

EMEA DevXchange 2017

Hands-On Lab: Customize Dashboards for an Enhanced Network Management Experience with the CA Performance Management

Francois Cattoen, Sr. Principal Product Manager

10 May 2017



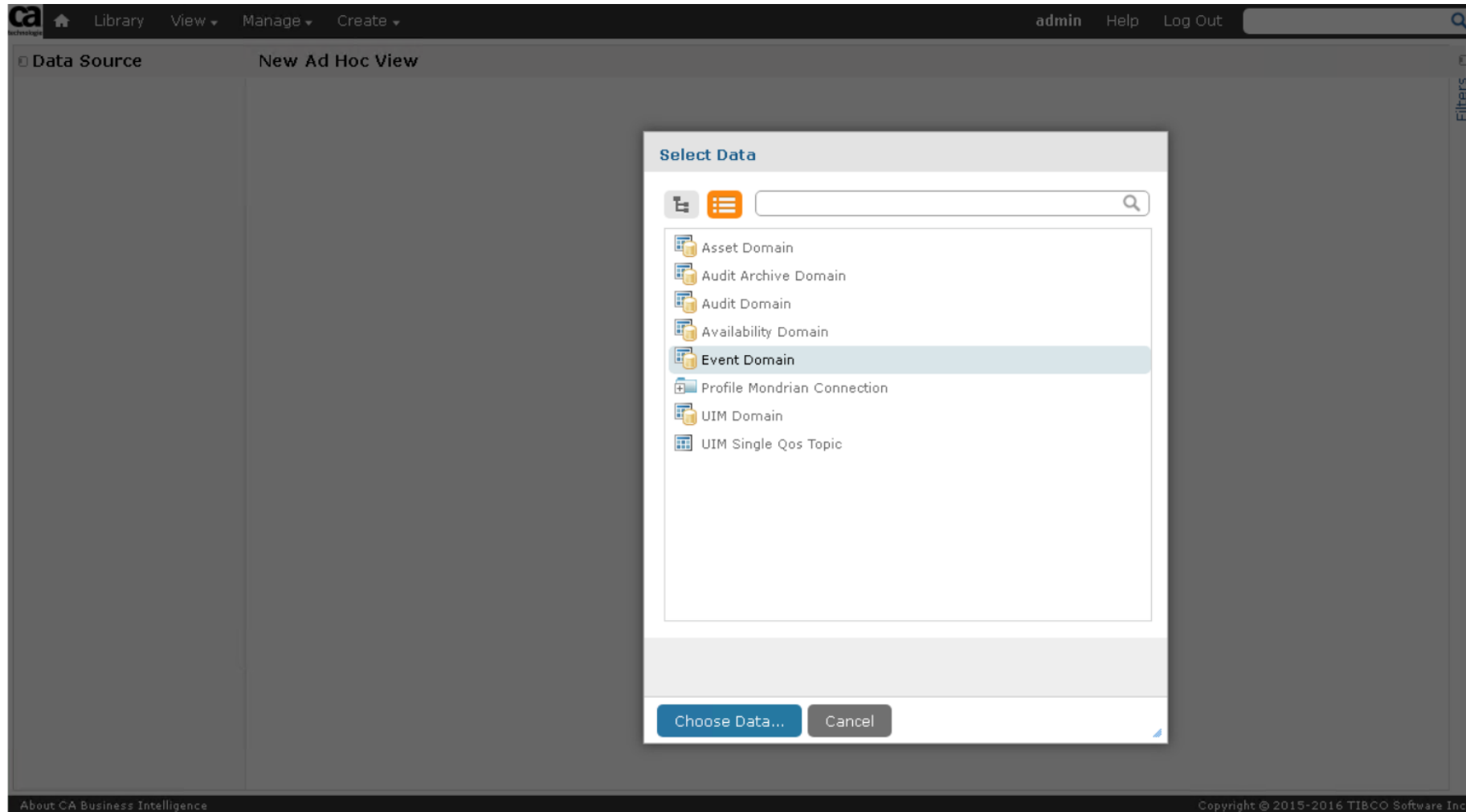
Hands-On Labs Goals

- Use different infrastructure management, network operations and service operations management products as data sources
- Combine data from CA Unified Infrastructure Management, CA Spectrum, CA Performance Management and CA Service Operations Insight on same dashboard
- Display relevant data on appealing, data-rich dashboards

Hands-On Lab 1 – Ad Hoc Reporting: CA Spectrum Event Table Report

Creating an Ad-Hoc View: Creating Report

- Create a new ad-Hoc view. Use CA Spectrum Event Domain as data source.



Choose Data – Select Event

The screenshot shows the 'Data Chooser' window in the CA Business Intelligence interface. The window has a dark header bar with the CA logo, navigation links (Library, View, Manage, Create), user information (admin, Help, Log Out), and a search bar. The main content area is titled 'Data Chooser' and 'Choose Data'. Below the title, there is a instruction: 'To move items in or out of selected fields, double-click them, drag them, or use the direction buttons.' On the left side, there is a vertical stack of buttons: 'Fields' (highlighted in blue), 'Pre-filters', 'Display', and 'Save as Topic'. The main area is divided into two panes: 'Source' on the left and 'Selected Fields' on the right. The 'Source' pane is currently empty. The 'Selected Fields' pane contains a single item, 'Event', which is highlighted with a blue bar. Between the two panes are four direction buttons: a single right arrow, a single left arrow, a double right arrow, and a double left arrow. At the bottom of the window, there are 'OK' and 'Cancel' buttons. The footer of the window contains the text 'About CA Business Intelligence' on the left and 'Copyright © 2015-2016 TIBCO Software Inc.' on the right.

Add a Pre Filter – Device Type Contains “cisco”

The screenshot shows the CA Data Chooser application interface. At the top, there is a navigation bar with the CA logo, a home icon, and menu items: Library, View, Manage, and Create. On the right side of the navigation bar, there are links for admin, Help, and Log Out, along with a search icon.

The main content area is titled "Data Chooser" and contains a section for "Pre-filters". Below this title, a message states: "Create filters here to limit the data available in the editor. Double-click a field to begin."

On the left side of the Pre-filters section, there is a vertical list of fields: Contract Number, Contract Start Date, Created By, Creation Time, Description, Destroy Time, Destroyed By, Device Location, Device Name, Device Type, DEVICEKEY, Firmware Version, and ID. The "Device Type" field is highlighted.

To the right of the fields list is a "Filters" section. It contains a single filter rule: "Device Type" followed by a dropdown menu set to "contains" and a text input field containing "cisco". Below the filter rule are "OK" and "Cancel" buttons. A "Locked" checkbox is also present and is currently unchecked.

At the bottom of the Pre-filters section, there are "OK" and "Cancel" buttons.

The footer of the application contains the text "About CA Business Intelligence" on the left and "Copyright © 2015-2016 TIBCO Software Inc." on the right, followed by the CA Technologies logo.

Ad Hoc View – Columns, View Type and Labels

Domain: Event Domain

New Ad Hoc View

Table Full Data

Columns: Created On Network Address Device Type Event Device Name

Groups:

Click to add a title

Created On	Network Address	Device Type	Event	Device Name
12:28:16 PM	192.168.42.93	Cisco7505	A model ATLANGA-C7507 of type Rtr_Cisco has been added to IP Domain Default Domain (IPDomain-3).	ATLANGA-C7507
12:28:16 PM	192.168.42.101	Cisco7507	A model ATLANGA-C7507-2 of type Rtr_Cisco has been added to IP Domain Default Domain (IPDomain-3).	ATLANGA-C7507-2
12:28:16 PM	192.168.42.74	Cisco2621	A model CustAccRtr Baltimore of type Rtr_Cisco has been added to IP Domain Default Domain (IPDomain-3).	CustAccRtr Baltimore
12:28:16 PM	192.168.42.75	Cisco2621	A model CustAccRtr Harrisburg of type Rtr_Cisco has been added to IP Domain Default Domain (IPDomain-3).	CustAccRtr Harrisburg

Fields:

- Device Event Information (x)
 - Contact
 - Contract End Date
 - Contract Number
 - Contract Start Date
 - Created By
 - Creation Time
 - Description
 - Destroy Time
 - Destroyed By
 - Device Location
 - Device Name
 - Device Type
 - DEVICEKEY
 - Firmware Version

Measures:

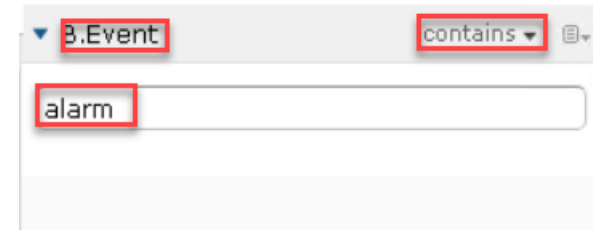
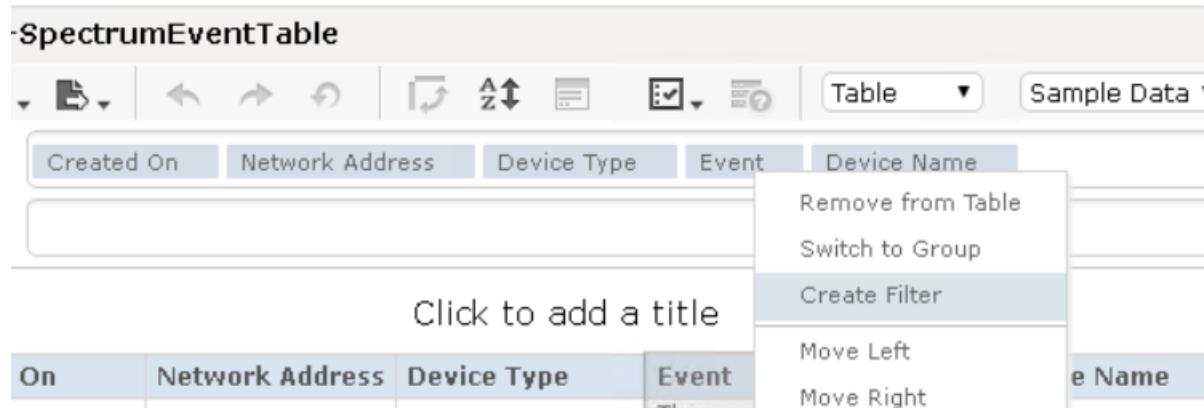
- Event
 - Earliest Event Time
 - Latest Event Time
 - Total Events
- Device Event Information (x)
 - User Specified Device Att...

About CA Business Intelligence

Copyright © 2015-2016 TIBCO Software Inc.

Right Click and Add Filters

- Right click on Field List or on Column elements
- Add 1 filter: Event “contains” “alarm”



- Apply

Change Ad-Hoc Title

Domain: Event Domain

Fields

- Event
- Created By
- Created On
- Event
- EVENT KEY
- Event Title
- Event Type
- Model Name

New Ad Hoc View

Columns: Created On, Network Address, Device Type, Event, Device Name

Groups:

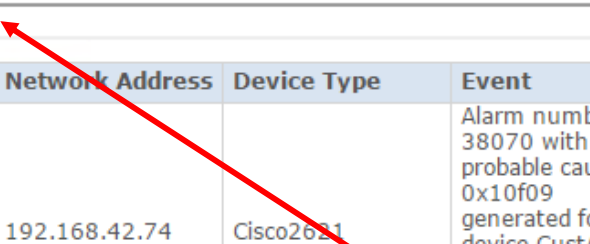
Filters

A.Device Type contains Cisco

B.Event contains alarm

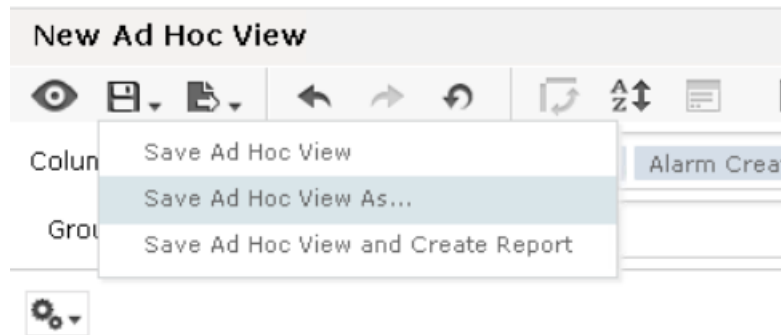
Cisco Alarms

Created On	Network Address	Device Type	Event	Device Name
3:27:09 PM	192.168.42.74	Cisco2621	Alarm number 38070 with probable cause id 0x10f09 generated for device CustAccRtr	CustAccRtr Baltimore



Save Your Ad Hoc View

- Save as:
“[YourName] – SpectrumEventTable”



Save as:

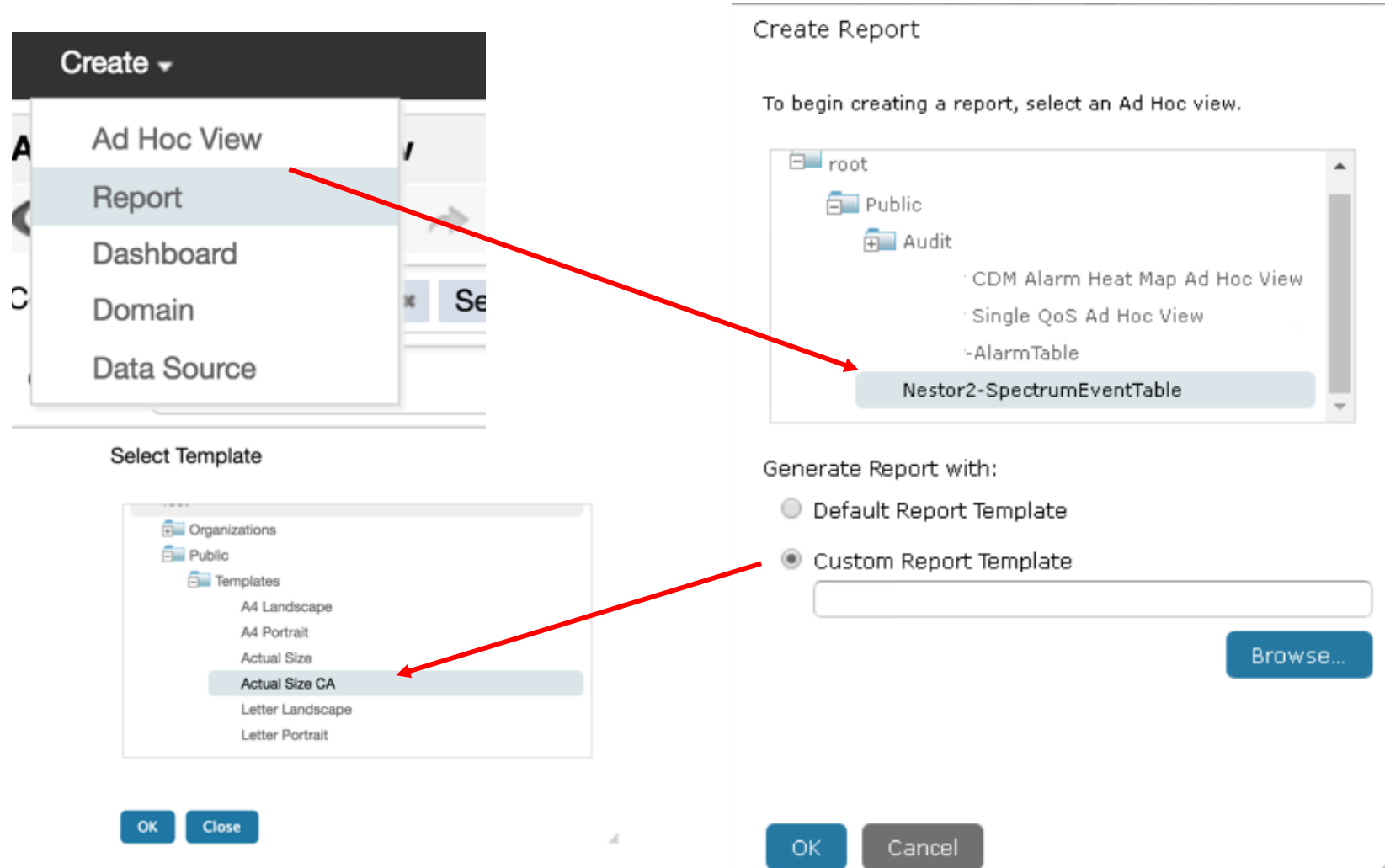
Data View Name (required):

YourName-SpectrumEventTable

Data view Description:

root
├── Organizations
│ └── Public
│ ├── Ad Hoc Components
│ ├── Audit
│ ├── ca
│ └── Input Controls

Create a Report from Your Ad Hoc View



Apply Conditional Formatting to Event Text

Data refreshed 2017-05-03 at 09:00:49

100% search report

Created On	Network Address	Device Type	Device Name
3:21:54 PM	192.168.42.96	Alcatel 7750 SR-7	PTMONH-SR7750

Formatting...

Hide column

PTMONH-SR7750 of type AlcatelSvcRtr created by Administrator@spectrum.

The interfaces of

Format column: Event

Basic Formatting Conditional Formatting

Apply to: Detail Rows

Conditions List

#	Operator	Condition	Format
1	Contains	major	B <i>I</i> <u>U</u> A.
Add			

< Previous Column Next Column >

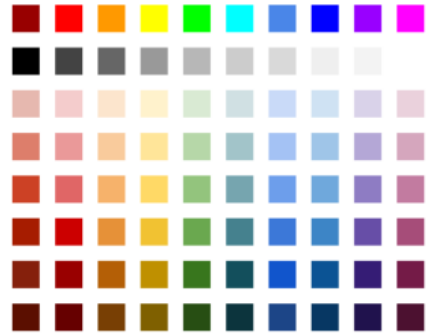
4:16:55 PM Cisco2621

4:31:54 PM Cisco2621

Pick a background color

Transparent

None



Apply Conditional Formatting to Event Text

Created On	Network Address	Device Type	Device Name	Major
3:27:09 PM		Cisco2621	CustAccRtr Baltimore	Alarm number 38070 with probable cause id 0x10f09 generated for device CustAccRtr Baltimore of type Rtr_Cisco. The severity of this alarm is MAJOR.
3:51:54 PM		Cisco2621	CustAccRtr Baltimore	Alarm number 38355 with probable cause id 0x10050 generated for device CustAccRtr Baltimore of type Rtr_Cisco. The severity of this alarm is MINOR.
3:51:54 PM		Cisco2621	CustAccRtr Baltimore	Alarm number 38070 with probable cause id 0x10f09 cleared for device CustAccRtr Baltimore of type Rtr_Cisco.
4:16:55 PM		Cisco2621	CustAccRtr Baltimore	Alarm number 38650 with probable cause id 0x10f09 generated for device CustAccRtr Baltimore of type Rtr_Cisco. The severity of this alarm is MAJOR.
4:31:54 PM		Cisco2621	CustAccRtr Baltimore	Alarm number 38650 with probable cause id 0x10f09 cleared for device CustAccRtr Baltimore of type Rtr_Cisco.


Save Your Report


Save As


Name (required):

YourName-SpectrumEventTable Report

Description:

 root

 Organizations

 Public

Save



Cancel


Hands-On Lab 2 – Ad Hoc Reporting: CA Unified Infrastructure Management Alarm Heat Map


Create a CA Unified Infrastructure Management Alarm Heat Map


- Create Ad Hoc View
- Select “UIM Domain” as source


Select Data





 Asset Domain


 Audit Archive Domain


 Audit Domain

 Availability Domain

 Event Domain

 Profile Mondrian Connection

 **UIM Domain**

 UIM Single Qos Topic

Use this domain to build Alarm, Device and Group reports.

Choose Data...

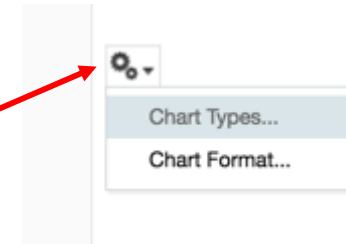
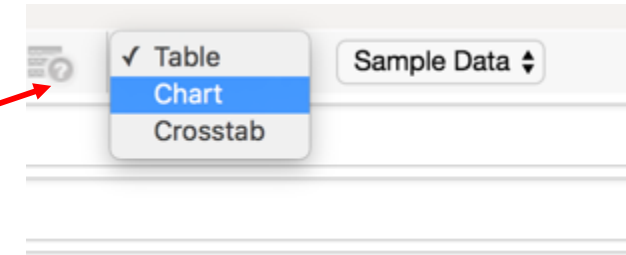
Cancel

Choose Data

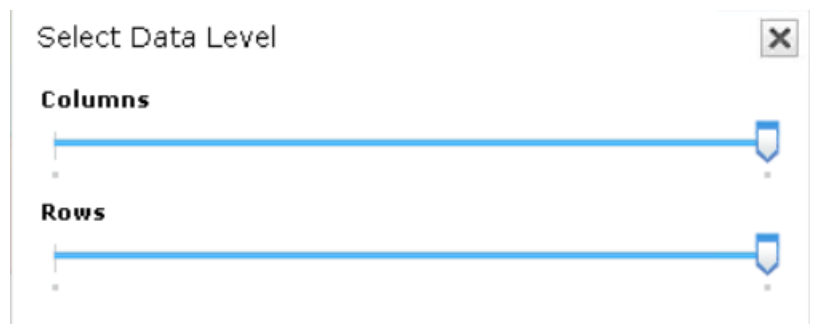
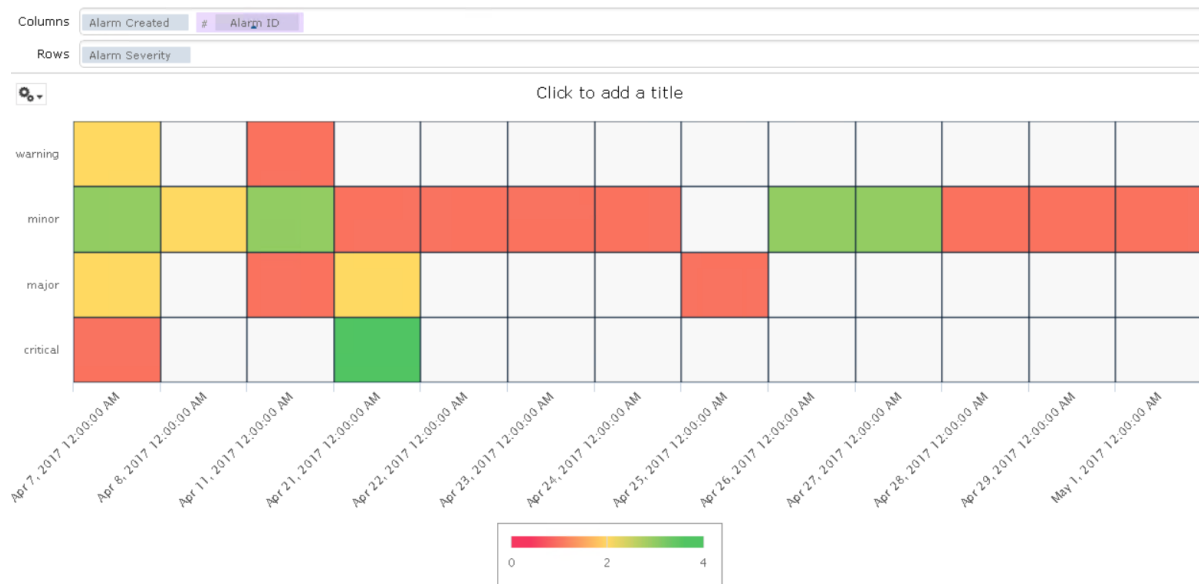
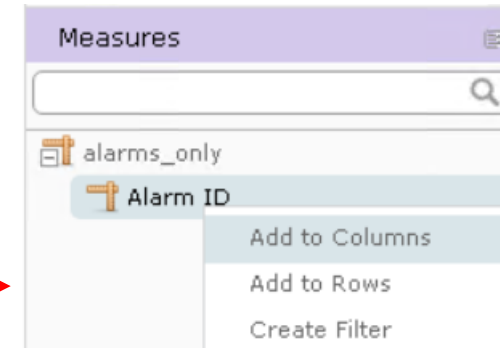
The screenshot shows the 'Data Chooser' window with the 'Choose Data' tab selected. The interface includes a top navigation bar with 'Library', 'View', 'Manage', and 'Create' menus, and a user profile section with 'admin', 'Help', and 'Log Out' links. A search bar is located on the right. The main area is divided into three sections: a left sidebar with buttons for 'Fields' (highlighted), 'Pre-filters', 'Display', and 'Save as Topic'; a central 'Source' pane listing 'alarms_devices_groups' and 'devices_groups'; and a right 'Selected Fields' pane listing 'alarms_only'. Between the panes are four direction buttons: a single right arrow, a single left arrow, a double right arrow, and a double left arrow. At the bottom of the dialog are 'OK' and 'Cancel' buttons. The footer contains 'About CA Business Intelligence' on the left, 'Copyright © 2015-2016 TIBCO Software Inc.' in the center, and the CA Technologies logo on the right.

Edit Ad Hoc View

1. Change Type To “Chart”
2. Change Chart Type To Range- Heat Map
3. Add ‘Alarm Created’ to columns
4. Add ‘Alarm Severity’ to rows



Create a Measure on “Alarm ID”



Optional – Apply Color Stops to Heat Map

colorAxis.stops = [[0, "yellow"], [0.5, "orange"], [0.9, "red"]]

<http://api.highcharts.com/highmaps/colorAxis.stops>

The screenshot illustrates the process of applying color stops to a heat map in the CA Business Intelligence interface. A red arrow points from the 'Chart Format...' option in the 'Chart Types...' menu to the 'Chart Format' dialog. Another red arrow points from the 'colorAxis.stops' property in the 'Advanced' tab of the 'Chart Format' dialog to the corresponding color scale on the heat map.

Chart Format

Axis Labels Appearance **Advanced**

Property	Value
colorAxis.stops	[[0, "yellow"], [0.5, "orange"], [0.9, "red"]]

More Information

Add New Property

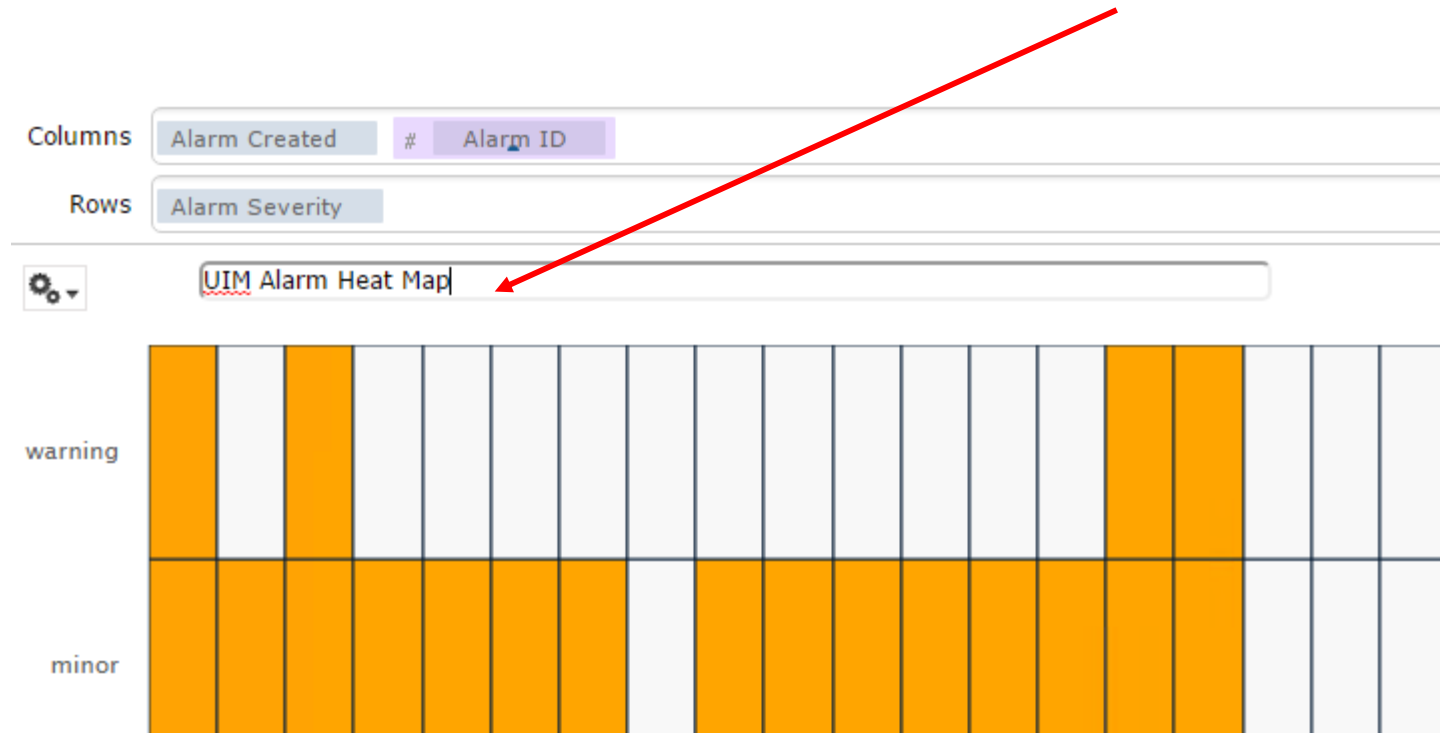
Apply OK Cancel

Heat Map Data (Approximate)

Alarm Severity	Apr 7, 2017 12:00:00 AM	Apr 8, 2017 12:00:00 AM	Apr 9, 2017 12:00:00 AM	Apr 10, 2017 12:00:00 AM	Apr 11, 2017 12:00:00 AM	Apr 12, 2017 12:00:00 AM	Apr 13, 2017 12:00:00 AM	Apr 14, 2017 12:00:00 AM	Apr 15, 2017 12:00:00 AM	Apr 16, 2017 12:00:00 AM	Apr 17, 2017 12:00:00 AM	Apr 18, 2017 12:00:00 AM	Apr 19, 2017 12:00:00 AM	Apr 20, 2017 12:00:00 AM	Apr 21, 2017 12:00:00 AM	Apr 22, 2017 12:00:00 AM	Apr 23, 2017 12:00:00 AM	Apr 24, 2017 12:00:00 AM	Apr 25, 2017 12:00:00 AM	Apr 26, 2017 12:00:00 AM	Apr 27, 2017 12:00:00 AM	Apr 28, 2017 12:00:00 AM	Apr 29, 2017 12:00:00 AM	Apr 30, 2017 12:00:00 AM	May 1, 2017 12:00:00 AM	May 2, 2017 12:00:00 AM
warning	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
minor	Red	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
major	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
critical	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

Set Chart Title Name

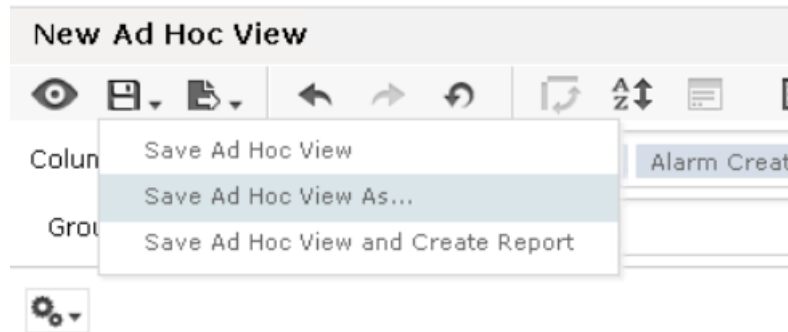
CA Unified Infrastructure Management Alarm Heat Map



Save Ad Hoc View

- Save As ...

“[YourName] – UIM Alarm Heat Map Ad Hoc View”



Save As

Data View Name (required):

Data view Description:

root
├── Organizations
└── Public

Save Cancel

Hands-On Lab 3 - Custom Dashboard: Create a Dashboard Made of Two Custom Dashlets and Two Out-of-the-Box Dashlets

Create a New Dashboard

- Add the 2 Ad Hoc views previously created (make use of search box)

The screenshot displays a dashboard creation interface. On the left, the 'Existing Content' panel shows a search for 'francois' with three results: 'Francois-SpectrumEventTab...', 'Francois-SpectrumEventTab...', and 'Francois - UIM Alarm Heat ...'. A red arrow points from the third result to the 'New Dashboard' panel.

The 'New Dashboard' panel features a 'Francois-SpectrumEventTable' view showing a table of Cisco Alarms. The table has columns: Created On, Network Address, Device Type, Event, and Device Name. The data is as follows:

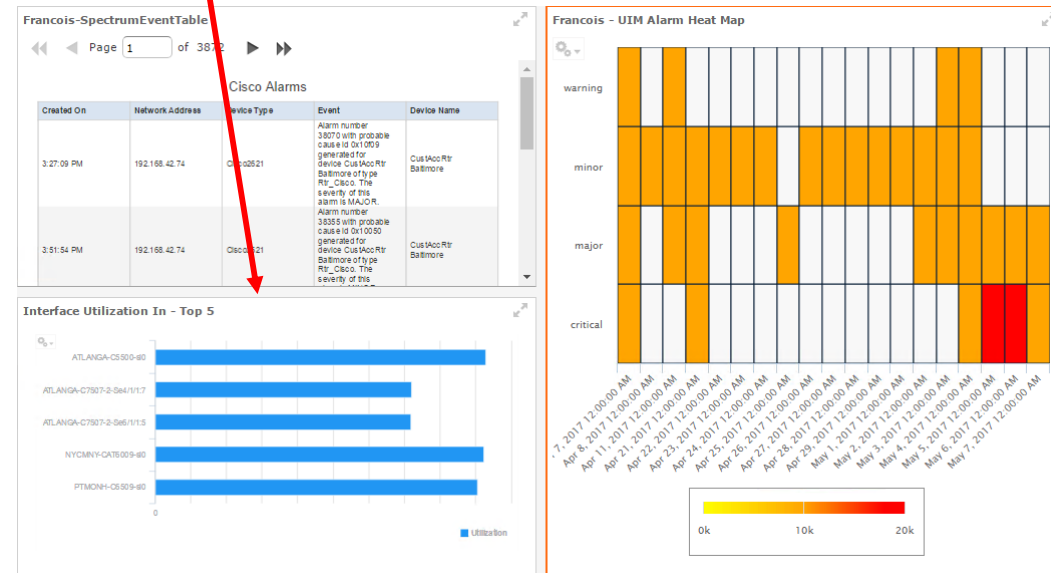
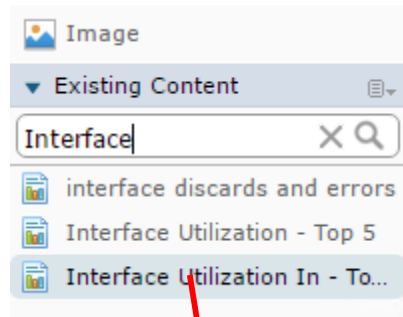
Created On	Network Address	Device Type	Event	Device Name
3:27:09 PM	192.168.42.74	Cisco2821	Alarm number 38070 with probable cause id 0x10109 generated for device Cus1AccRtr Baltimore of type Rtr_Cisco. The severity of this alarm is MAJOR.	Cus1AccRtr Baltimore
3:51:54 PM	192.168.42.74	Cisco2821	Alarm number 38355 with probable cause id 0x10050 generated for device Cus1AccRtr Baltimore of type Rtr_Cisco. The severity of this alarm is MINOR.	Cus1AccRtr Baltimore
3:51:54 PM	192.168.42.74	Cisco2821	Alarm number 38070 with probable cause id 0x10109 cleared for device Cus1AccRtr Baltimore.	Cus1AccRtr Baltimore
4:18:56 PM	192.168.42.74	Cisco2821	Baltimore of type Rtr_Cisco. Alarm number 38950 with probable cause id 0x10109 generated for device Cus1AccRtr Baltimore of type Rtr_Cisco. The severity of this alarm is MAJOR.	Cus1AccRtr Baltimore
4:31:54 PM	192.168.42.74	Cisco2821	Alarm number 38950 with probable cause id 0x10109 cleared for device Cus1AccRtr Baltimore of type Rtr_Cisco.	Cus1AccRtr Baltimore
4:41:56 PM	192.168.42.74	Cisco2821	Alarm number 38950 with probable cause id 0x10109 generated for device Cus1AccRtr Baltimore of type Rtr_Cisco. The severity of this alarm is MAJOR.	Cus1AccRtr Baltimore

Below the table, a 'Filters' section shows 'Francois-SpectrumEventTab...'. A red arrow points from the table to the 'Francois - UIM Alarm Heat Map' view.

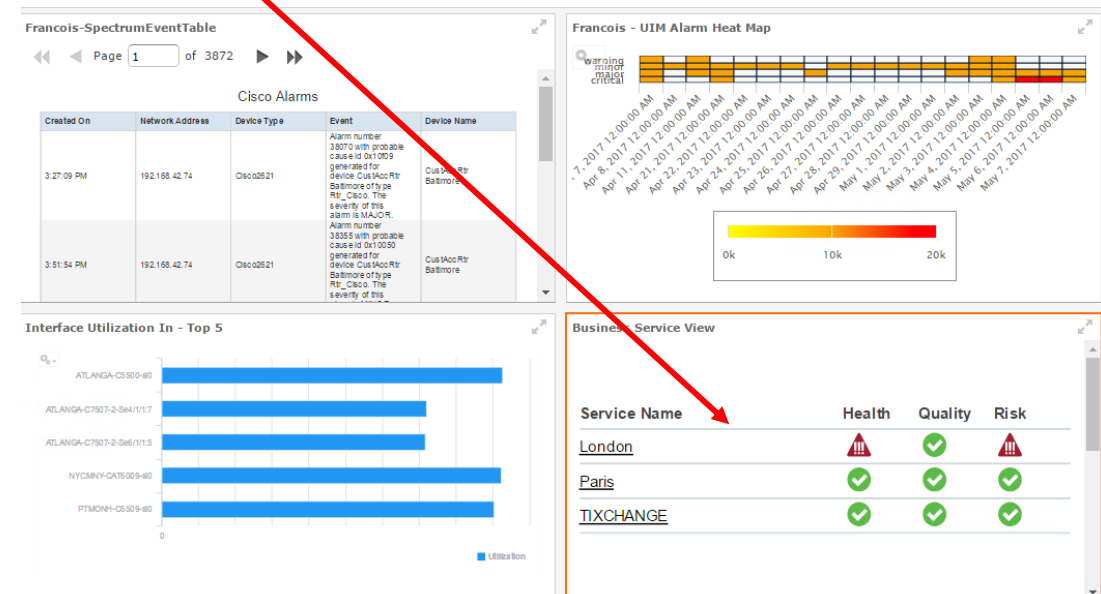
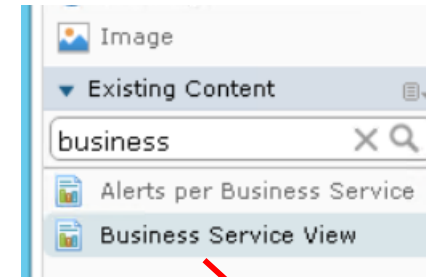
The 'Francois - UIM Alarm Heat Map' view shows a heatmap of alarm severity over time. The y-axis represents severity levels: warning, minor, major, and critical. The x-axis represents time from April 7, 2017, 12:00:00 AM to May 7, 2017, 12:00:00 AM. The heatmap uses a color scale from 0k (yellow) to 20k (red) to indicate the frequency of alarms. A legend at the bottom shows the color scale with markers at 0k, 10k, and 20k.

Add Two Dashlets to the Dashboard

■ CA Performance Management dashlet:

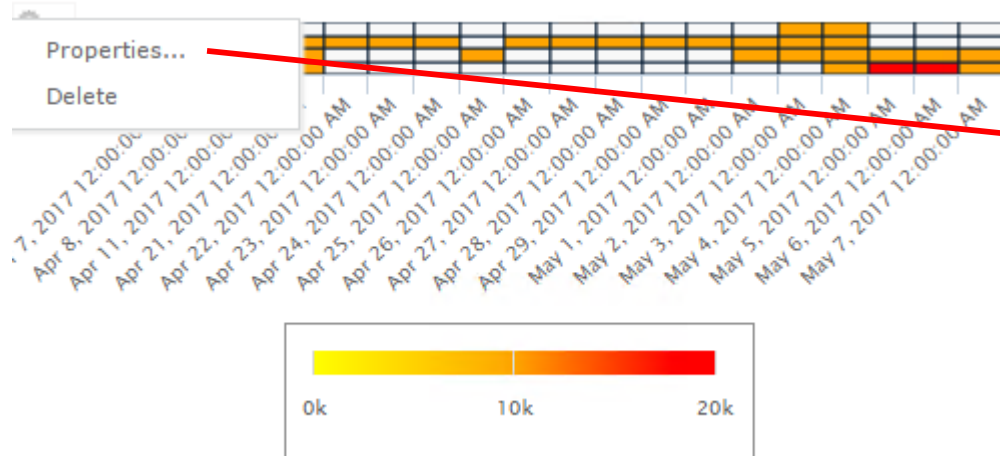


• CA Service Operations Insight dashlet:



Export – Auto Refresh Capabilities

- Select Dashlet – Right click – Select Properties



Dashlet Properties

Basic **Hyperlinks**

Dashlet Name:
Francois - UIM Alarm Heat Map

Resource ID:
Francois___UIM_Alarm_Heat_Map

Source Ad Hoc View:
/public/Francois___UIM_Alarm_Heat_Map

Show/Hide Dashlet Elements:

- ☒ Show title bar
- ☐ Show refresh button
- ☒ Show maximize button
- ☒ Show export button

Refresh Settings:

- ☒ Auto-refresh dashlet contents

Refresh Interval:
15 Seconds


Apply OK Cancel


Save Your Dashboard

Save As

Name (required):

Description:

 root

 Public

Save

Cancel

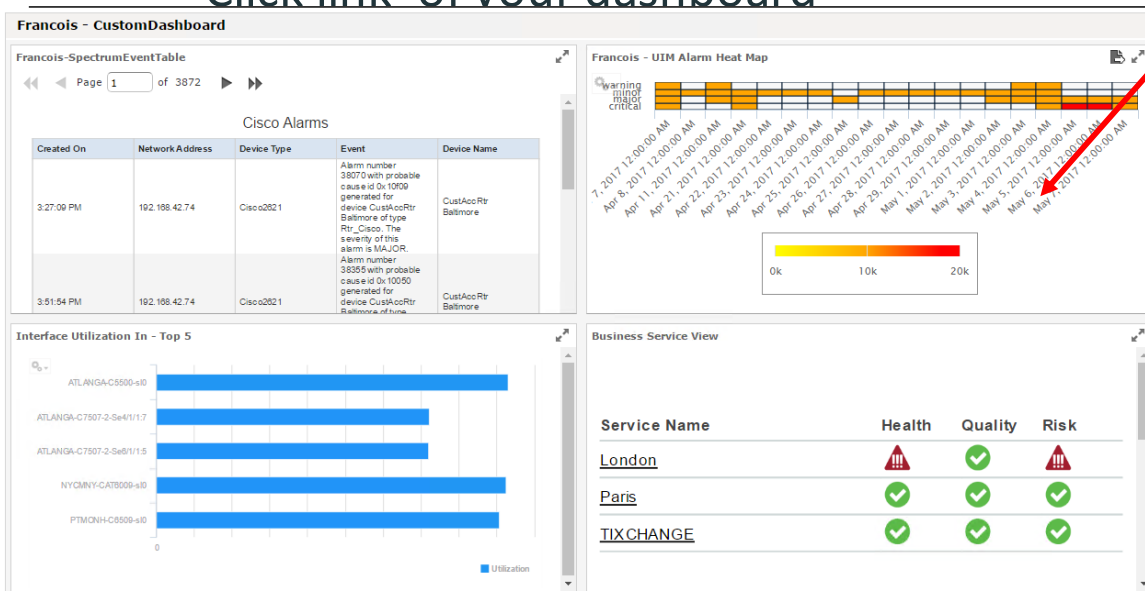
View Your Dashboard

- Click “View” – “Search Results”
- In Repository text box – search for [YourName]
- Click link of your dashboard

The screenshot shows the CA Technologies interface with the following elements:

- Navigation Bar:** Home, Library, View, Manage, Create. User: devx25, Help, Log Out.
- Filters:**
 - All available
 - Modified by me
 - Viewed by me
 - All types
 - Reports
 - Content resources
 - More choices...
 - Any time
 - Today
 - Yesterday
 - Past week
 - Past month
 - Any schedule
 - Scheduled
 - Scheduled by me
 - Not scheduled
- Repository:** Search box containing 'francois'.
- Search Results Table:**



Name	Description	Type	Created Date	Modified Date
Francois-SpectrumEventTable	Show Alarm for any Cisco device type	Ad Hoc View	Today	Today
Francois-SpectrumEventTable Report		Report	Today	Today
Francois-SpectrumEventTable Report	Show Cisco Alarms (highlight major ones)	Report	Today	Today
Francois - CustomDashboard		Dashboard	Today	Today
Francois - UIM Alarm Heat Map	UIM Alarm Heat Map	Ad Hoc View	Today	Today













Hands On Lab 4 (Optional): Ad Hoc Reporting – CA Unified Infrastructure Management QoS Topic Chart

Create a New Ad Hoc View and Select the CA Unified Infrastructure Management Single QoS Topic

Select Data

-  Asset Domain
-  Audit Archive Domain
-  Audit Domain
-  Availability Domain
-  Diagnostic Topic
-  Event Domain
-  Profile Mondrian Connection
-  Report Monitoring Domain
-  UIM Domain
-  UIM Single Qos Topic

OK Cancel

Input Controls

*** SOURCE**

*** TARGET**

*** QOS**

START_DATE

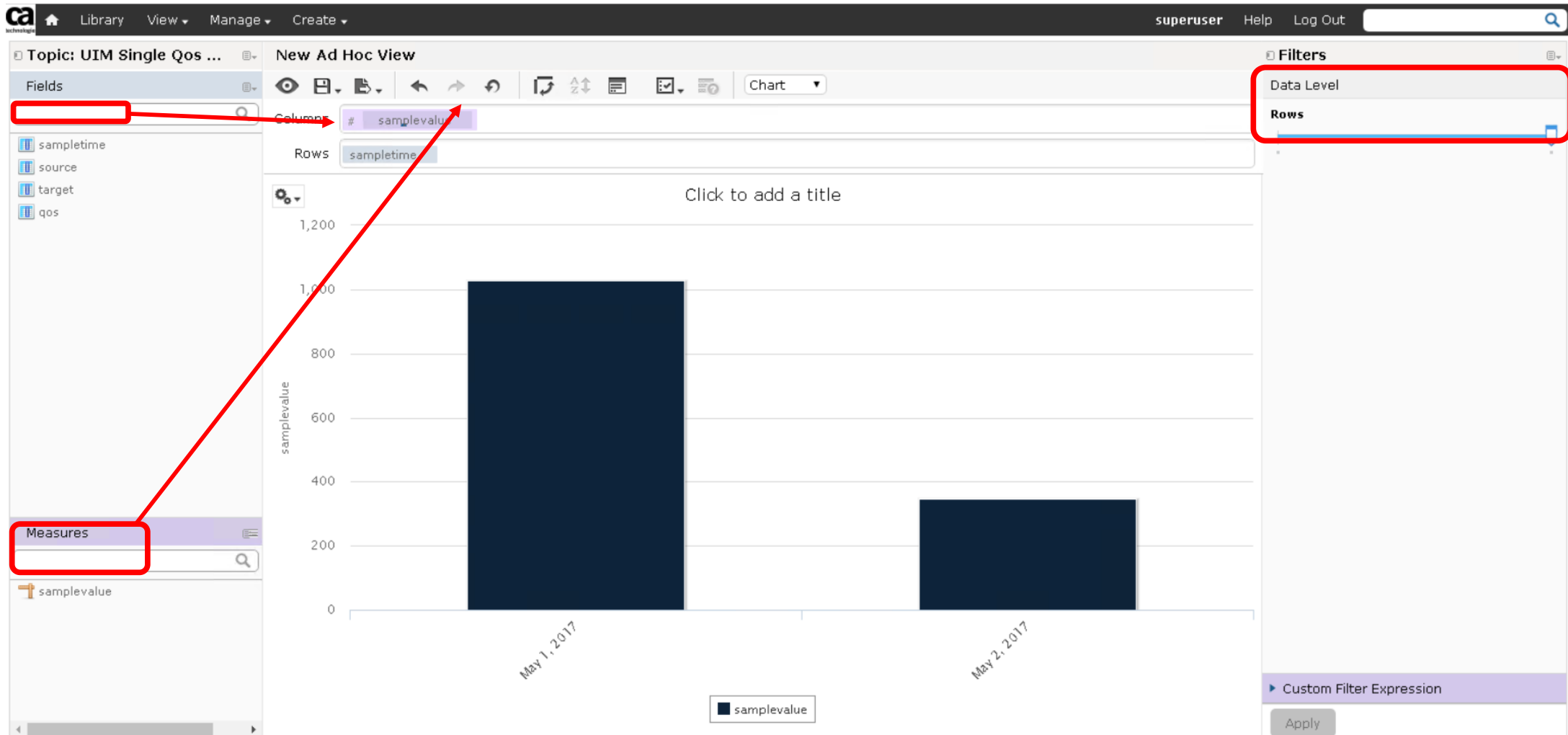
END_DATE

☒ Set these values as defaults when saving a report.

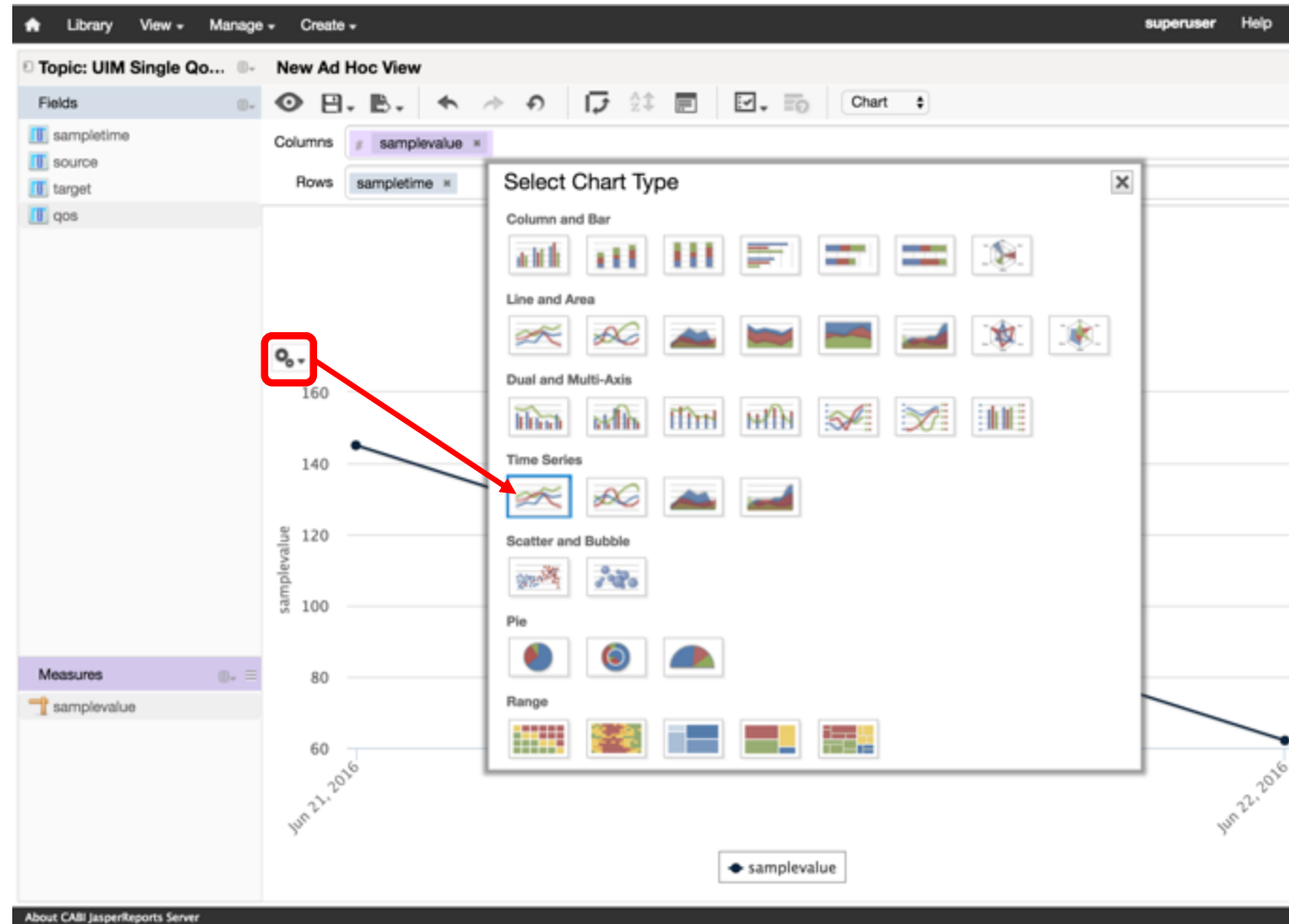
Apply OK Reset Cancel

Change Type To Chart

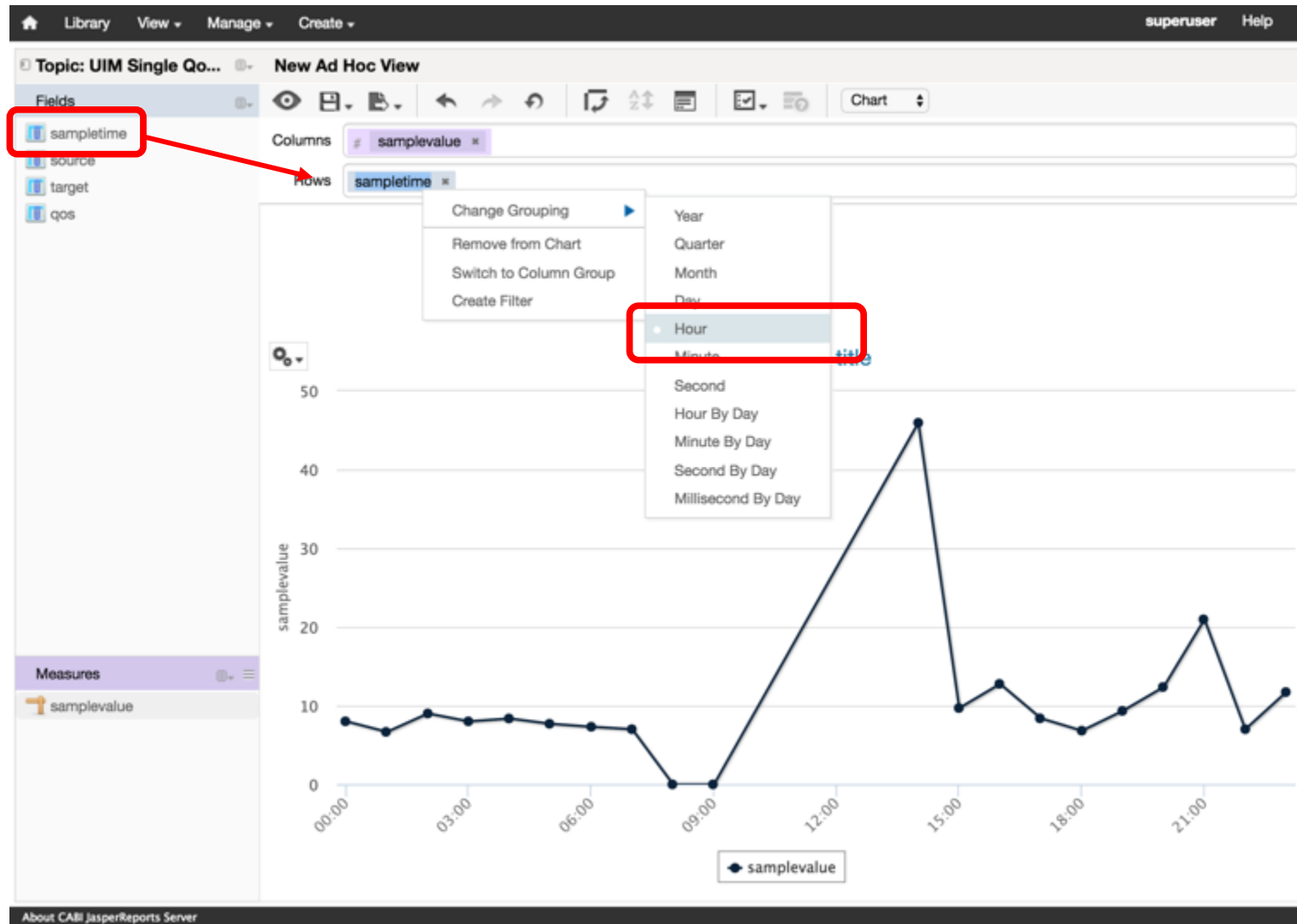
Add Sample Value and Sample Time; Zoom In Rows



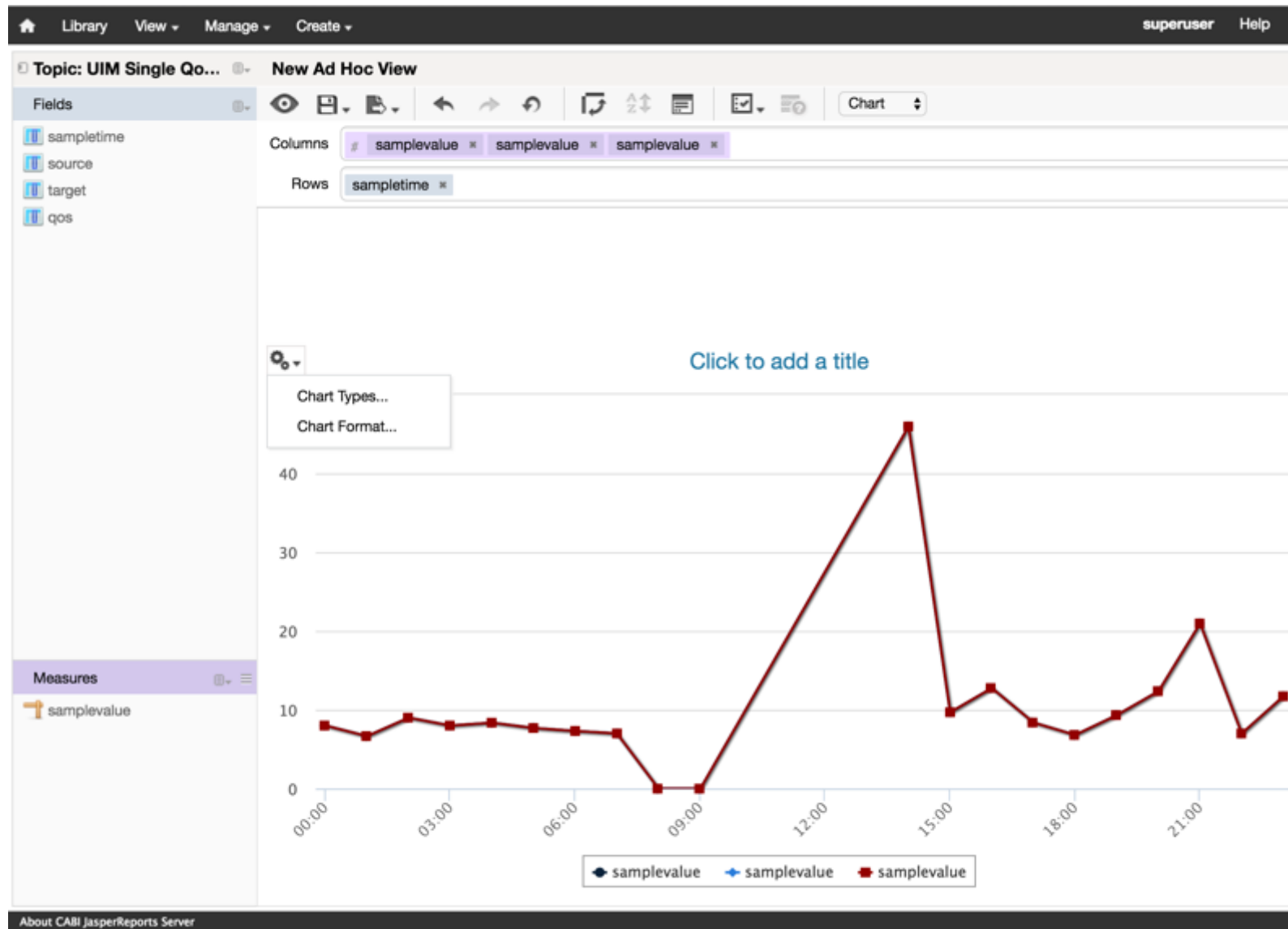
Change Chart Type



Change Sample Time Grouping to One Hour

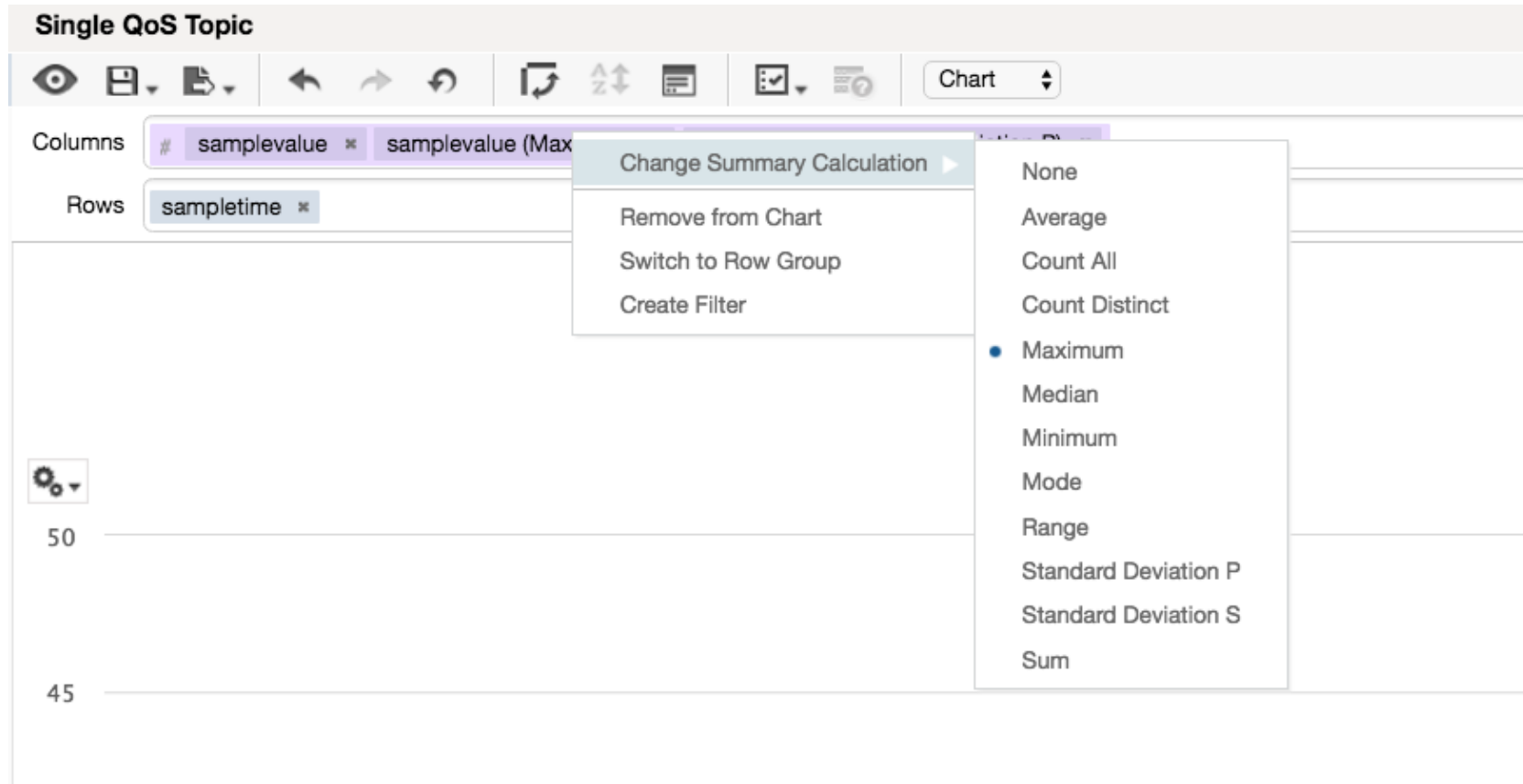


Add Sample Value Two More Times to the Columns



Change Summary Calculation on Each

E.G Maximum and Standard Deviation



Save as <YourName>-UIMQOS Ad Hoc View

What Questions Do You Have?

THANK YOU!