



inepro®

DocuPRO embedded Client
for Konica Minolta

Technical Manual | DocuPRO embedded Client for Konica Minolta

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DocuPRO embedded Client for Konica Minolta

The most efficient Embedded solution



Congratulations on your selection of the Inepro DocuPRO embedded Client for Konica Minolta. We are certain you will be pleased with your purchase of one of the flexible solutions of the market.

We want to help you get the best result from your DocuPRO embedded Client for Konica Minolta. This manual contains information on how to do that; please read it carefully. Due to continuous product improvements this manual is subject to changes without notice.

We strongly recommend you read the license agreement to fully understand its coverage and your responsibilities of ownership.

Your Inepro dealer is dedicated to your satisfaction and will be pleased to answer your questions and your concerns.

*Best wishes,
Inepro BV.*

DocuPRO embedded Client for Konica Minolta

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Managing Editor

K. de Graaf

Technical Editors

A. Sturkenboom

P. Grimmerink

R. Post

K. de Graaf

Cover Design

H. Wagenaar

K. de Graaf

Team Coordinator

R. Groen

Production

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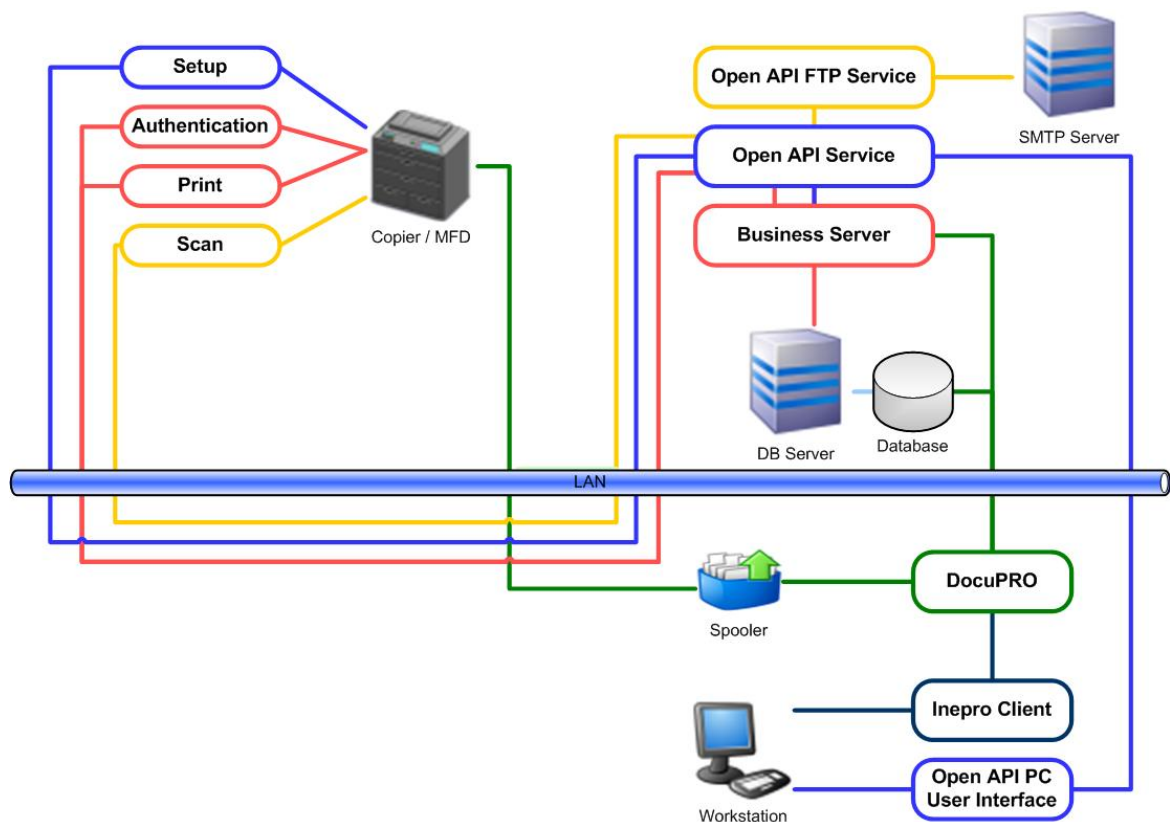


Introduction

Introduction to Open API

What is Open API (Open Application Programmers Interface)?

The Open API system enables you to print, scan and copy on multifunctional devices without the need for an external payment device, because the software runs on the internal OS of the multifunctional.

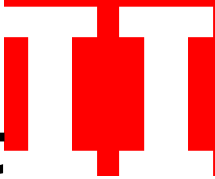


How is Open API interconnected?

The Inepro Open API application consists of 3 programs; Open API Service, Open API FTP Service, Open API User Interface (for PC), the first 2 run as a Windows Service, the last is the back office Graphical User Interface.

Open API User Interface

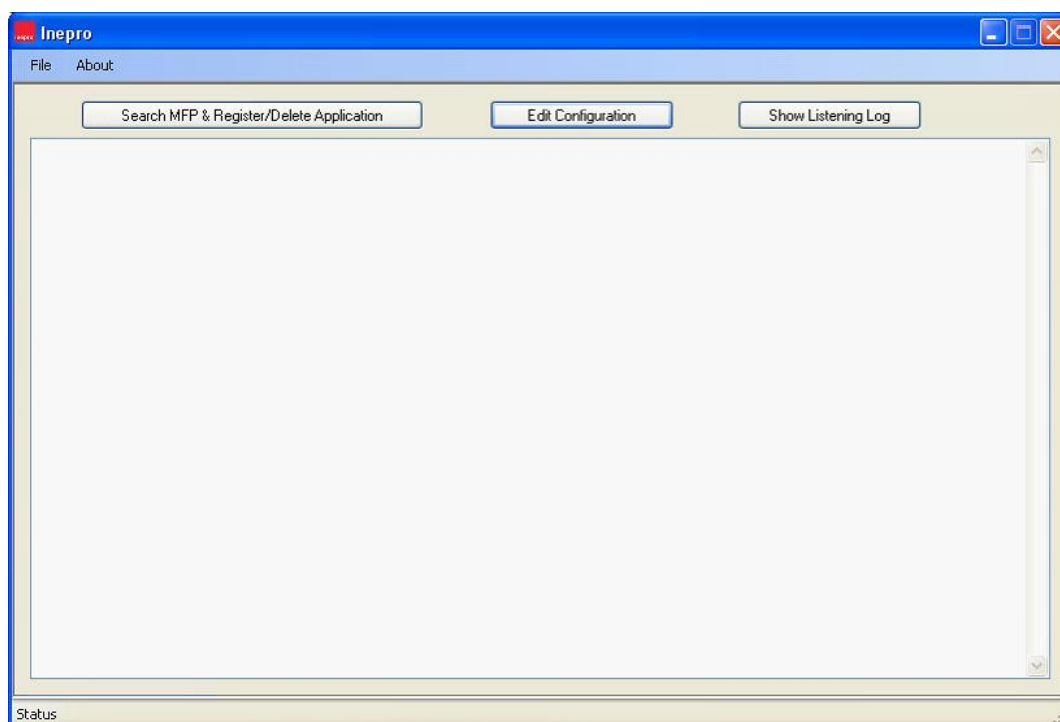
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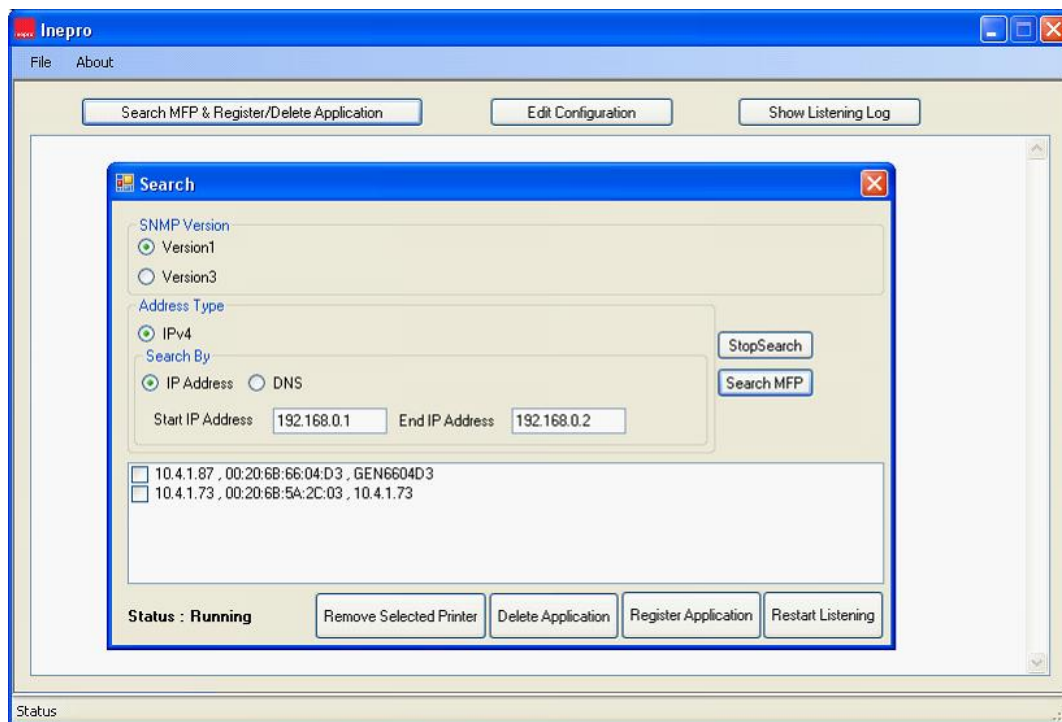
Open API User Interface

Open API User Interface

With the Open API User interface you can install or uninstall the Open API application on the MFD (Multi Functional Device). The setting for the application can be examined and the Listening Log can be read out.



Search MFD & Register/Delete Application Button.



Via this screen the printers and/or copiers that need to be controlled by Open API will be defined here.

SNMP (Simple Network Management Protocol) version should be set to 1, the SNMP version 3 option is reserved for future use.

Address type is always IPv4.

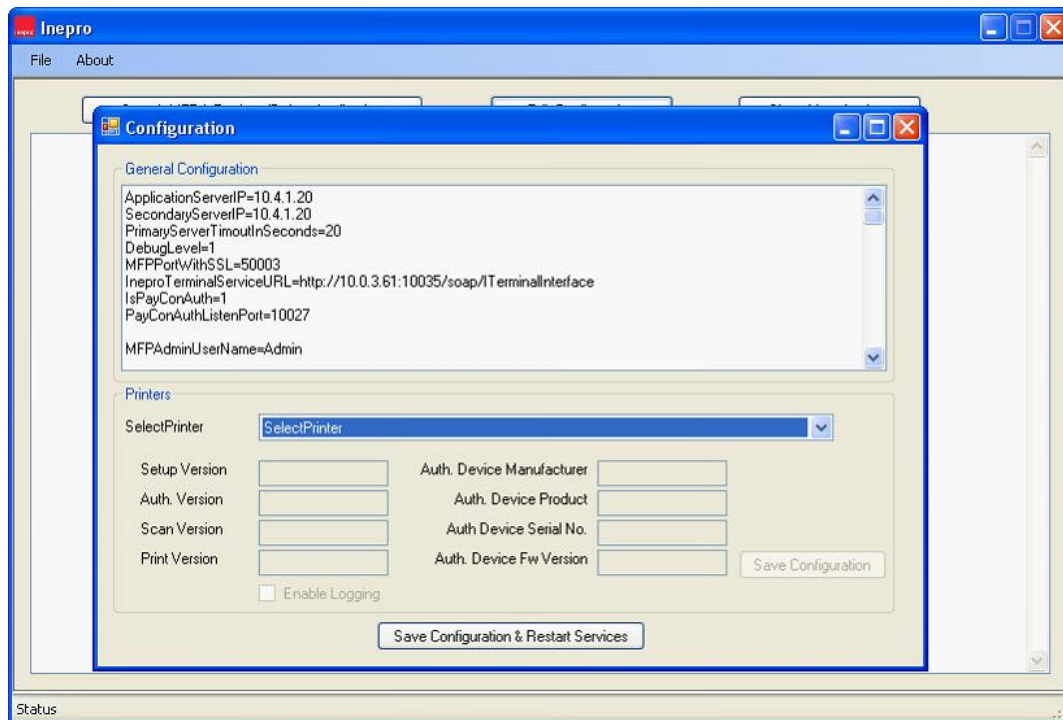
The user can search by IP address as well as DNS host name. If DNS is selected, a 'hostname' field will be shown instead of a start and end field.

Defined printers and their settings will be stored in the file RegisteredPrinters.xml in the Open API folder.

- The 'Remove Selected Printer' button will remove a printer from the file.
- The 'Delete Application' button will remove the application from the printer.
- The 'Register Application' button will install the application on the printer.
- Finally, the 'Restart Listening' button will reset the communication (TCP/IP port 50003) between the printer and the service (IneproOpenAPI.exe).

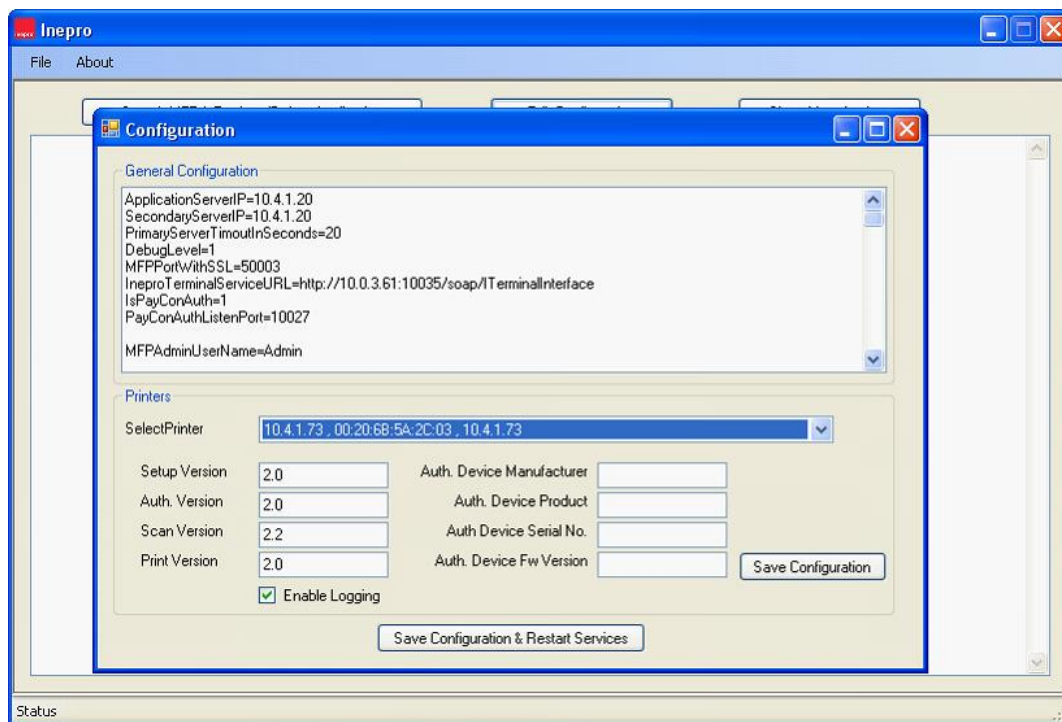
Open API User Interface

 **Edit Configuration Button.**



In the 'General Configuration' editbox the configuration (Configuration.txt) can be edited or viewed. 'Save Configuration & Restart Services' will obviously Save the configuration and restart the Open API services.

Select Printer dropdown box.



In this dropdown box the versions of the applications running on the multifunctional can be edited. This must be done in consultation with the developers. The 'Enable Logging' checkbox can be used to make the system create extra logs for the selected printer. If changes have been made, the 'Save Configuration' button should be clicked to store the changes in the RegisteredPrinters.XML file. To enforce changes the services should be restarted.

The graphical user interface application is only needed for carrying out changes in the setup and or configuration, and can be closed when it is not needed.



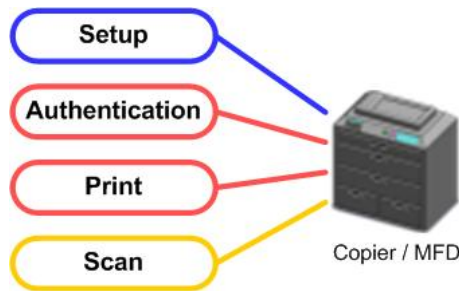
Open API Service

Part

Open API Service

IneproOpenAPI Service

This service is the 'Backbone' of the Open API, and consist of 4 applications.



Installing the Open API applications

The Open API consist of 4 applications, one of them only for the (un)install of the applications on the multifunctional.

1. 'Setup' application

The Setup application installs and uninstalls the embedded software applications on the multifunctional. The software is split up into 3 parts, which each have their own functionality.

2. 'Authentication' embedded application

The 'Authentication' application will check the authenticity of the user. The user can login via the on-screen keyboard on the multifunctional or by using the card reader. When a user logs in via the on-screen keyboard, the login request is sent to the Inepro Business Server. The Inepro Business Server will check the user and password data and if correct, the user will be logged in on the multifunctional. If the user log in via a user card, the card reader will send a login request to the Inepro Business Server, if the request is granted, a login request is sent to the multifunctional with the user and password combination of the user card.

3. 'PullPrint' embedded application

This application is responsible for the actual printing. The user can select one or more of his print jobs from a list to print. The application will send the list with selected jobs to the Inepro Business Server, which will (request DocuPRO to) release the jobs.

4. 'Scan' embedded application

The 'Scan' application will send the job that is scanned by a user to his or her email address or its scan directory. The email address and the home directory are set in the Inepro Back Office Manager.

 For this functionality the IneproOpenAPIFTP server must be active!

Read more about the Open API FTP server in the chapter:

 Open API FTP server on page: [12](#)

Part IV

Open API FTP Service

Open API FTP Service

This service only needs to be active if the Scan application is used. See  Configuration.txt on this page: [12](#). The service will send the scan via FTP to a SMTP server, which has been set by the system administrator, and in turn sends the scan to the users email address (or home directory).

Part V

Configuration

Configuration

The configuration.txt file is the primary operating mechanism for the Open API. This file is in the installation directory. In this table you'll find the configuration.txt file, explaining the different settings and their parameters.

Key	Value Mask	Default / example value	Description
ApplicationServerIP	<IP Adres>	10.4.1.20	These 2 settings are the IP addresses on which the main and secondary OpenAPI server are running, normally there will be no 'SecondaryServer', in these cases, the secondary address is the same as the main (ApplicationServer) address.
SecondaryServerIP	<IP Adres>	10.4.1.20	
PrimaryServerTimeoutInSeconds	<Integer>	20	This is the timeout (in seconds) until the application returns a NACK after a request from or to the multifunctional.
DebugLevel	<Integer>	1	Debug level OpenAPISDK log. Always 1, unless specified differently by Inepro certified engineers.
MFPPortWithSSL	<WindowsPort>	50003	Port gebruikt voor communication between the multifunctional and service, don't change unless specified differently by Inepro certified engineers.
IneproTerminalServiceURL	<URL with port>	http://10.0.3.61:10035/socket/terminalInterface	Socket used for communication between Open API and the Inepro Business Server, don't change unless specified

Key	Value Mask	Default / example value	Description
			differently by Inepro certified engineers.
IsPayConAuth	<0> or <1>	1	When this is set to 1, The Inepro IP card reader is used on the port number specified (10027 by default).
PayConAuthListenPort	<WindowsPort>	10027	
MFPAdminUserName	<Alphanumeric>	Admin	The User ID and password of the Admin account on the multifunctional.
MFPAdminPassword	<Alphanumeric>	12345678	
IsFTPServerAvailable	<Yes> or <No>	No	These settings will determine if FTP is used to send the email to the SMTP server in the 'Scan' application. Additional setting for the FTP / SMTP server can also be set here.
FTPServer	<IP Adres>	10.4.1.12	
FTPPort	<WindowsPort>	121	
FTPUserName	<Alphanumeric>	sdk	
FTPPassword	<Alphanumeric>	sdk	
AuthAppNo	<Integer>	1	Installatie settings for the 3 embedded applications, don't change unless specified differently by Inepro certified engineers.
AuthAppID	<Alphanumeric>	INEPRO11	
AuthAppNode	<Alphanumeric>	SIM WIN	
AuthAppListenPort	<WindowsPort>	50004	
PrintAppNo	<Integer>	2	
PrintAppID	<Alphanumeric>	INEPRO22	
PrintAppNode	<Alphanumeric>	SIM WIN	
PrintAppListenPort	<WindowsPort>	50002	
ScanAppNo	<Integer>	3	
ScanAppID	<Alphanumeric>	INEPRO33	
ScanAppNode	<Alphanumeric>	SIM WIN	
ScanAppListenPort	<WindowsPort>	50005	
IsGlobalFunctionLimitation	<0> or <1>	1	Customizable function restrictions, 1 = enabled, 0 = disabled.
EnableBox	<0> or <1>	1	
EnableColorPrint	<0> or <1>	1	
EnableColorSend	<0> or <1>	1	
EnableMonochromePrint	<0> or <1>	1	
EnablePrintSend	<0> or <1>	1	
EnableCopy	<0> or <1>	1	
EnableFax	<0> or <1>	1	
EnablePrint	<0> or <1>	1	
EnableScan	<0> or <1>	1	
EnableScanToUsb	<0> or <1>	1	
EnableScanToUsb	<0> or <1>	1	
EnableAddressManualInput	<0> or <1>	1	
RegistrationTimeOutInSeconds	<Integer>	30	Miscellaneous timeout settings, don't change unless specified differently by

Configuration

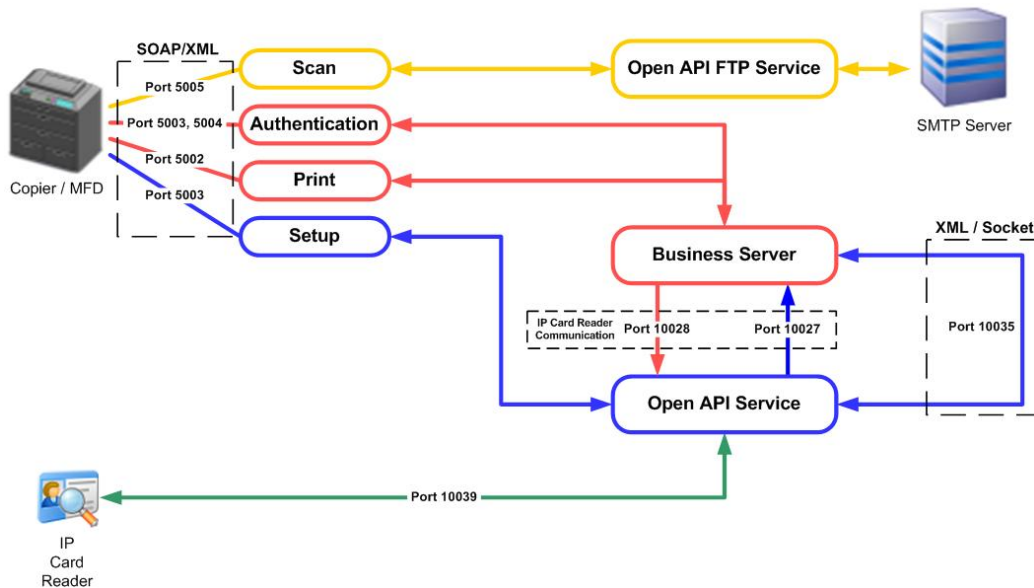
Key	Value Mask	Default / example value	Description
ListenTimeOutInSeconds	<Integer>	30	Inepro certified engineers.
IsDebugMode	<0> or <1>	1	Enable writing to debug log files. 1 = enabled, 0 = disabled.
EnableRawDataLogging	<0> or <1>	1	Log de xml data uitgewisseld tussen de OpenAPI en de BusinessServer.
ScanAppType	<D> or <S>	D	Set scan application type. (D)ynamic or (S)tatic.
EnableUserDefaultApplication	<0> or <1>	1	Set default applicatie and type, can be either 'Pull print' or 'Scan'.
DefaultApplicationName	<Pull print> or <Scan>	Pull print	
EnableDefaultMyPanel	<0> or <1>	0	Set the MyPanel screen and enable / disable shortcuts. 1 = enabled, 0 = disabled.
DisplayDefaultMyPanel	<0> or <1>	0	
EnableCopyShortCut	<0> or <1>	0	
EnableScanFaxShortCut	<0> or <1>	0	
EnableBoxShortCut	<0> or <1>	0	
EnableImageDealerShortCut	<0> or <1>	0	
EnableBrowserShortCut	<0> or <1>	0	
EnableApplicationListShortCut	<0> or <1>	0	Enable accounting for print/scan/copy on the multifunctional.
EnableAccountMap	<0> or <1>	1	
CurrencySign	<Character>		Set the currency sign for the multifunctional.
ScanResolution	???	Standard	Default scan settings for the multifunctional, don't change unless specified differently by Inepro certified engineers.
ScanFileType	???	PDF	
ScanColor	???	FullColor	
Language	???	English	Language User Interface Multifunctional
CCScreenMode	<Select> or <Search>	Select	CostCenter screen format, Can be either Select or Search.
UserLabel	<Alphanumeric>	User	These user settings have no influence on the install / uninstall procedures.
PassLabel	<Alphanumeric>	Password	
EnablePrintJobCustom Screen	<0> or <1>	0	
InitString	<Alphanumeric>	or swipe card	

Part VI

Communication

Communication

In the Open API system the applications and services communicate with each other via different protocols and port, these are specified here.



Communication between OpenAPI and Multifunctional

Communication between OpenAPI and the multifunctional is done via SOAP/XML messages. This communication runs over ports 50002, 50003, 50004 and 50005 (see  Applistenport setting on this page: [\[15\]](#)). Port 50003 is secured via SSL, because this will be used for authentication.

Communication between OpenAPI and Business Server.

Communication between OpenAPI and the Inepro Business Server is done over XML messages, these messages are being send through a socket. The IP part of the socket is the IP address of the machine that is running the Inepro Business Server, the port number is 10035 by default. The data about the IP Card Reader is send over port 10028 from the business server to the Open AI service and over port 10027 vice versa. This port number can be changed in the configuration.txt file at setting:  IsPayConAuth on this page: [\[15\]](#). The communication between OpenAPI and the Inepro Business Server can be logged for debugging purposes. (see  IsDebugMode setting on this page: [\[16\]](#) and logging checkbox in the printer configuration screen).

Communication between Inepro IP Card Reader and Business Server.

Communication between the reader and the Inepro Business Server runs trough TCP/IP ports. The reader communicates with the Inepro Open API Server over port 10039.

Part VII

Logging

Logging

In the logging specified system messages are logged, normally these are only error messages but, if needed this can be expanded for analysis.

OpenAPIUserLevelLog

The primary log for the Open API is the OpenAPIUserLevelLog, by default only error messages are logged. For detailed information the setting 'IsDebugMode' in the configuration.txt should be set to 1. The checkbox 'Enable Logging' in the 'Select Printer' needs to be checked in the settings of the printer that needs to be analysed.

OpenAPIRawRequest & OpenAPIRawResponse

Communication between the Business Server and the Open API server can be logged in the OpenAPIRawRequest and OpenAPIRawResponse logs. To enable this, set 'EnableRawDataLogging' to 1 in the configuration.txt.

OpenAPISDK1 & OpenAPISDK2

Communication between the multifunctional and the Open API Server can be logged in the OpenAPISDK1 or OpenAPISDK2 logs. These logs only need to be set at the advise of Inepro Certified Engineers, the default setting is 'DebugLevel=1' (off). These logs are very extended and can grow very big in a relative short time, so these logs should be used with caution.

Part VIII

Troubleshooting

Troubleshooting

When you run into trouble, please consult these troubleshooting items first before contacting Inepro.

They have been set in the question / answer format, followed by steps to resolve the issue.

The software won't load on the multifunctional, why not?

A - The copier is presumably not ready to receive the software.

- 1) Resetting the copier (power/off on) often restores the copier in a mode ready to receive the software.
 - a) Please reset the multifunctional.

The software does load onto the multifunctional, but no connection can be made?

A - There are problems with the connection settings.

- 1) If a multifunctional constantly shows: 'Connecting to server' the network card can be blocked, you might need to reset it.
 - a) To force the multifunctional's network card to rest you can shut down and start SSL in the administrator settings. These settings can be found in the administrator/network settings/forward/TCP socket settings/TCP socket/ menu.
- 2) Check if the business server is running.
 - a) If not, start the Business server.
- 3) Ports might be blocked.
 - a) Check if the necessary ports are open on the firewall, and all other network devices on the route from multifunctional and server, especially port 10035 needs to be open.
- 4) Services might be locked.
 - a) Reset the services.

The software cannot be removed from the multifunctional?

A. The installation has an unrecoverable failure

1. Please use the copier vendor tools to erase the application from the copier.

 If these steps do not resolve the issue(s), enable the OpenAPIUserlevelLog, run through the procedure again and send the logs (with the time, date, user data, and IP address of the failing multifunctional to Inepro Support (support@inepro.com).

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Troubleshooting

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