

# Customer Journey Platform Customer Engagement Analyzer User Guide

#### Notification

The Broadsoft CC-One solution has been renamed the Cisco Customer Journey Platform. Beginning in August 2018, you will begin to see the Cisco name and company logo, along with the new product name on the software, documentation and packaging. During this transition process, you may see both Broadsoft and Cisco brands and former product names. These products meet the same high standards and quality that both Broadsoft and Cisco are known for in the industry.

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## •••• About This Guide

This guide explains how to use the features of the Cisco<sup>©</sup> Customer Journey Platform (CJP) Customer Engagement Analyzer to design and run visualizations, schedule visualizations to run at prescribed times and have the output sent to you and others, and customize your Customer Engagement Analyzer experience by creating one or more dashboards.

## Who Should Read This Guide

This guide is intended for individuals who use the Customer Engagement Analyzer to design, schedule and view visualizations and dashboards.

## How This Guide Is Organized

The chapters in this guide provide the following information:

**Chapter 1, "Getting Started,"** provides an overview of the Cisco Customer Engagement Analyzer, describes the prerequisites, and explains how to access the Analyzer and work with the View page.

**Chapter 2, "Standard Fields and Measures,"** describes the standard fields and measures that are available to all Analyzer subscribers.

**Chapter 3, "Running and Scheduling Visualizations and Dashboards,"** explains how run the visualizations and dashboards available to your enterprise and how to schedule visualizations and dashboards to be run on a periodic basis and associate them with an email list for automatic distribution.

Chapter 4, "Designing Visualizations," explains how to design visualizations.

**Chapter 5, "Designing Dashboards,"** explains how to customize your Analyzer experience by creating one or more dashboards that can be run on demand or scheduled for periodic execution and distribution.

**Appendix A, "Sample Visualizations,"** provides examples of visualizations that can be created with Analyzer.

**Appendix B, "Mappings of ACD Metrics to Analyzer Parameters,"** provides mappings between ACD report parameters and corresponding Analyzer parameters.

# Getting Started

The Cisco<sup>©</sup> Customer Journey Platform (CJP) Customer Engagement Analyzer mines realtime and historical data from multiple data sources and systems to generate specific business views of the data. The Analyzer visually displays trends to help you discern patterns and gain insight for continuous improvement.

The Analyzer's standard visualizations tie business data to traditional operational metrics, which gives contact center managers visibility across both operational and business performance indicators in a single consolidated view. The Analyzer also provides an interface for creating and refining custom visualizations quickly and easily.

You can customize your Analyzer experience by creating dashboards that display your choice of visualizations and schedule them for automatic distribution to email recipients.

Topics covered in this chapter:

- Customer Engagement Analyzer Prerequisites
- Accessing the Customer Engagement Analyzer
- Analyzer Title Bar Buttons
- Working with the View Pages

## **Customer Engagement Analyzer Prerequisites**

The Customer Engagement Analyzer requires Mozilla Firefox 20 or later, or the latest version of Google Chrome with cookies enabled.

For motion charts, Adobe Flash Player is also required.

## Accessing the Customer Engagement Analyzer

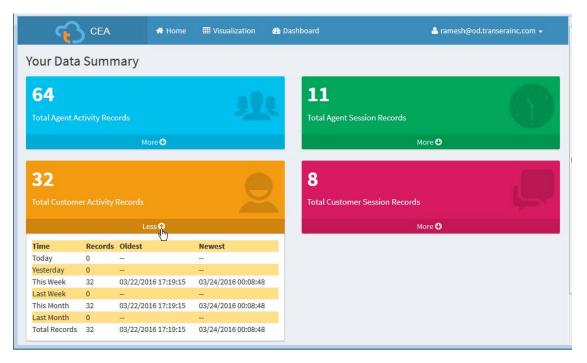
To access the Customer Engagement Analyzer:

- 1. Open your Web browser and navigate to the URL provided by your administrator.
- 2. On the login page that appears, enter your email address and password.

Enter your c	redentials	
<u>U</u> sername		
Password		

#### 3. Click Login.

The Customer Engagement Analyzer home page appears, displaying a summary of all the data for each of the four data types in your repository. You can expand a tile by clicking a **More** button to display the details for today, yesterday, this week, last week, this month, and last month.



## Analyzer Title Bar Buttons

The Analyzer title bar displays buttons that provide access to the Visualization and Dashboard View pages (described in the next topic, "Working with the View Pages") as well as a button on the far right that provides options for logging out, getting help, and providing feedback. If your browser window is wide enough, the button label displays your user account name.



If you resize your browser window to make it narrow, your user account name is not displayed on the button label.

CEA	🖶 Home	III Visualization	🚯 Dashboard			ու է։ Հայ
				Support	Feedback	Help
				Settings		Log Out

## Working with the View Pages

The **Visualization** and **Dashboard** buttons provide access to View pages. Each View page displays a directory of all the visualizations or dashboards to which you have access and provides an interface where you can do the following:

- Create, rename, and delete folders and subfolders beneath the parent directory.
- Move folders and visualizations or dashboards between folders.
- Access the visualization or dashboard creation page.
- Run and delete visualizations and dashboards.
- Open a visualization or dashboard for editing or scheduling.
- Export a visualization as a Microsoft Excel or CSV file.

Topics covered in this section:

- Navigating the View Page
- Adding, Renaming, and Deleting Folders
- Moving Objects to a Different Folder

## Navigating the View Page

To navigate the contents of a View page:

- 1. On the Analyzer menu bar, click Visualization or Dashboard.
- 2. To filter the list, select an option from the **Show** drop-down list on the upperright side of the page.
- **3.** To display the contents of a folder, double-click a folder in the content panel on the right or click a folder in the navigation panel on the left.

An arrowhead to the left of a folder in the navigation panel means that the folder contains a subfolder. You can click the arrowhead or the folder itself to display the subfolder, and then click the subfolder to display its contents in the content panel.

Select a folder in the navigation panel to display Select an option from this a list of its contents in the panel on the right. drop-down to filter the list An arrowhead means the 🚯 Dashboard III Visualization CEA ramesh@od.transeraine folder + 🕜 💼 [] A contains a View Show ACD-Reports Everything subfolder. Realtime Last Modified ID Name . Туре Folders Visualizati Realtime Folder . 03/26/2016 18:57:06 Compound hoch 4319 I Calls By Queue - Last Month Visualization 03/10/2016 23:14:02 Ramesh B Vidva 4318 I Calls By Queue - Last Week Visualization 03/10/2016 23:14:02 . Ramesh B 4335 🖽 Calls By Queue - This Year Visualization 03/10/2016 23:14:02 Ramesh B 4322 Calls by Entry Point - Lookback Visualization 03/10/2016 23:14:02 Ramesh B

**4.** To increase your workspace, you can hide the navigation panel by clicking the << button on the menu bar. Then you can click the >> button to restore the panel.

CEA	« 👫 Home	I Visualization	🚯 Dashboard		å ramesh@od.tra	anserainc.com 🗸	
Acme 🛨 🗹 🕻	View			+ Cre	ate New Visualization Show	Everything	-
E Realtime	ID	Name 🔺		Туре	Last Modified	Created By	_
p····· 🖿 James	1	Realtime		Folder	03/26/2016 18:57:06	Ramesh B	

5. To access a menu listing actions you can perform, click the **i** button to the left of a listed folder, visualization, or dashboard.

W				Show:	Everything
ID	Name 🔺	Туре	Last Modified	Created By	
	Realtime	Folder	03/26/2016 18:57:06	Ramesh B	
4319	I Calls By Queue - Last Month	Visualization	03/10/2016 23:14:02	Ramesh B	
🤇 🐐 Run	III Calls By Queue - Last Week	Visualization	03/10/2016 23:14:02	Ramesh B	
C Edit	I Calls By Queue - This Year	Visualization	03/10/2016 23:14:02	Ramesh B	
i Details	I Calls by Entry Point - Lookback	Visualization	03/10/2016 23:14:02	Ramesh B	
Export as Excel	I Calls by Entry Point - Snapshot	Visualization	03/10/2016 23:14:02	Ramesh B	
Export as CSV	Calls by EntryPoint - Last Month	Visualization	03/10/2016 23:14:02	Ramesh B	
Schedule job(s)	Calls by EntryPoint - Last Week	Visualization	03/10/2016 23:14:02	Ramesh B	
Delete	⊞ Calls by EntryPoint - This Year	Visualization	03/10/2016 23:14:02	Ramesh B	

Action	Description
Run	Runs the selected report or dashboard (see "Running a Visualization or Dashboard" on page 24).
Edit	Opens the selected visualization or dashboard in a page where you can edit it.
Details	Displays additional details about the selected item, such as the title, date range, and number of scheduled jobs for a visualization.
Move To	Opens a dialog box where you can select the folder that you want to move the selected item into.
Export as Excel	Opens a dialog box where you can open or save the selected historical visualization as a Microsoft Excel or CSV file.
Export as CSV	The export option is not available for realtime or compound visualizations.
Schedule Job(s)	Opens a page where you can schedule the selected visualization or dashboard to be run on a periodic basis and associate it with an email list for automatic distribution (see "Scheduling a Visualization or Dashboard" on page 33).
Delete	Deletes the selected visualization or dashboard. You cannot delete a visualization that is used in a dashboard.

## Adding, Renaming, and Deleting Folders

Buttons at the top of the navigation panel enable you to add, rename, and delete folders.

#### To add a new folder:

- In the navigation panel, select the folder into which you want to insert a new folder, and then click the New Folder + button at the top of the navigation panel.
- 2. In the dialog box that appears, enter a name and click **OK**.

#### To rename a folder:

- 1. Select a folder and click the **Rename Folder G** button.
- 2. In the dialog box that appears, enter a name and click **OK**.

#### To delete a folder:

- 1. Select an empty folder and click the **Delete Folder** 🔳 button.
- 2. In the confirmation dialog box, click **Yes**. If the folder is not empty, a message informs you that the operation failed.

### Moving Objects to a Different Folder

To move a visualization, dashboard, or folder to a different folder:

- 1. In the navigation panel, select the folder containing the object you want to move. The folder's contents are displayed in the contents panel on the right.
- **2**. If the destination folder is not visible in the navigation panel, click the arrowhead to the left of the parent folder to display its subfolder.
- **3**. Drag a visualization or dashboard from the contents panel to the destination folder in the navigation panel.

- OR -

Click the **i** button to the left of a listed folder, visualization, or dashboard, select **Move To** from the context menu, and in the dialog box that opens, select the destination folder and click **OK**.

# .... 2 Standard Fields and Measures

The Customer Engagement Analyzer is powered by the following activity and session repositories created by extracting data from a variety of systems:

- Customer Activity Repository (CAR)
- Customer Session Repository (CSR)
- Agent Activity Repository (AAR)
- Agent Session Repository (ASR)

This chapter describes the standard fields and measures aggregated in the activity and session repositories that are available to all Customer Engagement Analyzer subscribers.

- *Fields* are textual values that can be added to a visualizations as profile variables or segments.
- Measures are numeric values that can be used as profile variables.

In addition to the standard fields and measures, you can work with Broad Professional Services to create custom fields and measures extracted from a variety of systems.

Topics covered in this chapter:

- Type of Records Available in Each Repository
- Standard CSR and CAR Fields and Measures
  - Standard ACD Fields and Measures in the CSR and CAR
  - Standard CRM Fields and Measures in the CSR and CAR
  - Standard IVR Fields and Measures in the CSR and CAR
- Standard AAR and ASR Fields and Measures

## Type of Records Available in Each Repository

The following table describes the type of records aggregated in each customer and agent activity and session repository.

Record Type	Description	Examples
Customer Activity	Represents an atomic step in the customer workflow	Customer in IVR or queue, talking to agent, on hold
		<ul> <li>Customer on home page, product page, checkout page</li> </ul>
Customer	Represents the customer	Customer call to a call center
Session	workflow, consisting of a sequence of customer	Customer visit to a Web site
	activities	<ul> <li>Customer visits Web site and chats with agent</li> </ul>
		<ul> <li>Customer sends email and agent responds</li> </ul>
Agent Activity	Represents an atomic step in the agent workflow	<ul> <li>Agent idle, available, talking, wrapping up</li> </ul>
		<ul> <li>Agent offline, dialing, talking, entering notes</li> </ul>
		<ul> <li>Agent idle, available, chatting, wrapping up</li> </ul>
		<ul> <li>Agent offline, reading email, responding, wrapping up</li> </ul>
Agent Session	Represents the agent workflow, consisting of a sequence of agent activities	Agent handles a service call and logs an incident
		<ul> <li>Agent places an outbound call and sets up a meeting</li> </ul>
		<ul> <li>Agent chats with a customer and answers a question</li> </ul>
		<ul> <li>Agent reads and responds to a customer email</li> </ul>

## Standard CSR and CAR Fields and Measures

The standard fields and measures aggregated in the Customer Session Repository (CSR) and Customer Activity Repository (CAR) are described in the following sections.

- Standard ACD Fields and Measures in the CSR and CAR
- Standard CRM Fields and Measures in the CSR and CAR
- Standard IVR Fields and Measures in the CSR and CAR

## Standard ACD Fields and Measures in the CSR and CAR

The standard ACD fields and measures aggregated in the Customer Session Repository (CSR) and Customer Activity Repository (CAR) are described in the following table.

Label	Description	Data Type	Field or Measure
Agent ID	A string that identifies an agent.	String	Field
Agent Name	The name of an agent, that is, a person who answers customer calls.	String	Field
ANI	The ANI digits delivered with a call. ANI, or Automatic Number Identification, is a service provided by the phone company that delivers the caller's phone number along with the call.	String	Field
Call Count	The total number of calls that arrived at the entry point or queue during the time interval.	Integer	Measure
Call Duration	The amount of time between when the call arrived at the entry point or queue and when it was terminated.	Integer	Measure
Call End Time	The time the call was terminated.	String	Field
Call End Timestamp	The date and time the call was terminated.	Datetime /Long	Measure
Call Session ID	A value assigned by the system that uniquely identifies a call during its life cycle.	String	Field
Call Start Time	The time the call arrived at the entry point or queue.	String	Field
Call Start Timestamp	The time the call arrived at the entry point or queue.	Datetime /Long	Measure
CJP Queue	A queue that belongs to the CJP ACD.	String	Field
Channel Type	The media type of the contact, such as telephony, email, fax, or chat.	String	Field

Label	Description	Data Type	Field or Measure
Conference Count	The number of times an agent established a conference call with the caller and another agent.	Integer	Measure
Conference Duration	The amount of time an agent spent in conference with a caller and another agent.	Long	Measure
Consult Duration	The amount of time an agent spent consulting with another agent while handling a call.	Long	Measure
Current State	The current state of the contact. This field is available only in the CSR and only for realtime visualizations.	String	Field
DNIS	The DNIS digits delivered with the call. DNIS, or Dialed Number Identification Service, is a service provided by the phone company that delivers a digit string indicating the number the caller dialed along with the call.	String	Field
Entry Point ID	The ID assigned to an entry point.	String	Field
Entry Point Name	The name of the entry point, which is the landing place for customer calls on the CJP system. One or more toll-free or dial numbers can be associated with a given entry point. IVR call treatment is performed while a call is in the entry point. Calls are moved from the entry point into a queue and are subsequently distributed to agents.	String	Field
Hold Count	The number of times a call was put on hold.	Integer	Measure
Hold Duration	The amount of time during which a call was put on hold.	Long	Measure
IVR Duration	The amount of time during which a call was in the IVR system	Long	Measure
No. of Consults	The number of times an agent consulted with another agent while handling a call.	String	Field
Outdial Flag	Whether or not a call was made by an agent to a phone outside the contact center.	String	Field
Queue Duration	The amount of time calls were in a queue waiting to be sent to a destination site.	Long	Measure
Queue ID	The ID assigned to a queue.	String	Field
Queue Name	The name of a queue, which is holding place for calls while they await handling by an agent. Calls are moved from an entry point into a queue and are subsequently distributed to agents.	String	Field
Recording File ID	The ID assigned to a recording file.	String	Field
Site ID	The ID assigned to a call center location.	String	Field

Label	Description	Data Type	Field or Measure
Site Name	The call center location to which a call was distributed.	String	Field
Talk Duration	The amount of time an agent spent talking on an inbound call.	Long	Measure
Team ID	The ID assigned to a team.	String	Field
Team Name	A group of agents at a specific site who handle a particular type of call.	String	Field
Termination Type	A text string specifying how a call was terminated.	String	Field
Wrap Up Duration	The amount of time an agent spent after a call ended to perform after-call tasks directly associated with the call, such as entering a wrap-up code or entering customer data into a CRM system.	Long	Measure
Transfer Count	The number of times a call was transferred by an agent.	Integer	Measure

## Standard CRM Fields and Measures in the CSR and CAR

The standard CRM fields and measures aggregated in the Customer Session Repository (CSR) and Customer Activity Repository (CAR) are described in the following table.

Label	Description	Data Type	Field or Measure
Account ID	Account identifier.	String	Field
Active	Used for interaction history caching.	String	Field
Contact ID	Contact identifier.	String	Field
Contact Rel Party ID	Contact party relationship identifier.	String	Field
Created By	Standard who column—user who created this row.	String	Field
Creation Date	Standard who column—date when this row was created.	Datetime/ Long	Measure
Duration	The number of seconds that the interaction was active.	Number	Measure
End Date Time	The date and time the interaction ended.	Datetime/ Long	Measure
Interaction ID	Unique interaction identifier.	String	Field
Interaction Inters ID	Links interactions.	String	Field
Last Update Date	Standard who column—date when a user last updated this row.	Datetime/ Long	Measure

Label	Description	Data Type	Field or Measure
Last Update Login	Standard who column—operating system login of the user who last updated this row.	String	Field
Last Updated By	Standard who column—user who last updated this row.	String	Field
Lead ID	Lead identifier.	String	Field
Object ID	The primary key for the Marketing table relating to the object type (Campaign ID).	String	Field
Object Type	Marketing type of source code.	String	Field
Opportunity ID	Opportunity identifier.	String	Field
Org ID	Organization identifier.	String	Field
Org System Reference ID	Orig system reference identifier.	String	Field
Outcome ID	Outcome identifier.	String	Field
Primary Party ID	Primary party identifier.	String	Field
Reason ID	Reason identifier.	String	Field
Resource ID	Resource identifier for the agent.	String	Field
Result ID	Result identifier.	String	Field
Revenue	Revenue generated.	Number	Measure
Script ID	Script identifier.	String	Field
Service Request ID	Service request identifier.	String	Field
Source Code	Source code provided by the customer.	String	Field
Source Code ID	Unique identifier for Marketing source code.	String	Field
Start Date Time	The date and time the interaction started.	Datetime/ Long	Measure
Tenant ID	Used in hosted environments.	String	Field
Wrap Up Time Amounts	The number of seconds that the agent spent on the interaction from the closing of the last media item to the conclusion of the interaction.	Number	Measure

## Standard IVR Fields and Measures in the CSR and CAR

The standard IVR fields and measures aggregated in the Customer Session Repository (CSR) and Customer Activity Repository (CAR) are described in the following table.

Label	Description	Data Type	Field or Measure
AA Duration	The amount of time in seconds that an incoming call was connected to the Auto Attendant/IVR; multiple connections to AA/IVR in a single session produce multiple records.	Long	Measure
Account Code	Account code.	String	Field
Answer Within SLT	Whether or not the call was answered within the Service Level threshold.	String	Field
Caller Name	The name of the caller as available.	String	Field
Caller Num	Caller phone number of an incoming call (extension number or off-net PSTN).	String	Field
Caller Type	Type of line for an incoming call.	String	Field
Direction	The direction of the call (incoming or outgoing).	String	Field
DNIS	DNIS number for an incoming call.	String	Field
End Priority	Call priority at End Time (1-9).	Integer	Measure
End Time	ne GMT end time of record's period. Seconds since 1970/01/0100:00:00.		Measure
Exit State	The state when a call was terminated.	String	Field
Hold Duration	The amount of time in seconds that a call was on hold.	Long	Measure
IVR Data	Data of IVR/AA.	String	Field
IVR Exit Point	Exit Point of IVR/AA.	String	Field
MM Call Type	Multimedia call type.	String	Field
Original Priority	The initial priority set by the system for this call (1-9).	Integer	Measure
Queue Duration	The amount of time in seconds that a call was in a queue.	Long	Measure
Record Duration	The duration in seconds of recording.	Long	Measure
Ring Duration	The amount of time in seconds that a call was ringing and in workgroup queue.	Long	Measure
Sequence ID	A unique number to identify multiple segments of the same call (same session ID).	String	Field
Session ID	Session identifier.	String	Field
Start Priority	Call priority at Start Time (1-9).	Integer	Measure
Start Time	GMT start time of record's period. Seconds since 1970/01/01.	Datetime /Long	Measure

Label	Description	Data Type	Field or Measure
Talk Duration	The duration in seconds of talk time.	Long	Measure
Target Name	Name for a called target.	String	Field
Target Tenant	Tenant name for a called target.	String	Field
VM Duration	The amount of time in seconds after a call went into a voice mailbox; includes greeting, false attempts at messages, successful message, and review of message.	Long	Measure

## Standard AAR and ASR Fields and Measures

The standard fields and measures aggregated in the Agent Activity Repository (AAR) and Agent Session Repository (ASR) are described in the following table.

Label	Description	Data Type	Field or Measure
Activity Span	The amount of time in seconds that the agent was engaged in the activity during the specified compute interval.	Long	Measure
Agent DN	The dial number the agent used to log in to the Agent Desktop.	String	Field
Agent ID	A string that identifies an agent.	String	Field
Agent Session ID	A string that identifies an agent's login session.	String	Field
Channel ID	The ID assigned to a media channel.	String	Field
Consult Call ID	A string that identifies a consult call.	String	Field
Current State	The current state of the agent. This field is available only in the ASR and only for realtime visualizations.	String	Field
Duration	The amount of time during which the agent was engaged in the activity.	Long	Measure
End Time	The time the activity ended.	Datetime /Long	Measure
Idle Code ID	A string that identifies an Idle code.	String	Field
Idle Code Name	The name of an Idle code.	String	Field
Queue ID	A string that identifies a queue.	String	Field
Site ID	A string that identifies a call center location.	String	Field
Start Time	The time the activity started.	Datetime /Long	Measure

Label	Description	Data Type	Field or Measure
Status	Differentiates login from logout. The status of all agent activities is LoggedIn except for the Logout event.	String	Field
Team ID	A string that identifies a team.	String	Field
Туре	The agent state, such as Available, Connected, Idle, and Wrapup.	String	Field
Wrap Up Code ID	A string that identifies a wrap-up code.	String	Field
Wrap Up Code Name	The name of a wrap-up code.	String	Field

# .... 3 Running and Scheduling Visualizations and Dashboards

This chapter describes how to run the visualizations and dashboards available in your enterprise's repository and how to schedule them to run on a periodic basis and associate them with an email list for automatic distribution.

Topics covered in this chapter:

- Running a Visualization or Dashboard
  - Drilling Down to a Portion of the Visualization
  - Modifying Visualization Attributes
  - Changing the Visualization Output Format
- Scheduling a Visualization or Dashboard

## Running a Visualization or Dashboard

To run a visualization or dashboard:

- 1. On the Analyzer title bar, click Visualization or Dashboard.
- Navigate to the visualization or dashboard you want to run and double-click it or click the i button to the left of a listed visualization or dashboard and select Run from the context menu.

N			+ Sho	W: Everything
ID	Name	Туре	Last Modified 🔻	Created By
4462	🖽 Call Count Per Entrypoint ID	Visualization	04/05/2016 18:09:22	Ramesh B
∮ Run ☞ Edit	all Count Per EP Table	Visualization	04/05/2016 17: <mark>4</mark> 5:36	8 Ramesh B
i Details	all and Talk Count	Visualization	03/31/2016 14:36:02	Ramesh B
Move To	all and Talk Count and Duration	Visualization	03/30/2016 23:55:15	Ramesh B
Export as Exce	ll Count by Product Group	Visualization	03/30/2016 23:03:59	Ramesh B
Export as CSV	alls By Queue - Last Week	Visualization	03/30/2016 23:00:01	Ramesh B
Schedule job(	alls By Queue - This Year	Visualization	03/30/2016 22:43:51	Ramesh B
Delete	aior Business Units	Visualization	03/30/2016 22:21:38	Ramesh B

The visualization or dashboard loads in a separate tab or window.

While a visualization is loading, a pop-up window appears briefly with details about the data that meet the visualization parameters, including the number of records found, the number of records in the data set, and the number of rows and columns.

**3.** After the visualization is rendered, you can click the >> button on the Analyzer title bar to redisplay the data set details in a two-tabbed panel. Then you can click the << button to close the panel.

For a realtime visualization, the **Data Summary** tab also displays the time the data was last refreshed.

				Call Cou	nt Per Entr	y Point
Data Summary DETAILS		Interval 🕨	04-2015	05-2015	06-2015	07-2015
	Entrypoint ID 👻		Call Count	Call Count	Call Count	Call Count
	11211		7	9	6	1
Records found: 8092363	3937		5			t
Records in data set: 8092363	3940		4131	4098	4550	4968
Time to compute: < 1 Seconds	3941		3	3	5	1
Number of Rows: 9	3942		6	7	6	8
	3944		2	7	21	3
Number of Rows Displayed: 9	4060			9	6	4
Number of Columns: 6	4264		1		1	2
Time to display: < 1 Seconds	Summary		4155	4133	4595	4991

If you are running a compound visualization, the Data Summary tab displays a drop-down list of all the modules in the visualization so you can display the details for each individual module.

	Call Count	Per Entry P	oint	
Data Summary DETAILS	Мау	1	June	
	Entrypoint ID 🕶	Call Count	Call Count	
May 🔽	11211	9	31	
May	3937		2	
June ecords found: 1604538	3940	4098	31196	
and the second second second second	3941	3	18	
ecords in data set: 1604538	3942	7	30	
ime to compute: < 1 Seconds	3944	7	24	
umber of Rows: 9	4060	9	52	
umber of Rows Displayed: 9	4264		8	
umber of Columns: 1	Summary	4133	31361	

- 4. Click the **Details** tab to display the following settings and panels. Click a panel title to expand or collapse the panel. If you are running a compound visualization, the details are displayed separately, depending on which module is selected in the drop-down list at the top of the tab.
  - Start Time

Displays either the time period for a historical visualization or *Realtime* for a realtime visualization.

• Compute

For a realtime visualization, specifies *Duration* and *Refresh Rate*. You can select a value from the drop-down list to change the time interval for refreshing the data. Possible values for **Duration**:

- None. Provides a view of current activity.
- 5, 10, 15, or 30 minutes. Provides a view of everything that happened from up to 30 minutes ago to the current moment.
- Start of Day. Provides a view of everything that happened since midnight.

For a time-based historical visualization, specifies the compute interval and the number of records to be considered in the visualization.

For a sample-based visualization, specifies the frequency, band, and whether or not the calculations are cumulative (see "Settings for a Sample-Based Visualization" on page 58).

An additional panel is present for each field to which a filter has been applied, so you can see which values have been filtered in or out of the visualization.

lick a panel title	Data Commence	DETAILS				Call C	ount Per E	intry Point	
ar to expand or	Data Summary	DETAILS		Interval 🕨	04-2015	05-2015	06-2015	07-2015	08-2015
ollapse a panel. 🛛 📉	Start Time	Custom <b>T</b>	Entrypoint ID 🔻		Call Count	Call Count	Call Count	Call Count	Call Count
	Start Time	Custom •	11211		7	9	6	4	1
N N			3937		5			1	1
	Compute		3940		4131	4098	4550	4968	3588
	compute		3941		3	3	5	1	
	1		3942		6	7	6	8	3
	1		3944		2	7	21	3	
	Entrypoint ID		4060			9	6	4	4
	🎯 is in 🔍 is	not in	4264		1		1	2	1
	11211	*	Summary		4155	4133	4595	4991	3597

Following is an example of the Details tab for a historical visualization.

- 5. If the visualization is in table format, you can click a table cell and then click the **Zoom** (a) icon to see all the records that were involved in the computation of that portion of the visualization. Then you can perform further analytics on the data set as described in "Drilling Down to a Portion of the Visualization" on page 27.
- 6. If the visualization is in a chart format:
  - The underlying table used to construct it is displayed beneath the chart. Click the **Hide Table** link to hide the table, and the **Show Table** link to redisplay it.
  - Rest your pointer over a bar, line, slice, area, or bubble in the chart to display information about the segment that the item represents.



- 7. Click the **Settings** button on the title bar to display controls for changing the output format and modifying some of the visualization attributes as described in the following topics:
  - Modifying Visualization Attributes
  - · Changing the Visualization Output Format
- **8**. If the visualization is historical, you can click the **Export** button on the title bar to export the visualization as a Microsoft Excel or CSV file. Realtime and compound visualizations cannot be exported.

#### Drilling Down to a Portion of the Visualization

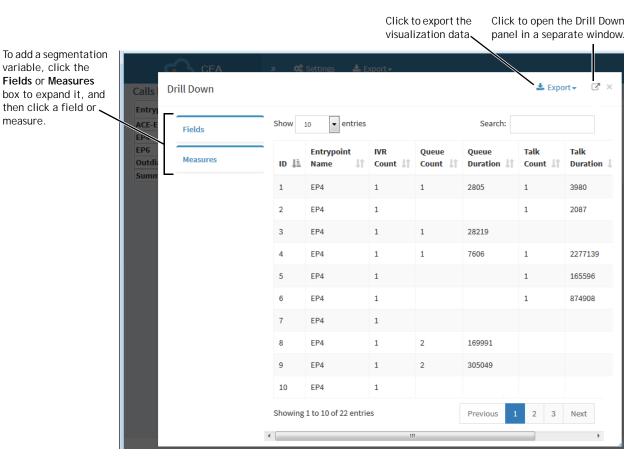
After you run a visualization in table format, you can drill down into a specific visualization component to see all the records that were involved in the computation of that portion of the visualization and perform further analytics on the data set.

To drill down on a visualization:

1. Click a table cell and then click the **Zoom** (Q) icon that appears.

ି 🚯 ୦	EA	» <b>0</b> ; Se	ettings 🕹 Export <del>-</del>			
Calls by EntryPo	int - Last M	lonth				
Entrypoint Name 🔻	IVR Count	Queue Count	Avg Queue Duration	Talk Count	Avg Talk Duration	Avg IVR Duration
ACE-EP1	0	0	00:00:00	0	00:00:00	00:00:00
EP4	21	14	00:01:43	8	00:06:59	00:00:50
EP6	2	0	00:00:00	0	00:00:00	00:00:00
Outdi 🔍	0	0	00:00:00	0	00:00:00	00:00:00
Summar 7	23	14	00:01:43	8	00:06:59	00:00:46

The Drill Down panel loads inside the visualization window, displaying the records that were involved in the computation of that portion of the visualization and providing controls for performing additional analytics on the data set.



- 2. To add a segmentation variable and view the profiling variables computed for the data set, click the **Fields** or **Measures** box to expand it, and then click the field or measure you want to add.
- **3.** To export the data as a Microsoft Excel or CSV file, click the **Export** button in the upper-right corner of the Drill Down panel.
- 4. To open the Drill Down panel in a separate window, click the <sup>I</sup> icon in the upper-right corner of the panel.

## Modifying Visualization Attributes

After running a visualization, you can modify its attributes and rerun it:

1. Click the **Settings** button on the title bar to display the visualization controls.

To hide the controls, click the **Settings** button again.

1	<del></del>	EA 🔹	— 📽 Settings	s 📥 Ex	port <del>~</del>				
2			Call Cou	int Per E	ntry Poi	nt			
	Table •	Profile Variables:	Call Count	Tal	k Count 📄	Avg Tal	k Duration		
$ 3\rangle$	Hide Summary								
	Redraw instantly	Hidden Segments	: I Queue ID	2					
4			_	_					
	Apply	Column Segment	s: Profile V	ariables	Interval				
5	Row/Series					Call Count	:		Summary
	Segments:		Interval •	1	1				
	Entrypoint ID	Entrypoint ID 👻		04-2015	05-2015	06-2015	07-2015	08-2015	Call Count
		11211		7	9	6	4	1	27
		3937		5			1	1	7
		3940		4131	4098	4550	4968	3588	21335
		3941		3	3	5	1		12
		3942		6	7	6	8	2	29
		3944		2	7	21	3		33
		4060			9	6	4	4	23
		4264		1		1	2	1	5

- To hide or show row and column summaries, select or clear the Hide Summary check box. Note that a visualization typically takes less time to run when Hide Summary is selected.
- **3.** If you want the visualization to be updated immediately whenever you make a change, select the **Redraw instantly** check box. Otherwise, the visualization will be updated only when you click the **Apply** button.

**Note:** Changes are always rendered immediately when you filter a segment and when you show or hide a profile variable.

- 4. To show or hide a profile variable, select or clear the profile variable check box. In the above illustration, two profile variables are hidden.
- **5**. To hide a segment, drag it to the **Hidden Segments** box. This capability is not available for compound visualizations.
- 6. To reposition a segment, drag it to a different location either within its current Segments box or to a different Segments box. This capability is not available for compound visualizations.

In the following example of a table visualization:

- The check boxes for all of the visualization's profile variables are selected.
- Two segments have been moved to the Hidden Segments box.
- The Interval segment has been moved from Column Segments to Row/ Series Segments.

		Call	Count Per	Entry Point	
Table 🗸	Profile Variabl	es: 🔡 Call Co	unt 🔽 🔡 Tal	k Count 👿 🗒 🔛 Avg Tal	Duration
<ul> <li>Hide Summary</li> <li>Redraw instantly</li> </ul>	Hidden Segme	ents: Entry	point ID $\nabla$	Queue ID V	
Apply	Column Segm	ents: Profi	le Variables		
Row/Series	Interval 💌	Call Count	Talk Count	Avg Talk Duration	
Segments:	04-2015	4155	3553	229333.93	
II Interval	05-2015	4133	3463	205171.83	
	06-2015	4595	3773	180868.14	
	07-2015	4991	4214	172404.60	
	08-2015	3597	1886	181008.88	
	Summary	21471	16889	192262.56	

- 7. To filter a segment (this capability is not available for compound visualizations):
  - a. Click the  $\overline{\gamma}$  icon to the right of the segment name.
  - b. Select the **is in** or **is not in** button, and then specify the values you want to include or exclude (see "Filtering Using a Field" on page 59 for more information).

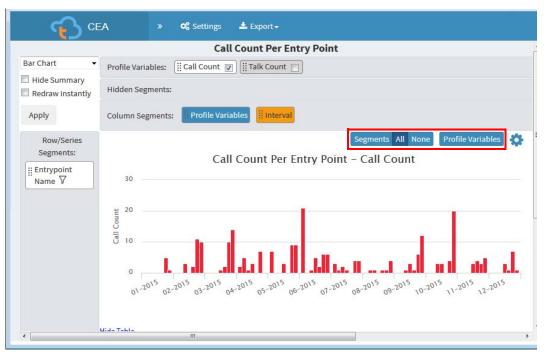
- OR -

Select the **regular expression** button, and then enter a regular expression in the text box that appears to specify which values to include or exclude.

Filter: Entrypoint ID					
In	◎not in	regular expression			
		*			
		~			
11211		<u> </u>			
3937			-		
3940					
3941		<del>.</del>			
		Course of	ose		
		Save Cl	ose		

**Note:** The *Interval* segment can be filtered only if the **Hide Summary** check box is selected.

8. If the visualization is a chart, additional controls on the upper right side of the chart enable you to modify the chart without modifying the underlying table. Click the 🔅 icon to hide or show the controls.



Segments drop- down list	Select one or more segments from this drop-down list to remove them from both the chart and the chart legend. Select the segments from the drop-down list a second time to restore them in both the chart and legend
All button	Click to display all segments in both the chart and legend.
None button	Click to remove all segments from the chart and legend.
Profile Variables drop-down list	Select one profile variable or select <b>All</b> from this drop-down list to include either the selected profile variable or all profile variables in the chart. Only one profile variable can be selected for a pie chart.

## **Changing the Visualization Output Format**

To change the visualization output format after you run a visualization:

- 1. Click the **Settings** button on the Analyzer title bar to display the visualization controls.
- **2**. Select a format from the drop-down list. Each format is briefly described in the following table.

<b>අ</b> ටු ci	EA 🦻	» <b>o;</b> s	ettings	📥 Export <del>-</del>					
		C	all Coun	t Per Ent	ry Point				
Table -	Profile Variable	Profile Variables: [ iii Call Count 🖉 ] [iii Talk Count 📝							
Heat Map Row Heat Map	Hidden Segments:								
Column Heat Map Line Chart Bar Chart	Column Segme	ents: Pr	ofile Variab	les Inte	rval				
Area Chart			Call Count						
Pie Chart Motion Chart		Interval 🕨	04-2015	05-2015	06-2015	07-2015	08-2015	04-2015	05-201
Sparkline Chart	Entrypoint ID 🔻		04-2015	03-2015	00-2015	07-2015	08-2015	04-2015	03-201.
	11211		7	9	6	4	1	4	
	3937		5			1	1	4	
	3940		4131	4098	4550	4968	3588	3541	34
	3941		3	3	5	1		1	
	3942		6	7	6	8	2	0	
	3944		2	7	21	3		2	
•	1050	III		-	-				

Format	Description
Table	Displays data in rows and columns.
Heat Map	Displays the cell values within a table in different shades of red. The cells in white and the darkest shade of red identify the outliers.
Row Heat Map	Displays the cell values within each row in a table in different shades of red, with the darkest shade identifying the highest values within a row.
Column Heat Map	Displays the cell values within each column in a table in different shades of red, with the darkest shade identifying the highest values within a column.
Line Chart	Compares values as points connected by lines.
Bar Chart	Compares values displayed as horizontal columns.
Area Chart	Compares values displayed as shaded areas.
Pie Chart	Compares values displayed as slices of a circular graph.
Motion Chart	Compares values over time displayed as animated bubbles, lines, or bars. Requires Adobe Flash Player.
	Motion charts are not available for realtime visualizations.
Sparkline Chart	Table-based rendering of variations of data displayed in a highly condensed way as miniature charts in table cells, enabling you to easily spot trends.

## Scheduling a Visualization or Dashboard

You can schedule a visualization or dashboard to run on a periodic basis and associate it with an email list for automatic distribution. The email will contain a link that recipients can click to display the visualization or dashboard on a Web page or, in the case of a visualization, the output can be sent as an attached CSV file.

Note: Realtime and compound visualizations cannot be scheduled.

To schedule a visualization or dashboard:

- 1. On the Analyzer title bar, click Visualization or Dashboard.
- 2. On the View page, navigate to the item you want to schedule, click the **i** button to the left of the listed item, and select **Schedule Job(s)** from the context menu.

		2		
ew			•	Show: Everything
ID	Name 🔺	Туре	Last Modified	Created By
	Realtime	Folder	03/26/2016 18:57:06	Ramesh B
4319	⊞ Calls By Queue - Last Month	Visualization	03/10/2016 23:14:02	Ramesh B
🖞 🗲 Run	III Calls By Queue - Last Week	Visualization	03/10/2016 23:14:02	Ramesh B
C Edit	III Calls By Queue - This Year	Visualization	03/10/2016 23:14:02	Ramesh B
Details     Move To	III Calls by Entry Point - Lookback	Visualization	03/10/2016 23:14:02	Ramesh B
Export as Excel	III Calls by Entry Point - Snapshot	Visualization	03/10/2016 23:14:02	Ramesh B
Export as CSV	III Calls by EntryPoint - Last Month	Visualization	03/10/2016 23:14:02	Ramesh B
Schedule job(s)	I Calls by EntryPoint - Last Week	Visualization	03/10/2016 23:14:02	Ramesh B
Delete		Visualization	03/10/2016 23:14:02	Ramesh B

- **3**. The **Jobs** panel on the left side of the page displays a list of schedules that have been created for the selected visualization or dashboard.
  - To create a new schedule, specify settings in the panel on the right or, if a schedule is selected in the **Jobs** panel, click the **New** button and then specify the settings.
  - To edit an existing schedule, select a schedule listed in the **Jobs** panel and then edit the settings displayed in the panel on the right.

	CEA	• « 🚮 I	Home	III Visualization	🚯 Dashboard	<b>A</b> •
Click the << button to -	Jobs	Call Co	E Save	C Recurrence	🖀 Delete Job	×
This setting appears only for visualizations.		Start T m Time Zu (+5:30 Email N To: M	ime: 05/03/15 one: D) Chenna lotification inas to separat t: ge: Format	i, Mumbai, New De	9:00 PM	

Setting	Description					
Job Set Up	Job Name: Enter a name for the schedule. After saving the schedule, you cannot change the name.					
	<b>Description:</b> Optionally enter a description for the schedule.					
	<b>Start Time:</b> Select a start date from the calendar and a start time from the drop-down list.					
	Time Zone. Select a time zone for the schedule from the drop- down list.					
Email Notification	To: Enter the email addresses, separated by commas, of recipients to whom email notification will be sent.					
	Subject: Enter a subject line for the email.					
	Message: Optionally enter a message to be included in the email.					

Setting	Description
Output Format	If you are scheduling a visualization, specify how you want the visualization output to be sent:
	<ul> <li>Link. A link to the visualization output will be sent with the email notification.</li> </ul>
	• CSV. The visualization output will be attached to the email notification as a CSV file.

- 4. If you want the visualization or dashboard to run more than once, click the **Recurrence** button at the top of the page, and in the dialog box that appears:
  - a. Specify the frequency (**Daily**, **Weekly**, **Monthly**, **Yearly**) with which the job will recur, and then select the options for the frequency.
  - b. Specify the range of recurrence: no end date, end after a specified number of occurrences, or end by a specified date.
  - c. Click **OK** to close the dialog box and save your settings.

Job Recurrence	×
Recurrence pattern	
Daily     Recur every     1     week(s) on:       Weekly     Sunday     Monday     Tuesday     Wednesday       Yearly     Thursday     Friday     Saturday	
Range of recurrence	
No end date	
©End after: 10 occurrences	
©End by: 05/04/15	
Cancel Remove Recurrence OF	

5. Click **Save**. The schedule is listed in the Jobs panel on the left side of the page.

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## Designing Visualizations

This chapter describes how to create visualizations using an intuitive drag-and-drop interface. After you specify and save the visualization content, you can click a button to preview the output in a separate window.

Topics covered in this chapter:

- Visualization Creation Overview
- Creating a Visualization
- Creating a Compound Visualization
- Creating a Visualization Displaying Actual Values
- Creating and Sharing an Enhanced Field
- · Settings for a Sample-Based Visualization
- Selecting a Formula for a Measure
- Defining Filters
- Creating a Profile Variable Based on a Another Profile Variable
- Creating and Using Shared Formulas
- Creating and Formatting a Visualization Title
- Formatting a Table
- Formatting a Profile Variable
- · Formatting a Chart
- Editing the Visualization Name

See also "Sample Visualizations" beginning on page 71 and "Mappings of ACD Metrics to Analyzer Parameters" beginning on page 77.

## **Visualization Creation Overview**

Creating a visualization involves the following steps:

- 1. Specify the visualization type:
  - Customer Session Record
  - Customer Activity Record
  - Agent Activity Record
  - Agent Session Record
- 2. Choose a Date Range. Specify the time period that you want the visualization to cover. This constrains the number of records that will be considered during execution of the visualization.
- **3**. **Define the Compute Interval.** The compute interval for a historical report can be either time based or sample based.
  - For a time-based visualization, select a time interval.
  - For a **sample-based** visualization, specify the total number of records to be considered, the *frequency* (that is, the number of records to be considered in each interval) and the *band* (that is, the number of records to be considered in each calculation), and whether or not the calculations will be cumulative.
- 4. Define the Segmentation. Specify what you are trying to compare as part of the visualization. It could be comparing the performance of the different agents or entry points. The Analyzer allows segmentation only by fields and not by measures. For example, segmentation by *Termination Type* or *Agent Name* is allowed, while segmentation by *Call Count* is not allowed.
- 5. Define the Profiling Variables. Define the metrics you want to see in the visualization to compare the different segments. Profiling variables are always numeric values and can be created from either fields, measures, or other profiling variables.
  - **Field.** Fields can be used to create counts of records that meet specified conditions. For example, you can create a profiling variable that will give the count of records with a *Termination Type* equal to *normal*.
  - Measure. Measures can be used to create summations, averages, or counts. Summations and averages require no additional input. Counts work the same as fields, and thus require conditions to be specified. For example, using Revenue as the basis for a profiling variable allows you to create a sum of the Revenue, an average of the Revenue, or a count of records that have a Revenue greater than, less than, or equal to a given amount.

- Existing Profile Variable. Profiling variables can be created from other profiling variables using arithmetic formulas. For example, if you already have a profiling variable named *Average Revenue* containing the average of Revenue and another profiling variable named *Handled Calls* containing the count of records where *Termination Type* equals *normal*, then you can create a profiling variable containing the average revenue per call using *Average Revenue* divided by *Handled Calls*.
- 6. Define the Filter. This step further limits the population set to include only the records that meet the conditions you specify. For example, you could create a filter specifying that only information specific to a set of entry point names (say EP\_01 and EP\_02) are to be considered in the visualization.
- 7. Define the Output Format. A visualization can be displayed as a table or chart. The chart types currently supported are Bar, Pie, Line, Area, and Motion. Additionally, you can specify display options such as titles, colors, and border widths and styles.
- Define execution (Schedule/Recurrence). Visualizations can be executed on demand, scheduled for a one-time execution, or scheduled to run periodically. Scheduled executions post their results to the specified email recipients using either a web link or CSV file attachment.
  - **Execute now:** Use *Preview* from the visualization creation page or *Run* from the view page.
  - **Execute once and email:** Use *Scheduler* and define time and email information.
  - Recurrence: Use Scheduler and define recurrence, such as daily at 9:00 AM.

## **Creating a Visualization**

See also "Creating a Visualization Displaying Actual Values" on page 53.

To create a visualization:

1. On the Analyzer title bar, click **Visualization**, and on the **View** page that appears, click **Create New Visualization**.

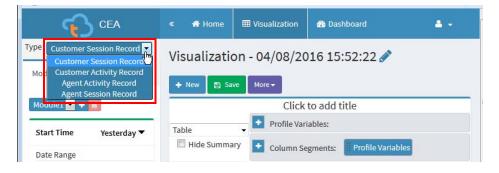
The visualization creation page appears. The left side of the page displays the *Type* drop-down list and the *Modules* and *Formatting* tabs.

The Modules tab displays two panels that you can expand or collapse by clicking a panel title.

Click the << button to hide the side panel. Then you can click the >> to restore the panel.

	CEA	« 者 Home	III Visualization	🚯 Dashboard	۵
Click to collapse this	Type         Customer Session Record           Modules         Formatting	Visualizatio		016 15:52:22 🖋	
expanded panel.	Module1 💌 🛨 💼		Click	to add title	
	Start Time Yesterday ▼	Table	▼ Profile Var	-	
Click to expand this,	Date Range	🔲 Hide Summa	Column Se		_
collapsed panel.	If run today: Start Date: 2016-04-07 End Date: 2016-04-07 Including All Days Compute T Add Filter	Row/Serie Segments:	s Unable to rer	nder: there are no profile va	riables selected.

 Select an option from the Type drop-down list on the upper left side of the page to specify the visualization type: Customer Session Record, Customer Activity Record, Agent Activity Record, or Agent Session Record.



**3**. Specify the visualization time period by selecting an option from the **Start Time** drop-down list in the **Modules** tab.

To create a realtime visualization, select **Realtime**. To create a historical visualization, select either a predefined date range or select **Custom** to specify custom start and end dates.

	ssion Record 💌	Visualization	- 04/08/2016 1 More <del>-</del>	15:52:22 🖋
Module1 💌 + 💼 Start Time	Yesterday 🔻	Table •	Click to ad	d title
Date Range If run today: Start Date: 2016-0 End Date: 2016-0 Including All Days	Today Yesterday This Week Last Week This Month	<ul> <li>Hide Summary</li> <li>Row/Series</li> <li>Segments:</li> </ul>	Column Segment	s: Profile Variables

If you selected **Realtime**, skip to step 7.

If you selected **Custom**, select values from the **Start Date** and **End Date** dropdown lists.

Type Customer Session Record	Visualization	- 04/08/2016 15:52:22 🖋
Modules Formatting	🕂 New 🖺 Save	More 🕶
Module1 💌 🛨 💼		Click to add title
Start Time Custom ▼	Table 🔻	Profile Variables:
Start Date	Hide Summary	Column Segments: Profile Variables
Most Recent Day M Exact Date s Day of the Year Day of the Month Day of the Week Most Recent Day Houst Recent Day At least 1 days prior to today. Including All Days	Row/Series Segments:	Unable to render: there are no profile variables selected.

- If you selected **Exact Date**, enter a date in the field that appears, or click in the field and then select a date from the calendar controls.
- If you selected one of the other options (**Day of the Year, Day of the Month, Day of the Week**, or **Most Recent Day**), use the controls that appear to select the options you want.

#### Notes:

- If you specify a lengthy date range, the visualization could take a long time to run. In this case, it might be preferable to schedule the visualization rather than running it in real time (see "Scheduling a Visualization or Dashboard" beginning on page 33).
- If the pre-defined date range you want to select is not available in the dropdown list, increase the compute interval. Small compute intervals (such as *Hourly*) with large date ranges (such as *Last Month*) result in more data than can be displayed; thus such selections are not allowed.
- 4. You can filter the date range by selecting an option from the Including dropdown list (Days of a Week, Days of the Month, Weeks of the Month, or Months of the Year) and then selecting the weekdays, days of the month, weeks, or months you want the visualization to include.
- If you are creating a time-based visualization, select a time interval from the Interval drop-down list in the Compute panel (None, 15 Minutes, 30 Minutes, Hourly, Daily, Weekly, or Monthly).

The available options vary depending on the length of the date range. Small compute intervals (such as *15 Minutes*, *30 Minutes*, or *Hourly*) are not available if the specified date range is lengthy (such as *Last Month*).

Type Customer Session Record	Visualization - 04/08/2016 15:52:22 🖋
Modules Formatting	+ New 🗈 Save More -
Module1 🗹 🛨 🗃	Click to add title
Start Time Custom ▼	Table
Start Date	Hide Summary Column Segments: Profile Variables
Exact Date	Row/Series Unable to render: there are no profile variables selected.
03/21/2016	Segments:
End Date	
Exact Date	
03/25/2016	
Including	
All Days 💌	
Compute	
Interval None 15 Minutes 30 Minutes Hourly Daily Weekly Monthly	

6. If you are creating a sample-based visualization, select First or Last from the Records drop-down list in the Compute panel, and in the text box, enter the total number of records to be considered in the visualization.

In the three additional settings that appear, enter the number of records to be considered per interval (**Frequency**) and the number of records to be considered per calculation (**Band**), and select the **Cumulative** check box if you want the calculations to be cumulative. For more information, see "Settings for a Sample-Based Visualization" on page 58.

Type Customer Session Record	Visualization - 04/08/2016 15:52:22 🖋	
Modules Formatting	+ New 🗈 Save More -	
Module1 💌 🛨 🗃	Click to add title	
Start Time Custom ▼	Table Profile Variables:	
	Hide Summary Column Segments: Profile Variables	
Compute	Row/Series Unable to render: there are no profile variables selected	i.
Interval	Segments:	
Frequency 100 Records Band 100 Records Cumulative Records Last 1000 Records X Add Filter		

**7**. If you selected **Realtime** as the visualization time period, select values from the drop-down lists that become available in the **Compute** panel.

Duration	Select None for a snapshot of the current contact center activity.
	- OR -
	Select a specific time interval (of 5, 10, 15, or 30 minutes) for a view that looks back from the current moment to the most recent 5, 10, 15, or 30 minutes.
	- OR -
	Select <b>Start of Day</b> for a view of everything that happened since midnight.
	- OR -
	Select <b>Custom</b> for a view that looks back from the current moment to up to fourteen days in the past.
Refresh Rate	Select a value to specify how often the data in the visualization will be refreshed: minutes for duration of <i>Start of Day</i> and <i>Custom</i> ; otherwise, seconds.

Interval	If <b>Start of Day or Custom</b> is specified as the <i>Duration</i> , the Interval drop-down list appears, enabling you to select a time interval <b>(None, 15 Minutes, 30 Minutes, or Hourly)</b> .
Look Back (D-H-M)	If <b>Custom</b> is specified as the <i>Duration</i> , the Look Back settings appear. Enter the number of days, hours, and minutes from the current moment you want the visualization to look back to. You can specify up to 14 days.

The Interval setting appears or is set to <b>Start of Day</b> or <b>Custo</b>		ook Back settings ap Duration is set to <b>Cus</b>	
Type Custome Session Record  Modules Formatting	Visualization + New 🗈 Save	- 04/08/2016 15	:52:22 🖋
Module1 💌 📲 🗃		Click to add t	itle
Start Time Realtime 🔻	Table	Profile Variables:	
Start time Realtime +	Hide Summary	• Column Segments:	Profile Variables
Compute	Row/Series	Unable to render: there	e are no profile variables selected.
Interval	Segments:		
None	/		
Realtime	/		
Duration Custom	<b>`</b>		
Look Back(D-H-M)			
Refresh Rate (Minutes) 5 💌			
▼ Add Filter			

8. To specify the segmentation, click the Add button on the left side of the Column Segments or Row/Series Segments box, and then select a field or enhanced field listed in the New Segment dialog box that appears. Repeat this step for each segment you want to add. (For information about enhanced fields, see "Creating and Sharing an Enhanced Field" on page 54.)

Note: For charts, only the first segment is used.

Click one of these buttons $/$	then select a field or enhanced field listed in the New Segment dialog box.	
Visualization - 04/08/2016 + New Save M re- Table M re- Table Column Segment Segments:	Home       Home       Home         New Segment       # Dashboard         Fields	
	<ul> <li>[ACD] Carrier Group Id</li> <li>[ACD] Channel Id</li> </ul>	
	> [ACD] Channel Type	-

- **9.** If you want to combine multiple values of the segmentation variable into one group, you can create an enhanced field:
  - a. Right-click the segment and select Create Enhanced Field.
  - b. Specify the settings for one or more groups in the dialog box that appears. For example, you could create three groups of entry points where each group represents a different product line or a different business unit. See "Creating and Sharing an Enhanced Field" on page 54 for more information.
- **10**. To create a profile variable:
  - a. Click the Add 🛃 button on the left side of the **Profile Variables** box, and then select a field, measure, or formula listed in the New Profile Variable dialog box that appears.

Click this button		select a field, measure, of in the dialog box that ap		irs.	
Visualization	04/08/20	016 15:52:22 🖋			
🕂 New 🖺 Save	lore 🗸	New Profile Variable	~	Select a field, measure or formula to add a new profile variable.	×
Table 🔻	Profile Vari	Fields		Science a neito, measure of formula to add a new prome variable.	
Hide Summary	🛨 Column Se	[ACD] Activation Date [ACD] Agent ID	=		
+ Row/Series		≽ [ACD] Agent Name			
Segments:		≽ [ACD] Agent Session Id			
II Agent ID		🎾 [ACD] ANI			
		≽ [ACD] Billable Entity			
		찯 [ACD] Branch Id			
		≽ [ACD] Cad cTier			
		≽ [ACD] Call Id			
		≽ [ACD] Carrier			
		찯 [ACD] Carrier Group Id			
		🎾 [ACD] Channel Id			
		🎾 [ACD] Channel Type			
		찯 [ACD] Collect Call Code			
		➢ [ACD] Collect Order No.			
		≽ [ACD] Collect Phone No.	-		
				Cancel Save	

- b. If you selected a field or measure, do the following in the settings that appear on the right side of the dialog box.
  - Type a name for the profile variable in the **Name** text box or leave the default text. This name will be displayed in the column header and axis labels.
  - If you used a *field* to create the profile variable, you can specify the records you want included in the count by dragging an item from the Fields list to the Filters area of the New Profile Variable dialog box and selecting the records to include or exclude (see "Filtering Using a Field" on page 59).

In the following example, a profile variable named *Handled* is defined as the count of records with a Termination Type of *normal*.

≫ [ACD] Record File Id	*	Name: Handled
[ACD] Recording Flag		
[ACD] Session ID		Formula: Count of Termination Type
≽ [ACD] Site ID		Filters:
≫ [ACD] Site Name		Drag and drop in the box below the desired field(s) and/or measure(s)
≫ [ACD] Source Url		
≫ [ACD] State		Termination Type 😂 🗙
≫ [ACD] Subject		● is in    ○ is not in    ○ regular expression
≫ [ACD] Supervisor Number		normal
≽ [ACD] Tam Id		
≽ [ACD] Team ID		
≽ [ACD] Team Name		Type to filter available values below
≫ [ACD] Terminating End		abandoned
➢ [ACD] Termination Type		overflow
≫ [ACD] Timezone	Ξ	quick_disconnect
ờ [ACD] Wrapup Code		self_service 🔹
≽ [ACD] Wrapup Code Id		
	•	

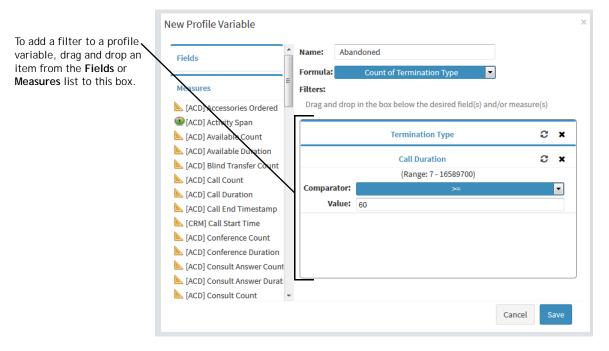
• If you used a *measure* to create the profile variable, select the computation you want to perform from the **Formula** drop-down list (see "Selecting a Formula for a Measure" on page 58). Then you can specify a condition for including records by dragging an item from the Fields or Measures list to the Filters area of the dialog box (see "Filtering Using a Measure" on page 60).

In the following example, a *Converted* profile variable is created by counting the records with *Estimated* Revenue greater than zero.

ilters: Drag a	and drop in the box below the desired field(s)	and/or mea	sure(s
	Estimated Revenue	C	×
	(Range: -3913.27 - 2024.0)		
Comparator:			-
Value:	0		

c. You can add additional filters to a profile variable by dragging items from the Fields or Measures list to the Filters area of the dialog box and specifying which records to include or exclude or, in the case of a measure, the condition for including records.

In the following example, an *Abandoned* profile variable is defined as the count of records with a Termination Type of *abandoned* and a Call Duration of greater than 60 seconds.



d. Click **Save** to close the New Profile Variable dialog box and add the profile variable to the visualization.

The profile variable appears in the visualization area displaying simulated values.

- 11. You can create a new profile variable based on a profile variable that exists in the visualization. For example, you could create a profile variable showing the conversion rate for each record by dividing the *Converted* value by the *Handled* value (see "Creating a Profile Variable Based on a Another Profile Variable" on page 61).
- 12. To specify the format for the profile variable, right-click the profile variable and select a Number Format option from the context menu (see "Formatting a Profile Variable" on page 66). For example, if you created a *Conversion Rate* profile variable, you could select *Percentage* as the format.

13. Continue creating as many profile variables as you want. In the following example, three profile variables have been created and the data is segmented under Queue ID and Agent Name header rows.

**Note:** If you are creating a motion chart, you must include at least three profile variables.

To change the order of a segment or profile variable, drag its label to a different position.

To remove a profile variable or segment, point to the right edge of the item and then click the **Q** button.

							\	
Type Customer Session Record  Modules Formatting	Visualization		/2016 18:1	L1:17 🥖	•			
Module1 🔽 🛨 💼	🕂 New 🖺 Save	Moner	Clic	k to add	title			
Start Time Custom ▼	Table -			Call Count	☑ IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		Hvg Talk Duration	
Compute	Row/Series			Interval •	03	/01/2016 - (	)3/07/2016	
Interval	Segments:	Queue ID 🔻	Agent Name 🔻		Call Count	Talk Count	Avg Talk Duration	Call Co
Weekly	Uueue ID		Agent Name 1		7006	518	00:00	8
Records	Agent Name	Queue ID 1	Agent Name 2		648	4385	00:00	
			Agent Name 3		9947	1919		3
All 💌 Records			Agent Name 1		1183	4855	00:00	5
		Queue ID 2	Agent Name 2		5357	5589	00:00	
▼ Add Filter			Agent Name 3		7852	9576	00:00	1
			Agent Name 1		4791	1947	00:00	9
		Queue ID 3	Agent Name 2		174	4829	00:00	9
			Agent Name 3		9842	2361	00:00	30

To change the order of a profile variable or segment, drag its label to a different position.

To pivot across column and row segments, drag a segment label from the **Column Segments** box to the **Row/Series Segments** box, or vice versa.

To remove a profile variable or segment, point to the right edge of the item and click the 😮 button that appears.

Note: You cannot remove a profile variable used in another profile variable.

14. To find out approximately how large the visualization will be when it is run, click the **More** button at the top of the visualization and select (i) **Info**. A popup window displays how many records in the database match the specified criteria and approximately how many rows and columns will be included in the output.

- **15.** You can create a filter to limit the number of records the visualization considers by default. To create a filter:
  - a. Click the **Add Filter** button in the **Modules** tab and in the dialog box that appears, select a field or measure from the displayed lists and click **Save**.

- OR -

Right-click a segment in the visualization and select Create Filter.

b. When the new filter appears in the Modules tab, specify which values to include or exclude or, in the case of a measure, set a condition the data must satisfy. For more information, see "Defining Filters" on page 59.

Type Customer Session Record	Visualization	- 04/08/	2016 18:	11:17 🥖	>		
Modules Formatting	🕂 New 🖺 Save	More 🕶					
Module1 💌 🛨 📴			Clic	k to add ti	tle		
Start Time Custom ▼	Table 🔻	• Profile	Variables:	Call Count	💌 🔛 Talk	Count 🔽	II Avg Talk
	Hide Summary	Columi	n Segments:	Interval	🗄 Profile V	ariables	
Compute	• Row/Series			Interval 🕨	03	/01/2016 - 0	3/07/201
	Segments:	Queue ID 🔻	Agent Name	•	Call Count	Talk Count	Avg Talk
▼ Add Filter	II Queue ID		Agent Name	L	7006	518	
	ii Agent Name	Queue ID 1	Agent Name		648	4385	
Queue ID 🤁 🗙			Agent Name		9947	1919	
🖲 is in 🔘 is not in		0	Agent Name		1183 5357	4855 5589	
regular expression		Queue ID Z	Agent Name 2 Agent Name 2		7852	9576	
A			Agent Name		4791	1947	
			Agent Name		174	4829	
~			Agent Name	3	9842	2361	
Type to filter available val		Summary			1858	1179	
0 10021 10024 10029							

**16.** Specify a visualization output format by selecting one of the options from the drop-down list shown in the next illustration. For a description of each format, see the table on page 32.

🛨 New 🖺 Save	More 🗸		_					
			Click	to add ti	tle			
Table ▼ Table ↓ Heat Map			Call Count [	Profile Value		Hvg Talk Duration		
Row Heat Map Column Heat Map			Interval 🕨	03	/01/2016 - 0	3/07/2016	03	/08/2016 -
Line Chart Bar Chart	Queue ID 🔻	Agent Name 🗸		Call Count	Talk Count	Avg Talk Duration	Call Count	Talk Coun
Area Chart		Agent Name 1		7006	518	00:00	8762	414(
Pie Chart	Queue ID 1	Agent Name 2		648	4385	00:00	766	2622
Motion Chart		Agent Name 3		9947	1919	00:00	3638	2097
Sparkline Chart		Agent Name 1		1183	4855	00:00	5488	851

- 17. If you are creating a compound visualization, add at least one additional module before you save the visualization (see the next topic, "Creating a Compound Visualization").
- **18**. To save the visualization, click the **Save** button, and in the dialog box that appears:
  - a. Select the folder you want to save the visualization in.

To create a new folder, click the **New Folder** button, and then enter a name for the folder in the text box that appears.

b. In the **Name** text box, enter a name for the visualization, and then click **OK**.

Save Visualization ×					
🚛 🛺 Acme					
🖿 ACD-Reports					
🖿 Joan					
🖿 Ramesh					
🖂 🖿 🖿 sneha					
sunny					
🛄 🖿 Vidya					
Name: Call and Talk Count					
New Folder OK Cancel					

**19**. After saving the visualization, you can click the **Preview** button to view the visualization in a separate window.

### Creating a Compound Visualization

A compound visualization includes two or more modules that are displayed side by side. All modules within a visualization must have identical row/series segments, column segments, and profile variables, but can have differing date ranges, intervals, and filters.

When you create a visualization, you can make it a compound visualization by adding at least one additional module before you save the visualization. After a visualization is saved with only one module, the label on the *Modules* tab is changed to *Details* and the visualization cannot be edited to have an additional module.

However, if you save a visualization with more than one module, you can later delete all but one module, save the visualization, and add more modules later.

Compound visualizations cannot be scheduled or exported and do not have pivoting capability in execution mode.

To add a module to a visualization:

➤ At any time during the creation of a visualization, click the + button at the top of the Modules tab and in the dialog box that appears, enter a name for the module and click OK.

Click the button again for each additional module you want to add.

Type Customer Session Record	Visualization	- 04/08/2016 17:	44:20 🖋	•	
	🕈 New 🖺 Save	More -			
Module1	Table 🔹	Click to add ti Profile Variables:	tle Handled 📝	]	
	Hide Summary	Column Segments:	🗄 Profile Vari		terval
Compute	Row/Series			Handled	
▼ Add Filter	Segments:	Interval > Queue Name -		02/02/2016	02/03/201
		Queue Name 1	7080	8142	626:
		Queue Name 2	6417	2753	299:

After adding a module, the middle of the visualization creation page displays the constituent visualizations side by side. You can select different date ranges, intervals, and filters for each module.

To display the settings that can be individualized for each module:

> Select a module from the drop-down list at the top of the **Modules** tab.

Type Customer Session Record 🔻	Visualization	- 04/08/20	16 17:	44:20 🖋	•	⊞	Visualization	> Create New	/Visualization
Modules Formatting	🕂 New 🖺 Save	More 🕶							
Module2 🔽 🛨 💼				Click to a	dd title				
Module2 Module2 Custom ▼	Table -	Profile Vari	ables: 🔢	Handled 📝	]				
	Hide Summary	Column Se	gments:	Profile Var	iables 📙 Ir	nterval			
Compute	+ Row/Series			Module1				Module2	
	Segments:				Handled			Handled	
▼ Add Filter	Uueue Name		Interval 🕨	02/01/2010	02/02/2010	02/02/2010	03/01/2016	02/02/2010	02/02/2014
		Queue Name 🔻		02/01/2016	02/02/2016	02/03/2016	03/01/2016	03/02/2016	03/03/2016
		Queue Name 1		7080	8142	6261	7080	8142	6261
		Queue Name 2		6417	2753	2991	6417	2753	2991
		Queue Name 3		1731	4326	2328	1731	4326	2328

To change the label at the top of a module:

> Select the label text and type a new label.

The drop-down list in the Modules tab reflects the label changes.

Type Customer Session Record  Modules Formatting	Visualization	- 04/08/20 More <del>-</del>	16 17:	44:20 🖋	•	⊞	Visualization	> Create New	Visualization
March 🔽 🛨 🔟				Click to a	dd title				
February March Custom ▼	Table 🗸	Profile Vari	ables: 🏢	Handled 🔽	)				
	Hide Summary	🛨 Column Se	gments:	🛛 Profile Var	iables 📙 Ir	iterval			
Compute	Row/Series			February				March	
	Segments:				Handled			Handled	
▼ Add Filter	Uueue Name		Interval 🕨	02/01/2016	02/02/2016	02/03/2016	02/01/2016	02/02/2016	02/02/201/
		Queue Name 🔻		02/01/2010	02/02/2010	02/03/2010	03/01/2010	03/02/2010	03/03/2010
		Queue Name 1		7080	8142	6261	7080	8142	6261
		Queue Name 2		6417	2753	2991	6417	2753	2991
		Queue Name 3		1731	4326	2328	1731	4326	2328

## **Creating a Visualization Displaying Actual Values**

To display the actual values in the database without aggregation, the visualization cannot include a time interval or segmentation, and all profile variables must be configured with *Value of* as the formula.

**Note:** The *Value of* option is not available in a visualization that already includes a time interval or segmentation.

To create a visualization displaying actual database values without aggregation:

- 1. On the Analyzer title bar, click **Visualization**, and on the **View** page that appears, click **Create New Visualization**.
- Select an option from the Type drop-down list on the upper left side of the page to specify the visualization type: Customer Session Record, Customer Activity Record, Agent Activity Record, or Agent Session Record.
- **3.** Specify the visualization time period (see step 3 beginning on page 41).
- 4. To add a profile variable:
  - a. Click the Add  $\stackrel{\bullet}{\bullet}$  button on the left side of the **Profile Variables** box, and select a field or measure in the **New Profile Variable** dialog box.
  - b. In the Formula drop-down, select the Value of setting.

able 👻	Profile Varia	New Profile Variable	
Hide Summary	💽 Column Se	Fields	Name: Value of Agent ID
		> [ACD] Activation Date	Formula: Value of Agent ID
Row/Series Segments:		> [ACD] Agent ID	Filters:
orginerito.		>> [ACD] Agent Name	Drag and drop in the box below the desired field(s) and/or measure(s)
		[ACD] Agent Session Id	
		» [ACD] ANI	
		≫ [ACD] Billable Entity	
		➢ [ACD] Branch Id	
		➢ [ACD] Cad cTier	
		➢ [ACD] Call Id	
		➢ [ACD] Carrier	
		>> [ACD] Carrier Group Id	
		≫ [ACD] Channel Id	
		➢ [ACD] Channel Type	
		>> [ACD] Collect Call Code	
		≫ [ACD] Collect Order No.	

 Repeat step 4 for each additional profile variable you want to add and then click Save to save the visualization. Then you can click Preview.

## Creating and Sharing an Enhanced Field

While creating or editing a visualization, users can create one or more enhanced fields to combine multiple values of a segmentation variable into one or more groups. When the visualization is run, the values of all the segmentation variables in a group are combined into one row and the profiling variables for that visualization are computed for those segmentation values. For example, you could create groups of entry points representing different products lines or geographical regions.

After you create an enhanced field, you can make it available in the New Segment dialog box for selection by yourself and other visualization designers.

Topics covered in this section:

- · Creating an Enhanced Field
- Sharing an Enhanced Field
- Deleting a Shared Enhanced Field

### Creating an Enhanced Field

To create an enhanced field:

1. While creating or editing a visualization, right-click a segment in the visualization and select **Create Enhanced Field**.

🕂 New 🖺 Save	More -
	Click to add title
Table 👻	Profile Variables:
Hide Summary	Column Segments:     Profile Variables
	Unable to render: there are no profile variables selected.

2. In the dialog box that appears, specify the settings for the group as described in the following table.

Name	Enhanced Field_1459368256637		
Regular Expression			
Default Group			
Groups		Provide values	
	¥	12689	
		ACE-EP1	ŋ
		ACE-EP2	1
		ACE-EP6	
		Central_Data	
		DCS_Data	

Setting	Description
Name	Enter a name for the enhanced field.
Regular Expression	Click this check box if you want matching to be based on a regular expression as opposed to a straight string match.
Default Group	Enter a name (for example, <i>Other Entry Points</i> ) for the group that will include all the variables not included in the defined groups.

Setting	Description
Groups	To define a group, enter a name in the box on the left and then in the <b>Provide Values</b> box:
	Select values from the drop-down list.
	- OR -
	<ul> <li>Type a value and then press Enter. Repeat for each value you want to include.</li> </ul>
	- OR -
	<ul> <li>If the Regular Expression check box is selected, type a regular expression.</li> </ul>
	To define another group, click the Add 🔸 button.

In the following example, three product groups are created, each consisting of two or three entry points.

Name	Product Groups		
Regular Expression			
Default Group	Other Entry Points		
Groups	Product Group 1	EP01 × EP02 × EP05	×
	- Product Group 2	EP03 EP06 EP09	×
	- Product Group 3	EP04 × EP07	×
	+		

**3**. Click **Save**. The new segment is displayed in the visualization with a green background.

	🕂 New 🖺 Save	More -
		Click to add title
Green identifies	Table 👻	Profile Variables:
this segment as an enhanced field.	Hide Summary	Column Segments: Profile Variables
enhanced field.	Row/Series     Segments:     Entrypoint     Name     Product Groups	Unable to render: there are no profile variables selected.

### Sharing an Enhanced Field

To make an enhanced field available for future use:

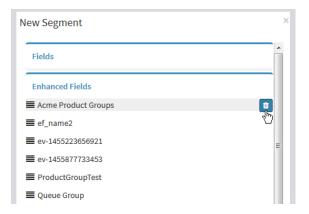
- 1. While creating or editing a visualization, right-click an enhanced field segment that has been added to the visualization and select **Save** from the context menu.
- 2. In the dialog box that appears, enter a name for the enhanced field in the **Name** text box or leave the existing name and click **OK**.

The saved enhanced field will now be listed in the New Segment dialog box for selection when you and other visualization designers create or edit a visualization.

### **Deleting a Shared Enhanced Field**

To delete a shared enhanced field:

- While creating or editing a visualization, click the Add + button on the left side of the Column Segments or Row/Series Segments box to display the New Segment dialog box.
- Rest your pointer over the name of the enhanced field you want to delete and click the button that appears on the right.



If the enhanced field is not currently in use, it is deleted.

## Settings for a Sample-Based Visualization

When you create a sample-based visualization, you specify the total number of records to be considered as well as the following settings:

- Frequency: The number of records to be considered in each interval.
- Band: The number of records to be considered in each calculation.
- Cumulative: Whether or not the calculations are cumulative.

For example, suppose the total number of records to be considered is 600, the frequency is 100, and the band is 300. In this case:

- If *Cumulative* is not selected, the first calculation will be for records 1 to 300, the second for records 101 to 400, the third for records 201 to 500, the fourth for records 301 to 600.
- If *Cumulative* is selected, the first calculation will be for records 1 to 300, the second for records 1 to 400, the third for records 1 to 500, and the fourth for records 1 to 600.

## Selecting a Formula for a Measure

The following table describes the formulas available when you use a measure to create a profile variable.

Formula	Calculates
Average	The average value.
Sum	The total value.
Count	The number of values.
	When you select this formula, the dialog box displays settings for specifying a condition for including records in the count as described in "Filtering Using a Measure" on page 60
Minimum	The smallest value.
Maximum	The largest value.
Value of	The actual value in the database without aggregation (see "Creating a Visualization Displaying Actual Values" on page 53).
Geometric Mean of	The nth root (where <i>n</i> is the count of numeric values within the specified range) of the product of the values.
Kurtosis of	The measure of whether the data are peaked or flat relative to a normal distribution.
Median	The middle value.

Formula	Calculates
Population Variance of	Variance of the set of unique values.
Skewness of	How far the median is from the mean.
Standard Deviation of	The square root of the variance.
Sum of Squares for	The sum of the squares of the values.
Variance of	The average of the squared differences between each value and the mean value.

### **Defining Filters**

Topics covered in this section:

- Filtering Using a Field
- Filtering Using a Measure

### Filtering Using a Field

When you run a visualization, the settings panel displays controls for specifying which records to include or exclude from the visualization.

These controls are also displayed when you do the following while creating or editing a visualization:

- Drag a field into the Filters area of the dialog box that appears when you create or edit a profile variable.
- Click the Add Filter button and select a listed field in the dialog box that appears.
- Right-click a segment in the visualization and select Create Filter.

To specify which field values to include or exclude, do one of the following:

• Select the **regular expression** button, and then enter a regular expression in the text box that appears to specify which values to include or exclude.

- OR -

Select the is in or is not in button, then select the values in the list that you want to include or exclude and click the Add + button. Or you can type a name of a value in the text box and then click the Add + button.

To filter the list of available values, type one or more characters in the text box. As you type, the values that match your text appear in the list for your selection. You can use \* as a wildcard to represent one or more characters.

To specify an empty (blank) value, click the 🛨 button with nothing selected.

Queue ID
Image: Constraint of the second seco

To remove a specified value, select it and click the 🔳 button.

#### Filtering Using a Measure

The Analyzer displays controls for specifying which records to include in or exclude from the visualization based on the value of a measure when you do the following:

- Drag a field into the Filters area of the dialog box that appears when you create or edit a profile variable.
- Click the **Add Filter** button in the **Modules** panel (or, if you are editing a singlemodule visualization, the **Details** panel) and select a listed measure in the dialog box that appears.

To set a condition for a measure, do one of the following:

To restrict the data to values between a minimum and maximum value, select Between from the Comparator drop-down list, and then enter a minimum and maximum value in the Min and Max text boxes.

The second secon	htti · ·		•	1 .	1 1	•	1	•		
Note	The minimum	V01110 10	Inc	11101770	but the	mavimiim	11201116	10 no	n_incl	1101770
	1 IIC IIIIIIIIIIIIIIIIIIII	value 13	mc	iusive,	Dut un	, maammum	varuc	, 15 110	11-111CI	usive.

	count of Call D	uration		
ormula:	Count	t of Call Duration	-	
ilters:				
Drag and	lrop in the box	below the desired field(s)	and/or measure(s)	
		Call Duration	c	×
		(Range: 7 - 16589700)		
Comparat	or: Between	•		
N	in: 0			
м	ax: 0			

- To restrict the data based on a single-sided comparison, select an operator from the Comparator drop-down list and enter a value in the Value text box.
  - < less than
  - <= less than or equal to
  - equal to
  - != not equal to
  - >= greater than or equal to
  - > greater than

In the following example, a condition (greater than 0) is applied to a *Total Revenue* measure to create a *Converted* profile variable.

	verted		
ormula:	Count of Estimated Revenue		
Iters: Drag a	nd drop in the box below the desired field(s	) and/or mea	asure(
	Estimated Revenue	0	×
	(Range: -3913.27 - 2024.0)		
Comparator:	>		-
Value:	0		

# Creating a Profile Variable Based on a Another Profile Variable

You can create a new profile variable by applying a mathematical formula to an existing profile variable. For example, consider a visualization that includes both a *Handled* and *Converted* profile variable. You could calculate the conversion rate for each record by creating a profile variable that divides the Converted value by the Handled value.

To create a profile variable based on an existing profile variable:

- 1. Right-click a profile variable in the visualization and select **New Profile Variable** from the context menu.
- 2. In the New Profile Variable dialog box that appears, enter a name for the profile variable in the **Name** text box.
- **3**. Select a mathematical symbol:  $+, -, \times$  or  $\div$ .

- 4. Do one of the following in the text box to the right of the mathematical symbol:
  - Type a numeric value.
  - Select the name of an existing profile variable from the drop-down list.

New Pro	ofile Variable				×
Name:	Conversion Rate				
Formu	la: Arithmetic Expression				
	Converted	÷	Handled	•	
	- 雀 :	Swap Operands	2		

5. Click Save. The new profile variable appears in the visualization.

### **Creating and Using Shared Formulas**

After you create a profile variable, you can make its formula available in the Formulas panel for use by yourself and other visualization designers as described in the following topics:

- Creating a Shared Formula
- Editing a Shared Formula
- Deleting a Shared Formula

### Creating a Shared Formula

To create a shared formula:

- 1. On the visualization creation page, create a profile variable as described in step 10 on page 45 or open an existing visualization for editing.
- 2. Right-click the profile variable and select **Save** from the context menu.
- **3**. In the dialog box that appears, type a name for the formula in the **Name** text box or leave the existing name and click **OK**.

Save Formula						
Name:	Conversion Rate					
	ок	Cancel				

The formula is saved in the Formulas panel.

### Editing a Shared Formula

To edit a shared formula:

1. While creating or editing a visualization, click the **Add**  $\Rightarrow$  button on the left side of the **Profile Variables** box, and then double-click the name of a formula listed in the **Formulas** panel.

The **Edit Formula** dialog box appears, displaying a tab for each profile variable in the formula. The color purple identifies the resultant profile variable. A formula can have only one resultant profile variable.

Fields	=	rersion Rate2	on one or more fields or m	neasures here.
[ACD] Activation Date	Conversion		Handled	
[ACD] Agent ID	Conversion	Converted	Handled	
[ACD] Agent Name	Formula: A	rithmetic Expression	Now p	rofile variable
[ACD] Agent Session Id				
Marchani [ACD] ANI	÷	Converted	Handled	
≫ [ACD] Billable Entity		😩 Swap O	perands 倉	
March Id [ACD] Branch Id	۲.	m		,
🎾 [ACD] Cad cTier				
🎾 [ACD] Call Id				
Marrier [ACD] Carrier				
[ACD] Carrier Group Id				
> [ACD] Channel Id				
<ul> <li>[ACD] Channel Id</li> <li>[ACD] Channel Type</li> </ul>				
<ul> <li>[ACD] Carrier Group Id</li> <li>[ACD] Channel Id</li> <li>[ACD] Channel Type</li> <li>[ACD] Collect Call Code</li> <li>[ACD] Collect Order No.</li> </ul>				

- Click a tab to see the profile variable definition in the formula. You can make the same modifications in the Edit Formula dialog box as you can when you create or edit a profile variable in the visualization.
- **3**. You can create a new formula based on a selected tab by clicking the **New profile variable** button.

### **Deleting a Shared Formula**

To delete a shared formula:

- 1. While creating or editing a visualization, click the **Add** + button on the left side of the **Profile Variables** box, and then double-click the name of a formula listed in the **Formulas** panel.
- 2. In the **Edit Formula** dialog box, click the **Delete** button. Then in the confirmation dialog box, click **YES**.

If the formula is not currently in use, it is deleted.

## **Creating and Formatting a Visualization Title**

To create and format a visualization title while creating or editing a visualization:

1. To add a visualization title, click the text **Click to add title** in the visualization canvas and enter a new title. To edit the title, select it and enter a new title.

- OR -

In the **Formatting** tab, select **Title** from drop-down and then click to the right of the **Title** field to display a text box where you can enter the title text.

Modules	Formatting		+ New 🖺 Save	More -		
	Title	-			Click to add title	
Title				Profile Varia		Converted 🔽
Back Color			Table • Hide Summary	Column Seg		
Border Size	1			Column Seg	ments: Interval	Profile Variables

2. To customize the format of the title, select **Title** from the drop-down list in the **Formatting** tab to display the formatting options that you can customize, such as border size, style, and color; text alignment and color; margins; padding; and font size, family, style and weight.

Type Custome	er Session Record 💌	Visualization	- 04/08/	/2016 1	6:53:49	) 💉			
Modules	Formatting	🕂 New 🖺 Save	More 🗸						
-	Title 💌			Clic	k to add	title			
Title			Profile	Variables:	Handled	1 📼 🗄 🗛	vg Talk Duration 🛛	<b>_</b>	
Back Color		Table 🗸	- Home	variables.	:: Handled	· 💌 (:: ^			
Border Size	1	Hide Summary	Colum	n Segments	Interv	al 🛛 Pro	file Variables		
Border Style	None	• Row/Series			Interval 🕨	03/01/2	016 - 03/07/2016	03/08/20	)16 - 03/
Border Color	#000000	Segments:	Queue ID 🔻	Agent ID 🔻		Handled	Avg Talk Duration	Handled A	Avg Talk
Font Size	18	ii Queue ID		Agent ID 1		9638	59.00	3648	
	10	II Agent ID	Queue ID 1	Agent ID 2		1830	18.00	9552	
Font Family		Agent to		Agent ID 3		1702	87.00	3045	
Font Style	Normal			Agent ID 1		5475	76.00	6022	
Font Weight	Normal		Queue ID 2	-		243	88.00	2469	
				Agent ID 3 Agent ID 1		3420 7350	59.00 48.00	5104 3947	
Text Align	Center		Queue ID 3			9769	99.00	2056	
Text Color	#333333		Queueibb	Agent ID 3		7966	54.00	61	
Text Decoratio	on Normal		Summary	0		4434	50.00	9623	
Margin Top	0								
Margin Botton	n 0								
Margin Left	0								
Margin Right	0								
Padding Top	0								
Padding Botto	om 0								
Padding Left	0								
Padding Right	t 0	(1	vote: values s	hown are sin	nulated and	l do not ref	flect actual data.)		
		•	111						•

## Formatting a Table

To customize the format of a table:

1. While creating or editing a table visualization, select the **Formatting** tab, and then select **Table** from the drop-down list to display the available formatting options.

Type Customer Session Record	Visualization	- 04/08/2016 16:53:49 🟈
Modules Formatting	🕂 New 🖺 Save	More 🕶
Table 🗾		Click to add title
Back Color #FFFFFF		Profile Variables: III Handled I III Avg Talk Duration IIII
Border Size 1	Table -	
Border Style Solid	Hide Summary	Column Segments: Interval Profile Variables
Border Color #FFFFFF	Row/Series	Interval > 03/01/2016 - 03/07/2016 03/08/2016 - 03/
	Segments:	Queue ID - Agent ID - Handled Avg Talk Duration Handled Avg Talk

2. Change any of the following options to customize the table format.

Option	Description
Back Color	Select the background color from the color selector or enter the HTML (hexadecimal) code for a color.
Border Size	Enter a value in pixels to change the border width.
Border Style	Select a value from the drop-down list to specify the style of the border around the table or select <b>None</b> if you do not want a border around the table.
Border Color	Select the border color from the color selector or enter the HTML code for a color.

## Formatting a Profile Variable

To change a profile variable's text alignment, number format, or caption:

- **1**. Do one of the following:
  - Right-click a profile variable to display the context menu.
  - Select a profile variable from the drop-down list in the **Formatting** tab to display the number format and caption options in the tab.
- 2. Change any of the options described in the following table.

Type Customer Session Record  Modules Formatting	Visualization	- 04/08/	/2016 16:	53:49	) 🥒						
, , , , , , , , , , , , , , , , , , ,	🕂 New 🖺 Save	More 🗸									
Profile variable: Handled 🛛 💌			(	Click to	add title						
Caption Handled	Table 👻	Profile	Variables:	Handled	d 🕡 🔛 🔛 Avg Ta	alk (	Duration 👿				
Number Format	Hide Summary	Colum	n Segments:	Edit New Pro	ofile Variable		bles				
	+ Row/Series		In	Number Text Alig	r Format	•	Integer Number	•	#### #.###	(12345) (12.345)	0
	Segments:	Queue ID 🔻		Formatt		-	Currency	Ļ		(12,345)	На
	Uueue ID		Agent ID 1	Save			Percentage	►		25.00	)
	ii Agent ID	Queue ID 1			1830	_	Date Time	Þ		65.00	
			Agent ID 3 Agent ID 1		1702 5475		Duration		-	54.00 76.00	

Option	Description
Caption	To change the caption, click the caption text displayed in the Formatting tab to select it and then enter a different caption.
	This setting is available only in the Formatting tab.

Option	Description
Number Format	Specify whether you want the data to be formatted as Integer, Number, Currency, Percentage, Date Time, or Duration, and within that category, specify how you want the data displayed.
	For example, when you select Percentage, you can select one of the following format options:
	<ul> <li>##.##% (12.34%)</li> <li>##% (12%)</li> </ul>
Text Align	To change the alignment of the column text, select a value from the drop-down list: Left, Center, or Right.
	This setting is available only from the context menu.

## Formatting a Chart

To customize the format of a chart:

1. While creating or editing a chart, select the **Formatting** tab and select **Chart** from the drop-down list to display the available formatting options.

Details	Formatting
Bai	r Chart 🔹
Back Color	#FFFFF
Border Size	1
Border Style	Solid
Border Color	#FFFFF
Gradient Fill	None
Stacking	Disable
Axis Labels	Show
Invert Axes	False
Data Labels	Hide
Data Labels Ro	ota 45°

2. Change any of the following options to customize the chart format.

Option	Description
Back Color	Select the background color from the color selector or enter the HTML code for a color.
Border Size	Enter a value in pixels to change the width of the border around the chart.
Border Style	Select a value from the drop-down list to specify the style of the border around the chart or select <b>None</b> if you do not want a border.

Option	Description
Border Color	Select the border color from the color selector or enter the HTML code for a color.
Gradient Fill	To add a shade pattern to the lines, areas, or bars in a line, area, or bar chart, select the direction of the color gradient from the drop-down list.
Stacking	To display data values stacked on top of each other in a line, area, or bar chart, select <b>Normal</b> to stack by the data values or <b>Percent</b> to stack by percentages.
Axis Labels	Select a value from the drop-down list to specify whether to show or hide axis labels.
Invert Axes	Select either <b>True</b> or <b>False</b> from the drop-down list to specify whether or not to invert the axes.
Data Labels	Select a value from the drop-down list to specify whether to show or hide data labels.
Data Labels Rotation	Select a value from the drop-down list to specify the data label rotation angle: None, $45^{\circ}$ , $90^{\circ}$ , or $-90^{\circ}$ .

## **Editing the Visualization Name**

To edit the visualization name:

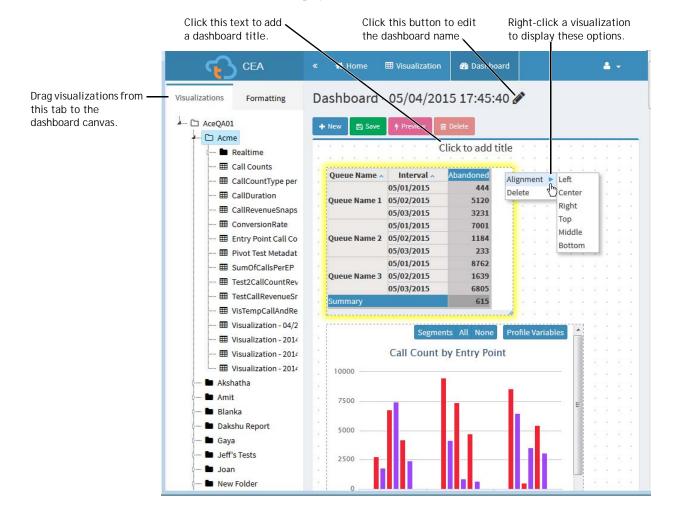
- 1. If the visualization is not already open for editing, click **Visualization** on the Analyzer title bar and on the **View** page, click the **i** button to the left of the listed visualization you want to edit and select **Edit** from the context menu.
- **2**. Do one of the following:
  - Click the **Edit Visualization Name** *S* button at the top of the visualization canvas to select the existing text; then type a new name.
  - Click the **Formatting** tab, select **Visualization** from the drop-down list, and then click the value in the **Name** text box and type a new name.

Type Customer Session Record	Conversion Rate
Details Formatting	+ New      Save
	Conversion Rate Per Agent
Name Conversion Rate	Table   Profile Variables: [] Handled   Handled   Converted
	Hide Summary Column Segments: Interval Profile Variables

## .... 5 Designing Dashboards

A dashboard is an interface that can display multiple visualizations on a single page. To create a dashboard:

- 1. On the Analyzer menu bar, click **Dashboard** and on the **View** page that appears, click **Create New Dashboard**.
- **2**. Drag a visualization from the **Visualizations** tab on the left side of the page to the canvas area on the right. Continue adding as many visualizations as you want the dashboard to display.



- **3**. To reposition a visualization, simply drag it to new position, or do one of the following:
  - In the **Formatting** tab on the left side of the page, select the visualization name from the drop-down list to display the configurable settings, and adjust the **Horizontal** and **Vertical** settings.
  - Right-click the visualization to display a list of alignment options in the context menu.
- 4. To resize a visualization, do one of the following:
  - Point to an edge or corner and when the resize arrow appears, drag the edge or corner to decrease or increase the visualization's size.
  - In the **Formatting** tab, select the visualization name from the drop-down list and edit the **Width** and **Height** settings.
- 5. To remove a visualization from the dashboard, do one of the following:
  - Point to the visualization and then click the **Delete X** button that appears in the upper right corner of the visualization.
  - Right-click the visualization and select **Delete** from the context menu.
  - While holding down the Ctrl key on your keyboard, click one or more visualizations to select them, and then press the DELETE key.
- 6. To add a dashboard title, click the text **Click to add title** in the dashboard canvas and enter a title. To edit the title, select it and enter a new title.
- **7**. To customize the format of the visualization title, select the title from the dropdown list in the **Formatting** tab to display format options that you can customize, such as border style, text alignment, and font size, color, and weight.
- 8. To save the dashboard, click the **Save** button, and in the dialog box that appears:
  - a. Select the folder you want to save the dashboard in.
    - To create a new folder, click the **New Folder** button, and then enter a name for the folder in the text box that appears.
  - b. In the Name field, enter a name for the dashboard, and then click OK.
- **9.** After saving the dashboard, you can click the **Preview** button to view the dashboard in a separate window.
- 10. To edit the dashboard name, click the Edit Dashboard Name 🖉 button at the top of the dashboard canvas to select the existing text; then enter a new name and click the Apply 🗸 button.

## ---- A Sample Visualizations

ACD reports typically show metrics such as call volume, abandon counts, and ASA to illustrate operational aspects of a call center.

Analytics yields deeper insights beyond the operational aspects of the call center. Analytics yields answers to questions such as:

- Which queues have more abandons?
- What is the variation in agent performance?

Cisco CJP Customer Engagement Analyzer makes answering these questions a simple matter of *segmentation* and *profiling*.

Segmentation is classifying calls into pertinent groups such as:

- By queue
- By agent

Profiling involves measuring an attribute of interest such as:

- Number of abandons
- · Average talk time for calls connected to agents

The following sample visualizations illustrate how to answer these questions:

- Sample 1: Which Queues Have More Abandons?
- Sample 2: What Is the Variation in Agent Performance?

## Sample 1: Which Queues Have More Abandons?

Answering this question involves the following steps:

1. On the visualization creation page, select the date range of interest from the **Modules** tab on the left—for example *Last Month*.

Click here to display a of date range options						
Type Customer Session R Modules Formation	\	Visualization -	04/08/2016 14	:41:49 🖋		
Module1 💌 🛨 💼			(	lick to add title		E
Start Time Yeste	erday 🔻	Table 🔹	• Profile Variables:			
Date Range Toda Yeste	-	Hide Summary	• Column Segments:	Profile Variables		
If your hereiters	Week	• Row/Series	Unable	to render: there are no profile	variables selected.	
Start Date: 2016-(Last	Week	Segments:				
End Date: 2016-04	Month Month					
Including This						
All Days Custo Realt						
Compute						
▼ Add Filter						Ŧ

- **2**. To specify the segmentation:
  - a. Click the Add 🛃 button on the left side of the Row/Series Segments or Column Segments box.

Click one of	these buttons. $\mathbf{\lambda}$		
Type Customer Session Record	Visualization	- 04/08/2016 14:41:49 🖋	
Modules Formatting	🕈 Nev 🖪 Save	More -	E
Module1 💌 🛨 💼		Click to add title	
Start Time Last Month ▼	Table 🗸	Profile Variables:	
Date Range	Hide Summary	Column Segments: Profile Variables	
If run today: Start Date: 2016-03-01	Row/Series	Unable to render: there are no profile variables selected.	
End Date: 2016-03-31		(Note: values shown are simulated and do not reflect actual data.)	
Including			
All Days			Ŧ

b. In the **New Segment** dialog box that appears, scroll down the **Fields** list and select **Queue Name**.

Visualization - 04/08/20	New Segment	د	:
<ul> <li>New Save More ▼</li> <li>Table ▼</li> <li>Hide Summary ♀</li> <li>Column So</li> <li>Row/Series Segments:</li> </ul>	<ul> <li>[ACD] Lead Close Reason</li> <li>[ACD] Lead Created Date</li> <li>[ACD] Lead First Name</li> <li>[ACD] Lead Id</li> <li>[ACD] Lead Last Activity</li> <li>[ACD] Lead Last Name</li> <li>[ACD] Lead Sales Person Id</li> </ul>	A H	

- **3**. To specify the profile variable:
  - a. Click the Add 🔹 button on the left side of the Profile Variables box, and in the New Profile Variable dialog box, select Termination Type from the Fields list.
  - b. To specify the termination type of interest, drag Termination Type from the Fields list to the Filters section of the dialog box, select *abandoned* from the displayed list of values, and click the Add 
     button. Then type a name for the profile variable (for example *Abandoned*) in the Name box and click Save.

able 🔹	Profile V     Column	<ul> <li>[ACD] Queue ID</li> <li>[ACD] Queue Name</li> <li>[ACD] Record File Id</li> </ul>	*	Formula:	Abandoned Count of Termination Type	]	
Row/Series     Segments:	Column	<ul> <li>[ACD] Recording Flag</li> <li>[ACD] Session ID</li> <li>[ACD] Site ID</li> </ul>		Filters: Drag and	drop in the box below the desired field(s) and	d/or measure(s)	
		> [ACD] Site Name			Termination Type	C	×
II Queue Name		> [ACD] Source Url			● is in ○ is not in ○ regular express	ion	
		≫ [ACD] State		abandon	ed	*	
		» [ACD] Subject				1	
		≫ [ACD] Supervisor Number				+	
		ờ [ACD] Tam Id		Type to fi	ter available values below		
		>> [ACD] Team ID	m	normal		*	
		> [ACD] Team Name		overflow		=	
		[ACD] Terminating End		quick_dis		+	
		[ACD] Termination Type	ш				
		> [ACD] Timezone					
		≫ [ACD] Wrapup Code	~				

4. Click **Save** at the top of the visualization canvas, and in the dialog box that appears, enter a name and click **OK**. Then you can click **Preview**.

In a few simple steps you have a visualization that shows which queues had higher total abandons last month.



#### Sample 2: What Is the Variation in Agent Performance?

Assuming the agent performance metric of interest is average talk time, answering this question involves the following steps:

- 1. On the visualization creation page, select the date range of interest from the **Modules** tab on the left—for example *Last Week*.
- To specify the segmentation, click the Add 
   button on the left side of a Segment
   box and in the New Segment dialog box that appears, select Agent Name from
   the Fields list.
- Click the Add button on the left side of the Profile Variables box, and in the New Profile Variable dialog box:
  - a. Select Talk Duration from the Measures list.
  - b. Leave Average as the selected formula and click Save.

able   Hide Summary  Kow/Series Segments:  Agent Name	ACD] Outdial Talk Duration
---	----------------------------

4. Optionally, you can right-click the profile variable to select a number format from the context menu, such as *MM:SS*.

			Click to add	title					
able 🗸	• Profile Vari	ables: III Average	of Talk Duration 👿						
Hide Summary	Column Se	gments: Profile	New Profile Variab	le					
+ Row/Series		Annual of Talls D	Number Format	•	Integer	•			
- Now/Jerres	Agent Name	Average of Talk D	Text Align	•	Number	►			
Segments:	Agent Name 1		Formatting		Currency	•			
Agent Name	Agent Name 3		Save		Percentage				
	Agent Name 2		18.00		Date Time				
	Summary		73.00					(2.1.22)	
					Duration	•	MM:SS	(04:35)	
							M:SS	(4:35)	
							HH:MM:SS	(04:35:15)	
							H:MM:SS	(4:35:15)	
							HH:MM	(04:35)	
							H:MM	(4:35)	

**5**. Click **Save** at the top of the visualization canvas, and in the dialog box that appears, enter a name and click **OK**. Then click **Preview**.

In a few simple steps you have a visualization that shows the average talk time for all your agents.

# •••• B Mappings of ACD Metrics to Analyzer Parameters

This appendix provides mappings between ACD report parameters that are available in CJP Management Portal Reporting modules and the corresponding Analyzer parameters. The information presented here assumes that a data feed from the CJP ACD application to the Analyzer repository has been established. Contact your CJP account team member if this feed has not been set up.

Some ACD report parameters map directly to Analyzer variables while others require computation steps. The following topics include details on how specific ACD report parameters can be re-created in Analyzer.

Topics covered in this appendix:

- Historical Call Report Mappings
- Historical Agent Report Mappings
- Real-Time Call Report Mappings
- Real-Time Agent Report Mappings
- Historical Multimedia Report Mappings

#### Historical Call Report Mappings

The following table provides mappings between ACD historical call report parameters available from the CJP Management Portal and historical call report parameters available in Analyzer visualizations.

Portal Parameter	Description	Analyzer Parameter	Comments
Queue	The name of a queue.	Queue Name	
Site	The name of a site (appears only in site-level and team-level reports).	Site Name	
Team	The name of a team (appears only in team-level reports).	Team Name	

Portal Parameter	Description	Analyzer Parameter	Comments
Date	The date (appears only in historical reports).	Date	Interval
Service Level %	The number of calls that were	Data Type: CSR	
	answered within the Service Level threshold provisioned for the queue or skill (in a skills interval by queue report), divided by total calls (including abandoned calls) multiplied by 100:	((In Service Level)/ (Answered + Abandoned)) * 100	
Adjusted	The number of calls that were either	Data Type: CSR	
Service Level %	answered or abandoned within the Service Level threshold provisioned for the queue or skill (in a skills interval by queue report), divided by total calls (including abandoned calls) multiplied by 100.	((In Service Level + Abandoned within SL)/ (Answered + Abandoned)) * 100	
In Service	The number of calls that were	Data Type: CSR	
Level	answered within the Service Level threshold provisioned for this queue or skill (in a skills interval by queue report). Does not appear in site-level or team-level real-time reports.	Count of Session ID with Filter Queue Duration<= <service level="" threshold<br="">value&gt;</service>	
% Answered	The number of answered calls divided	Data Type: CSR	
	by the number of calls that entered the queue minus short calls multiplied by 100.	(Answered/(Answered + Abandoned)) * 100	
% Abandoned	The percentage of calls that were	Data Type: CSR	
	abandoned during the report interval. (Abandoned/Total) * 100	Abandoned /Total	
Maximum Wait	The longest amount of time a call was	Data Type: CSR	
Time	in the queue waiting to be answered (appears only in historical reports).	Maximum Queue Duration	
Total	The total number of calls from all origination types.		Total = New + From Entry Point + Transferred In New is available in CSR report. From Entry Point and Transferred-in is in CAR report.
From Entry	The number of calls that entered this	Data Type: CAR	
Point	queue after being classified into the queue from an entry point by the IVR call control script.	Count Of Session ID, Previous State = IVR, Current State = Connected and Parked	

Portal Parameter	Description	Analyzer Parameter	Comments
Transferred In	The number of calls that entered this queue after having been transferred into the queue by an agent who clicked the Queue button, selected a queue from the drop-down list, and clicked Transfer.		Not Available
Completed	The number of calls that ended during the report interval. Answered, abandoned, and disconnected calls are included in this count. Transferred and short calls are not.	Data Type: CSR Completed = Answered + Abandoned + Disconnected	
Abandoned	The number of calls that were abandoned during the report interval. An abandoned call is a call that was terminated without being distributed to a destination site, but that was in the system for longer than the time specified by the Short Call threshold provisioned for the enterprise.	Data Type: CSR Count of Session ID with Filter Termination type = Abandoned	
Abandoned within SL	The number of calls that were terminated while in queue within the Service Level threshold provisioned for the queue or skill (in a skills interval by queue report).	Data Type: CSR Count of Session ID with Filter Termination Type = 'abandoned' and 'short' and Filter Queue Time<= <service level="" threshold<br="">value&gt;</service>	
Disconnected	The number of calls that were answered (that is, connected to an agent or distributed to and accepted by a destination site), but that were then immediately disconnected within the Sudden Disconnect threshold provisioned for the enterprise.	Data Type: CSR Count of Session ID with Filter Termination Type = 'Quick_disconnect'	
Overflow	The number of calls that were sent to the overflow number provisioned for the queue and were answered. Typically, a call is sent to an overflow number if it has been queued for longer than the maximum time specified in the routing strategy or because an error occurred when the call was sent to an agent. If the call is not answered, it is included in the Abandoned or Disconnected count when it ends.	Data Type: CSR Count of Session ID with Filter Termination Type = 'Overflow'	

Portal Parameter	Description	Analyzer Parameter	Comments
Transferred	The sum of all calls transferred from this queue to an agent, external DN, or another CJP queue:		Transferred Out available in CSR and Requeued computed in CAR
	Transferred Out + Requeued		
Transferred Out	The number of calls that left this queue after having been transferred by an agent to an external DN or to another agent. Transferred out calls result when an agent clicks the <b>Agent</b> button, selects an agent from the drop- down list, and clicks <b>Transfer</b> , or when the agent clicks the <b>DN</b> button, enters a phone number, and clicks <b>Transfer</b> . Transferred out calls may begin as a consultation or conference, but will be counted as transferred out only when the first agent completes the transfer to the second party.	Data Type: CSR Sum of Transfer Count	
Blind Transfers	The subset of transferred out calls that were transferred by the agent to another agent or an external DN without the first agent consulting or conferencing with the party to whom the call was transferred.		Not Available
Requeued	The number of calls that left this queue after having been transferred by the agent to another queue. For calls to be requeued, the first agent clicks the <b>Queue</b> button, selects a queue from the drop-down list, and clicks <b>Transfer</b> .	Data Type: CAR Count Of Session ID, Previous State = Talking, Current State = Parked	
Queued	The number of calls that entered the queue during this interval.	Data Type: CAR Count Of Session ID,	
		Current State = Parked	
Answered	The number of calls that were routed from the queue to an agent or available resource and were answered by the agent or resource.	Data Type: CSR Count of Session ID with Filter Termination type = normal	
Secondary Answered	The number of calls that were answered by an agent after being transferred to the agent by another agent.		Not Available
Short	The number of calls that were terminated within the Short Call threshold provisioned for the enterprise without being connected to an agent.	Data Type: CSR Count of Session ID with Filter Termination type = short_call	

Portal Parameter	Description	Analyzer Parameter	Comments
Consult Count	The number of times agents initiated a	Data Type: CSR	
	consult with another agent or someone at an external number while handling a call.	Sum of no of consults	
Conference Count	The number of times agents initiated a conference call to an agent or external number.	Data Type: CSR Sum of Conference Count	
Hold Count	The number of times a caller was put on hold.	Data Type: CSR Sum of Hold Count	
CTQ Request Count	The number of times consult-to-queue requests were initiated.	Data Type: CSR Sum of CTQ Count	Not Available
Inbound CTQ Answer Count			Not Available
CTQ Request Time	The cumulative amount of time between when consult-to-queue requests were initiated and when the consultations ended (appears only in historical reports).	Sum of CTQ Duration	Not Available
CTQ Answer Time	The cumulative amount of time between when consult-to-queue requests were answered and when the consultations ended (appears only in historical reports).		Not Available
Queued Time	The cumulative amount of time calls were in queue, waiting to be sent to an agent or other resource. Because queued time is calculated after the call leaves the queue, the queued time for a call that is still in the queue is not reflected in the report.	Data Type: CSR Sum of Queued Duration	
Answered Time	The cumulative amount of time between when calls entered the queue and when they were answered (connected to an agent or other resource) during the report interval. Because answered time is calculated after the call is answered, answered time for calls that are waiting to be answered is not reflected in the report.	Data Type: CSR Sum of Queue duration where Handled = 1	
Abandoned Time	The cumulative amount of time calls were in the system for longer than the time specified by the Short Call threshold, but terminated before being distributed to an agent or other resource.	Data Type: CSR Sum of Queue duration where Handled = 0	

Portal Parameter	Description	Analyzer Parameter	Comments
Connected Time	The time interval between when calls were answered by an agent or other resource and when they were terminated. Because connected time is not calculated until the call is terminated, the connected time for a call that is still in progress is not reflected in the report.	Data Type: CSR Sum of Talk Duration + Sum of Hold Duration	
Wrap Up Time	The cumulative amount of time agents spent in the Wrap-up state after handling the calls.	Data Type: CSR Sum of Wrapup Duration	
Handle Time	The cumulative amount of time spent handling calls.	Data Type: CSR Connected Time + Wrapup Time	
Avg Queued Time	The total amount of time that calls were in queue divided by the total number of calls that were queued.		Queued Time/Queue Count. Queued Count is available in CSR, Queue Count in CAR
Avg Abandoned Time	The total amount of time that calls were in the system before they were abandoned divided by the total number of calls that were abandoned.	Data Type: CSR Abandoned Time/ Abandoned	
Avg Connected Time	The total connected time divided by the total number of calls that were answered during the report interval.		Connected Time/ (Answered + Secondary Answered) - Secondary Answered not computed
Avg WrapUp Time	The total amount of time agents spent in the Wrap-up state divided by the total number of answered calls.		Wrap Up Time/ (Answered + Secondary Answered)- Secondary Answered not computed
Avg Handle Time	The average length of time spent handling a call (connected time plus wrap-up time), divided by number of answered calls.		Connected Time+Wrap Up Time/(Answered + Secondary Answered)- Secondary Answered not computed
Avg Speed of Answer	The total answered time divided by the total number of answered calls.	Data Type: CSR Answered Time/ Answered	

## **Historical Agent Report Mappings**

The following table provides mappings between ACD historical agent report parameters available from the CJP Management Portal and historical agent report parameters available in Analyzer visualizations.

Portal Parameter	Description	Analyzer Parameter	Comments
Login Count	Total number of times an agent logged	Data Type: ASR	
	in on that day. Appears only if <b>Agents</b> is selected in the <b>Display Results By</b> drop-down list.	Count of Session ID	
Calls Handled	The total number of inbound and	Data Type: ASR	
	outdial calls handled.	Connected Count + Total outdial Connected Count	
Staff Hours	The total amount of time agents were	Data Type: ASR	
	logged in.	Staff Hours	
Initial Login	The date and time the agent logged in.	Data Type: ASR	
Time	This column appears only in agent-level summary reports.	Start Timestamp	
Final Logout		Data Type: ASR	
Time	out. This column appears only in agent- level summary reports.	End Timestamp	
Occupancy	The measure of time agents spent on calls compared to available and idle time.	Data Type: ASR	
		(Total Inbound Connected Time + Total Wrap Up Time + Total Outdial Connected Time + Total Outdial Wrap Up Time, divided by Staff Hours).	
Idle	Count. The number of times an agent	Data Type: ASR	
	went into the Idle state.	Idle Count	
	Total Time. The total amount of time	Data Type: ASR	
	agents spent in the Idle state.	Total Idle Time	
	Average Time. The average length of	Data Type: ASR	
	time agents were in the Idle state.	Total Idle Time/Idle Count	
Available	Count. The number of times an agent	Data Type: ASR	
	went into the Available state.	Available Count	
	Total Time. The total amount of time	Data Type: ASR	
	agents spent in the Available state.	Total Available Time	
	Average Time. The average length of	Data Type: ASR	
	time agents were in the Available state.	Total Available Time/ Available	

Portal Parameter	Description	Analyzer Parameter	Comments
Inbound Reserved	<b>Count.</b> The number of times an agent went into the Inbound Reserved state.		Not Available
	<b>Total Time.</b> The total amount of time agents spent in the Reserved state, during which a call is coming in to an agent's station but has not yet been answered.	Data Type: ASR Total Ringing Time	
	Average Time. The average length of time agents were in the Inbound Reserved state.	Data Type: ASR Total Ringing Time/ Ringing Count	Not Computed, since Ringing count value is not available
Inbound Connected	Hold Count. The number of times an agent put an inbound caller on hold.	Data Type: ASR Hold Count	
	<b>Connected Count.</b> The number of inbound calls that were connected to an agent.	Data Type: ASR Connected Count	
	<b>Total Talk Time</b> . The total amount of time an agent was talking with a caller.	Data Type: ASR Total Connected Time— Total Hold Time	
	<b>Total Hold Time.</b> The total amount of time inbound calls were on hold.	Data Type: ASR Total Hold Time	
	<b>Total Time.</b> The total amount of time agents were connected to inbound calls.	Data Type: ASR Total Connected Time	
	Average Hold Time. The average hold time for inbound calls.	Data Type: ASR Total Hold Time/ Hold Count	
	Average Time. The average inbound connected time.	Data Type: ASR Total Connected Time/ Connected count	
Outdial Reserved	<b>Count.</b> The number of times an agent was in the Outdial Reserved state, a state indicating that the agent has initiated an outdial call, but the call is not connected yet.	Data Type: ASR Outdial Ringing Count	
	<b>Total Time.</b> The total amount of time agents were in the Outdial Reserved state	Data Type: ASR Total Outdial Ringing Time	
	Average Time. The average amount of time agents were in the Outdial Reserved state.	Data Type: ASR Total Outdial Ringing Time/ Outdial Ringing Count	

Portal Parameter	Description	Analyzer Parameter	Comments
Outdial Connected	Attempted Count. The number of times an agent attempted to make an outdial call.	Data Type: ASR Outdial Ringing Count	
	<b>Connected Count.</b> The number of outdial calls that were connected to an agent.	Data Type: ASR Outdial Connected Count	
	Hold Count. The number of times an agent put an outdial call on hold.	Data Type: ASR Outdial Hold Count	
	<b>Total Talk Time</b> . The total amount of time an agent was talking with a party on an outdial call.	Data Type: ASR Total Outdial Connected Time—Total Outdial Hold Time	
	Total Hold Time. The total amount of time outdial calls were on hold.	Data Type: ASR Total Outdial Hold Time	
	<b>Total Time.</b> The total amount of time agents were connected to outdial calls.	Data Type: ASR Outdial Connected Time	
	Average Hold Time. The average hold time for outdial calls.	Data Type: ASR Total Outdial Hold Time/ Outdial Hold Count	
	Average Time. The average outdial connected time.	Data Type: ASR Total Outdial Connected Time/Outdial Connected Count	
Disconnected Count	The number of calls that were connected to an agent, but that were then immediately disconnected within the Sudden Disconnect threshold provisioned for the enterprise.	Data Type: ASR Disconnected Count	
Inbound Wrap Up	<b>Count.</b> The number of times agents went into the Wrap-up state after an inbound call.	Data Type: ASR Wrapup Count	
	<b>Total Time.</b> The total amount of time agents spent in the Wrap-up state after an inbound call.	Data Type: ASR Total Wrapup Time	
	Average Time. The average length of time agents were in the Wrap-up state after an inbound call.	Data Type: ASR Total Wrapup Time/ Wrapup Count	

Portal Parameter	Description	Analyzer Parameter	Comments
Outdial Wrap Up	<b>Count</b> . The number of times agents went into the Wrap-up state after an	Data Type: ASR	
	outdial call.	Outdial Wrapup Count	
	Total Time. The total amount of time	Data Type: ASR	
	agents spent in the Wrap-up state after an outdial call.	Total Outdial Wrapup Time	
	Average Time. The average length of	Data Type: ASR	
	time agents were in the Wrap-up state after an outdial call.	Total Outdial Wrapup Time/Outdial Wrapup Count	
Not Responding	Count. The number of times an agent	Data Type: ASR	
	was in the Not Responding state.	Not Responding Count	
	Total Time. The total amount of time	Data Type: ASR	
	agents spent in the Not Responding state.	Total Not Responding Time	
	Average Time. The average length of time agents were in the Not Responding state.	Data Type: ASR	
		Total Not Responding Time/Not Responding Count	
Consult Answer	<b>Count.</b> The number of times agents answered a consult request from another agent.	Data Type: ASR	
		Consult Count	
	<b>Total Time.</b> The total amount of time agents spent answering consult requests.	Data Type: ASR	
		Total Consult Time	
	Average Time. The average length of time agents spent answering consult requests.	Data Type: ASR	
		Total Consult Time/ Consult Count	
Consult Request	<b>Count</b> . The number of times agents sent a consult request to another agent.	Data Type: ASR	
		Consult Request Count	
	<b>Total Time</b> . The total amount of time agents spent consulting other agents.	Data Type: ASR	
		Total Consult Request Time	
	Average Time. The average length of time agents spent consulting other agents.	Data Type: ASR	
		Total Consult Request Time/Consult Request Count	

Portal Parameter	Description	Analyzer Parameter	Comments
Consult	Count. The number of times agents	Data Type: ASR	
	answered consult requests plus the number of times agents consulted other agents.	Consult Answer Count	
	Total Time. Total Consult Answer Time	Data Type: ASR	
	plus Total Consult Request Time.	Total Consult Answer Time	
	Average Time. The average length of	Data Type: ASR	
	consulting time.	Total Consult Answer Time/Consult Answer Count	
Conference	The number of times an agent initiated	Data Type: ASR	
	a conference call.	Conference Count	
Inbound CTQ	Count. The number of times agents	Data Type: ASR	
Request	initiated a consult to queue while handling an inbound call.	CTQ Request Count	
	Total Time. The total amount of time	Data Type: ASR	
	agents spent answering consult-to- queue requests from an agent handling an inbound call.	CTQ Request Time	
Inbound CTQ	<b>Count.</b> The number of times agents answered a consult-to-queue request from another agent who was handling an inbound call.	Data Type: ASR	
Answer		CTQ Answer Count	
	<b>Total Time.</b> The total amount of time agents spent answering consult-to-queue requests from an agent handling an inbound call.	Data Type: ASR	
		CTQ Answer Time	
Outdial CTQ	<b>Count.</b> The number of times agents initiated a consult-to-queue request while handling an outdial call.	Data Type: ASR	
Request		Outdial CTQ Request Count	
	<b>Total Time.</b> The total amount of time agents spent answering consult-to- queue requests from an agent handling an outdial call.	Data Type: ASR	
		Total Outdial CTQ Request Time	
Outdial CTQ	Count. The number of times agents	Data Type: ASR	
Answer	answered a consult-to-queue request from another agent who was handling an outdial call.	Outdial CTQ Answer Count	
	Total Time. The total amount of time	Data Type: ASR	
	agents spent answering consult-to- queue requests from an agent handling an outdial call.	Total Outdial CTQ Answer Time	

Portal Parameter	Description	Analyzer Parameter	Comments
Agent Transfer	The number of times an agent	Data Type: ASR	
	transferred an inbound call to another agent.	Agent to Agent XFER Count	
Agent Requeue	The number of times an agent	Data Type: ASR	
	requeued an inbound call.	Agent XFER To QUE Request Count	
Blind Transfer	The number of times an agent transferred an inbound call without consulting first.	Data Type: ASR	
		Blind XFER Count	
Inbound Avg	The average length of time spent handling an inbound call (Total Inbound Connected Time plus Total Wrap Up Time, divided by Inbound Connected Count).	Data Type: ASR	
Handle Time		Same formula as ACD	
Outdial Avg	The average length of time spent handling an outdial call (Total Outdial Connected Time plus Total Outdial Wrap Up Time, divided by Outdial Connected Count).	Data Type: ASR	
Handle Time		Same formula as ACD	

## **Real-Time Call Report Mappings**

The following table provides mappings between ACD real-time call report parameters available from the CJP Management Portal and real-time call report parameters available in Analyzer visualizations.

Call report parameters that are available in both real-time and historical call reports are described in "Historical Call Report Mappings" beginning on page 77.

Portal Parameter	Description	Analyzer Parameter	Comments
Entry Point	The name of an entry point.	The name of an entry point.	
Queue	The name of a queue.	Queue Name	
Site	The name of a site (appears only in site- level and team-level reports)	Site Name	
Team	The name of a team (appears only in team-level reports).	Team Name	
Skill	The name of a skill.		
In IVR	The number of calls that are currently in the IVR system.	Data Type: CSR Count Of Session ID, Current State = IVR— Connected	

Portal Parameter	Description	Analyzer Parameter	Comments
In Queue	The number of calls currently in the queues that are covered in the report. In the case of entry-point reports, this is the number of calls that are currently in queues fed by the entry point.	Data Type: CSR Count Of Session ID, Current State = Parked	
Connected	The number of calls currently connected to an agent.	Data Type: CSR Count Of Session ID, Current State = Connected	
Current Service Level %	The percentage of calls in queue that have not yet reached the Service Level threshold provisioned for the queue (in a queue report) or skill (in the skill rows of a skills-by-queue report).	Data Type: CSR Count of Session ID with Filter Queue Duration<= <service level="" threshold<br="">value&gt;</service>	
Logged-in Agents	The number of agents who are currently logged in to this team or to all teams at this site. At the queue level, this is the number of agents logged in to all teams at the sites serving this queue.	Data Type: CSR Count Of Agent ID	
Available Agents	The number of logged-in agents who are currently in the Available state.	Data Type: AAR Count Of Agent ID, Current State=Available	
Longest Call in Queue Time	The longest amount of time a call has been in each queue covered in the report.	Data Type: CSR Maximum Queue Duration	

## **Real-Time Agent Report Mappings**

The following table provides mappings between real-time agent report parameters available from the CJP Management Portal and real-time agent report parameters available in Analyzer visualizations.

Agent report parameters that are available in both real-time and historical agent reports are described in "Historical Agent Report Mappings" beginning on page 83.

Portal Parameter	Description	Analyzer Parameter	Comments
Site	The name of a site.	Site Name	
Total Logged In	The number of agents currently logged	Data Type: AAR	
	in.	Count of Agent Session ID	
Channels Logged	annels Logged The number of media channels to which agents are currently logged in.	Data Type: AAR	
In		Count of Channel Type	
Idle	The number of agents currently in the Idle state.	Data Type: AAR Count Of Agent Session ID, Current State = Idle	

Portal Parameter	Description	Analyzer Parameter	Comments
Available	The number of agents currently in the Available state.	Data Type: AAR	
		Count Of Agent Session ID, Current State = Available	
Reserved	The number of agents currently in the	Data Type: AAR	
	Reserved state, during which a call is coming in but has not yet been answered.	Count Of Agent Session ID, Current State = Ringing	
Connected	The number of agents currently	Data Type: AAR	
	connected to an inbound call.	Count Of Agent Session ID, Current State = Connected	
Talk	The number of agents in the Connected	Data Type: AAR	
	state who are currently talking with a caller.	Count Of Agent Session ID, Current State = Connected	
Hold	The number of agents in the Connected state who have placed the caller on hold.	Data Type: AAR	
		Count Of Agent Session ID, Current State = on-hold	
Consulting	The number of agents currently consulting with another agent.	Data Type: AAR	
		Count Of Agent Session ID, Current State = ConnectedConsulting	
СТО	The number of agents currently	Data Type: AAR	
	consulting with another agent after initiating or answering a consult-to- queue request.	Sum of CTQ Count	
Wrap Up	The number of agents currently in the Wrap-up state.	Data Type: AAR	
		Count Of Agent Session ID, Current State = WrapUp	
Not Responding	The number of agents currently in the Not Responding state.	Data Type: AAR Count Of Agent Session ID,	
		Current State = NotResponding	
In Outdial	The number of agents who are connected to or are wrapping up an outdial call (a call made from the CJP Agent Desktop by entering a phone number in the Call Out field).	Data Type: AAR	
		Count Of Agent Session ID, Outdial Flag >= 1	

## Historical Multimedia Report Mappings

The following table provides mappings between ACD historical multimedia report parameters available from the CJP Management Portal and historical multimedia report parameters available in Analyzer visualizations.

Portal Parameter	Description	Analyzer Parameter	Comments
Channel Type	The channel type selected among	Channel Type	
Total Received	The total number of interactions from all origination types.	Count of SessionId	
Handled	The total number of interactions handled	Count of SessionId	
Queued	The number of interactions that entered the queue.	Count of SessionId	
Queue Name	The name of the queue associated with the interactions.	Queue Name	
Wrapup Code Name	The wrap-up code that the agent gave for the interaction.	Wrapup Code Name	

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