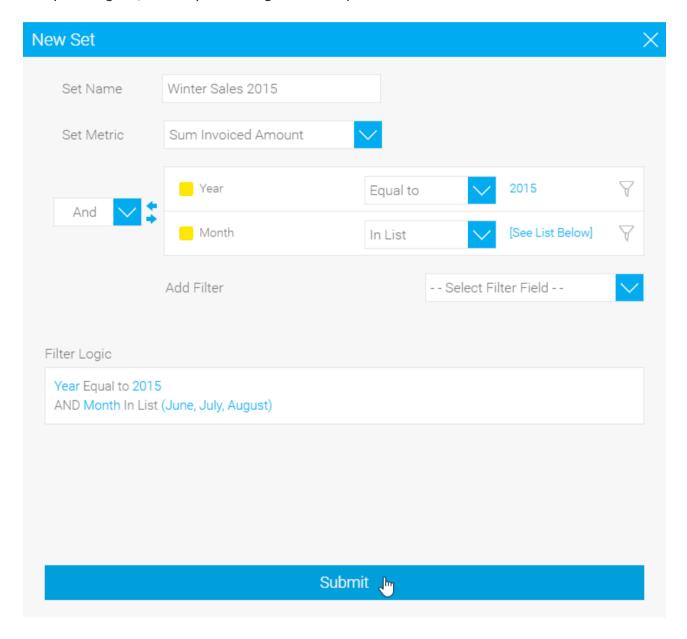


Easily define and compare a subset of data values within a selected data set using intuitive pointand-click navigation: Filter a metric by one or more fields (dimensions) on a chart, independently of the report as a whole.

Conducting this type of comparative analysis at the chart level empowers data analysts to answer complex business questions faster, without having to use time-consuming and complex Sub Queries.

**Report Fields Panel:** Set Analysis appears as a new function, available within the Functions section of the Report Fields Panel on the left hand side of the Chart Builder.

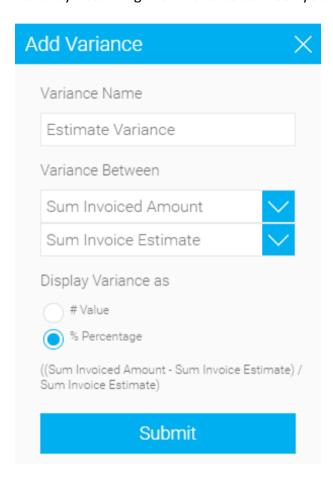
**New Set Pop-up:** Selecting the Set Analysis function activates the New Set Pop-up window. Drop-down filters allow you to set the metric you wish to filter, choose the fields by which you want to filter that metric, define the value of those fields, and then name the new set you have created. The filter logic selected is displayed in easy-to-understand business terms in a text box at the bottom of the New Set Pop-up. Clicking 'submit' automatically conducts the type of Set Analysis designed, instantly visualizing a new comparative chart.



#### Variance

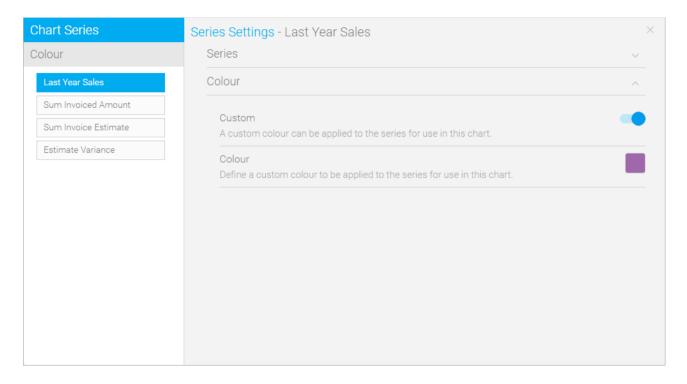
The Variance function is a new easy-to-create Calculated Field within the Chart Builder, which complements Yellowfin's new Set Analysis capabilities. Instantly calculate the difference between selected metrics, without having to use a Calculated Field. Visualize the results as either values or percentages on the chart.

**Add Variance Pop-up:** Selecting the Variance function from the Report Fields Panel activates the new Add Variance Pop-up window. Drop-down filters allow you to select the metrics you wish to compare, name the new Variance created, and select whether to display the Variance output as values or percentages on the chart. Clicking 'submit' automatically performs the calculation, instantly visualizing the difference between your selected metrics on the chart.



### Custom colors for any metric

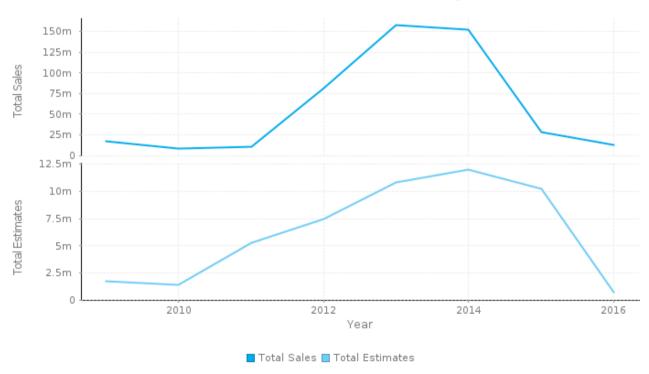
Improved color settings allow you to apply custom colors to any metric on a chart, including color coding the filtered set of metrics in your Set Analysis.



# Dynamic chart titles

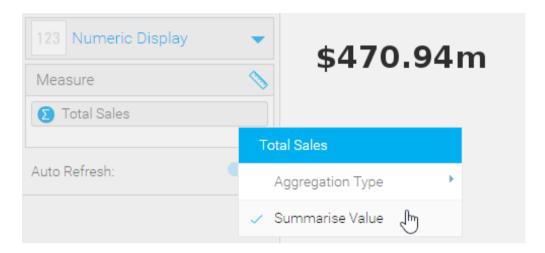
Yellowfin's Chart Builder now automatically generates suggested chart titles based on the selected chart fields.





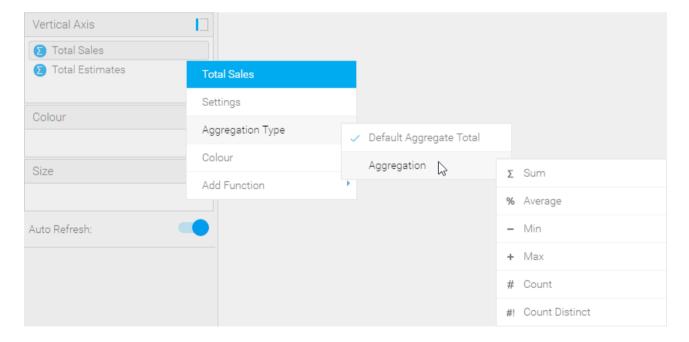
# Formatting for Big Number Charts

Easily customize how figures in Big Number Charts are displayed with new in-chart formatting options (eg: Denoting 'millions' with 'M' instead of six '0s').



# Chart-level aggregations

Chart-level aggregations enable you to re-aggregate data within the Chart Builder – that was originally aggregated at the report building stage – to allow metrics to have a chart-specific aggregation.

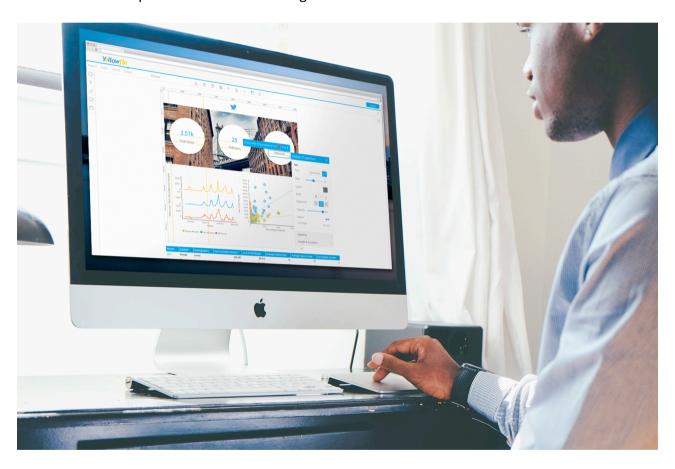


# **Content Creation Canvas**

Enjoy greater flexibility and freedom to quickly create customized analytical content with Yellowfin's overhauled Content Creation Canvas.

Yellowfin 7 delivered the first Content Creation Canvas, as part of Yellowfin's redesigned Report Builder, in 2013. The canvas enabled you to drag-and-drop multiple charts, text, images and other widgets onto a single space to create multi-chart reports – a dashboard type experience for data consumers.

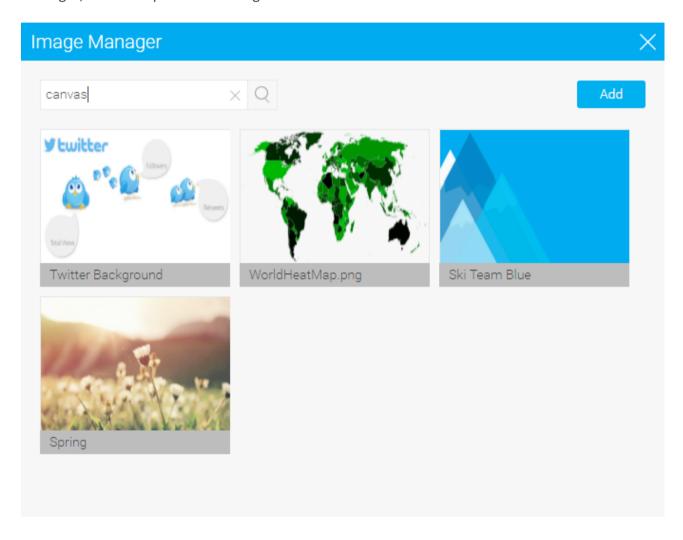
Now, in Yellowfin 7.3, the entire Content Creation Canvas has been updated, making it simpler and easier to build and format content. Slick new features, along with a redesigned look and feel, provide the power and freedom to swiftly design beautiful, purpose-built analytical content and stunning infographics. Meet your organization's customized content needs, exceed expectations and drive user adoption – all without writing one line of code.



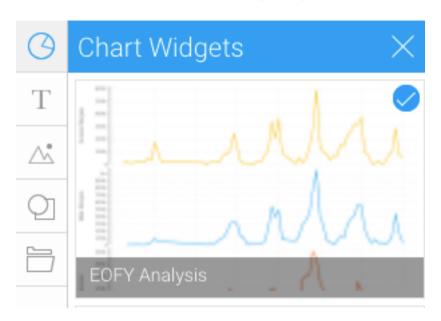
### Redesigned User Interface

The new User Interface (UI) that accompanies the overhauled Content Creation Canvas delivers a fresh look and feel, making it simpler and easier to create and format content.

**New Image Manager:** The new Image Manager has been re-made from the ground-up, delivering a smoother user experience. Users can now crop and search for images within the Image Manager, as well as perform existing functions with fewer clicks.



**New Menu Panel:** The new Menu Panel, appearing on the left hand side of the Content Creation Canvas, provides quick access to a huge range of new objects and widgets.



# New objects and widgets

A large range of new objects – such as shapes, lines, text options and chart widgets – deliver the design elements needed for building compelling custom content. Think of the canvas as a freeform content builder – you can add shapes, text, images and visualizations. Easily combine and manipulate all these elements into any design that you desire.

#### Contextual Menus

Each widget dragged onto the canvas now has its own pop-out menu, delivering improved formatting options and superior control with fine-grained design choices. Editing and formatting options provided – from changing font, size, color, text alignment, image ratio, opacity and rotating or moving objects – change depending on the type of widget selected.

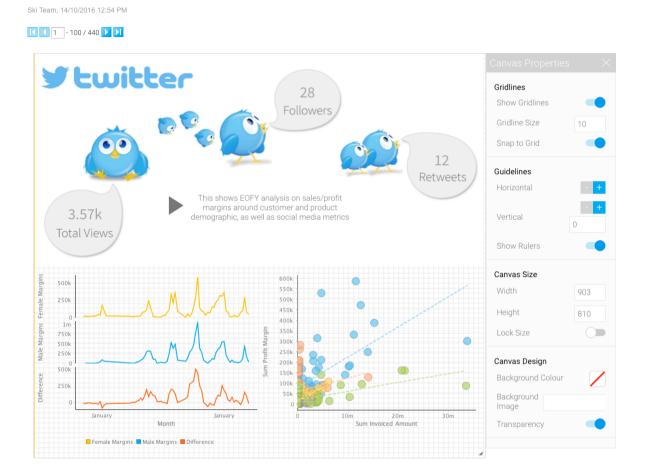


### **Pixel Perfect Charting**

Easily alter the width, height and positioning of any object on the Content Creation Canvas by individual pixels with new Pixel Perfect Charting. Superior control means you don't have to compromise on your customized content vision. Produce high quality visualizations that truly engage the specific needs of your users.

# Canvas Properties Menu

The new Canvas Properties Menu also enables you to change the grid size by individual pixels. This menu includes a range of familiar and new canvas options, such as auto-grow, 'snap-to-grid' functionality, rulers, size locking, layer ordering and more.



# **Connectors**

Connecting to your favorite Web applications is now even easier, with a new range of API connectors and pre-built dashboards delivered as part of Yellowfin 7.3.

New connectors are included for Salesforce, Zendesk, Xero, Facebook, Expensify, MailChimp, XE (Standard & Medium Edition), RingCentral, SurveyMonkey and World Weather Online. New and improved versions of the Twitter and Google Analytics connectors have also been launched.

Be empowered to create, share and act on analytical insights from your most important third-party Web applications. For details on each connector, please visit the <u>Yellowfin Marketplace</u>.



# **Enhancements and improvements**

### An overview

The below table contains a complete overview of all product enhancements and additions included in Yellowfin 7.3:

Data Preparation Module	
Overview  Overview	Yellowfin has launched the first ever integrated and virtualized Data Preparation Module for analytics, delivering guided processes for transforming data into consistent formats suitable for exploration, analysis and report building.  Fully integrated into the metadata layer of Yellowfin's BI platform (now termed data preparation layer), the new Data Preparation Module offers clients a unique method of integrating, managing and acting on more data in less time.  Yellowfin's Data Preparation Module will enable organizations to easily model, profile, clean, shape, enrich, secure and publish all data desired for reporting and analytics in a single BI environment. The Data Preparation Module will be included as part of a standard Yellowfin license at no additional cost.  By integrating Yellowfin's Data Preparation Module at the metadata level (Yellowfin View), Yellowfin will enable clients to maintain unparalleled consistency, governance and security across all data and BI content. Any data preparation actions performed will be uniformly reflected across all content based on that metadata layer throughout the organization – from reports and charts, to dashboards and Storyboards.
Virtualized approach	Yellowfin's virtualized approach empowers data analysts to directly connect to, prepare and analyze all data sources for analytics in a single BI environment. This enables clients to avoid the problems associated with traditional approaches to data preparation, which force organizations to undertake data migration processes, that put data governance and security at risk.
Single application	By delivering data preparation as well as reporting and analytics capabilities in a single application, Yellowfin enables organizations to avoid the cost, complexity and data provisioning bottlenecks of a multi-tool approach.
Data profiling (Yellowfin View)	
Overview	The new data profiling function analyzes the data in your Yellowfin View – providing a dynamic list of

	suggested actions based on selected records – to enable best practice metadata modeling. This new functionality empowers data analysts to complete better, faster data preparation for their analytics initiatives, and thereby deliver more trustworthy and insightful reports to business users in less time.  Efficiently clean, shape, format and enrich your data with Yellowfin's data profiling functionality.
View Builder UI improvements	A remodeled menu bar and new pop-out panel enable you to swiftly change all Field Settings with a few clicks, and easily add table fields to any folder using drag-and-drop functionality. All of the format settings for View fields have been consolidated within the top View Builder menu.
View Builder toggle	A new toggle feature allows users to seamlessly switch between business descriptions and native database table or column names, making it easy to track data back to the specific database table and schema from which it came.
New View Builder Workflow	As part of Yellowfin's new Data Preparation Module, and re-engineering of Yellowfin's metadata layer as the data preparation layer, a new workflow has been introduced to the View Builder.  The three steps within the top navigation menu in the View Builder have been renamed, updated and expanded to four steps. From left to right, the 'Entity' step is now called 'Model', 'Fields' has been renamed and updated to the 'Prepare' step, a new 'Test' step has been introduced, and the 'Summary' step is now called 'Publish'.  Yellowfin's data profiling capabilities have been integrated into the new Prepare step of the View Builder. Yellowfin's data profiling and data preview features enable data analysts to confirm that the data being presented to users for analysis is complete, consistent and correct.  The new Test step enables users to create a test report — which they preview to determine whether they have performed the desired data transformations during the previous Prepare step — before moving on to publish a new data source for reporting.
Data Preview Panel	A new Data Preview Panel has been introduced to the View Builder, with the new data profiling icon sitting within the top menu. The data preview addition shows users the data in their View as they are building it.

Clicking the data profiling icon opens a pop-up window, allowing you to easily profile the entire data set at once, or selected rows and columns, for the types of analysis you want to run on the data set.  Automatic binning  After profiling selected data within your data set, Yellowfin automatically bins the data for each column to support fast information absorption. Immediately visualize the shape of your data (field histograms), depicted as a thumbnail style chart above each column, to quickly understand the number and distribution of data profiled within each column.  Data Profile Panel  The new Data Profile Panel, which is activated by clicking on the binned data at the top of each column (thumbnail chart), displays four types of information. A Chart Tab visually reflects the number and distribution of records profiled, a Values Tab provides statistics on the values within each column (such as minimum, maximum, median, average, empty and distinct values or outliers), a Usage Tab displays field usage statistics (indicates whether the field is referenced by Calculated Fields or added to reports) and a Suggested Actions section.  Best practice metadata modeling  The Suggested Actions section of the Data Profile Panel dynamically proposes best practice metadata modeling solutions based on the specific data profiled within that column.  Types of transformations available include the ability to perform numeric and date grouping; apply filters, formatting, Case Statements and Calculated Fields; append, standardize or remove incomplete or inaccurate values; translate values held in the data source into business-friendly terminology (Reference Codes); and assess a data set for attributes (such as zip or post code data) that would enable users to enrich data by adding a Yellowfin GeoPack.  Be empowered to perform repeatable data preparation processes – and deliver more trustworthy and insightful reports throughout the business in less time – with Yellowfin's best practice metadata modeling.  Now, when users select t		
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Cloned View usage statistics When users clone a View, usages statistics are now		Model step in the View Builder (formerly the Entity Page), they are automatically selected when progressing to the second Prepare step in the View Builder process
	Cloned View usage statistics	When users clone a View, usages statistics are now

	displayed for the fields within the original View that was cloned via the Model Page (formerly the Entity Page).  These usage statistics enable users to clearly see, at a glance, how many reports are based upon certain fields within that View. This enhancement allows users to confidentially make changes without accidentally altering live reports.
View folders	Views are now saved into folders and sub folders, instead of View categories. This new system of organization is now consistent with the folder structure used to save and organize reports and dashboards throughout Yellowfin.
Add New folders pop-up	This new pop-up allows users to quickly and easily create or add new folders to organize fields for the View on which they're working.
View Summary Pop-up	The new View Summary Pop-up delivers users (not just system administrators) important information about the View, including the columns and tables being used and the security settings applied.
Resize Field List	Users now have the flexibility to resize the View Field List by dragging their mouse.
Edit field name	Users can now quickly edit field names within the Field List by right clicking or double clicking on a field. Previously, users had to navigate to the Field Settings to change and then save the field name.
Drag to change and reorder fields and folders in Field List	Users can now drag-and-drop fields in the Field List, using their mouse to reorder or place fields in different folders.  Additionally, users can also use the same drag-and-drop functionality to reorder folders.
Field Edit Indicator	A new Field Edit Indicator highlights whichever field is being edited, in order to make field formatting quicker and easier.
Predefined Filter Group set-up improvements	New functionality within the View enables users to set- up complex filter sets via the same UI used to set-up filter logic in the report builder.  Users can set-up complex logic between filters, use a mixture of user prompt and non-user-prompt filters, as well as apply more formatting options.
Field Context Menu	Yellowfin 7.3 has added, consolidated and improved a number of functional options within the Field Context

	Menu, including the ability to edit a Calculated Field, copy an existing field, delete fields, access and edit format settings, set the default aggregation for a field, set-up a drill-down field hierarchy, transform fields (open up the converters pop-up) and allow converters to be used on OLAP Views (Views based on an OLAP cube).
Field name description enhancements	Yellowfin now makes it easier to track specific fields back to their origins by displaying the original schema table or column names in the Field Settings Menu.
Auto-active View fields	As soon as users drag a field into the View, that field will now automatically become active. Removing draft mode as an option will ensure users do not accidentally attempt to create reports based on inactive fields in the View.
Access Filter integration	Users are now able to do more with fewer clicks by creating new Access Filters from the Field Settings Menu.
Auto-enable Calculated Fields	The ability to allow fields to be used in Calculated Fields is now enabled (turned 'on') by default.
Reference Code Manager updates	Yellowfin 7.3 has added a number of updates to the Reference Code Manager, including:  Reference Code pop-up: A new pop-up for creating and editing Reference Codes. New functionality includes the ability to upload values from a CSV file.  Delete Reference Codes: The above mentioned pop-up also allows users to delete Reference Codes, in addition to being able to delete Reference Codes from the Admin Console.  Schedule refresh (custom query): The ability to set-up a scheduled sync to retrieve fresh values from the database.  Trim Reference Code function: The option to trim the white space from the start and end of values when editing Reference Codes. Users will find this advantageous because they will no longer have to spend time tediously matching white space in their database with white space in their Reference Codes.
Show Duplicates Flag	Before Yellowfin 7.3, users could choose whether to display duplicate rows within the Report Builder. The Show Duplicates Flag introduces that functionality at the View level via View Settings. Users can either choose to display duplicate rows and have them flagged, or

	select to have them automatically removed. Either way, all reports created from that View will automatically inherit those settings.
Visualizations and charts	
Set Analysis	Yellowfin 7.3 makes it fast and easy to perform comparative analysis, within the Chart Builder, without the need for deep technical skills and Sub Queries. Quickly create comparative visualizations in a few simple steps using Yellowfin's Set Analysis function.  Easily define and compare a subset of data values within a selected data set using intuitive point-and-click navigation: Filter a metric by one or more fields (dimensions) on a chart, independently of the report as a whole.
Variance	The Variance function is a new easy-to-create Calculated Field within the Chart Builder, which complements Yellowfin's new Set Analysis capabilities. Instantly calculate the difference between selected metrics, without having to use a Calculated Field. Visualize the results as either values or percentages on the chart.
Color based on Variance	The Variance function field also includes the same color settings already available on standard metric fields within the same chart. That is, users now have the ability to apply color by Variance (the difference between two values). The intensity of the color is based on the Variance itself – the difference between the two values being compared. Users can set color scaling (eg: whether a low Variance will be represented by a light or dark shade, and vice versa).
Custom colors for any metric	Improved color settings allow you to apply custom colors to any metric on a chart, including color coding the filtered set of metrics in your Set Analysis.
Dynamic chart titles	Yellowfin's Chart Builder now automatically generates suggested chart titles based on the selected chart fields (three maximum).
Formatting for Big Number Charts	Easily customize how figures in Big Number Charts are displayed with new in-chart formatting options (eg: Denoting 'millions' with 'M' instead of six '0s').
Chart-level aggregation	Chart-level aggregations enable you to re-aggregate data within the Chart Builder – that was originally aggregated at the report building stage – to allow metrics to have a chart-specific aggregation.
Improved binning algorithm for histogram charts	The revamped binning algorithm for histogram charts automatically places data into more logical, consistent

	graves for once consumeration
	groups for easy consumption.
	Data is now distributed across user-friendly rounded groups (such as $10,000-15,000$ ), making the data more relatable and the chart axis more readable.
Bar highlighting	The ability to select a (one) dimension on a chart and highlight it with a color of your choice.
Smart Axis	Automatically ensures that, when visualizing a data source that contains only integers (whole numbers), the axis on a chart will not display decimals.
Chart Builder copy function	The new copy function allows users to copy an existing chart within the Chart Builder, and then modify that duplicate chart as needed, instead of having to build another from scratch.
Auto-fit bubbles for scatter plots	The axis on a scatter chart will now automatically extend into positive territory, adjusting for the data set being plotted, to ensure that bubbles are not cut-off along the X or Y axis. Users also have the option to manually extend the X and Y axis into negative territory to adjust for a data set.
New Content Creation Canvas	
Overview	The entire Content Creation Canvas has been updated, making it simpler and easier to build and format content. Slick new features, along with a redesigned look and feel, provide the power and freedom to swiftly design beautiful, purpose-built analytical content and stunning infographics. Meet your organization's customized content needs, exceed expectations and drive user adoption – all without writing one line of code.
	Enjoy greater flexibility and freedom to quickly create customized analytical content with Yellowfin's overhauled Content Creation Canvas.
New Image Manager	The new Image Manager has been re-made from the ground-up, delivering a smoother user experience.  Users can now crop and search for (text based) images within the Image Manage, as well as perform existing functions with fewer clicks.
Image uploader	Users can upload their own selection of images (jpg and png) of any size.
Updated Side Menu Panel	The updated Side Menu Panel, appearing on the left hand side of the Content Creation Canvas, provides quick access to a huge range of new objects, including

	The shape sub menu now also contains the line, shape and new icon sub menus.
New objects and widgets	A large range of new objects – such as shapes, lines, text options and chart widgets – deliver the design elements needed for building compelling custom content. Think of the canvas as a freeform content builder – you can add text, shapes, images and visualizations. Easily combine and manipulate all these elements into any design that you desire.
New icons	Yellowfin now provides hundreds of out-of-the-box icons within the new Content Creation Canvas, delivering more design options and greater design flexibility.  Icons can be found in the new icon sub menu, contained within the shape sub menu.
Contextual Menus	Each widget dragged onto the canvas now has its own pop-out menu, delivering improved formatting options and superior control with fine-grained design choices. Editing and formatting options provided – from changing font, size, color, text alignment, image aspect ratio, line thickness, opacity and rotating or moving objects – change depending on the type of widget selected.
Properties Menu	The Properties Menu is the new mini blue menu, appearing at the top of each object within the canvas. This mini menu complements the Contextual Menus for each object, offering short cuts to edit key widget properties.
Pixel Perfect Charting	Easily alter the width, height and positioning of any object on the Content Creation Canvas by individual pixels with new Pixel Perfect Charting. Superior control means you don't have to compromise on your customized content vision. Produce high quality visualizations that truly engage the specific needs of your users.
Canvas Properties Menu	The new Canvas Properties Menu also enables you to change the grid size by individual pixels. This menu, appearing on the right hand side of the canvas, includes a range of familiar and new canvas options that enable users to alter elements of the canvas itself. Options include auto-grow, 'snap-to-grid' functionality, rulers, size locking, layer ordering and more.
Multi-select canvas objects	The new multi-select option allows users to select and then reposition multiple canvas objects simultaneously.

Auto Save	Yellowfin's new Auto Save feature safeguards your work by automatically resaving it whenever you make adjustments to any objects within the canvas or the canvas itself.
Canvas background settings	Users now have the ability to change the background color of their canvas via the Output Page.
Canvas preview button	The new preview button gives users the flexibility to see what their content will look like prior to actually activating it.
Automatic canvas activation	Previously, when users navigated to the Output Page, they had to hover over the canvas and click 'edit' to begin content creation. Now, edit mode is automatically activated when entering the Output Page, offering a smoother and faster user experience.
Rulers	Rulers have been added to the canvas frame, at 100 pixel intervals, making it faster and easier to create more accurate content.
Guidelines	Users now have the option to add guidelines to the canvas to assist with the detailed positioning of objects.
Gridlines on / off	Users can now choose to turn gridlines 'on' or 'off' at their discretion.
Snap-to-grid on / off	Not only can users activate 'snap-to-grid' mode, which means objects automatically align with pixels on the canvas, they can also activate and deactivate that functionality at any time.
Arrow button controls	Use arrow keys on keyboard to move any selected objects on the canvas pixel-by-pixel.
Canvas auto resize	Not only can the whole canvas be resized, the canvas will automatically resize to accommodate any objects dragged outside the parameters of the existing canvas.
Auto Boundary Indicator	Boundary indicators automatically appear when resizing the canvas, informing the user when the width of a dashboard, or width and height of a Storyboard, has been reached. This empowers users to quickly and easily resize content for seamless publication throughout the enterprise.
Edit chart from canvas	Users can easily edit an individual chart from within the Content Creation Canvas. Clicking 'edit' on a selected chart in the canvas will now instantly divert a user to the

	active version of that chart within the Chart Builder.
New Color Picker	Yellowfin's Color Picker has been introduced to the Content Creation Canvas, giving users complete choice over colors applied. Users can even enter in hex codes (HTML color codes) to ensure exact color selection.
Vector shapes	The overhauled Content Creation Canvas introduces Scalable Vector Graphics (SVGs). SVGs can be scaled to any desired sized without the image becoming pixelated. Users can upload their own range of SVGs.
Default text styles	The revamped Content Creation Canvas offers users a range of new out-of-the-box text styles and heading hierarchies.
Connectors	
Overview	Connecting to your favorite Web applications is now even easier, with a new range of API connectors and pre-built dashboards delivered as part of Yellowfin 7.3.  New connectors are included for Salesforce, Zendesk, Xero, Facebook, Expensify, MailChimp, XE (Standard & Medium Edition), RingCentral, SurveyMonkey and World Weather Online. New and improved versions of the Twitter and Google Analytics connectors have also been launched.  Be empowered to create, share and act on analytical insights from your most important third-party Web applications. For details on each connector, please visit the Yellowfin Marketplace.
Salesforce	Yellowfin's Salesforce Connector allows you to connect to your organization's Salesforce data and visualize statistics about leads, opportunities and other objects available to your account.
Zendesk	Instantly connect to your Zendesk account and visualize statistics regarding your support tickets. Analyze team and individual performance across a range of areas, including ticket statuses, satisfaction rates, reply times and resolution times.
Xero	Analyze your financial data with ease using Yellowfin's Xero Connector. Gain insightful access to your Xero data, enabling you to analyze invoices, payments and other elements of your account.
Facebook	Use Yellowfin's Facebook Connector to analyze your Facebook Pages and assess data about your reach and engagement. Get detailed statistics regarding your fans' demographics and location, as well as understand

	when your pages are viewed most.
Expensify	Analyzing your expenses and tracking reimbursements is critical for budgeting and identifying bottlenecks. Yellowfin's Expensify Connector provides insightful access to your Expensify data, giving you the ability to visualize your expenses, reimbursements and financial reports.
MailChimp	Yellowfin's MailChimp Connector allows you to analyze data from your MailChimp account. Assess the effectiveness of your email campaigns in the short and long-term, as well as the engagement patterns and demographics of your subscribers.
XE (Standard & Medium Edition)	Yellowfin's XE Connector enables you to report on daily and live exchange rates. Quickly and seamlessly share the latest currency data with your colleagues. Instantly view data on the top nine traded currencies worldwide, and calculate any value in your selected base currency.
RingCentral	Easily analyze your operational phone system data with Yellowfin's RingCentral Connector. Acquire the insight needed to successfully manage team and individual performance across inbound and outbound calls. Discover a new way of looking at your phone system data and ensure the highest level of customer success.
SurveyMonkey	Yellowfin's SurveyMonkey Connector allows you to effortlessly visualize your survey data. Quickly identify patterns and trends in survey responses in order to formulate the most appropriate plan of action.
World Weather Online	Analyze and share insights about historical, current and forecast weather conditions in different regions with Yellowfin's World Weather Online Connector. The connector is also bundled with pre-built content to give you an immediate understanding of temperature, humidity and rainfall in selected locations.
Twitter	Plug your Twitter data into Yellowfin with our Twitter Connector to understand trends and impacts related to your activities, interactions and followers. Visualize and assess the impact of your Twitter strategy by tracking your notifications and mentions, including tweets, retweets and likes. Even monitor new followers and un-follows over time.
Google Analytics	The Google Analytics Connector helps you analyze and share insights about your website traffic. Gain immediate understanding of who visits your website, which pages they visit, and how they found you in the first place. Give your entire organization better

	visibility into one of your most important assets.
User Interface	
Report Fields Panel in Chart Builder	Set Analysis and Variance appear as new functions, available within the Functions section of the Report Fields Panel on the left hand side of the Chart Builder.
New Set Pop-up in Chart Builder	Selecting the Set Analysis function from the Report Fields Panel activates the New Set Pop-up window. Drop-down filters allow you to set the metric you wish to filter, choose the fields by which you want to filter that metric, define the value of those fields, and then name the new set you have created. The filter logic selected is displayed in easy-to-understand business terms in a text box at the bottom of the New Set Pop-up. Clicking 'submit' automatically conducts the type of Set Analysis designed, instantly visualizing a new comparative chart.
Add Variance Pop-up in Chart Builder	Selecting the Variance function from the Report Fields Panel activates the new Add Variance Pop-up window. Drop-down filters allow you to select the metrics you wish to compare, name the new Variance created, and select whether to display the Variance output as values or percentages on the chart. Clicking 'submit' automatically performs the calculation, instantly visualizing the difference between your selected metrics on the chart.
View Settings tab	This UI change means that the View Settings tabs is now accessed via the menu at the top of the View Builder Page, making navigation more consistent with the Report Builder Page.
Menu on Model Page	The top menu on the Model Page (formerly the Entity Page) of the View Builder has been restyled to make it consistent throughout other pages within the Yellowfin application.
View security	This UI change means that View security settings are now accessed via the menu at the top of the View Builder Page, making navigation more consistent with the Report Builder Page.
View caching options	Essentially the same as the View security UI changes described above, the View caching options have been moved from the View Summary Page and are now consolidated within the same top menu panel of the View Builder Page.
Save View pop-up	The new Save View Pop-up is a UI change – which makes the View consistent with the Save Report Pop-up in the Report Builder – that promotes more intuitive user

	navigation.
View Edit Page restyle	The View Edit Page has been restyled to produce a smoother user experience.
Group Fields Pop-up	The new Group Fields Pop-up is a UI change that delivers a new method for creating grouped columns. This new data grouping functionality offers users the ability to auto-group fields to ensure their logical categorization and thereby improve information absorption.