microSensys
RFID in motion

iID®
software
tools

QuickStartGuide

iID® TriggerScan

iID® TriggerScan – Version 2012

microsensys Sep 2013

Introduction

iID® TriggerScan is a small tool for Windows Mobile based devices, enabling you to use microsensys RFID interfaces as a multi funtional scanner and keyboard emulation device.
iID® TriggerScan is a resource protecting tool, because it is not continuously running as a background process. It is started up once by trigger and shuts down automatically after a certain time.
It is a system integrator oriented tool configurable by XML files to offer pre-configured handheld devices to the end customer.

This document provides support for the application specific configuration, where additional steps are required to get the software started up by trigger keys or out of an application by code.

Feature overview:

- RFID keyboard emulation tool
- Support for iID® contactless interfaces 125kHz, 13.56MHz, 868 MHz
- System integrator oriented tool to generate ready to run devices witout the need of software coding
- Free definition of
    - scan behaviour
    - scanned data
    - data formats
        - hexadecimal
        - ASCII
        - 6bit coded ASCII

Environment

iID® TriggerScan requires OS Microsoft Windows Mobile, Windows Embedded Handheld or Windows CE.Net and is tested on several devices in version 5 and 6 of both systems.
The tool supports iID® contactless interfaces as there are iID® PENmotion, iID® PENsolid, iID® POCKETwork as well as extensions for industry handhelds like CASIO IT-G500, CASIO IT-800, CASIO DT-X30, Zebra Workabout and many others.

Installation

iID® TriggerScan requires the separate installation of

- iID® reader connection tool
- iID® 3000 PRO driver engine

iID® reader connection tool is used to set up the reader connection once.
For batch installation on multiple devices with the same system settings you can copy the reader connection settings once generated to multiple devices.
iID® 3000 PRO driver engine is the base RFID driver handling the communication to a huge range of RFID systems as well as different microsensys iID® contactless devices.

To install the application, please copy the three cab files

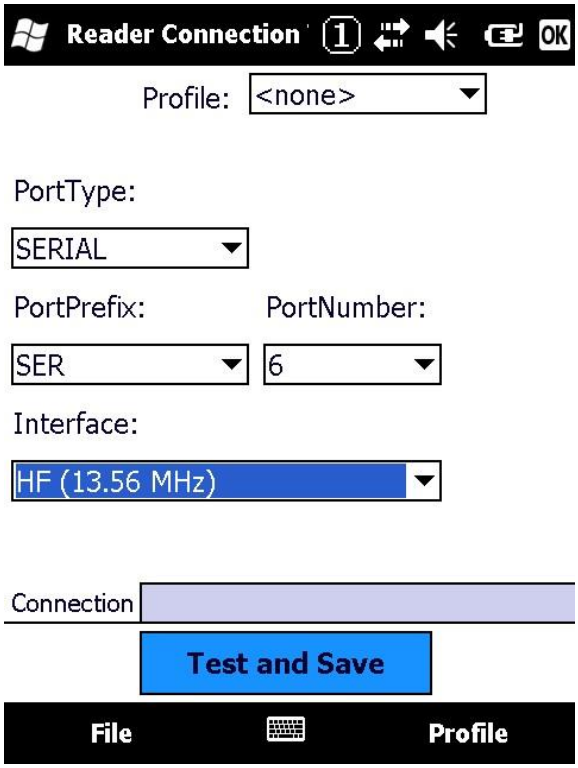
- ReaderConnectionTool MobileSetup.CAB
- iID TriggerScan.CAB
- Setup iID3000 PRO driver engine_xxxplatformxxx.CAB

onto your mobile device and start them. The installation will create start menu items for both reader connection tool and TriggerScan.

Reader connection configuration

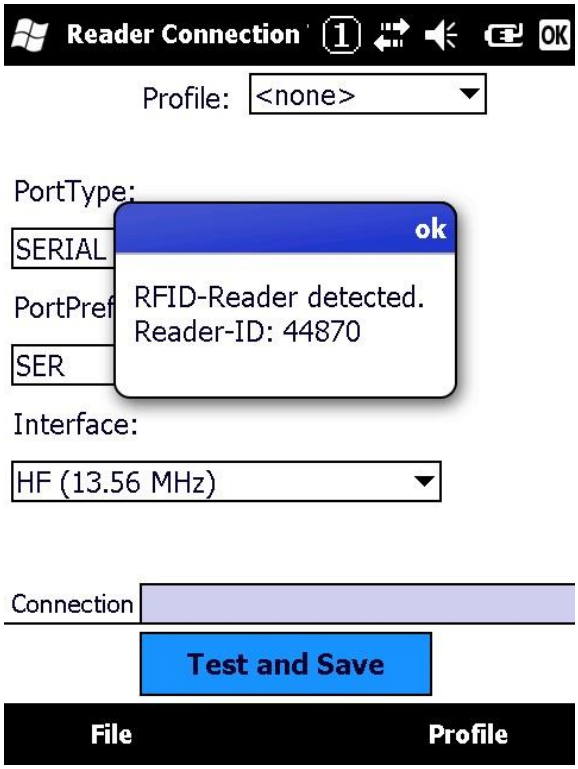
After successful installation you can now use iID® reader connection tool to configure your reader connection settings. Please note, that therefore the device has to be mounted and configured before.
For Bluetooth™ devices the Bluetooth™ configuration procedure has to be completed.

After starting up the reader connection tool you are able to define profiles or select port type, a port prefix, port number and interface type (which means the RFID operation frequency),



Sample settings for CASIO IT-800 HF reader

After item selection please press “Test and Save” to build a test reader connection and save the reader connection settings XML file.



Completion message showing reader serial number, settings will be saved

For batch installation on multiple devices with the same system settings you can copy the reader connection settings file located in “\\Application Data\MICROSENSYS” to your target devices.

Configuration of iID TriggerScan behaviour

Scan behaviour of iID® TriggerScan can be configured by editing the application XML settings. The application settings file is located in "\\Application Data\MICROSENSYS\iIDTriggerScan".
Please find below a description of configurable keys collected in "ScanSettings.xml", combined with the default setting.

Settings for UID read behavior <UIDConversionSettings>

Setting	Possible values	Default	Description
Separator	-	no separator	defines the separator between characters
OutputFormat	HEX/ASCII, HEX, ASCII6bit	HEX	defines the output format
Reverse	YES,NO	NO reverse	defines the byte order
Prefix	-	"UID:"	defines the text prefix
Suffix	-	NO suffix	
Order	0 = big endian, 1 = little endian	0, big endian	defines the byte order for numeric values
Enable	true, false	ENABLED	enable/disable the output of this field
Page	-	0	define the page/memory bank to read field data from, if supported by the transponder
From	-	0	define the byte offset to read field data from, if supported by the transponder
Length	-	0	define the byte length to read field data, if supported by the transponder (0 for READ_UID CMD)

Settings for memory read behavior <MemoryConversionSettings>

Setting	Possible values	Default	Description
Separator	-	no separator	defines the separator between characters
OutputFormat	HEX/ASCII, HEX, ASCII6bit	HEX	defines the output format
Reverse	YES,NO	NO reverse	defines the byte order
Prefix	-	“UID:”	defines the text prefix
Suffix	-	NO suffix	
Order	0 = big endian, 1 = little endian	0, big endian	defines the byte order for numeric values
Enable	true, false	ENABLED	enable/disable the output of this field
Page	-	3	define the page/memory bank to read field data from, if supported by the transponder
From	-	0	define the byte offset to read field data from, if supported by the transponder
Length	-	8	define the byte length to read field data, if supported by the transponder

General Settings <GeneralConversionSettings>

Setting	Possible values	Default	Description
ScanDelayMsec	-	500 msec	defines the delay between scans
ScanCount	-	3	defines the number of scans per program execution by trigger
GlobalPrefix	-	RFIDScan:	defines the global text prefix
GlobalSuffix	-	<CR><LF>	defines the global text suffix

For batch installation on multiple devices with the same scan settings you can copy the settings file “ScanSettings.xml” located in “\\Application Data\MICROSENSYS\iIDTriggerScan” to your target devices.

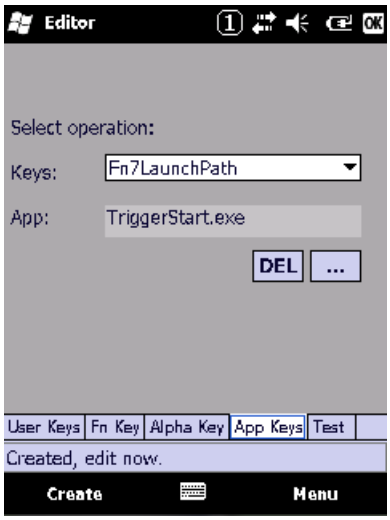
Configuration of application launch

iID® TriggerScan has to be started by the devices trigger keys, when your target application is active. So, for instance if you want to scan TAG contect into Excel Mobile, you have to open Excel, go to an active cell and then start iID® TriggerScan by pressing a trigger key.
When scanning an RFID transponder, the data is automatically placed into the active input field.

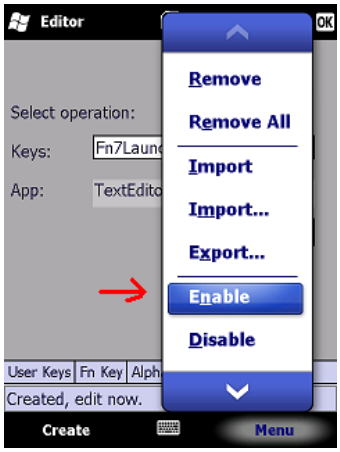
Following you can find some short form descriptions for some sample devices, how to trigger an application start.

Application launch sample – CASIO IT-G500

For application launch setting you can use the CASIO tool KeybdConfig, which is provided for ´CASIO B2B partners. Please install this software, following you can select the application launch key and connected application:



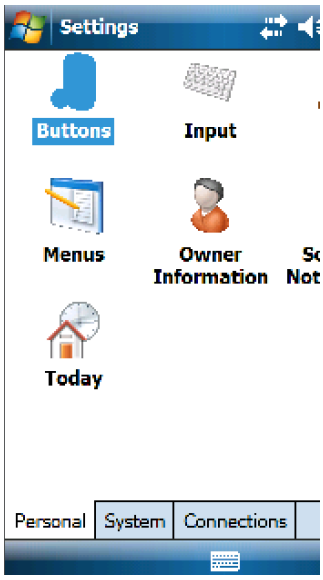
Select “enable” within the menu to activate the setting.



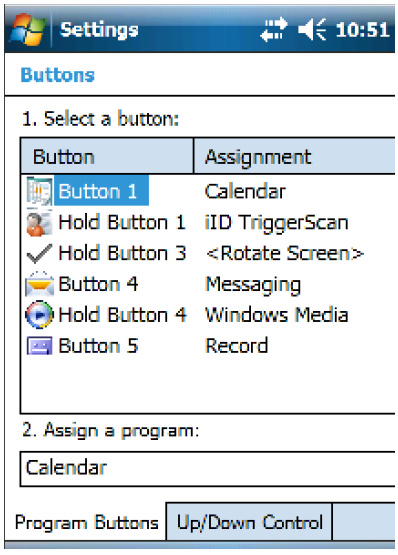
Ready: Pressing button Fn and following F7 within any application will cause iiD TriggerScan to start and place scanned data into an input field.

Application launch sample – hp IPAQ

Open the button configuration within Settings/personal/buttons:



Select a button operation and then select iID TRiggerScan as the program to start.

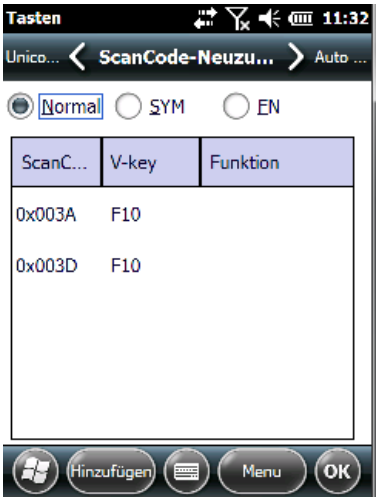


Ready: Holding button 1 within any application will cause iiD TriggerScan to start and Place scanned data into an input field.

Application launch sample – PSION EP-10

For application launch setting on PSION EP-10 we suggest to map a trigger key to any function key, e.g. “F10”. When pressing the trigger, a press of function key F10 will be emulated and therefore the connected program will be started.

Map the left and /or right trigger key to function key F10 using Start/settings/personal/buttons/Scancode-mapping:



Select iID® TRiggerScan.exe as the program to start using “F10” in Start/settings/personal.

Ready: Pressing trigger within any application will cause iiD TriggerScan to start and place scanned data into an input field.

In case of questions – contact us:

microsensys GmbH
Office Park im GVZ
In der Hochstedter Ecke 2
D-99098 Erfurt, Germany
e-mail: info@microsensys.de
tel: +49 361 59874 0
fax: +49 361 59874 17