

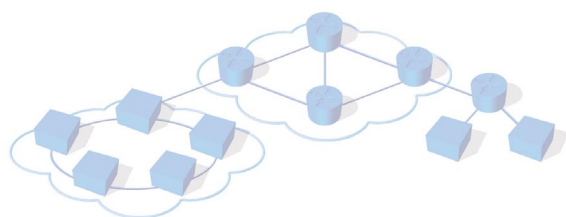


## SmartApplications 3.00

This Release Notes is for SmartApplications 3.00. This document contains the latest technical information that is not included in the product's user documentation. Please read this document carefully.

This document contains the following sections:

Section	Description
<i>Contents of Release</i>	Lists the software and documentation included in SmartApplications 3.00.
<i>Supported Hardware and Software</i>	Lists the hardware, applications, operating systems, and third-party software supported by SmartApplications 3.00.
<i>New Features</i>	Lists the new features in SmartApplications 3.00.
<i>Bug Fixes</i>	Lists the bug fixes in SmartApplications 3.00.
<i>Behavior Differences</i>	Lists any behavior differences between the last release and SmartApplications 3.00.
<i>Limitations</i>	Lists the limitations of SmartApplications 3.00.
<i>Known Problems</i>	Lists any known problems in SmartApplications 3.00 (work-around and severity levels are also provided, as applicable).
<i>Additional Information</i>	Indicates other important information that you need to know to operate SmartApplications 3.00.
<i>Installation Instructions</i>	Information on how to install SmartApplications 3.00.
<i>Contacting Spirent Communications</i>	Information on how to contact Spirent Communications for technical support.





## Contents of Release

SmartApplications 3.00 includes the following software and documentation. For information on the hardware and software that SmartApplications 3.00 **supports**, please see “*Supported Hardware and Software*.”

Software/Firmware	Version
SmartApplications™	3.00 Final Release

Documentation	Revision
SmartApplications 3.00 User Guide	Rev. J
SmartApplications 3.00 Online Help	Rev. A

## Supported Hardware and Software

SmartApplications 3.00 supports the following SmartBits hardware, SmartBits applications, operating systems, and third-party software:

**NOTE:** Cards that appear in **red** text are discontinued cards that are no longer being sold or supported. Cards that appear in **green** text are in their final firmware release. These indications reflect **firmware releases** for the cards; SmartApplications may continue to support these cards indefinitely.

SmartBits Hardware	Minimum Firmware Version
SmartBits 200/2000 Chassis	6.69 (Minimum) 6.70 (Recommended)
AT-9015 ATM DS1, 1-port SmartCard	4.20 Final Release
AT-9020 ATM E1, 1-port SmartCard	4.20 Final Release
AT-9025 ATM 25.6 Mbps, 1-port SmartCard	4.20 Final Release
AT-9034B ATM E3, 1-port SmartCard	4.20 Final Release
AT-9045B ATM DS3, 1-port SmartCard	4.20 Final Release
AT-9155C ATM OC-3c (STM-1c), 1-port, multi-mode, 1300nm SmartCard	4.20
AT-9155Cs ATM OC-3c (STM-1c), 1-port, single mode, 1310nm SmartCard	4.20



SmartBits Hardware	Minimum Firmware Version
AT-9622 ATM OC-12c (STM-4c), 1-port, multi-mode, 1300nm SmartCard	4.20
AT-9622s ATM OC-12c (STM4c), 1-port, single mode, 1310nm SmartCard	4.20
GX-1405B 1000Base-SX Ethernet, 1-port, multi-mode, 850nm SmartCard	2.40
GX-1405Bs 1000Base-LX Ethernet, 1-port, single mode, 1310nm SmartCard	2.40
GX-1420B 100/1000Base Ethernet Copper, 1-port SmartCard	2.40
ML-5710A 10Base-T Ethernet/USB, 2-port, SmartMetrics SmartCard	2.20 Final Release
ML-7710 10/100Base-TX Ethernet, 1-port, SmartMetrics SmartCard	2.40
ML-7711 100Base-FX Ethernet, 1-port, multi-mode, 1300nm, SmartMetrics SmartCard	2.40 Final Release
ML-7711s 100Base-FX Ethernet, 1-port, single mode, 1310nm, SmartMetrics SmartCard	2.40 Final Release
SX-7210 10/100Base-TX Ethernet, MII, 1-port SmartCard	6.70 Discontinued
SX-7410B 10/100Base-TX Ethernet, 1-port SmartCard	6.70 Final Release
SX-7411 100Base-FX Ethernet, 1-port SmartCard	6.70 Discontinued
WN-3405 WAN V.35, 6/8 Mbps, Frame Relay/PPP, 1-port, SmartMetrics SmartCard	2.10 Final Release
WN-3415 WAN T1/FT1, Frame Relay/PPP, 1-port, SmartMetrics SmartCard	2.10 Final Release
WN-3420A WAN E1/FT1, Frame Relay/PPP, 1-port, SmartMetrics SmartCard	2.10 Final Release
SmartBits 600/6000B/6000C Chassis	2.50
LAN-3100A 10/100Base-T Ethernet, 8-port module	1.10
LAN-3101A 10/100Base-T Ethernet, 6-port, SmartMetrics module	2.60
LAN-3101B 10/100Base-T Ethernet, 6-port, SmartMetrics module	2.60
LAN-3102A 10/100Base-T Ethernet, 2-port, SmartMetrics module	2.60
LAN-3111A 100Base-FX Ethernet, 6-port, multi-mode, 1300nm, SmartMetrics module	2.60



SmartBits Hardware	Minimum Firmware Version
LAN-3111As 100Base-FX Ethernet, 6-port, single mode, 1310nm, SmartMetrics module	2.60
LAN-3200A 1000Base-SX Ethernet, 2-port, multi-mode, 850nm module	1.10
LAN-3200As 1000Base-LX Ethernet, 2-port, single mode, 1310nm module	1.10
LAN-3201B 1000Base-X Ethernet, GBIC, 1-port, SmartMetrics module	2.20
LAN-3201C 1000Base-X Ethernet, GBIC, 1-port, SmartMetrics module	2.20
LAN-3300A 10/100/1000Base-T Ethernet, Copper, 2-port, SmartMetrics module	4.00
LAN-3301A 10/100/1000Base-T Ethernet, Copper, 2-port, TeraMetrics module	4.00
LAN-3302A 10/100Base-TX Ethernet, Copper, 2-port, TeraMetrics module	4.00
LAN-3306A 10/100Base-TX Ethernet, Copper, 4-port, TeraMetrics XD module	4.00
LAN-3310A 1000Base-X Ethernet, GBIC, 2-port, SmartMetrics module	4.00
LAN-3311A 1000Base-X Ethernet, GBIC, 2-port, TeraMetrics module	4.00
LAN-3320A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 2-port, SmartMetrics XD module	4.00
LAN-3321A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 2-port, TeraMetrics XD module	4.00
LAN-3324A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 4-port, SmartMetrics XD module	4.00
LAN-3325A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 4-port, TeraMetrics XD module	4.00
LAN-3327A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 1-port, TeraMetrics XD module	4.00
SmartBits Application	Version
SmartLibrary	3.51



### Operating System

Windows NT 4.0 Service Pack 6a

Windows 2000 – Professional Edition Service Pack 4

Windows XP - Professional Edition Service Pack 1a

### Third-party Software

### Version

Microsoft Excel

97 or higher

## New Features

Below is a list of new features and enhancements contained in SmartApplications 3.00:

- ◆ Support for the new **SmartMetrics/TeraMetrics XD** family of modules, including those that support dual media (both a copper and a fiber interface per port):
  - LAN-3306A 10/100Base-T Ethernet, Copper, 4-port, TeraMetrics XD module
  - LAN-3320A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 2-port, SmartMetrics XD module
  - LAN-3321A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 2-port, TeraMetrics XD module
  - LAN-3324A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 4-port, SmartMetrics XD module
  - LAN-3325A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 4-port, TeraMetrics XD module
  - LAN-3327A 10/100/1000 Mbps and Gigabit Ethernet Fiber, 1-port, TeraMetrics XD module
- ◆ Support for the SmartBits 6000C chassis and its new features set, including CDMA.
- ◆ Support for the LAN-3101B 10/100Base-T Ethernet, 6-port, SmartMetrics module.
- ◆ Support for the LAN-3201C 1000Base-X Ethernet, GBIC, 1-port, SmartMetrics module.



- ◆ **Optional IP header with editable TTL, and ToS fields.** SmartApplications can now transmit frames with valid Layer 3 IP headers. The IP Parameters dialog box allows you to set the optional IP header and specify Time to Live (TTL), and Type of Service (ToS). This feature enables the forwarding of packets by DUTs that require a valid Layer 3 header (even though the DUT may be primarily operating “at Layer 2”). When this feature is used, the packets will have the correct CRC, length values, and checksum. When no IP Header is set, the application will transmit frames with all zeros beyond the Ethernet header.

## Bug Fixes

SmartApplications 3.00 contains the following bug fixes:

CR #	Description
CR15837	When using an ML-7710 card, the Throughput, Packet Loss, and Back-to-Back tests did not work on a stacked chassis.
CR12608	The One-to-Many test sent IP packets as type 0000 instead of type 0800.
CR14973	–The Throughput test did not extend to 100% for some frame sizes.
CR10588	When using WN-340x cards, SmartApplications would not allow a test to be aborted in the absence of a PPP session.
CR11039	Autonegotiation did not always work properly on LAN-3300A cards.
CR12679	Reports did not always print out past ten frame sizes or iterations.
CR13478	ATM-to-Ethernet bi-directional Throughput tests repeated the same load.
CR15704	The Throughput Test had a problem comparing the Min and Max rates with the resolution for 1500 Bytes packet size.
CR7666	Back-to-back latency measurements sometimes differed between certain cards.
CR13208	Forced autonegotiation showed frame loss when using LAN-3201B cards.
CR10539	The <i>Show versions</i> selection displayed all firmware as "Beta build" even though the firmware was production released.
CR10228	Error messages were generated when frame sizes greater than 8195 bytes were specified.
CR10385	The Report and Log files sometimes showed incorrect results.
CR7637	When using a GX-1420B card in SmartMetrics mode, latency increased as packet size increased.



## Behavior Differences

In addition to the new features and bug fixes, the behavior differences between SmartApplications 3.00 and the previous release are:

- ◆ SmartApplications 3.00 contains the new *Active Media* selection feature, which applies only to dual media (copper and fiber) SmartMetrics/TeraMetrics XD modules (LAN-3320A/3321A/3324A/3325A/3327A).
- ◆ The maximum number of frames to be transmitted for ML-7710 and ML-5710 cards is set to 16,777,216, as the burst counter is a 24-bit integer. If this number is exceeded, the following error message will be displayed: “The number of frames scheduled is more than the maximum of 16,777,216 supported by the card. Please reduce the duration of the test to 112 seconds or less, or increase the frame size.”
- ◆ All cards supported by SmartApplications support frame size validation. The following table contains allowable frame size limits for all supported cards.

Card	Minimum Frame Size with CRC	Maximum Frame Size with CRC
LAN-3200A	52	2048
LAN-3101A LAN-3101B LAN-3201A LAN-3201B LAN-3201C	52	32000
LAN-3100A LAN-3150A	64	8191
LAN-3300A LAN-3301A LAN-3302A LAN-3310A LAN-3311A LAN-3320A LAN-3321A LAN-3324A LAN-3325A LAN-3306A LAN-3327A	64	16384
ML-5710A ML-7710	52	1600
POS-3500A POS-3500B POS-3502A POS-3550A	42	8191



Card	Minimum Frame Size with CRC	Maximum Frame Size with CRC
POS-3504A POS-3505A POS-3510A POS-3511A POS-3518A POS-3519A	50	8191
WN-3405 WN-3415 WN-3420A	48	8191
AT-9025 AT-9155 AT-9015 AT-9020 AT-9034B AT-9045B AT-9622 AT-9155C AT-9045B AT-9034B	66	8191

## Limitations

SmartApplications 3.00 contains no known limitations.

## Known Problems

The known problems for SmartApplications 3.00 are listed below. Each item is given a severity code (A, B, C, D, or E). The meanings of the severity codes are as follows:

- ◆ Severity A      System Crash
- ◆ Severity B      Major Functionality Failure
- ◆ Severity C      Inconsistency in Measurement
- ◆ Severity D      Minor Functionality Failure
- ◆ Severity E      Inconsistency in GUI





SmartApplications 3.00 contains the following known problems.

CR #	Description	Work-around	Severity
6203	The on-screen directional arrows in some of the results pages (up, down, right and left) occasionally disappear.	None	E
6204	A tab must be clicked more than once in order for the screen to change.	None	D
CR18559	SmartApplications sometimes uses up to 100% CPU utilization.	Increase system memory.	D
CR7399	Learning frames are not passed through some switches that expect an "IP within IP" header.	Use UDP instead of IP for the "Next Protocol" value.	D
CR4389	When entering IPX address 6a, the application changes it to 6 AM.	None	E
CR19468	Intermittently supports the use of <b>File &gt; New</b> or <b>File &gt; Open</b> when offline.	If this occurs, go to the Setup SmartBits Connection window, uncheck any selected chassis in the connection list, and click the <b>OK</b> button at the bottom of the window. You will now be able to successfully use <b>File &gt; New</b> or <b>File &gt; Open</b> .	C
CR19483	The WN-3405 module may fail to respond to PPP LCP Protocol Rejected packets and it may then report only the number of rejected frames.	None	D

## Additional Information

This section includes additional information that will help you in operating SmartApplications 3.00.

- ◆ Before installing this product, be sure to close all other applications on your PC.
- ◆ When initially opening up this software, you may receive a Norton anti-virus screen. Close the screen and proceed.
- ◆ When dealing with the **File > Save As** dialog box for test results, enter the file name with the appropriate extension.



- ◆ In addition to the cards mentioned in the SmartApplications User Guide, flow control is supported on the following cards: SX-7210, SX-7410B, LAN-3100A, LAN-3101A/B, LAN-3111A/As, LAN-3102A, LAN-3200A/As, LAN-3201B/C, LAN3302A, and ML-7710.

## Installation Instructions

This section indicates PC/workstation requirements and explains how to uninstall/install the software and/or firmware included in your product shipment. Follow the procedures below for complete instructions.

### PC/ Workstation Requirements

In order to properly run SmartApplications 3.00, your PC/ workstation should be equipped with the equipment listed below. For operating system support, see the *Supported Hardware and Software* section of this document.

- ◆ Pentium III 500 MHz processor with 256 MB of RAM
- ◆ SVGA – 1024 x 768
- ◆ 1 Gigabit of available hard drive space
- ◆ For large scale testing, requirements are increased to 1.5 GHz processor and more than 512 MB of RAM.

### Uninstalling Software Applications

Prior to loading new SmartBits application software, you may want to delete a pre-existing version of the application (or of some other application) to make room for the new software version. Note that if you install the new software in the same directory as the old version, the new files will overwrite the old. If you want to maintain both software versions, be sure to install the new software into a different directory than that which houses the old software.

To uninstall software, be sure to follow the “uninstall” procedure in the Windows operating system.

**The general steps involved in using the Windows uninstaller are as follows:**

**NOTE:** The procedure shown below is specifically for Windows 2000; other operating systems may use slightly different terminology (e.g., “Delete” instead of “Remove”).

1. Click on the **Start** button in the bottom left-hand corner of the Windows screen.
2. From the menu that appears, select **Settings > Control Panel**.
3. From the displayed list of options, select **Add/Remove Programs**.



4. From the displayed list of installed programs, select the program that you want to uninstall and then click the **Change/Remove** button.
5. Follow any additional steps required to uninstall the selected program. The Windows operating system will walk you through any remaining steps.

**NOTE:** You cannot “uninstall” SmartBits firmware from SmartCards or modules (this includes RPM files). You must overwrite firmware with another firmware version.

## Installing Software Applications

You can install SmartApplications 3.00 software from the product’s CD or from the Spirent Communications Customer Support Center website at <http://support.spirentcom.com>.

**To download SmartApplications 3.00 software from the Spirent Communications Customer Service Center website, follow these steps:**

1. Login to the Customer Service Center website at <http://support.spirentcom.com>.
2. From the **Software Downloads** tab, select **All Software**.
3. Under the *SmartBits* heading, click on **Applications**.
4. Locate the **SmartApplications 3.00** listing and click on the product name.
5. Click the **Download** button to save the **.exe** installation file to your PC.
6. Run the **.exe** file. Follow the installation instructions provided by the software installer.

**To install SmartApplications 3.00 software from a CD, follow these steps:**

1. Insert the provided software application CD into your PC’s CD-ROM drive. If AutoPlay is enabled, the installation begins automatically and you can skip steps 2 and 3. Proceed to step 2 if AutoPlay is not enabled.
2. Choose **Start > Run** and click **Browse**. The Browse window appears.
3. In the Browse window, select the CD-ROM drive, select the **Setup.exe** file, and click **Open**.
4. Follow the on-screen prompts to complete the installation. The files are copied to the directory that you specify.



## Contacting Spirent Communications

Technical support is available Monday through Friday between 07:00 and 18:00 Pacific Standard Time.

To obtain technical support for any product, please contact our Technical Support Department using any of the following methods:

### U.S.

E-mail: [support@spirentcom.com](mailto:support@spirentcom.com)  
Web: <http://support.spirentcom.com>  
Toll Free: 1-800-SPIRENT (1-800-774-7368)  
Phone: + 1 818-676-2616  
Fax: +1 818-881-9154

### Europe

E-mail: [support.europe@spirentcom.com](mailto:support.europe@spirentcom.com)  
Web: <http://support.spirentcom.com>  
Phone: +33 (0) 1 61 37 22 70  
Fax: +33 (0) 1 61 37 22 51

In addition, the latest versions of user manuals, application notes, and software and firmware updates are available on the Spirent Communications Customer Service Center website at <http://support.spirentcom.com>.

### Company Address

Spirent Communications, Inc.  
26750 Agoura Road  
Calabasas, CA 91302  
USA

