

SatTerm SOFTWARE MANUAL FOR A3LA-D

TECHNICAL NOTE

Version 3.3.0

June 1, 2005



Copyright © 2005 by NAL Research Corporation

The specifications in this document are subject to change at NAL Research's discretion. NAL Research assumes no responsibility for any claims or damages arising out of the use of this document, the use of the SatTerm software or from the use of the A3LA-D based on this document, including but not limited to claims or damages based on infringement of patents, copyrights or other intellectual property rights. NAL Research makes no warranties, either expressed or implied with respect to the information and specifications contained in this document. Performance characteristics listed in this document are estimates only and do not constitute a warranty or guarantee of product performance.

TABLE OF CONTENTS

1.0 INTRODUCTION	3
2.0 GETTING STARTED	3
2.1 System Requirements	3
2.2 Installing	3
2.3 Uninstalling	8
2.4 Running SatTerm Software	9
2.5 Setting the Properties	9
2.6 Finding Help for AT Commands	11

1.0 INTRODUCTION

SatTerm is a satellite terminal emulator software package developed by NAL Research to communicate with the A3LA-D modem. Any computer running the Windows® operating system can install SatTerm. NAL Research recommends the use of SatTerm with the A3LA-D since it provides a complete reference manual of all AT commands for quick and easy access. However, any terminal emulator users are accustomed to, such as Microsoft® HyperTerminal, can be used as well.

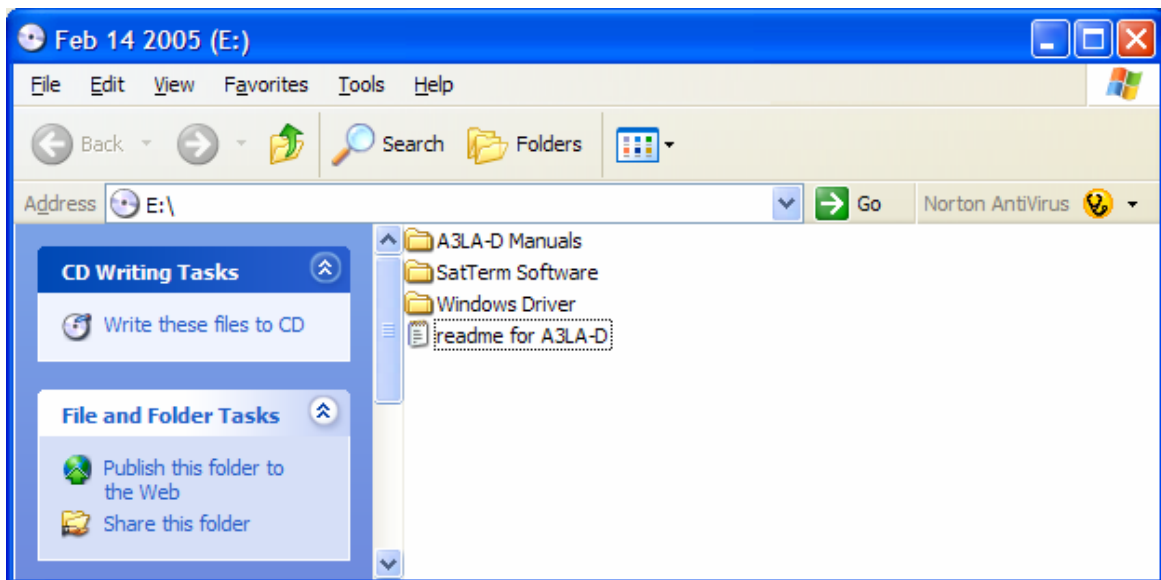
2.0 GETTING STARTED

2.1 System Requirements

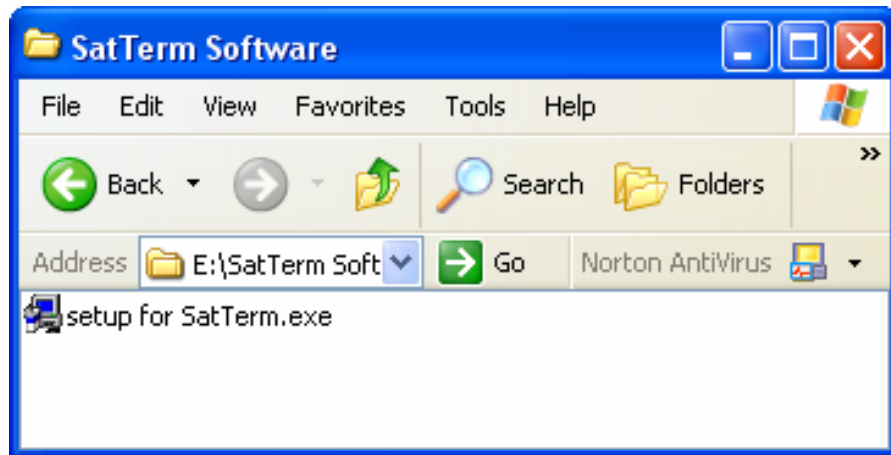
- Windows® XP/2000/NT/ME/98
- Pentium® II 266MHz (Pentium® II 300MHz or faster for XP)
- 256KB of RAM
- 4MB video card with DirectX® 8.0 compatible drivers
- A3LA-D modem
- 11MB available on hard disk
- 800 x 600 screen resolution (looks best with a screen resolution of at least 1024 x 768)

2.2 Installing

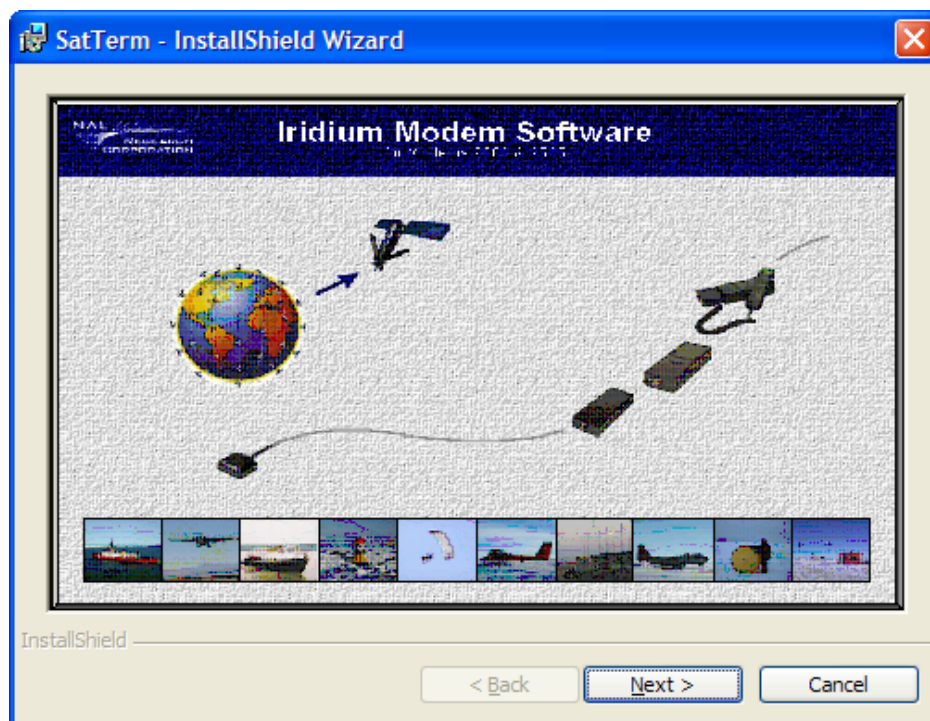
1. Close all applications.
2. Insert the "Manuals/Software for Model A3LA-D" disk into the CD-ROM drive.
3. Three folders should appear—A3LA-D Manuals, SatTerm Software and Windows Driver. Double click on the SatTerm Software folder.



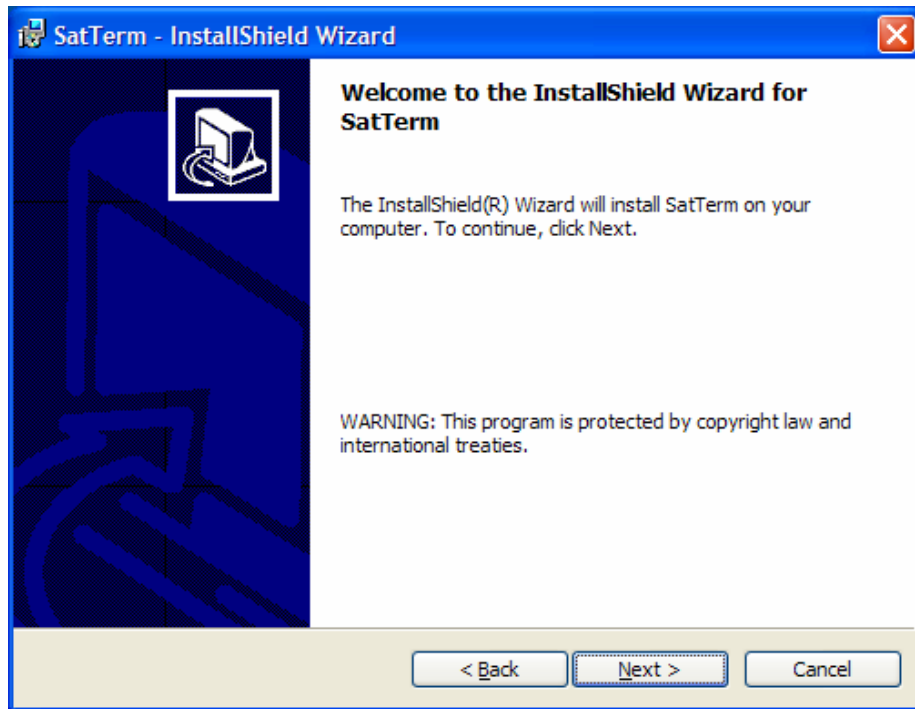
4. There should be a single file in the SatTerm Software folder called "Setup for SatTerm."



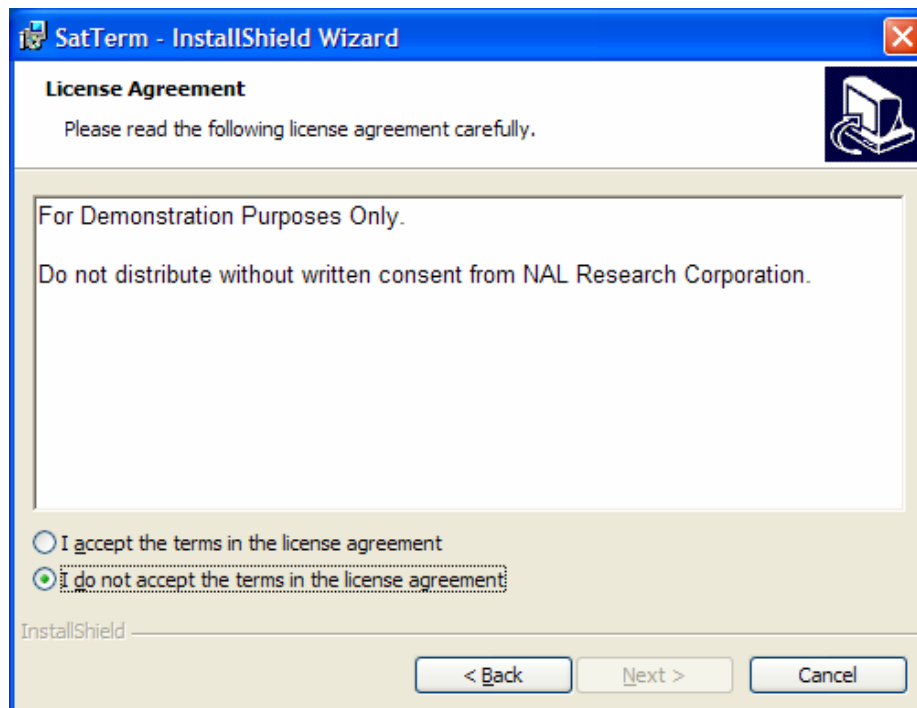
5. Double click on the file "Setup for SatTerm" to launch the installation setup. Follow the instructions displayed in the install screen to advance through the installation process. You can cancel at anytime without affecting your system by clicking "Cancel". Click "Next" to continue.



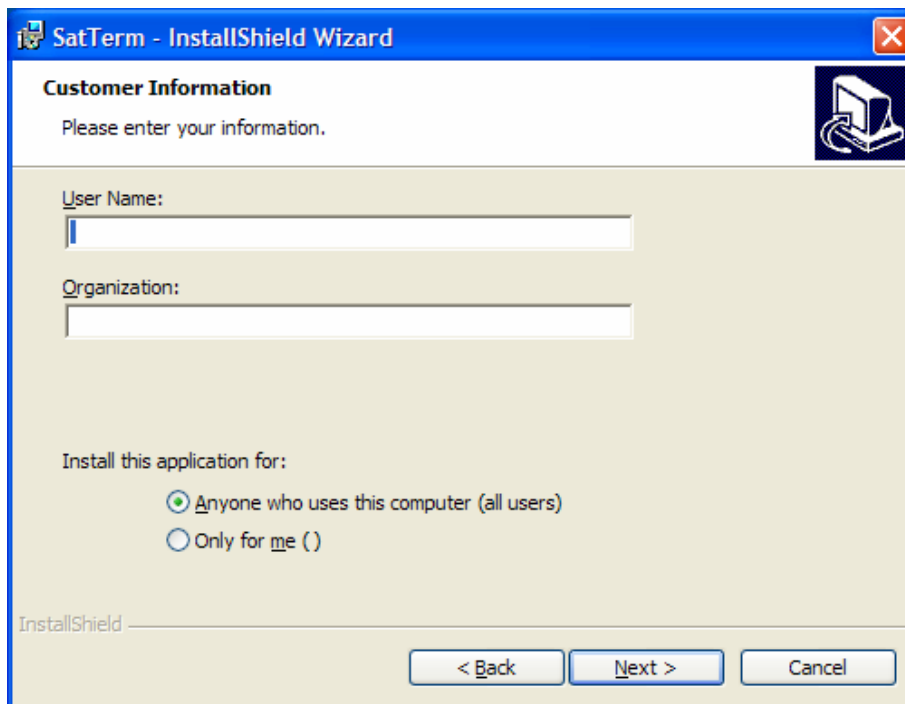
6. Once the Welcome screen appears, click "Next" to continue.



7. Please read the License Agreement, if you accept the terms in the license agreement click "Next" to continue.

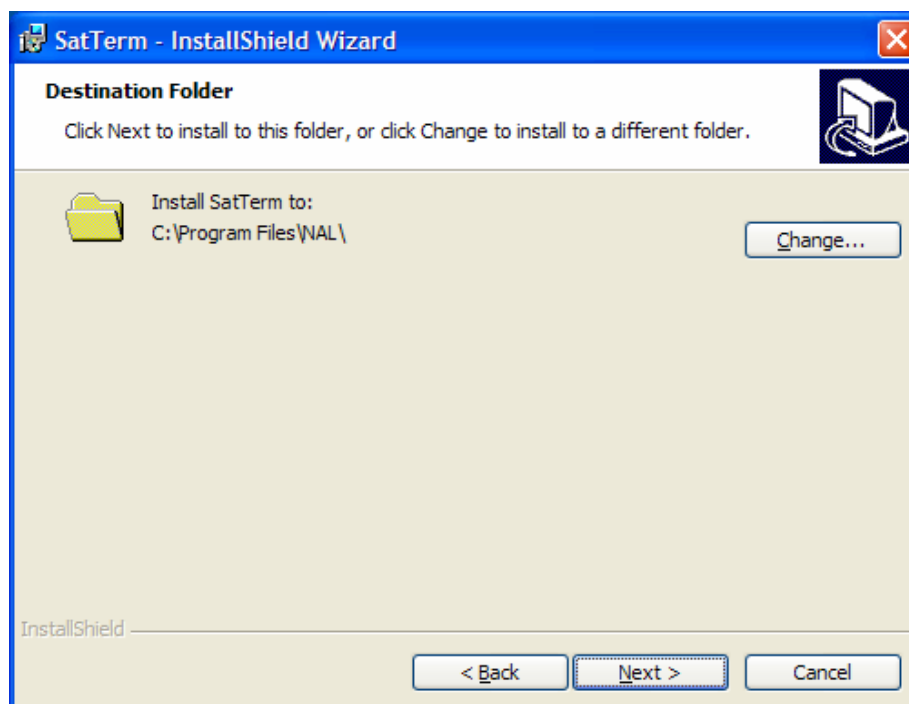


- When prompted, enter customer information and click "Next" to continue.



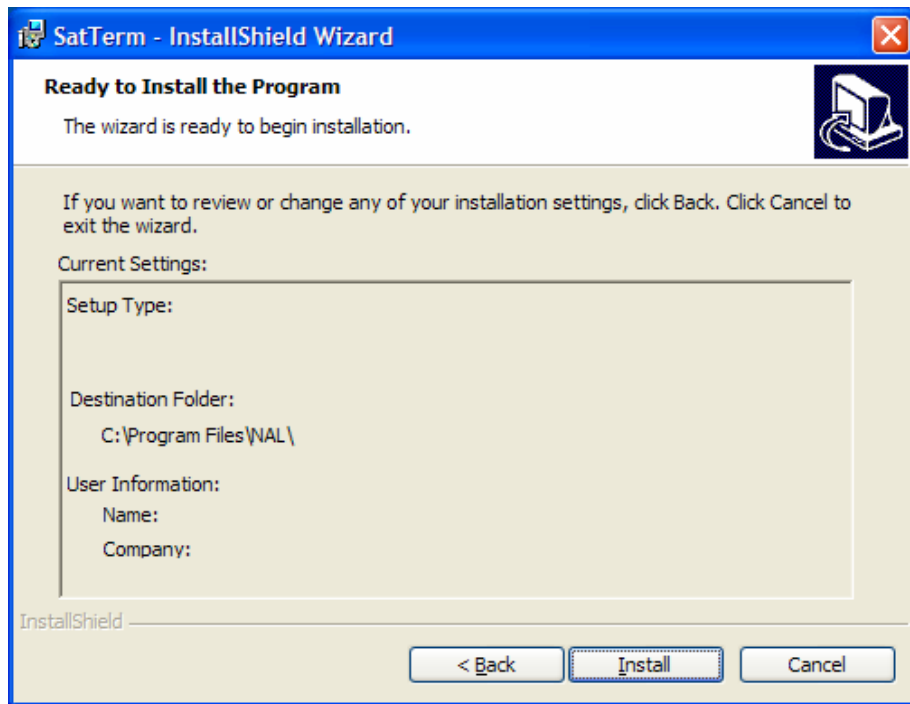
The screenshot shows the 'Customer Information' screen of the 'SatTerm - InstallShield Wizard'. The window has a blue title bar with the text 'SatTerm - InstallShield Wizard' and a close button. Below the title bar, the text 'Customer Information' is displayed in bold, followed by the instruction 'Please enter your information.' and a small icon of a computer with a monitor. The main area contains two text input fields: 'User Name:' and 'Organization:'. Below these fields, there is a section titled 'Install this application for:' with two radio button options: 'Anyone who uses this computer (all users)' (which is selected) and 'Only for me ()'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

- Choose destination folder or click "Next" to keep the default destination.

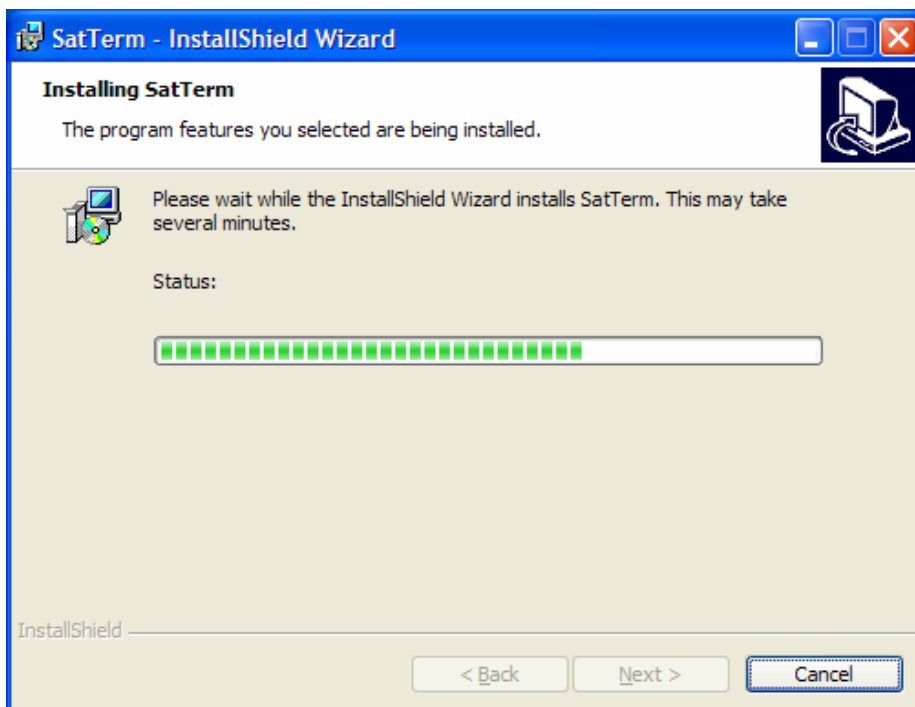


The screenshot shows the 'Destination Folder' screen of the 'SatTerm - InstallShield Wizard'. The window has a blue title bar with the text 'SatTerm - InstallShield Wizard' and a close button. Below the title bar, the text 'Destination Folder' is displayed in bold, followed by the instruction 'Click Next to install to this folder, or click Change to install to a different folder.' and a small icon of a computer with a monitor. The main area shows a folder icon next to the text 'Install SatTerm to: C:\Program Files\NAL\'. To the right of this text is a button labeled 'Change...'. At the bottom of the window, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'InstallShield' logo is visible in the bottom left corner.

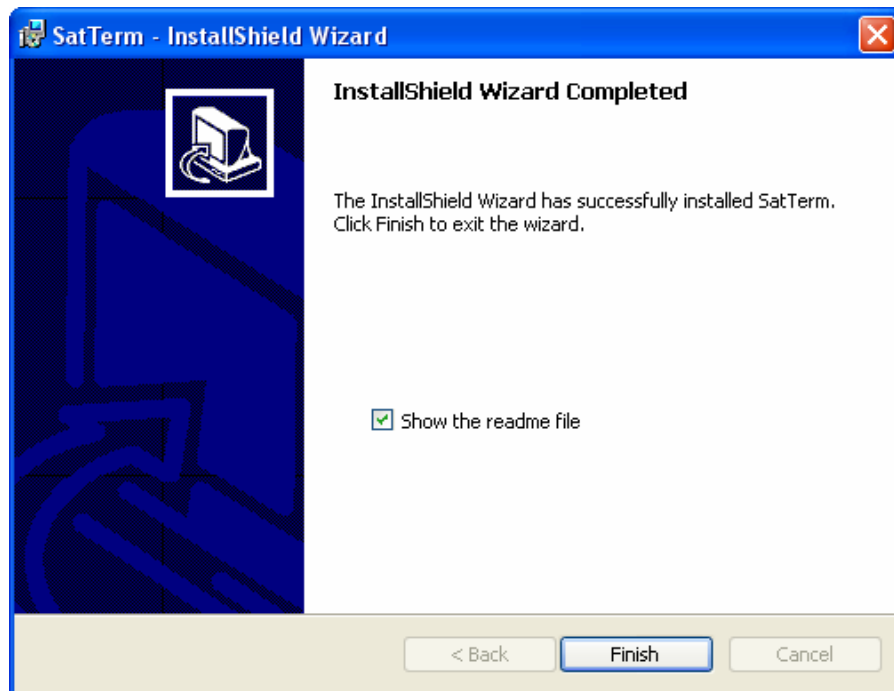
10. Verify that the installation settings are correct. Changes can be made by clicking on the "Back" button. If the settings are correct, click "Install" to continue.



11. The following screen will appear.

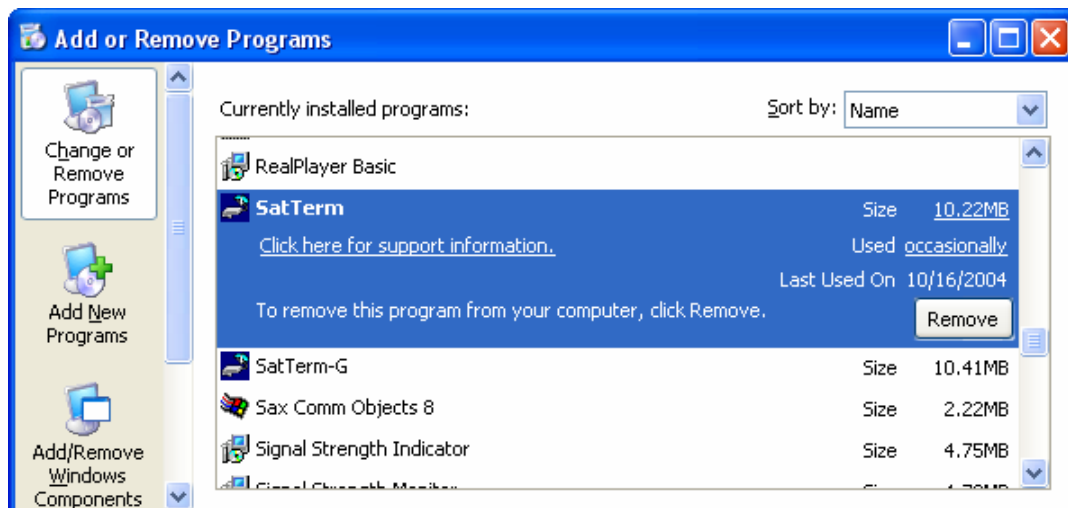


12. When the "InstallShield Wizard Completed" screen appears, make sure "Show the readme file" box is checked and click "Finish". The SatTerm software is now successfully installed.



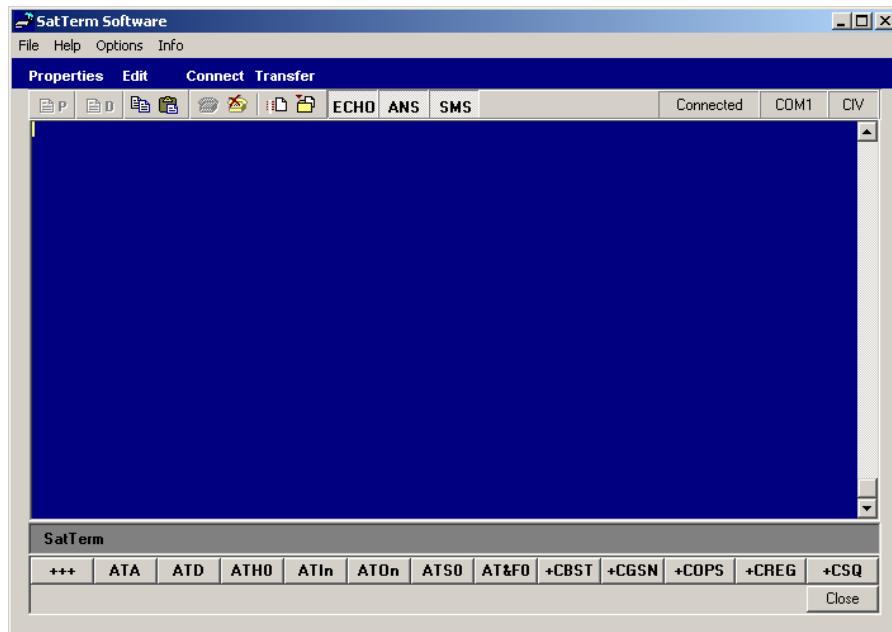
2.3 Uninstalling

1. Click on the "Start" menu.
2. Choose "Control Panel."
3. From the "Control Panel" screen, click "Add or Remove Programs."
4. From the "Add or Remove Programs" screen, find the SatTerm software on the list and click on the button "Change/Remove."
5. All files and libraries associated with the SatTerm software will be removed from your computer.



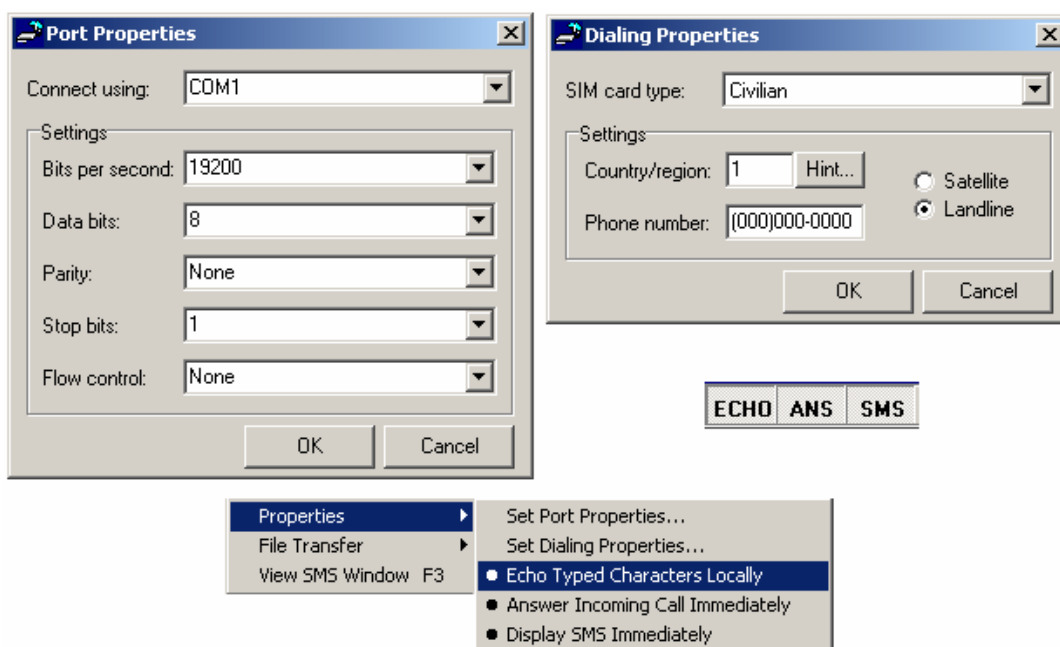
2.4 Running SatTerm Software

SatTerm can be accessed from the Windows® “Start” menu in the “NAL Research” folder. The modem may be either powered ON or OFF when starting the software.



2.5 Setting the Properties

After the SatTerm is loaded, its properties can be changed to reflect the hardware setup and user's preferences. However, "Data bits", "Parity" and "Stop bits" should be kept at their default settings unless the program is being used with an Iridium custom-designed modem. There are three types of properties that can be set—port properties, dialing properties and preference properties. In order to set the port properties and the dialing properties, the program must be disconnected from the COM port by clicking the disconnect  icon.



Port Properties

To set the port properties, open the "Port Properties" window by choosing "Set Port Properties..." from the "Options/Properties" menu or clicking the "P" icon. The following table describes the port properties.

PROPERTY	DEFAULT	DESCRIPTION
COM Port	COM1	The COM port the A3LA-D is connected to
Bits per second	19200	The baud rate setting of the COM port
Data Bits	8	The data bits setting of the COM port—DO NOT CHANGE THIS VALUE
Parity	None	The parity setting of the COM port—DO NOT CHANGE THIS VALUE
Stop Bits	1	The stop bits setting of the COM port—DO NOT CHANGE THIS VALUE
Flow Control	None	The flow control setting of the COM port

Dialing Properties

To set the dialing properties, open the "Dialing Properties" window by choosing "Set Dialing Properties..." from the "Options/Properties" menu or clicking the "D" icon. The following table describes the dialing properties.

PROPERTY	DEFAULT	DESCRIPTION
SIM card type	Civilian	Type of SIM installed inside the A3LA-D—either “Civilian” or DoD. SatTerm uses this information to provide the correct help settings.
Phone number	(000) 000-0000	SatTerm uses this information to setup the ATD command
Country/region	1	This field appears only when the SIM card type is “Civilian.” SatTerm uses this information to setup the ATD command.
Landline or Satellite	Landline	This field appears only when the SIM card type is “Civilian.” SatTerm uses this information to setup the ATD command.
Call type	N/A	This field appears only when the SIM card type is DoD. SatTerm uses this information to setup the ATD command.

Preference Properties

To set the preference properties, click the appropriate item from the “Options/Properties” menu or click the appropriate icon on the main menu. The following table describes the preference properties.

PROPERTY	DEFAULT	DESCRIPTION
ECHO	Selected	If ECHO is checked, the characters typed locally will appear on the screen
ANS	Selected	If selected, incoming calls will be answered by “ATA” command immediately
SMS	Selected	If selected, SMS messages will be displayed immediately unless the SMS storage is full

Session File

The properties of SatTerm can be saved as a session file for later use by choosing “Save Session” from the “File” menu. All session files have an sms extension, which stands for standard modem session. The information stored in an sms file includes all of the port properties, dialing properties, and preference properties. The default session file is stored as “Default.sms” in the “Session” sub-folder of the installation directory. Users can either click on any sms file to start the SatTerm with the properties set to the values in that particular session file or can “Open” a sms file from the “File” menu.

The COM port will be connected (opened) automatically when any key is pressed if the port is available. Users can also manually open the COM port by clicking the connect  icon and close the COM port by clicking the disconnect  icon. Note that the status “Connected” does not necessarily mean that the A3LA-D is connected to the Iridium network. It only means that the SatTerm has successfully established communications with the COM port.

2.6 Finding Help for AT Commands

The followings are the three ways to get help on AT commands:

1. Choose the command from the "Help" menu
2. Or choose "Search..." from the "Help" menu or press the F1 key
3. Or click on one of the AT command buttons at the bottom of the screen. These buttons are for easier access to the most commonly used AT commands.

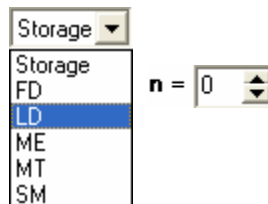
Once an AT command has been chosen using one of the three methods listed above, a window titled "AT Command Table" will pop up. Note that some commands may not work for modems with firmware RAC0602 and older.

AT Command Table

The AT Command Table is a window that provides detailed usage information of a particular command. This window pops up whenever an AT command is chosen.

The "Send" button  is used to send the selected command to the modem without entering it directly.

If an AT command requires additional parameters to send with it, the AT Command Table provides the appropriate GUI to set the values for the parameters. Examples for the GUIs are:



The "Read" button  and the "Test" button  will be provided whenever applicable. The "Read" button is the same as typing a command followed by a "?" and will return the current setting of the command. The "Test" button is the same as typing a command followed by a "=?" and will return all supported values for that command.

TECHNICAL SUPPORT INFORMATION

For technical support, please contact us at:
Phone: 703-392-1136 x200 or
E-mail: contact@nalresearch.com