Serial Com File Transporter

User Guide

Version 1.0 ●March 18, 2014

This User Guide provides instructions on how to use the application.

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User Guide

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About this Guide

This document is divided into the following chapters:

Chapter	Title	Description
Chapter 1	Introduction	Overviews the applications functionality and support.
Chapter 2	Step By Step Instructions	Provides detailed instructions on using the application.
Appendix A	Glossary	A glossary of terms / abbreviations used throughout this document.

For the most current version of this document, please visit: **http://www.kanepiservices.com.au**.

Who Should Use It

This document is intended for end users and administrators who are using the Serial Com File Transporter application.

Typographical Conventions

This document uses the following typographical conventions:

- Items you click, select or drag and drop appear in **bold type**.
- Keys that you press appear in **bold type** after the text 'press' i.e. Press **Enter**.
- Text of importance in a statement describing functionality appears in **bold** font.
- Menu and submenu paths are shown as **MENU > SUBMENU**.

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1 Introduction

Segregation of Process Control Networks (PCN) / Integrated Control and Safety Systems and business networks (company intranets) is paramount to ensure the integrity of the process being controlled (cyber security, virus propagation, prevent unauthorised access etc.).

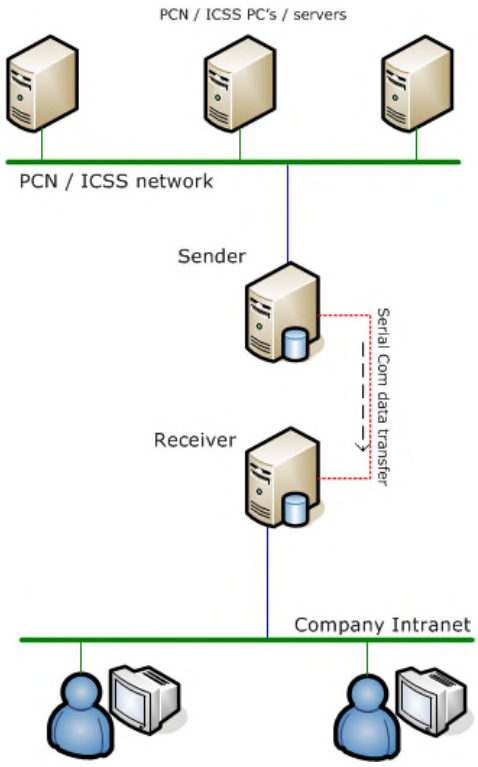
Access for business users / applications can be achieved with a demilitarised zone (DMZ) / firewalls, although in many companies this level of infrastructure does not exist at all operating assets and facilities which results in critical data being isolated on the PCN or ICSS network.

The Serial Com File Transporter (SCFT) unlocks this siloed data while maintaining system integrity by using serial communications.

1.1 General functionality

The following provides a general overview on the functionality associated with the Serial Com File Transporter.

- The Serial Com File Transporter consists of two applications:
    - **Sender** application which is installed on the PC / server that is **connected to the system from where files originate** e.g. a Process Control Network (PCN) or Integrated Control and Safety System network (ICSS).
    - **Receiver** application which is installed on the PC / server that is **connected to the system where files are to be received** and made available e.g. a business network / company intranet.



- A license key is required after installing the Sender and / or Receiver applications. The Serial Com File Transporter licensing screen is the first screen shown after installing the Serial Com File Transporter and provides information (being the Application Name and the MAC address of the laptop / PC / server the Serial Com File Transporter has been installed on) that must be entered into the kanepi Services licensing web page (http://www.kanepiservices.com.au/licensing-other-products), after which a license key will be emailed to the user. This requirement is further detailed in the Serial Com File Transporter Installation Guide.

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- Once installed and configured as detailed in the Serial Com File Transporter Installation Guide the Sender PC will move any files (of the configured file types) to the Receiver PC at the specified interval period (in minutes).

1.2 Support

Email support is available for the Serial Com File Transporter at support@kanepiservices.com.au during normal business hours (Australian Western Standard time, Monday to Friday excluding public holidays).Typically support queries for the Serial Com File Transporter will be answered within 24 hours.

1.3 File transfer times

The following shows approximate times taken by the Serial Com File Transporter to transfer files of various sizes via serial communications between the Sender and Receiver PC's.

File size	Transfer time
9 KB	1 second
20 KB	2 seconds
60 KB	7 seconds
170 KB	16 seconds
688 KB	64 seconds
1.29 MB	1 minute 49 seconds
2.305 MB	3 minutes 27 seconds
5.626 MB	8 minutes 20 seconds

1.4 Batch Files

Batch files are typically used to transfer files from the PCN / ICSS resident PC's / servers to the Sender server / PC folder monitored for the configured file types. Scheduled tasks are then used to periodically run these batch files. For examples of batch files email support@kanepiservices.com.au.

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2 Step by Step Instructions

2.1 Sender Application instructions

The following sections describe tasks commonly performed by users of the Serial Com File Transporter Sender application.

2.1.1 Menu items

The following table describes the function of each of the menu items available with the Sender.

Main Menu Item	Dropdown	Description
File	License	Shows the Application Name / MAC Address / License Key.
	Log	Invokes the Sender log.
	Exit	Exits the application.
About		Provides version and copyright information. Additionally license and maintenance expiry details are shown.

2.1.2 Invoking the Serial Com File Transporter Sender

The Serial Com File Transporter Sender can be invoked by double-clicking on the Serial Com File Transporter Sender desktop icon.

2.1.3 Sender Service – must be stopped to make configuration changes

The Serial Com File Transporter Sender service must be stopped before any configuration changes can be made. All configurable items will be disabled (not selectable) when the Sender service is running.

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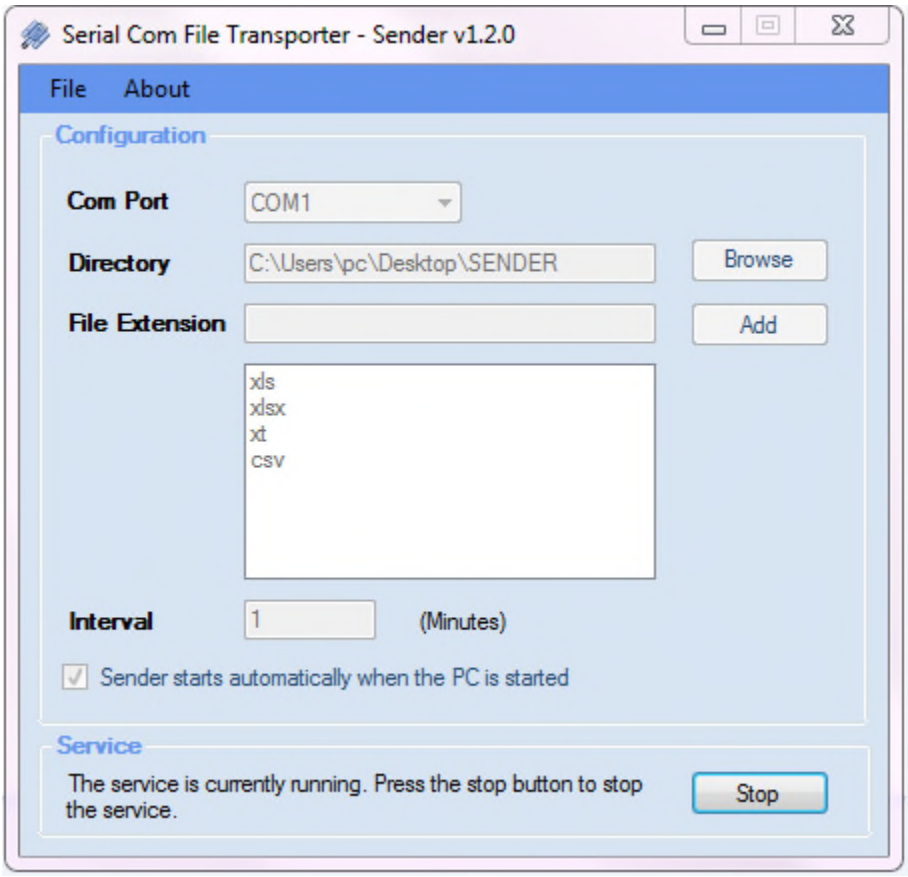
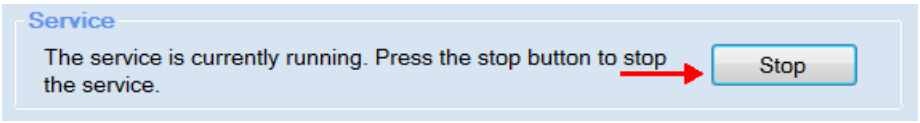


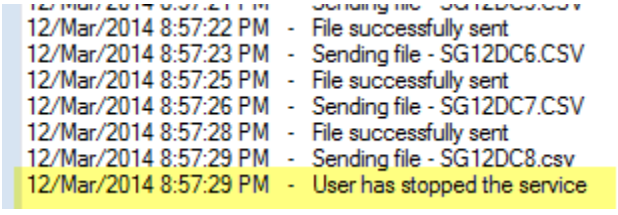
2.1.3.1 Manually stop the Sender service

If the Sender service is currently running then the **Stop** button will be displayed.

1. Click **Stop**.



2. The Sender service stops running. The log shows that the user has stopped the service.



2.1.3.2 Manually start the Sender service

If the Sender service is currently stopped then the **Start** button will be displayed and the service requires starting for Sender functionality to occur.

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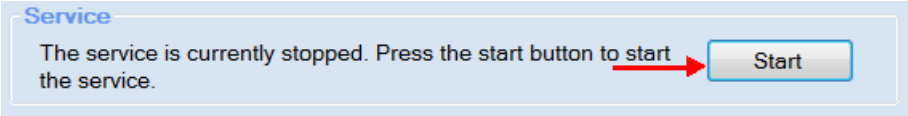
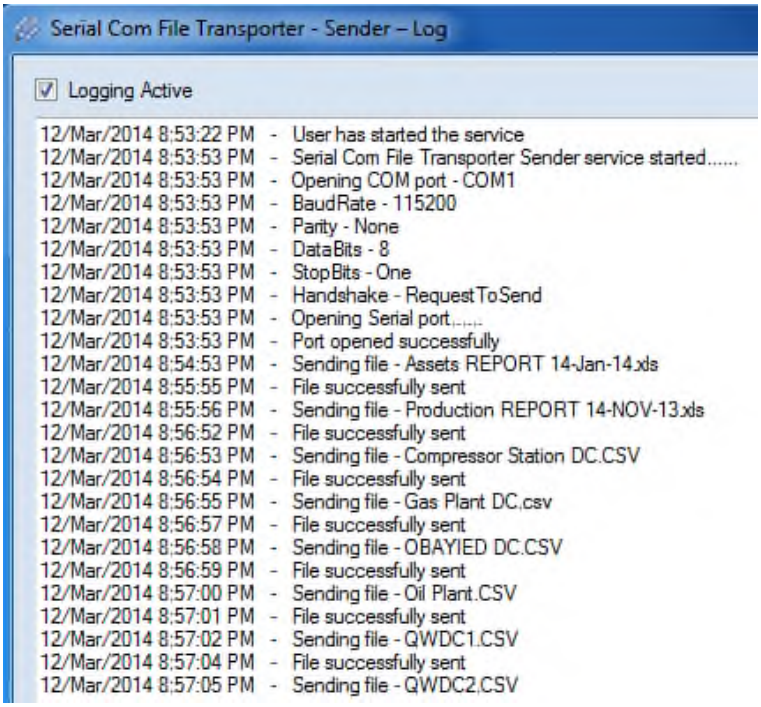
1. Click **Start**.



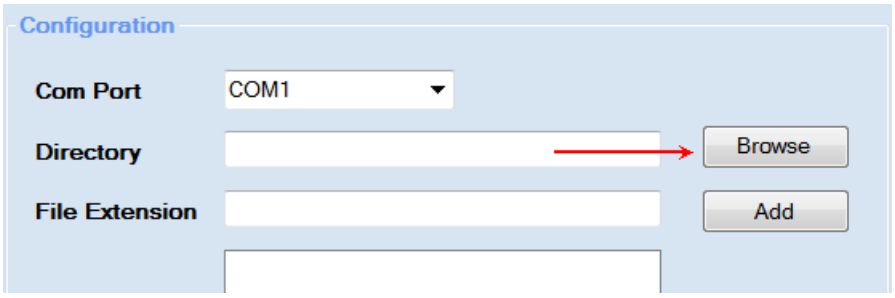
2. The Sender service commences running. The log shows functions peformed by the Sender service e.g. initially the Com port will be opened, baud rate etc. set and then file transfers will begin.



2.1.4 Configure the Sender folder to monitor

The Sender moves any files in a specific folder / directory to the Receiver at a specified interval. The **Directory** the Sender will monitor for files to move to the Receiver may be changed as required.

1. **Stop** the Sender service.
2. Click **Browse**.



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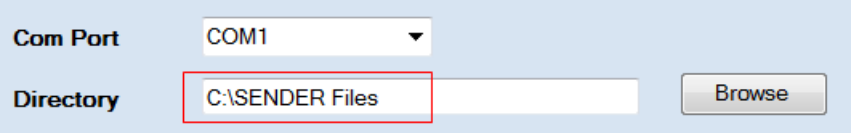
3. **Navigate** to the required folder.
4. Click **OK**.
5. The directory selected will be displayed.



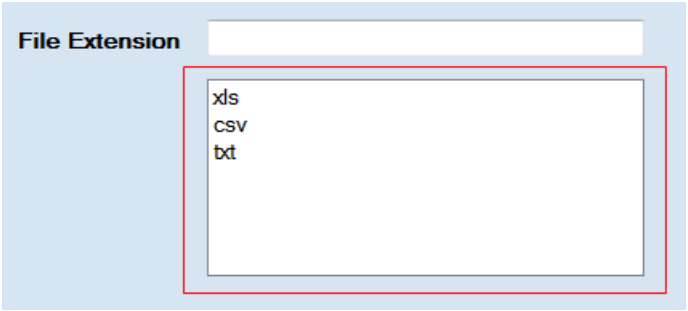
6. Click **Save**.

7. Click **OK** when the saved configuration confirmation is displayed.
8. **Start** the Sender service.

   The Sender will commence monitoring the newly specified directory when the service runs at the next interval period.

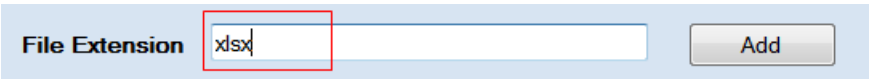
2.1.5 Add file extensions

The Sender monitors the specified directory for files of the types specified under **File Extensions**. When a file is found that has one of the listed file extensions it is moved to the Receiver. If files located in the directory have file extensions that are not listed under file extensions then the Sender ignores them (i.e. they will remain in the directory indefinitely).



Add to the **extensions** of file types that are to be moved.

1. **Stop** the Sender service.
2. Type the extension type that is to be added, for example **xlsx** (not case sensitive), into the **Field Extension** area.



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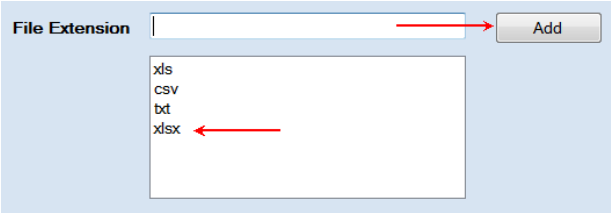
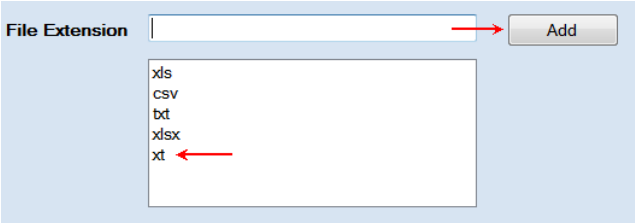
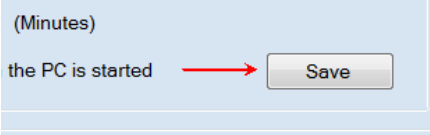
3. Click **Add** or press **Enter**. The xlsx text will be moved to the configured extension list.



4. Add additional extension types if required, for example **xt**, then click **Add**. The extension type will be moved to the configured extension list.



5. Once the required file extensions have been added click **Save**.



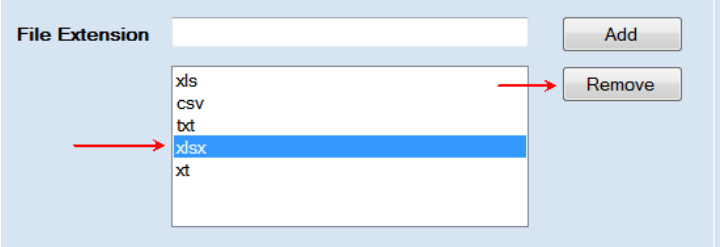
6. Click **OK** when the saved configuration confirmation is displayed.
7. **Start** the Sender service.

   The Sender will commence monitoring the specified directory for the listed file extension types, inclusive of newly added file extensions, when the service runs at the next interval period.

2.1.6 Remove file extensions

Listed file **extensions** can be removed if required. In this example xlsx file extension type will be removed.

1. **Stop** the Sender service.
2. Click the file extension type that is to be removed, in this example click **xlsx**. The selected extension type becomes highlighted and the **Remove** button becomes available.



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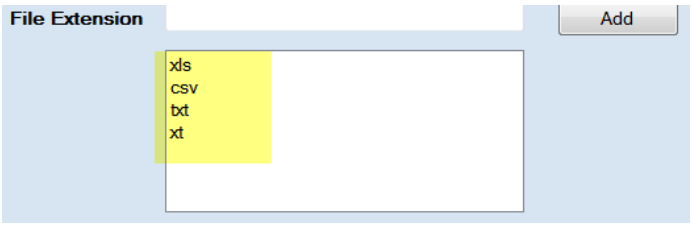
3. Click **Remove**.
4. The selected file extension (xlsx) is removed from the list.



5. Click **Save**.

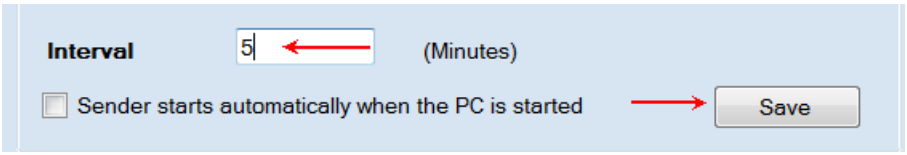
6. Click **OK** when the saved configuration confirmation is displayed.
7. **Start** the Sender service.

   The Sender will not check for the removed file extension type when the service runs at the next interval period.

2.1.7 Configure the interval

The interval specifies the time period in minutes between Sender service runs. The interval can be changed as required. The minimum interval is 1 minute.

1. **Stop** the Sender service.
2. Type the required interval period into the interval field, for example type ‘5’ to specify five minute intervals.



3. Click **Save**.

4. Click **OK** when the saved configuration confirmation is displayed.
5. **Start** the Sender service.

   The Sender will run at the newly entered interval period after the next service run.

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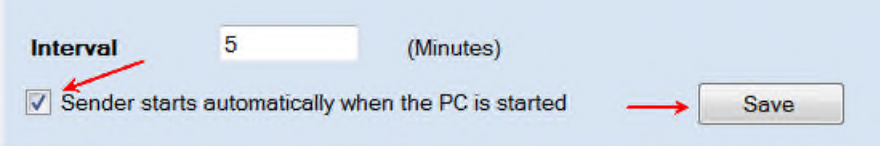
2.1.8 Sender service

The Sender service can be configured to automatically start whenever the PC is started (typical) or to wait for the user to manually start the service upon a restart.

2.1.8.1 Sender service to start automatically when PC is started

1. **Stop** the Sender service.
2. Check the **Sender starts automatically when the PC is started** checkbox then click **Save**.



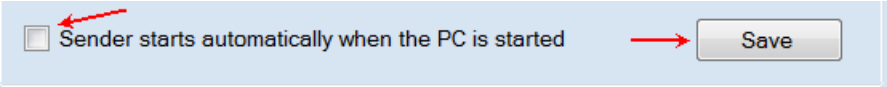
3. Click **OK** when the saved configuration confirmation is displayed.
4. **Start** the Sender service.

   The Sender service will automatically start when the PC / server is next restarted.

2.1.8.2 Sender service not to start automatically when PC is started

If the 'Sender starts automatically when the PC is started' checkbox is unchecked then users must manually start the service each time the associated PC / server is restarted. Failure to manually start the service will result in the Sender not performing any functionality until the service is manually started.

1. **Stop** the Sender service.
2. Uncheck the **Sender starts automatically when the PC is started** checkbox then click **Save**.



3. Click **OK** when the saved configuration confirmation is displayed.
4. **Start** the Sender service.

   The Sender service will not automatically start when the PC / server is next restarted.

2.1.9 Log

The log captures all functionality performed by the Sender when Logging Active is specified.

2.1.9.1 Invoke the log

The log is invoked via **File > Log** menu items.

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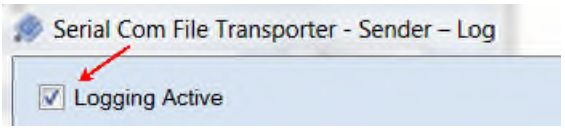
2.1.9.2 Activate the log

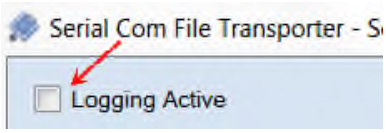
1. Check the **Logging Active** checkbox.



2. Close the log.
3. Log data will be captured.

2.1.9.3 Inactivate the log

1. Uncheck the **Logging Active** checkbox.

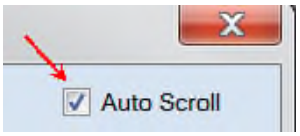


2. Close the log.
3. No logging data will be captured (however the Sender service will remain running if already started).

2.1.9.4 Activate auto scroll

The log displays logged data chronologically with the oldest log entry at the top of the log list and the most recent at the bottom. To monitor all current actions being logged the **Auto Scroll** checkbox must be checked meaning the scroll position will be automatically held at the bottom each time a new log entry is added to the log.

1. Check the **Auto Scroll** checkbox.



2. Auto scroll functionality commenes next time a log entry is added.

2.1.9.5 Inactivate auto scroll

Auto scroll may be inactivated and the log view / scroll position controlled by the user. For example this may be required when reviewing which files have been transferred by the Sender.

If auto scroll is checked then each time a new log entry is added by the Sender the log will auto scroll to the bottom which hinders the user trying to view files that have been transferred i.e. the user may inactivate the auto scroll while reviewing the log entries then reactivate the auto scroll.

1. Uncheck the **Auto Scroll** checkbox.

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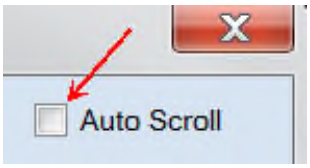


2. Auto scroll functionality halts.

2.1.9.6 Clear the log

The log continues to add log entries (when active) each time the Sender performs a function. Over time, and dependent on the number of files transferred daily, the log file may grow and require clearing.

1. Click the **Clear** button on the log.

2. The log clears all current entries.

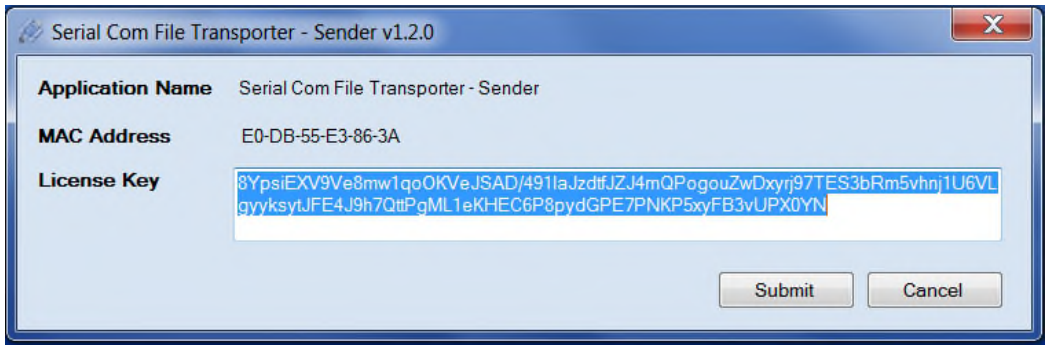
2.1.9.7 Close the log

To close the log click the **Close** button.

2.1.10 View licensing details

The **licensing** page shows:

- Application name
- MAC address of the PC / server on which the Sender is installed
- Currently entered license key



Click the **File > License** to open the license page.

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2.1.11 View Sender about details

The About page shows:

- Name of the application
- Version information
- License expiry date
- Maintenance expiry date

Click the **About** menu item to open the About page.

2.1.12 Close the Sender

The Sender may be closed by selecting the close icon located in the top right corner of the Sender application page.

The Sender will continue to run as long as the Sender service has been started / is running.

2.2 Receiver Application instructions

The following sections describe tasks commonly performed by users of the Serial Com File Transporter Receiver application.

2.2.1 Menu items

The following table describes the function of each of the menu items available with the Receiver application.

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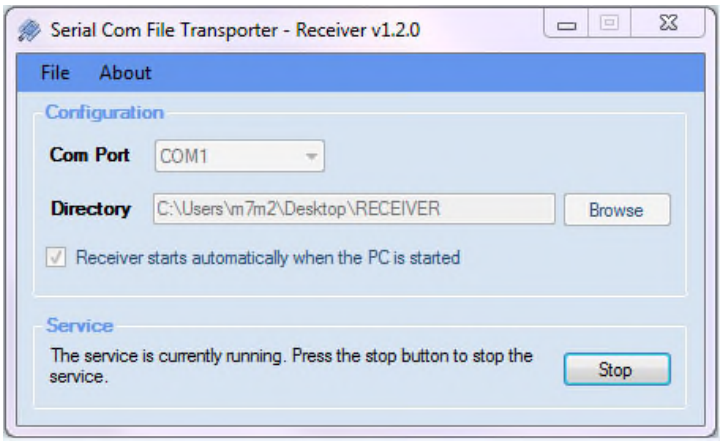
Main Menu Item	Dropdown	Description
File	License	Shows the Application Name / MAC Address / License Key.
	Log	Invokes the Receiver log.
	Exit	Exits the application.
About		Provides version and copyright information. Additionally license and maintenance expiry details are shown.

2.2.2 Invoking the Serial Com File Transporter Receiver

The Serial Com File Transporter Receiver can be invoked by double-clicking on the Serial Com File Transporter Receiver desktop icon.

2.2.3 Receiver Service – must be stopped to make configuration changes

The Serial Com File Transporter Receiver service must be stopped before any configuration changes can be made. All configurable items will be disabled (not selectable) when the Receiver service is running.



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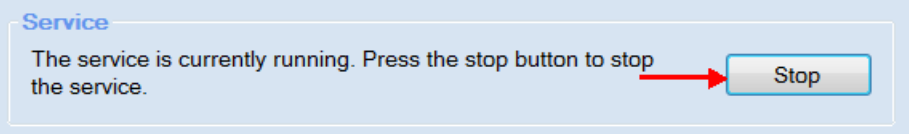
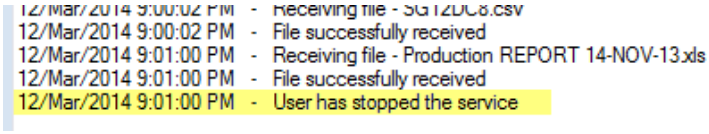
2.2.3.1 Manually stop the Receiver service

If the Receiver service is currently running then the **Stop** button will be displayed.

1. Click **Stop**.



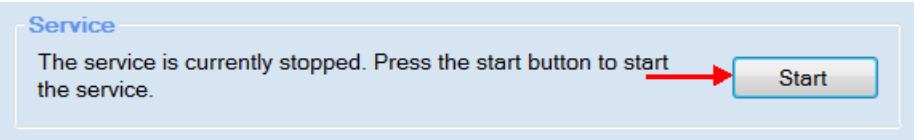
2. The Receiver service stops running. The log shows that the user has stopped the service.



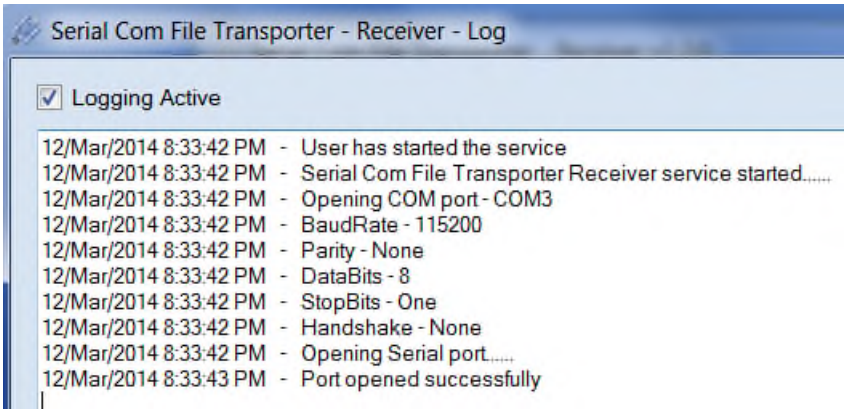
2.2.3.2 Manually start the Receiver service

If the Receiver service is currently stopped then the **Start** button will be displayed and the service requires starting for Receiver functionality to occur.

1. Click **Start**.



2. The Receiver service commences running. The log shows functions peformed by the Receiver service e.g. initially the Com port will be opened, baud rate etc. set and then file transfers will begin.



2.2.4 Configure the Receiver folder to monitor

The Receiver locates any files received at the configured Com port into a specific folder / directory. This **Directory** may be changed as required.

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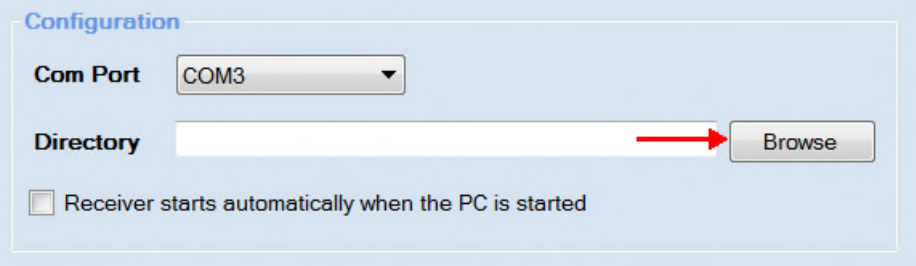
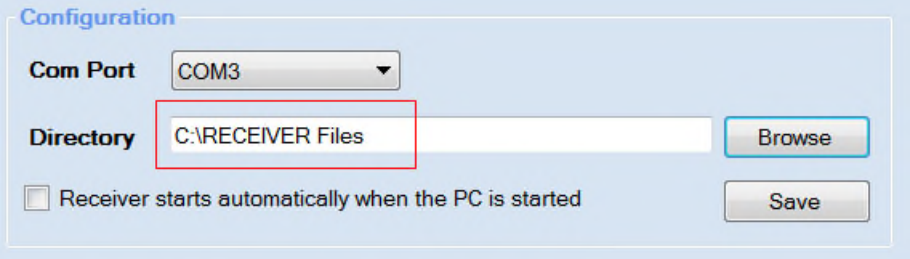
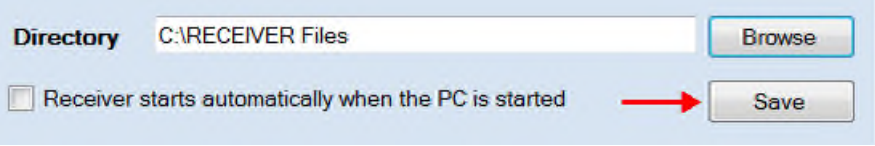
1. **Stop** the Receiver service.
2. Click **Browse**.



3. **Navigate** to the required folder.
4. Click **OK**.
5. The directory selected will be displayed.



6. Click **Save**.



7. Click **OK** when the saved configuration confirmation is displayed.
8. **Start** the Receiver service.

   The Receiver will commence locating any received files into the newly specified directory when the next file becomes available at the Com port.

2.2.5 Receiver service

The Receiver service can be configured to automatically start whenever the PC is started (typical) or to wait for the user to manually start the service upon a restart.

2.2.5.1 Receiver service to start automatically when PC is started

1. **Stop** the Receiver service.
2. Check the **Receiver starts automatically when the PC is started** checkbox then click **Save**.

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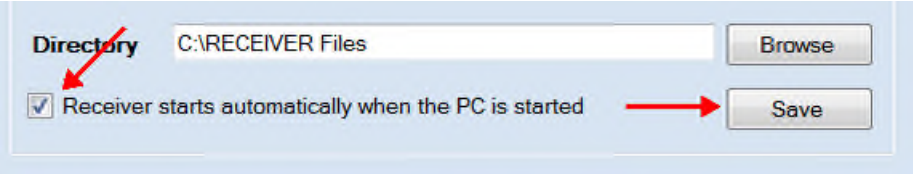


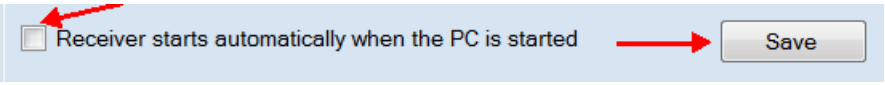
3. Click **OK** when the saved configuration confirmation is displayed.
4. **Start** the Receiver service.

   The Receiver service will automatically start when the PC / server is next restarted.

2.2.5.2 Receiver service not to start automatically when PC is started

If the 'Receiver starts automatically when the PC is started' checkbox is unchecked then users must manually start the service each time the associated PC / server is restarted. Failure to manually start the service will result in the Receiver not performing any functionality until the service is manually started.

1. **Stop** the Receiver service.
2. Uncheck the **Receiver starts automatically when the PC is started** checkbox then click **Save**.

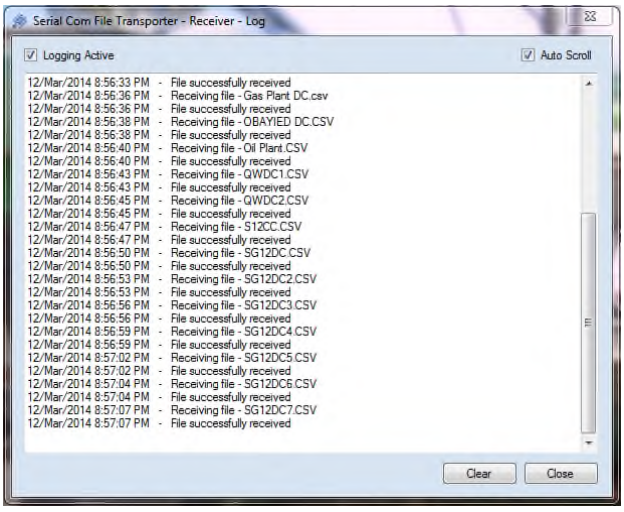


3. Click **OK** when the saved configuration confirmation is displayed.
4. **Start** the Receiver service.

   The Receiver service <u>will not</u> automatically start when the PC / server is next restarted.

2.2.6 Log

The log captures all functionality performed by the Receiver when Logging Active is specified.



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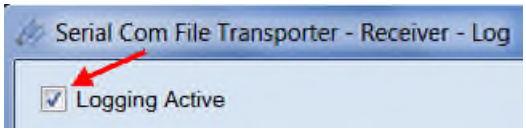
2.2.6.1 Invoke the log

The log is invoked via **File > Log** menu items.

2.2.6.2 Activate the log

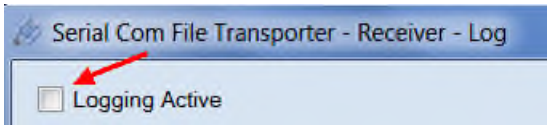
1. Check the **Logging Active** checkbox.



2. Close the log.
3. Log data will be captured.

2.2.6.3 Inactivate the log

1. Uncheck the **Logging Active** checkbox.

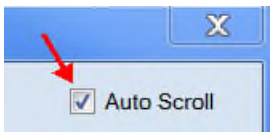


2. Close the log.
3. No logging data will be captured (however the Receiver service will remain running if already started).

2.2.6.4 Activate auto scroll

The log displays logged data chronologically with the oldest log entry at the top of the log list and the most recent at the bottom. To monitor all current actions being logged the **Auto Scroll** checkbox must be checked meaning the scroll position will be automatically held at the bottom each time a new log entry is added to the log.

1. Check the **Auto Scroll** checkbox.



2. Auto scroll functionality commences next time a log entry is added.

2.2.6.5 Inactivate auto scroll

Auto scroll may be inactivated and the log view / scroll position controlled by the user. For example this may be required when reviewing what files have been received by the Receiver. If auto scroll is checked then each time a new log entry is added by the Receiver the log will auto

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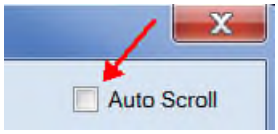
scroll to the bottom which hinders the user trying to view files that have been received i.e. the user may inactivate the auto scroll while reviewing the log entries then reactivate the auto scroll.

1. Uncheck the **Auto Scroll** checkbox.



2. Auto scroll functionality halts.

2.2.6.6 Clear the log

The log continues to add log entries when active each time the Receiver performs a function. Over time, and dependent on the number of files received daily, the log file may grow and require clearing.

1. Click the **Clear** button on the log.

2. The log clears all current entries.

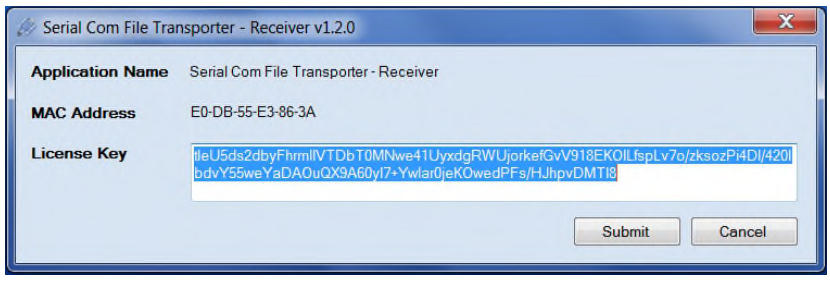
2.2.6.7 Close the log

To close the log click the **Close** button.

2.2.7 View licensing details

The **licensing** page shows:

- Application name
- MAC address of the PC / server on which the Receiver is installed
- Currently entered license key



Click the **File > License** to open the license page.

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2.2.8 View Receiver about details

The About page shows:

- Name of the application
- Version information
- License expiry date
- Maintenance expiry date

Click the **About** menu item to open the About page.

2.2.9 Close the Receiver

The Receiver may be closed by selecting the close icon located in the top right corner of the Receiver application page.

The Receiver will continue to run as long as the Receiver service has been started / is running.

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3 Appendix A: Glossary

The following table provides information on terms, acronyms and abbreviations required to properly interpret this document.

Term	Meaning
Interval	The interval specifies the time period in minutes between Sender service runs.
Log	Both the Sender and Receiver incorporate log functionality. The log lists all actions performed by the applications chronologically.
MAC	Media Access Control address.
PC	Personal Computer.
Sender	The Sender application is installed on the PC / server that is connected to the system from where files originate e.g. a Process Control Network (PCN) or Integrated Control and Safety System network (ICSS).
SCFT	Serial Com File Transporter.
Receiver	The Receiver application is installed on the PC / server that is connected to the system where files are to be received and made available e.g. a business network / company intranet.

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