

IBM Tivoli Netcool Performance Manager Wireless Component 1.3.1

KPI alias administration using the `kpia_admin`
command line tool



KPI: Key Process Indicator. Also represents any of the fields such as attribute, peg counter, primitive calculation, or user-defined calculation (UDC) available in the software. Also known as metrics on some systems.

Assumptions

- For this module , you must know how to use IBM Tivoli Netcool Performance Manager Wireless Component 1.3.1 for these tasks:
 - Perform basic administration tasks
 - Create and run a report definition
 - Create a user-defined calculation

For this module , you must know how to use IBM Tivoli® Netcool® Performance Manager, Wireless Component 1.3.1 to perform basic administration tasks, create and run a report definition, and create a user-defined calculation.

Objectives

- When you complete this module, you should be able to:
 - Define a KPI alias name and a user-defined group
 - Create an alias import file
 - Create a KPI alias name
 - Edit or remove alias names and user-defined groups
 - Change the field selection criteria for the KPI alias name

After you complete this module, you should be able to define a KPI alias name and a user-defined group (UDG). You should also be able to create an alias name import file, create a KPI alias name, edit or remove alias names and user-defined groups, and locate a KPI alias name.

Definition and limitations

- Definition of KPI alias
 - A name that is more meaningful to the user
- Limitations
 - Only these field types can have an alias:
 - Peg counter
 - Primitive Calculation (PCalc)
 - Attribute
 - User-Defined Calculation (UDC)
 - Summaries and Stored Busy Hours (sbh)
 - If a Peg or PCalc KPI has an alias, all summaries and stored busy hours that are based on that KPI are displayed in the report results
 - Names
 - Only one alias per KPI
 - Maximum of 50 characters
 - Underscores and alphanumeric characters
 - Can begin with an underscore or alphabetic character
 - Same KPI alias for multiple groups

A KPI alias name is a name that better identifies a KPI to a user. A KPI alias name can be used in reports instead of the standard technology pack KPI name because the alias name is shorter and more meaningful.

The field types that can have an alias name are Peg counter, Primitive Calculation (PCalc), Attribute, and User-Defined Calculation (UDC).

If a Peg or PCalc KPI has an alias name, then all summaries and stored busy hours based on that KPI are displayed in the report results using the alias name.

When you create a KPI alias name, you can use only one alias name per KPI. An alias or group name can be up to 50 characters; it can include underscore and alphanumeric characters. Both of the name types must begin with an underscore or alphabetic character. The same KPI alias name can belong to multiple UDG.

Considerations

- Use alias names to map KPI from technology packs to user-defined names
- Use alias names with user-defined groups to map the most relevant subset of KPI from a technology pack
- Consider the additional performance overhead during dictionary synchronization
- Alias names affect all users

Before you decide how many alias names to create, you might consider a few issues. Alias names should be used to map KPI from technology packs to user-defined names. They should also be used in conjunction with user-defined groups to map the most relevant subset of KPI from a technology pack. When you create alias names for a large number of KPI, for example an entire technology pack, consider the additional performance overhead being created during dictionary synchronization. When an alias name exists for a KPI and either the KPI name or the alias name is selected as a field in a report, the alias name is displayed in the report results. Alias names you create can affect report results created by other system users.

Process

- A. Preparing to create the KPI alias name
 - 1. Identify field names and the alias
 - 2. Identify any user-defined groups
 - 3. Create the **/appl/virtuo/aliases/export** directory
 - 4. Export existing aliases and groups
 - 5. Edit the .csv file
 - 6. Identify if this is a new alias or an append process
- B. Creating the KPI alias name
 - 1. Create the .csv file to import
 - 2. Import using the **kpia_admin** command. Use the -append option, if required
 - 3. Verify the aliases that are in the report definition after the data dictionary agent runs

The process is made of six preparation steps and three creation steps.

Preparing to create the KPI alias name

1. Identify field names and the alias
 2. Identify any user-defined groups
 3. Create the **/appl/virtuo/aliases/export** directory
 4. Export existing aliases and groups
 5. Edit the .csv file
 6. Identify if this is a new alias or an append process
- Optional: Prepare a report definition with the list of fields and copy the list of field names to a text file to use later

Step 1. Before you create an alias name or user-defined group, verify the alias names and groups that are already on the server. You can use the report definition to find this information, or you can export the current alias names and groups using the **kpia_admin** command-line tool.

Step 2. Identify existing user-defined groups, and make a list of the fields, alias names, and group names.

Step 3. Use the command line tool to verify that the **/appl/virtuo/aliases/export** directory is present. If the directory does not exist, you must create it. Log into the command-line interface (CLI) using the virtuo user and create the **/appl/virtuo/aliases/export** directory.

Step 4. Export the existing alias names and groups in either the .csv or .xml format. In this module, the .csv format is used.

Step 5. Open the file to see if it is empty or contains data. Edit the .csv file.

Step 6. If the file was empty, you must add alias names. If it contained existing alias data, you merge the alias names together.

Optionally, you might want to prepare a report definition with the list of fields and copy the list of field names to a text file for later use.

Export alias names and groups

- Create directory `/appl/virtuo/aliases/export` (mkdir)
- Export existing aliases and groups
 - To export all KPI aliases and user-defined groups use either one of these commands
 - `kpia_admin -e -f <filename>`
 - `kpia_admin -e -f <filename> -d <directory>`
- Examples
 - `kpia_admin -e -f kpialiaes0.csv`
 - `kpia_admin -e -f kpialiaes0.csv -d /appl/virtuo/admin/aliases/export`

Export alias names and groups.

If it does not exist, use the CLI to create the directory `/appl/virtuo/aliases/export` to receive the exported file.

Use the **kpia_admin** command line tool (CLT) to export the current aliases and user-defined groups.

To export all KPI alias names and user-defined groups currently defined in the system, you specify the name and (optionally) the directory location of the file to export to. If you do not specify a location the current directory is used. Use these file extensions: `.csv` or `.xml`. It is these file extensions that contain both alias name and group data. You cannot export KPI alias names and user-defined groups separately.

Exported alias names file structures

Commas are shown in red for emphasis

- Comma-separated value (.csv)

```
Cell.Nokia.Service.monthly.int_inter_ho_source_fail,IIHSrc_Fail,Int_Fail
Cell.Nokia.Service.int_inter_ho_source_fail,IIHSrc_Fail,Int_Fail
Cell.Nokia.Service.weekly.int_inter_ho_source_fail,IIHSrc_Fail,Int_Fail
Cell.Nokia.daily.int_inter_ho_source_fail,IIHSrc_Fail,Int_Fail
```

Colors are shown for emphasis

- Extensible markup language (.xml)

```
<?xml version="1.0" encoding="UTF-8"?><fields><field><kpiname>Cell.Nokia.Service.monthly.int_intra_ho_source_fail</kpiname><alias> monthly.IIHSrc_Fail</alias><groups/></field><field><kpiname>Cell.Nokia.Service.int_inter_ho_source_fail</kpiname><alias> IIHSrc_Fail</alias><groups><group> Int_Fail</group></groups></field><field><kpiname>Cell.Nokia.Service.int_ho_target_fail</kpiname><alias> IHTgt_Fail</alias><groups><group>Int_Fail</group></groups></f...>
```

An exported .csv file structure is easier to interpret than the .xml format. Colors are added to the image for clarity, but the file is plain text. For each alias name you create the system also creates alias names for applicable daily, weekly, and monthly summaries and any stored busy hour lines required. The image shows the results for one aliased field. If there are no user defined groups or alias names defined on the system, the exported csv file is empty. An xml file containing no alias names has the preamble but nothing after the initial text of <?xml through <field>.

Creating the KPI alias name

- A. * Preparing to create the KPI alias name
 - 1. * Identify field names and the alias
 - 2. * Identify any user-defined groups
 - 3. * Create the **/appl/virtuo/aliases/export** directory
 - 4. * Export existing aliases and groups
 - 5. * Edit the .csv file
 - 6. * Identify if this is a new alias or an append process
- B. Creating the KPI alias name
 - 1. Create the .csv file to import
 - 2. Import using the **kpia_admin** command. Use the -append option, if required
 - 3. Verify the aliases that are in the report definition after the data dictionary agent runs

The six preparation steps are complete. Next, you create the KPI alias name.

Create the csv file for upload

Colors are shown for emphasis

- Comma-separated value (csv)


```
Cell.Nokia.Service.monthly.int_inter_ho_source_fail,
monthly.IIHSrc_Fail,Int_Fail
Cell.Nokia.Service.int_inter_ho_source_fail,IIHSrc_Fail,Int_Fail
Cell.Nokia.Service.weekly.int_inter_ho_source_fail,
weekly.IIHSrc_Fail,Int_Fail
Cell.Nokia.daily.int_inter_ho_source_fail,daily.IIHSrc_Fail,Int_Fail
```
- Each row of the csv file has these three comma-separated items:
 - *<field name>*,
 - *<alias name>*,
 - *<user-defined group name>*

```
<field name>,<alias name>,<user-defined group name>
```
- User-defined group name is *Int_Fail*
- The file name must end with .csv

Create the csv file for upload. This csv file contains four rows of data. Each row has three elements that are separated by commas. The first element is the field name. The second element is the alias name, and the third element is the user-defined group (UDG) name. If assignment to a UDG is not required, you can omit the third element.

When uploading a csv file to create alias names, you add only the primary field name to the csv file. The software creates the additional field names and any applicable summaries and stored busy hours. To add an alias name to two UDG, repeat the line and substitute the second UDG for the first UDG. The file name must end with .csv. You must know the file directory path for the next step.

kpia_admin import command syntax without append

- Syntax

```
kpia_admin -i -f <filename> -d <directory> -t <type>
```

where

- i is for import
- f is the file name
- d is the directory containing the file
- t is the type: alias, group, or all

- Example of an initial creation

```
kpia_admin -i -f kpialias1.csv -d /appl/virtuo/admin/aliases/export  
-t all
```

- Append option -a

- The append option is omitted in the example
- When omitted, the default value of the append option is **false**

kpia_admin import command syntax without append.

If the original exported file is empty, no alias names or UDG are on the system. You can edit the csv file to add the required information and import a file from the same directory. You use the kpia_admin command line to import the required aliases and groups. The kpia_admin command line options are -i for import, -f for the file name, -d for the directory containing the file, and -t for the import type. In this case, the csv file contains both alias name and group.

If the original exported file contains an existing alias name, you find the same information in the **Step 3. Field Selections** view. To change an existing alias name or UDG, use the procedure shown on the slide entitled "Edit or remove alias names and user-defined groups".

When the append option is false, the information in the imported file overwrites the table in the database. It is alright to use the false option when creating the first alias names. If you are adding to the list of existing alias names you must use the append option.

kpia_admin import command syntax with append

- Syntax

```
kpia_admin -i -f <filename> -d <directory> -t <type> -a true
```

where

- i is for import
- f is the file name
- d is the directory containing the file
- t is the type: alias, group, or all
- a is the append option: true, if false it can be omitted

- Example for an initial creation

```
kpia_admin -i -f kpialias0.csv -d /appl/virtuo/admin/aliases/export  
-t all -a true
```

kpia_admin import command syntax with append .

If the original exported file contains an alias name or the user-defined group information, you can create another file to append the required information. Then, you can import with the append option set to true. You can use the same directory and the kpia_admin command line, where you add the option **-a true** for append. In this example, the csv file contains both alias names and UDG, so the import type **all** is entered. Do not edit an exported file containing existing alias names and import that with the append option set to true. Make a new file with the information to add to the table, then run the **kpia_admin** command with the append option.

If you want to correct an existing alias name or UDG, use the procedure shown on the slide entitled "Edit or remove alias names and user-defined groups".

Verify the completion

- Run the data dictionary agent
- Change the field selection criteria for the KPI alias
- Repeat the export command

Step 3: Field Selections

Entity: Find Entity: Vendor:

Technology: Field Type:

Filter: Extended Search

Groups:

Group	Name	User Defined Group	Alias	Description	Source	Te	Ve	En	Field Type	Ac	Mt	Data Type
Nokia.Service	int_ho_target_fail	Int_Fail	IITgt_Fail	Number of target fail	INT_HO_TARGET_FAIL	G	N	C	Peg Count	S	L	Integer
Nokia.Service	int_inter_ho_source_fail	Int_Fail	IISrc_Fail	Number of source fail	INT_INTER_HO_SOURCE_FAIL	G	N	C	Peg Count	S	L	Integer
Nokia.Service	int_intra_ho_source_fail	Int_Fail	IISrc_Fail	Number of source fail	INT_INTRA_HO_SOURCE_FAIL	G	N	C	Peg Count	S	L	Integer
Nokia.Service	int_intra_ho_target_fail	Int_Fail	IITot_Fail	Number of target fail	INT_INTRA_HO_TARGET_FAIL	G	N	C	Peg Count	S	L	Integer

Drag the fields you wish to report on here:

Group	Name	Description	Source	Data Avail.	Technology	Vendor	Entity	Field Type	Aggregate	Modify
-------	------	-------------	--------	-------------	------------	--------	--------	------------	-----------	--------

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Verify the completion.

Before the alias names can be used a few things need to occur. The Data Dictionary agent must run to place the fields where the user interface can read them. You can run this agent manually by using the **agent_admin** command or wait until the agent runs as scheduled, typically every two hours.

In **Step 3: Field Selections**, you can see the **Field Type** set to **Peg Count** and **Groups** set to **User Defined Group**. You can see the two columns in the selection area for **User Defined Group** and **Alias**. After changing the selection criteria, click the **Refresh Fields** button. If you set the **Field Type** to one of the summaries, you see a list of the associated alias names.

Compare report results before and after creating alias names

Table View

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Before Aliases

CELL.CELL_ID	T_DAY	INT_HO_TARGET_FAIL	INT_INTER_HO_SOURCE...	INT_INTRA_HO_SOURCE...	INT_INTRA_HO_TARGET...
1-1-1-1	1/31/11	3703	3441	4711	2103
1-1-1-2	1/31/11	2913	3634	5631	3666
1-1-1-3	1/31/11	3923	4048	2674	3519
1-1-2-1	1/31/11	3969	3302	5713	2835
1-1-2-2	1/31/11	2493	3428	3959	3687
1-1-2-3	1/31/11	4863	4669	3470	4169
					5919

Table View

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After Aliases

CELL.CELL_ID	T_DAY	IHTgt_Fail	IHSrc_Fail	IHSrc_Fail.1	IHTgt_Fail
1-1-1-1	1/31/11	3703	3441	4711	2103
1-1-1-2	1/31/11	2913	3634	5631	3666
1-1-1-3	1/31/11	3923	4048	2674	3519
1-1-2-1	1/31/11	3969	3302	5713	2835
1-1-2-2	1/31/11	2493	3428	3959	3687
1-1-2-3	1/31/11	4863	4669	3470	4169
1-1-3-1	1/31/11	3880	4088	2212	5919
1-1-3-2	1/31/11	3676	4664	5047	4114
1-1-3-3	1/31/11	3489	2722	5464	3549

Compare the report results. When an alias name exists for a field, the alias name is always displayed in the report results. The alias name is displayed instead of the peg counter name even if the peg counter name was selected for the report definition.

Process review

- A. Preparing to create the KPI alias name
 - 1. Identify field names and the alias
 - 2. Identify any user-defined groups
 - 3. Create the **/appl/virtuo/aliases/export** directory
 - 4. Export existing aliases and groups
 - 5. Edit the .csv file
 - 6. Identify if this is a new alias or an append process
- B. Creating the KPI alias name
 - 1. Create the .csv file to import
 - 2. Import using the **kpia_admin** command. Use the -append option, if required
 - 3. Verify the aliases that are in the report definition after the data dictionary agent runs

To review the process, there are six preparation steps and three creation steps for creating KPI alias names and UDG. It is important to prepare by determining if there are already KPI alias names or UDG on the server. This information is required for when you prepare the csv file for import and to determine if the append option should be set to true for the **kpia_admin** command.

See the product administration guide for additional options, examples, and details for the creating a KPI alias name process.

Edit or remove alias names and user-defined groups

- Edit or remove alias names and user-defined groups
 1. Export the existing alias names to a .csv file
 2. Edit the file to remove all items **after** the comma for each alias name you want to remove or change the alias name and group to the correct values
 3. Import the file using the -a option false
`kpia_admin -i -f <filename> -t all -a false`
 4. Verify the alias names by repeating step 1 and viewing the file contents to ensure that the alias names are correct
- Remove user-defined groups only - Only removes the UDG, not any alias names
`kpia_admin -r <group name>`
- Ensure that the data dictionary agent runs

Edit or remove alias names and user-defined groups.

After you create an alias name or user-defined group, you can assign an alias name to additional groups or remove the group assigned to an alias name. You might want to remove all or some alias names from the database. To reassign or remove the alias names, use these steps:

Step 1. Export the existing alias names and UDG list to a .csv file.

Step 2. Edit the file using **vi** or another editor. To remove an alias completely, for each field, delete everything **after** the first comma for each line. To assign another alias name or group, edit the existing line with the correct data. Save the file.

Step 3. Use the **kpia_admin** command to import the file. Ensure that the append option is false to overwrite the existing alias names with the new data.

Step 4. Verify the alias names by repeating step 1 to ensure that the alias names are correct or absent.

If you want to leave the alias names in place and remove the UDG, you can use the **-r option** with the UDG name. If an alias name does not belong to a UDG, the alias name is not visible in the report definition **Field Selection**.

Remember that the changes made to the alias tables are not available in the user interface until the Data Dictionary agent runs.

Summary

- Now that you have completed this module, you should be able to:
 - Define a KPI alias name and a user-defined group
 - Create an alias import file
 - Create a KPI alias name
 - Edit or remove alias names and user-defined groups
 - Change the field selection criteria for the KPI alias name

Now that you have completed this module, you should be able to define a KPI alias name and a user-defined group. You should also be able to create an alias import file, create a KPI alias name, edit or remove alias names and user-defined groups, and change the field selection criteria for the KPI alias name.



Training roadmap for IBM Tivoli Netcool Performance Manager Wireless Component

- Link to the Tivoli training page
http://www-01.ibm.com/software/tivoli/education/edu_prd.html
- Links to product roadmaps
 - IBM Tivoli product roadmaps
<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=U070760P81584R94>
 - IBM Tivoli Netcool Performance Manager Wireless Component for Administrator/Operators roadmap
<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=W300021J39297Q88>
 - IBM Tivoli Netcool Performance Manager Wireless Component for Implementers roadmap
<http://www-304.ibm.com/jct03001c/services/learning/ites.wss/us/en?pageType=page&c=Y054751J79363P85>

Use the links shown on the slide for more information about training and product roadmaps for IBM Tivoli Netcool Performance Manager Wireless Component.



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