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Series 60 2<sup>nd</sup> Edition SDK  
for Symbian OS  
Supporting Feature Pack 3  
for MIDP  
Guide for System.out and  
System.err Redirection  
to PC

**Version 1.0**  
September 5, 2005

S E R I E S 60 P L A T F O R M

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## Change History\*

Month day, year	V1.0	Initial document release
September 5, 2005	V1.0	

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\* The document replaces correspondent chapters in the User's Guide for Series 60 2nd Edition SDK for Symbian OS Supporting Feature Pack 3 for MIDP.

## 1. What is System.out and System.err Redirection

Series 60 FP3 SDK provides a possibility to view on the PC the System.out and System.err streams used by a MIDlet running on a phone, with the help of the device connectivity tool. All necessary settings to enable the feature are described in chapter 2. The ability of viewing System.out and System.err streams on the PC gives additional means of MIDlet debugging on the real phone.

System.out and System.err streams, which are written to by a MIDlet under a test, are captured by a special redirector MIDlet, running simultaneously with the MIDlet under test. Redirector MIDlet sends the data using the PC connectivity Symbian application and a Bluetooth connection to the device connectivity tool running on a PC. System.out and System.err streams are delivered to the redirector MIDlet in chunks of approximately 110 symbols. Therefore, shorter strings are not immediately seen in the Diagnostics view, but are held in the buffer. Right after start-up the redirector MIDlet sends a "Redirector MIDlet: redirection is started" message to the diagnostics tool.

Figure 1 shows the diagnostics view of the device connectivity tool running on a PC. System.err and System.out printouts are seen in SystemOut tab.

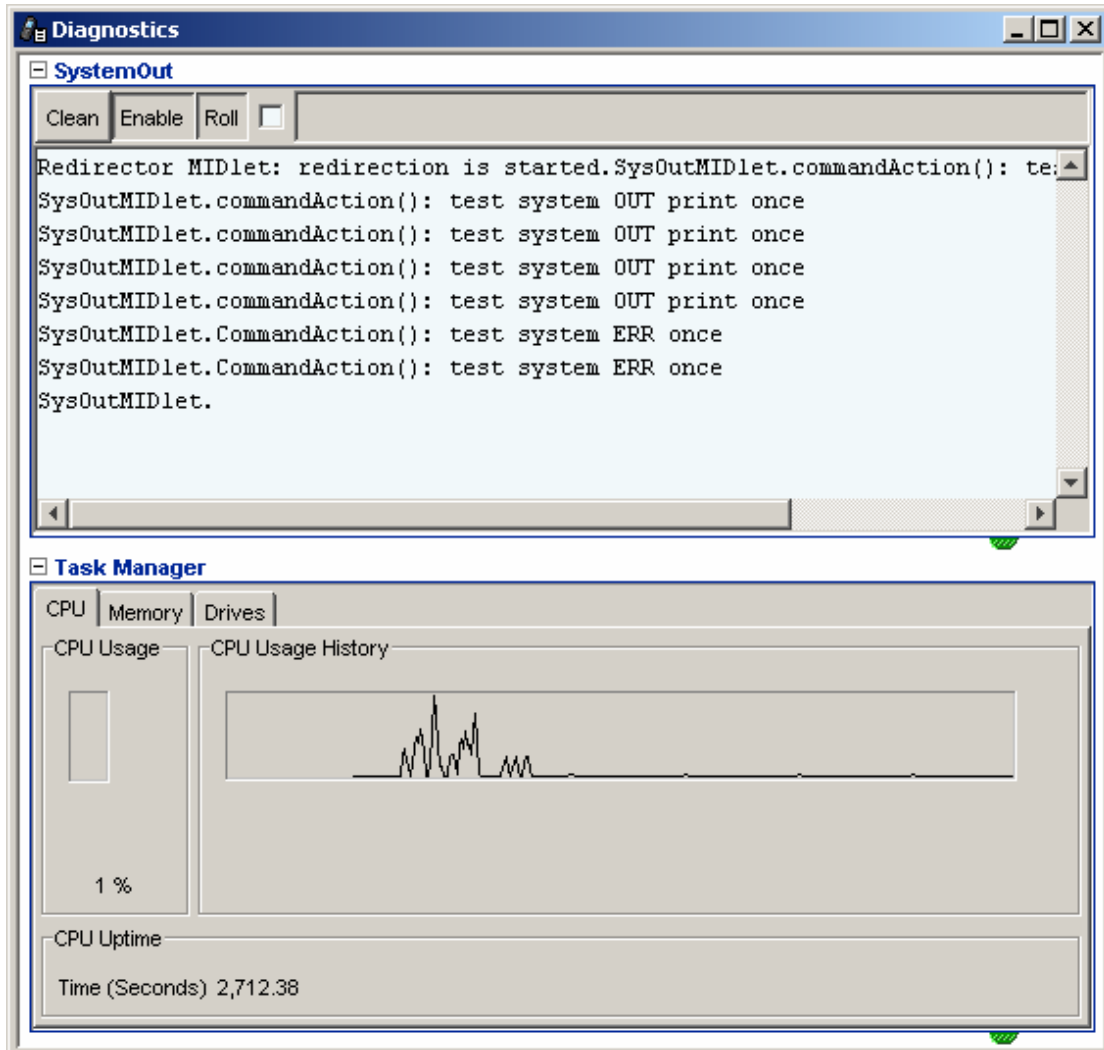
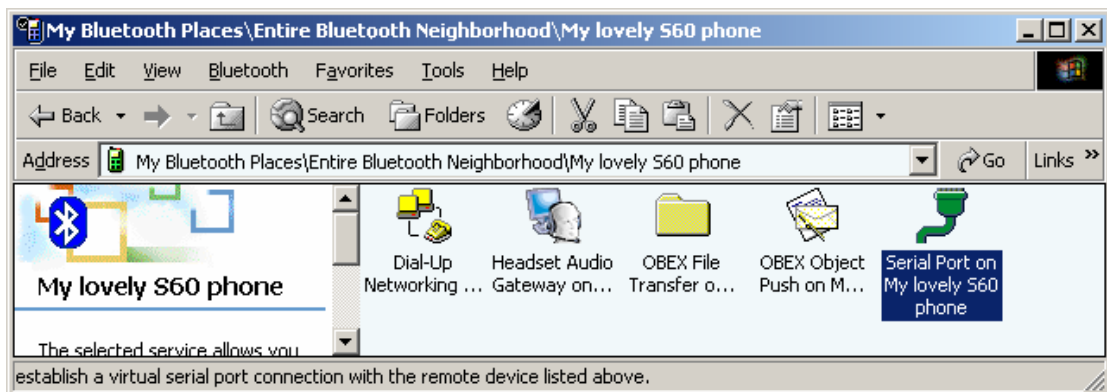


Figure 1: Device connectivity tool, diagnostics view with System.out printouts

## 2. Setting System.out and System.err Redirection Up

To redirect System.out and System.err streams to the device connectivity tool on the PC, proceed as follows:

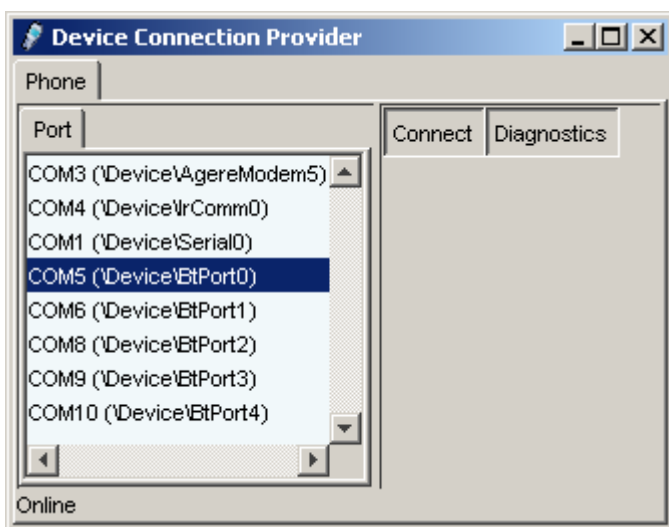
1. Install Ecmt applications on the phone from Ecmt.sis file. The Ecmt.sis file can be found in the folder: `S60_2nd_FP3_MIDP_SDK\Series60Tools\ecmt`. Symbian applications are installed automatically. After that, you need to install Redirector MIDlet, which was unpacked from the sis file, but was not installed.
2. Install Redirector MIDlet called RedMIDlet from the Application Manager.
3. Turn on Bluetooth connectivity on the phone.
4. Run Ecmt connectivity Symbian application on the phone.
5. Set up Bluetooth connection with the phone as follows:
  - 5.1 Turn on the Bluetooth connectivity on a PC, scan and pair the phone and discover available services.
  - 5.2 Connect to Bluetooth Serial port, Bluetooth services window is in the [Figure 2](#).



**Figure 2: Phone Bluetooth services**

6. Run device connectivity tool on the PC by running the following cmd file:  
`S60_2nd_FP3_MIDP_SDK\bin\epoc32\tools\ecmt\run_dct.cmd`

- 6.1 In the **Port** tab of the device connectivity tool, select the COM port provided by Bluetooth connection with the phone (Bluetooth serial port), see [Figure 3](#).



**Figure 3: Device connectivity tool**

- 6.2 Press the **Connect** button in the device connectivity tool, see [Figure 3](#).
- 6.3 Press the **Diagnostics** button in the device connectivity tool. The Diagnostics view should appear, see [Figure 3](#) and [Figure 1](#).
7. Run the Redirector MIDlet on the phone. A message saying "Redirector MIDlet: redirection is started" should appear in the Diagnostics view.
8. Run the MIDlet under test. Messages sent to System.out and System.err will start to appear once the 110 symbol buffer becomes full.