

# Using Contexts Variables for Comparing Data Based on Datetime Column

This section describes the steps of setting up a channel for comparing a manageable subset of data in two Oracle tables based on a Date/Time column. HVR allows you to implement this behavior using action **Restrict** with the **/CompareCondition** and **/Context** parameters using context variables.

For the initial steps to set up a channel, refer to [Quick Start for HVR - Oracle](#).

In this example, a channel is configured with source and target locations residing on Oracle databases.

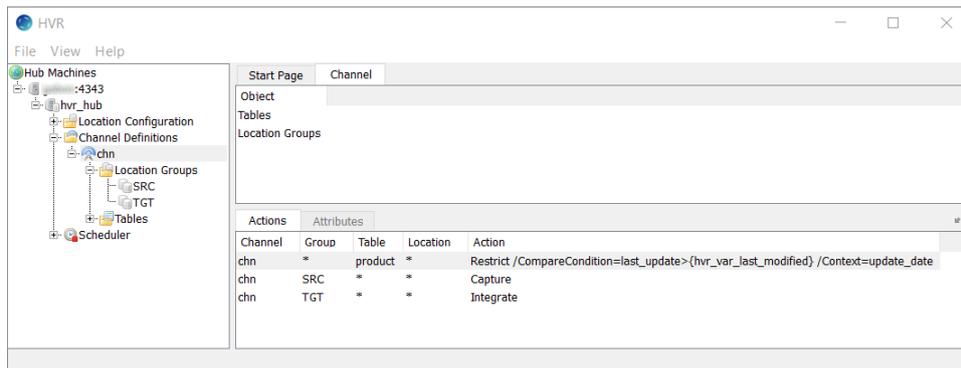
To set up HVR Compare based on a Date/Time column using context variables, perform the following actions:

1. Define action **Restrict** with parameters **/CompareCondition** and **/Context** for both source and target locations. The compare condition allows to compare only rows that satisfy a certain condition. The condition may be defined using the following pattern **{hvr\_var\_XXX}**, where **XXX** is a value of the context variable. The **/Context** parameter allows to activate the **Restrict** action only if the context is enabled. For more information, refer to sections **/CompareCondition** and **/Context** on the **Restrict** page.
  - a. In the **HVR GUI**, right-click **Location Groups** under the channel **chn** node, navigate to **New Action** and select **Restrict**.
  - b. Since the compare condition is defined for both source and target location groups, select '\*' in the **Group** field. Then select table 'product' in the **Table** field.
  - c. Specify the following condition in the **CompareCondition** field: **last\_update>{hvr\_var\_last\_modified}**, where **last\_modified** is a variable, the value for which can be defined in the **Contexts** tab of the **HVR Compare** dialog (see step 8 below). By defining different values /expressions for the variable, you can manage the subsets of data to be compared.
  - b. Enter the context name, e.g. 'update\_date' in the **/Context** field. Click **OK**. **HVR Compare** is effective only when the context is enabled. The context can be enabled in the **Contexts** tab of the **HVR Compare** dialog (see step 7 below).

The screenshot shows the 'Action: Restrict' dialog box. At the top, it says 'Action: Restrict'. Below that, there are dropdown menus for 'Channel' (set to 'chn'), 'Group' (set to '\*'), 'Table' (set to 'product'), and 'Location' (set to '\*'). There are several checkboxes for different conditions: '/CaptureCondition', '/IntegrateCondition', '/RefreshCondition', '/CompareCondition' (checked), '/SliceCondition', and '/HorizColumn'. The '/CompareCondition' field contains the text 'last\_update>{hvr\_var\_last\_modified}'. There are also checkboxes for '/HorizLookupTable', '/DynamicHorizLookup', '/AddressTo', '/AddressSubscribe', and '/SelectDistinct'. The '/Context' checkbox is checked, and its field contains 'update\_date'. At the bottom, there are 'Regular' and 'Text' tabs, and 'OK', 'Cancel', and 'Help' buttons.

2. Additionally, define action **Capture** on source location group **SRC** and action **Integrate** on target location group **TGT**, which are mandatory for performing compare. For this, right-click source group **SRC**, navigate to **New Action** and select **Capture**. For location group **TGT**, select **Integrate**.

3. The resulting channel **chn** configuration will be as follows:

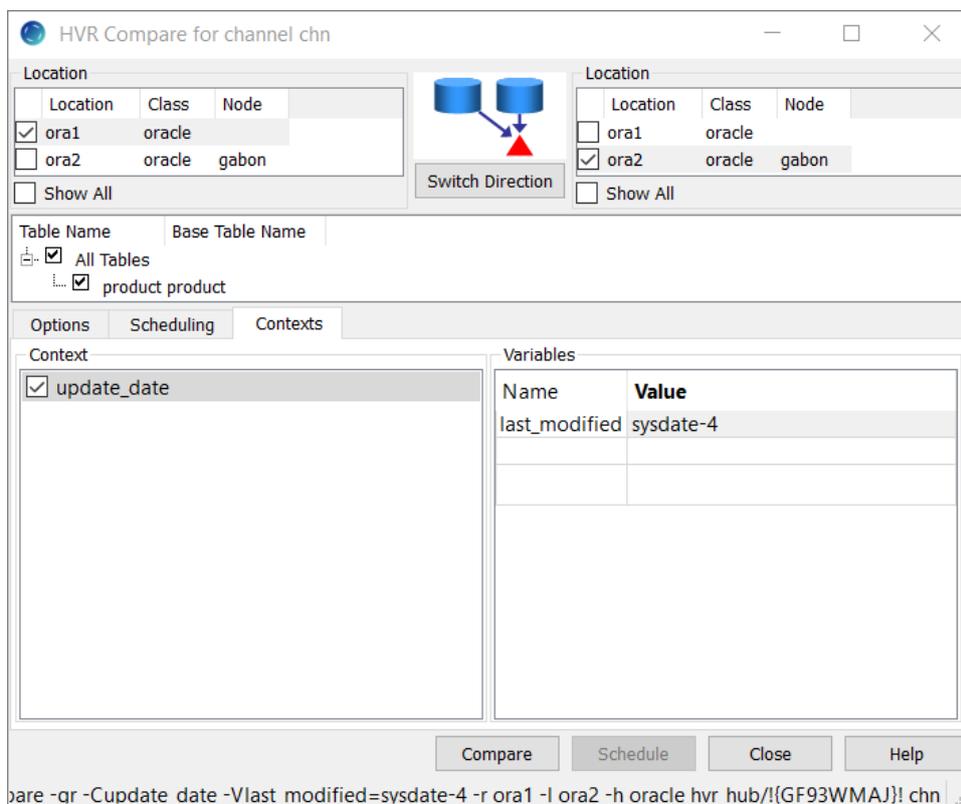


4. Set up **HVR Compare**: right-click channel **chn** and select **HVR Compare**. Select location **ora1** in the left **Location** pane and location **ora2** in the right **Location** pane.
5. Select table 'product' in the tree of tables below.
6. Under the **Options** tab, select the **Row by Row Granularity** compare method. Alternatively, you can select the **Bulk Granularity** compare method. For more information on the difference between the two compare methods, refer to section [Hvrcompare](#).

[SC-Hvr-OperationalTopics-UsingContextVariables\\_Compare\\_row\\_by\\_row](#)

7. Click the **Contexts** tab. In the **Context** pane, select context 'update\_date' that was defined earlier in the **Restrict** dialog for the **/Context** parameter.
8. In the **Variables** pane, specify value **sysdate-4** for variable **last\_modified** defined on the source and target locations. Expression **sysdate-4** selects only data which is 4 days old. Click **Compare**.

SYSDATE is an Oracle function that returns the current date and time set for the operating system on which the database resides. For other DBMSs, the appropriate date/time functions should be used.



9. After the compare event is complete, the **Compare Result** dialog appears showing the comparison details.

Compare Result									
Summary		Output							
Table Name	Target	State	Rows on ora1	Rows on Target	Inserts	Deletes	Updates	Differences	Duration
product	ora2	Identical	1	1	0	0	0	0	0.2

Finished

Close

You can change the date range for which you want to compare data in locations by specifying different values/expressions for the context variable. For example, if you want to compare data modified on a particular date, you can define the following compare condition for source and target:

Action: Restrict	
Channel	chn
Group	*
Table	product
Location	*
<input type="checkbox"/>	Configuration Action
<input type="checkbox"/>	/CaptureCondition
<input type="checkbox"/>	/IntegrateCondition
<input type="checkbox"/>	/RefreshCondition
<input checked="" type="checkbox"/>	/CompareCondition
<input type="checkbox"/>	/SliceCondition
<input type="checkbox"/>	/HorizColumn
Regular	Text
<input type="checkbox"/>	/HorizLookupTable
<input type="checkbox"/>	/DynamicHorizLookup
<input type="checkbox"/>	/AddressTo
<input type="checkbox"/>	/AddressSubscribe
<input type="checkbox"/>	/SelectDistinct
<input checked="" type="checkbox"/>	/Context

last\_update > {hvr\_var\_last\_modified} and last\_update < {hvr\_var\_last\_modified\_n}

update\_date

OK Cancel Help

In this case, the context expressions are defined as follows:

Location			Location		
<input checked="" type="checkbox"/>	ora1	oracle	<input type="checkbox"/>	ora1	oracle
<input type="checkbox"/>	ora2	oracle gabon	<input checked="" type="checkbox"/>	ora2	oracle gabon
<input type="checkbox"/> Show All			<input type="checkbox"/> Show All		

Table Name	Base Table Name
<input checked="" type="checkbox"/> All Tables	
<input checked="" type="checkbox"/> product	product

Context		Variables	
<input checked="" type="checkbox"/>	update_date	Name	Value
		last_modified	sysdate-4
		last_modified_n	sysdate-3

Compare Schedule Close Help

modified=sysdate-4 -Vlast modified n=sysdate-3 -r ora1 -l ora2 -h oracle hvr hub/!(GF93WMAJ)! chn

