Circulation Assistant

User Guide

FE Technologies
RFID your way

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Note: This User Guide relates to Software Version Release 3.2

Circulation Assistant

The RFID Circulation Assistant is FE Technologies Library RFID software that allows library staff to perform functions, such as borrow items and return items, using their LMS client software and RFID enabled items. The system comes in the following formats:

Compact kit

This kit comprises the Circulation Assistant software and a low power USB connected RFID reader with integrated antenna. This kit is useful where desk space is limited or low volumes of items are to be processed. The reader is powered by the USB port.

Standard kit

This kit comprises the Circulation Assistant software and a high power RFID reader with a separate antenna pad. This kit is useful where high volumes of items are to be processed and desk space is available. The reader connects to the computer via a USB port and is powered by a separate 12v power supply.

Standard shielded kit

This kit comprises the Circulation Assistant software and a high power RFID reader with a separate shielded antenna pad. This kit is useful where high volumes of items are to be processed and desk space is available but the environment is not suitable to use a standard antenna. This could include situations such as the following:

- The working surface is made of metal
- The table has metal frames
- The space under the antenna is used to store library items.

The reader connects to the computer via a USB port and is powered by a separate 12v power supply.

Optional Close Proximity Reader (CPR)

An optional CPR is available for libraries that use RFID-enabled patron membership cards. This is used to scan membership cards instead of the barcode scanner.

Thin Client High Power Kit

This kit comprises the Circulation Assistant software and a high power RFID reader with a separate antenna pad (or custom shielded antenna pad, in which case additional costs apply). This kit is useful where high volumes of items are to be processed, desk space is available and the library uses a thin client environment to run the LMS client. The following thin client environments are supported:

- Microsoft Terminal Services (RDP)
- Citrix Thin client / meta frame over RDP
- VMWare virtual environment including Virtual desktop

A network port and a fixed IP Address are required for each kit.
This user document will help you harness the full potential of this equipment. Version 2.3 of the circulation assistant contains several patented features which will enhance the functionality of the system.
Please also read the Circulation Assistant Architect Pack for details on pad placement, exclusion zones etc.

Document Legend:

Do's (recommended action)	Don't (not recommended action)
Note (a note of advice)	Caution (A note of warning or caution)
(FAQ) Frequently asked question	Tips for effective usage
Optional features	

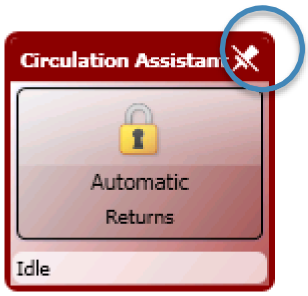
Key Functions

The Circulation Assistant kit replaces the need for barcode (asset number) entry of items into your LMS client for staff assisted issue or returns procedures. You simply place items on or over the pad. The Circulation Assistant software sends (simulating a barcode scan) the asset number to the LMS client and at the same time also sets the security of the item to the corresponding value. For example, if the item is being returned to the library (check-in), the security will be set to "secured" and if the item is being issued (check-out) to a patron the security will set to "unsecured".

Some of the features of the Circulation Assistant require a compatible LMS. For a list of supported LMS and their compatible features, please refer to the FE Technologies Support Team who can supply a list of compatible LMS's.

Starting the Circulation Assistant

Launch the Circulation Assistant application by clicking on the desktop shortcut, or alternatively by selecting [Start] -> "Programs" -> "FE Technologies" -> "Circulation Assistant". The software can simply be closed by right-clicking the Circulation Assistant icon in the Windows system tray and selecting "Close" from the menu.

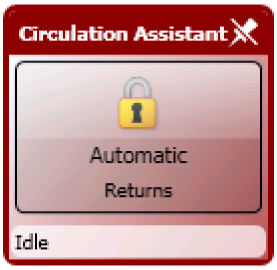


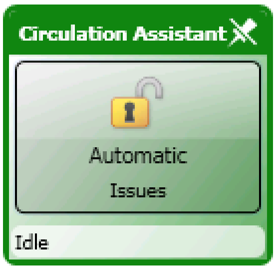
You can also pin the Circulation Assistant window by clicking on the pin icon in the top right corner. This will move the window down to the bottom right hand corner of your computer screen and when not in use will fade out, to make it less intrusive when using other applications.

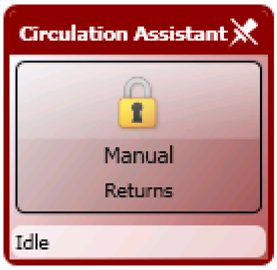
The window can also be reset to the centre of the screen – click on the Circulation Assistant icon in the tray menu and select "reset window position".

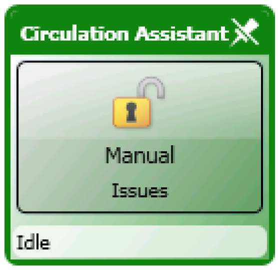
Synchronisation with the LMS window:

It is important to ensure that the Circulation Assistant and LMS window are synchronised so that the system sets the security value accordingly. For example, when the check out LMS window is active and being used, the Circulation Assistant also needs to be in the check-out mode so that when it transfers the barcode number to the LMS, it sets the security to the "unsecured" value. There are several ways of synchronising depending on the LMS you are using. You can also choose to manually process issues and returns. You can cycles between each type of mode by simply clicking in the middle of the icon – which will change its status with each click:









Auto synchronisation method

This is the most reliable and sure method if it is compatible with your LMS. In this mode, the Circulation Assistant software continuously monitors your LMS client and automatically sets itself to the mode corresponding to that of the active LMS client window. You can switch between the LMS client function using any method supported by your LMS such as short cut keys, mouse clicks, ALT+ Tab etc. (This method is not compatible with some LMS clients, especially browser-based clients.)

This is the recommended method of synchronisation if it is compatible with your LMS.

Manual Synchronisation Method

When operating in a manual mode the Circulation Assistant software is configured to use the same short cut keys as the LMS client. For example, if the LMS uses F4 and F5 to access check out and check in, the Circulation Assistant is configured to use the same short cut keys. This means that when you press a short cut key, both the LMS window and the Circulation Assistant software are set to the same mode. This method is compatible with all LMS clients.

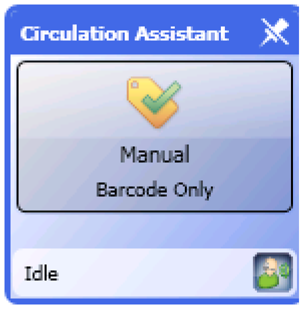
CAUTION! DO NOT use your mouse instead of the short cut keys, to activate your LMS client window in this method, as it will cause the two systems to become out of sync. If this happens, the security setting will be incorrect. You can correct the issue by using the appropriate short cut key again and reprocess the items.

Manual method

This is a very basic method, in which you must manually click and ensure that the LMS and Circulation Assistant software are set to the same mode. This is useful when your LMS is not compatible with the Auto synchronisation mode and does not have shortcut keys for selecting its check out and check in functions. This method is compatible with all LMS client.

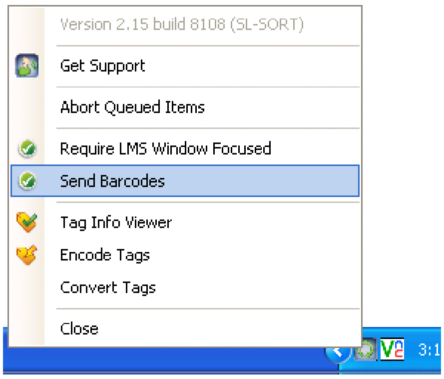
Send Barcode Only

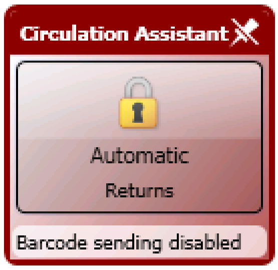
The "Manual – Barcode Only" mode allows you to send the asset number to the LMS without changing the security on the tag. This feature is ideal for internal loans where items are not to leave the library.



Barcoding Sending On/Off

The barcode sending toggle button can be accessed from the Circulation Assistant menu in the Windows system tray.





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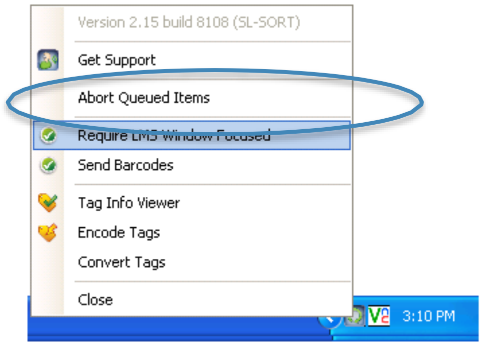
Disabling the LMS Window

In the Context Menu (right click on the Circulation Assistant on your task bar) there is an options “Require LMS Window Focused”. When enabled, the Circulation Assistant will only send asset numbers to the LMS window as normal. When disabled, it provides functionality for the Circulation Assistant to send asset numbers to any window. This may be used in scenarios where the LMS may be offline or inaccessible.



Check tags

‘Tag Info Viewer’ allows you view the data encoded in a tag.
Simply place an item (or items – up to 5 at a time) on the RFID pad to view the tag details onscreen.

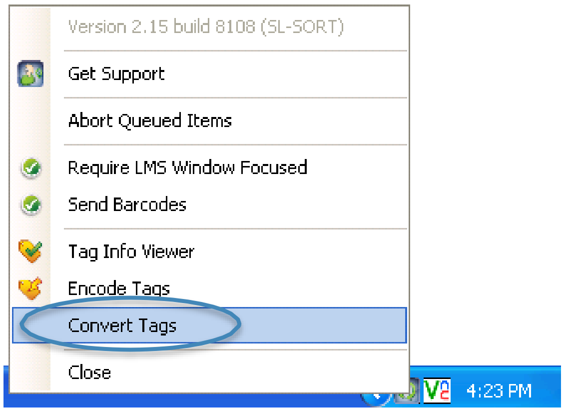
Encode Tags

The Circulation Assistant has the additional function of “Encode Tags”, allowing the encoding of tags. This can be accessed by right-clicking on the Circulation Assistant icon and selecting “Encode Tags”.

This function can be used to encode RFID tags. Tags can be placed on the RFID pad and encoded with the required data.
Please note that the encoding values are set via the Management Console. Several items can be queued for encoding at a time. By clicking on the “Queue” icon all queued items can be aborted. The Encode settings are listed to the left of the screen. When processing tags that adhere to data standard ISO28560 you can also lock data elements during the encoding process.
You can also configure the Circulation Assistant (via the Management Console) to automatically re-encode tags with additional data elements during the returns process.
The asset number will automatically populate with the existing asset number if the tag has already been encoded.

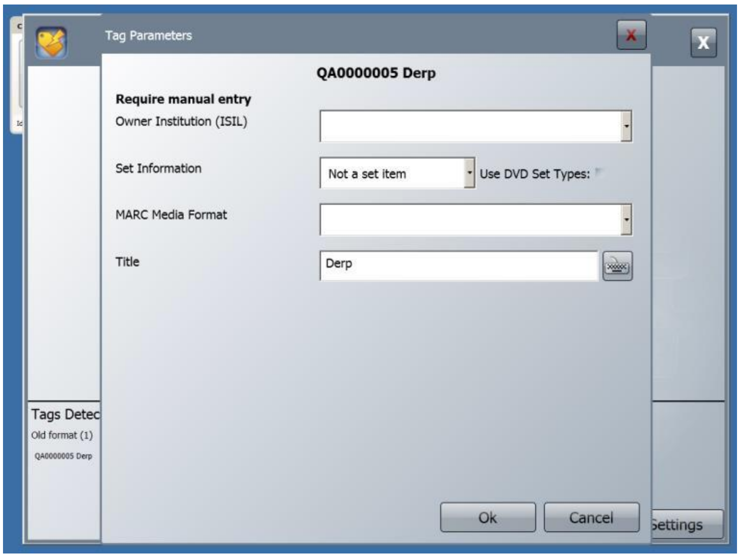
Convert Tags

If your library supports multiple tag data formats, the Convert Tag function provides the utility to convert tags from one tag data format to another. The Convert Tags function is accessible by simply right clicking on the Circulation Assistant icon visible in the Windows Taskbar and selecting “Covert Tags” from the menu.



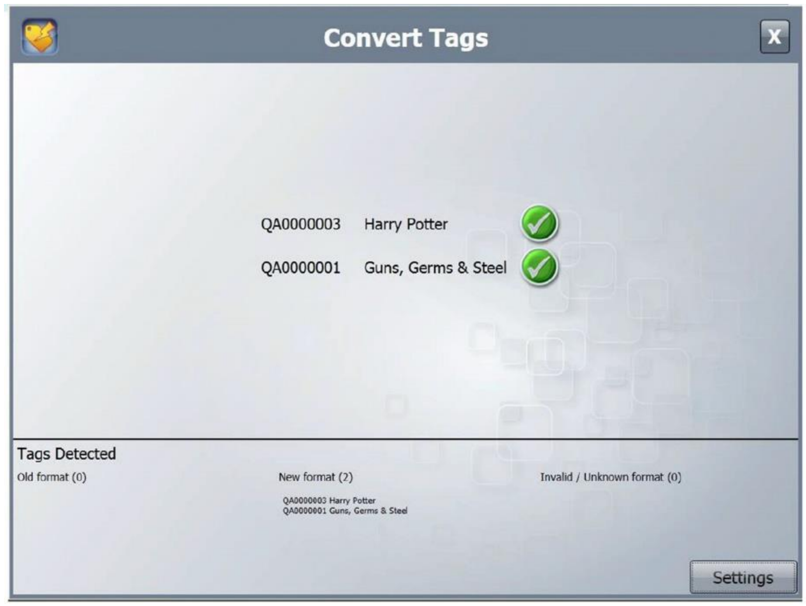
When items are placed on the RFID pad, the bottom half of the screen will identify whether the tags are:

- Old format
- New format
- Invalid/unknown format



When items of the old tag data format are detected, a window will be displayed on-screen prompting you to provide any necessary tag parameter information for the new tag data format. After the tag parameters have been provided, clicking the “OK” button will proceed to convert the tag to the new tag data format.

The converted items will appear with a green tick and the bottom half of the screen will identify these items as now being in the new tag data format. The Circulation Assistant can be configured to automatically convert tags, so while you are performing check in and check out functions, the tags will also be automatically converted to the new tag data format. This feature is configured via the Management Console application.



We recommend that the "Convert Tags" function be configured by the FE Technologies Technical Support Team.

Processing multiple items

The Circulation Assistant supports processing multiple items even if your LMS client does not support it. The extent to which this feature is effective depends on your LMS. The following methods of processing multiple items are available:

Queued method with popup detection

This is a patented method that is available in conjunction with the auto synchronisation method for compatible LMS clients. In this method, the Circulation Assistant sends the asset number one at a time to the LMS window, waiting a predefined time for the LMS to process the item, before sending the next item and simultaneously monitors for popup alerts (such as on-hold notification and error messages) from the LMS client window. If the LMS client displays a popup alert, the Circulation Assistant pauses for the user to action the popup before sending the next asset number. If the user does not action the popup window within the predefined waiting period, the system will “time out” and abort the action and you will need to process the item again.

This FE Technologies Patented method of processing multiple items is only available in conjunction with its patented LMS Auto Synchronisation method detailed above.

This is the recommended method if it is compatible with your LMS.

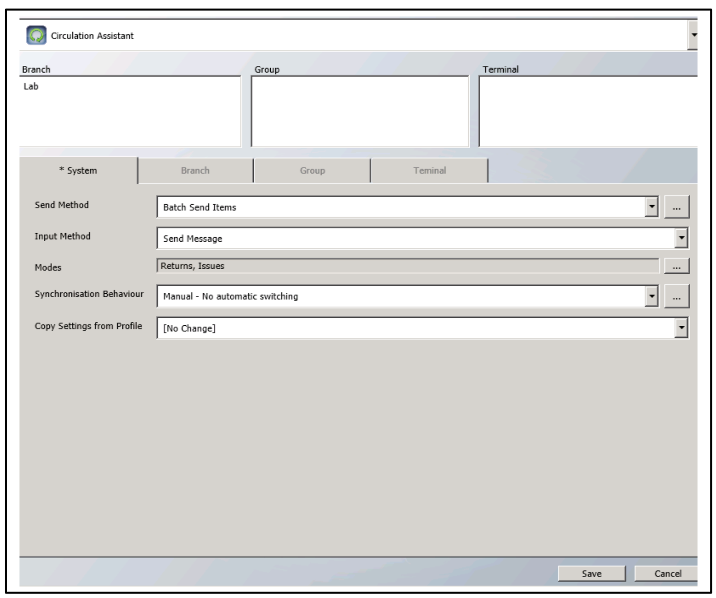
Queued Method with time delay

In this method, the Circulation Assistant sends asset numbers one after another with a predefined time delay between each item. This method will work with any LMS. By clicking on the “abort queued items” button, all items in the queue will be removed.

If the LMS throws an alert such as a popup message for items on hold, you will need to action the window before the system sends the next asset number. Otherwise the system will send the asset number to the popup window and it will be lost and will need to be processed again.

Batch mode

In this mode, the Circulation Assistant will send the asset number of all items in one group as a delimited list with a configurable (via the Management Console – see screen shot at left) delimiter value. This can only be used with an LMS that supports this mode.



Processing items using the circulation assistant

- Set your LMS client to the relevant screen (issues or returns).
- The mini-window for the Circulation Assistant software on your screen should be in the same mode as your LMS client (Issues or Returns) using one of the methods previously explained.

- Ensure the cursor is flashing in the Asset number field (barcode number field) in the LMS client and place item(s) on the pad. The reader will enter the asset number in the field and the LMS client will process the item.

> If you are not using the auto synchronisation method, you must constantly monitor for popup messages and quickly process them. If the popup message is not actioned within the configured wait time, the system pass the asset number to the popup message and will be lost and you will need to remove the items from the pad and place unprocessed items on the pad again for reprocessing.

- In the issue mode, process the patron card as you would normally, using the barcode and then place the cursor in the asset number field before placing the items on the pad.

System configuration

The various system settings will be setup by the FE Technologies support technician or your IT support staff. The various settings available include the following:

- Window colour (to match that of the LMS client)
- Time delay between items
- Short cut keys
- Delimiter to include between items
- Various time out values
- Customisation of how it synchronises with the LMS window

Special Features

- If your LMS uses more than one LMS client software window to perform issues or returns, the Circulation Assistant can be configured to work with all of them. There is no limit to the number of client software windows that can be supported.
- The system can support the use of custom client windows to perform customised issues functions. For example, some universities use a special short term issue to issue high demand reference items for use in the library. In this mode, the item is issued to a patron for a one or two hour period for use inside the library and the security is not turned off.
- The Circulation Assistant can work with a CPR if your library uses RFID-enabled membership cards. The CPR works simultaneously with the RFID pad reader that reads library items.

Language options

You can change the language of the Circulation Assistant via the Management Console. Currently you cans elect the application to either present to the user in English or Japanese. Please refer to the section “Application Language” in the Management Console User Manual.

Re-installing Circulation Assistant

In the event that your library replaces a computer or upgrades the computer operating system, it may be necessary to re-install the Circulation Assistant and accompanying FE Technologies software on the affected machine(s). This re-installation process takes approximately 15 minutes and libraries are given the option of proceeding with this process in the following two ways:

1. Contact FE Technologies to organise for a Technical Support Officer (TSO) to conduct the reinstallation via remote assistance. The contact details for FE Technologies are listed at the end of this document.

> Please contact FE Technologies in advance to ensure availability of a Technical Support Officer (TSO).

2. Conduct the reinstallation and configuration in-house using provided Windows Installers supplied by FE Technologies or download via the Management Console application. See following instructions.

How to perform a re-installation of the Circulation Assistant

Please be advised that Microsoft .Net Framework 4.0 or later is a prerequisite for the FE Technologies RFID software. If Microsoft .Net Framework is not installed, you may download and install it from the link provided below:

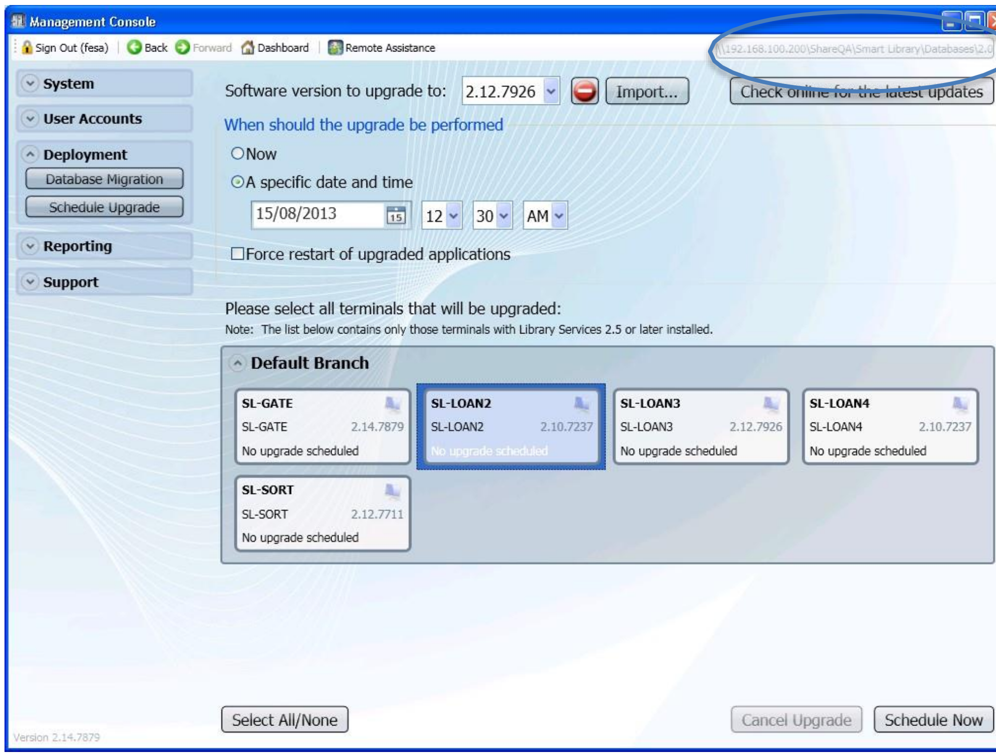
http://www.fetechgroup.com.au/downloads/pre-requisites/dotNetFx40_Full_x86_x64.exe

In addition, if you wish to be able to run reports from the Management Console, the 32-bit Crystal Reports Runtime Engine will need to be installed. The 32-bit installer should be used for bit machines too. Link available below:

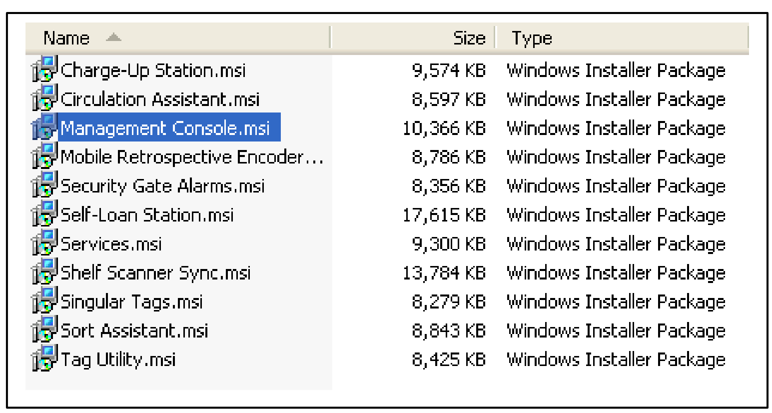
http://www.fetechgroup.com.au/downloads/pre-requisites/CRRuntime_32bit_13_0_1.msi

The Management Console application provides users with the functionality to check online for software updates and download the latest version of the FE Technologies RFID software.

Upon logging into the Management Console with credentials corresponding with an IT level access account, users will find a section under the *Deployment* sidebar menu titled *Schedule Update*. A button will be visible on the *Schedule Update* screen titled *Check online for the latest updates*.



By pressing this button, Management Console will inform the user if a newer version of the software is available and prompt them to download it. Upon the download completing, the version number corresponding to the installation package will be visible within the *Software version* list box control.

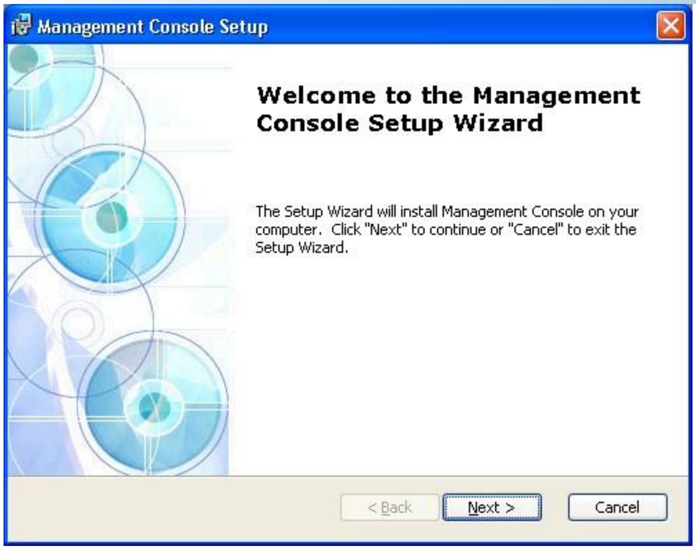


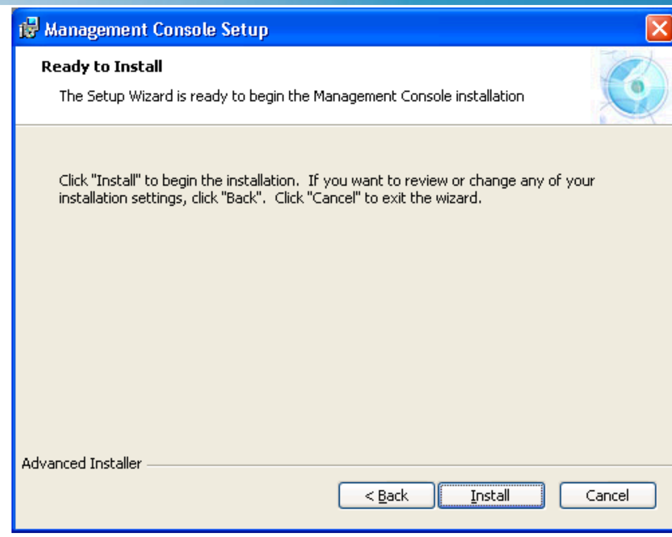
Within the central share directory, the "\Smart Library\Updates" folder will contain the installation packages downloaded or imported via the Management Console. The following MSI files will need to be ran on the computer to re-install the Circulation

Assistant software:

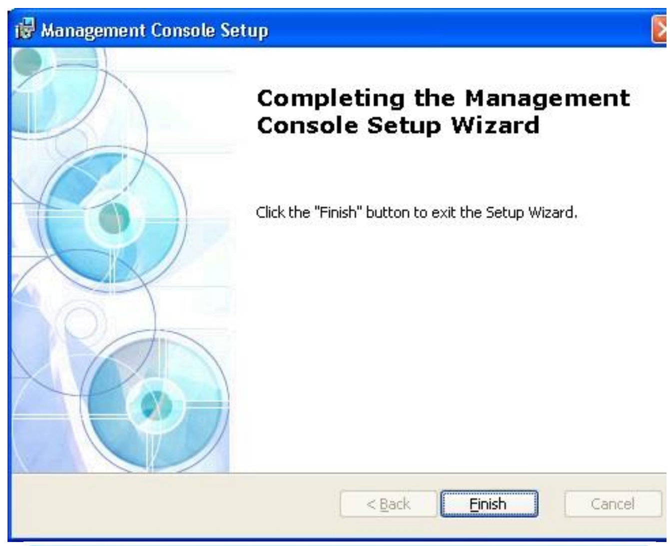
- Management Console.msi
- Circulation Assistant.msi
- Services.msi

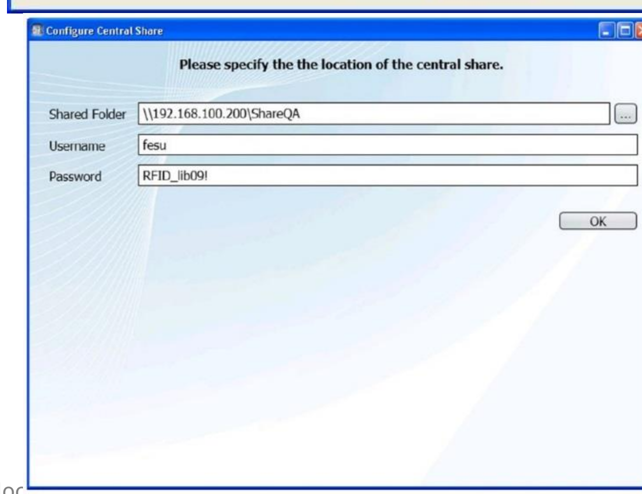
The MSI files can be manually executed by simply double-clicking the MSI file or right-clicking on the MSI file and selecting the *Install* option from the context menu. This process will query the target system and display an installation wizard to guide the user through the upgrade process. When the user clicks the *Finish* button, the software components are installed and the wizard is closed.





Each Windows Installer (MSI) will take between approximately 30 seconds to a couple of minutes to complete.





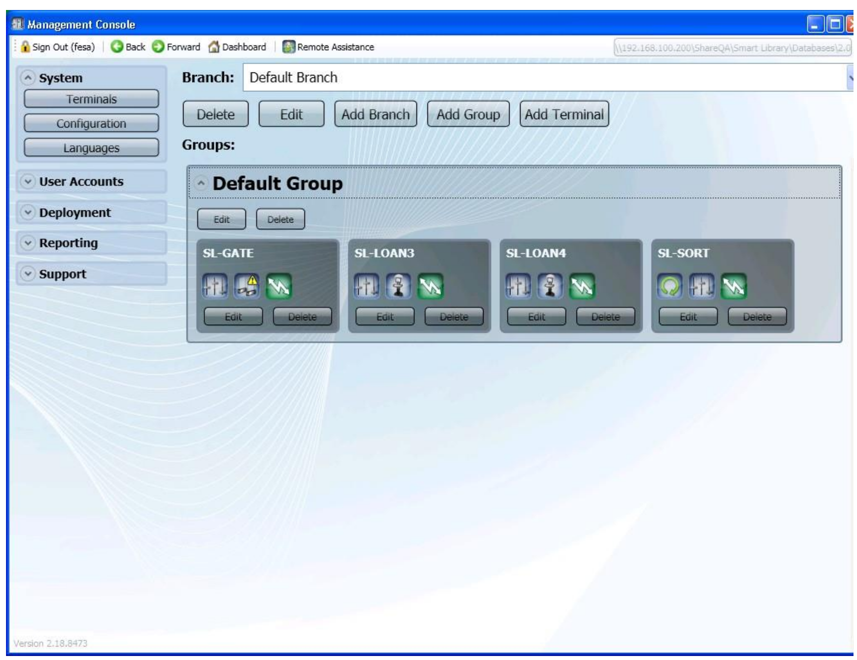
After the aforementioned Windows Installer (MSI) wizards have completed, launch the

Management Console application using the desktop shortcut. You will be presented with a *Configure Central Share* window, prompting you to enter the directory for the central share along with credentials (username & password) to access the folder. Enter the requested information and click the [OK] button.

If the name of the computer has not changed since the last installation, simply restart the computer and the Circulation Assistant application will be functional. No further action will be required.

If the computer’s name has changed:

If the name of the computer differs from the previous installation, it will be necessary to verify that the name of the terminal is configured correctly in Management Console. Sign into Management Console with credentials corresponding with an IT level access account.



Under the *System* menu on the sidebar, click *Terminals*. Reviewing the list of terminals, you will find one matching the computers current name and another matching the computers old name. Delete the terminal with the current computer name by pressing the [Delete] button.

Rename the terminal with the old computer name by pressing [Edit], then specifying the new Name, Machine Name, and IP Address if required. Click the [Save] button.

Restart the computer to complete the process.

Information to the user (FCC Part 15.105)

Class B product:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
Reorient or relocate the receiving antenna
Increase the separation between the equipment and receiver
Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
Consult the dealer or an experienced radio/TV technician for help

Modification warning

Warning: Any changes or modifications not expressively approved by FE Technologies could void the user's authority to operate this equipment

Support Options

For any queries or to log a support call, please contact FE Technologies Customer Care Centre via one of the following forum:
Online Support http://www.fetechgroup.com.au/online-support.html Email: support@fetechgroup.com
Phone Support 1300 731 991 – Australia 0800 231977 – New Zealand +85 2 3008 5757 – Hong Kong +60 3 2788 4847 – Malaysia +65 3158 0074 – Singapore 801 4033 – Brunei