

Serial Com File Transporter Installation Guide

Version 1.0 • March 26, 2014

This Installation Guide provides guidance to those involved in the installation of the application.



Tel: +61 (0) 8 9448 3076

Last edited: 26th March 2014

This document is copyright © 26th March 2014 by kanepi Services Pty Ltd. All rights reserved.

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from kanepi Services Pty Ltd.

All copyright, confidential information, patents, design rights and all other intellectual property rights of whatsoever nature contained herein are and shall remain the sole and exclusive property of kanepi Services Pty Ltd. The information furnished herein is believed to be accurate and reliable.

However, no responsibility is assumed by kanepi Services Pty Ltd for its use, or for any infringements of patents or other rights of third parties resulting from its use.

The kanepi name and kanepi Services Pty Ltd logo are trademarks or registered trademarks of kanepi Services Pty Ltd. All other trademarks are the property of their respective owners.

Installation Guide

Version: 1.0 Revision Date: 26th March 2014

Revision History		
Rev #	Revision Update	Date
0.1	Initial version	16 th January 2014
0.2	Final review	1 st February 2014
1.0	Released	26 th March 2014

Table of Contents

About this Guide 5

1 System Requirements 7

 1.1 SOFTWARE REQUIREMENTS 7

 1.2 OPERATING SYSTEMS 7

 1.3 SUPPORT 7

2 Installing the Serial Com File Transporter 8

 2.1 PREREQUISITES 8

 2.2 INSTALLATION 8

 2.3 LICENSING 14

3 Establishing Serial Communications 25

 3.1 NULL MODEM CABLE 25

 3.2 PROCEDURE FOR ESTABLISHING COMMUNICATIONS 26

4 Upgrading to a new version of Serial Com File Transporter 30

 4.1 UPGRADE SENDER APPLICATION 30

 4.2 UPGRADE RECEIVER APPLICATION 30

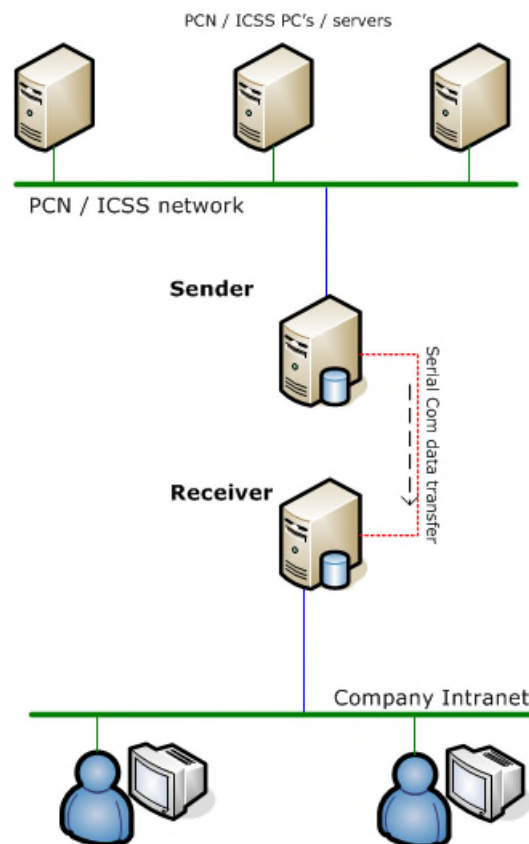
5 Appendix A: Acronyms, Abbreviations & Definitions 32

About this Guide

This Installation Guide explains how to install 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.

The following figure shows a typical implementation for the Serial Com File Transporter applications.



This guide assumes that you have some knowledge of operating systems. For the most current version of this document please visit: www.kanepiservices.com.au.

Who Should Use It

This Installation Guide provides guidance to general users and System Administrators involved in the installation of the 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**.

Disclaimer

This document contains kanepi Services Pty Ltd proprietary information. Information contained herein is to be used solely for the purpose submitted, and no part of this document or its contents shall be reproduced, published, or disclosed to a third party without the express permission of kanepi Services Pty Ltd.

While this information is presented in good faith and believed to be accurate, kanepi Services Pty Ltd disclaims the implied warranties of merchantability and fitness for a purpose and makes no express warranties except as may be stated in its written agreement with and for its customer.

In no event is kanepi Services Pty Ltd liable to anyone for any direct, special, or consequential damages. The information and specifications in this document are subject to change without notice.

1 System Requirements

This chapter describes the software and systems requirement to install and run the Serial Com File Transporter applications. It includes the following sections:

- Software requirements
- Operating systems
- Support

1.1 Software Requirements

The following software is required to install and run the Serial Com File Transporter applications:

- Microsoft .Net Framework 4.0 must be installed on both PC's / Servers before the Serial Com File Transporter applications are installed. The Microsoft .Net Framework 4.0 can be downloaded from the following web address:
<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=17851>

1.2 Operating Systems

The Serial Com File Transporter applications are compatible with the following operating systems:

- Windows XP
- Windows Vista
- Windows 7
- Windows Server 2003
- Windows Server 2008
- Windows Server 2012

1.3 Support

Email support is available for the Serial Com File Transporter Sender and Receiver applications 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.

2 Installing the Serial Com File Transporter

This chapter describes the procedure for installing the Serial Com File Transporter. It includes the following sections:

- Prerequisites
- Installation
- Licensing

The installation process consists of the following:

- Installing the **Sender** Serial Com File Transporter application 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).
- Installing the **Receiver** Serial Com File Transporter 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.
- Establishing **communications** between the Sender and Receiver PC's / servers (detailed in Chapter 3).

2.1 Prerequisites

Before you install the Serial Com File Transporter, you must install the following:

- Microsoft .Net Framework 4.0. The Microsoft .Net Framework 4.0 can be downloaded from the following web address

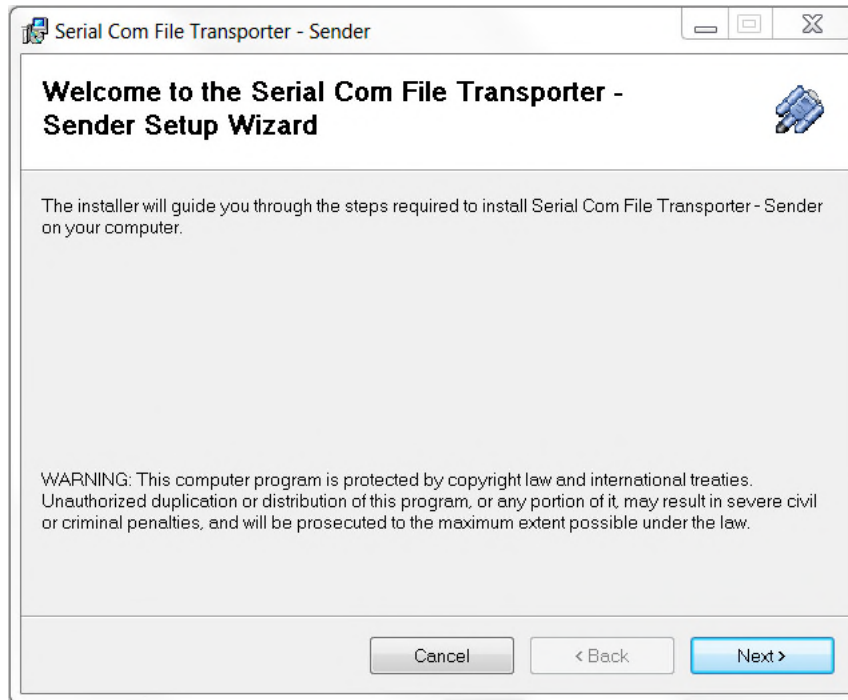
<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=17851>

2.2 Installation

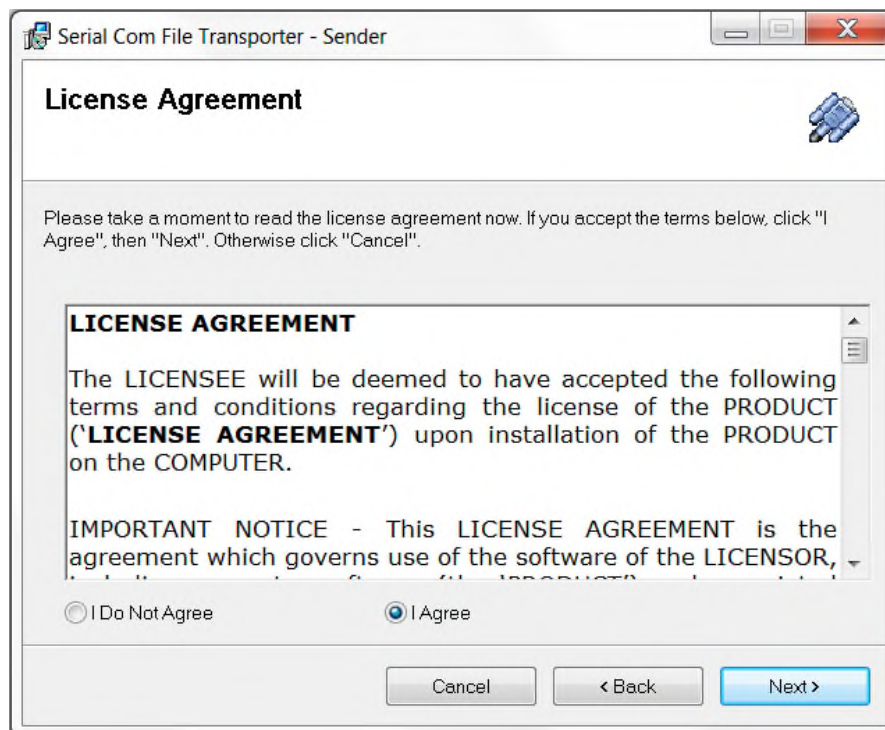
Perform the following steps to install the Serial Com File Transporter applications.

2.2.1 Serial Com File Transporter Sender Application Installation

1. **Download** the Serial Com File Transporter **Sender** installer from www.kanepiservices.com.au.
2. **Double-click** the Serial Com File Transporter **Sender installer** to invoke the setup wizard.

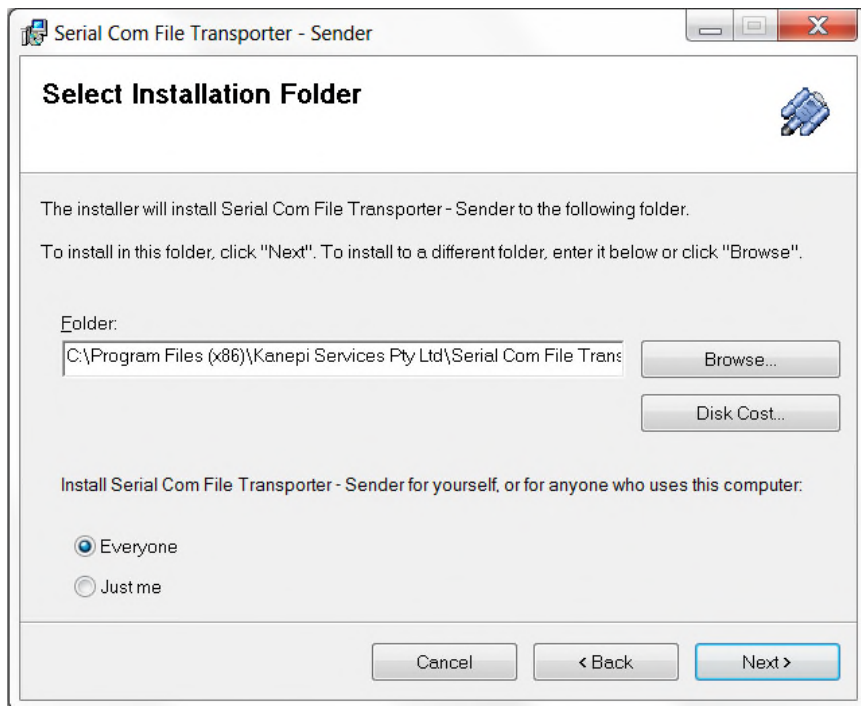


3. Click **Next**.
4. The **license agreement** will be displayed. Read the license agreement.

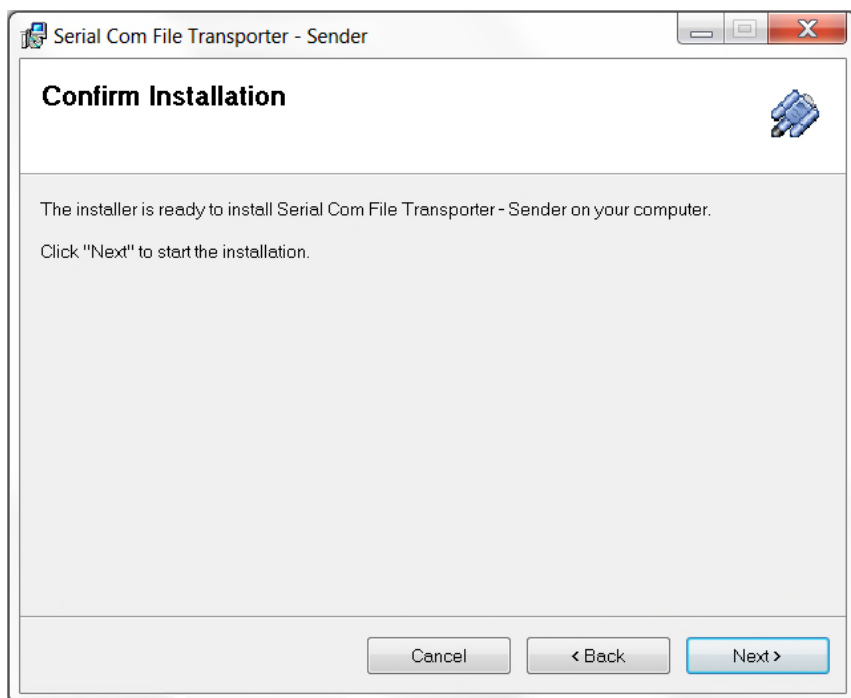


Click **I Agree** to continue with the installation then **Next**. Alternatively click **I Do Not Agree** to cancel the installation process.

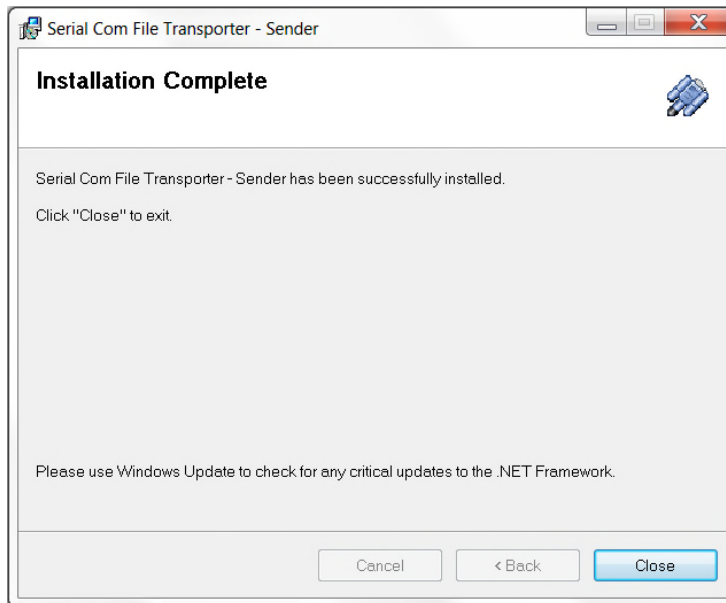
5. The installer automatically specifies the **installation folder location**. Modify this location via the browse button if required or leave the default location as is and specify which users may access the Serial Com File Transporter Sender (**Everyone** or **Just me**) then click **Next**.



6. Click **Next** to continue with the installation when the **Confirm Installation** screen is displayed.



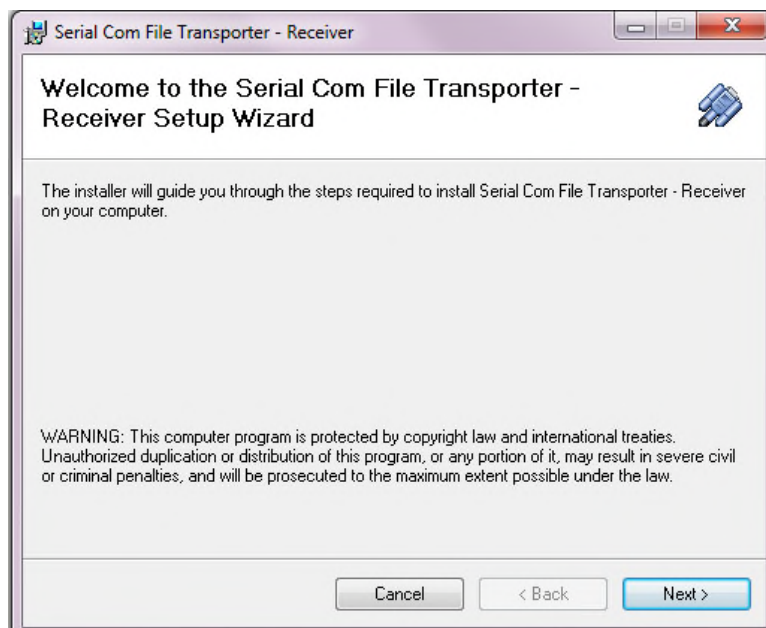
7. **Installation Complete** is displayed once the Serial Com File Transporter **Sender** has been successfully installed.



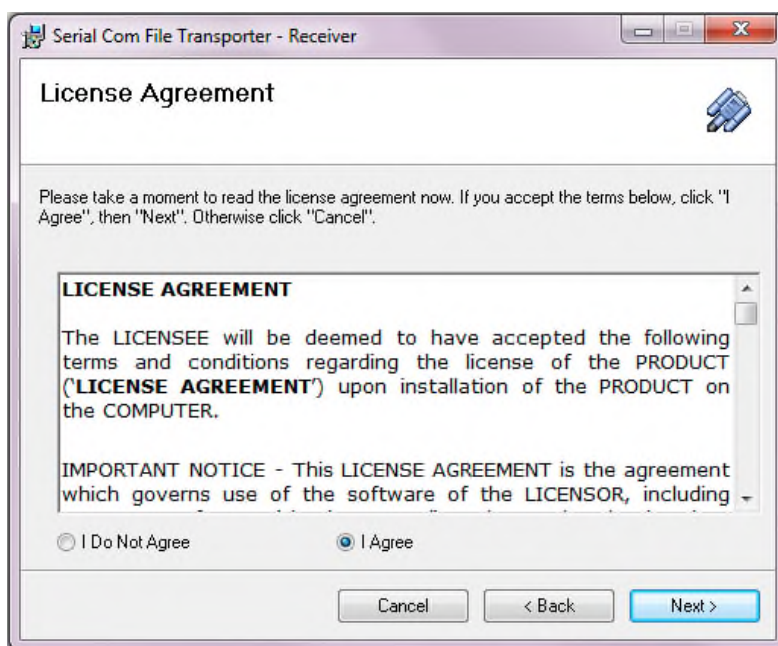
8. Click **Close** to complete the installation.

2.2.2 Serial Com File Transporter Receiver Application Installation

1. **Download** the Serial Com File Transporter **Receiver** installer from www.kanepiservices.com.au.
2. **Double-click** the Serial Com File Transporter **Receiver** installer to invoke the setup wizard.

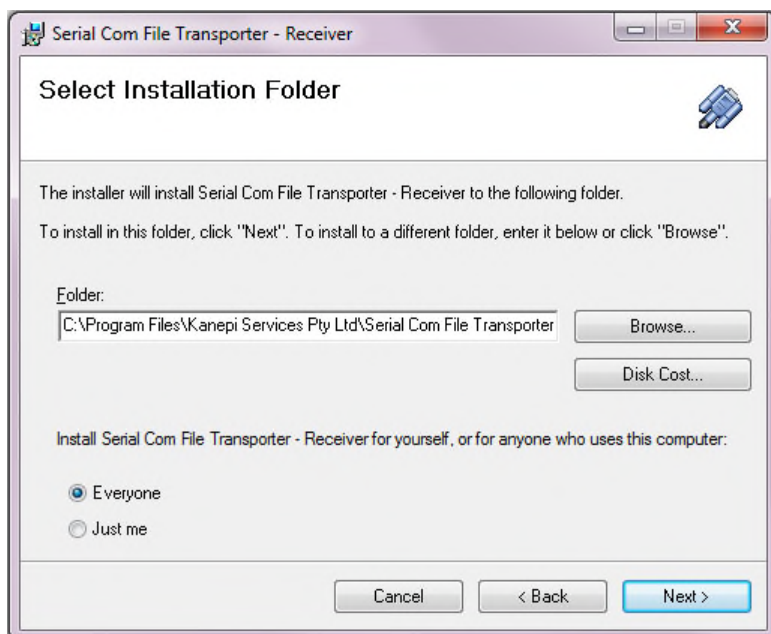


3. Click **Next**.
4. The **license agreement** will be displayed. Read the license agreement.

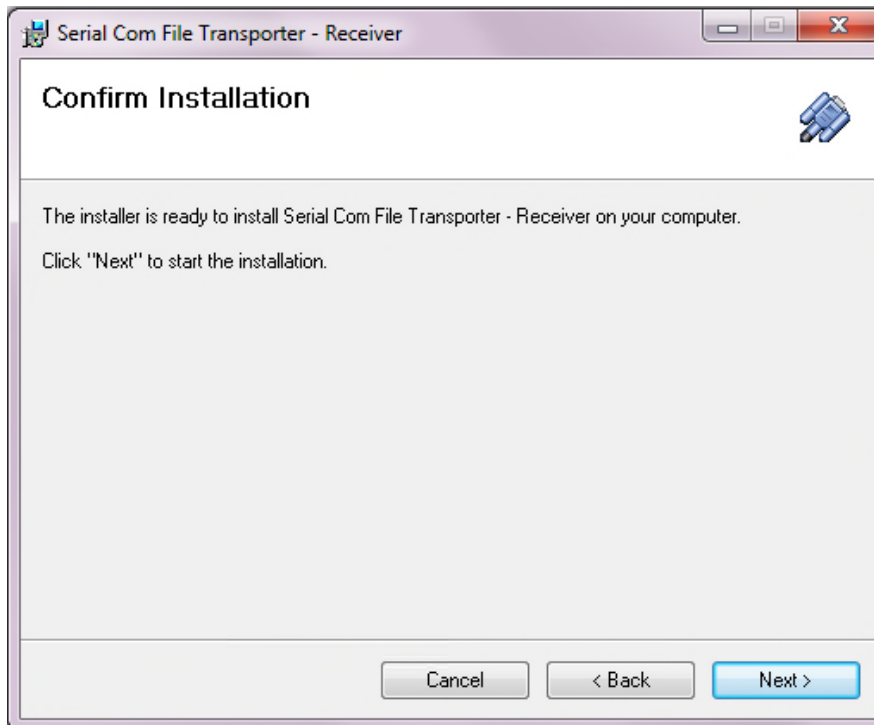


Click **I Agree** to continue with the installation then **Next**. Alternatively click **I Do Not Agree** to cancel the installation process.

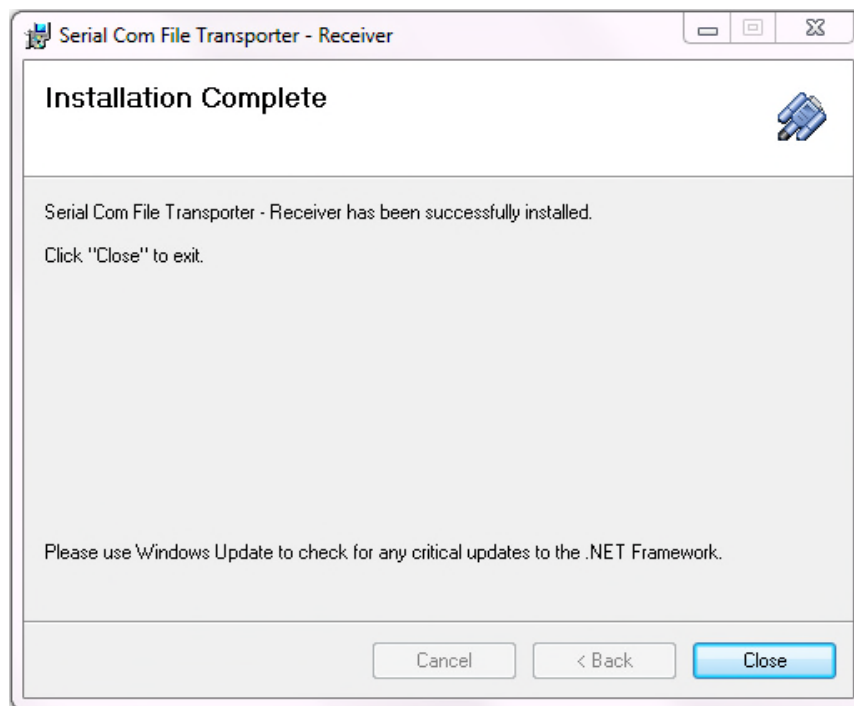
5. The installer automatically specifies the **installation folder location**. Modify this location via the browse button if required or leave the default location as is and specify which users may access Serial Com File Transporter Receiver (**Everyone** or **Just me**) then click **Next**.



- Click **Next** to continue with the installation when the **Confirm Installation** screen is displayed.



- Installation Complete** is displayed once the Serial Com File Transporter **Receiver** has been successfully installed.



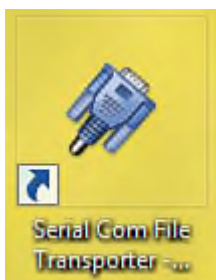
- Click **Close** to complete the installation.

2.3 Licensing

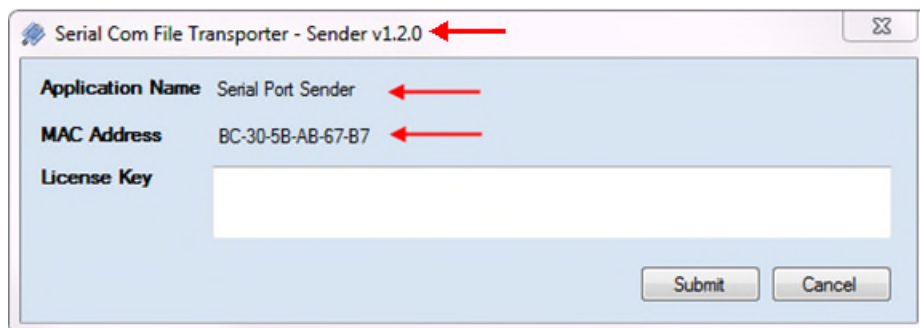
The Serial Com File Transporter applications **each** require a **valid license key** to **run**. License keys will be emailed to you from kanepi Services Pty Ltd, however you must provide specific information after the installations to enable kanepi Services Pty Ltd to generate license keys for you.

2.3.1 Serial Com File Transporter Sender Application Licensing

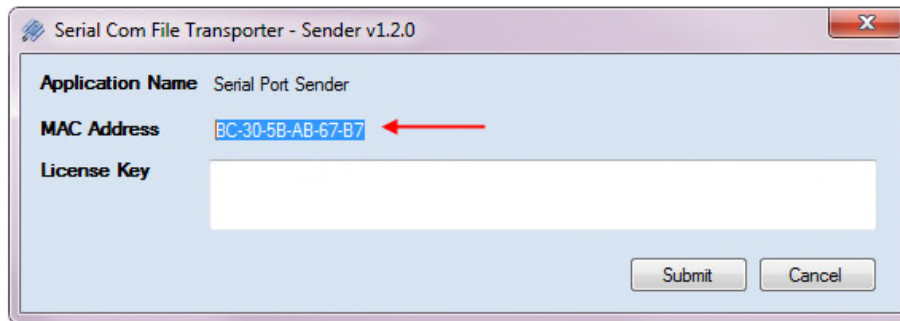
1. The installation process installs a Serial Com File Transporter Sender **desktop icon**. Double-click this icon to invoke the Serial Com File Transporter Sender.



2. The Serial Com File Transporter Sender displays the **license key** screen when first invoked. The license key page contains the information that must be sent to kanepi Services Pty Ltd being:
 - a. Application Name
 - b. MAC Address
 - c. Sender version number



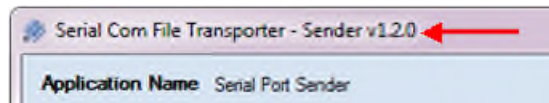
3. **Copy** the **MAC** address. If you do not have internet access on the PC the Serial Com File Transporter Sender is installed on then copy the MAC address to a Notepad file (as an example). Left-click on the MAC address shown in the license key screen and select the entire MAC address, then **right-click > Copy** (or CTL + C) to copy the MAC address.



4. **Close** the Serial Com File Transporter Sender application.
5. The application name, MAC address and version can now be sent to kanepi Services Pty Ltd. Open a web browser and navigate to <http://www.kanepiservices.com.au/licensing-other-products> (**LICENSING** page).

Complete all required fields on this page i.e. enter the following details:

- Product. This is the **Application Name** shown on the license key page (i.e. Serial Com File Transporter - Sender).
- License type. If you paid the license fee then select **Full product license**, alternatively if you installed the Serial Com File Transporter Sender for evaluation purposes select **Evaluation license**.
- MAC Address. Paste in the **MAC Address** copied from the **license key** screen.
- Version number e.g. v1.2.0

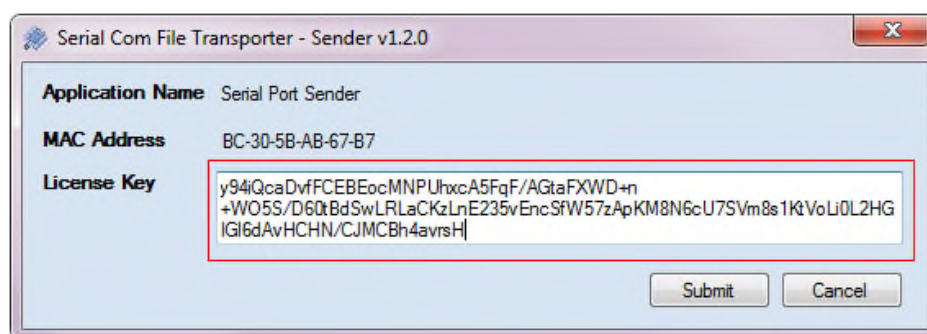


- Order number. Note this is only applicable if you have paid the license fee and were issued an order number. This field is not available if you have selected an evaluation license. Note the same order number is used when licensing both the Sender and Receiver applications.
- Name.
- Company (not mandatory).
- Email address.
- Contact phone number (not mandatory).
- Message (not mandatory).

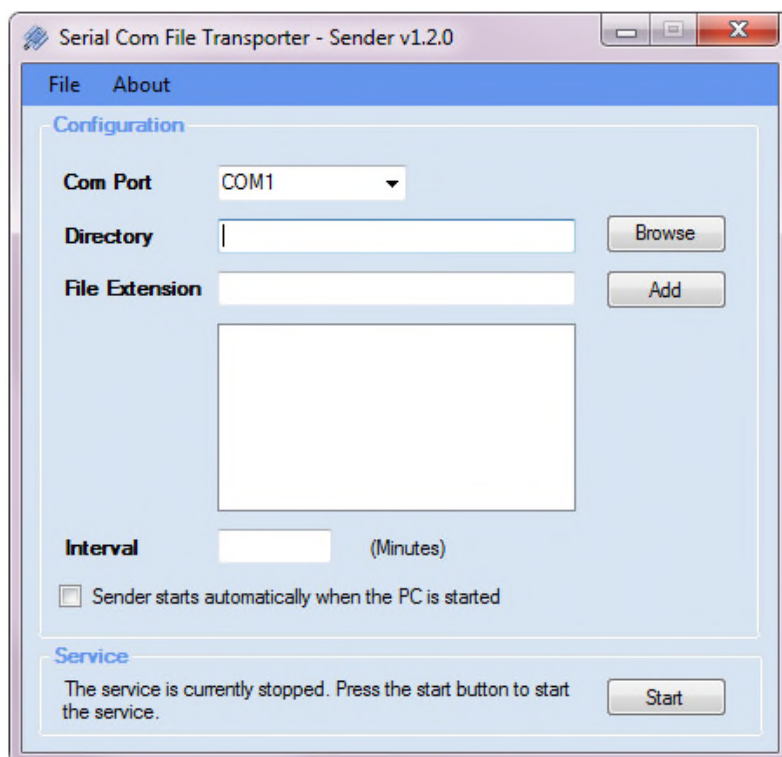
Note as an alternative the information listed above may be emailed to licensing@kanepiservices.com.au, however the **preferred method** of sending the

required information to kanepi Services Pty Ltd is via the licensing page at <http://www.kanepiservices.com.au/licensing-other-products>.

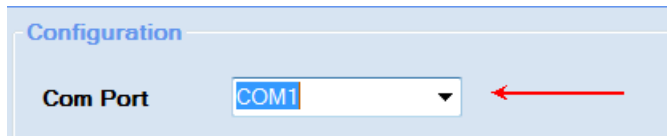
6. Click **Send**. kanepi Services Pty Ltd will email a license key to you within 24 hours.
7. When you receive the license key perform the following steps;
 - a. **Invoke** the Serial Com File Transporter Sender.
 - b. **Paste** the license key emailed to you by kanepi Services Pty Ltd into the **License Key** field.



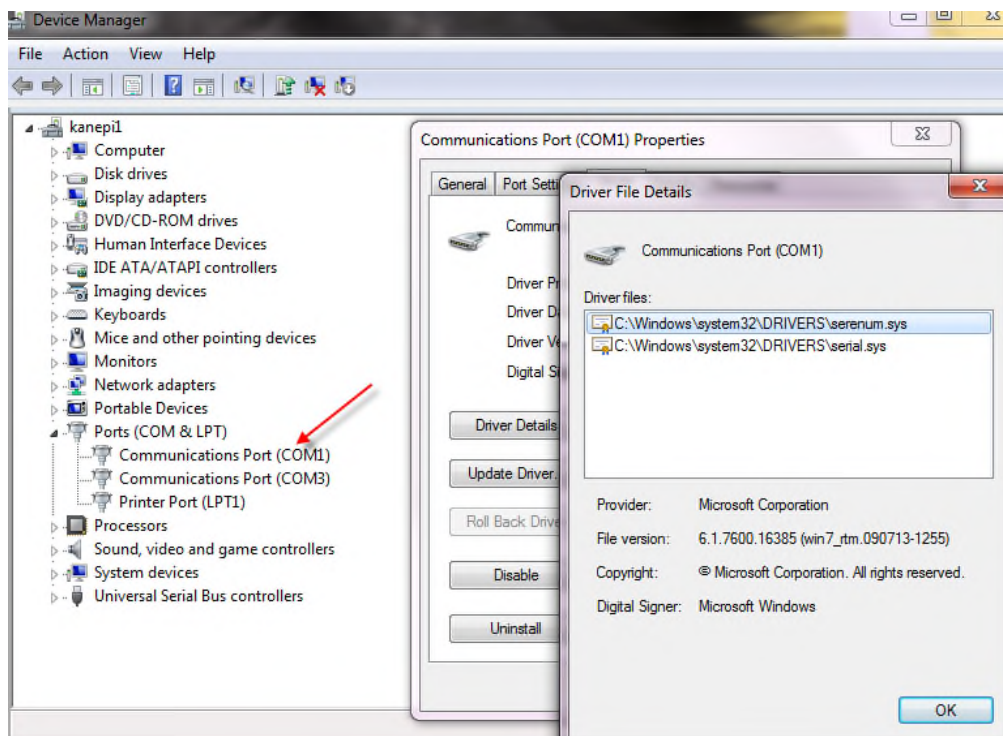
- c. Click **Submit**.
- d. The Serial Com File Transporter Sender screen opens upon successful registration of the license key.



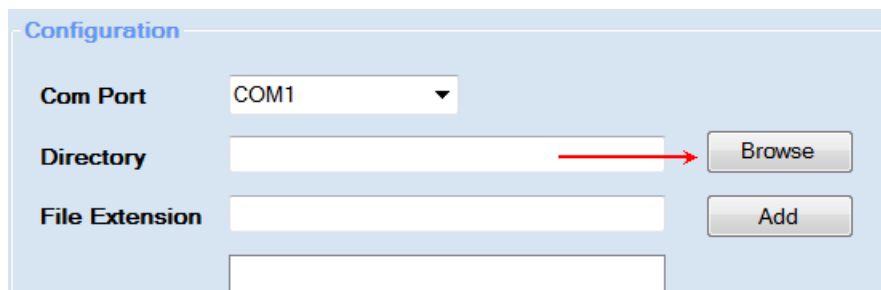
8. The Serial Com File Transporter Sender application installation is now complete.
9. Base level configuration is required now to facilitate testing the Serial Communications (testing is performed after the installation of the Receiver application).
10. Configure the **Com Port** used by the Serial Communications port on the PC / server. The Sender application will automatically list all existing communication ports available on the Sender PC / server in the **Com Port** dropdown box. Note: The COM port dropdown is only available when the Sender service is stopped.



The PC / servers Device Manager can be used to determine which port is assigned to the Serial Communications port if it is unknown. Typically COM1 is used for the serial port.

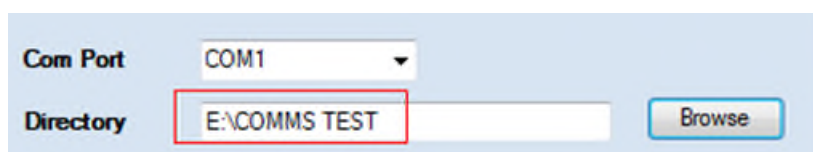


11. Configure the **Directory** the Sender will **monitor for files to move** to the Receiver.
 - a. Click **Browse**.



The Configuration window has a title bar 'Configuration'. It contains three main sections: 'Com Port' with a dropdown menu set to 'COM1'; 'Directory' with a text input field and a 'Browse' button; and 'File Extension' with a text input field and an 'Add' button. A red arrow points from the 'Directory' input field to the 'Browse' button.

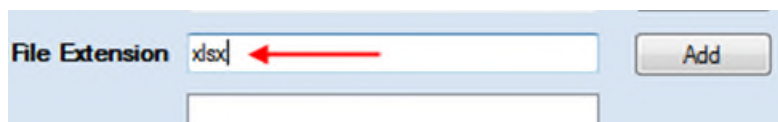
- b. **Navigate** to and select the required folder.
- c. Click **OK**.
- d. The directory selected will be displayed.



The Configuration window shows the 'Directory' field now containing the text 'E:\COMMS TEST'. The 'Browse' button is still present. A red box highlights the 'Directory' field.

12. Configure the **extensions** of file types that are to be moved. The current configuration being performed is for the purpose of the communications test carried out later in the installation process and the file extension configured is for Excel files (additional extensions can be added at a later time).

- a. Type **xlsx** (not case sensitive) in the File Extension field.



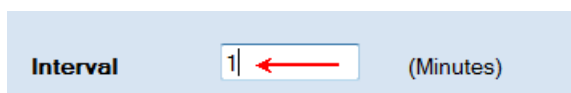
The Configuration window shows the 'File Extension' field with 'xlsx' entered. A red arrow points to the 'File Extension' field. The 'Add' button is visible.

- b. Click **Add**. The xlsx text will be moved to the configured extension list.



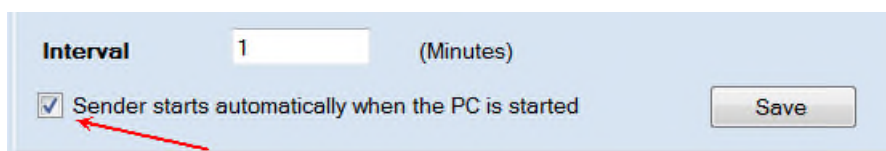
The Configuration window shows the 'File Extension' field with a cursor. Below it, a list contains 'xlsx'. A red arrow points from the 'Add' button to the 'File Extension' field, and another red arrow points from the 'File Extension' field to the 'Add' button.

13. Configure the **interval** (in minutes) that the Sender will run. For the communications test enter 1.



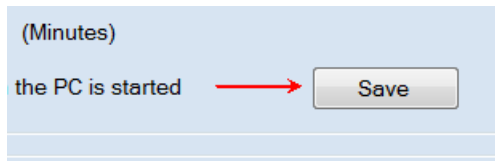
The Interval configuration window shows the 'Interval' field with '1' entered. A red arrow points to the 'Interval' field. The text '(Minutes)' is displayed next to the field.

14. Check the **Sender starts automatically when the PC is started** checkbox (typical).

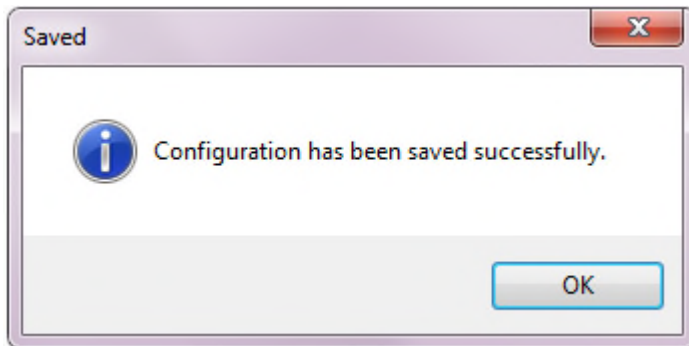


The Interval configuration window shows the 'Interval' field with '1' entered. Below it, a checkbox is checked, with the text 'Sender starts automatically when the PC is started' next to it. A red arrow points to the checkbox. The 'Save' button is visible.

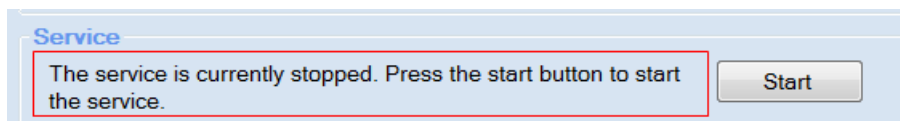
15. Click **Save**.



A saved configuration confirmation is displayed.



16. The **Sender service** will be **stopped**. **Do not** Start the service at this point.



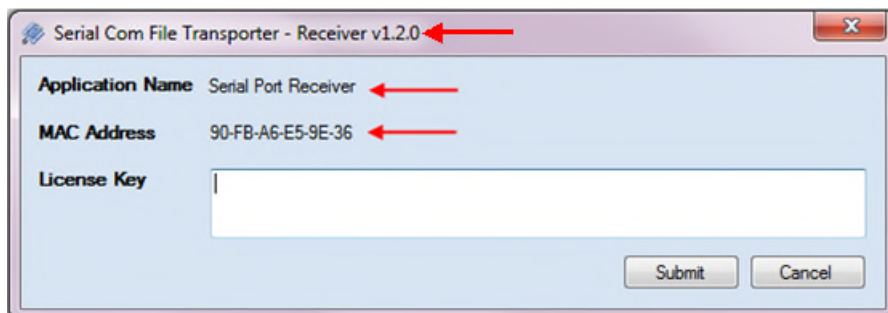
17. The Sender installation is complete.

2.3.2 Serial Com File Transporter Receiver Application Licensing

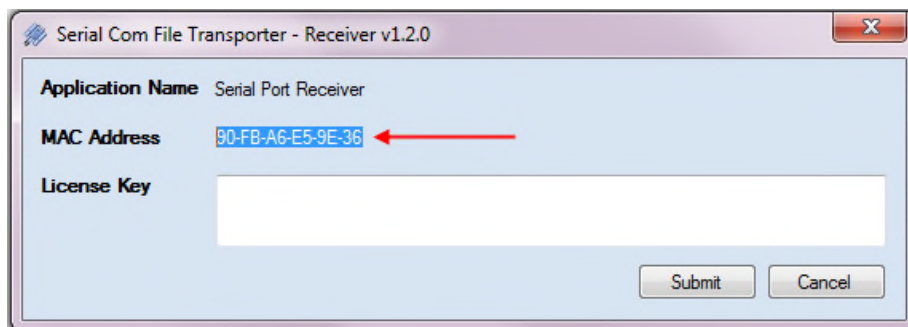
1. The installation process installs a Serial Com File Transporter Receiver **desktop icon**. Double-click this icon to invoke the Serial Com File Transporter Receiver.



2. The Serial Com File Transporter Receiver displays the **license key** screen when first invoked. The license key page contains the information that must be sent to kanepi Services Pty Ltd being:
 - a. Application Name
 - b. MAC Address
 - c. Receiver version number



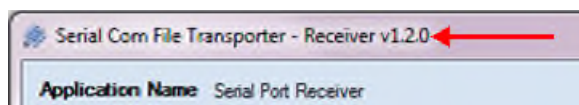
3. **Copy** the **MAC** address. If you do not have internet access on the PC the Serial Com File Transporter Receiver is installed on then copy the MAC address to a Notepad file (as an example). Left-click on the MAC address shown in the license key screen and select the entire MAC address, then **right-click > Copy** (or CTL + C) to copy the MAC address.



4. **Close** the Serial Com File Transporter Receiver application.
5. The application name, MAC address and version can now be sent to kanepi Services Pty Ltd. Open a web browser and navigate to <http://www.kanepiservices.com.au/licensing-other-products> then click the **LICENSING** page.

Complete all required fields on this page i.e. enter the following details:

- Product. This is the **Application Name** shown on the license key page (i.e. Serial Com File Transporter - Receiver).
- License type. If you paid the license fee then select **Full product license**, alternatively if you installed the Serial Com File Transporter Sender for evaluation purposes select **Evaluation license**.
- MAC Address. Paste in the **MAC Address** copied from the **license key** screen.
- Version number e.g. v1.2.0



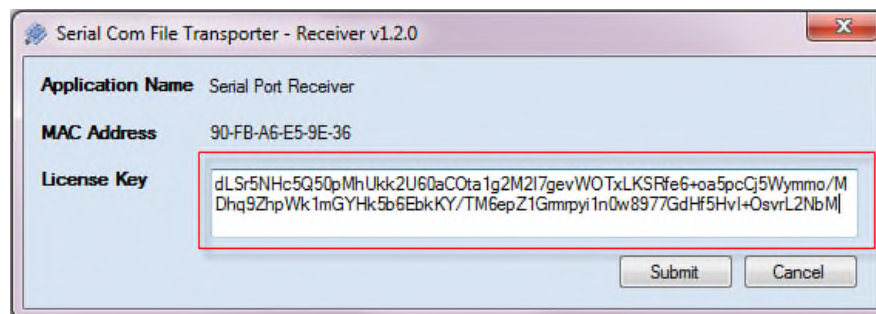
- Order number. Note this is only applicable if you have paid the license fee and were issued an order number. This field is not available if you have selected an

evaluation license. Note the same order number is used when licensing both the Sender and Receiver applications.

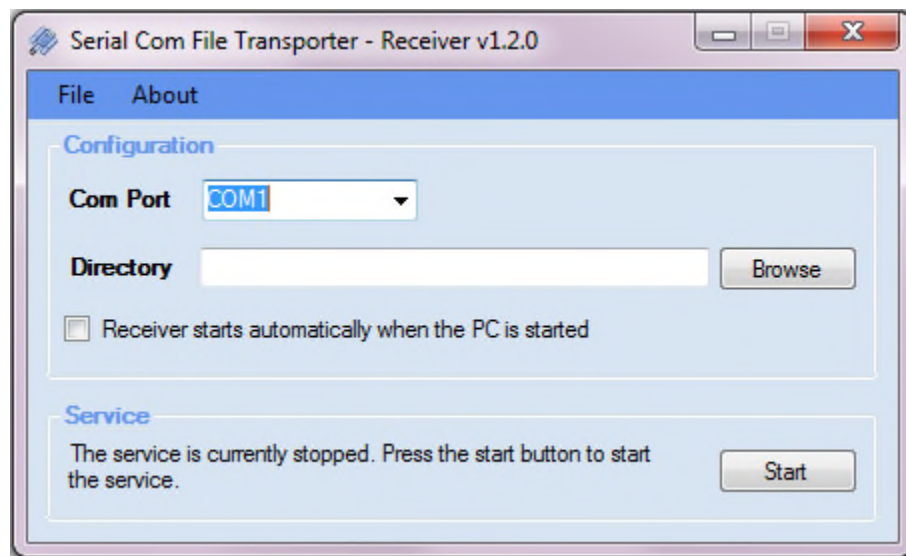
- Name.
- Company (not mandatory).
- Email address.
- Contact phone number (not mandatory).
- Message (not mandatory).

Note as an alternative the information listed above may be emailed to licensing@kanepiservices.com.au, however the **preferred method** of sending the required information to kanepi Services Pty Ltd is via the licensing page at <http://www.kanepiservices.com.au/licensing-other-products>.

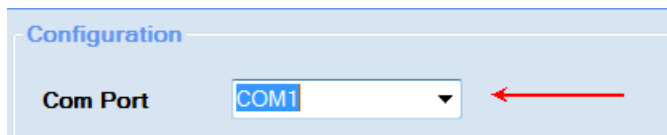
6. Click **Send**. kanepi Services Pty Ltd will email a license key to you within 24 hours.
7. When you receive the license key perform the following steps;
 - a. **Invoke** the Serial Com File Transporter Receiver.
 - b. **Paste** the license key emailed to you by kanepi Services Pty Ltd into the **License Key** field.



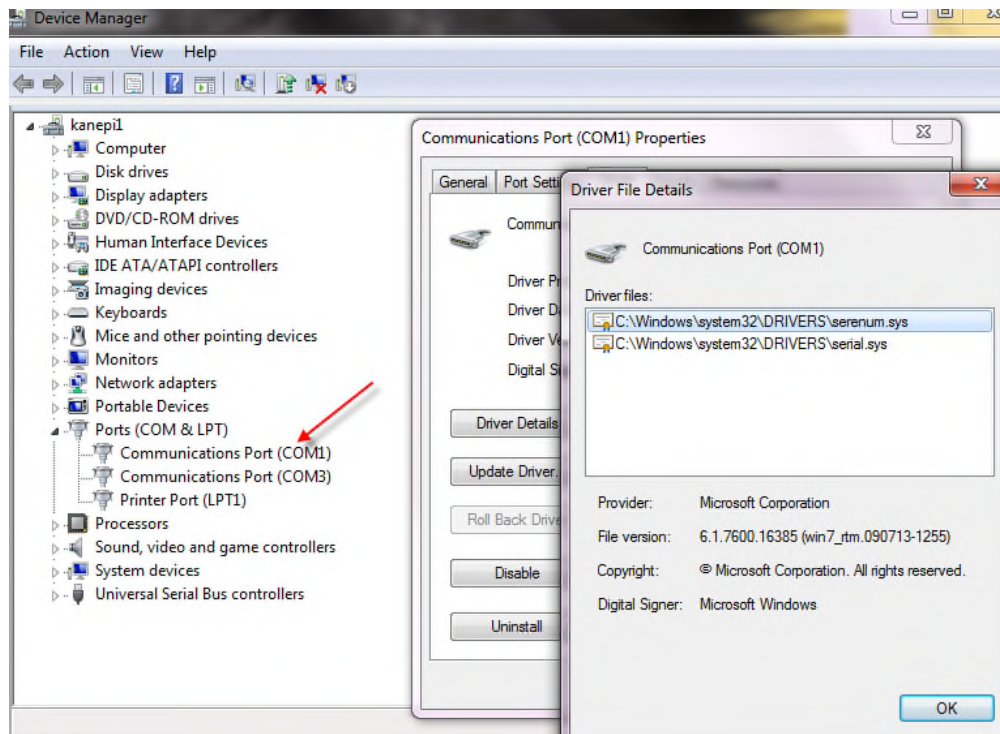
- c. Click **Submit**.
- d. The Serial Com File Transporter Receiver screen opens upon successful registration of the license key.



8. The Serial Com File Transporter Receiver application installation is now complete.
9. Base level configuration is required now to facilitate testing the Serial Communications which is performed after the installation of the Receiver application is complete.
10. Configure the **Com Port** used by the Serial Communications port on the PC / server. The Receiver application will automatically list all existing communication ports available on the Receiver PC / server **Com Port** dropdown box. Note: The COM port dropdown is only available when the Sender service is stopped.

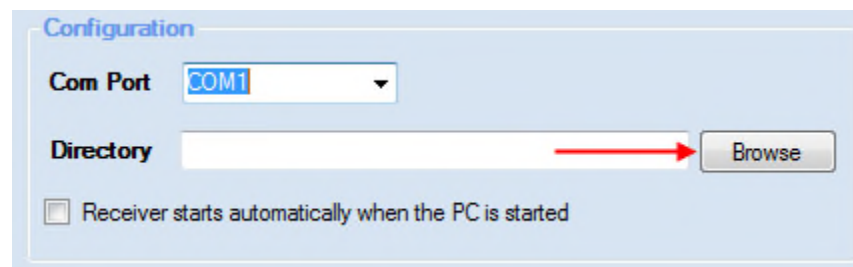


The PC / servers Device Manager can be used to determine which port is assigned to the Serial Communications port if it is unknown. Typically COM1 is used for the serial port.



11. Configure the **Directory** the Receiver will store any received files too.

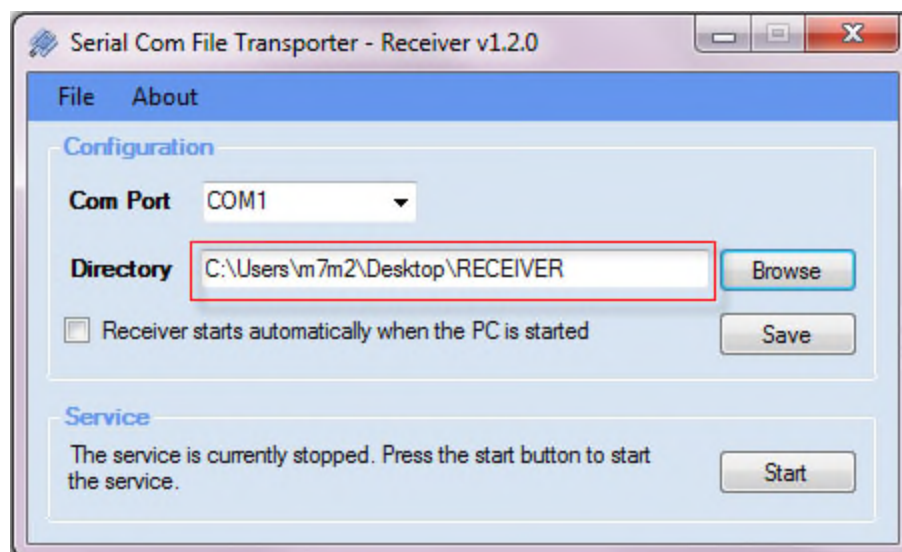
a. Click **Browse**.



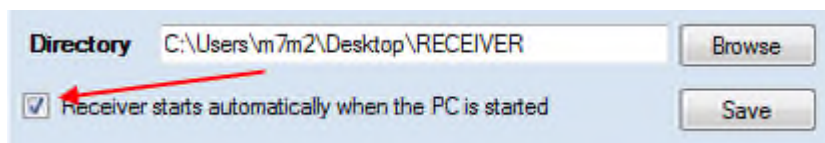
b. **Navigate** to the required folder.

c. Click **OK**.

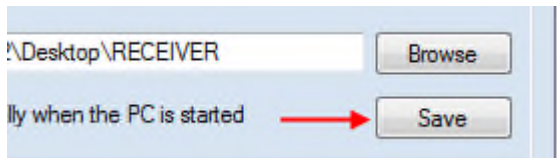
d. The directory selected will be displayed.



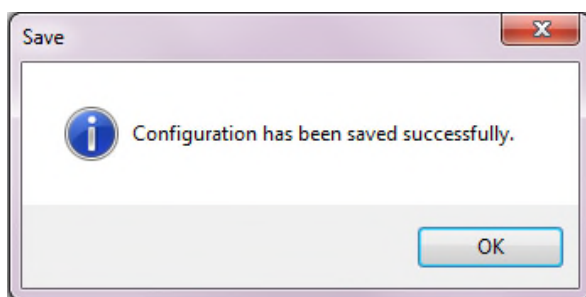
12. Check the **Receiver starts automatically when the PC is started** checkbox (typical).



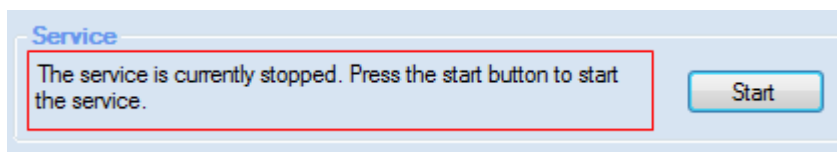
13. Click **Save**.



A saved configuration confirmation is displayed.



14. The Receiver **service** will be **stopped**. **Do not** Start the service at this point.



15. The Receiver installation is complete. Proceed to **Establishing Serial Communications**.

3 Establishing Serial Communications

This section describes establishing communications between the Serial Com File Transporter Sender and Receiver applications via serial communications.

3.1 Null modem cable

Serial communications and data transfer **between** the Sender and Receiver applications are achieved with a **Null Modem** cable.

A null modem cable is a RS-232 cable where the **transmit** and **receive** wires have been crossed.



Either purchase or make / build a null modem cable. Ensure the length of the cable is enough to physically connect the Sender and Receiver PC's / servers together. Ideally the Sender and Receiver PC's / Servers will be physically located next to each other.

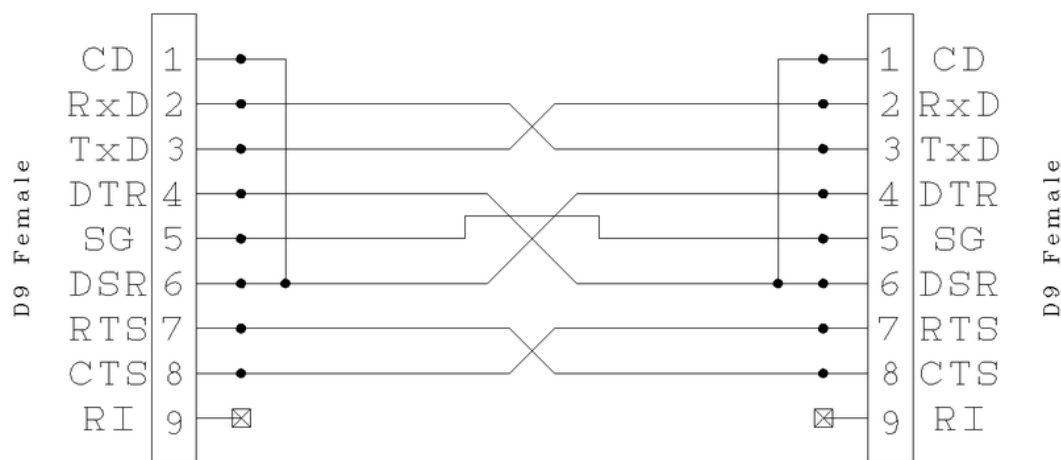
3.1.1 Serial Port properties

The most important parameters for the serial port are parity, byte size, stop bits and baud rate.

Note: Both the Serial Com File Transporter Sender and Receiver applications **automatically** set these communication parameters. You **are not required** to make any changes.

3.1.2 Null Modem cable pinning

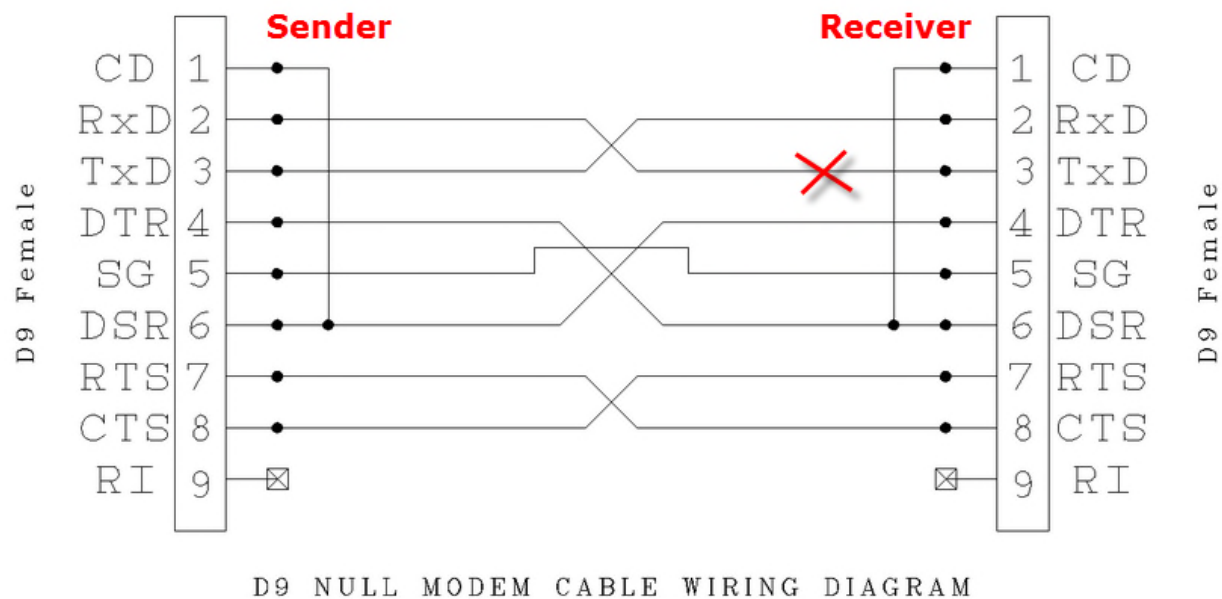
The following shows the wiring diagram for a 9 pin null modem cable.



D9 NULL MODEM CABLE WIRING DIAGRAM

3.1.3 Cut the Receiver end TxD -> Sender end RxD wire

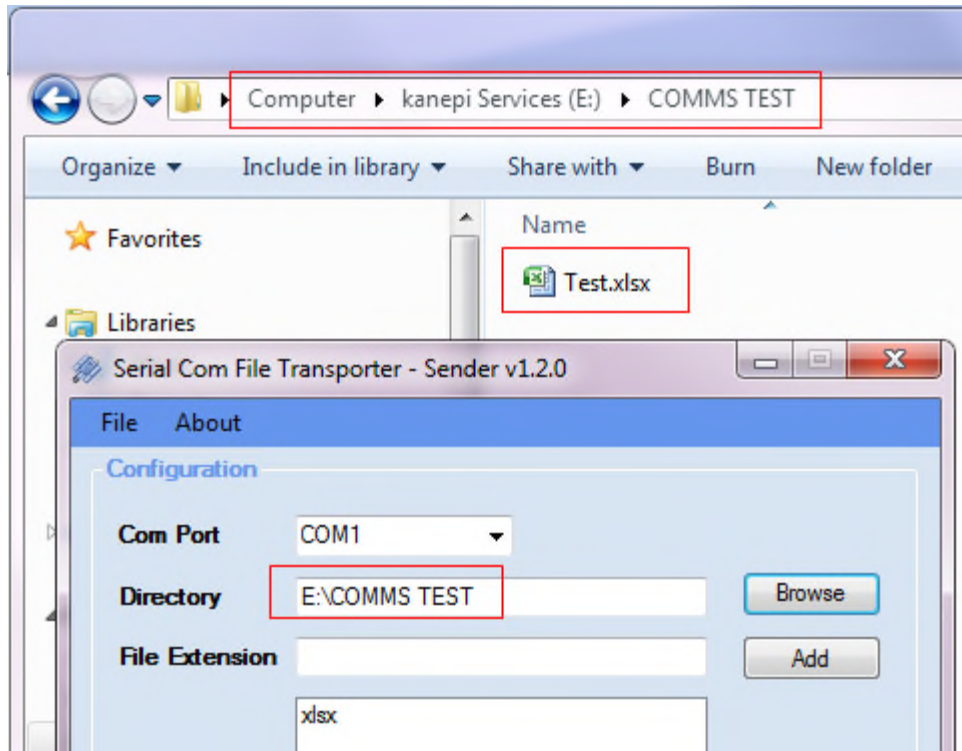
As a further precaution / method of preventing any possibility of data transfer from the Receiver to the Sender consider cutting the Receiver end transmit wire (pin 3). This is shown in the figure below.



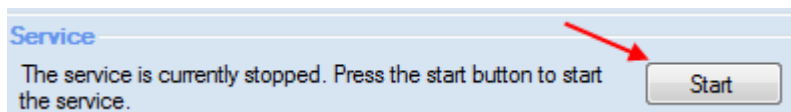
Note: In some cases, primarily where a null modem cable has been purchased and is of moulded type connections, this may not be possible. However it is **advised** that this process be performed.

3.2 Procedure for establishing communications

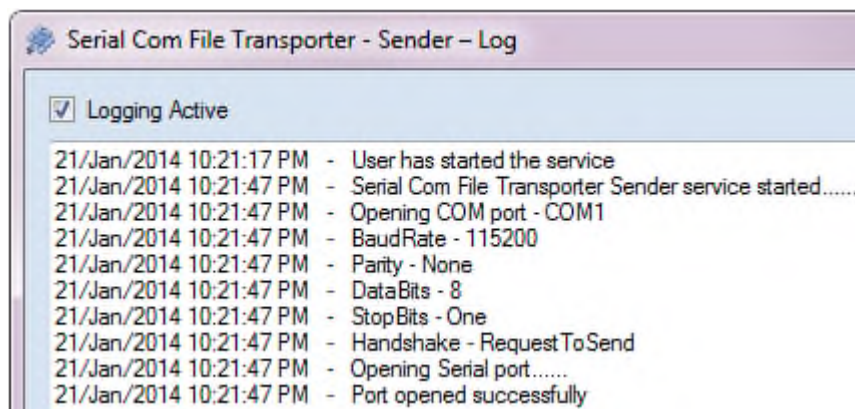
1. Perform the Serial Com File Transporter Sender and Receiver applications installation and licensing procedures as detailed in this document.
2. **Connect** the serial port of the Sender PC / server to the serial port of the Receiver PC / server via the **null modem cable**.
3. **Invoke** the Serial Com File transporter **Sender** application on the **Sender PC**.
4. On the Sender PC **create** an Excel file (with xlsx extension) named **Test.xlsx** in the folder specified as the **Directory**.



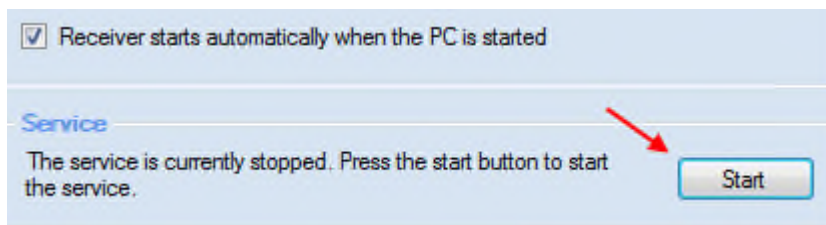
5. Click **Start** to start the Sender service.



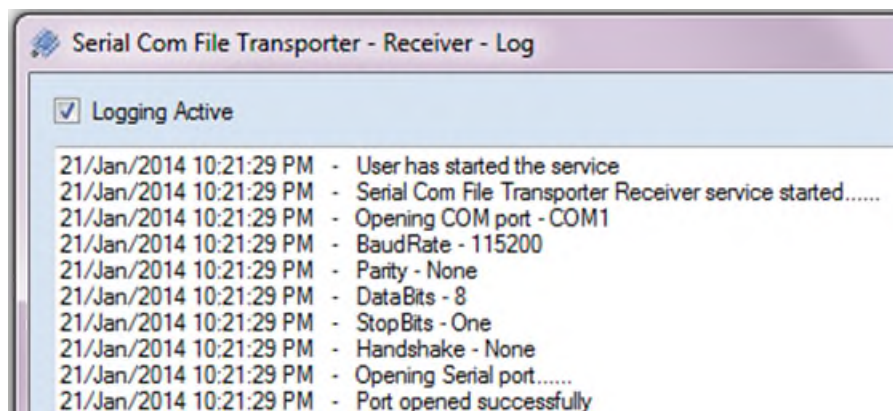
6. Open the **Sender Log** (click **File > Log**). After a brief interval the Sender should log that the serial port was **opened successfully**.



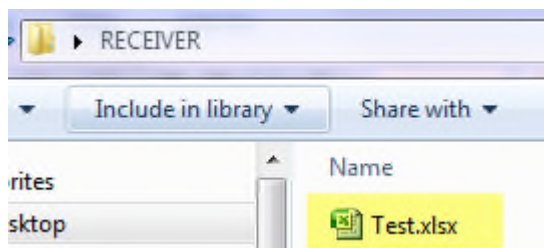
7. **Invoke** the Serial Com File transporter **Receiver** application on the **Receiver PC**.
8. **Open** the folder location specified as the **Directory** for the **Receiver**.
9. Click **Start** to start the Receiver service.



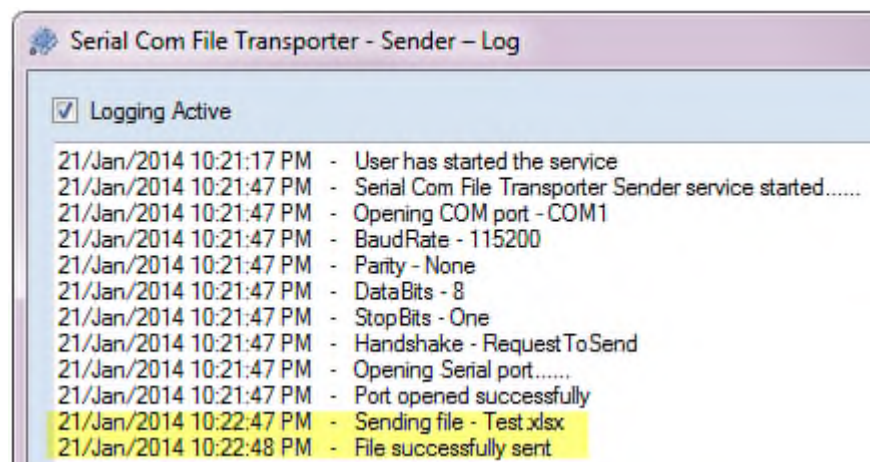
10. Open the **Receiver Log** (click **File > Log**). After a brief interval the Receiver should log that the serial port was **opened successfully**.

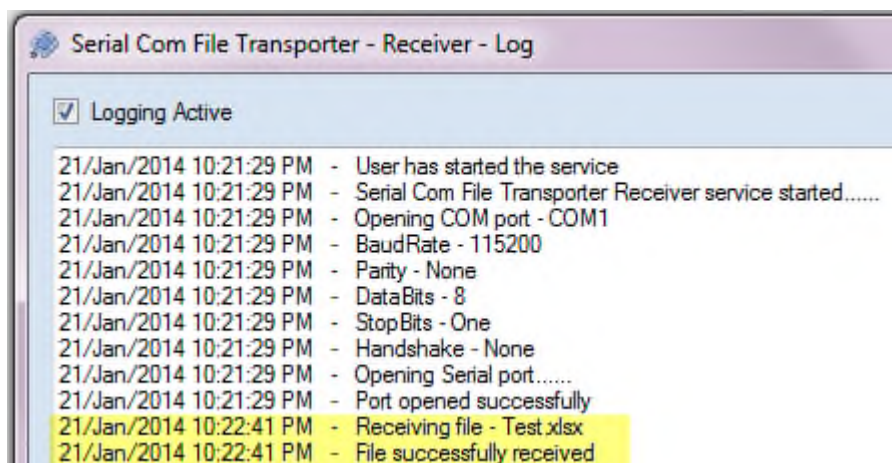


11. The **Test.xlsx** file created in step 4 should be moved from the **Sender Directory** to the **Receiver Directory** at the **Sender interval period** (e.g. in this case after 1 minute).



This should be indicated clearly in the log for both the Sender and Receiver.





If the file **has not** been moved then **stop** the Sender service, **wait** 1 minute then **start** the Sender service again. If within 5 minutes the file still has not been moved then an issue exists with the communications. Typically this will be an issue with the null modem cable.

Use **HyperTerminal** to prove communications / data flow between the Sender and Receiver PC's / servers. Once data transfer with HyperTerminal is achieved (i.e. typing data into HyperTerminal on the Sender PC / server and seeing the typed text appear on the Receiver PC / server HyperTerminal screen), communications between the Serial Com File Transporter applications will be possible.

Note: Ensure you **stop** the Sender and Receiver services before attempting communications with HyperTerminal. Additionally uncheck the **Sender starts automatically when the PC is started** and the **Receiver starts automatically when the PC is started checkboxes**, then click **Save** for both the Sender and Receiver applications. Restart both the Sender and Receiver PC's / servers, then perform the HyperTerminal checks. This process is required to ensure the Sender and Receiver applications 'release' the serial ports thus making the ports available for HyperTerminal to use.

12. Communications have been established. Refer to the **Serial Com File Transporter User Guide** for detail on configuring the applications for use.

4 Upgrading to a new version of Serial Com File Transporter

Updates to the Serial Com File Transporter are released as new versions / complete installers instead of update files. Therefore existing versions must be uninstalled, the new version installed then a new license key entered after which the new version Serial Com File Transporter functionality will be available.

4.1 Upgrade Sender application

The following overviews the steps required for upgrading the **Sender application**.

1. Note down the current Sender configuration i.e. directory, interval and configured file extensions.
2. **Uninstall** the Serial Com File Transporter Sender application. Use the Operating System's specific un-installation service or wizard. For example: **Control panel > Add or Remove programs** (Windows Server 2003), **Control panel > Uninstall a program** (Windows 7/8) etc.
3. **Download** the latest version of the Serial Com File Transporter Sender application installer from www.kanepiservices.com.au.
4. **Install** the Serial Com File Transporter Sender application as detailed in this document.
5. Request a new license key from kanepi Services Pty Ltd as detailed in this document.
6. Enter the new license key into the Serial Com File Transporter Sender application **License Key** field as detailed in this document.
7. Return the configuration details collected in step 1.
8. **Start** the Sender service.
9. Normal Serial Com File Transporter Sender application functionality is then available.

4.2 Upgrade Receiver application

The following overviews the steps required for upgrading the **Receiver application**.

1. Note down the current Receiver configuration i.e. directory.
2. **Uninstall** the Serial Com File Transporter Receiver application. Use the Operating System's specific un-installation service or wizard. For example: **Control panel > Add or Remove programs** (Windows Server 2003), **Control panel > Uninstall a program** (Windows 7/8) etc.

3. **Download** the latest version of the Serial Com File Transporter Receiver application installer from www.kanepiservices.com.au.
4. **Install** the Serial Com File Transporter Receiver application as detailed in this document.
5. Request a new license key from kanepi Services Pty Ltd as detailed in this document.
6. Enter the new license key into the Serial Com File Transporter Sender application **License Key** field as detailed in this document.
7. Return the configuration details collected in step 1.
8. **Start** the Receiver service.
9. Normal Serial Com File Transporter Receiver application functionality is then available.

5 Appendix A: Acronyms, Abbreviations & Definitions

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.