Nokia Siemens Networks

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Nokia FlexiHopper (Plus) Product Doc, Rel. 2.7

Monitoring Nokia FlexiHopper (Plus) 2.7

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CE

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1 Summary of changes to Monitoring Nokia FlexiHopper (Plus) 2.7

1.1 Changes in documentation between release 2.5 and release 2.7

- Further information has been added in chapter *Monitoring the performance of the Ethernet plug-in unit*.
- Purpose has been updated and a new step has been added in chapter *Monitoring RX levels*.

2 Monitoring measurements

Steps

1. Start Nokia Hopper Manager

For instructions, see *Starting Nokia Hopper Manager* in document *Administering Nokia FlexiHopper (Plus)*.

2. Create a local connection

For instructions, see *Connecting locally* in document *Administering Nokia FlexiHopper (Plus)*.

3. On the Hopper Manager menu, select Maintenance → Performance → Measurements

The **Select Measurements** dialogue box opens.

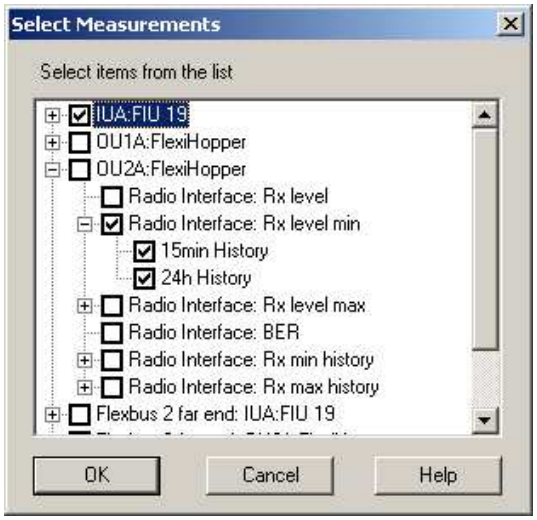

Figure 1. Select Measurements dialogue box

4. Select the measurements and values to be displayed

When you select a unit, all measurements supported by that unit are read. Alternatively, you can select the specific measurements contained under each unit.

You can also select all the measurements of the far-end units.

5. Click OK

The **Measurements** window opens, displaying information on the selected network element. This information is displayed in the form of, for example, various voltage or power levels, recorded from particular units which make up the network element.

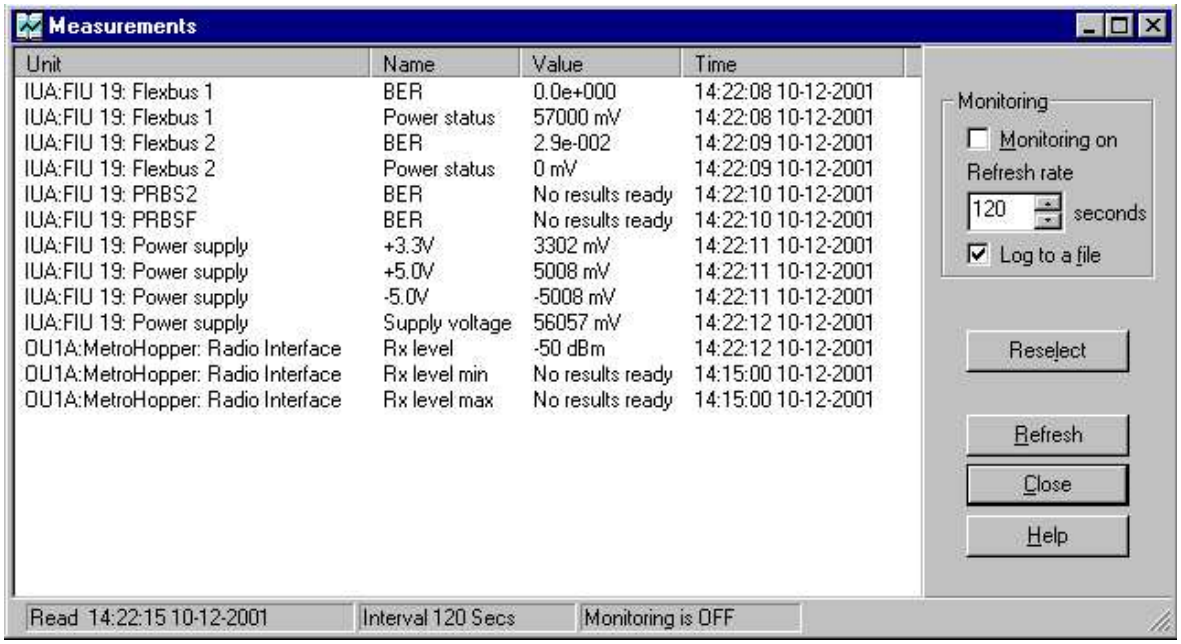

Figure 2. Measurements window

6. Refresh the values

You can refresh the values in three ways:

- On the Hopper Manager menu, select **Maintenance** → **Performance** → **Monitor Measurements**.
- Check the **Monitoring on** checkbox in the **Measurements** window. Checking this checkbox means that the information is refreshed automatically, for example, every 60 seconds (you can specify the time in the **Refresh time** text box in the **Equipment view** window).
- Click the **Refresh** button in the **Measurements** window.

7. To stop the monitoring, uncheck the Monitoring on checkbox in the Measurements window

Although the monitoring stops, you can update the values any time by clicking the **Refresh** button.

8. To change the measurements displayed, click Reselect

The **Select Measurements** dialogue box opens again so that you can select new measurements. Repeat the above steps.

9. Click OK

Expected outcome

The measurements have been monitored.

Further information

For more information, see NOLS (Nokia Online Services) → Care → HelpDesk → Knowledge Search.

3 Reading counters

Purpose

Network element counters record the number of times that an event has occurred in a particular unit or functional entity. These are events such as *Frame sync lost*.

Steps

1. Start Nokia Hopper Manager

For instructions, see *Starting Nokia Hopper Manager* in document *Administering Nokia FlexiHopper (Plus)*.

2. Create a local connection

For instructions, see *Connecting locally* in document *Administering Nokia FlexiHopper (Plus)*.

3. On the Hopper Manager menu, select Maintenance → Performance → Counters

The **Select Targets** dialogue box opens.

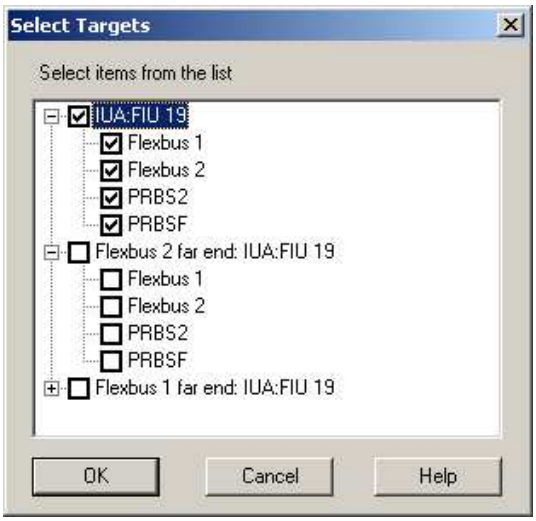

Figure 3. Select Targets dialogue box

4. Select the counters to be displayed and click OK

You can also select all counters of the far-end units.

The **Counters** window opens displaying the counters selected in the previous dialogue box.

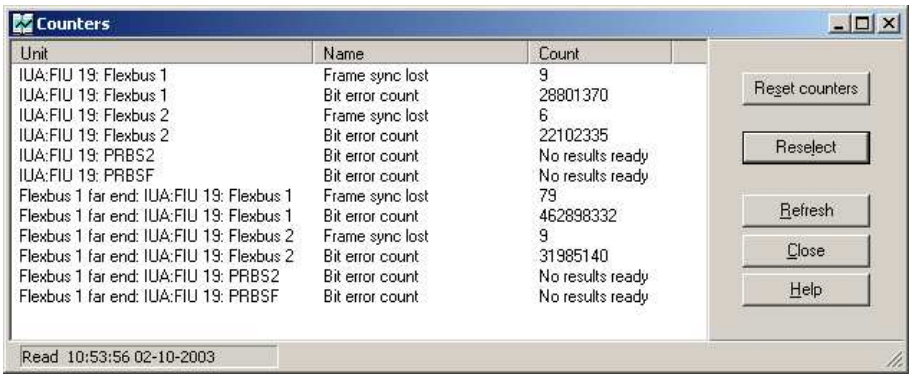

Figure 4. Counters window

5. To refresh the values, click the Refresh button

6. **To change the counters displayed, click the Reselect button**

   This opens the **Select targets** dialogue box again so that you can select new counters. Repeat step 4.

7. **To reset all counters, see Resetting the statistics and counters**

Expected outcome

The counters have been read.

Further information

For more information, see NOLS (Nokia Online Services) → Care → HelpDesk → Knowledge Search.

4 Reading statistics

Steps

1. Start Nokia Hopper Manager

For instructions, see *Starting Nokia Hopper Manager* in document *Administering Nokia FlexiHopper (Plus)*.

2. Create a local connection

For instructions, see *Connecting locally* in document *Administering Nokia FlexiHopper (Plus)*.

3. On the Hopper Manager menu, select Maintenance → Performance → Statistics

The **Select Targets** dialogue box opens.

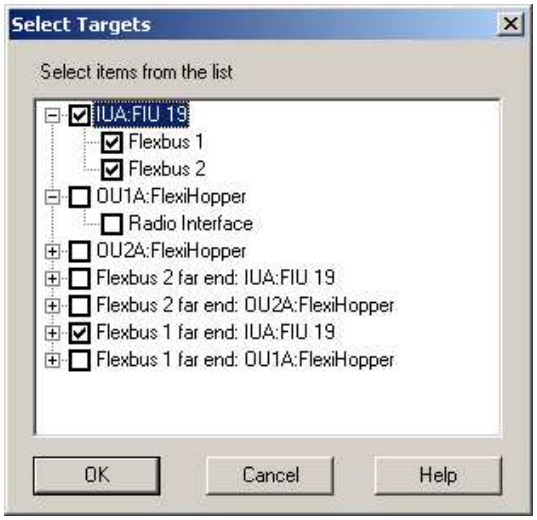

Figure 5. Select Targets dialogue box

4. Select the targets for which you want the statistics to be displayed

Only one set of statistics can be displayed at a time, although several units can be selected from the **Select Target** dialogue box.

5. Click OK

The **Statistics** window opens.

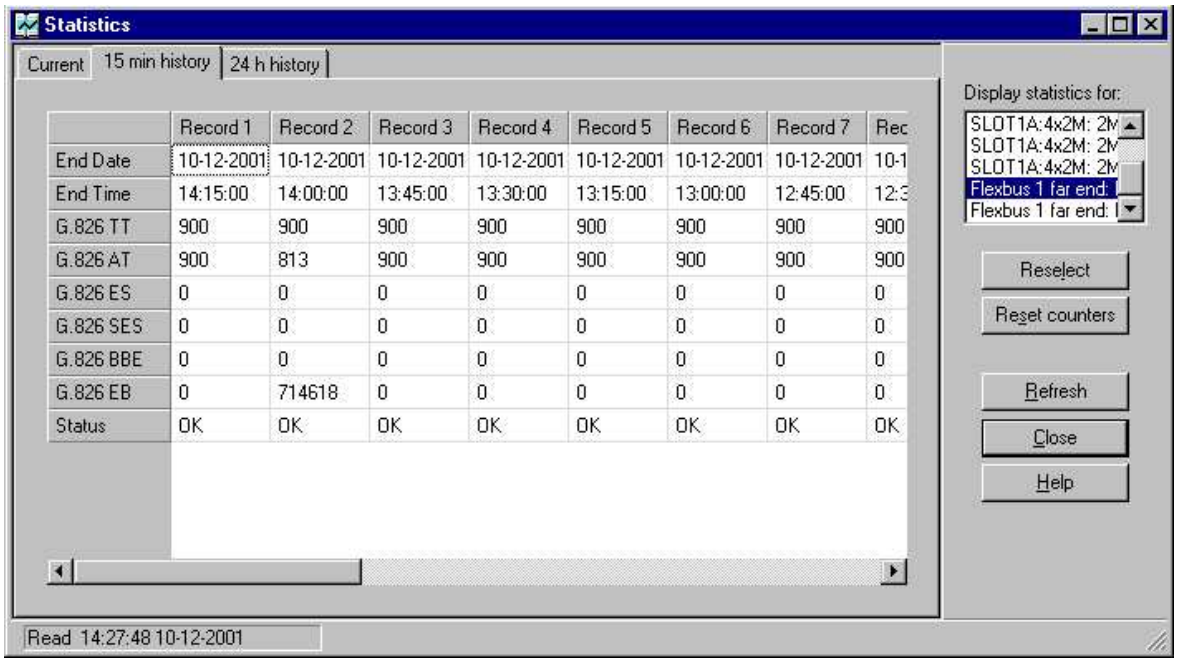

Figure 6. Statistics window

6. Click the Refresh button to refresh the values

7. To reset all current records, see Resetting the statistics and error counters

Further information

You can also reset all signal quality statistics by selecting **Maintenance → Performance → Reset Counters** on the Hopper Manager menu, or by clicking the button in the window.

8. To display statistics for another selected target, select the new target in the Display Statistics for list

9. **To display other targets than you initially selected, select Maintenance → Performance → Reselect on the Hopper Manager menu**

   Or

   Click the **Reselect** button

   The **Select Targets** dialogue box opens again so that you can select new statistics. Repeat steps 4 - 5.

Expected outcome

The statistics have been read.

Further information

For more information, see NOLS (Nokia Online Services) → Care → HelpDesk → Knowledge Search.

5 Resetting the statistics and counters

Before you start

The FlexiHopper (Plus) radio compiles statistics in accordance with the ITU-T recommendation G.826. The statistics should be reset immediately after commissioning. Later on, the statistics should be read and reset at regular intervals (once a month, for example).

The counters of the indoor unit and the outdoor unit must also be reset immediately after commissioning.

Resetting the counters resets all counters, not just those that are selected to be displayed in the **Counters** window. Only the current values of the G.826 statistics are reset; the history records are not reset, because it would cause inconsistency in records.

Steps

1. **Start Nokia Hopper Manager**

   For instructions, see *Starting Nokia Hopper Manager* in document *Administering Nokia FlexiHopper (Plus)*.

2. **Create a local connection**

   For instructions, see *Connecting locally* in document *Administering Nokia FlexiHopper (Plus)*.

3. **To reset the signal quality statistics and the counters, select Maintenance → Performance → Reset Counters**

   The **Reset Counters** dialogue box opens.

4. **To select the units and interfaces you want to reset, check the corresponding checkboxes**

A confirmation dialogue box appears, asking whether you want to reset the counters for the selected units and interfaces. Click **Yes** to confirm the reset.

Expected outcome

The statistics and counters are reset.

Further information

The use of statistics and counters is described in more detail in *Reading counters* and *Reading statistics*.

For more information, see NOLS (Nokia Online Services) → Care → HelpDesk → Knowledge Search.

6 Monitoring the performance of the Ethernet plug-in unit

Purpose

The Ethernet plug-in unit provides the possibility of monitoring Ethernet performance via Hopper Manager.

Steps

1. **Start Nokia Hopper Manager**

   For instructions, see *Starting Nokia Hopper Manager* in document *Administering Nokia FlexiHopper (Plus)*.

2. **Create a local connection**

   For instructions, see *Connecting locally* in document *Administering Nokia FlexiHopper (Plus)*.

3. **To view available counter sets, select Maintenance → Performance → Counters on the Hopper Manager menu**

   The **Select Targets** dialogue box opens.

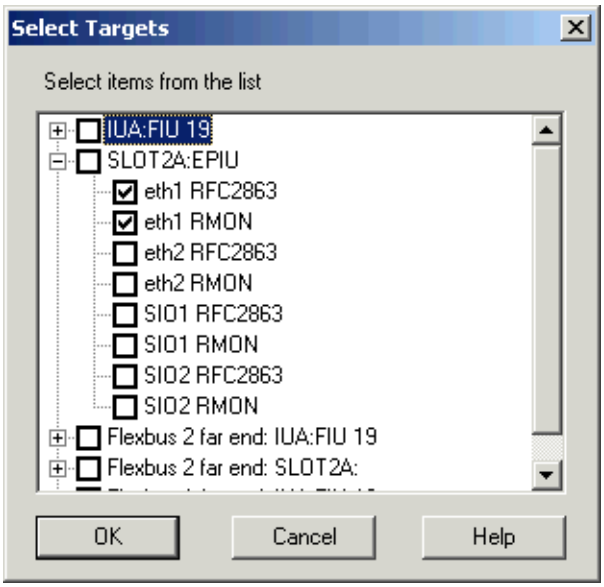

Figure 7. Available performance counter sets for EPIU ports

4. Select the targets to be displayed and click OK

The **Counters** window opens.

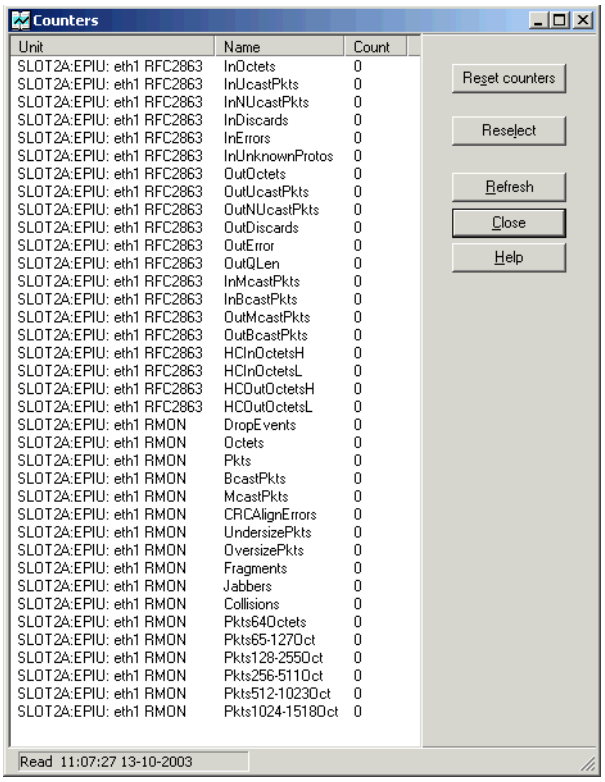

Figure 8. Statistical counters for Ethernet 1 interface

5. **To reset the counters, see Resetting the statistics and counters**

6. **To refresh the values, click the Refresh button**

7. **To select new targets, click the Reselect button**

   The **Select Targets** dialogue box opens again so that you can select new targets. Repeat the step 4.

Expected outcome

The performance of the Ethernet plug-in unit has been monitored.

Further information

For more information on the Ethernet counters, refer to RFC2863 and RMON (RFC2819).

7 Monitoring RX levels

Purpose

RX level can be monitored in three ways:

- Current as well as minimum and maximum values can be viewed in the **Measurements** window.
- 15min and 24h historical records can be viewed in the **Statistics** window.
- Furthermore, the user can monitor RX levels for any desired period by using the monitoring dialogue box as described below.

Steps

1. **From the menu, select Maintenance → Performance → RX-Level Monitoring...**

2. **Select the outdoor unit to be monitored**

   The received signal strength in measured is decibels. The user can see the minimum, maximum and average RX levels of the selected unit the last time the counter was reset. These values can be used to evaluate hop quality. Note the following figure:

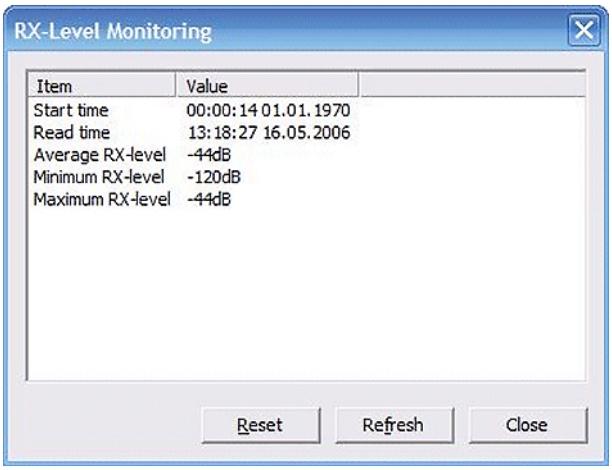

Figure 9. Monitoring RX levels

The **Reset** button resets the values and starts a new monitoring period.

The **Refresh** button refreshes the current values in the display.