



**Schlumberger**

# **PC/SC Reader Drivers Installation Release Notes**

*Cyberflex<sup>®</sup> Access<sup>™</sup> 4.5*

## **Trademarks**

Schlumberger, Cryptoflex, Cyberflex, Cyberflex Access, and e-gate are trademarks or registered trademarks of Schlumberger.

Microsoft, Windows, and Windows NT are registered trademarks of Microsoft Corporation. Other company, product, and service names may be trademarks or service marks of others.

February 2004

Copyright © 2004 by Schlumberger

All rights reserved.

You will find the Reader Driver License Agreement (*License.txt*) in the following directory:  
*\Program Files\Schlumberger\Smart Cards and Terminals\Smart Card Readers\<reader name>\Docs.*

The Reader Driver License Agreement is also available from the Reflex Reader Technical Support website: <http://www.reflexreaders.com/Support/support.html>

Your feedback about this manual is welcome! Comments, questions, and suggestions about any part of the Cyberflex® Access™ documentation library can be posted to the Docs & Samples Conference of the User Discussion Forums: [www.flexforum.com/cgi-bin/dcforum/dcboard.cgi](http://www.flexforum.com/cgi-bin/dcforum/dcboard.cgi).

Austin Product Center  
P.O. Box 200015  
Austin, TX 78720-0015

## Reader Driver Availability

Drivers can be installed from the Cyberflex Access Software Development Kit or the Cyberflex Access Integration Kit CD-ROM. Drivers are also available from the Reflex Readers Download website, [www.reflexreaders.com/Support/Downloads/downloads.html](http://www.reflexreaders.com/Support/Downloads/downloads.html).

Driver updates are available from the Reflex Readers Download website, [www.reflexreaders.com/Support/Downloads/downloads.html](http://www.reflexreaders.com/Support/Downloads/downloads.html).

## Support

Support is available from the Reflex Reader Technical Support website, [www.reflexreaders.com/Support/support.html](http://www.reflexreaders.com/Support/support.html).

## End of Life Products

The **Reflex 72**, **Reflex USB**, and **Reflex Lite** smart card readers have reached end of life.

The Reflex 72 v.2 reader replaces the Reflex 72 reader. The Reflex USB v.2 reader replaces the Reflex USB reader. There is no new Reflex Lite reader.

Software drivers for the three discontinued readers are available from the Reflex Readers Download website ([www.reflexreaders.com/Support/Downloads/downloads.html](http://www.reflexreaders.com/Support/Downloads/downloads.html)) on an “as is” basis. Software drivers for the Reflex Lite smart card reader are also included in the Cyberflex Access Software Development Kit 4.5 and Cyberflex Access Integration Kit 4.5 on an “as is” basis.

Questions about installing and using these readers may be submitted to the Reflex Readers User Discussion Forum and to Technical Support; both resources can be accessed from the Reflex Reader Technical Support website ([www.reflexreaders.com/Support/Downloads/downloads.html](http://www.reflexreaders.com/Support/Downloads/downloads.html)).

Availability of the software drivers for the Reflex 72, Reflex USB, and Reflex Lite smart card readers will end with the next major release of the Cyberflex Access SDK and Cyberflex Access IK.

## Reader Drivers Requirements and Specifications

### Reader Connection Requirements

The host system must have available the ports or connectors needed for your smart card reader:

Ports for your smart card readers or e-gate connectors:

- *Reflex 20* or *Reflex 30* — Type II PCMCIA port.
- *Reflex 72 v2* or *Reflex Lite* — RS-232 COM port for data and a PS/2 keyboard or mouse input port for power. The PS/2 port is shared with the host system's keyboard or mouse through a special connector included with the kit.
- *Reflex USB v2* or *e-gate USB connector* — USB port and operating system support and BIOS support for USB 1.1 devices.

### Platform Specifications

These are the supported and tested operating system platforms for each PC/SC reader.

Reader	Windows 98 (Second Edition)	Windows Me	Windows NT (SP 6)	Windows 2000	Windows XP	Windows Server 2003 (Enterprise Edition)
Reflex 20	√	√	√	√ (SP 4)	√ (SP 1)	√
Reflex 30	√	√	√	√ (SP 4)	√ (SP 1)	√
Reflex 72 <sup>1</sup>	√	√	√	√ (SP 2)	√ (no SP)	*
Reflex 72 v2	√	√	√	√ (SP 4)	√ (SP 1)	√
Reflex Lite <sup>2</sup>	√	√	√	√ (SP 2)	√ (no SP)	*
Reflex USB <sup>1</sup>	√	√	X	√ (SP 2)	√ (no SP)	*
Reflex USB v2	√	√	X	√ (SP 4)	√ (SP 1)	√
e-gate USB	√	√	X	√ (SP 4)	√ (SP 1)	X

- 1 Reader discontinued. Drivers are *not* in the installation package, but are available from the Reflex Readers Download website (<http://www.reflexreaders.com/Support/Downloads/downloads.html>) until the next major release on an "as is" basis.
  - 2 Reader discontinued. Drivers are available in the installation package until the next major release of the Cyberflex Access Kits; drivers are provided on an "as is" basis.
- √ Driver tested at this operating system level.
  - \* Driver not tested on this operating system.
  - X Driver not supported on this operating system.

**Driver Versions**

<b>Smart Card Reader</b>	<b>Operating System</b>	<b>Driver Version</b>
Reflex 20	Windows 2000/XP/WS03	3.6.0.1
Reflex 20	Windows NT	3.6.0.1
Reflex 20	Windows 98/Me	3.6.0.1
Reflex 30	Windows 2000/XP/WS03	3.5.0.5
Reflex 30	Windows NT	3.5.0.5
Reflex 30	Windows 98/Me	3.5.0.5
Reflex 72 <sup>1</sup>	Windows 2000/XP/WS03	2.13.0.5
Reflex 72 <sup>1</sup>	Windows NT	2.13.0.5
Reflex 72 <sup>1</sup>	Windows 98/Me	2.13.0.5
Reflex 72 v.2	Windows 2000/XP/WS03	1.45.0.1
Reflex 72 v.2	Windows NT	1.45.0.1
Reflex 72 v.2	Windows 98/Me	1.45.0.1
Reflex Lite <sup>1</sup>	Windows 2000/XP/WS03	2.14.0.2
Reflex Lite <sup>1</sup>	Windows NT	2.14.02
Reflex Lite <sup>1</sup>	Windows 98/Me	2.10.04
Reflex USB <sup>1</sup>	Windows 2000/XP/WS03	2.10.01
Reflex USB <sup>1</sup>	Windows 98/Me	1.16.01

Smart Card Reader	Operating System	Driver Version
Reflex USB v.2	Windows 2000/XP/WS03	1.42.0.1
Reflex USB v.2	Windows 98/Me	1.42.0.1
e-gate USB	Windows 2000/XP	2.4.0.0
e-gate USB	Windows 98/Me	2.4.0.0

1 Reader has been discontinued; driver is provided on an "as-is" basis only.

## Installation/Update Tips and Workarounds

### Do Not Install e-gate Drivers from Cyberflex Access Kits after Installing from Downloads Site

If you install e-gate software drivers from the Reflex Readers Downloads site and subsequently install the Cyberflex Access Software Development Kit or Integration Kit, deselect the **e-gate Smart Card Drivers** option in the Custom Setup panel when you specify which components of the Kit to install. The drivers on the Downloads site are always the latest available drivers, so this practice avoids issues that can result from inadvertently overwriting newer drivers with older drivers.

### Windows 2000/XP: Before updating e-gate Drivers

If you plan to update e-gate drivers, before beginning the update, ensure that your e-gate USB Smart Card is attached to the computer. If your system is configured for more than one concurrent e-gate USB Smart Card connection, ensure that an e-gate USB Smart Card is attached for each configured connection.

### Driver Version Identification Following e-gate Drivers Update

On all platforms, after updating e-gate drivers, follow these steps to accurately identify driver version number information:

- 1 Start the Device Manager. For example, to start the Device Manager on Windows 2000, select **Start** → **Settings** → **Control Panel**. Double-click **System**, click the **Hardware** tab, and then click the **Device Manager**

button. On Windows XP (Classic View), select **Start** → **Control Panel**. Double-click **System**, click the **Hardware** tab, and then click the **Device Manager** button.

- 2 In the Device Manager, expand the device type that includes the e-gate driver whose driver version number you want to check, and then double-click the name of the device to open its Properties. For example, to check the version number of the e-gate USB Smart Card Reader driver, expand the Smart card reader device type, and then double-click **e-gate USB Smart Card Reader**.
- 3 In the device's Properties, click the **Driver** tab, and then click the **Driver Details...** button.
- 4 The File version number displayed in the Driver File Details dialog correctly describes the current driver.

## Windows 98/Me: Reader Driver Registry Entry Removal

On Windows 98 and Windows Me systems, when older reader drivers are uninstalled, some entries in the registry (in HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Cryptography\Calais\Readers) might not be removed. Stray entries in the registry can cause old readers to continue to be displayed in lists of installed readers in Toolkit and COVE.

If you prefer not to see the old readers in the lists, you can edit the registry to remove the old entries. However, you should be aware that using the Registry Editor incorrectly can cause serious problems that might require you to reinstall your operating system.

## Known Problems and Issues

### **Windows 98/Me: Reflex 72 and Reflex Lite Reader Driver Initialization Conflict**

On Windows 98 and Windows Me systems, if you install both the Reflex 72 and Reflex Lite drivers and attach both Reflex 72 and Reflex Lite devices to the system, the following error is displayed at boot time:

```
Error - vxd driver initialization failed
```

Only one of the devices is usable.

### **Windows NT/2000/XP: Reflex 72 v.2 and Reflex USB v.2 Event Viewer Messages**

On Windows NT, Windows 2000, and Windows XP systems, the Event Viewer logs might display multiple spurious messages related to the Reflex 72 v.2 and Reflex USB v.2 smart card readers. These messages, which are related to card state, are being investigated and can be ignored.

### **Windows 2000/XP: Reflex 72 v.2 Reader Driver Unload Behavior**

On Windows 2000 and Windows XP systems, the device driver for the Reflex 72 v.2 smart card reader does not unload when the device is unplugged from the system. This behavior is observed even when the Device Manager hardware view is refreshed. To unload the Reflex 72 v.2 device driver, reboot the system, or uninstall the device using the Device Manager's uninstall feature.

### **Windows 2000/XP: Reflex USB v.2 Reader Driver Intermittently Unresponsive**

On Windows 2000 and Windows XP systems, the Reflex USB v.2 smart card reader might intermittently stop responding on systems with specific power management schemes. If the Reflex USB v.2 smart card reader becomes unresponsive, unplug and then reattach the reader.

### **Windows 98/Me: e-gate USB Virtual Reader Enumerator Property Page Sometimes Missing**

The Virtual Reader Enumerator device property page file sometimes is not copied to the expected directory during installation of the e-gate USB drivers on Windows 98 and Windows Me systems. This is a known, intermittent problem.



If the Virtual Reader Enumerator property page is not visible, copy the *slbmgp98.dll* file in the installation package to the \$WINDOWS\System directory.

### **e-gate USB: Device State Might Not be Maintained on Older BIOS Systems**

On systems on which the BIOS does not correctly support integrated power management through an Advanced Configuration and Power Interface (ACPI) BIOS, device state might not be correct when returning from standby mode. Depending on how your application interacts with the SCRM, communication with the card might not be possible following resume from standby mode. In this case, you might need to remove and then reattach the e-gate USB Smart Card.

### **e-gate USB: Standby/Resume Behavior Anomalies**

If your e-gate USB Smart card is inserted when the system goes into hibernate or standby mode, and the card is still inserted when the system resumes, the card inserted state might not be correct. In this case, you might need to remove and then reattach e-gate USB Smart Card.

### **e-gateUSB: Desktop Form Factor Power Light**

The e-gate desktop form factor connector's power light glows steadily at two different points while a card is in the process of being inserted into the connector. (In addition, the power light glows steadily at the same points when the card is being removed from the connector.) This behavior should not be taken as a signal that the card is completely inserted; in fact, the card must be fully inserted and seated in the desktop form factor connector to communicate with the host system. When the card is fully inserted, the power light flickers briefly as the system detects the card.