

# STS Plus

## Windows Supplement

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Mission Control Center Houston

**A Supplement Document for  
Windows 2000 Professional/Server,  
Windows XP  
And LAN Supplement**

## TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
DOCUMENT UPDATES.....	2
THE BEGINNING.....	3
FILES AND PIF SETUP.....	4
PIF CONFIGURATION.....	4
General Tab.....	5
Security Tab.....	6
Summary Tab.....	7
Program Tab.....	7
Memory Tab.....	8
Screen Tab.....	9
Miscellaneous Tab.....	10
THE CLOCK GLITCH.....	11
STS PLUS LAN CONFIGURATION.....	12
Shared Files.....	12
STSUpdat Configuration.....	13
LAPTOPS.....	14
FIREWALLS.....	14
FILE DOWNLOADS.....	15
BETA TESTING.....	16
FINALLY.....	16

NOTE: Any reference to Windows 2000 in this document may also include Windows NT, as they are, more or less operationally similar.

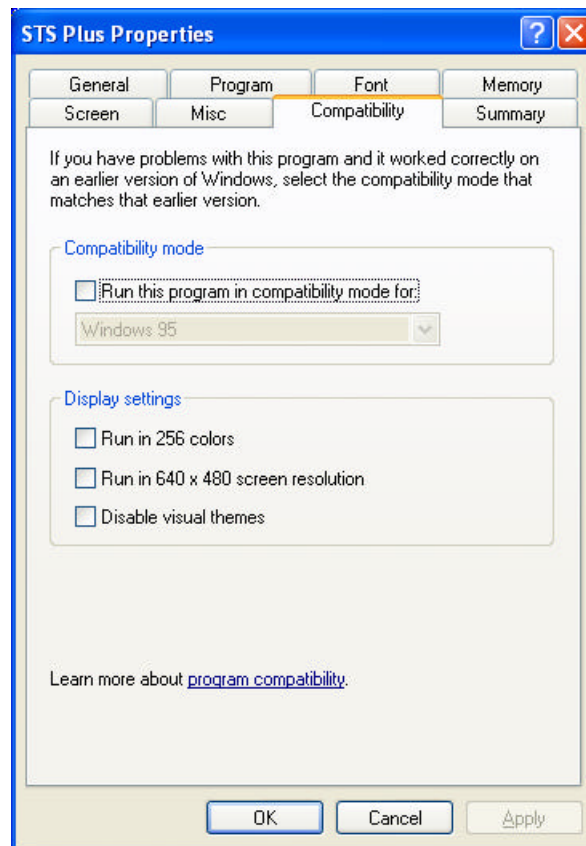
## DOCUMENT UPDATES

- Windows XP comments and graphics

## THE BEGINNING

Configuring STS Plus<sup>1</sup> on a Microsoft<sup>2</sup> Windows 2000 stations is a bit different than on the Windows 9x stations. There are a lot of similarities, but there are a few additions that were added to the Windows 2000 configurations. A memory configuration is not the only thing to take into consideration now that we have security configurations to deal with.

Windows XP, again is very similar to STS Plus Windows 2000 configuration, with one very important addition. The Compatibility tab has been added to the icon configuration box.



**Figure 1 Compatibility Tab**

But to make things easier, I'll only present information and graphics based on Windows 2000 Professional and Windows XP. The security information will be based on defaults and will not go any further than the EVERYONE security group.

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<sup>1</sup> STSORBIT PLUS, STSPUS and ORBITEL are copyrighted software products of David H. Ransom, Jr.

<sup>2</sup> Microsoft, MS-DOS, Windows 95, Windows 98, Windows 2000 and Windows NT are registered trademarks of Microsoft Corporation.

**Warning:** Please read the Laptop section, at the end of this document, to read about some compatibility problems with the newer IBM ThinkPad's.

## FILES AND PIF SETUP

First thing to remember is that, all the STS Plus files must be in one directory, usually called D:\STSPLUS. Also keep in mind any additional directories you might use, you should keep them within the MS-DOS file naming format. These may include directories for ORBITEL, TLE files and TRAKSTAR. For these configurations, you must adjust your directories via the STS Plus F7 function key. Even though Windows 2000 uses the long-name format some MS-DOS based programs do not, so just to be on the safe side, let's stay with the 8.3 format.

D:\STSPLUS  
D:\STSPLUS\DOCS

## PIF CONFIGURATION

The following are graphics showing the typical configurations under the Windows 2000 environment. Depending on which method you want to use the setup windows will look pretty much the same.

To create a PIF (old Windows term) or a shortcut (new windows term) all you have to do is right click on the desktop or menu window. Go to NEW and then to SHORTCUT and click.

Click on **BROWSE** and look for the STSPLUS.EXE or if you know where it is just type it in.

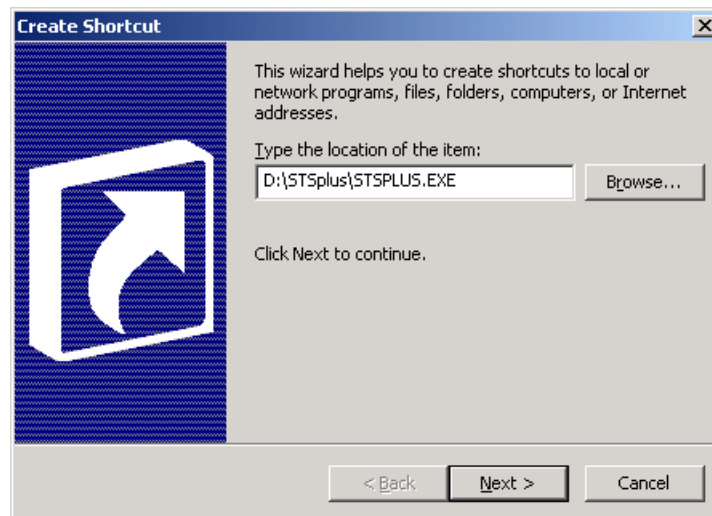
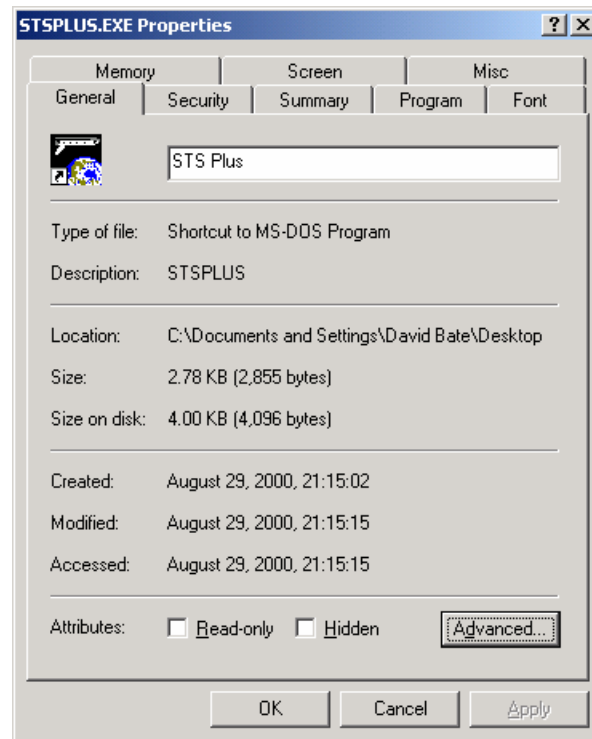


Figure 2 Shortcut Creation

Then click **NEXT** and enter a name that you want to use or use the default and then click **NEXT** for the icon and use the default one and finally click **FINISHED**.

Now you have an icon on your desktop. You can decide now or later if you wish to leave it there or create a menu folder and move it in there.

Now right click on the icon and click **PROPERTIES**. A window opens up with all the setting we will be able to manipulate. See below:



**Figure 3 Shortcut Settings**

### **General Tab**

The above figure is the main tab for the properties setup for STS Plus. This gives the current status of the PIF configuration, listing the usual name, description, location and modification information of the file.

This tab is very similar to that of Windows 9x and Windows NT, with the exception of the file attributes. Some of these tabs we don't need to worry about. As seen above, the first thing you have to do after creating the shortcut is add **"STS Plus"** in the name box.

The **ADVANCED** button refers to some backup, compression and encryption functions. These setting will be what ever defaults are for the C drive or the System drive is set for. You should not have to worry about these.

## Security Tab

The Security tab is the tab that we will cover next. Please remember that this tab only restricts the use of the PIF file that runs the program. The directory and file security has to be set as well, which is the same as NT.

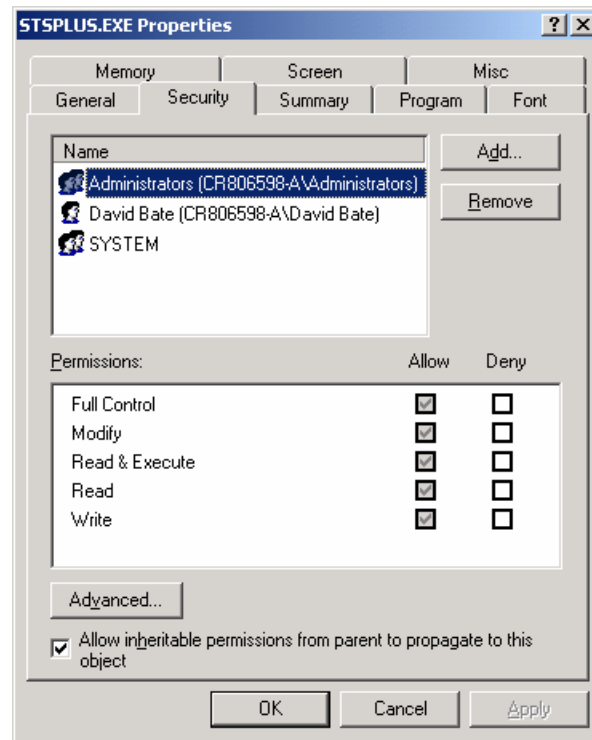


Figure 4 Security Tab

Firstly, when you take your first look at the tab you will notice that there are some entries already made. These were inherited from the directory from which it was created. To change these settings or accounts you must uncheck the inheritable permissions and then click copy or delete in the popup box. Copy will leave the entries to remain, but configurable and delete will delete the entries and start with a clean box.

You can add and assign whatever permissions you wish as you would files and directory settings. Remember that you can give all the rights you want and still have no rights if the file and directory settings for STS Plus are restrictive. If you wish to restrict access to the INI and data files, do not go any further than read access or STS Plus will give you an access or a file not found error.

Even though that the graphics here are from the new Windows 2000 Operating System, the configuration is very, very similar to Windows NT and should account for it. The memory configurations will be the same. In fact the settings can be more flexible with Windows 2000 due to the better performance in the area of memory.

## Summary Tab

Next click on the Summary tab and enter any information you wish. If you like, you can copy the same information I have used as shown below. This information is used by the system find and index operations. You can use it if you wish, but it has no effect to the operation of STS Plus.

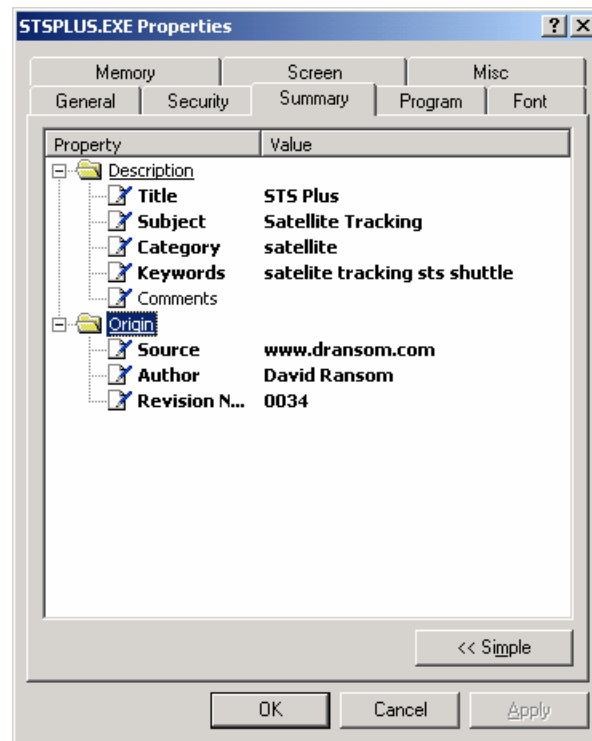


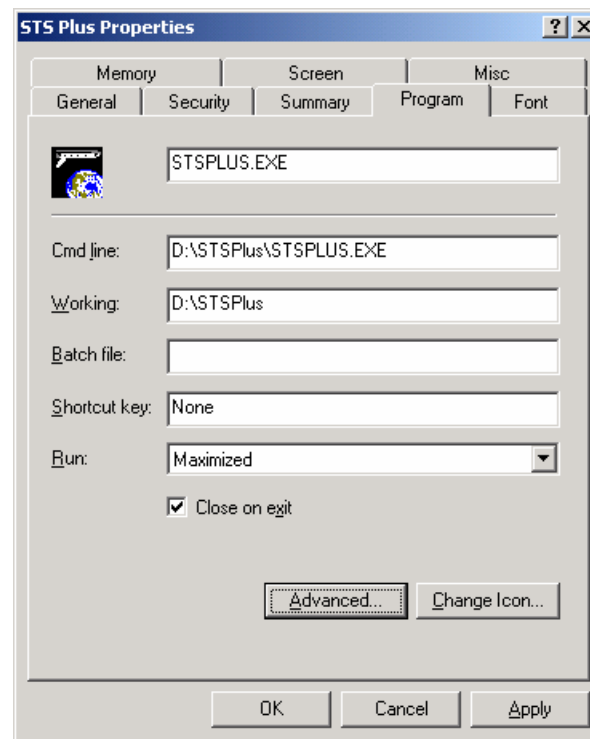
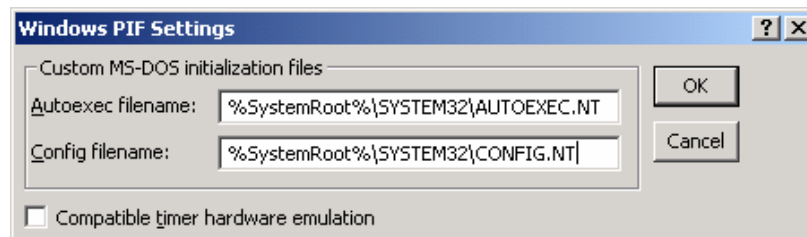
Figure 5 Summary Tab

If you click on the **SIMPLE** button, it will switch to the same type of box as in Windows 9x and Windows NT. It is your choice on which version you want to use.

## Program Tab

Next click the Program tab and you will have something similar to the graphics below. This tab is very similar to Windows 9x and Windows NT4 with the exception of the **ADVANCED** button. Most of the information should have already been done if you created the icon from the File Manager or the right-click on the Desktop.

The only thing you might have to do is make sure the Run boxed is set to Maximized and the Close on exit box is checked. The information in the advanced button should already be set for you, but just incase, it is shown below.



**Figure 6 Program Tab**

Once this is complete, just click the OK button and you will be back at the main box. The Font tab you don't have to touch at all, so we will not worry about it here.

## **Memory Tab**

We are now getting into the most important tabs. First is the Memory tab. Here we set the memory values that will tell Windows 2000 how much memory to allocate to STS Plus.

Now these values I give here are NOT written in stone and can be modified for your own setup. Each machine, processor, etc. operate differently but these values will give you a place to start.

For the Conventional memory and the Initial environment, set this value to Auto. The Protection box can be left unchecked. Change the



Expanded or EMS memory to 2048k. If you have lots of RAM, you may increase this if you wish, but STS Plus should survive with just 2048k. The Expanded or XMS memory can also be set 2048k, and again you can increase this if you feel you should.

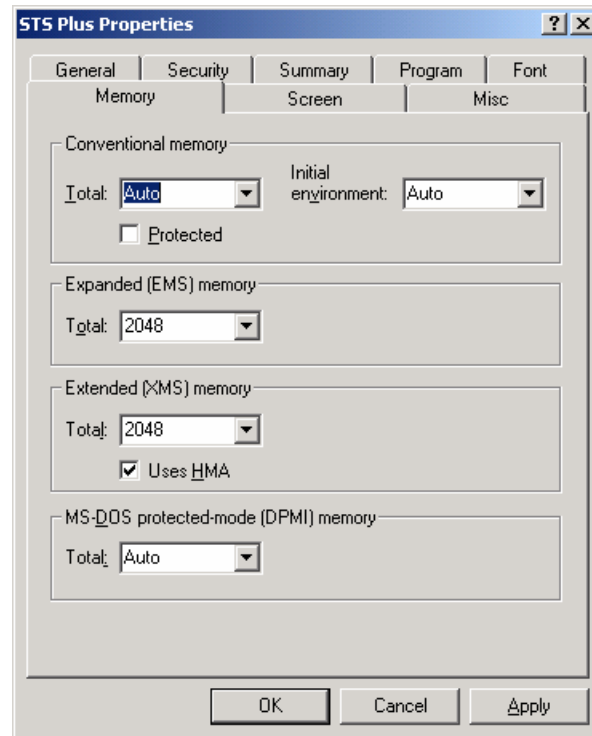


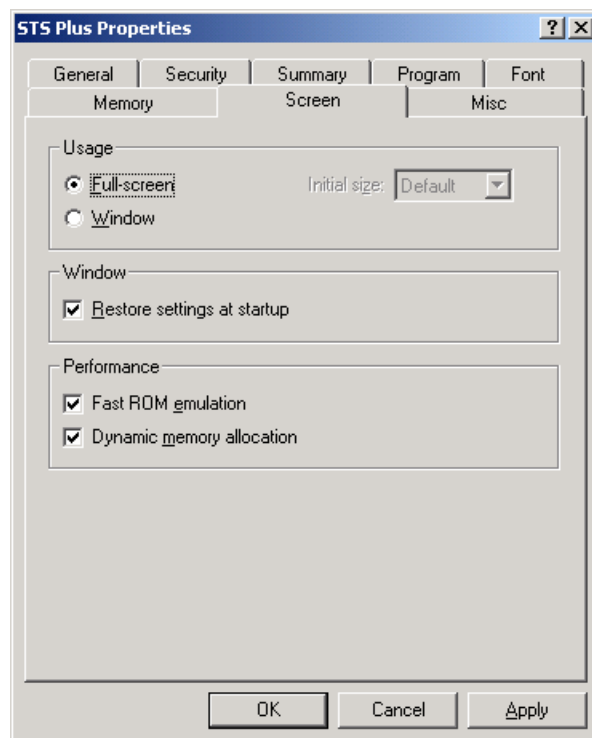
Figure 7 Memory Tab

The HMA box can be checked as well. If your system is using HMA already, then you can leave this unchecked. MS-DOS protected mode or DPMI can be left at **AUTO**, as this is only valid if running under Windows 95 environment. At this point you can click OK.

## Screen Tab

Click on the Screen tab and we'll make only one change here. Check the **FULL-SCREEN** radio button as below. Since STS Plus is a DOS program it operates better in the full screen mode. If this is not checked then the program will be in a frozen state or you may get error reports telling you that the program cannot run in a window.

Windows XP is the exception. If you open STS Plus as a window, once you choose you're satellite and hit enter to start the tracking, Windows XP will automatically switch to full screen with no errors or a "Frozen" statement.



**Figure 8 Screen Tab**

### ***Miscellaneous Tab***

Finally, we will cover the miscellaneous tab.

Normally, you would change the idle sensitivity to Low for operations in the background, but since STS Plus is not a 32-bit program this function will have no effect. The window will go into frozen state whenever you force it into the background, till you return. Once you do return, the program clock will speed up till it matches the system clock. Again, due to the same, the Screen saver does not work as well.

This tab has no operational effect to STS Plus, with the exception of the paste ability and shortcut assignments.

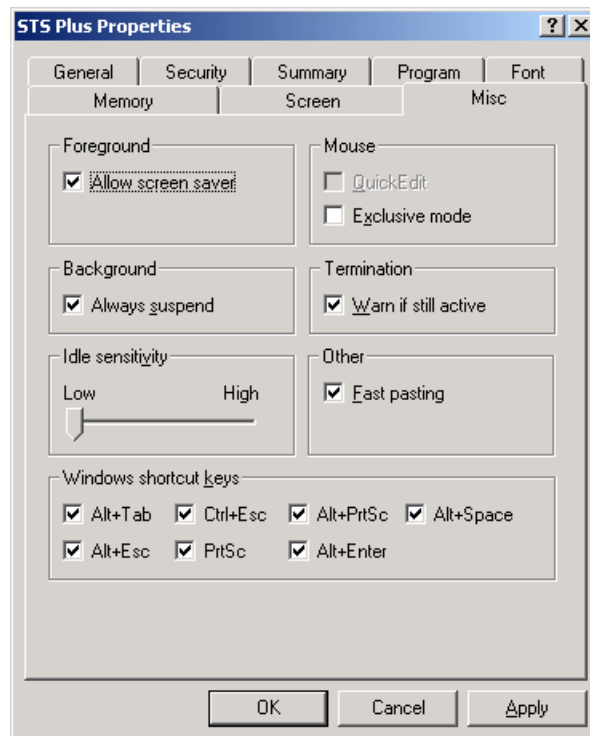


Figure 9 Miscellaneous Tab

There was one more tab that I didn't cover and that was the Font tab. These settings will not do anything for STS Plus, so I have skipped it.

## THE CLOCK GLITCH

Users that had noticed a glitch with the clock under Windows NT, well it seems as if it has carried over to some Windows 2000 installations, but not all. To correct this you must do the following:

From the main menu hit the F9 key. This will take you to the DOS window.

1. Type DIR at the DOS prompt and then hit the ENTER key.
2. Type EXIT at the next DOS prompt and then hit the ENTER key.

You should now be back at the STS Plus main menu. You should now have the correct time showing. As stated above, not **ALL** Windows 2000 installations will have this clock bug. As of this document, I am in the process of finding out why this happens.

Also, under Windows 2000 if you had swapped out to another session and then to back to STS Plus, you will notice the time speeding forward quickly until it reaches the correct system time, then it will return to its proper setting.

Again Windows XP is also an exception, as it seems as if the time operates normally in my operation.

## STS PLUS LAN CONFIGURATION

As of version 0012, a new option was activated that will allow you to update your two line elements over the Internet automatically while still tracking your favorite satellite. Also with a few minor changes you will be able to run STS Plus over a network, where numerous stations can share the program files and maintain your own personal settings.

### ***Shared Files***

Once you have setup your STS Plus directory on the server and deposited the files from the SOP0012 release file, you can start getting things ready for your LAN configuration. You must make sure that the STS Plus is setup as a shared directory so that all or a group of users can attach to it. Also keep in mind that when you map the directory, it must be the same mapping on ALL stations (i.e. S:\STSPLUS for STS Plus).

Once you have everything ready on the server directory and all the files are configured for your location, you can start setting up the individual stations. There are certain files that must be copied to the local drive that will be used by STS Plus. The files are:

STSPLUS.INI  
STSPLUS.FRQ  
STSPLUS.LOC  
STSPLUS.SAA  
STSUPDAT.EXE  
STSUPDAT.INI

Once this is done you can create the PIF for STS Plus with the following assignments:

CMD: S:\STSPLUS\STSPLUS.EXE      < Executable on the server.  
WORK: C:\STSPLUS                      < work directory on local drive.

If you are using the default files that were downloaded as SOP0016.EXE you should get the "New Installation" procedure on all stations.

The above, is a very simple setup for LAN/WAN access. But for a more indepth installation as of version 0016, STS Update has been updated to include a server setup which we will cover next.

Below is the graphic for this tab.

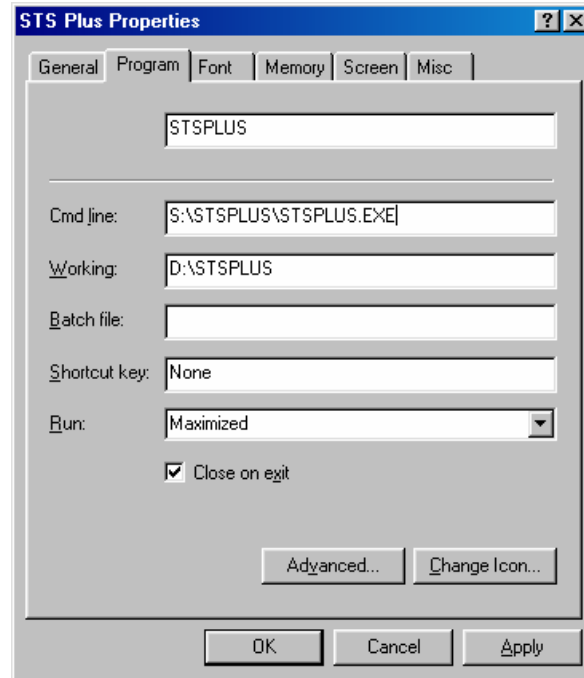


Figure 10 Simple LAN Setup

### ***STSupdat Configuration***

Have you ever wished you could hit a button and have your TLE's updated for you automatically? Well as of version 0012 you can. Welcome aboard STSupdat. This nifty little program has made STS Plus even better, and user-friendlier.

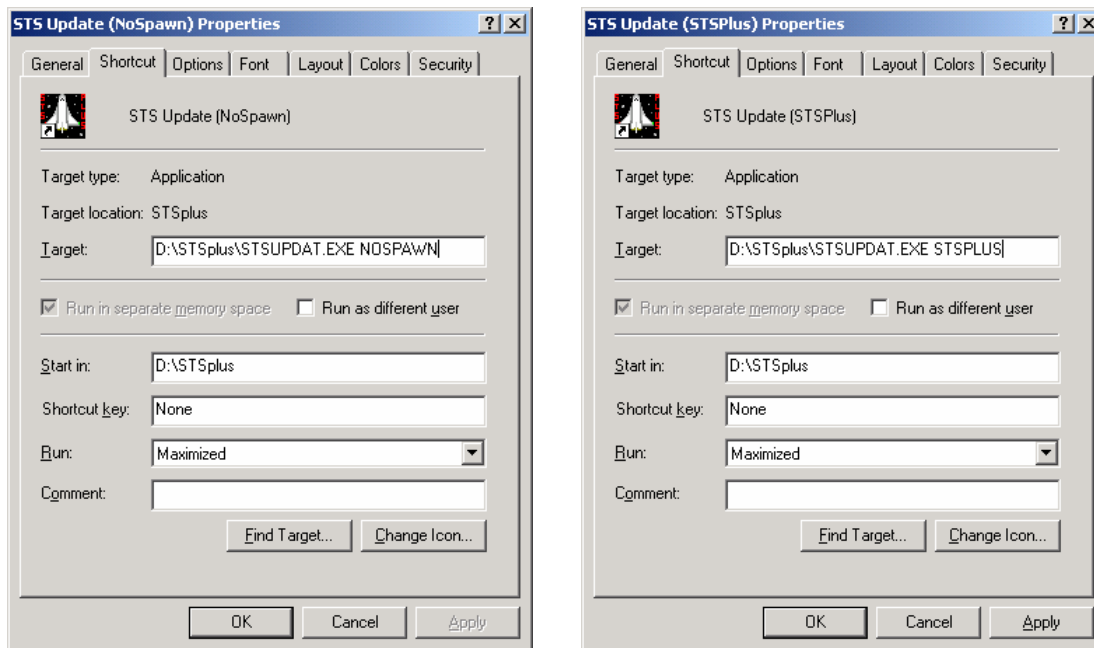
Unlike Windows 9x, you have to be aware of a couple of differences that occur while running under Windows 2000. Firstly, there is the little problem that we are presently working on fixing and that is while running STSupdat via the **F11** key command, the screen will be missing the background map and some headers. There are two ways to work around this:

1. Once you hit F11 to update your TLE's, use the **R** key to refresh your screen. The draw back is that the waiting icon will disappear, but don't worry; STSupdat is still doing its thing.
2. Start STSupdat first with STS Plus loaded on top. If you use this method you can use **CTRL-F2** to update the files and it should work, as it should.

Now, if you have a fast machine and a fast Internet connection, it may not take long to download the files, so you may not worry about the few seconds of disrupted screen updates.

If you would like to operate STS Plus via the STSupdat program, which I do, you can create two shortcuts to run the programs. If you run STS

Plus while in STSUpdat, you can update using the CTRL-F2 key and everything runs fine.



**Figure 11 STS Update Configuration**

## LAPTOPS

Please be advised that you may get varied video responses from some laptops. The video drivers that are shipped with Windows 2000 are very basic and don't include all enhancements that operate the cards. It usually takes a while for companies to release their version of the video drivers. Also remember that STS Plus does not track satellites in the windowed environment, only in the full screen mode.

Also be advised that the newer models of the IBM ThinkPad seem to be causing some headaches for STSPUs users. Some of the newer models newer than the 390 series are becoming less compatible with STSPUs. At this point there is nothing that can be done to fix this incompatibility as the newer video chips are not backward compatible with the older video instructions.

## FIREWALLS

Secondly, there is the problem with some corporate firewalls. If you work for a corporation you may not be able to use STSUpdat due to restrictions in place at the firewall. Some corporations may have ftp and ping operations disabled as people on the other end can use the information to retrace and get into you corporate computers.

So if you try to use the program and get continuous errors, try pinging the IP addresses that Greg has listed in his documents. If you get no response, then more than likely there are restrictions in place. If the data retrieval is part of your job, you may wish to contact your network administrator and have you IP address exempted from the list. This all depends on the department or corporate policy.

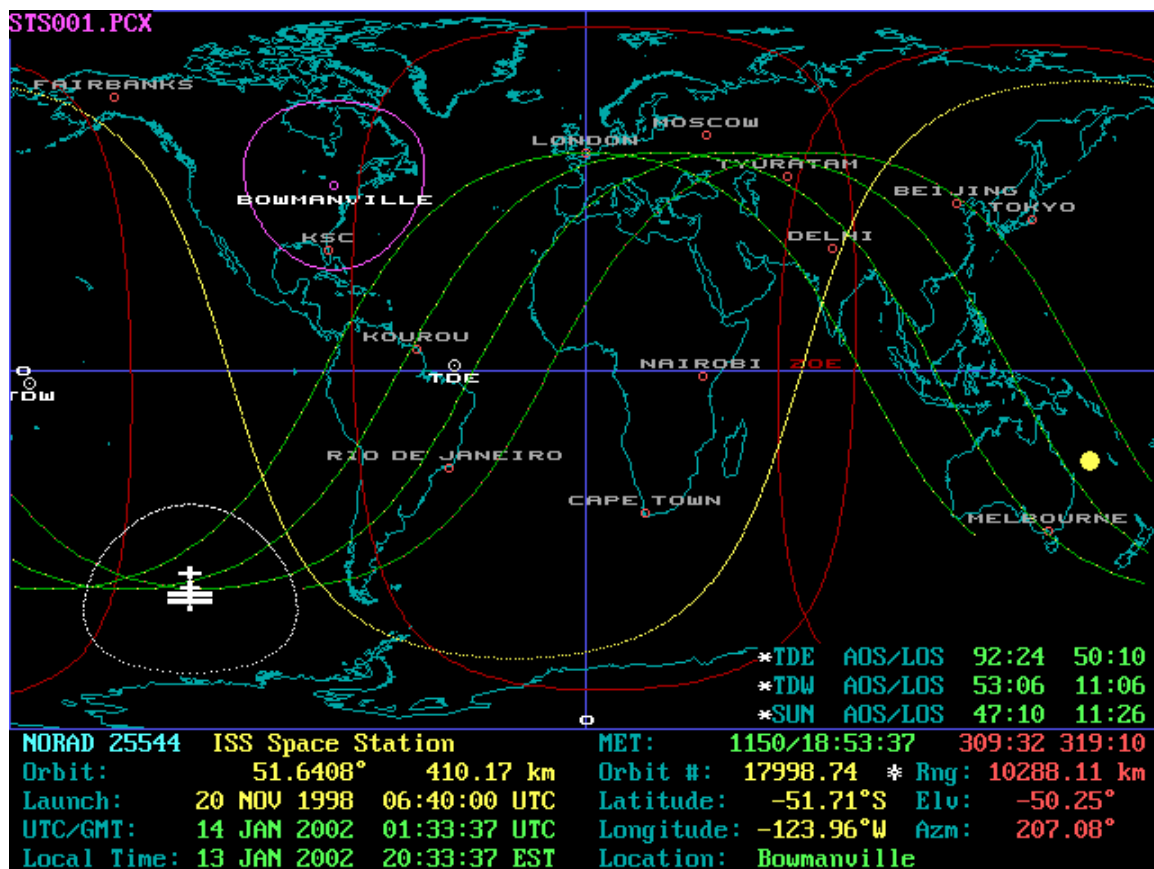
## FILE DOWNLOADS

The following are locations to download the files for STS Plus and STS Update:

<http://WWW.IASTATE.EDU/pub/stsdata>  
<http://WWW.DRANSOM.COM/current.data>  
<http://WWW.IDB.COM.AU/dcottle>

I also provide some updated STS Plus files that will help you to keep your satellite and tracking files up-to-date. Just visit my site at:

<http://www.scannerdesk.com> and click on the Satellite Tracking button.



## BETA TESTING

I have spent many, many hours testing STS Plus and STSUpdat trying to find a way to break it and so far we have dealt with the majority of all the bugs we could find. Each system is different and you may notice something or have difficulties that we haven't experienced. If you do have any problems, please don't hesitate to contact Dave or Greg. If you have problems with contacting them, please contact me and I'll either pass it on to them, or help you if I can.

It has been a lot of fun beta testing STS Update in its support operations with STS Plus, and working with Dave, Greg and Mike have been very enjoyable. So if you go to a restaurant or stop into a Dairy Queen have a strawberry milkshake and raise your glass to Dave and Greg.

## FINALLY

I have tried my up-most best to keep this as close to everyday language without using too much computer or Microsoft lingo. Dealing with Microsoft software can sometimes cause problems when you have to write documents, when they use terms and words they sometimes create, such as child, trees, forest etc.

If you still have any problems understanding this document or you still have problems, please don't hesitate to contact me. My e-mail address is below, or you can contact me through Dave.

I hope this document helps you to get over any hurdles and allows you to get one of the best satellites tracking programs up and running.

**David Bate**

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