

SIMS Receiver Server





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SIMS Receiver Server

1. Introduction

SIMS Receiver server was born as an answer to the necessity to handle receivers when running SIMS from Windows XP/NT.

As you know, most computers nowadays come only with one serial port. For this reason the use of multi-port serial cards has become almost a norm in central stations.

Unfortunately Windows XP/NT won't allow a DOS application (like SIMSII) to "talk" directly to the PCI slot where these cards are connected to.

SIMS Receiver Server solves this problem. Since it is a windows application, it can overcome the limitation imposed to DOS programs.

SIMS Receiver Server can be used with either SIMS or CSM.

System Requirements

- 486 processor or faster (recommended)
- 32 MB RAM or more (64 MB or more recommended).
- 32-bit operating system such as Microsoft Windows 95, 98, NT 4.0 (or later), 2000, XP.
- SIMS Receiver Server requires the .Net

2.x architecture be installed on the machine. This is available from Microsoft via Windows via Windows Update but is not downloaded automatically since it's not a critical update.

- At least 1.4MB of free disk space is required

How it works

To put it in a simple way, what SIMS Receiver Server does is to act as an intermediary between the monitoring software (SIMSII or CSM) and the receivers.

The program will read the information send by the receivers through the serial ports. Then it will write that information into a file. This way the automation software can read the signals from the receiver instead of reading them from the port.

This is a more detailed description of this process:

1. The SIMS Receiver is configured with the actual port information, baud rate and so forth. It actually talks with the receivers and acknowledges them.
2. Once a signal is received from the receiver, it is written into the file named RCVINPUT.TMP which is the monitoring directory.
3. Once every second, the SIMS Receiver Program checks if there is a file called RCVINPUT.DAT. If there is, then subsequent signals are added to RCVINPUT.TMP.
4. Once RCVINPUT.DAT no longer exists,

- then the SIMS Receiver Server renames RCVINPUT.TMP to RCVINPUT.DAT.
5. The monitoring software (SIMSII or CSM) sees that there is a RCVINPUT.DAT file and process all the signals in the file. It then deletes RCVINPUT.DAT.
 6. The cycle of creating/renaming the files continues indefinitely.

Files

Here is a list of the important files you will find on the program. You will find them on the installation directory, which will normally be: C:\Program Files\SIMS\SIMS Receiver Server.

- RcvrSrvr.EXE: The program itself.
- RcvRules.XML: The protocol rules for the various types of receivers.
- RcvList.DAT: The list of receivers compatible with SIMSII.
- RcvCSM.DAT: The list of receivers compatible with CSM.

Document Conventions

In this document we use certain conventions in order to make things easier to explain.

Moving Through Menus

In order to facilitate a quick understanding of how to arrive at the sub-menu selections and/or functions, and reduce unnecessary text in this manual, we will use a shorthand way of describing *paths* to the sub-menu selections in this document.

Here an example of this works. Let's say an operator needs to select the Global Configuration option from Configuration menu. This would be represented by: *Configuration → Global Configuration*.

2. Installing the Program

The name of the setup file is ReceiverServer.exe. You can download this file from our web site: www.simsware.com.

SIMS receiver server is meant to run on the primary computer where you have all the receivers connected to.

Run the installation file from anywhere in that computer and follow the instructions from the setup Wizard.

Once the installation process is done, you are going to need to run the LiveUpdate program for the SIMS Receiver Server. This way you will get the latest version of the program.

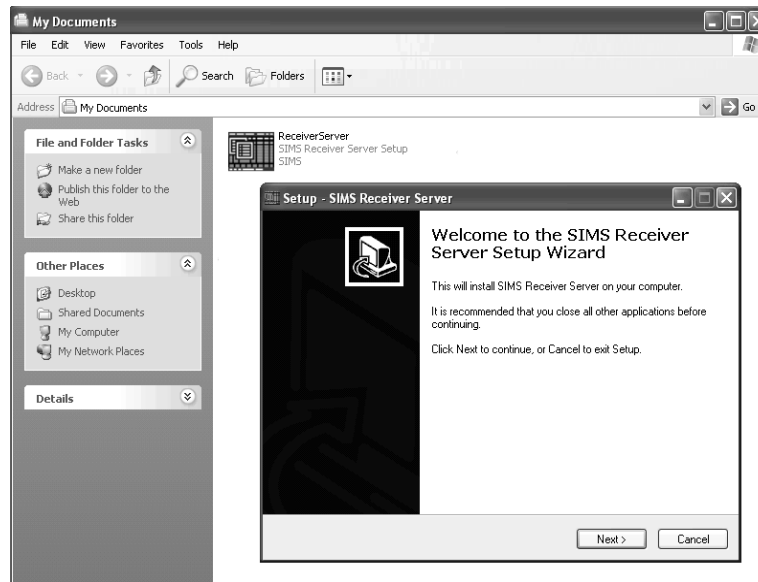


Figure 1 - SIMS Receiver Server Setup Wizard

Note: To update the program through SIMS live

update you need an internet connection.

3. Initial Set Up

In this section we are going to explain how to set up the program to work with the automation software.

The configuration for the program is pretty much the same either if you are going to use it with SIMSII or CSM. At the end of this section we will provide an explanation of the set up you need to do on the automation software side.

Step #1: Global Configuration

Go to *Configuration* → *Global Configuration*. This will display the Global Configuration dialog box (see Figure 2).

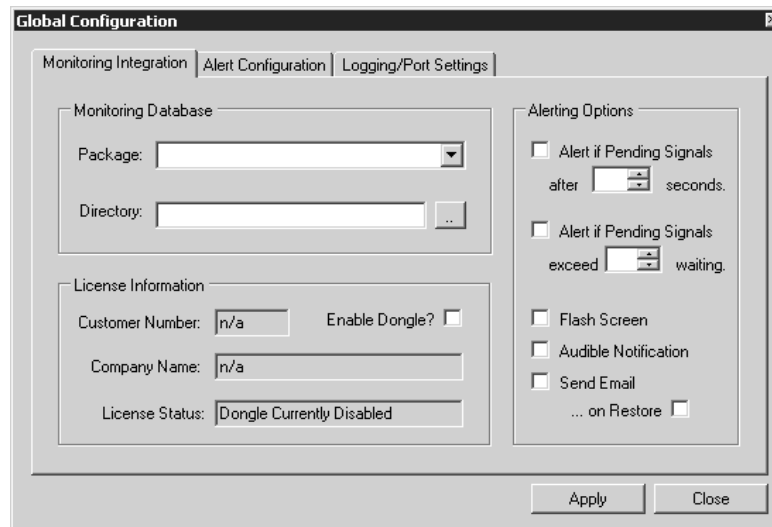


Figure 2 - Global Configuration Dialog Box

From here you will be able to configure most of the features and functions of the SIMS Receiver Server. For this initial setup we will only need to take care of a couple of fields:

Package and Directory.

Package: Use this field to define the monitoring software you are going to use SIMS Receiver Server with (SIMSII or CSM).

Directory: Enter the directory where the monitoring database files are.

Now we need to move to the Logging/Port Settings Tab (see Figure 3). We won't need to change anything on the Alert Configuration tab by now.

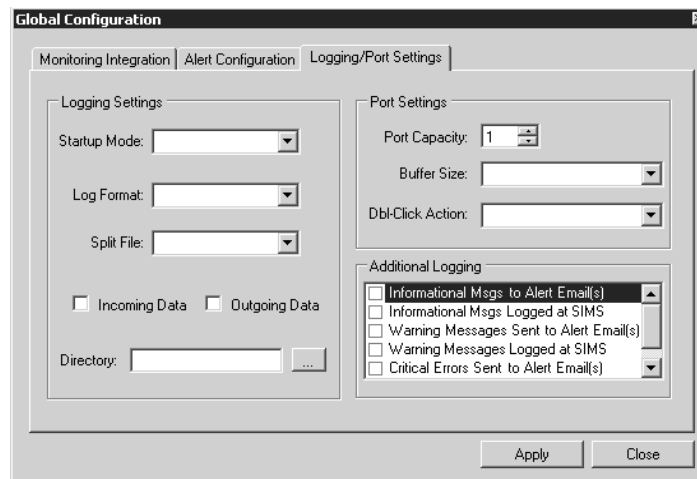


Figure 3 - Global Configuration - Logging/Port Settings

Here we need to tell SIMS Receiver server how many ports (receivers) we are going to be using. To do this, enter the number of receivers in the Port Capacity field. Click on the Apply button. For this example we are going to use three receivers.

Step #2: Port Configuration

Now it is time to enter the receiver/port information so the program can “talk” to the receivers.

Go to *Configuration* → *Port Configuration*. This will display the Port Configuration dialog box (see Figure 4).

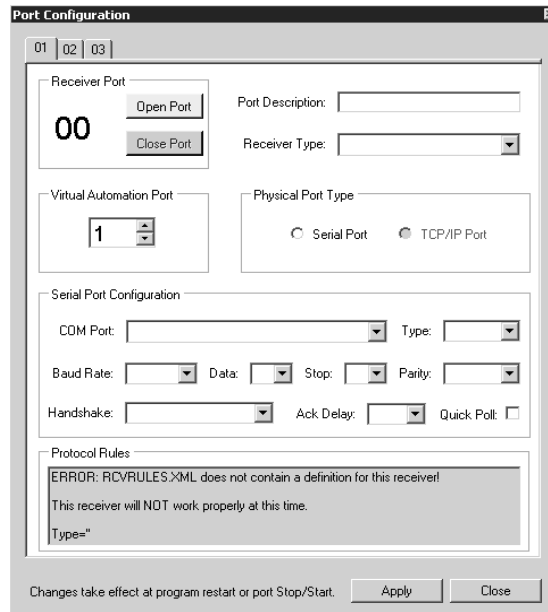


Figure 4 - Port Configuration

Note that there is a tab for each port (In this case: 01, 02 y 03). You will need to enter information for each one of the ports.

If you ever worked with the SIMSII Receiver setup you will find this screen very familiar because the fields are almost the same.

Here is an explanation for each one of these fields and buttons:

Open Button: Click here to attempt to open this port. Consult the interface display for status information about whether the operation was successful or not.

Close Button: Click here to close the port. It will stop reading signals from the receiver.

Port Description: Enter here a free description for the receiver connected to this port.

Receiver Type: Select from the list the receiver type for the port. If the receiver type you are looking for doesn't appear in the list, it means that hasn't been implemented yet. See Appendix A for more information on receivers currently available.

Virtual Automation Port: This is the virtual automation port that will be reported to the automation software. As we show on page 22 you need to match this number on SIMSII.

Note: Although is not necessary, it is highly recommended to match this number with the receiver port above. This way will be easier to understand the setup of your central station, which means that will be easier to run any diagnostic procedure.

Physical Port Type: Select the type of port the receiver is going to use. For most of the receivers this option is going to be Serial Port.

COM Port: Select the physical serial port that this receiver will communicate on. All serial ports that Windows reports are valid will be displayed here. If a port doesn't appear in the list and you think it

should, check that proper drivers are loaded in windows for the device.

Type: Select the port type for this serial port. For most ports this will be set as “Standad”.

Baud Rate: Select the baud rate that matches what the receiver is configured for.

Data: Select the data word length that matches what the receiver is set for.

Stop: Select the data stop bits that match what the receiver is configured for.

Parity: Select the parity settings that matches what the receiver is configured for.

Handshake: Select the appropriate handshaking setting for this receiver and cabling configuration

Ack Delay: If the receiver requires a delay in the ACK (acknowledge) being set back to the receiver, select the delay required (in milliseconds). Select 0 if no delay is required, most receivers do not need a delay

Quick poll: Check this box if you wish to disable the CPU Utilization Optimization Algorithm. Disabling this algorithm will cause the program to get characters from the port slightly faster, but will cause a higher CPU load on the computer as well.

Protocol Rules: This area will display the rules that will be used for the receiver type you selected. If the rules state that this receiver is not compatible for the configuration you have selected, then you will be unable to receive signals from it.

Click Apply when you are done. Click close to come back to the traffic screen. Changes will only take effect at program restart or port Stop/Start.

Step #3: Automation Software Configuration

Step #3a: SIMSII Configuration

Even though SIMS Receiver Server takes control over the interface with the receivers, you still need to do create an entry for each receiver on SIMSII.

To do this go to the Set Receivers Interfaces screen on SIMS II. You gain access to this screen through C-S-S-R from the SIMSII main menu.

```

c:\ SIMS.EXE
MODE: Receiver/Modem Selection v1.39.14 Log: LAU Thu Oct 04 2007 09:20:06
SET RECEIVER INTERFACES

Port Addr  Irq  Receiver Type  Baud  Data Stop Parity  DnTb1  Recv  SIMSI
001 0100  4   Surgard MRL2-DG 9600  8    1    E    N    01    Y

Line Card
Convert  Grp  Line Phone Number
01 =
02 =
03 =
04 =
05 =
06 =
07 =
08 =
09 =
10 =

Line Card
Convert  Grp  Line Phone Number
11 =
12 =
13 =
14 =
15 =
16 =
17 =
18 =
19 =
20 =

← PgUp PgDn to select, F2=Window, Then F10=Save/Next; Else Esc=Cancel
Disk= 73%, Scrn= 1% ALFA SECURITY SYS OUS= 0%, Alr= 0. 0%

```

Figure 5 - Set Receiver Interfaces (SIMS II)

Here you need to enter all the parameters for your receiver; the only difference is that the port address (Addr field) doesn't matter. However, you can't leave this field blank. Enter an address not being in use. Normally the addresses starting on 0100 are available. So you can assign an address of 0100 to the first port, 0101 to the next one and so on.

The IRQ number should be the same for all ports

within the same card.

Note: The line conversion tables are still used.

You have to take special care in making sure that the port number on SIMS II matches the Virtual Automation Port on the SIMS Receiver Server (see Figure 6).

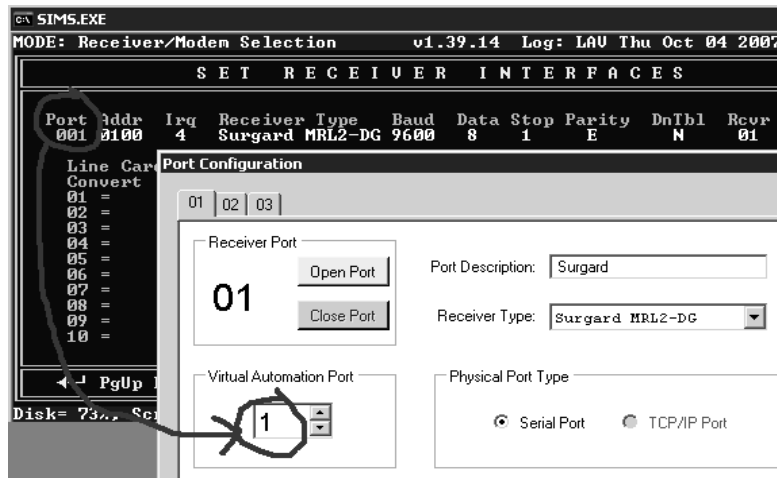


Figure 6 - Configuring Receivers on SIMSII

Step #3b: CSM Configuration

To setup CSM to work with SIMS Receiver Server, you need to put the port to NULL (see Figure 7). This way you will avoid a conflict with anything else in the machine.

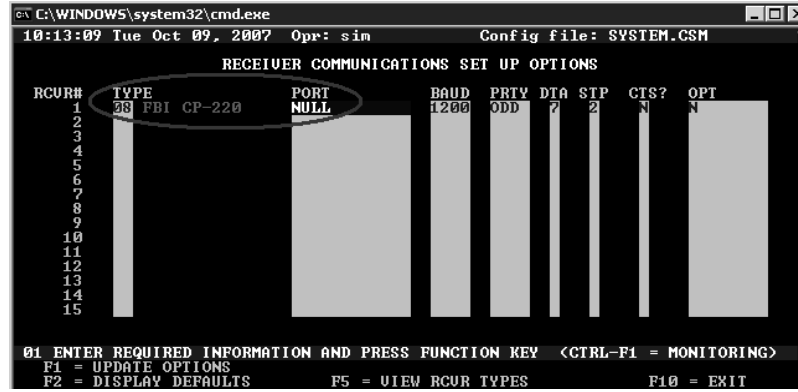


Figure 7 - Setting Up CSM the SIMS Receiver Server

4. Functional Overview

In this section we are going to provide an explanation for those function not covered in the previous sections.

File Menu

This menu grants you access to two options: Restart Program and Exit (see Figure 8).

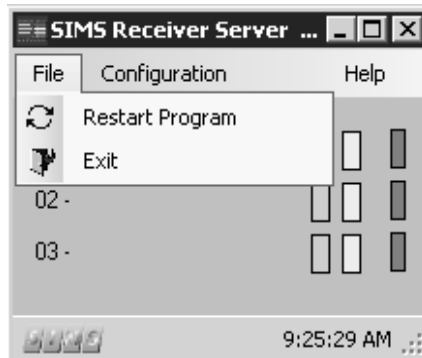


Figure 8 - File Menu

Restart Program

Under some circumstances you might need to restart the program. For instance, to refresh the traffic screen or to make changes on the setup to take effect.

Once you select this option a dialog box asking you for confirmation will pop up. Click the yes button to continue with the restart process. Click the No button to cancel.

Exit

This option closes the SIMS Receiver Server. Once you select this option a dialog box will pop up. This dialog box will remind you that closing the program will cause the receivers not to communicate with the automation software. Click the Yes button to close the program or No to cancel.

Configuration Menu

Options from this menu will allow you to set up the way SIMS Receiver Server works.

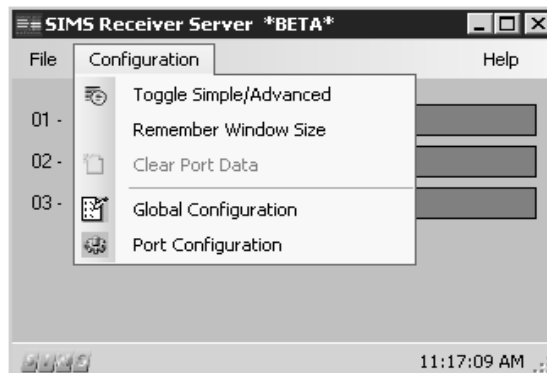


Figure 9 - Configuration Menu

Toggle Simple/Advanced

Allows you to toggle between two modes for the display interface. In single mode you can not see the signals coming through the traffic screen, just the status of the ports (see Figure

10).

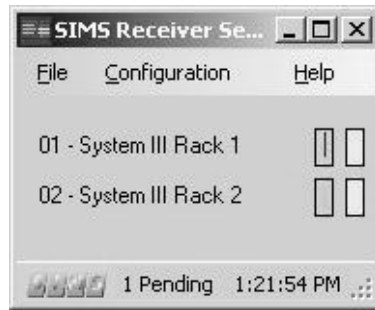


Figure 10 - Traffic Screen - Simple Mode

The advanced mode let you see the signals coming through the ports, just like the Interface Signal Displayed function from SIMSII (L-I from the main menu). See Figure 11.

This could be especially useful during the initial setup process and for troubleshooting purposes.

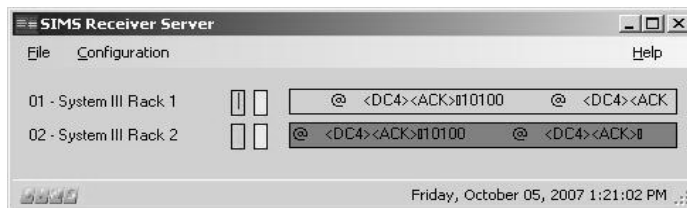


Figure 11 - Traffic Screen - Advanced Mode

Remember Windows Size

Select this option to make the program keep the same windows size even after re-starting the program.

Clear Port Data

Select this option to clear the signals shown on the traffic screen.

Global Configuration

This selection will display the global configuration dialog box. Some of the options available from this dialog box had been already discussed on page 10. Here we will provide a more complete explanation.

MONITORING INTEGRATION TAB

(see Figure 2)

Monitoring Database:

- **Package:** Select the automation software, either SIMSII or CSM.
- **Directory:** Path to the automation software directory.

License Information: These fields haven't been implemented yet.

Alerting Options: These fields will allow you to setup alerts (visual, audible, e-mails).

- **Alert if Pending Signals (after seconds):** If this checkbox is checked then alert indicators will be activated based on the amount of time that signals are waiting for the automation package to handle them. Use the box provided adjacent to define the number of seconds.
- **Alert if Pending Signals (exceed**

waiting): Check this box if you want for the alert to be sounded when a certain number of signals are waiting to be handled. Use the box provided adjacent to define the limit of signals.

- **Flash Screen:** When the alert is triggered, if this option is checked then the program screen and taskbar icon will flash.
- **Audible Notification:** If this option is checked then when the alert is triggered it will cause an audible notification as per the configuration on the Alert Configuration tab (see page 22).
- **Send Email:** If this option is checked, when the alert is triggered an email will be send out as per options in the Alert Configuration tab (see page 22).
- **On Restore:** If this option is checked, then if the alert has triggered an email, another email will be send when the alert is no longer active.

ALERT CONFIGURATION TAB

(see Figure 12)

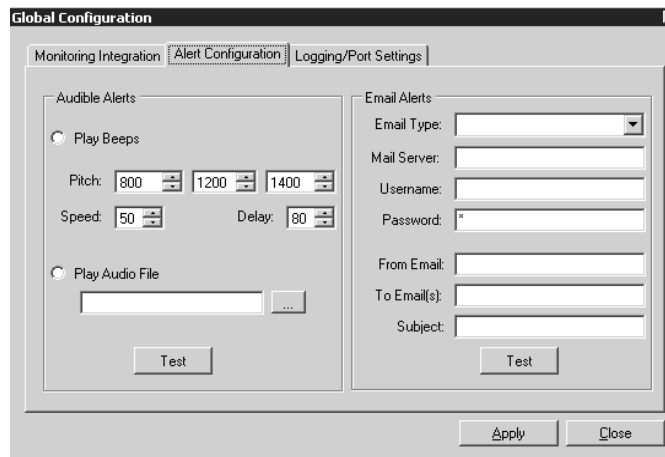


Figure 12 - Global Configuration Tab - Alert Configuration Tab

Audible Alerts: Allow you to select the destination of the audible alerts: computer speakers or sound card. This alert will be play according to the alerting options (see page 21) entered previously.

- **Play beeps:** Select this option to use standard speaker beep tones (like SIMSII/CSM uses).
- **Pitch:** Allows you to select the frequency for the tones.
- **Speed:** Increase this value to make each tone larger. Decrease it to shorten each tone (make it faster).
- **Delay:** Decrease this value to shorten the time between tone sequences, increase the value to cause a longer delay between them.
- **Play Audio File:** Click this radio button if you wish to play an audio file through the sound card speakers

(if applicable).

Note that next to this round button there is a file where you can enter the path and file name of the file to be used. You may use the button provided adjacent to browse through your files.

- **Test:** Click here to perform a test of the audio settings above.

Email Alerts: The fields located under this title let you setup the email alerts. This way SIMS Receiver Server will be able to send emails automatically according with the configuration entered on Alerting Options (see page 21).

- **Email Type:** Select the type of email you wish the program to send: Full text, Summary, PDA style (80 char max) or Pager (20 char max).
- **Mail Server:** Enter the mail server DNS name or IP address.
- **User:** If the mail server requires authentication, enter the username here.
- **Password:** If the mail server requires authentication, enter the password here.
- **From Email:** Enter the email address you want to appear in the message as the sender address.
- **To Email:** Enter the one or more email address to send the alerts to. Separate multiple email address with a semi-colon (;) character.
- **Subject:** Enter the subject line that

- **Test:** Click here to send a test email to ensure your settings are correct.

LOGGING/PORT SETTINGS TAB

(see Figure 13)

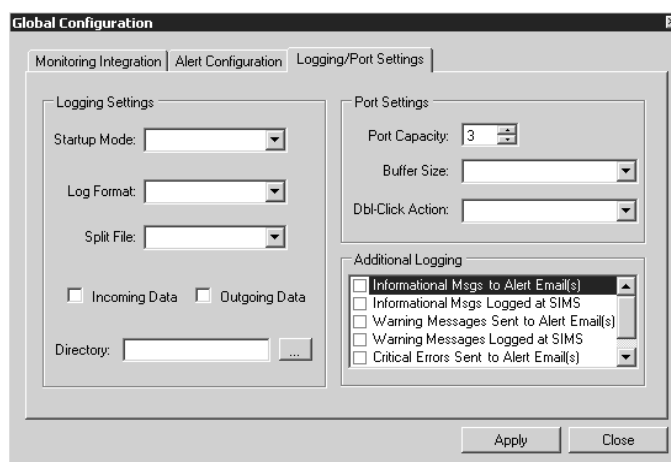


Figure 13 - Logging/Port Settings Tab

Logging Settings: SIMS Receiver server allows you to keep a log of the data coming through the serial ports.

Note: Normally, this should only be enabled temporarily for diagnostic purposes. The sizes of these log files increase so fast, that it could fill up your hard disk in a short time.

- **StartUp Mode:** Select the logging mode desired: Do not log (log disabled) or Log Always (log

enabled). Normally the option Do Not Log should be selected.

- **Log Format:** Select the format that will be used when writing to the log files: Raw data, Text file or Vapor Paper style.
- **Split File:** Select how often you desire the log file be split into a new file (hourly, daily or montly). Splitting the file more often will result in smaller files.
- **Incoming Data:** Check this entry if you want to log incoming data (from the receiver).
- **Outgoing data:** Check this entry to log outgoing data (replies from the computer to the receiver).
- **Directory:** Enter the directory where the log file will be created. The filename will be determined automatically based on the log format and the split file settings. You can use the button provided adjacent to the field to browse for the directory.

Port Settings: This option allow you to set the number of ports SIMS Receiver Server will be monitoring.

- **Port Capacity:** Select the number of ports that you need to have active. Set this number only as high has needed to conserve resources.
- **Buffer Size:** Select the size of the buffer used for the interface display. This does not affect how data is

stored or handled, only the size in the interface display (see Figure 12).

- **Dbl-Click Action:** Select the action that will be performed when you double click on the interface display.

Additional Logging: Here you have a list of additional information that can be included in the log file. Click on the checkbox corresponding to the item(s) you want to include.

Port Configuration

Refer to page 12 for details on this subject.

Help Menu

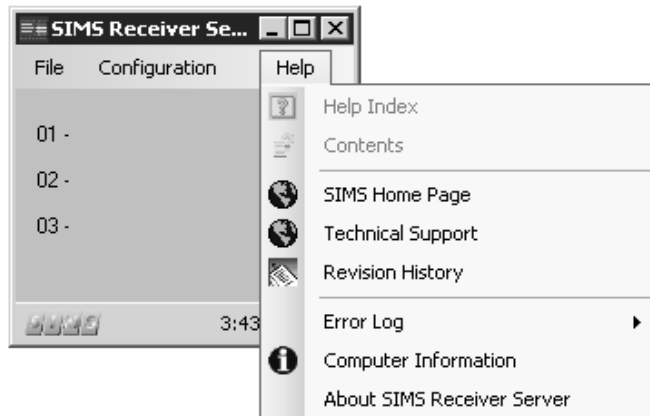


Figure 14 - Help Menu

Options from this menu will give you access to several options that will provide you assistance on how to run the program and troubleshooting.

Help Index

Give you access to the on-line help index (*not currently implemented*).

Contents

Give you access to the on-line help content (*not currently implemented*).

SIMS Home Page

A quick access link to SIMS home page (www.simsware.com).

Technical Support

A quick access to the support area of the SIMS web page (<http://support.simsware.com/>).

Revision History

Give you access to the on line revision history for the program: <http://notes.simsware.com/?060202>

Error Log

Displays a sub menu with two options:

View Error Log: Displays a text file with the SIMS Receiver Server error log. This information could be requested for SIMS Technical staff for

troubleshooting purposes.

Clear Error Log: This selection will clear the content of the SIMS Receiver Server Error Log.

Computer Information

Not currently implemented.

About SIMS Receiver Server

It will display a window displaying information about the SIMS Receiver Server. See Figure 15.



Figure 15 - About SIMS Receiver Server



Functional Overview

