ENTRUST

Specification Guide

Adaptive Issuance™ Instant ID

Software Version 8.4

Notice

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Revision Log

Revision	Version	Date	Description of Changes
A	8.2	April 2021	Updated specifications and capture device list.
B	8.3	September 2021	Updated version-support information for Oracle, Windows, and Internet Explorer; updated smart-card support information. Rebranding completed.
C	8.4	February 2022	Added information on SAML 2.0 Single Sign-On support.

Contents

Instant ID Software Editions Overview

Express Edition

Take your first step into the world of ID card designing and printing with the entry-level Instant ID Express software. It provides basic photo capture and data import, credential designer, and drag-and-drop workflows software functionalities for a single-user environment. It provides the core set of tools that you require to design cards and data capture forms, enter and retrieve data, capture images, produce cards and it integrates with Microsoft Excel. The Express edition is valid for 30 days after installation.

Plus Edition

This software builds on the functionality of Instant ID Express software to provide the fundamental tools for essential ID card and credential designing and printing. This edition provides batch printing, signature capture, DSLR camera support, report capabilities, composite field support, Microsoft Access and Microsoft SQL Server database support functionalities for a single-user environment.

Professional Edition

Get even more capabilities with this highly scalable edition that builds on the functionality of Instant ID Plus software to meet most needs. This edition provides the ability to have multiple users, smart card support, decentralized data capture support, centralized data management, Microsoft Active Directory integration, DB2 and Oracle database support and document scan capture support. This edition also provides a tool for interacting with REST and SOAP-based web services.

Enterprise Edition

The most advanced, scalable, enterprise-wide credentialing software in the suite, this edition includes all previous edition features plus advanced capabilities for more flexibility. This edition provides a tool for interacting with REST and SOAP-based web services. Also included is access to the Customization Toolkit for implementing custom JavaScript development projects.

Instant ID Software Edition Comparison Charts

Credential Design Features

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Number of credential designs	up to 10	up to 15	up to 25	up to 999
Variable and static text field	✓	✓	✓	✓
Variable and static graphic field	✓	✓	✓	✓
Photograph field	✓	✓	✓	✓
Magnetic stripe field	✓	✓	✓	✓
Date field	✓	✓	✓	✓
QR code	✓	✓	✓	✓
Bar codes [Codabar, Code 39, Code 39 Extended, Code 93, Code 93 Extended, Code 128 – Auto, Data Matrix (2D), EAN (JAN-13), EAN (JAN-8), PDF417, PDF417 (Binary), UPCA, UPCE, Interleaved 2 of 5, Postnet]	✓	✓	✓	✓
NTT/JIS magnetic stripe encoding	✓	✓	✓	✓
Custom card size specification	✓	✓	✓	✓
Background, color (YMC), black (K), Topcoat, UV, non-printable area, lamination, emboss/indent	✓	✓	✓	✓

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Alignment and formatting tools	✓	✓	✓	✓
Signature field	✗	✓	✓	✓

Capture and Enrollment Workflow Features

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Number of workflows	up to 10	up to 15	up to 25	up to 999
Text field, Static text field, Static graphic field, Date field	✓	✓	✓	✓
Auto-sequence field	✓	✓	✓	✓
Print count field	✓	✓	✓	✓
Check box field	✓	✓	✓	✓
List field	✓	✓	✓	✓
Text field mask	✓	✓	✓	✓
Field options: read-only, hidden, mandatory	✓	✓	✓	✓
Capture personal information	✓	✓	✓	✓
Import photograph from a file	✓	✓	✓	✓
Search records	✓	✓	✓	✓
Print credential	✓	✓	✓	✓
Credential preview	✓	✓	✓	✓
Quick Start Wizard	✓	✓	✓	✓
Composite field	✗	✓	✓	✓
Signature field	✗	✓	✓	✓
Capture signature	✗	✓	✓	✓
Document scan field	✗	✗	✓	✓
Capture document	✗	✗	✓	✓

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Optical character recognition (OCR) enabled data capture (national IDs, DLs using Entrust-supplied scanners)	✘	✘	✓	✓
External database read/write operation	✘	✘	✓	✓

Personalize and Printing Features

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Entrust printer support	SD160, SD260, SD260L, SD360, SD460 CD800, CD800 CLM CE840, CR803, CR805 SP25+ (Mag only), SP35+, SP55+, SP75+, CP80+ Sigma DS1, DS2, DS3 EM1, EM2	SD160, SD260, SD260L, SD360, SD460 CD800, CD800 CLM CE840,CR803, CR805 SP25+ (Mag only), SP35+, SP55+, SP75+, CP80+ Sigma DS1, DS2, DS3 EM1, EM2	SD160, SD260, SD260L, SD360, SD460 CD800, CD800 CLM CE840, CR803, CR805 SP25+ (Mag only), SP35+, SP55+, SP75+, CP80+ Sigma DS1, DS2, DS3 EM1, EM2	SD160, SD260, SD260L, SD360, SD460 CD800, CD800 CLM CE840, CR803, CR805 SP25+ (Mag only), SP35+, SP55+, SP75+, CP80+ Sigma DS1, DS2, DS3 EM1, EM2
Generic printer support [Only print and mag-stripe capabilities. Smart card is not supported on generic printers.]	Fargo 1000, Zebra ZXP Series 8	Fargo 1000, Zebra ZXP Series 8	Fargo 1000, Zebra ZXP Series 8	Fargo 1000, Zebra ZXP Series 8
Printer dashboard	✓	✓	✓	✓
USB connection	✓	✓	✓	✓
Network / Ethernet connection	✓	✓	✓	✓
Paper badges support	✓	✓	✓	✓

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Card in flight [Multiple cards in printer, available in compatible printers]	✘	✓	✓	✓
Print multiple copies of same card	✘	✓	✓	✓
Batch printing	✘	✓	✓	✓
Smart card encoding	✘	✘	✓	✓
MX batch file	✘	✘	✘	✓

Capture Device Support

For a full list of supported capture devices, refer to "Note that other chip types and profiles may be supported using the Instant ID custom smart card plug-in (third-party .DLL), but an Entrust-provided reader must be used." on page 19.

Feature	Express	Plus	Professional	Enterprise
Camera support	• Web cameras • Mobile Support: ios, Android, Microsoft Surface	• Web cameras • Mobile Support: ios, Android, Microsoft Surface	• Canon DSLR • Web cameras • Mobile Support: ios, Android, Microsoft Surface	• Canon DSLR • Web cameras • Mobile Support: ios, Android, Microsoft Surface
Photo capture (File Input, Capture)	✓	✓	✓	✓
Signature pad	✗	✗	• Topaz T-LBK462-HSB-R	• Topaz T-LBK462-HSB-R
Document scanner	✗	✗	• Entrust Snapshell R3 • Epson V370	• Entrust Snapshell R3 • Epson V370

Platform Features

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Number of concurrent users	1	1	1 to 20	1 to 100
Languages	English, Japanese, Portuguese, German, French, Spanish, Simplified Chinese	English, Japanese, Portuguese, German, French, Spanish, Simplified Chinese	English, Japanese, Portuguese, German, French, Spanish, Simplified Chinese	English, Japanese, Portuguese, German, French, Spanish, Simplified Chinese
Embedded database records limit	up to 10,000	up to 50,000	up to 500,000	up to 1,000,000
Embedded database (H2)	✓	✓	✓	✓
Import data from CSV and ASCII file	✓	✓	✓	✓
SAML 2.0 Single Sign-On (SSO)	✗	✗	✓	✓
User auto sign-off after inactive period	✓	✓	✓	✓
Localization utility	✓	✓	✓	✓
Stock reports	✗	✓	✓	✓
Report designer	✗	✓	✓	✓
Microsoft SQL Server database	✗	✓	✓	✓
MySQL database	✗	✓	✓	✓
Microsoft Access database	✗	✓	✓	✓
Advanced search	✗	✓	✓	✓
User management	✗	✗	✓	✓

Instant ID Software Feature	Express	Plus	Professional	Enterprise
Active Directory integration support	✗	✗	✓	✓
Oracle database	✗	✗	✓	✓
IBM DB2 support	✗	✗	✓	✓
Customization toolkit	✗	✗	✗	✓
Web service integration tool (connect to third-party REST or SOAP APIs)	✗	✗	✓	✓
Instant ID Software SDK (provides access to Instant ID Software SOAP API for print request)	✗	✗	✗	✓
Instant ID Software smart card SDK	✗	✗	✗	✓
Field based access	✗	✗	✗	✓

Instant ID Requirements

This section describes the hardware and software requirements for installing Instant ID Software.

Software Requirements

A system running Instant ID Software must meet the requirements described in this section.

> Do not install Instant ID Software on a computer that also runs Entrust® Adaptive Issuance Suite software. Instant ID Software uses a custom version of Adaptive Issuance software to provide smart card personalization, and its components overwrite any Adaptive Issuance components currently installed. As a result, the existing Adaptive Issuance software installation no longer works. Remove Adaptive Issuance software before installing Instant ID Software. Earlier versions of Instant ID Software used custom Syntera® Customization Suite (SCS) software components, which also must be removed.

> Do not install Instant ID Software on a computer that also runs Entrust® ID Works® identification software or Entrust® IDCentre™ software, if the two software applications connect to the same database table and columns.

Supported Operating Systems

Instant ID Software supports the following 64-bit operating systems with the latest service pack installed:

- Windows 10
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

Supported Operating Systems for Mobile Enrollment

Instant ID Software supports enrolling applicants, printing cards, and capturing photographs and signatures using mobile devices running the following operating systems:

- Android version 4.4 or newer
- Apple iOS version 12.0 or newer
- Windows 10

Supported Browsers

Instant ID Software supports the following browsers.

- Google Chrome version 78 or newer

- Microsoft Edge version 42 or newer

- Apple Safari version 11 or newer (iOS only)

For best results, maximize the browser window when using Instant ID Software.

Supported Databases

Instant ID Software supports the following databases:

- The internal H2 database created when you installed Instant ID Software

- External databases that use one of the following database managers:

  - Microsoft Access 2010

  - Microsoft Access 2013

  - Oracle 11g R2

  - Oracle 19c

  - Microsoft SQL Server 2008 R2

  - Microsoft SQL Server 2012

  - Microsoft SQL Server 2014

  - Microsoft SQL Server 2016

  - Microsoft SQL Server 2019 Express

  - IBM DB2 11.1 (Installed on Windows only)

  - MySQL 5.7

  - MySQL 8.0

Refer to the online Help for information about how to connect Instant ID Software workflows to database tables, and for database actions that are supported.

Hardware Requirements

- 64-bit processor

- Minimum screen resolution of 1360 × 768

- Memory (RAM):

Single-Computer Environment	Multiple-Computer Environment
4 GB RAM minimum, 8 GB RAM recommended	For the server computer: 8 GB RAM minimum, 16 GB RAM recommended For each client computer: 4 GB RAM minimum, 8 GB RAM recommended

- 1 GB of available computer hard drive space

- An available software port (9800 is the default)

    Make a note of this port number. It is required to install the software or connect to the client from a browser.

Printers and Card Stock

Printers Supported

- Sigma DS1, DS2, and DS3
- EM1 and EM2
- SP25+ (Mag Only)
- SP35+, SP55+, SP75+, CP80+
- SD160, SD260, SD260L, SD360, SD460
- CD800, CD800 CLM, CE840
- CR803, CR805
- Generic Printers

Card Stock Size Supported

- CR-80 (ISO ID-1) cards: width 3.3750 inches, height 2.1250 inches.
- CR-50 cards: width 3.5000 inches, height 1.7250 inches.
- Custom size: any dimensions that you specify (in inches) that are supported by your supported printer.

Smart Card

Instant ID Software includes profiles for the following chip types.

- Desfire EV1-UID
- Desfire EV2-UID
- FeliCa FCF Service A - Get IDm
- FeliCa FCF Service D1 - Get IDm
- FeliCa FCF Service N
- FeliCa FCF Service N - Get IDm
- HID Prox
- HID iClass

For information on how to configure these profiles, refer to the Instant ID Software online Help available as a help resource within Instant ID Software or available as a PDF.

Instant ID Software also supports other chip types when using the Instant ID Software Smart Card Plug- In. Refer to the *Instant ID Software Developer's Guide* for more information.

SE/SEOS Support

Instant ID now supports reading PACS data such as Facility Code (FAC) and Card Number (UID) from HID iClass SE and SEOS cards using a printer with an OmniKey coupler (for example, the Sigma DS1/2/3 printers).

The *HID iClass* profiles in Instant ID, found under **Settings > Chip Profiles**, should be created according to the card bit size and as per the recommended configurations shown below:

Card Bit Size	Strip Leading Bit Count	Strip Trailing Bit Count	Bit Offset	Bit Length	Fields Data Format
26 bit (Format: H10301)	1	1	FAC: 16 UID: 0	FAC: 8 UID: 16	Decimal
35 bit	2	1	FAC: 20 UID: 0	FAC: 12 UID: 20	Decimal
37 bit (Format: H10304)	1	1	FAC: 19 UID: 0	FAC: 16 UID: 19	Decimal
48 bit	2	1	FAC: 23 UID: 0	FAC: 22 UID: 23	Decimal

Important:

- Instant ID version 8.3 has been tested with the cards shown below only, although other types of cards may also be supported:

  - iCLASS SE (26, 35, 37 bit)

  - iCLASS Seos (26, 35, 37 bit)

  - iCLASS Seos/iCLASS (26, 35, 37 bit)

  - iCLASS Seos/iCLASS/Prox (multi-interface/dual interface card) (26, 48 bit)

- Instant ID version 8.3 supports multi-interface cards if all the interfaces are programmed the same on the card itself.

- Only 26 and 37 bit sizes have been tested with Instant ID version 8.3, although other bit sizes may also be supported with the appropriate configuration.

- Different types of SE/SEOS cards (along with previously described bit sizes) mentioned above have been tested with Instant ID 8.3, although other bit sizes may also be supported with the appropriate configuration.

- HID iClass smartcard data is read backwards (right to left) by Instant ID, so the Chip Profile configurations should be created accordingly with appropriate Bit Offset and Bit Length to read the Facility Code (FAC) and Card Number (UID) correctly.

Please contact your Instant ID customer representative for additional assistance.

Smart Card Support

The table below shows the smart card chip types and readers that Instant ID Software supports and the capabilities with Instant ID Software.

Chip Type	Available Chip Profiles	Default Fields in Instant Profile Configuration	Read Data Fields	Write Data Fields	Reader Connection Configuration Support	
					Single Wire	Two Wire (Loosely Coupled)
HID iClass	HID iClass	Facility Code (FAC) Card Number (CN) Card Serial Number (CSN)	Default and Custom Fields supported for 26 bits	Not supported	HID OMNIKEY	HID OMNIKEY PC PROX PC PROX PLUS Note: Please refer to the online Help: Administrator -> Manage Settings -> Manage Chip Profiles -> Configure RFIDEAS/PC PROX /PC PROX PLUS for PACS or CSN for additional information.
HID iClass SE	HID iClass	Facility Code (FAC) Card Number (CN) CSN	Default and Custom Fields supported for 26 bits, 35 bits, 37 bits	Not supported	HID OMNIKEY	HID OMNIKEY PC PROX PC PROX PLUS
HID iClass SEOS	HID iClass	Facility Code (FAC) Card Number (CN) CSN	Default and Custom Fields supported for 26 bits, 35 bits, 37 bits	Not supported	HID OMNIKEY	HID OMNIKEY PC PROX PC PROX PLUS
HID iClass SEOS + iClass	HID iClass	Facility Code (FAC) Card Number (CN) CSN	Default and Custom Fields supported for 26 bits and 37 bits	Not supported	HID OMNIKEY	HID OMNIKEY PC PROX PC PROX PLUS

Chip Type	Available Chip Profiles	Default Fields in Instant Profile Configuration	Read Data Fields	Write Data Fields	Reader Connection Configuration Support	
					Single Wire	Two Wire (Loosely Coupled)
iClass SEOS + iClass + Prox	HID iClass	Facility Code (FAC) Card Number (CN) CSN	Default and Custom Fields supported for 26 bits and 48 bits	Not supported	HID OMNIKEY	HID OMNIKEY PC PROX PC PROX PLUS
HID Prox	HID Prox	Facility Code (FAC) Card Number (CN)	Default and Custom Fields	Not supported	HID OMNIKEY	HID OMNIKEY PC PROX PC PROX PLUS
MiFare	MiFare Classic - 1K and 4K sizes available	Chip_UID	Custom Fields	Custom Fields	DUALI	IDENTIVE SCM CLOUD
MiFare	MiFare DESFire EV1	Chip_UID	Default and Custom Fields	Custom Fields	DUALI	IDENTIVE SCM CLOUD
MiFare	MiFare DESFire EV2	Chip_UID	Default and Custom Fields	Custom Fields	DUALI	IDENTIVE SCM CLOUD
MiFare	MiFare DESFire EV1, EV2 for key type AES	Chip_UID	Default and Custom Fields	Custom Fields	DUALI	
FeliCa	FeliCa		Custom Fields	Custom Fields	DUALI	
FeliCa	FeliCa FCF Service A	IDm, User Division, ID#, Name, Affiliation, Card Expiration Date, For Card Issuer	Default and Custom Fields	Custom Fields	DUALI	

Chip Type	Available Chip Profiles	Default Fields in Instant Profile Configuration	Read Data Fields	Write Data Fields	Reader Connection Configuration Support	
					Single Wire	Two Wire (Loosely Coupled)
FeliCa	FeliCa FCF Service D	IDm, Company Code, Service Number, Company Admin Number	Default and Custom Fields	Custom Fields	DUALI	
FeliCa	FeliCa FCF Service N	IDm, C/D, Country Code, IC Type, Issuer code, Serial number, UN version	Default Fields	Not supported	DUALI	

Note that other chip types and profiles may be supported using the Instant ID custom smart card plug-in (third-party .DLL), but an Entrust-provided reader must be used.

Supported Capture Devices

Cameras

Instant ID Software supports the cameras listed in this section.

ⓘ   Capture Tower is not currently supported in Instant ID software.

DSLR Entry-Level Cameras

The following cameras are supported only on Professional and Enterprise Instant ID Software editions.

- Canon EOS 100D / Rebel SL1 / Kiss X7
- Canon EOS 200D / Rebel SL2 / Kiss X9
- Canon EOS 450D / Digital Rebel XSi / Kiss X2
- Canon EOS 500D / Kiss X3
- Canon EOS 550D / Kiss X4
- Canon EOS 600D / Rebel T3i / Kiss X5
- Canon EOS 650D / Rebel T4i / Kiss X6i
- Canon EOS 700D / Rebel T5i / Kiss X7i
- Canon EOS 750D / Rebel T6i / Kiss X8i
- Canon EOS 760D / Rebel T6s / 8000D
- Canon EOS 800D / Rebel T7i / Kiss X9i
- Canon EOS 1000D / Rebel XS / Kiss F
- Canon EOS 1100D / Rebel T3 / Kiss X50
- Canon EOS 1200D / Rebel T5 / Kiss X70
- Canon EOS 1300D / Rebel T6 / Kiss X80
- Canon EOS 1500D / EOS 2000D / Rebel T7 / Kiss X90
- Canon EOS 4000D / Rebel T100

DSLR Premium or Mid-Range Cameras

The following cameras are supported only on Professional and Enterprise Instant ID Software editions.

- Canon EOS 5D Mark II

- Canon EOS 5D Mark III
- Canon EOS 5D Mark IV
- Canon EOS 5Ds
- Canon EOS 5Ds R
- Canon EOS 6D
- Canon EOS 7D
- Canon EOS 7D Mark II
- Canon EOS 40D
- Canon EOS 50D
- Canon EOS 60D
- Canon EOS 70D
- Canon EOS 77D
- Canon EOS 80D

DSLR Professional Cameras

The following cameras are supported only on Professional and Enterprise Instant ID Software editions.

- Canon EOS-1D Mark III
- Canon EOS-1Ds Mark III
- Canon EOS-1D Mark IV
- Canon EOS 1D X
- Canon EOS-1D C
- Canon EOS-1D X Mark II

Mirrorless Cameras

The following cameras are supported only on Professional and Enterprise Instant ID Software editions.

- Canon EOS M
- Canon EOS M2
- Canon EOS M3
- Canon EOS M10

- Canon EOS M50

- Canon EOS R

Web Cameras

The following cameras are supported on all Instant ID Software editions.

- Integrated Laptop Cameras

- Logitech C920

- TWAIN VALCam 9000-628

- Microsoft LifeCam Cinema

- B3E WC-1080

- Creative Live! Cam

Signature Pad

The following devices are supported only on Professional and Enterprise Instant ID Software editions.

> Topaz T-LBK462-HSB-R

Document Scanner

The following devices are supported only on Professional and Enterprise Instant ID Software editions.

- Entrust SnapShell R3

- Epson Perfection 300

- Mustek A3 1200HS

- TWAIN-compatible devices:

  - Acuant Scanshell 800NR

  - Acuant Scanshell 800DXN

Photograph Formats

The following formats are supported for photographs saved in 24-bit RGB (color) format:

- JPEG file interchange format (JPG)

- JPEG 2000 (J2K)

- Portable network graphics (PNG)

- Scalable vector graphic (SVG)

- Tagged image file format (TIFF)

- Windows bitmap (BMP)

- Graphics interchange format (GIF) (non-animated .gif files only)