Logi ≣ ANALYTICS

**Version 11
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What Are Session Parameters?

Session parameters, also called session variables, in the context of a web session are values that are available for the life of a user's session to web application. The values are referenced by the web application by a defined name.

Session parameters are generally defined and managed by IIS, a parent web application, or by the Logi Ad Hoc application. For this paper, only the Logi Ad Hoc related session parameters will be considered.
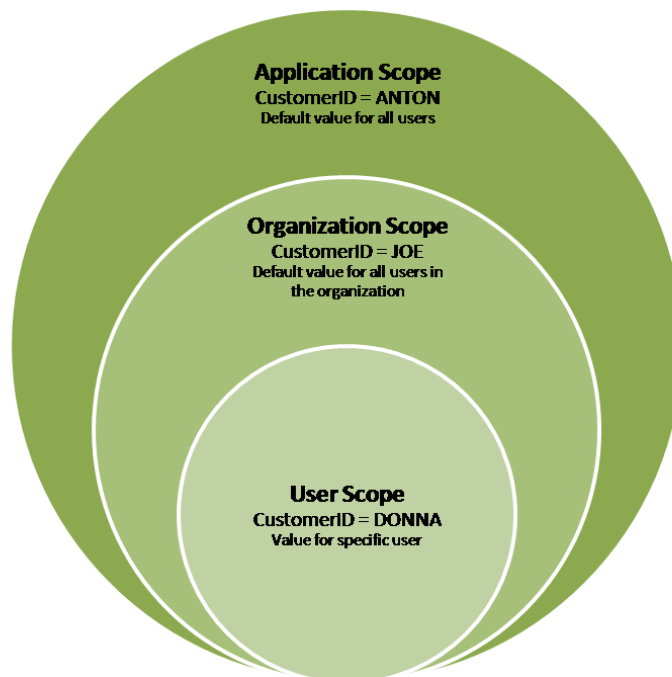
Given their dynamic nature, session parameters are often used to enforce data security at various levels. A user-level session parameter, such as userID, can be used to filter data that is made available to each user. An organization-level session parameter, such as HospitalID can similarly be used to filter data specific to each hospital that uses a single SaaS application that serves hospitals set up as individual organizations.

Some examples of session parameters that are used throughout this paper are the spCustomerID, spCustomerIDList, and spProductID. Their values will be determined during the course of the following discussion; however, if the spCustomerID session parameter is set to a value of "ANTON", that value will persist for the life of the session unless specifically over-ridden. Please note that these are not standard session variables in Logi Ad Hoc, but rather arbitrary variables for the sake of this discussion.

What does "Scope" mean?

In the context of Logi Ad Hoc session parameters, scope refers to the range of application of a session parameter value. The session parameter exists for the life of a session, but the value of a session parameter is determined by the current scope.

In Logi Ad Hoc, the initial definition of a session parameter determines the default value. This value may be over-ridden at the organization level which could be considered the "organization scope". With version 10.0.71, the value may be over-ridden at the user level. Ultimately, when a user logs into Logi Ad Hoc, the session parameter value will be determined by this system of defaults and over-rides.

Application Scope
CustomerID = ANTON
Default value for all users

Organization Scope
CustomerID = JOE
Default value for all users in
the organization

User Scope
CustomerID = DONNA
Value for specific user

From the picture above, the CustomerID session parameter value is set to "ANTON". This is the default value for the session parameter. In the absence of any over-rides, all users of the application will see "ANTON" when the CustomerID session parameter is referenced.

The session parameter value may be over-ridden at the Organization level. From the picture above, the CustomerID session parameter has been over-ridden for an organization and set to "JOE". In the absence of any further over-rides, all users that are members of the organization will see "JOE" when the CustomerID session parameter is referenced.

The session parameter value may be set at the User level. From the picture above, the CustomerID session parameter has been set for a specific user to "DONNA". That user will see "DONNA" whenever the CustomerID session parameter is referenced. If a session parameter value has been set at the User level, this value supersedes all default values for the session parameter.

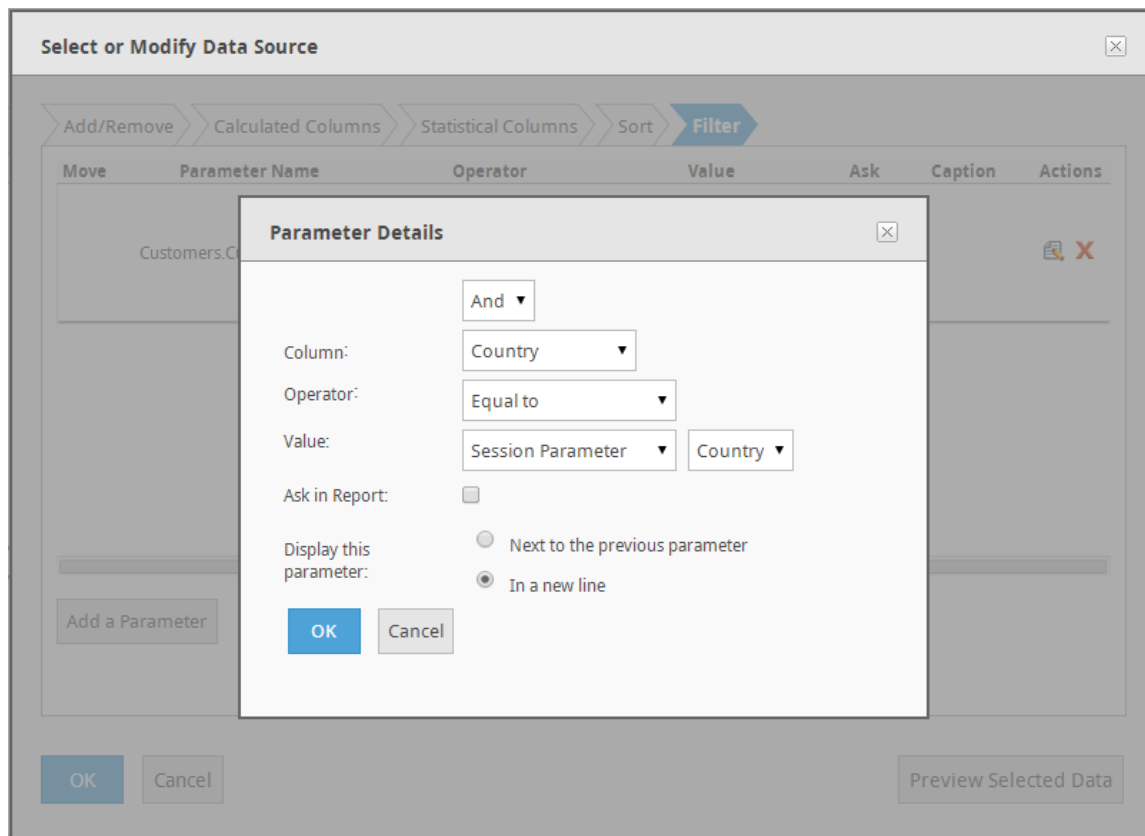**Note:** User scope for session parameter values is new feature in Versions 10.0.71 and higher.

Session parameter values will be determined for every user accessing the application. The concept of scope has been incorporated into the Logi Ad Hoc interface to assist with the administration of session parameter values.

How are Session Parameters used?

Session parameters may be used throughout Logi Ad Hoc wherever a value may be supplied; however the primary purpose for session parameters are to provide values used to restrict or filter the data returned to the report.

Data filters are typically defined either at the report level as a data source filter or for the data object as a fixed parameter. In the current version of Logi Ad Hoc, specification of session parameter values for either a report filter or a data object fixed parameter may be accomplished by selecting *Session Parameter* from the value source dropdown list and then selecting the appropriate session parameter from the dropdown list of relevant session parameter names.
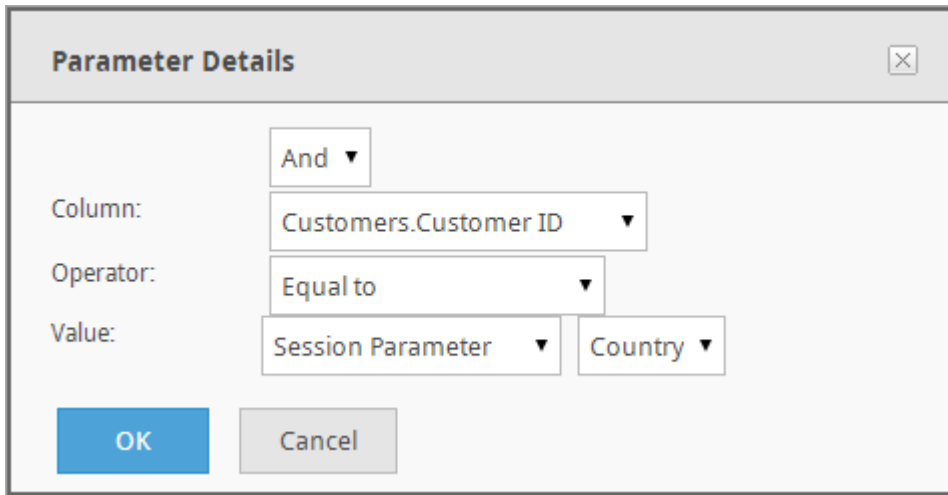
The following picture is an example of a data source filter in a report:

Notice that for the *Value* the source is set to "Session Parameter" and the value is set to Country in the filter definition.

Note: From the Report Builder, click on the **Modify Data Source** button, click on the *Filter* tab and click on the **Add a Parameter** button to show the *Parameter Details* dialog.

A similar dialog is presented when defining fixed parameters on a data object.

Parameter Details ☒

	And ▼
Column:	Customers.Customer ID ▼
Operator:	Equal to ▼
Value:	Session Parameter ▼	Country ▼

OK   Cancel

Notice that for the *Value* the source is set to "Session Parameter" and the value is set to Country in the filter definition.

Note: To add a fixed parameter to a data object, click on the **Configuration** button, hover the mouse over the *Data Object Configuration* tab, click on the **Data Objects** option, and select the **Set Parameters** action for a data object.

In both cases the dropdown list of session parameters is filtered by the data type of the *Column* used in the filter and the specified *Operator*. Every session parameter has a "type"; date, number, numeric list, text, and textual list.

For date *Columns*, the date session parameters will be shown in the list of available session parameters.

For numeric *Columns*, either the number or numeric list session parameters will be shown in the list of available session parameters. If the *Operator* is set to "In List" or "Not In List", the numeric list session parameters will be shown, otherwise the number session parameters will be shown.

For text *Columns*, either the text or textual list session parameters will be shown in the list of available session parameters. If the *Operator* is set to "In List" or "Not In List", the textual list session parameters will be shown, otherwise the text session parameters will be shown.
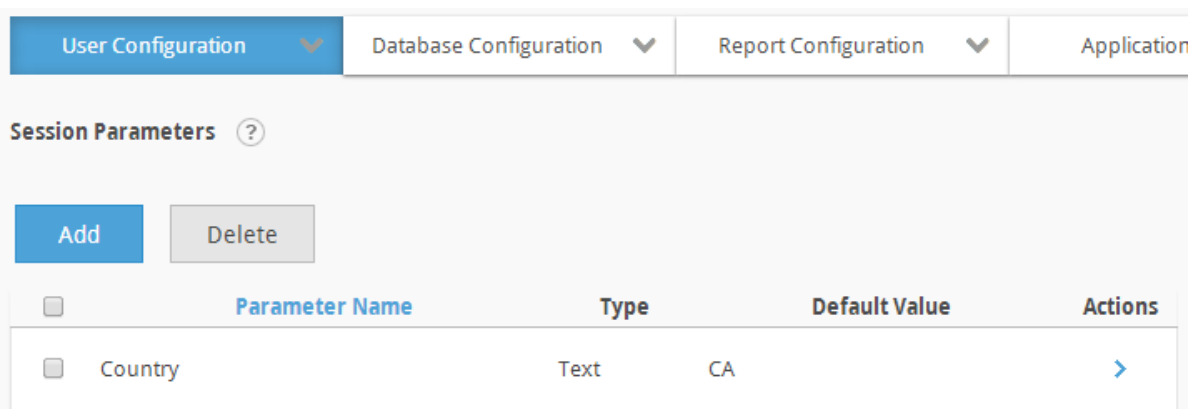
How do I define Session Parameters in Logi Ad Hoc?

Initial Definition

Session parameters are initially defined by clicking on **Configuration**.

If the ability to define and configure *Organizations* has been enabled, the **Session Parameters** link will be found under the **User Configuration** tab. Otherwise, the **Session Parameters** link will be found under **Application Configuration.**
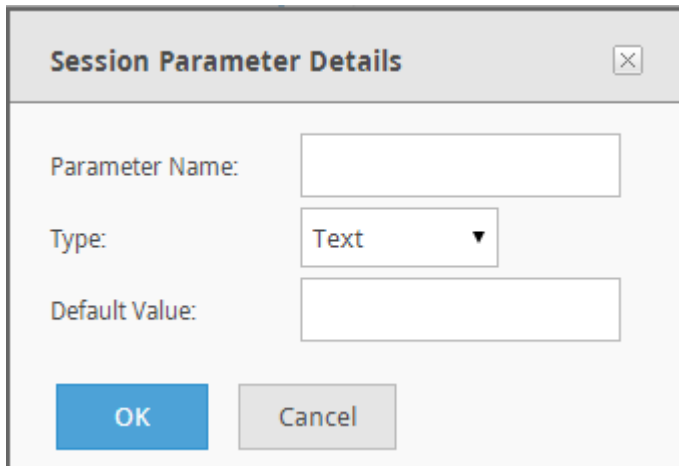
Click on the **Session Parameters** link to display the following page:

The *Session Parameters* page presents a list of defined session parameters.

To remove a session parameter, highlight the session parameter by clicking on the checkbox adjacent to the session parameter and click on the **Delete** button.

To add a session parameter, click on the **Add** button to open the following dialog:

Session Parameter Details   ☒

Parameter Name: [   ]

Type: [Text   ▼]

Default Value: [   ]

[OK]   [Cancel]

The *Parameter Name* attribute is how the session parameter will be referenced throughout the application.

The *Type* attribute defines one of the parameter types recognized by Logi Ad Hoc. The *Type* will be used along with the usage context to determine which session parameters to display to the end user. For example, "Text" session parameters should not be presented as options in the Logi Ad Hoc user interface when the context clearly calls for a numeric or date value.

The *Type*s include:

- Date – the session parameter value is expected to be a date and the parameter will be available in date contexts
- Number – the session parameter value is expected to be a number and the parameter will be available in numeric contexts
- Numeric List – the session parameter value is expected to be a list of numbers and the parameter will be available for numeric "In List/Not In List" contexts
- Text – the session parameter value is expected to be a string of characters and will be available in string contexts
- Textual List – the session parameter is expected to be a list of string values and will be available for text based "In List/Not in List" contexts

Note: When one of the "list" types is selected the dialog will be adjusted to allow specification of a list of values as shown below:

Note: If a "Date" type is selected, the dialog will be adjusted and a date picker control will be displayed as shown below:

The *Default Value* attribute, in the absence of any over-rides based on Organization or User, will be supplied to the application when the session parameter is resolved during the execution of reports.

Modifying Session Parameters

Session parameters and their initial (default) values are defined through the *Session Parameters* page. The values may be over-ridden at the Organization and User levels.

Pages and tools have been provided to manage the values for each organization and user and across all organizations and users.

The action option for setting the session parameter value is **Modify Session Parameter** or **Modify**. For a single organization or user, the action to manage the session parameter values is **Set Session Parameters**. The actions for setting session parameter values across all organizations and users are **Set by Organization** and **Set by User,** respectively.

In addition, buttons have been provided to set the session parameter values across a range of organizations and users. The **Restore Defaults** button will set the targeted session parameter value to the default value for all selected organizations or users. The **Set Value** button will present a dialog to specify a new value and the new value will be applied to all selected organizations or users.
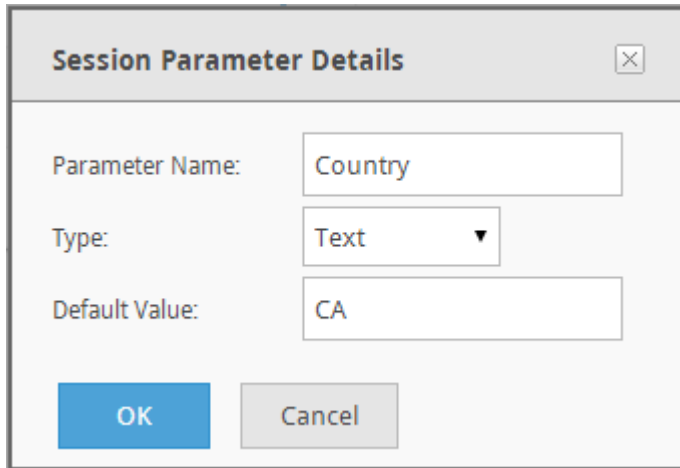
From the Session Parameters Page

The Session Parameters page presents a list of session parameters similar to the following:

The session parameters may be sorted by clicking on the *Parameter Name* column header.

Three actions are available for each session parameter; **Modify Session Parameter**, **Set by Organization** and **Set by User**.

Selecting the **Modify Session Parameter** action will present a dialog to capture the new session parameter value. For text and numeric type session parameters, the dialog would appear as:

Adjust the *Parameter Name*, *Type*, or *Default Value* information and click on the OK button to save the information.

Note: Changing the *Default Value* will change the attribute value for all Organizations and Users that are following the default values.

Note: The change is immediate and may affect the current session. It is not necessary to logout and re-establish the session if the changes are impactful to the current user. Other user sessions are not affected by the changes until the user's login.

Selecting the **Set by Organization** action will present a page similar to the following:

The *Selected Session Parameter* defaults to the session parameter that was used to navigate to the page. It is also a convenient option to switch the session focus for the page without having to return to the list of session parameters.

The *Default Value* and *Type* of the session parameter are displayed for informational purposes.

A list of organizations is presented in the grid. The grid may be sorted by clicking on either the *Organization* or *Follow Default* column headers.

The **Restore Default** button will set the *Parameter Value* to the displayed *Default Value* for all selected Organizations.

The **Set Value** button will present a dialog to capture a new value and apply the value to all of the selected Organizations.

The *Follow Default* checkbox indicates whether the parameter value should adopt the Default Value. This also allows the parameter value to be set "permanently", meaning that changes to the *Default Value* will have no impact on the parameter value for the organization, if the *Follow Default* checkbox is unchecked.

The grayed *Parameter Value* text boxes are not disabled. The gray is a visual cue that the value is the same as the default value and is expected to follow the default value. That mean that if the default value changes, the organization will automatically pick up the new value.

The *Parameter Value* may be changed by either typing directly into the text box or selecting the **Modify** action and providing a new value. The parameter value may also be changed by selecting the **Restore Default** action.

Click on the **Save** button to store the session parameter values for the Organization.

Note: The **Set by Organization** action will not be presented from the *Session Parameters* page if the Logi Ad Hoc instance has not been configured to allow the specification of Organizations.

Selecting the **Set by User** action will present a page similar to the following:

The *Selected Session Parameter* defaults to the session parameter that was used to navigate to the page. It is also a convenient option to switch the session focus for the page without having to return to the list of session parameters.

The *Type* attribute identifies the session parameter type; date, number, numeric list, text, or textual list.

The *Organization* dropdown list is used to filter the user list by their respective organization. The *Organization* dropdown list is only displayed in the page when the Logi Ad Hoc instance is configured to allow multiple organizations and when more than one organization exists.

The *Default Value* reflects the current default value for the session parameter. The actual value may be the original application scope session parameter value or the organization scope parameter value.

The *Role* dropdown list allows the list of user to be filtered by role.

A list of users is presented in the grid. The grid may be sorted by clicking on either the *User* or *Follow Default* column headers.

The **Restore Default** button will set the *Parameter Value* to the displayed *Default Value* for all selected Users.

The **Set Value** button will present a dialog to capture a new value and apply the value to all of the selected Users.

The *Follow Default* checkbox indicates whether the parameter value should adopt the *Default Value*. This also allows the parameter value to be set "permanently", meaning that changes to the *Default Value* will have no impact on the parameter value for the user, if the *Follow Default* checkbox is unchecked.

The grayed *Parameter Value* text boxes are not disabled. The gray is a visual cue that the value is the same as the default value and is expected to follow the default value. That mean that if the default value changes, the user will automatically pick up the new value.

The *Parameter Value* may be changed by either typing directly into the text box or selecting the **Modify** action and providing a new value. The parameter value may also be changed by selecting the **Restore Default** action.

Click on the **Save** button to store the session parameter values for the User.
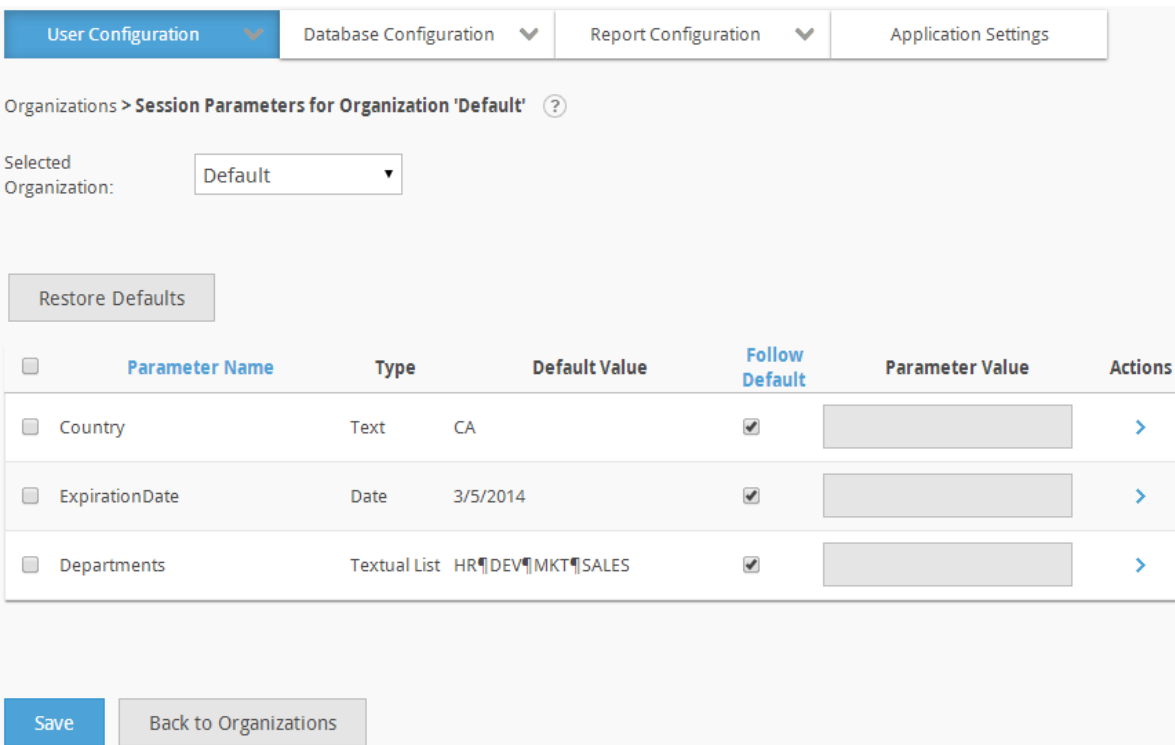
From the Organizations Page

Organizations either use the session parameter value as it was originally defined or the adjusted session parameter value specific to the organization. The actual session parameter must have been created through the session parameters page. Only the value may be adjusted for the organization.

If a session parameter value is set for an organization, that value will be applied to all users within that organization unless specifically over-ridden at the user level.

To review or adjust the session parameter values for an organization, click on **Configuration** and select **Organizations** from the *User Configuration* menu. The following page will be displayed:

Hover the mousepointer over the Action icon › for an organization and select **Set Session Parameters** from the list of actions. The following page will be presented:

User Configuration ⌄	Database Configuration ⌄	Report Configuration ⌄	Application Settings

Organizations > **Session Parameters for Organization 'Default'** ⍰

Selected Organization: [Default ▾]

[Restore Defaults]

☐	Parameter Name	Type	Default Value	Follow Default	Parameter Value	Actions
☐	Country	Text	CA	☑		›
☐	ExpirationDate	Date	3/5/2014	☑		›
☐	Departments	Textual List	HR¶DEV¶MKT¶SALES	☑		›

[Save] [Back to Organizations]

The *Selected Organization* identifies the organization that was the action target from the previous page. The dropdown list allows the Administrator to select other organizations and review or adjust their session parameters without having to return to the Organizations page.

The grid presents the session parameters that may be set for the organization. Click on the *Parameter Name* or the *Follow Default* column header to sort the contents of the grid.

The **Restore Defaults** button provides a mechanism to set all of the highlighted (checked) session parameters back to the values shown in the *Default Value* column.

The *Follow Default* checkbox indicates whether the parameter value should adopt the *Default Value*. This also allows the parameter value to be set "permanently", meaning that changes to the *Default Value* will have no impact on the parameter value for the organization, if the *Follow Default* checkbox is unchecked.

The grayed *Parameter Value* text boxes are not disabled. The gray is a visual cue that the value is the same as the default value and is expected to follow the default

value. That mean that if the default value changes, the organization will automatically pick up the new value.

The *Parameter Value* may be changed by either typing directly into the text box or selecting the **Modify** action and providing a new value. The parameter value may also be changed by selecting the **Restore Default** action.

If any *Parameter Value* is set it will be considered an override value and the "*Follow Default*" checkbox will automatically be unchecked.

Click on the **Save** button to store the session parameter values for the organization.

An action that is available for each session parameter is **Set By User.** Clicking on this action will present a page that allows the session parameter values to be set for all users in the organization.

The *Selected Session Parameter* initially identifies the parameter that was specified when linking to this page. The dropdown list allows the Administrator to review and modify other session parameter values for the group of users.

The *Default Value* is the value that will be used for all of the users in the list unless the value is specifically over-ridden.

The *Type* indicates one of the five session parameter types; date, number, numeric list, text and textual list.

The *Role* dropdown list may be used to filter the list of users. Initially the dropdown indicates "All" and the list of user are all users in the Organization.

The **Restore Default** button will set the session parameter value for all selected users back to the displayed Default Value. Users may be selected by clicking on the checkbox next to the user. All users may be selected by clicking on the checkbox in the list header.

The **Set Value** button will open a dialog to acquire a new value and will apply the value to all of the selected users.

The list of users may be sorted by clicking on the *User* or *Follow Default* column header.

The *Follow Default* checkbox indicates whether the parameter value should adopt the *Default Value*. This also allows the parameter value to be set "permanently", meaning that changes to the *Default Value* will have no impact on the parameter value for the user, if the *Follow Default* checkbox is unchecked.

The grayed *Parameter Value* text boxes are not disabled. The gray is a visual cue that the value is the same as the default value and is expected to follow the default value. That mean that if the default value changes, the user will automatically pick up the new value.

The *Parameter Value* may be changed by either typing directly into the text box or selecting the **Modify** action and providing a new value. The parameter value may also be changed by selecting the **Restore Default** action.

If any *Parameter Value* is set it will be considered an override value and the "*Follow Default*" checkbox will automatically be unchecked.

To change the parameter value, either enter the new value in the *Parameter Value* text box or hover the mousepointer over the *Actions* ❯ icon and select **Modify** from the list of actions.

The **Modify** action will present a dialog relevant to the type of the session parameter. "Date" session parameters will have a date picker control and "List" session parameters will present a list of values in the dialog.

From the *Actions* icon, the session parameter value for the related user may be reset to the default value for the Organization by clicking on the **Restore Default** option.

Click on the **Save** button to store the session parameter values for the User.

From the Users Page

User level session parameters may be set, as described above, by navigating through the Organization or the Session Parameters configuration pages. In the event that the Logi Ad Hoc instance is not configured to use Organizations, user-level session parameter values may be set by clicking on **Configuration,** hovering the mouse over the *User Configuration*, and clicking **Users.**

A page of with a list of users will be presented similar to the following:

| User Configuration ∨ | Database Configuration ∨ | Report Configuration ∨ | Application |

Users ?

| Add | Delete |

☐	Username	Name	User Roles	Actions
👤 Admin	Administrator	System Admin	>
☐ 👤 jim	User Jim	Non Admin	>

To set the session parameter values for a user, select the **Set Session Parameters** action. The following page will be displayed:

The *Selected User* dropdown list defaults to the user that was used to link to this page. The dropdown list of users is a convenient mechanism to change the focus of the page to a different user without having to go back to the previous page.

The grid presents all of the session parameters values defined for the user. Click on the Parameter Name or Follow Default column headers to sort the contents of the grid.

The Restore Defaults button will set the values of the selected session parameters to the Default Value displayed in the grid.

The *Follow Default* checkbox indicates whether the parameter value should adopt the *Default Value*. This also allows the parameter value to be set "permanently", meaning that changes to the *Default Value* will have no impact on the parameter value for the user, if the *Follow Default* checkbox is unchecked.

The grayed *Parameter Value* text boxes are not disabled. The gray is a visual cue that the value is the same as the default value and is expected to follow the default value. That mean that if the default value changes, the user will automatically pick up the new value.

The *Parameter Value* may be changed by either typing directly into the text box or selecting the **Modify** action and providing a new value. The parameter value may also be changed by selecting the **Restore Default** action.

If any *Parameter Value* is set it will be considered an override value and the "*Follow Default*" checkbox will automatically be unchecked.

Click on the **Save** button to store the session parameter values for the user.

Usage Scenarios

In Data Object Parameters

Data Objects may be configured to have a fixed set of filters on the data that may be returned. A session parameter may be used as part of the filter definition. For example, a Customers data object might always be filtered on the Country column using a session parameter in the filter condition as in the following figure:

In older versions of Logi Ad Hoc, the @Session token would have been used as the Specific Value for the filter.

In the current release of Logi Ad Hoc, a more user-friendly option has been provided.

Parameter Details

Column: Customers.Country

Operator: Equal to

Value: Session Parameter | Country

OK   Cancel

Notice that the *Value* source option is set to *Session Parameter* and the value is set to the session parameter name, "*spCountry*".

The actual value of the *spCountry* session parameter will be determined by the value set for the logged in user for the current session. The value may be the original value defined for the session parameter or the organization level over-ride or the user level over-ride. The actual value will be determined when the user initially logs into Logi Ad Hoc and establishes a session.

To demonstrate the value of the *Type* attribute of a session parameter, a "textual list" type session parameter named "*spCustomerList*" was created. The initial value was set to a list of Customer ID's for the session parameter. In the following picture:

Parameter Details

Column: Customers.Customer ID

Operator: In list

Values: Session Parameter | Departments

ⓘ Please use the Enter key to separate items in a data entry list.

OK   Cancel

The Customer ID column is a text column. The Operator selected was "In List". The Values source was set to Session Parameter. The dropdown list of possible session parameters available in this context was restricted to the "textual list" session parameter type.

In a Data Source Filter

Every Logi Ad Hoc report must have a data source defined as the basis for the report. One of the options on the data source is to specify a filter to be applied on the data returned to the report. Session parameters may be incorporated into the report filters in a manner similar to the Data Object Parameters outlined above.

From the **Select or Modify Data Source Dialog**:

Records from the Customers data object will be filtered by the Customers.Country equal to the spCountry session parameter value. The actual value will be determined when the report is run.

Record Level Security

With the extension of session parameters down to the user level, administrators have better options for implementing record level security.

Record level security is implemented by placing fixed filters (parameters) on the data objects to restrict the data that the user has access to. The basis for these filters could be session values established at the user level. In prior versions of Logi Ad Hoc, the session values could have been established at the application or organization level. If the data had to be restricted at the user level, it wasn't possible to configure the session parameters to accomplish that goal.

With the current release, record level security down to the user level is possible. It is still not a security model inherent in the product, but the user level session parameters allow the System Administrator to define the data and schema structures such that data object parameters could be used to automatically filter data returned to that pertinent for each user.

Contact Us

For more information about other Logi Analytics products or assistance beyond this user manual, please contact Logi Analytics in the following ways:

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