



System requirements for ReCreateX Back office, Web shop and Mobile applications v3-20160523

Contents

1. Introduction	4
2. ReCreateX	5
2.1 Hardware	6
Platform	6
Server	7
Server Hardware	7
Server Software	8
Remote support	8
Server backup and security	9
Work stations	10
Work station hardware	10
ASP thin client	10
Work station software	10
Work station ports	10
2.2 Peripherals	11
Point-of-sales	11
ReCreateX Cash desk	11
All-in-one POS systems	11
ReCreateX Cash Desk peripherals	12
Receipt printers	13
Entry ticket printer	13
Customer displays (VFD)	14
Cash drawers	14
Barcode scanners	15
Payment terminals	16
mPOS (mobile) 2.0.0 - Android app	17
mPOS peripherals	18
Self service kiosks	19
Other ReCreateX peripherals	20
Card readers	20
Card printer	21
Label printer	21
Webcam	21
Access control devices	22
Access gate solution	22
Mobile solutions	23
Application-specific devices	25
Fingerprint scanners	25
3. Web shop	26
3.1 Conditions for servers	26
3.2 Conditions for database	26
3.3 Minimum requirements	27
3.4 Recommended requirements	28
3.5 Requirements waiting queue	29
3.6 Web browser compatibility	29

4. Mobile applications 30

4.1 mPOS 30

4.2 Admission 32

4.3 Insight 35

Introduction

1

This document contains the system requirements for all ReCreateX applications:

- ReCreateX 6.0.0.0
- Webshop 4.0.0.0
- Mobile applications
 - mPOS 2.0.0.0
 - Admission 1.8.0.0
 - Insight 1.2.0.0

Syx Automations strongly insists on using professional PC's of a qualitative brand such as HP. The advantage of such branded machines is that they are delivered with a manufacturer's guarantee and that the supplier always has spare parts in stock.

We advise against using PC clones. Experience shows that, in case of PC clones, it is often not possible to fall back on the manufacturer's guarantee and that repairs are often very expensive or even impossible (dependent on the age of the appliance or the type of problem). Microsoft Windows does not always have the required operating systems for unknown video, sound or network cards, which makes you dependent on the operating systems of the supplier. It has happened before that a Windows environment becomes unstable because of conflicts with non-compatible hardware components or operating systems.

Since the hardware will be used in a professional environment, it is strongly advised to invest slightly more in qualitative material in order to avoid future problems. Hardware that does not function correctly could cost much more than its purchase price because of loss of time, telephone calls to the helpdesk, interventions of technicians etc.

Important remark

Please, pay attention that all hardware and/or software you want to buy is compatible with the operating system (Windows version) installed on your computers. Software and hardware usually carry a 'label' that indicates this compatibility, f.ex. "(Windows 2000, Windows XP, Windows Vista), Windows 7, Windows 8.1 or Windows 10 Compatible".



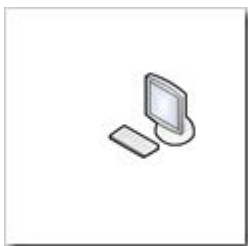
End-of-support for Windows 2000, Windows XP, Windows Vista from 2017 onwards.

From 2017 onwards, we will stop testing and supporting our new releases on Windows XP and Windows Vista. Main reason is that these Windows versions are no longer officially supported by Microsoft.

2.1 Hardware

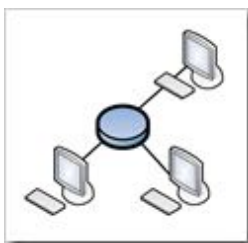
2.1.1 Platform

The ReCreateX software can be installed in 4 different ways, dependent on the size of the network:



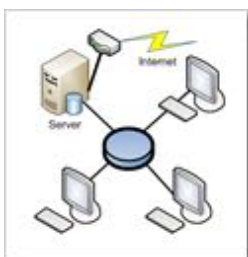
Standalone

This configuration has only one PC on which the ReCreateX software is used. This configuration is typical for smaller environments.



Workgroup

This is a configuration in which a number of PC's are part of a network in which no server is present. In this case, one of the PC's of the network is used to store the database. This usually is the strongest machine in the 'workgroup'.



Client/Server network

Here, a network is concerned in which there is also a network server.



ASP

In this configuration, ReCreateX is offered in a hosted model. From your work station or thin client you make a connection to the central server park in order to start up the package from there.

2.1.2 Server



It is important to note that the ReCreateX server is used to install the ReCreateX database, as well as the ReCreateX client-software. You definitively have to comply with the following general guidelines:

- We advise against installing other applications on this machine such as f.ex. telephone exchange software, music applications, home electronics software etc. In the past, such applications have repeatedly caused breakdowns of and / or conflicts with the server and consequently also the ReCreateX system. In order to guarantee a stable and correctly functioning ReCreateX system, it is very important that you observe this advise.
- It is important to note that the specifications of an SQL server depend on the size of your environment and the number of work stations that will be used. The specifications listed below are for a standard server for a system with up to 15 work stations.
- Do also take into account that this advice only applies to the use of the ReCreateX database and software. If you also use the same server for other applications such as Microsoft Exchange, Backup software, Anti-virus software, other databases etc., you have to examine the specifications of these systems and add them to the guidelines below.

2.1.2.1 Server Hardware

Minimal requirements:

	Database up to 4GB	Database up to 8GB	Database up to 16GB	Database up to 32GB
Processor	Dual Core Intel®	Quad Core Intel®	Quad Core Intel®	Quad Core Intel®
RAM	4GB	8GB	16GB	32GB
Hard disk	At least 35GB available for SQL 7200rpm	At least 70GB available for SQL 7200rpm	At least 140GB available for SQL 10000rpm	At least 280GB available for SQL 10000rpm
Network	1 Gbit	1 Gbit	1 Gbit	1 Gbit
Resolution	Minimally 1024 x 768			

Recommendations:

	Database up to 4GB	Database up to 8GB	Database up to 16GB	Database up to 32GB
Processor	Quad Core Intel®	Quad Core Intel®	2x Quad Core Intel®	2x Quad Core Intel®
RAM	8GB	16GB	32GB	64GB
Hard disk	At least 35GB available for SQL 15000rpm RAID1+0 Hot spare	At least 70GB available for SQL 15000rpm RAID1+0 Hot spare	At least 140GB available for SQL SSD RAID1+0 Hot spare	At least 280GB available for SQL SSD RAID1+0 Hot spare
Network	1 Gbit	1 Gbit	1 Gbit	1 Gbit
Resolution	Minimally 1024 x 768			
Extras	ILO 2x Hot plug supply	ILO 2x Hot plug supply	ILO 2x Hot plug supply	ILO 2x Hot plug supply

2.1.2.2 Server Software

Minimal requirements:	Recommendations:
• Microsoft Windows Server version 2008 R2 • Last Service Pack • All Microsoft updates installed • 'Microsoft SQL Server 2008 Standard' software with sufficient 'Client Access Licences'* (CAL's) in function of the number of work stations. 1 CAL per work station on which ReCreateX is used.	• Microsoft Windows Server 2012 R2 Standard • All Microsoft updates installed • 'Microsoft SQL Server 2014' software with sufficient 'Client Access Licences'* (CAL's) in function of the number of work stations. 1 CAL per work station on which ReCreateX is used.
If you do not have the SQL server software, Syx Automations can deliver it in the form of an 'embedded' licence (meaning that the SQL server software can only be used for ReCreateX) under very favourable conditions.	

2.1.2.3 Remote support

Syx Automations demands that there is a possibility to connect (fully secured, and controlled by the customer) to the system, to ensure a high quality of services. For this, the following infrastructure is required:

Minimal requirements:	Recommendations:
• Internet connection through ADSL or cable - or - • VPN access In this scenario, Syx Automations adapts itself to the customer, but the customer has to offer a dial up package or PC. Experience shows, however, that this solution often has a negative effect on the speed of the service.	• Internet connection through ADSL or cable, with fixed IP address - or - VPN access. • Teamviewer. This recommended solution offers more security and allows a faster remote service.

2.1.2.4 Server backup and security

Minimal requirements:	Recommendations:
Backup Syx Automations strongly advises to use a correctly functioning backup mechanism. There are many possible solutions and it is up to the customer to provide a correctly functioning system. The ReCreateX system is configured in such a way that a backup is made of the ReCreateX database at regular intervals. These backups are put on the hard drive of the server on a separate location. A mechanism has to be provided for to copy these database backups on an external medium at regular intervals.	Backup If you do not have backup software, Syx Automations can supply an offsite backup service under very favourable conditions ensuring the customer that backups are made at regular intervals. A UPS can also be considered. In case of power failure, this appliance makes sure the server will keep on running on a battery for a certain period.
Security Syx Automations strongly advises to provide for a correctly functioning anti-virus solution. This is not a requirement for a good functioning of the ReCreateX software, but it is however quite risky to work without an anti-virus solution nowadays. The costs to remedy virus infections are many times higher than the price of an anti-virus solution, let alone the costs for possible loss of data in case of an infection.	Security An anti-virus solution with automatic updates, for both the server as the work stations. If you do not have anti-virus software, Syx Automations can supply this under very interesting conditions.

2.1.3 Work stations



The minimal requirements and recommended criteria below apply to both the front-office work stations as to the POS work stations.

2.1.3.1 Work station hardware

Minimal requirements:	Recommendations:
• PC with Intel / AMD processor • Processor, at least 2 GHz • 4 GB RAM • 5 GB free disk space • Minimal resolution 1024 x 768	• PC with Intel / AMD processor • PC with multicore processor • 8 GB RAM • 20 GB free disk space or more • Minimal resolution 1920 x 1080

2.1.3.2 ASP thin client

In case of a set-up in ASP, the minimal requirement is a thin client with Win 7 embedded.

2.1.3.3 Work station software

Minimal requirements:	Recommendations:
CLIENT/SERVER • Windows XP with the latest Service Pack and all Microsoft updates installed. • Microsoft Office 2003 • Microsoft .NET framework 4.0	CLIENT/SERVER • Windows 10 or higher with the latest Service Pack and all Microsoft updates installed. • Microsoft Office 2013 • Microsoft .NET framework 4.0 • Anti-virus solution (See also server)
ASP • Windows 7 or higher or Macintosh OS X • Internet browser (Internet Explorer / Google Chrome) • Last version of CITRIX Receiver	• Windows 10 • Internet browser (Internet Explorer / Google Chrome) • Last version of CITRIX Receiver

2.1.3.4 Work station ports

Recommendations:
Dependent on the peripherals you want to connect, you have to make sure there are sufficient ports. Dependent on the type of peripheral, you will have to provide for one or several USB, parallel or serial ports. If you use a POS work station, you will also have to take into account that one or several POS printers will have to be connected.

2.2 Peripherals



RCX is compatible with the following hardware:

The minimal requirements and recommended criteria below apply to the peripherals:

- [POS](#)
- [Access control devices](#)
- [Webcam](#)

2.2.1 Point-of-sales

- [ReCreateX Cash desk](#)
- [mPOS \(mobile\) 2.0.0 - Android app](#)
- [Other ReCreateX peripherals](#)

2.2.1.1 ReCreateX Cash desk

- [All-in-one POS systems](#)
- [ReCreateX Cash Desk peripherals](#)

2.2.1.1.1 All-in-one POS systems

- **RP2**

Sleek, stylish and great for small places. Add a touch of class with this compact all-in-one with a 14-inch diagonal touch screen that fits wherever you need it – place it on a counter, tuck it into a kiosk or mount it on a wall.



- **RP7**

Quad-core 2nd Generation Intel® Core™ processors with Intel® vPro™ Technology (select configurations) deliver hardware-based remote management technologies and a stable, secure, and reliable IT infrastructure.

Select a 38,1 cm (15") or 43,2 cm (17") diagonal display, and then customize it with intuitive and familiar projected capacitive touch technology or the flexible navigation features of resistive touch screen.

Add a sharp customer-facing display. The HP RP7 26,4 cm (10.4") CFD Display (B0T22AV) is perfect for additional advertising and promotional opportunities. The HP RP7 VFD Customer Display (B0T26AV) offers easy-to-read price and product information.



IMPORTANT NOTE!

Currently (early 2016) the RP7 system may show certain touch screen issues when using ReCreateX in a Citrix environment. Please consult Syx Automations to get advice on the correct system.

- **RP 5800**

Advanced features enable retailers to standardize on one system to run mission critical operations. Expandable and highly configurable for easy implementation into your existing ecosystem; choose operating systems, Intel® processors, storage, and memory.



2.2.1.1.2 ReCreateX Cash Desk peripherals

- [Receipt printers](#)
- [Entry ticket printer](#)
- [Customer displays \(VFD\)](#)
- [Cash drawers](#)
- [Barcode scanners](#)
- [Payment terminals](#)

2.2.1.1.2.1 Receipt printers

Device	Technology	Use in ReCreateX	Interface	Citrix/TS	Notes
EPSON TM-T88V 	- Receipt printer - Direct thermal - Partial cut	Print receipts, kitchen and bar tickets.	- USB - RS-232 (Serial)		- Separate power supply - If the receipt printer has to be shared through ethernet or used as a kitchen printer, the EPSON TM-T88V should be used with optional Ethernet interface
HP A799 	- Receipt printer - Direct thermal - Partial cut	Print receipts	Powered USB		- Requires PUSB connection on host PC If the receipt printer has to be shared through ethernet or used as a kitchen printer, the EPSON TM-T88V should be used with optional Ethernet interface

2.2.1.1.2.2 Entry ticket printer

Device	Technology	Use in ReCreateX	Interface	Citrix/TS	Notes
BOCA Lemur 	- Ticket printer - Direct thermal	Print access tickets	USB		- Two types: - Top opto - black mark of ticket stock on thermal side - Bottom opto - black mark of ticket stock on non-thermal side Contact Syx Automations to know which type to use. - Available with or without cutter module

2.2.1.1.2.3 Customer displays (VFD)

Device	Technology	Use in ReCreateX	Interface	Citrix/TS	Notes
EPSON display dual interface DM-D110 	VFD (Vacuum Fluorescent Display)	The customer display is directed towards the customer and gives the customer real-time information on the chosen articles and prices during the registration of the current sale.	RS-232 (Serial)	 On condition that the device is set up on COM1	Usually part of POS setup: 1. EPSON TM-T88 V 2. EPSON display dual interface DM-D110 3. Cash drawer
Integrated customer display for HP RP7 	VFD (Vacuum Fluorescent Display)	The customer display is directed towards the customer and gives the customer real-time information on the chosen articles and prices during the registration of the current sale.	Powered USB	 On condition that the device is set up on COM1	Requires PUSB connection on host PC
7-inch LCD Customer Display 	LCD	The customer display is directed towards the customer and gives the customer real-time information on the chosen articles and prices during the registration of the current sale.	USB		Requires setup through DisplayLink driver

2.2.1.1.2.4 Cash drawers

Device	Technology	Use in ReCreateX	Interface	Citrix/TS	Notes
HP Standard cash drawer 	Cash Drawer	Storing cash money	RJ-12		Usually part of POS setup: 1. EPSON TM-T88 V 2. EPSON display dual interface DM-D110 3. Cash drawer
HP flip-top cash drawer 	Cash Drawer	Storing cash money	RJ-12		Usually part of POS setup: 1. EPSON TM-T88 V 2. EPSON display dual interface DM-D110 3. Cash drawer

2.2.1.1.2.5 Barcode scanners

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
 HP Barcode Imaging Scanner	- Imager (1D & 2D/QR) - Hand scanner	Scanning sales articles, access tickets, ...	USB	✓
 HP Wireless Barcode Scanner	- Imager (1D & 2D/QR) - Hand scanner - Wireless	Scanning sales articles, access tickets, ...	- Wireless Bluetooth - USB (base station)	✓
 HP Barcode Presentation Scanner	- Imager (1D & 2D/QR) - Table-top scanner - Wireless	Scanning sales articles, access tickets, ...	USB	✓

Other barcode hand scanners still compatible with ReCreateX

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
- Honeywell/Metrologic MS-9520 - Honeywell/Metrologic MS7120	- Hand scanner - Laser (1D only)	Scanning sales articles, access tickets, ...	USB	✓
Datalogic Q2130	- Imager (1D only) - Hand scanner - Wireless	Scanning sales articles, access tickets, ...	USB	✓

2.2.1.1.2.6 Payment terminals

Device	Technology	Use in ReCreateX	Interface	Citrix/TS	Notes
Atos Worldline					
YOMANI	Payment terminal	Registering electronic card payments	RS-232 (Serial)	✓	
					
<i>Atos Worldline legacy models still compatible with ReCreateX</i>					
XENTA	Payment terminal	Predecessor YOMANI	RS-232 (Serial)	✓	
C-ZAM SMASH	Payment terminal	Predecessor XENTA	RS-232 (Serial)	✓	
CCV / Verifone					
Vx520	Payment terminal	Registering electronic card payments	USB (Virtual COM)	✓	- Similar compatible model (UK) - o Vx810 with Ocius Sentinel
					
<i>CCV/Verifone Legacy models still compatible with ReCreateX</i>					
CCV/Verifone Vx570	Payment terminal	Predecessor of Vx520	RS-232 (Serial)	✓	
CCV OMNI 3750		Predecessor of Vx570	RS-232 (Serial)	✓	

Device Name	Type	Screen size	Resolution	Android	Network	NFC
LG Google Nexus 5	Smartphone	4.95"	1080x1920	Android OS, v 5.0 (Lollipop), upgradable to v 6.0 (Marshmallow)	• Wifi • 3G • 4G	✓
Asus Google Nexus 7 (2013)	Tablet	7"	1200x1920	Android OS, v 4.1.2 (Jelly Bean), upgradable to v 5.1.1 (Lollipop)	• Wifi • 3G • 4G	✓
Samsung Galaxy S3	Smartphone	4.8"	720x1280	4.0.4 (Ice Cream Sandwich), 4.3 (Jelly Bean)	• Wifi • 3G	✓

Capable devices (not tested by Syx Automations but used in the field)

Device Name	Type	Screen size	Resolution	Android	Network	NFC
Samsung Galaxy Tab S2	Tablet	9.7"	1536x2048	Android OS, v 5.0 (Lollipop), upgradable to v 6.0 (Marshmallow)	• Wifi • 4G	✓
Samsung Galaxy Tab 4	Tablet	7"	1280x800	Android OS, v 4.4.4 (KitKat)	• Wifi • 4G	✗
Samsung Galaxy Note 4	Smartphone	5.7"	1440x2560	Android OS, v 4.4.4 (KitKat), upgradable to v 6.0.1 (Marshmallow)	• Wifi • 4G	✓

App versus ReCreateX WSDL compatibility

		mPOS app versions						
		2.0.0.X	1.5.1.X	1.5.0.X	1.4.2.X	1.4.1.X	1.4.0.X	1.3.0.X
WSDL versions	3.8.1.X	✓						
	3.8.0.X	✓						
	3.7.1.X		✓					
	3.7.0.X	✓						
	3.6.1.X	✓		✓	✓	✓		
	3.6.0.X		✓				✓	
	3.5.2.X							✓

18

2.2.1.2.1 mPOS peripherals

Mobile printer

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
--------	------------	------------------	-----------	-----------

EPSON TM-P60II



- Receipt printer
- Direct thermal
- Partial cut
- Bluetooth
- Print receipts, kitchen and bar tickets
- Print access tickets (starting from mPOS 2.1.0)

Wireless

Bluetooth



2.2.1.3 Self service kiosks

Kiosk	Functionality	Optional peripherals	Citrix/TS
Diz1419 Indoor 	• Ticket sales • Membership renewals • Issue of vouchers and e-purses/money cards • Redemption of vouchers (mifare, proximity or barcode) and e-purses/money cards • Issue of access tickets, car park tickets and receipts • Accepting, returning and changing coins and notes • Integration with UK payment card systems • Touch screen • Customizable front cover	• Barcode scanner • MIFARE Reader • Payment terminal • BOCA-printer	Depending on peripheral types Please contact Syx Automations for more information
Antenor 500 Outdoor 	• Ticket sales • Membership renewals • Issue of vouchers and e-purses/money cards • Redemption of vouchers (mifare, proximity or barcode) and e-purses/money cards • Issue of access tickets, car park tickets and receipts • Accepting, returning and changing coins and notes • Integration with UK payment card systems • Touch screen • Customizable front cover	• Barcode scanner • MIFARE Reader • Payment terminal • BOCA-printer	Depending on peripheral types Please contact Syx Automations for more information
Protouch X4 Outdoor 	• Ticket sales • Membership renewals • Issue of vouchers and e-purses/money cards • Redemption of vouchers (mifare, proximity or barcode) and e-purses/money cards • Issue of access tickets, car park tickets and receipts • Accepting, returning and changing coins and notes • Integration with UK payment card systems • Touch screen • Customizable front cover	• Barcode scanner • MIFARE Reader • Payment terminal • BOCA-printer	Depending on peripheral types Please contact Syx Automations for more information

2.2.1.4 Other ReCreateX peripherals

- [Card readers](#)
- [Card printer](#)
- [Label printer](#)
- [Webcam](#)

2.2.1.4.1 Card readers

Device	Technology	Use in ReCreateX	Interface	Citrix/TS	Notes
• Magnetic swipe readers					
 HP MSR USB Mini	• Contact reader • Magnetic stripe reader	• Processing (linking, validating,...) membership • Employee login on ReCreateX Cash Desk	USB	✓	
• MIFARE readers					
 HID OmniKey 5421	• Contactless reader • High-frequency (MIFARE)	• Processing (linking, validating,...) membership • Employee login on ReCreateX Cash Desk	USB	✓	• Supported card formats: ○ MIFARE Classic ○ MIFARE UltraLight ○ DESFire
<i>Other MIFARE readers compatible with ReCreateX</i>					
ACR122S	• Contactless reader • High-frequency (MIFARE)	• Processing (linking, validating,...) membership • Employee login on ReCreateX Cash Desk	RS-232 (Serial) USB power supply	✓	
ACR120U (Legacy model)	• Contactless reader • High-frequency (MIFARE)	• Processing (linking, validating,...) membership • Employee login on ReCreateX Cash Desk	USB	✗	
• Low-frequency reader					
 Dobit USB RFID	• Contactless reader • Low-frequency	Processing (linking, validating,...) membership	USB (Virtual COM)	✗	Supports Low-frequency RFID cards
• eID reader					

Device	Technology	Use in ReCreateX	Interface	Citrix/TS	Notes
ACR38 Smart Card Reader 	- Contact reader - Smart card reader	Scanning eID card to input customer data in ReCreateX	USB	✓	
<i>Other eID readers compatible with ReCreateX</i>					
- DIGIPASS 905 - eID reader integrated in PC keyboard	- Contact reader - Smart card reader	Scanning eID card to input customer data in ReCreateX	USB	✓	

2.2.1.4.2 Card printer

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
Fargo 50000 DTC1250e 	- Card printer - Dye sublimation	Print personalised membership cards	USB	✓

2.2.1.4.3 Label printer

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
Zebra GK420D 	- Label printer - Direct thermal	Print article barcodes on stick-on labels in function of article identification	USB	✗

2.2.1.4.4 Webcam

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
HP HD Webcams 2300-3100-3110 	Webcam	Taking pictures to link them on customer level	USB	✓

2.2.2 Access control devices

- [Access gate solution](#)
- [Mobile solutions](#)

2.2.2.1 Access gate solution

Scanflow

ReCreateX Scanflow is designed as a sophisticated MULTI-ID technology terminal for access control and leisure application.

The terminal is a universal device for contactless identification of visitors.



Technical specifications

- Dimensions: 236 x 321 x 113 mm (w x h x d) – depends on accessories
- Weight: approx. 3.2 kg (without bracket) – depends on accessories
- Operation temp. range: -20°C to +60°C
- Power supply: 12 – 36 V DC or PoE (Power Over Ethernet)
- Power consumption: maximum 0.9 A (measured for 12 V DC)
- Housing: vandal-proof aluminium housing, RAL powder coated
- Protection class: IP 43

Supported identification technologies

- RFID reader – Cards and wristbands
 - 13.56 MHz RFID technology ISO 14443A, ISO 14443B, ISO 15639
 - -R/W (R/O) e.g. Mifare Classic, Mifare DESFire, Mifare Ultralight, TagIt HFI, EM 4035, EM 4135
 - 125 kHz RFID technology e.g. HID, HITAG1, HITAG2, EM 4102, Cassi-Rusco
 - NFC Reader/Writer
 - Additional front RFID reader for easy reading of RFID wristbands
- Barcode scanner
 - Barcode tickets - 1D and 2D barcode tickets in any size (including QR code)
 - Mobile tickets - 1D and 2D barcodes received by mobile phones (including QR code)
 - Print@Home tickets - tickets printed at home on A4 size paper

Display specification

- LCD display
 - Full-colour graphic display
 - Sun-readable 7" LCD display, resolution 800 x 480
- Display features
 - Automatic multi-language messaging
 - Intuitive video animations with passage confirmation image
 - Show ID photo on display

2.2.2.2 Mobile solutions

Motorola MT2090

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
Motorola MT2090	 - Imager (1D & 2D/QR) - Hand scanner - Wireless	Mobile entry ticket validation	- Wireless Wi-Fi - USB (base station)	

Admission 1.8.0 (Android app)



This mobile app provides mechanisms to scan customer tickets or memberships, view membership subscription details and validate entries.

To provide these features, the app uses barcode and NFC scanning technologies.

This app can be used in smartphones and tablets.

Minimum requirements

Type	Support
Resolution	480 X 800 600 x 1024 720 x 1280 1080 x 1920 1200 X 1920 1136 x 640 1334x750 1920x1080
Android	Android 4.0 or newer
Internet connection	The application needs to connect to the ReCreateX Services by way of internet through at least one of the following:: - Wifi 3G 4G
Device camera	Required for: Scanning barcodes on e-Tickets or membership cards

Type	Support
NFC	Required for: Scanning contactless (e.g. MIFARE) membership cards

IMPORTANT NOTE!

Depending on the specific MIFARE technology of the cards to scan, a specific device may be required!

Tested devices

Device Name	Type	Screen size	Resolution	Android	Network	NFC	Notes
Motorola TC 55 smartphone	Industrial smartphone with integrated 1D barcode scanner	4.3"	800 x 480	Android 4.1.2; Android 4.4mobil.3* with Mobility Extensions (Mx), a layer of features that turns Android into a true enterprise-class OS	- Wifi 3G		Supported MIFARE types - Classic - Ultralight - Plus - DESFire
Samsung Galaxy S3	Smartphone	4.8"	720 x 1280	4.0.4 (Ice Cream Sandwich)	- Wifi 3G		Supported MIFARE types - Classic - Ultralight

Capable devices

Device Name	Type	Screen size	Resolution	Android	Network	NFC	Notes
LG Google Nexus 5	Smartphone	4.95"	1080 x 1920	Android 6.0	- Wifi 3G 4G		Supported MIFARE types Ultralight
Asus Google Nexus 7 (2013)	Smartphone	7"	1200 X 1920	Android 4.3	- Wifi 3G 4G		Supported MIFARE types Ultralight

App versus ReCreateX WSDL compatibility

		Admission app versions		
		1.8.0.X	1.7.1.X	1.7.0.X
WSDL versions	3.8.1.X			
	3.8.0.X			
	3.7.2.X			
	3.7.1.X			
	3.7.0.X			
	3.6.1.X			
	3.6.0.X			
	3.5.2.X			
	3.5.1.X			

2.2.3 Application-specific devices

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
Motorola CS3070 Bluetooth Barcode Scanner	• Laser (1D only) • Hand scanner • Wireless • Bluetooth	Check-in/check-out of children on ReCreateX Childcare Website	• Wireless Bluetooth • USB (charging)	✓



2.2.4 Fingerprint scanners

Device	Technology	Use in ReCreateX	Interface	Citrix/TS
Sagem MSO300	Fingerprint scanner	Blacklist check of visitors based on finger scan	USB	✗ (unknown)



Lumidigm V-Series Fingerprint Sensor	Desktop + integrated fingerprint scanner	Fingerprint Sensor: Linking visitor to system through fingerprint Fingerprint Module: Access validation through fingerprint	USB RS-232	✓
--------------------------------------	--	--	---------------	---



Lumidigm V-Series Fingerprint Module



Web shop

3

- [Conditions for servers](#)
- [Conditions for database](#)
- [Minimum requirements](#)
- [Recommended requirements](#)
- [Web browser compatibility](#)

3.1 Conditions for servers

- Every server should be virus and malware free
- Every webserver should be up-to date with its service packs and .NET frameworks
 - Webservers : .NET 4.5 required
- Every server should only be running the required services in order to maintain efficient resource usage
 - Webservers : IIS services
 - Databaseservers : MSSQL services

26

3.2 Conditions for database

This step is an extremely important part of the setup and should always be done by or with the guidance of Syx Automations.

Step 1 - Check database settings

Step 2 - Set your database to the desired size

Step 3 - Initialize the fill factor on the indexes

Step 4 - Reorganize / Rebuild the indexes

Step 5 - Update the statistics

Step 6 - Check the data size for images

3.3 Minimum requirements

	< 60 users	60 - 100 users	100 - 150 users	150 - 200 users	200 - 250 users
Database					
CPU	4 cores (2,50 GHz/core)	8 cores (2,75 GHz/core)	8 cores (2,50 GHz/ core)	12 cores (2,50 GHz/core)	16 cores (2,75 GHz/ core)
RAM	DB Size * 0.60 + 15 % for OS Min 6 GB	DB Size * 0.65 + 15 % for OS Min 8 GB	DB Size * 0.80 + 15 % for OS Min 10 GB	DB Size * 0.90 + 15 % for OS Min 12 GB	DB Size * 1 + 15 % for OS Min 16 GB
DISK	10K RPM (DB Size/4 free space)	10K RPM (DB Size/4 free space)	15K RPM (DB Size/3 free space)	SSD Storage (DB Size/3 free space)	SSD Storage (DB Size/3 free space)
OS	Windows 2008 R2 (with latest service packs)				
NETWORK	1 Gbps connection directly connected through internal network to the web server hosting the WSDL				
Additional Notes	Database server with ReCreateX as the only database				
Web server (web shop & wsdl)					
CPU	12 cores (Min 2,75 GHz/ core)	12 cores (Min 2,75 GHz/ core)	12 cores (Min 2,75 GHz/ core)	16 cores (Min 2,75 GHz/ core)	16 cores (Min 2,75 GHz/ core)
RAM	8 GB	12 GB	12 GB	16 GB	16 GB
LOAD BALANCED	NO	YES (2 servers)	YES (3 servers)	YES (4 servers)	YES (5 servers)
DISK	10k RPM (5 GB free space)				
OS	Windows 2008 R2 (with latest service packs)				
NETWORK	0,55 mbit/user				
Additional Notes	Microsoft .NET 4.5 required				
Web server (web shop)					
CPU	12 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	12 cores (Min 2,75 GHz/ core)	16 cores (Min 2,75 GHz/ core)
RAM	6 GB	8 GB	8 GB	12 GB	12 GB
LOAD BALANCED	NO	NO	YES (2 servers)	YES (3 servers)	YES (4 servers)
DISK	10k RPM (5GB free space)				
OS	Windows 2008 R2 (with latest service packs)				
NETWORK	0,55 mbit/user				
Additional Notes	Microsoft .NET 4.5 required				
Web server (WSDL)					
CPU	8 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	16 cores (Min 2,75 GHz/ core)
RAM	4 GB	6 GB	6 GB	8 GB	12 GB
LOAD BALANCED	NO	NO	NO	NO	NO
DISK	10k RPM (5GB free space)				
OS	Windows 2008 R2 (with latest service packs)				
NETWORK	0,55 mbit/user				
Additional Notes	Microsoft .NET 4.5 required				

3.4 Recommended requirements

	< 60 users	60 - 100 users	100 - 150 users	150 - 200 users	200 - 250 users
Database					
CPU	8 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)
RAM	DB Size * 0.80 + 15 % for OS Min 8 GB	DB Size * 0.90 + 15 % for OS Min 12 GB	DB Size * 1 + 15 % for OS Min 16 GB	DB Size * 1.2 + 15 % for OS Min 24 GB	DB Size * 1.4 + 15 % for OS Min 32 GB
DISK	15K RPM (DB Size/4 free space)	15K RPM (DB Size/4 free space)	SSD Storage (DB Size/3 free space)	SSD Storage (DB Size/3 free space)	SSD Storage (DB Size/3 free space)
OS	Windows 2012 R2 (with latest service packs)				
NETWORK	1 Gbps connection directly connected through internal network to the web server hosting the WSDL				
Additional Notes	Database server with ReCreateX as the only database				
Web server (web shop & wsdl)					
CPU	12 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)
RAM	16 GB	16 GB	16 GB	16 GB	16 GB
LOAD BALANCED	NO	YES (2 servers)	YES (3 servers)	YES (4 servers)	YES (5 servers)
DISK	10K RPM (5GB free space)				
OS	Windows 2012 R2 (with latest service packs)				
NETWORK	0,70 mbit / user				
Additional Notes	Microsoft .NET 4.5 required				
Web server (web shop)					
CPU	12 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	16 cores (Min 2,75 GHz/ core)
RAM	8 GB	12 GB	12 GB	12 GB	12 GB
LOAD BALANCED	NO	YES (2 servers)	YES (3 servers)	YES (4 servers)	YES (5 servers)
DISK	10K RPM (5GB free space)				
OS	Windows 2012 R2 (with latest service packs)				
NETWORK	0,70 mbit / user				
Additional Notes	Microsoft .NET 4.5 required				
Web server (wsdl)					
CPU	8 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	12 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)	16 cores (Min 2,50 GHz/ core)
RAM	8 GB	12 GB	12 GB	12 GB	16 GB
LOAD BALANCED	NO	NO	NO	NO	NO
DISK	10K RPM (5GB free space)				
OS	Windows 2012 R2 (with latest service packs)				
NETWORK	0, 70 mbit / user				
Additional Notes	Microsoft .NET 4.5 required				

3.5 Requirements waiting queue

# Concurrent users	1 - 800	800 - 1600	1600 - 2400	2400 - 3200	3200 - 4000	4000 - 4800
Database						
CPU	8 cores (Min 2,50 GHz / core)			12 cores (Min 2,50 GHz / core)		
RAM	Manager DB size * 1 + 15 % for OS (Min 8 GB)			Manager DB size * 1 + 15 % for OS (Min 16 GB)		
DISK	SSD Storage					
OS	Windows 2008R2 (with latest service packs)					
NETWORK	1 Gbps connection directly connected through internal network to the web server hosting the Web shop					
Waiting queue service						
CPU	8 cores (Min 2,50 GHz/core)	12 cores (Min 2,50 GHz/core)	16 cores (Min 2,50 GHz/core)	12 cores (Min 2,50 GHz/core)	16 cores (Min 2,50 GHz/core)	16 cores (Min 2,50 GHz/core)
RAM	8 GB			12 GB		16 GB
LOAD BALANCED	NO			YES (2 servers)	YES (2 servers)	YES (3 servers)
DISK	10K RPM (5 gig free space)					
OS	Windows 2008R2 (with latest service packs)					
NETWORK	0,20 mbit / user					

3.6 Web browser compatibility

Syx Automations recommends to always use the latest version of one of the following browsers:

Browser	Version
Google Chrome	49.0.2623.110 and up
Mozilla Firefox	43.0.1 and up
Internet Explorer	10 or 11 (Edge) with latest updates

Mobile applications

4

- [mPOS](#)
- [Admission](#)
- [Insight](#)

4.1 mPOS

The mPOS application has been specifically developed as a useful, smart and easy to use cash register for the catering industry. Carrying a portable POS device and compact printer within reach, the waiter thus has a complete POS system at hand. This allows him to serve customers easily and quickly.

In the near future, you will also be able to use the app to sell tickets.



30

Minimum requirements

Type	Support
Resolution	• 800 x 480 • 720 x 1280 • 1080 x 1920 • 1200 X 1920
Android	Android 4.0 or newer
Internet connection	The application needs to connect to the ReCreateX Services by way of internet through at least one of the following: • Wifi • 3G • 4G
NFC	Required for: • Employee login with card or wristband • Customer identification with card or wristband

Tested devices

Device Name	Type	Screen size	Resolution	Android	Network	NFC
Motorola TC 55 smartphone	Industrial smartphone	4.3"	800x480	Android 4.1.2; Android 4.4mobil.3* with Mobility Extensions (Mx), a layer of features that turns Android into a true enterprise-class OS	• Wifi • 3G	✓
Motorola G (2nd Gen)	Smartphone	5.0?	720x1280	Android OS, v 4.4.4 (KitKat), upgradable to v 5.0 (Lollipop), planned upgrade to v 6.0 (Marshmallow)	• Wifi • 3G • 4G	✗
LG Google Nexus 5	Smartphone	4.95"	1080x1920	Android OS, v 5.0 (Lollipop), upgradable to v 6.0 (Marshmallow)	• Wifi • 3G • 4G	✓
Asus Google Nexus 7 (2013)	Tablet	7"	1200x1920	Android OS, v 4.1.2 (Jelly Bean), upgradable to v 5.1.1 (Lollipop)	• Wifi • 3G • 4G	✓
Samsung Galaxy S3	Smartphone	4.8"	720x1280	4.0.4 (Ice Cream Sandwich), 4.3 (Jelly Bean)	• Wifi • 3G	✓

Capable devices (not tested by Syx Automations but used in the field)

Device Name	Type	Screen size	Resolution	Android	Network	NFC
Samsung Galaxy Tab S2	Tablet	9.7"	1536x2048	Android OS, v 5.0 (Lollipop), upgradable to v 6.0 (Marshmallow)	• Wifi • 4G	✓
Samsung Galaxy Tab 4	Tablet	7"	1280x800	Android OS, v 4.4.4 (KitKat)	• Wifi • 4G	✗
Samsung Galaxy Note 4	Smartphone	5.7"	1440x2560	Android OS, v 4.4.4 (KitKat), upgradable to v 6.0.1 (Marshmallow)	• Wifi • 4G	✓

App versus ReCreateX WSDL compatibility

		mPOS app versions						
		2.0.0.X	1.5.1.X	1.5.0.X	1.4.2.X	1.4.1.X	1.4.0.X	1.3.0.X
WSDL versions	3.8.1.X	✓						
	3.8.0.X	✓						
	3.7.1.X		✓					
	3.7.0.X	✓						
	3.6.1.X	✓		✓	✓	✓		
	3.6.0.X		✓				✓	
	3.5.2.X							✓

4.2 Admission

Admission 1.8.0 (Android app)



This mobile app provides mechanisms to scan customer tickets or memberships, view membership subscription details and validate entries.

To provide these features, the app uses barcode and NFC scanning technologies.

This app can be used in smartphones and tablets.

32

Minimum requirements

Type	Support
Resolution	480 X 800 600 x 1024 720 x 1280 1080 x 1920 1200 X 1920 1136 x 640 1334x750 1920x1080
Android	Android 4.0 or newer
Internet connection	The application needs to connect to the ReCreateX Services by way of internet through at least one of the following:: - Wifi 3G 4G
Device camera	Required for: Scanning barcodes on e-Tickets or membership cards

Type	Support
NFC	Required for: Scanning contactless (e.g. MIFARE) membership cards

IMPORTANT NOTE!

Depending on the specific MIFARE technology of the cards to scan, a specific device may be required!

Tested devices

Device Name	Type	Screen size	Resolution	Android	Network	NFC	Notes
Motorola TC 55 smartphone	Industrial smartphone with integrated 1D barcode scanner	4.3"	800 x 480	Android 4.1.2; Android 4.4mobil.3* with Mobility Extensions (Mx), a layer of features that turns Android into a true enterprise-class OS	- Wifi 3G		Supported MIFARE types - Classic - Ultralight - Plus - DESFIRE
Samsung Galaxy S3	Smartphone	4.8"	720 x 1280	4.0.4 (Ice Cream Sandwich)	- Wifi 3G		Supported MIFARE types - Classic - Ultralight

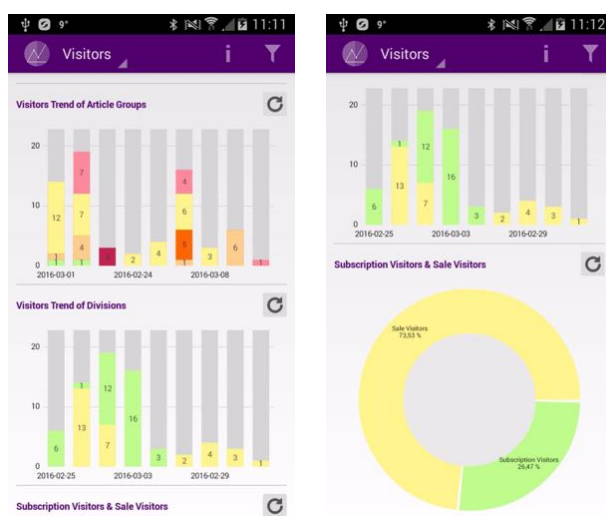
Capable devices

Device Name	Type	Screen size	Resolution	Android	Network	NFC	Notes
LG Google Nexus 5	Smartphone	4.95"	1080 x 1920	Android 6.0	- Wifi 3G 4G		Supported MIFARE types Ultralight
Asus Google Nexus 7 (2013)	Smartphone	7"	1200 X 1920	Android 4.3	- Wifi 3G 4G		Supported MIFARE types Ultralight

App versus ReCreateX WSDL compatibility

		Admission app versions		
		1.8.0.X	1.7.1.X	1.7.0.X
WSDL versions	3.8.1.X	✓		
	3.8.0.X	✓		
	3.7.2.X			
	3.7.1.X		✓	
	3.7.0.X			✓
	3.6.1.X		✓	✓
	3.6.0.X			✓
	3.5.2.X			✓
	3.5.1.X			✓

4.3 Insight



Hardware	Compatibility	Notes
Android devices	Devices with below resolution are compatible: • 480 X 800 • 600 x 1024 • 720 x 1280 • 1080 x 1920 • 1200 X 1920 • 1136 x 640 • 1334x750 • 1920x1080	Devices Examples: • Samsung Galaxy Tab 2 • Samsung I9300 Galaxy S III • LG Nexus 5 • Asus Google Nexus 7 (2013) • Motorola TC55
NFC enabled hardware	Devices for installing the application should be NFC enabled	
Camera	Devices for installing the application should have device camera	
Internet	For all the functionality in the application, the device will require internet connection	Device can have 3G,4G & more or WiFi internet.
Cards	Device must support Mifare Classic, Mifare Ultralight and Mifare Desfire.	

Devices for installing the application should have Android OS version 4.0 and above.

Syx Automations

Solutions You Xpect



Boerendaelstraat 55 • 8900 Ieper • België

Tel. +32 (0) 57 22 44 00

Fax +32 (0) 57 22 44 01

info@syx.be • www.syx.be

Uwemerkhof 2 • 3861 BE Telpelt • Nederland

Tel. +31 (0) 33 42 204 16

Fax +31 (0) 33 44 109 33

info@syx.nl • www.syx.nl