TUNSTALL NURSECALL INFORMATION SYSTEM
User Guide

February 1, 2002
Revision 1.2

JS Bitstream

Revision History

Date	Author	Changes Made	Revision
Aug 26th, 2001	Steve Restivo	New Release	1.0
October 1, 2001	Steve Restivo	Chart Update	1.1
February 1, 2002	Steve Restivo	General Update	1.2

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Preface

This manual applies to the Tunstall Nursecall Information System application. It provides general information and specific instructions on:

- Using the TNIS package.

This manual should be used as:

- A reference guide for system engineers and technicians responsible for installing and configuring the software.
- An operation guide for everyday users.

This manual assumes the reader has a sound knowledge of Windows NT / Windows 2000.

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Section 1 - Introduction

Overview

The Tunstall Nursecall Information System (TNIS) package is a unique application that complements your Tunstall Nurse Call system. The TNIS records detailed information about all the calls made on the Tunstall system and allows reports and charts to be created in order to analyse this data. The TNIS is essential for monitoring your staff and facility.

Requirements

Hardware

To use the TNIS Package, you need the following:

- An IBM-Compatible computer with a Pentium III or compatible processor; 233 MHz or better is recommended.
- A minimum of 64 MB (megabytes) of RAM. (Random access memory)
- A hard disk with 2 GB (gigabyte) of free disk space.
- A 8x CD-ROM drive or better.
- A VGA (or better) video card and monitor; a display system capable of a least 256 colors with a screen resolution of at least 800 X 600 is recommended.
- A printer supported by your operating system, if you plan to print reports or charts from the TNIS.
- At least one serial port.

Software

The computer requires the following operating system and software packages loaded onto its hard drive:

- Either Windows NT 4.0 (with service pack 6 or later) or Windows 2000 (with service pack 2 or later)
- TNIS software

The TNIS software must be installed after the standard Windows NT or Windows 2000 operating system and service packs have been installed.

Content Of The Manual

This manual explains the installation, configuration, and operation of the Tunstall Nursecall Information System software.

SECTION 1 - INTRODUCTION

Provides a summary of the main features of the Tunstall Nursecall Information System software package, and a list of the hardware and software requirements.

SECTION 2 - INSTALLATION

Describes how to install the Tunstall Nursecall Information System software package.

SECTION 3 - CONFIGURATION

Describes how to configure the Tunstall Nursecall Information System software package.

SECTION 4 - OPERATION

Describes how to use different functional modules of the Tunstall Nursecall Information System software package.

SECTION 4 - CONTACTS

List of contacts.

Section 2 - Installation

Tunstall Nursecall Information System Installation

Hardware Installation

All hardware should be installed prior to software installation.

Software Installation

If the computer operating system is not loaded, follow the installation procedure described in the Windows NT/2000 Installation Manual to install:

- Operating System
- Service packs

To install the TNIS package complete the following steps:

1. Shut down all running applications and any virus protection software you may have. (Some virus protection software can interfere with the installer)
2. Insert the TNIS CD into your computer's CD-ROM drive.
3. On the your computer's CD-ROM drive double click the MSDEInstall.exe. Follow the on screen directions until set-up is complete.

   Note: Install my take several minutes. Please wait until you see "Finish" before continuing setup.
4. Click "Finish" and reboot the computer.
5. Next, ensure that the MSSQL Server is running. From the "Start/Programs/MSDE/" menu click "Service Manager"

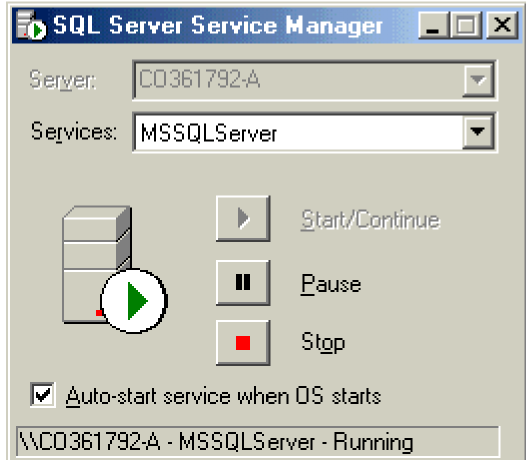


Figure 1 - SQL Server

- Verify that there is a green arrow displayed on the server icon. (Figure 1)
- If the server is not running follow the steps below:
    - Select “MSSQL Server” from the “Services” dropdown box and click the “Start/Continue” arrow.
    - Wait until you see the green arrow icon that verifies that the server is running.
- Once the server is running ensure that the “Auto-start service when OS Starts” check box is selected and close the window.

Note: The server must be running at all times.

6. Next, on the your computer’s CD-ROM drive double click the TNISInstall.exe. Follow the on screen directions until set-up is complete. Click “Finish” and reboot the computer.

7. Next, you must create an ODBC data Source. From the Control Panel (Start/Settings/Control Panel) double click the “ODBC Data Sources (32bit)” icon.

   - From the “System DSN” Tab click the “Add” button.

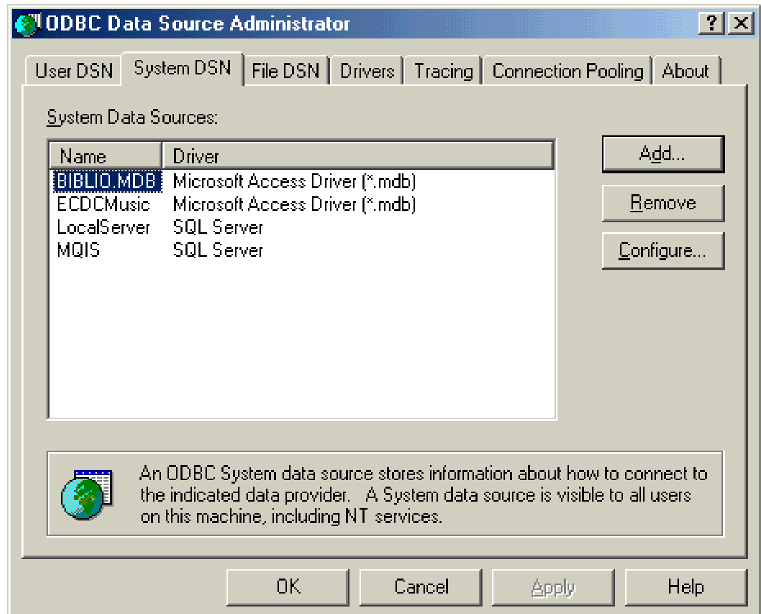


Figure 2 - ODBC Data Source

   - Select the “SQL Server” driver from the list and click the “Finish” button.
   - On the next screen enter “sqlsrvpubs” in the Name text box and select “(local)” in the “Server” text box. Click next. (Figure 3)

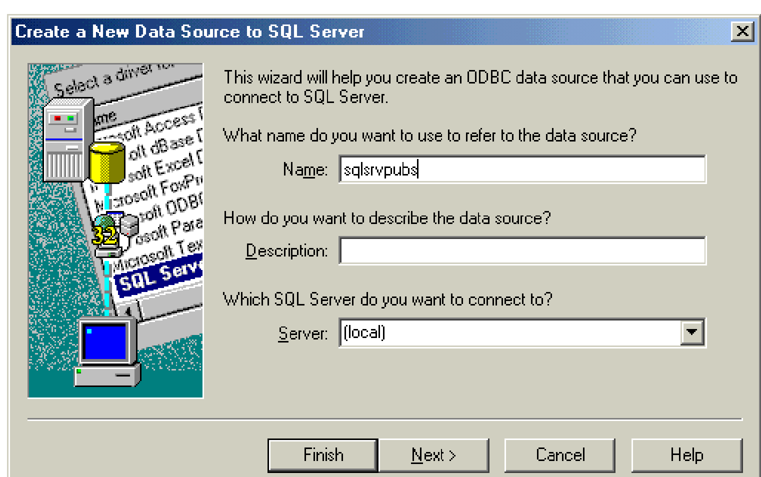


Figure 3 - DSN and Server

- On the next screen ensure the following:
    - Select “With SQL Server authentication using a login ID and password entered by the user”
    - Deselect “Connect to SQL server to obtain default settings for the additional configuration options.”
- Accept the default settings on the next screen and click “Next”.
- Accept the default settings on the next screen and Click “Finish”.
- Click “Test Data Source” to verify the connection.
- Click “OK” to complete the task.

8. Software installation is complete.

Section 3 - Configuration

Tunstall Nursecall Information System Configuration

The majority of TNIS is pre-configured. There are, however, a few steps that need to be performed in order to run and utilize the full power of the application. To start the application, select the TNIS icon under the “Start” “Programs” menu of your computer.

Serial Port Configuration

The first step involved in setting up your application is to configure the serial port(s). Under the “Settings” menu choose the Serial Port item. The following window will appear.

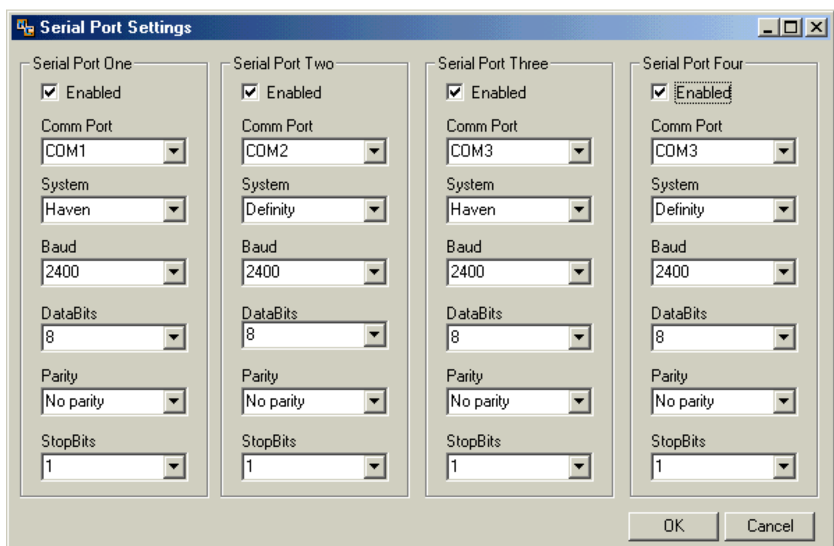


Figure 4 - Serial Port Settings

From this window, simply enable the appropriate Serial Port(s) and select the proper settings from the drop down lists. Once you have made your selections click “OK” to confirm them and close the window.

Important: The standard Tunstall system typically uses the following settings:

- Baud = 2400
- DataBits = 8
- Parity = No parity
- StopBits = 1

If the above settings do not work please contact your Tunstall service agent.

Time Limits

The next step in configuring your application is to set the “Time Limits” for the report. Under the “Settings” menu choose the “Time Limits” item. The following window will appear.

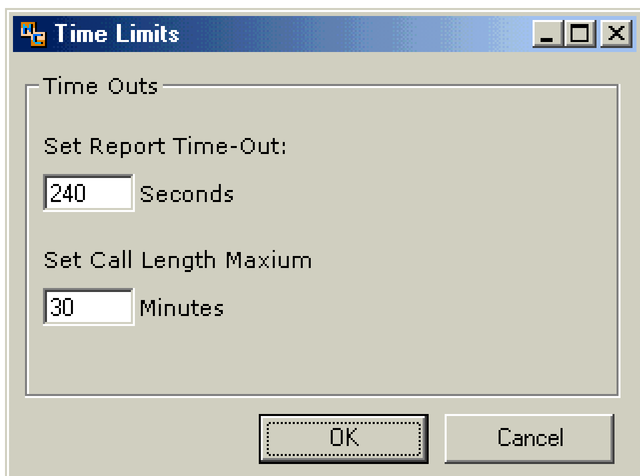


Figure 5 - Time Limits

The “Time Limits” window contains the following two settings: “Set Report Time-Out” and “Set Call Length Maximum”.

The “Set Report Time-Out” setting is the amount of seconds that the report will attempt to retrieve data from the data-base. The default setting is 240 seconds. (4 Minutes) The only reason for adjusting this setting would be if your reports were receiving time-out errors. If this occurs simply increase the “Set Report Time-Out”.

The “Set Call Length Maximum” is the amount of time in minutes that the application will search for the answer (clear) to a call. In some situations a “Call” may be placed and for some reason never “Cleared”.

For Example: A call was placed at 9:00PM and at 9:02PM the system was shut down. (i.e. due to maintenance or power failure)

In this situation the call will never be Cleared. The “Set Call Length Maximum” allows the user to define the amount of time that the application will search for a Clear before timing-out. If the “Clear” exceeds this limit the call will be deleted. The default setting is 30 minutes.

ID and Zone Configuration

Configuring your TNIS involves entering the Unit ID's (Room Numbers) used on your Tunstall system and assigning these ID's to user-defined "Zones". The idea of assigning ID's to zones is an extremely powerful tool. This tool allows you to query the call information on your system not only by Unit ID but also by a group of ID's (zones) that you can personally configure and name.

Entering ID's and Zones

To enter ID's and create Zones simply click on the "Configure" menu item and select "Modify Configuration". The following window will appear:

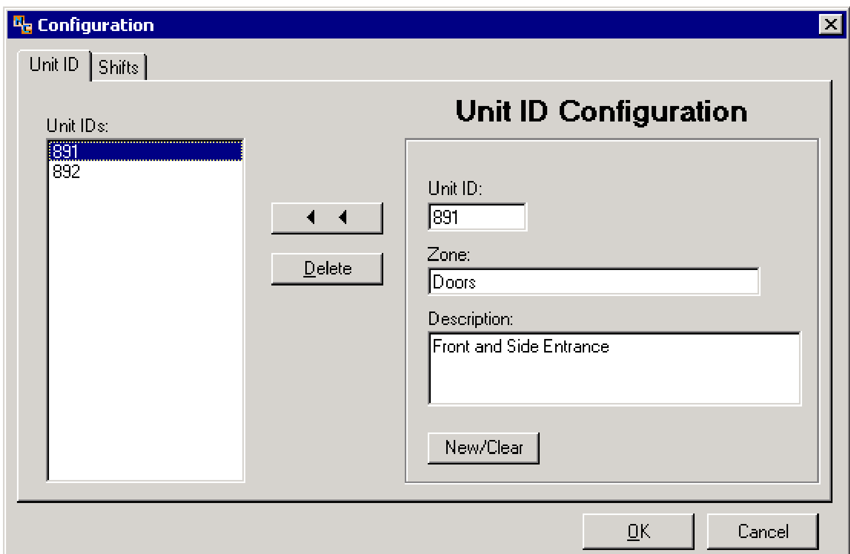


Figure 6 - ID/Zone Configuration

To enter an ID follow the steps below:

1. Click the "New/Clear" button.
2. Enter the Tunstall ID into the "Unit ID" text box.
3. Next, enter the zone name in the "Zone" text box. The zone is the group with which you want this ID to be associated. For example: If the Unit ID was on the 2nd floor of the residence you may want to call the zone "Second Floor".

4. Next, enter a description in the “Description” text box. This section simply allows you to write a more explanatory description of the ID. For example: You could enter the location of that ID and the name of the resident.
5. Next, click the  button to save your ID, Zone and Description. Your new ID should now be visible in the “Unit ID’s” list box on the left side of the configuration window.
6. Repeat this process until you have entered all of the Unit ID’s.
7. Click “OK” to close the configuration window.

Editing ID’s and Zones

After you have entered your ID’s and Zones you can edit them at any time. To edit them follow the steps below:

1. Click on the “Configure” menu item and select “Modify Configuration”.
2. Select the ID you wish to edit from the “Unit ID’s” list box located on the left side of the configuration window. The selected ID’s information will be displayed in the appropriate text boxes on the right. Next, simply modify the fields you wish to change and click the  button to save your changes.
3. Click “OK” to close the configuration window.

Deleting ID’s and Zones

After you have entered your ID’s and Zones you can delete them at any time. To delete an ID follow the steps below:

1. Click on the “Configure” menu item and select “Modify Configuration”.
2. Select the ID you wish to delete from the “Unit ID’s” list box located on the left side of the configuration window.
3. Click the 

button to delete the specific ID.
4. Click “OK” to close the configuration window.

Shifts

The final step in configuring your application is to create user-defined shifts. The unique ability to create shifts allows the user to query all call information on your system by a specific time period (shift). This facility allows managers to view crucial data that enables them to properly staff and manage their facility by knowing which time shifts are the busiest. This not only saves the facility money, but also provides the data that can ensure that residents are properly taken care of.

Creating Shifts

To create user-defined shifts simply click on the "Configure" menu item and select "Modify Configuration". Once the "Modify Configuration" screen is opened click on the "Shifts" tab. The following window will appear:

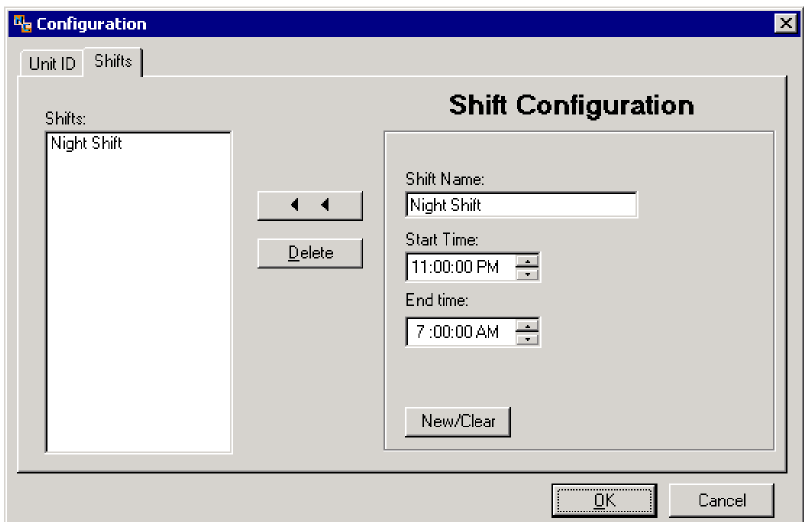


Figure 7 - Shift Configuration

To enter a shift, follow the steps below:

1. Click the "New/Clear" button.
2. Enter a shift name into the "Shift Name" text box. (i.e. Day)
3. Enter the shift start time in the "Start Time" text box.
4. Enter the shift end time in the "End Time" text box.
5. Next, click the button to save your shift. Your new shift should now be visible in the "Shifts" list box on the left side of the configuration window.

6. Repeat this process until you have entered all of your shifts.
7. Click “OK” to close the configuration window.

Editing Shifts

After you have created your shifts you can edit them at any time. To edit them follow the steps below:

1. Click on the “Configure” menu item, select “Modify Configuration” and click on the “Shifts” tab.
2. Select the shift you wish to edit from the “Shifts” list box located on the left side of the configuration window. The selected shift’s information will be displayed in the appropriate text boxes on the right. Next, simply modify the fields you wish to change and click the  button to save your changes.
3. Click “OK” to close the configuration window.

Deleting Shifts

After you have entered your shifts you can delete them at any time. To delete a shift follow the steps below:

1. Click on the “Configure” menu item, select “Modify Configuration” and click on the “Shifts” tab.
2. Select the shift you wish to delete from the “Shifts” list box located on the left side of the configuration window.
3. Click the  button to delete the specific shift.
4. Click “OK” to close the configuration window.

Section 4 - Operation

Overview

This section of the User's Guide provides specific instructions on the everyday use of the Tunstall Nursecall Information System application.

Reports

The TNIS has the ability to create various reports that give detailed information about all the call activity on your Tunstall system. This section will describe how to create and understand the assortment of reports.

Reports – All Calls

The first report is the "All Calls" Report. This report is an extremely powerful tool that enables a user to view all of the call information on the Tunstall system.

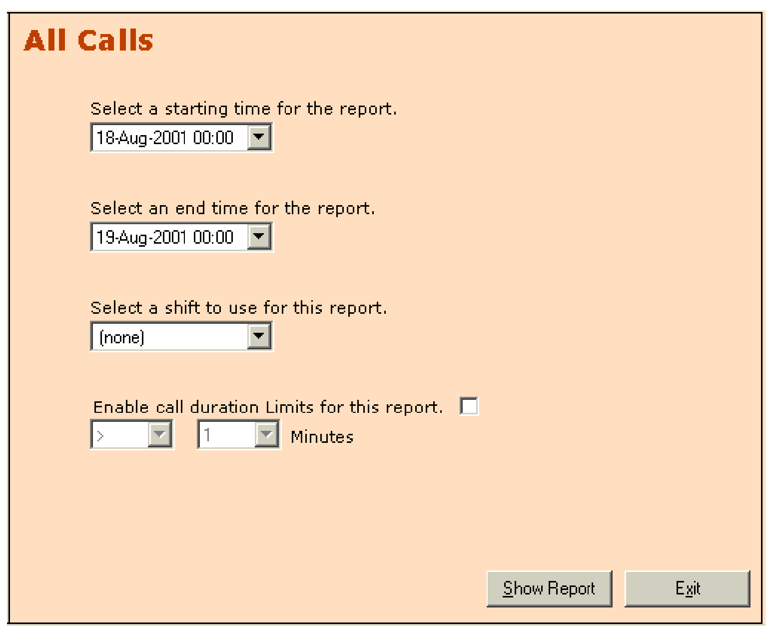


Figure 8 - All Calls Report Criteria

To create an “All Calls” report, follow the steps below:

1. Select “All Calls” from the menu bar on the left hand side of the screen.
2. Select a start and end time for the report. This is the time range that the report will display.
3. Select a shift for which you want the report to return data. For example: If you chose a shift (i.e. Day) that was configured as 7:00AM to 3:00PM, the report would display only data that occurred between that time range. By default “(none)” is selected, meaning no shift information will be used in the report.
4. Next, if you wish you may enable “call duration limits” for your report. You would use this option if you wanted the report to display only the calls that had a duration either longer than or less that a specific amount of minutes. For example: If you wanted the report to show only the calls that had taken longer than 3 minutes to be cleared. By default “call duration limits” is disabled, meaning duration limits will not be used in the report.
5. Click the “Show Report” button in the bottom right hand corner of the application.

Reports – Calls by ID

The second report you can create is the “Calls by ID” report. This report has all the functionality of the “All Calls” report with the added capability of selecting calls by a specific ID.

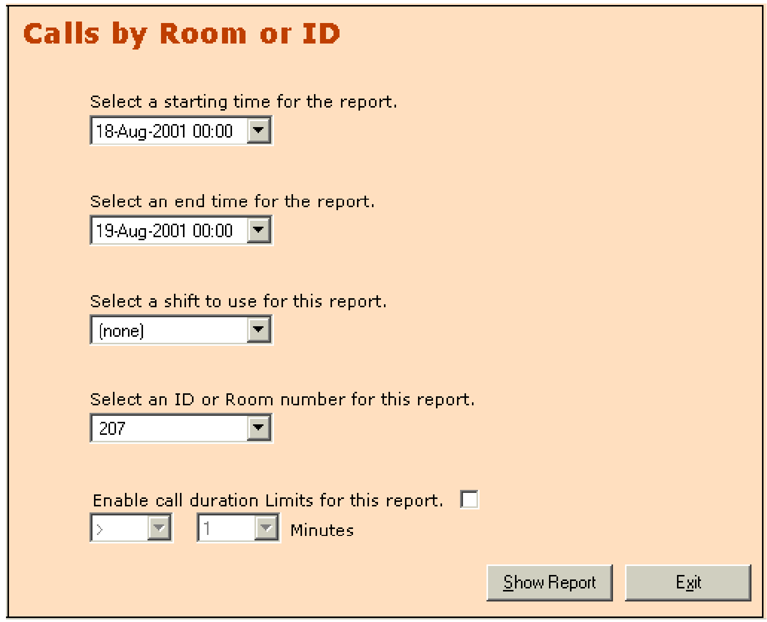


Figure 9 - Calls by ID Criteria

To create a “Calls by ID” report, follow the steps below:

1. Select “Calls by ID” from the menu bar on the left hand side of the screen.
2. Select a start and end time for the report. This is the time range that the report will display.
3. Select a shift for which you want the report to return data. For example: If you chose a shift (i.e. Day) that was configured as 7:00AM to 3:00PM, the report would display only data that occurred between that time range. By default “(none)” is selected, meaning no shift information will be used in the report.
4. Select the specific ID for which you wish to view the calls.
5. Next, if you wish you may enable “call duration limits” for your report. You would use this option if you wanted the report to display only the calls that had a duration either longer than or less that a specific amount of minutes. For example: If you wanted the report to show only the calls that had taken longer than 3 minutes to be cleared. By default “call duration limits” is disabled, meaning duration limits will not be used in the report.

6. Click the “Show Report” button in the bottom right hand corner of the application.

Reports – Calls by Zone

The second report you can create is “Calls by ID” report. This report has all functionality of the “All Calls” report with the added ability select calls by a specific Zone.

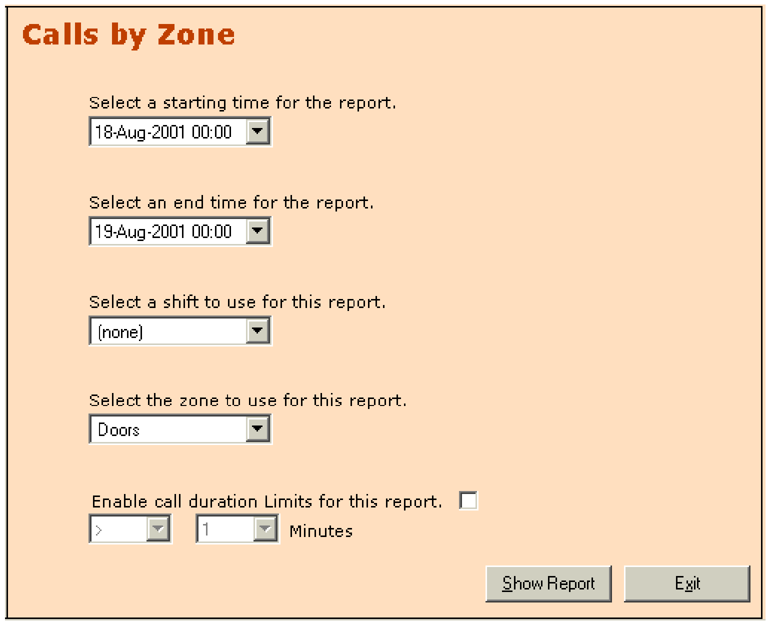


Figure 10 - Calls by Zone Criteria

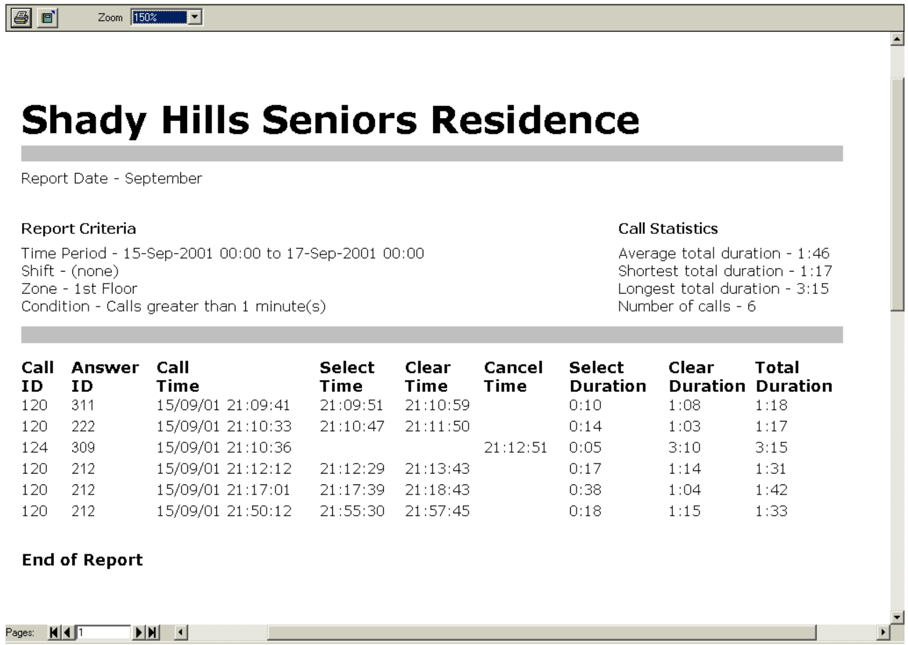
To create a “Calls by Zone” report, follow the steps below:

1. Select “Calls by Zone” from the menu bar on the left hand side of the screen.
2. Select a start and end time for the report. This is the time range that the report will display.
3. Select a shift for which you want the report to return data. For example: If you chose a shift (i.e. Day) that was configured as 7:00AM to 3:00PM, the report would display only data that occurred between that time range. By default “(none)” is selected, meaning no shift information will be used in the report.
4. Select the specific Zone for which you wish to view the calls.
5. Next, if you wish you may enable “call duration limits” for your report. You would use this option if you wanted the

report to display only the calls that had a duration either longer than or less that a specific amount of minutes. For example: If you wanted the report to show only the calls that had taken longer than 3 minutes to be cleared. By default “call duration limits” is disabled, meaning duration limits will not be used in the report.

6. Click the “Show Report” button in the bottom right hand corner of the application.

Viewing and Understanding the Reports



Zoom 150%

Shady Hills Seniors Residence

Report Date - September

Report Criteria

Time Period - 15-Sep-2001 00:00 to 17-Sep-2001 00:00
Shift - (none)
Zone - 1st Floor
Condition - Calls greater than 1 minute(s)

Call Statistics

Average total duration - 1:46
Shortest total duration - 1:17
Longest total duration - 3:15
Number of calls - 6

Call ID	Answer ID	Call Time	Select Time	Clear Time	Cancel Time	Select Duration	Clear Duration	Total Duration
120	311	15/09/01 21:09:41	21:09:51	21:10:59		0:10	1:08	1:18
120	222	15/09/01 21:10:33	21:10:47	21:11:50		0:14	1:03	1:17
124	309	15/09/01 21:10:36			21:12:51	0:05	3:10	3:15
120	212	15/09/01 21:12:12	21:12:29	21:13:43		0:17	1:14	1:31
120	212	15/09/01 21:17:01	21:17:39	21:18:43		0:38	1:04	1:42
120	212	15/09/01 21:50:12	21:55:30	21:57:45		0:18	1:15	1:33

End of Report

Pages: 1

Figure 11 - Completed Report

Facility Name

Displays the name of your facility.

Report Date

Displays the date the report was run.

Report Criteria

Displays the criteria used to create the report.

Call Statistics

Displays the statistics of the report.

Call ID

Displays the ID that made the call.

Answer ID

Displays the ID or Master Unit that answered the call.

Call Time

Displays the date and time that the call was made.

Select Time

Displays the time that the call was selected.

Clear Time

Displays the time that the call was cleared.

Cancel

Displays the time that the call was canceled.

Select Duration

Displays the duration of time between the call time and the select time.

Clear Duration

Displays the duration of time between the select time and the clear time.

Total Duration

Displays the duration of time between the call time and the clear time.

Printing and Exporting Reports

TNIS allows the user to both print and export reports.

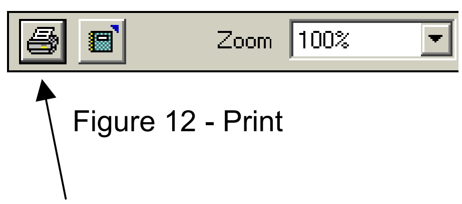


Figure 12 - Print

To print a report, simply click the printer icon located at the top of the report window. This will display the printer dialogue box that will allow you to print your report.

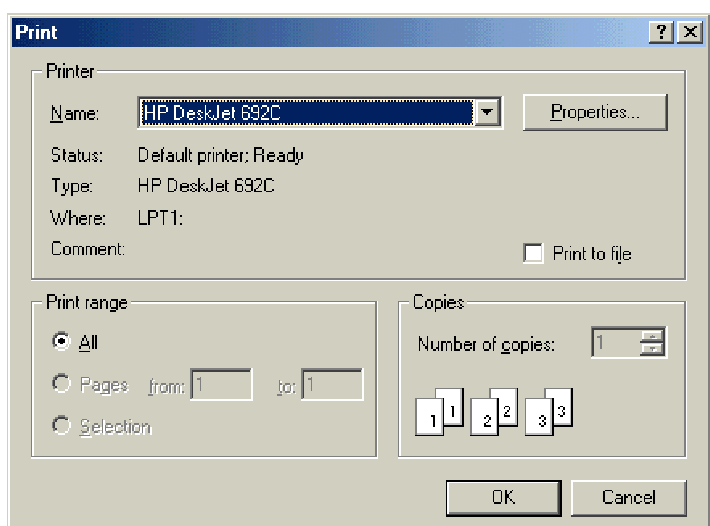


Figure 13 - Print Dialogue box

Figure 14 - Export Report

To export a report, simply click the export icon located at the top of the report window. This will display the export dialogue box that will allow you to save your report.

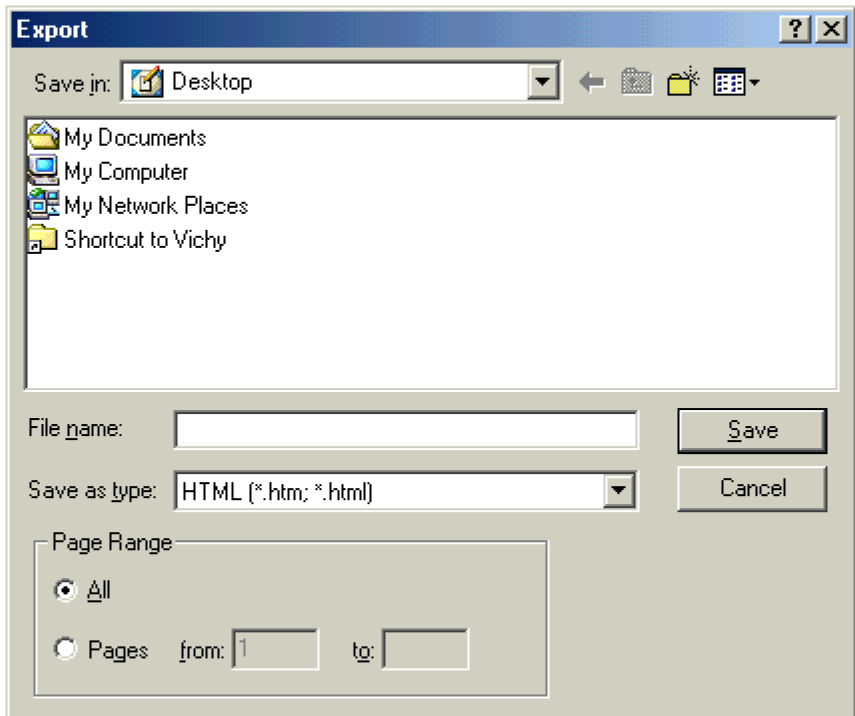


Figure 15 - Export Dialogue Box

Note: TNIS allows the user to export a report as either a text or an html file.

Distribution Charts

Distribution Charts is a powerful tool that allows users to view the amount of calls that their facility receives in a graphical chart format. This feature, like the reporting feature, allows the charts to show data for "All Calls", "Calls by ID" and "Calls by Zone". Furthermore, the charts can display data for a "24 hour period", a "31 day period" or a "52 week period".

Charts – All Calls

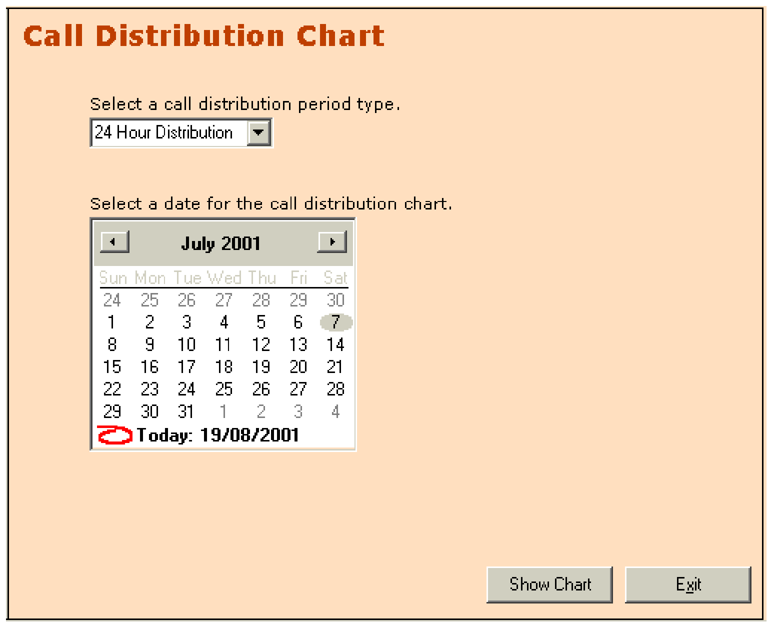


Figure 16 - Call Distribution Chart

To create a distribution chart simply follow the steps below:

1. Select a "call distribution period type" from the drop down box.

   24 Hour Distribution – Number of calls per hour for a 24 hour period.

   31 Day Distribution – Number of calls per day for a 31 day period.

   52 Week Distribution – Number of calls per week for a 52 week period.

2. Select a start date for the call distribution chart. For example: If you chose a 52 Week Distribution period with a start date of Dec 1st 1999, the report would show the amount of calls per week for 52 weeks starting on Dec 1st 1999.

3. Click the “Show Chart” button located at the bottom of your screen.

Charts – Calls by ID

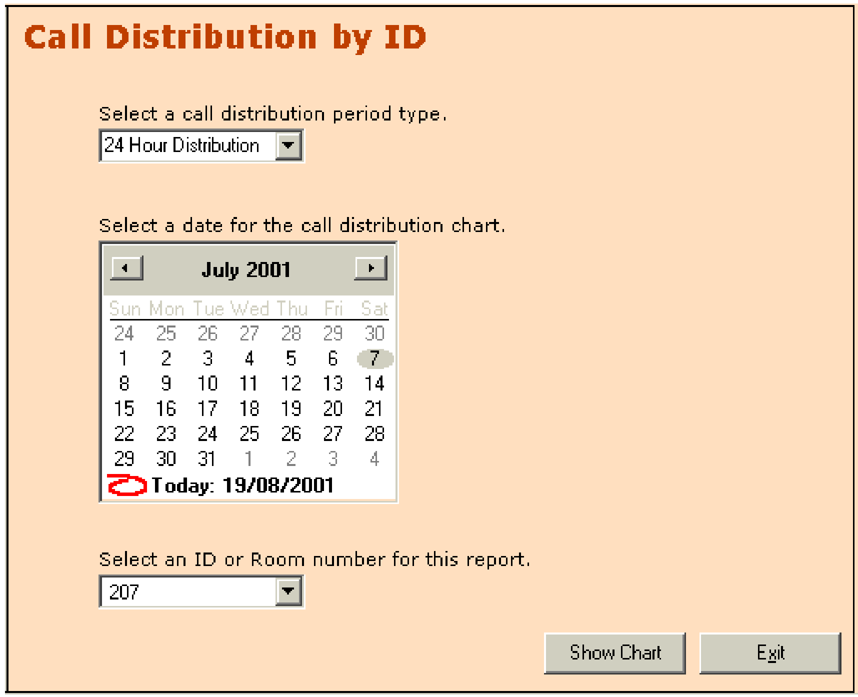


Figure 17 - Call Distribution by ID

The “Call Distribution by ID” is the same as the “All Calls” distribution chart except that it allows you to chart the number of calls for a specific unit ID.

To create a “Call Distribution by ID” chart simply follow the steps below:

1. Select a call distribution period type from the drop down box.

   24 Hour Distribution – Number of calls per hour for a 24 hour period.

   31 Day Distribution – Number of calls per day for a 31 day period.

   52 Week Distribution – Number of calls per week for a 52 week period.

2. Select a start date for the call distribution chart. For example: If you chose a “24 Hour Distribution” period with a start date of May 3rd 2001, the report would show the amount of calls for that day’s 24 hour period.

3. Select the unit ID for which you would like the results displayed.
4. Click the “Show Chart” button located at the bottom of your screen.

Charts – Calls by Zone

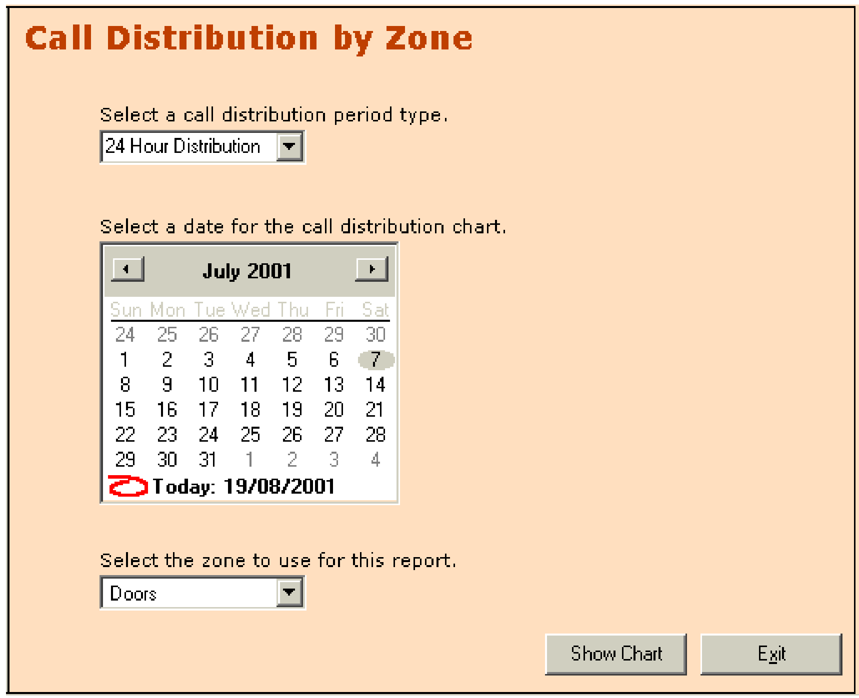


Figure 18 - Call Distribution by Zone

The “Call Distribution by Zone” is the same a the “All Calls” distribution chart except that it allows you to chart the number of calls for a specific zone.

To create a “Call Distribution by Zone” chart simply follow the steps below:

1. Select a call distribution period type from the drop down box.

   24 Hour Distribution – Number of calls per hour for a 24 hour period.

   31 Day Distribution – Number of calls per day for a 31 day period.

   52 Week Distribution – Number of calls per week for a 52 week period.

2. Select a start date for the call distribution chart. For example: If you chose a 31 Day Distribution period with a start date of April 5th 2001, the report would show the amount of calls per day for 31 days starting on April 5th, 2001.
3. Select the Zone for which you want the results displayed.
4. Click the “Show Chart” button located at the bottom of your screen.

Charts Viewing and Printing

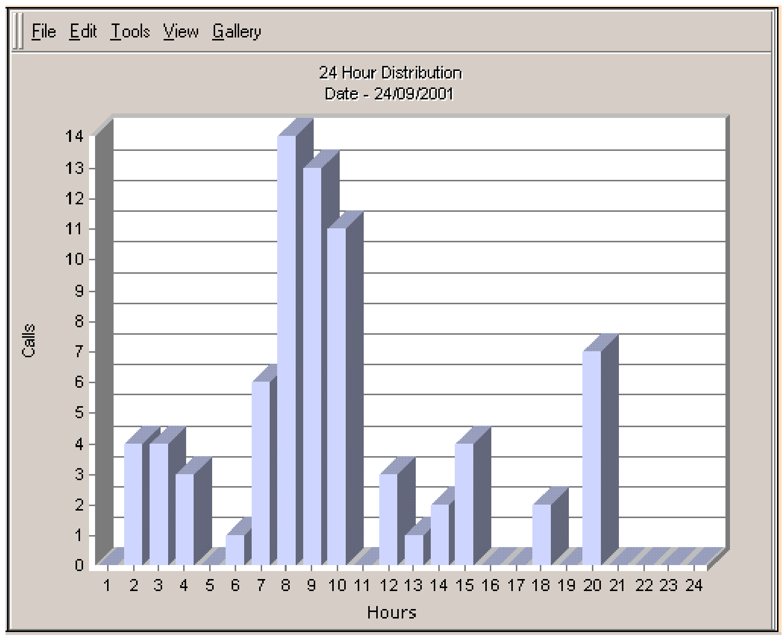


Figure 19 - Call Distribution Chart

The completed chart is easy to read. It shows the number of calls on the y-axis and the hours on the x-axis. These charts prove to be invaluable when trying to staff and monitor a facility. For example: This chart shows that the hour between 8:00AM and 9:00AM was the busiest time of the day. This may enable a manager to either put more staff on at this particular hour or to prohibit staff breaks during this time period.

The menu at the top of the chart gives the user the following options:

File

Under the “File” menu the user can save or print the chart.

Edit

Under the “Edit” menu the user can copy the chart to the clipboard.

Tools

Under the “Tools” menu the user can select whether or not to display the chart toolbar.

View

Under the “View” menu the user can choose whether to view the chart in “3D” or “2D”.

Gallery

Under the gallery menu the user can select the style of chart they wish to view.

System Activity Log

The system activity log allows the user to view the raw data that is received from the Tunstall system.

To view the system activity log, click on the “System Activity Log” button from the menu on the left hand side of the screen.

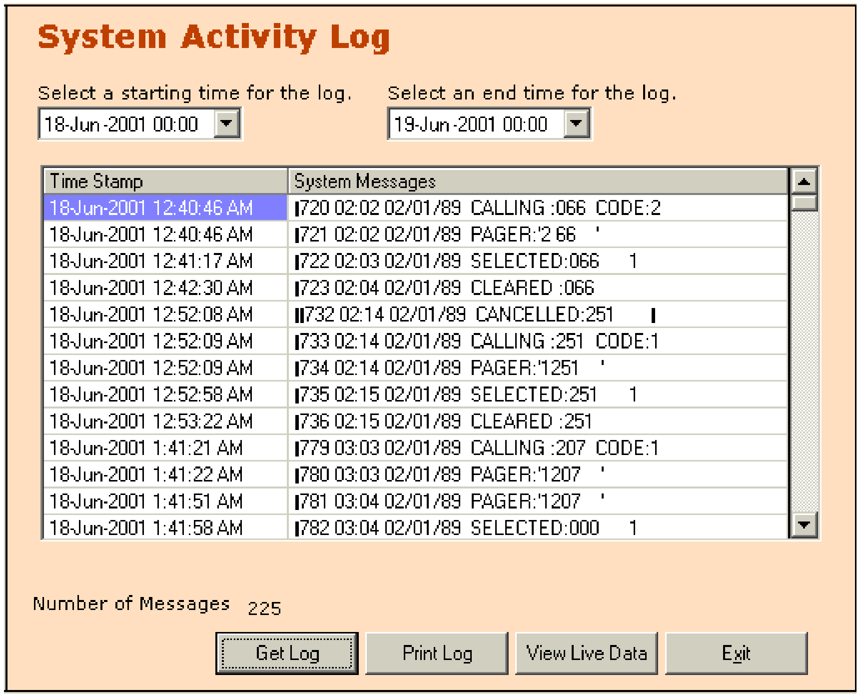


Figure 20 - System Activity Log

To use the system activity log follow the steps below:

1. Select a start time.
2. Select a start time.
3. Click the “Get Log” button.

Note: You may also print the activity log by clicking the “Print Log” button.

Furthermore, the “System Activity Screen” allows you to view live system messages. To do this simply click on the “View Live Data” button located at the bottom of the screen. The window below will be displayed.

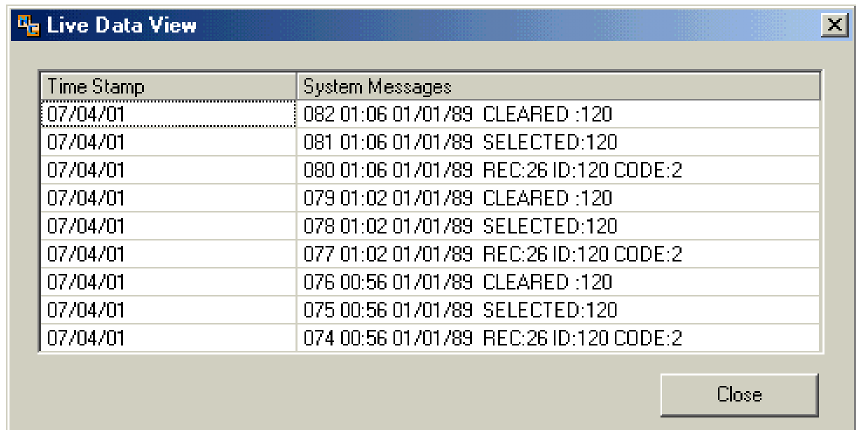


Figure 21 - Live Data View

Connection Status

The purpose of this screen is to monitor and control the communications status of your system.

To view the "Connection Status" screen, click on the "Connection Status" button from the menu on the left hand side of the screen.

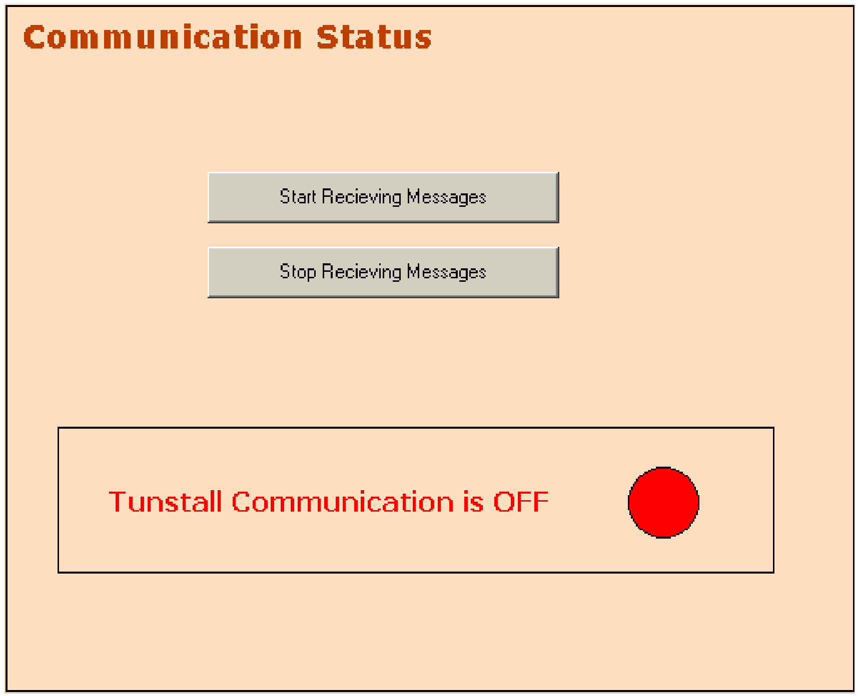


Figure 22 - Communication Status

The display on the bottom of the screen will show the current communication status. To start or stop the communications simply click the appropriate button.

Section 5 - Contacts

Contacts

If you have any questions or need any further information on your TNIS, please contact your Tunstall service agent or contact JS Bitstream Inc.

Tunstall Canada Inc.

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