Logi Ad Hoc Reporting
Session Parameters Guide

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What Are Session Parameters?

Session parameters, also called *session variables*, are values that are available for the life of a user's web application session. The values are referenced by the web application using 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 discussed.

Given their dynamic nature, session parameters are often used to enforce data security at various levels. For example, a user-level session parameter, such as *User_ID*, can be used to filter data that is made available to each user. An organization-level session parameter, such as *Hospital_ID* 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 document are *spCustomerID*, *spCustomerIDList*, and *spProductID*.

Their values will be determined during the course of the following discussion. If the spCustomerID session parameter is set to a value of "ANTON", that value will persist for the life of the session, unless specifically overridden. 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 a Logi Ad Hoc session parameter, *scope* refers to the range of possible 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 can be overridden at the organization level, which could be considered the "organization scope". The value can also be overridden 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 overrides. Let's see this using a visualization:

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
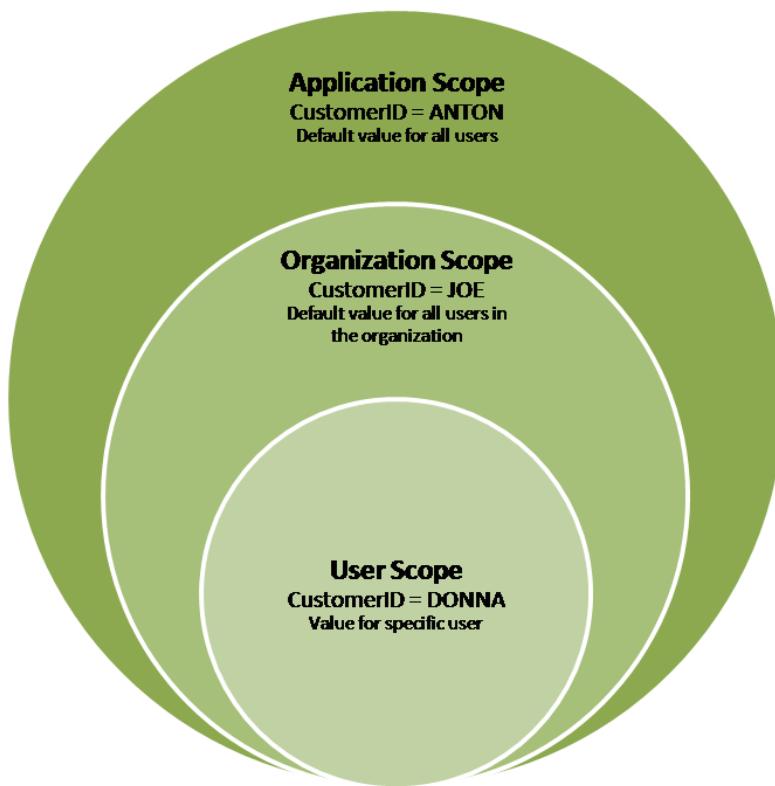
In the image above, the *CustomerID* session parameter value is set to "ANTON". This is the default value for the session parameter. In the absence of any overrides, all users of the application will see "ANTON" when the *CustomerID* session parameter is referenced.

The session parameter value can be overridden at the Organization level. In the image above, the *CustomerID* session parameter has been overridden for an organization and set to "JOE".

In the absence of any further overrides, all users that are members of the organization will see "JOE" when the *CustomerID* session parameter is referenced.

The session parameter value can be set at the User level. In the image 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 overrides all default values for the session parameter.

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 can be used throughout Logi Ad Hoc wherever a value can be supplied; however, the primary purpose for session parameters is 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 can be accomplished by selecting *Session Parameter* from the value source drop-down list and then selecting the appropriate session parameter from the drop-down list of relevant session parameter names.

The following is an example of a data source filter configuration in a report:
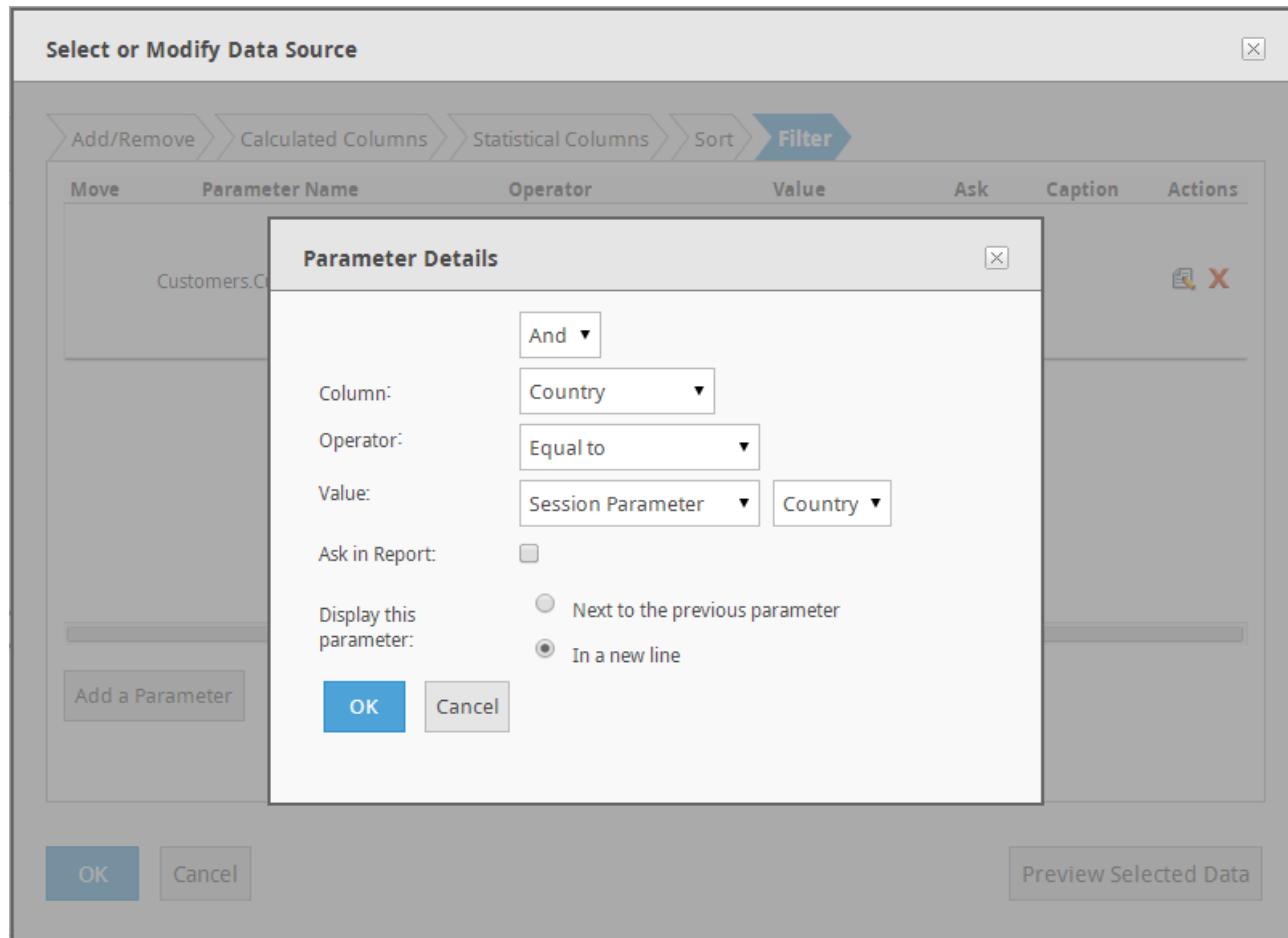
Notice that the *Value* source control is set to "Session Parameter" and the value is set to "Country" in the filter definition.

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

A similar dialog box is displayed when defining fixed parameters on a data object:
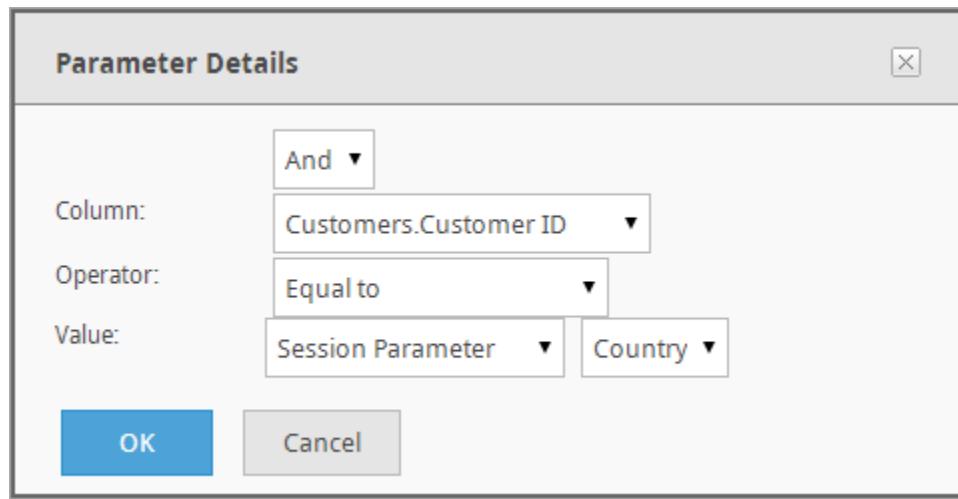
Once again, the *Value* source control is set to "Session Parameter" and the value is set to "Country" in the filter definition.

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

In both cases the drop-down 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?

Session parameters are initially defined by clicking **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 the **Session Parameters** link to display the following page:
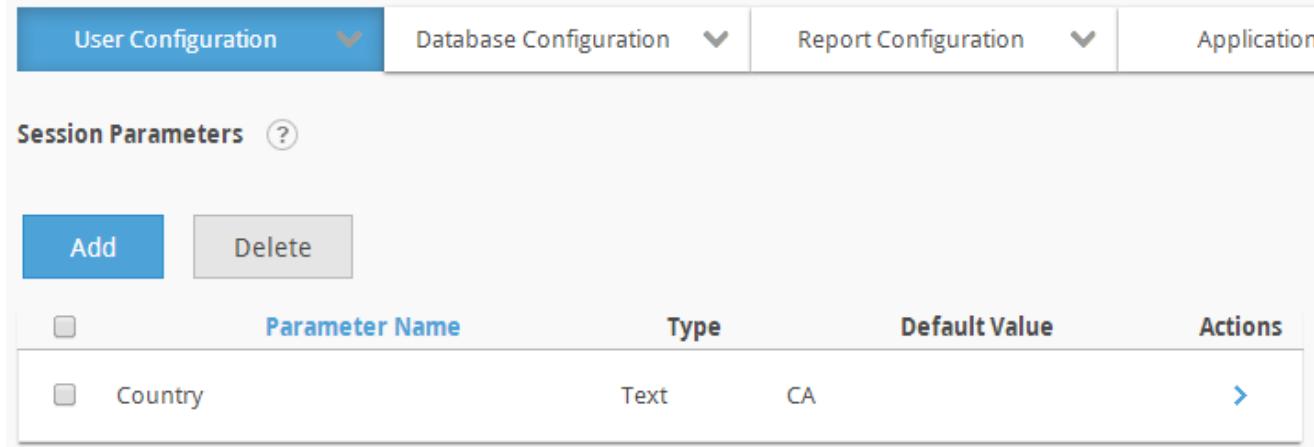
The *Session Parameters* page displays a list of defined session parameters.

Click **Delete** to remove selected session parameters. Session parameters are selected by checking their checkboxes.

Adding Session Parameters

Click **Add** to add a new session parameter. This dialog box will be displayed:
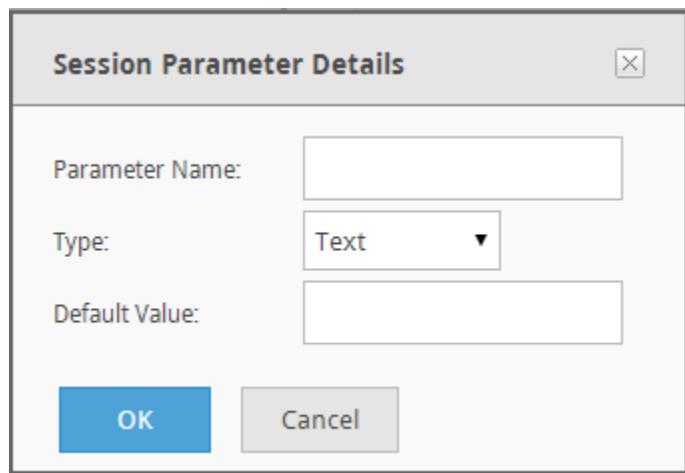

Enter a *Parameter Name* value – this will be used to reference the session parameter throughout the application.

Select a *Type* option – this will be 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 displayed 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 Lis**t – 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.

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

Session Parameter Details ☒

Parameter Name: _____

Type: [Numeric List ▼]

Default Value: [_____]

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

[OK]   [Cancel]
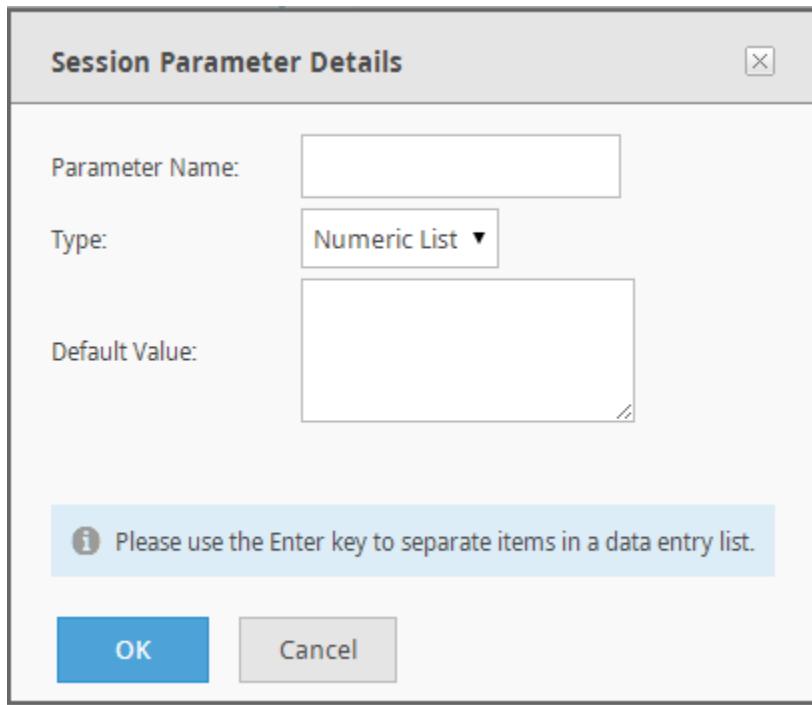
When a "Date" type is selected, the dialog box will be adjusted and a date picker control will be displayed as shown below:

Session Parameter Details ☒

Parameter Name: _____

Type: [Date ▼]

Default Value: [_____] 📅

[OK]   [Cancel]
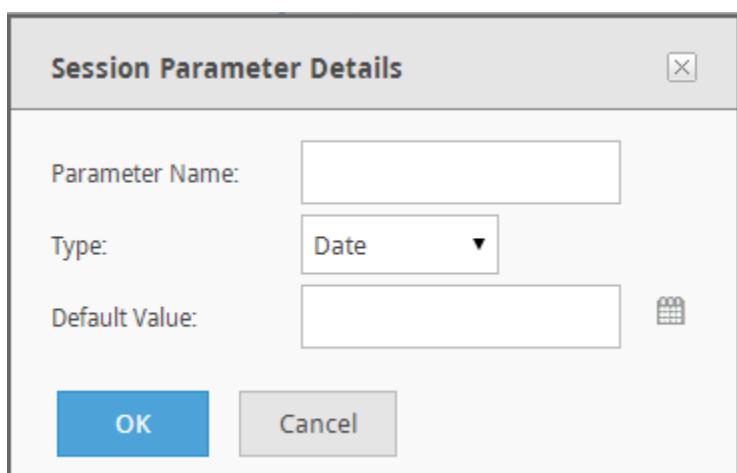
The *Default Value* attribute, in the absence of any overrides based on Organization or User, will be supplied to the application when the session parameter is resolved during the execution of reports.

Modifying Session Parameters

Session parameters and their default values are defined through the *Session Parameters* page. The values can be overridden 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**.

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 display a dialog box 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 displays a list of session parameters similar to the following:
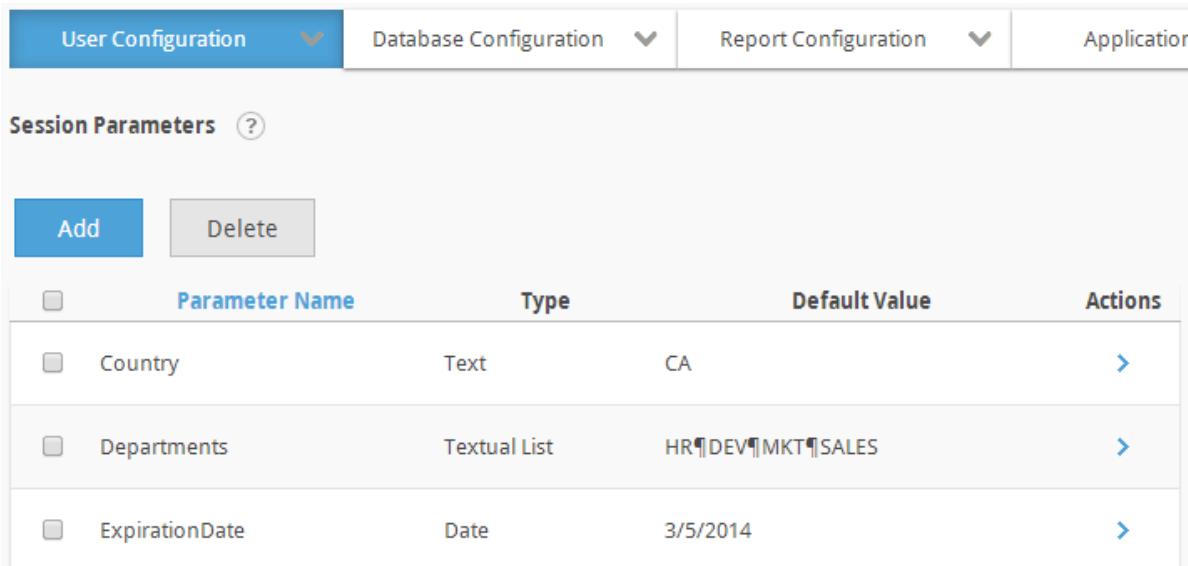
User Configuration ▼	Database Configuration ▼	Report Configuration ▼	Application

Session Parameters ⑦

Add	Delete

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

The session parameters can 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**.

Select the **Modify Session Parameter** action to display a dialog box to capture the new session parameter value. For text and numeric type session parameters, the dialog box appears as:

Session Parameter Details   ⊠

Parameter Name:	Country
Type:	Text ▼
Default Value:	CA

[OK]   [Cancel]
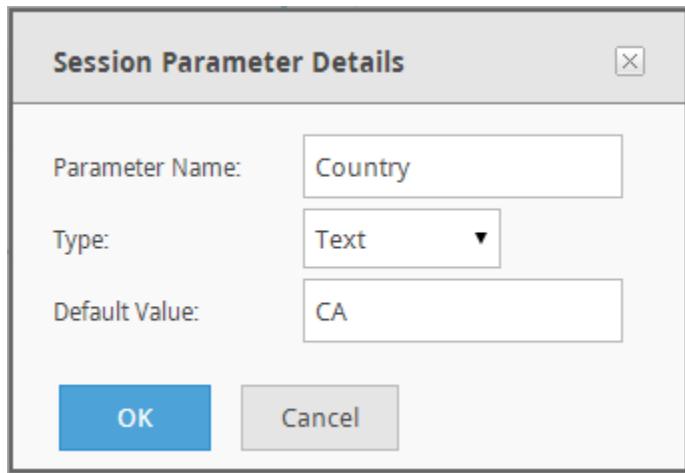
Modify the *Parameter Name*, *Type*, or *Default Value* values and click **OK** to save the information.

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

Changes are immediate and can affect the current session. It's not necessary to logout and re-establish the session if the changes impact the current user. Other users' sessions are not affected by the changes until a user logs in again.

Selecting the **Set by Organization** action will display a page similar to this:

The *Selected Session Parameter* defaults to the session parameter that was used to navigate to the page. It's also a convenient way 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 displayed in the grid. The grid can be sorted by clicking on either the *Organization* or *Follow Default* column headers.

Click **Restore Default** to set the *Parameter Value* to the displayed *Default Value* for all selected Organizations.

Click **Set Value** to display a dialog box to capture a new value and apply the value to all of the selected Organizations.

The *Follow Default* checkbox specifies 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. Their gray color is a visual cue that the value is the same as the default value and is expected to follow the default value. That means that if the default value changes, the organization will automatically pick up the new value.

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

Click **Save** to save the session parameter values for the Organization.

Note: The **Set by Organization** action will not be displayed 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 display a page similar to this:

User Configuration ⌄	Database Configuration ⌄	Report Configuration ⌄	Application
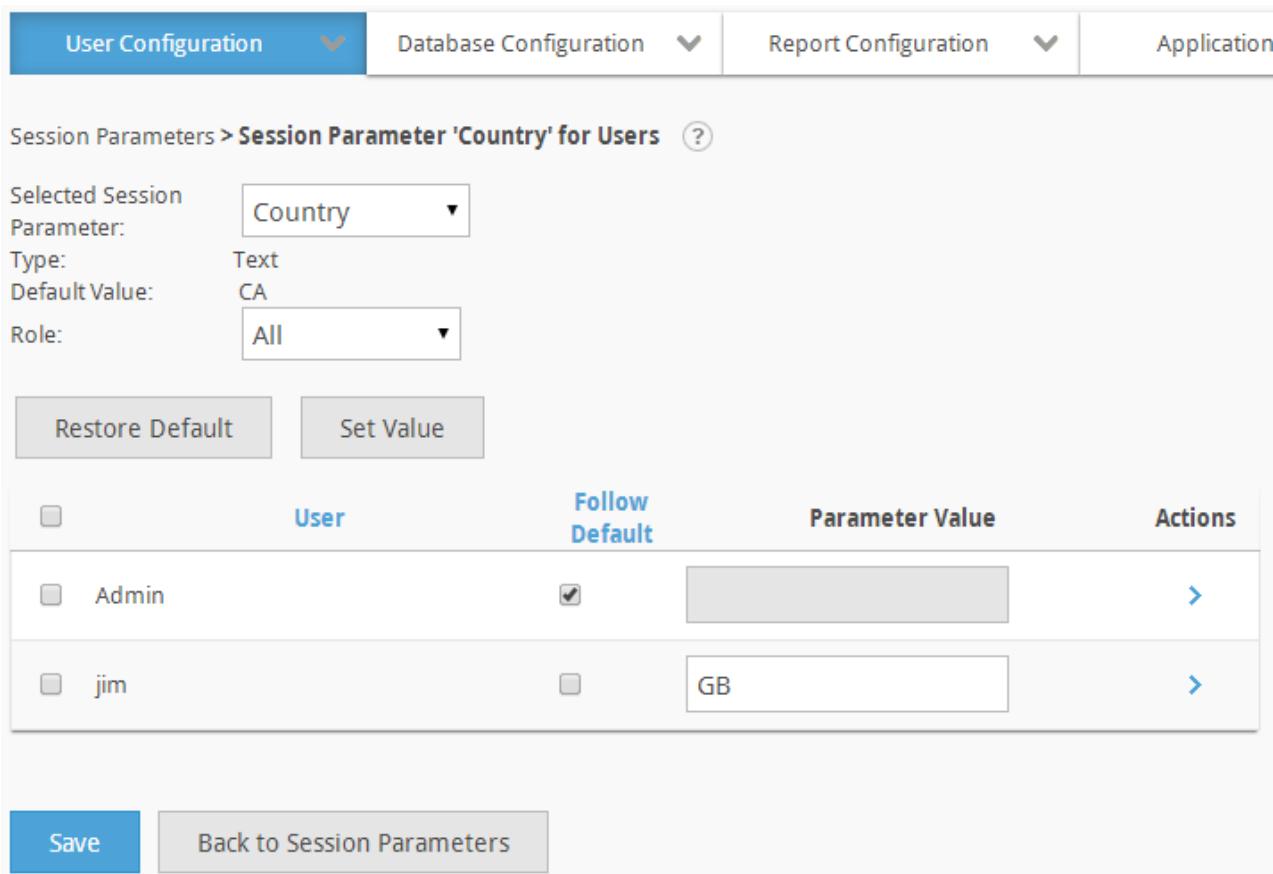
Session Parameters > **Session Parameter 'Country' for Users** ⑦

Selected Session Parameter: | Country ▾
Type: | Text
Default Value: | CA
Role: | All ▾

Restore Default	Set Value

☐	**User**	**Follow Default**	**Parameter Value**	**Actions**
☐	Admin	☑		›
☐	jim	☐	GB	›

Save	Back to Session Parameters

The *Selected Session Parameter* defaults to the session parameter that was used to navigate to the page. It's 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* drop-down list is used to filter the user list by their organization. The *Organization* drop-down list is only displayed in the page if 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 can be the original application scope session parameter value or the organization scope parameter value.

The *Role* drop-down list allows the list of users to be filtered by role.

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

Click **Restore Default** to set the *Parameter Value* to the displayed *Default Value* for all selected Users.

Click **Set Value** to display a dialog box to capture a new value and apply the value to all of the selected Users.

The *Follow Default* checkbox specifies 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. Their gray color is a visual cue that the value is the same as the default value and is expected to follow the default value. That means that if the default value changes, the user will automatically pick up the new value.

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

Click **Save** to save 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 can 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 overridden 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:
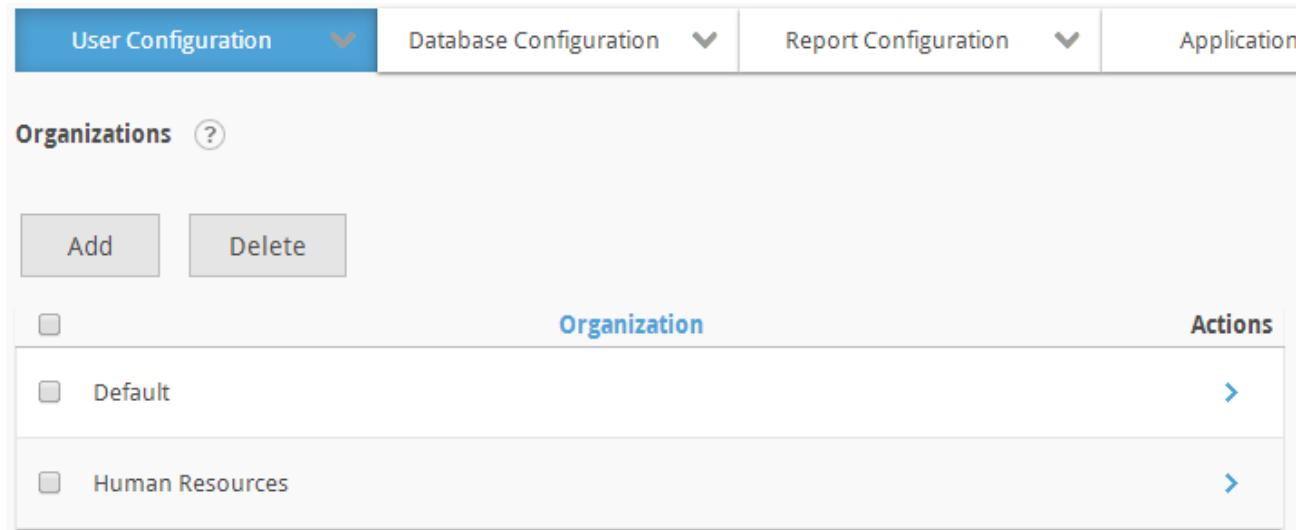
Hover your mouse cursor over the Action icon ❯ for an organization and select **Set Session Parameters** from the list of actions. The following page will be displayed:

User Configuration ▼	Database Configuration ▼	Report Configuration ▼	Application Settings

Organizations > **Session Parameters for Organization 'Default'** ⑦

Selected Organization: Default ▼

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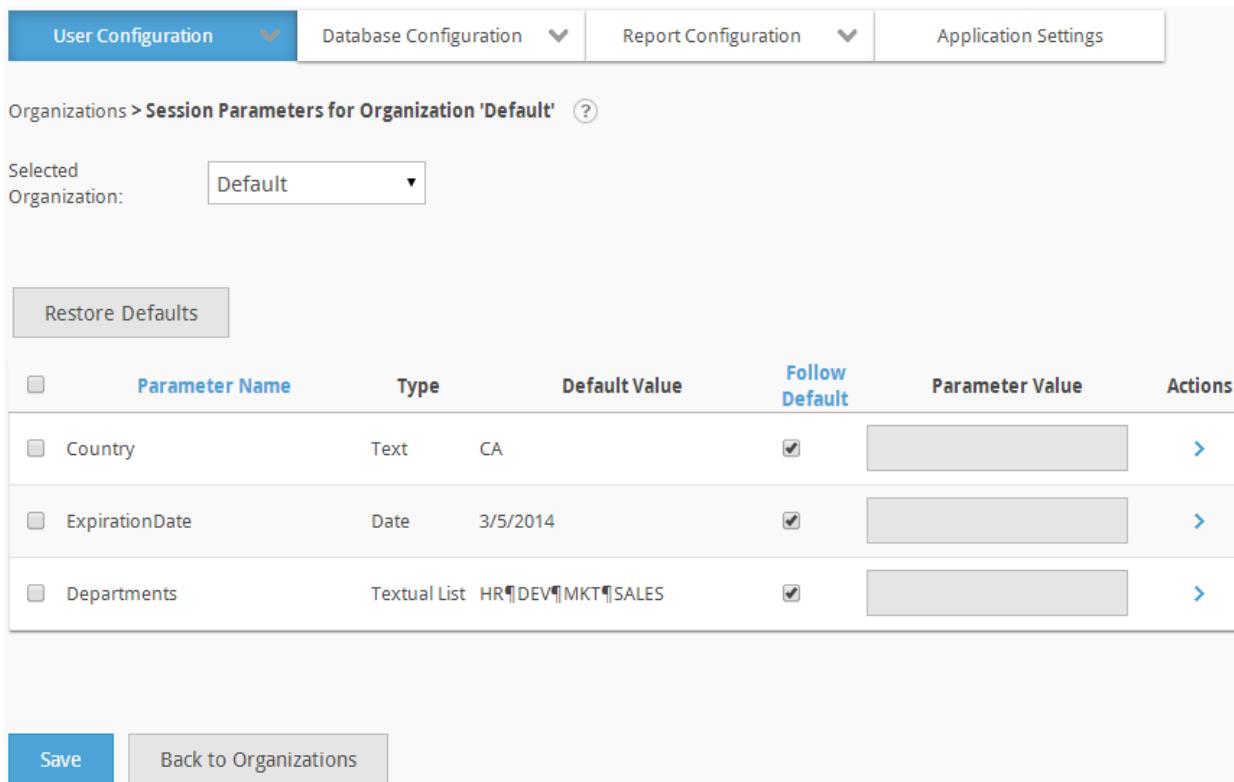
☐	Parameter Name	Type	Default Value	Follow Default	Parameter Value	Actions
☐	Country	Text	CA	☑		❯
☐	ExpirationDate	Date	3/5/2014	☑		❯
☐	Departments	Textual List	HR¶DEV¶MKT¶SALES	☑		❯

[Save]   [Back to Organizations]

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

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

Click **Restore Defaults** to set all of the selected (checked) session parameters back to the values shown in the *Default Value* column.

The *Follow Default* checkbox specifies 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. Their gray color is a visual cue that the value is the same as the default value and is expected to follow the default value. That

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

The *Parameter Value* can be changed by either typing directly into the text box or by selecting the **Modify** action and providing a new value. The parameter value can 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 **Save** to save the session parameter values for the organization.

An action that's also available for each session parameter is **Set by User.** Clicking this action will display a page that allows the session parameter values to be set for all users in the organization:
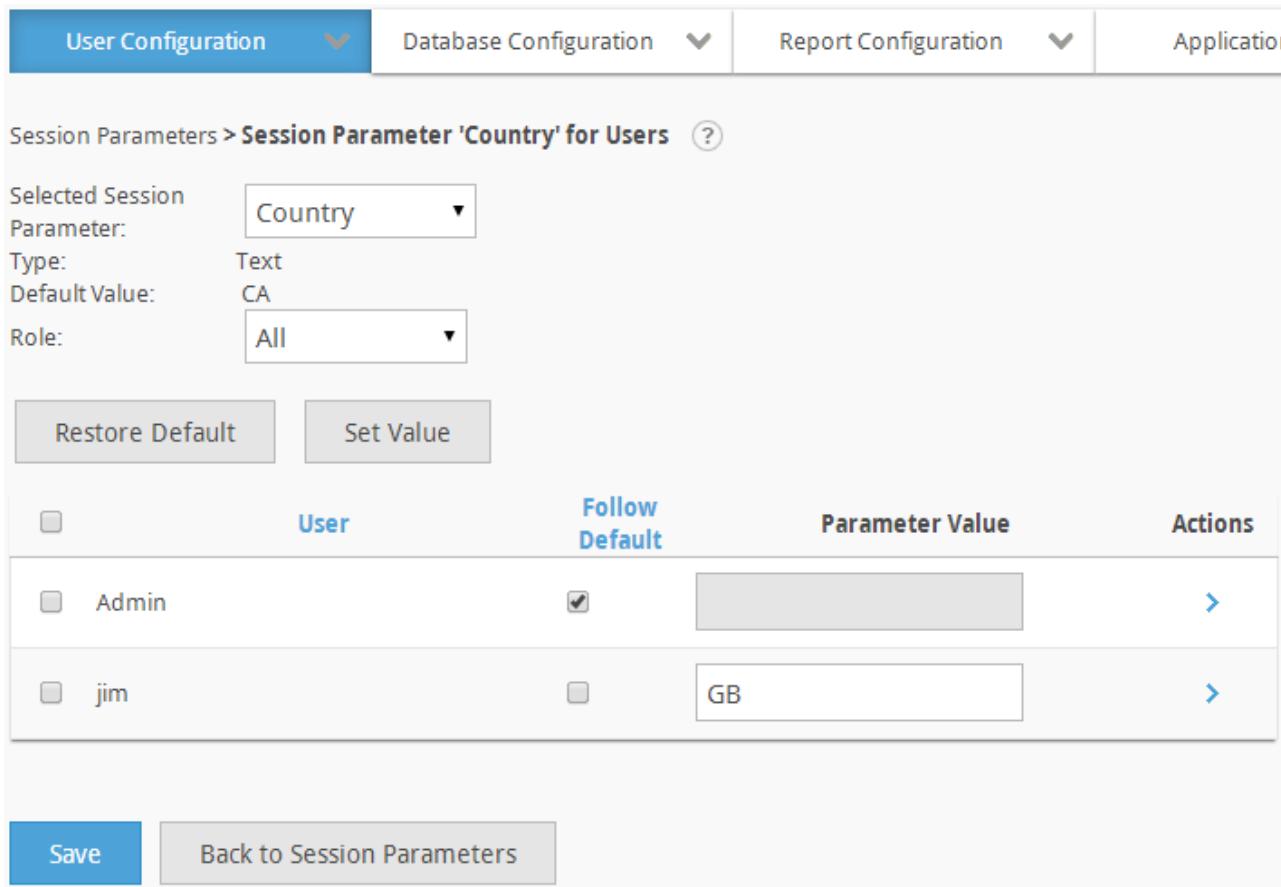
The *Selected Session Parameter* initially identifies the parameter that was specified when linking to this page. The drop-down list allows you to review and modify other session parameter values for the group of users.

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

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

The *Role* drop-down list can be used to filter the list of users. Initially the drop-down indicates "All" and the list of user are all users in the Organization.

Click **Restore Default** to set the session parameter value for all selected users back to the displayed Default Value. Users can be selected by clicking their checkbox. All users can be selected by checking the checkbox in the list header.

Click **Set Value** to open a dialog box to enter a new value and apply it to all of the selected users.

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

The *Follow Default* checkbox specifies 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. Their gray color is a visual cue that the value is the same as the default value and is expected to follow the default value. That means that if the default value changes, the user will automatically pick up the new value.

The *Parameter Value* can be changed by either typing directly into the text box or selecting the **Modify** action and providing a new value. The parameter value can 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 your mouse cursor over the *Actions* ❯ icon and select **Modify** from the list of actions.

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

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

Click **Save** to save the session parameter values for the User.

From the Users Page

User level session parameters can 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 can be set by clicking on **Configuration,** hovering your mouse cursor over *User Configuration*, and clicking **Users.**

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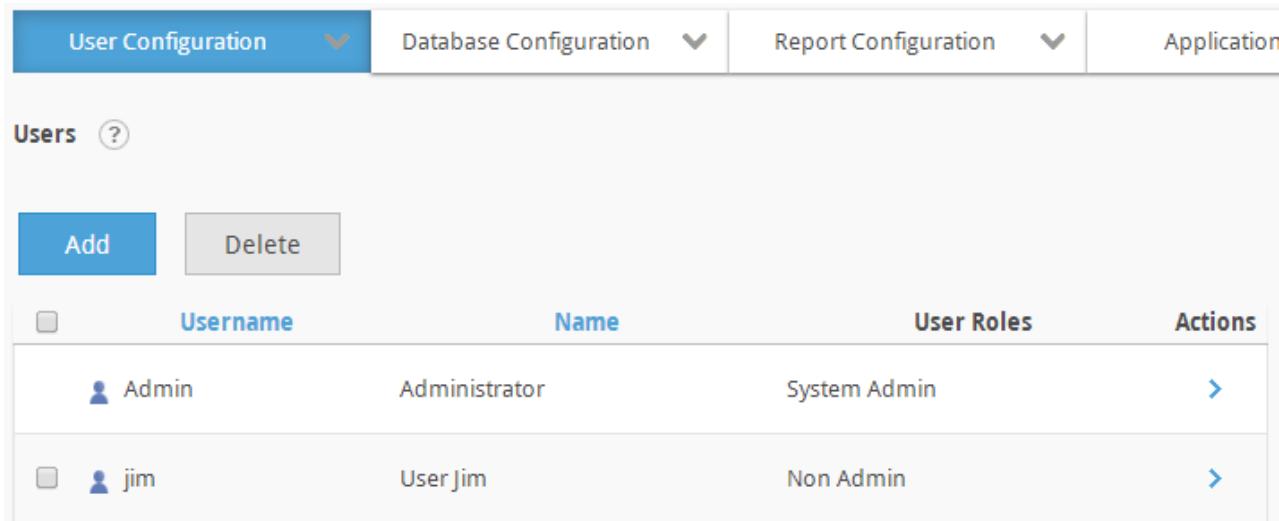
To set the session parameter values for a user, select the **Set Session Parameters** action. The following page will be displayed:

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

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

Click **Restore Defaults** to set the values of the selected session parameters to the Default Value displayed in the grid.

The *Follow Default* checkbox specifies 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. Their gray color is a visual cue that the value is the same as the default value and is expected to follow the default value. That means that if the default value changes, the user will automatically pick up the new value.

The *Parameter Value* can be changed by either typing directly into the text box or selecting the **Modify** action and providing a new value. The parameter value can 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 **Save** to save the session parameter values for the user.

Usage Scenarios

In Data Object Parameters

Data Objects can be configured to have a fixed set of filters on the data that can be returned. A session parameter can 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 shown below:
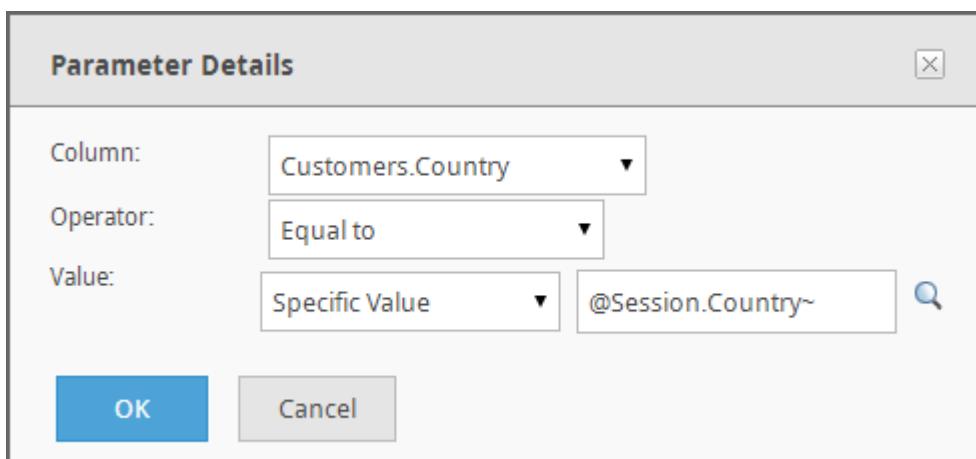
In older versions of Logi Ad Hoc, the @Session token would have been used as the Specific Value for the filter. In the current release of Logi Ad Hoc, a more user-friendly option has been provided:
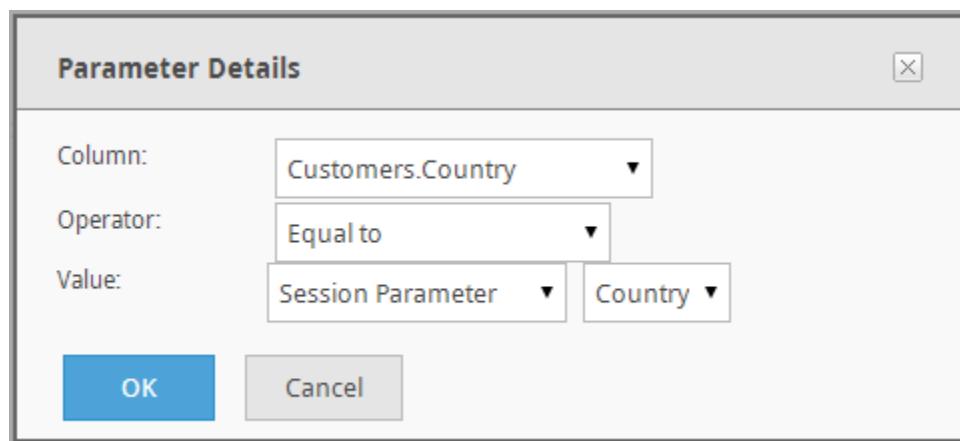
Notice that the *Value* source option is set to *Session Parameter* and the value is set to the session parameter name "*spCountry*".

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 can be the original value defined for the session parameter or the organization level override or the user level override. 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.
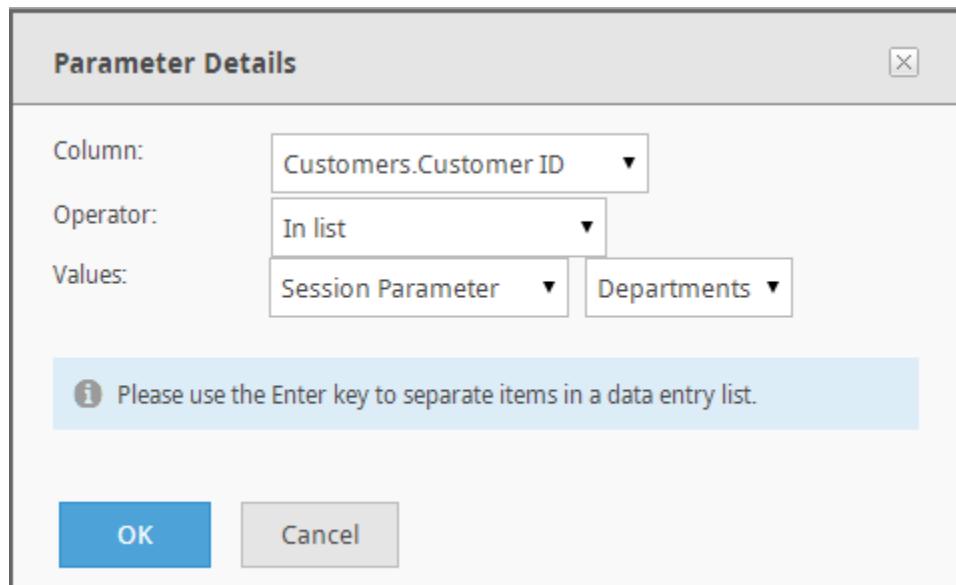

In the example above, the Customer ID column is a text column. The Operator selected was "In List" and the Values source was set to Session Parameter. The drop-down list of possible session parameters available in this context was restricted to the "textual list" session parameter type.

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 for the data source is to specify a filter to be applied on the data returned to the report. Session parameters can 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 box:
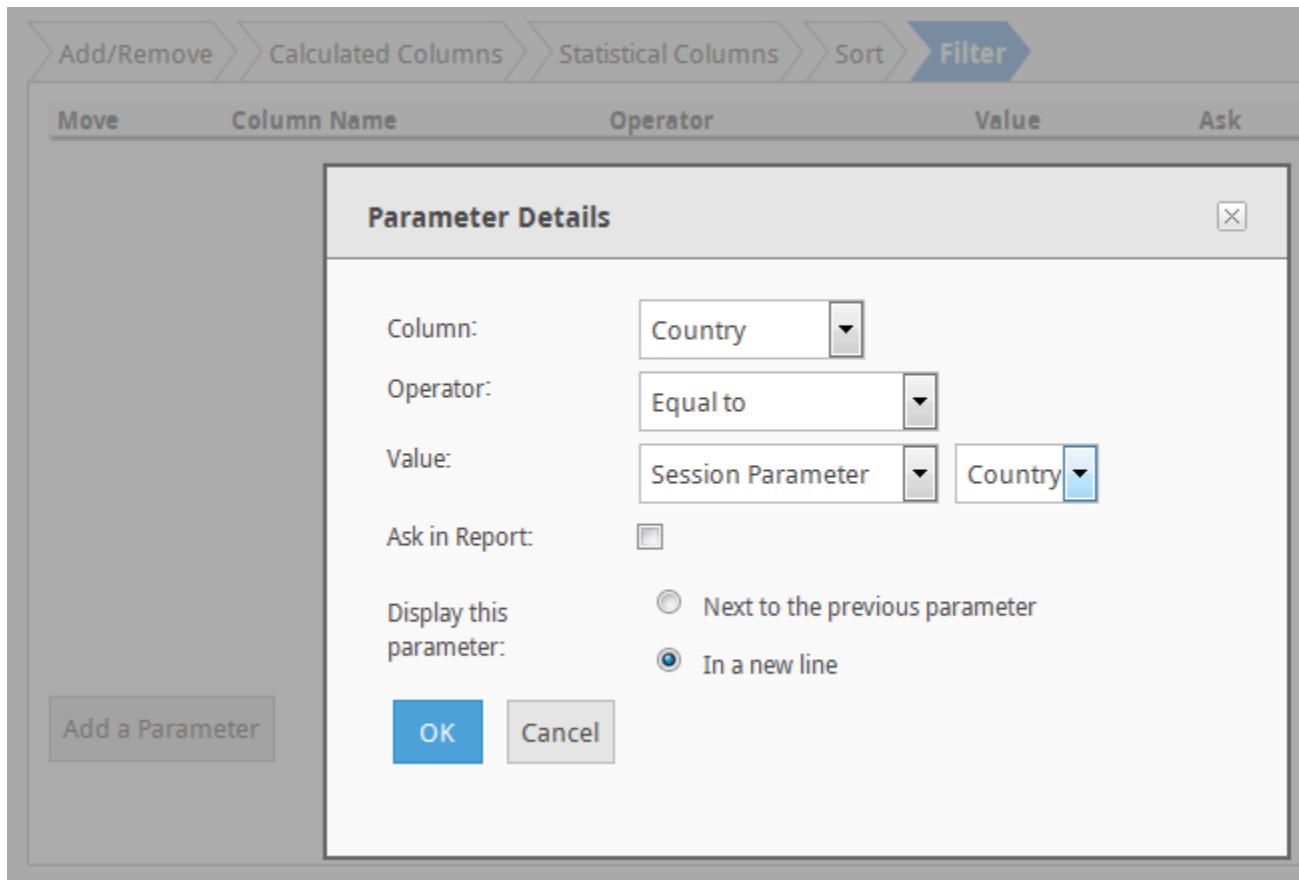
Records from the Customers data object will be filtered to include records where the Customers. Country column is equal to the Country session parameter value. The actual value will be determined when the report is run.

Record Level Security

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

Record-level security is implemented by placing fixed filters (parameters) on 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.

While record-level security is not a security model inherent in Ad Hoc, user-level session parameters allow the System Administrator to define the data and schema structures such that data object parameters can be used to automatically limit the data returned to that approved for each user.

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