



# Card Encoding Engine

Card Personalization Software





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## ID Card Printer & Personalization Software

Card Encoding Engine (CEE) is an innovative windows-based card personalization software solution for the design, encoding and printing of variable and static data with a wide variety of card technologies. Unlike other ID card software, CEE is pre-configured to support automated data collection, exchanges and encoding for contact and contactless smart chips, magnetic stripes, 1D/2D barcodes, and ICAO compliant MRZs without requiring any user programming. This functionality will save a card issuer \$5,000 to \$15,000 in API programming or scripting costs per card project while multiple cost-saving utilities, such as the automatic chip card alignment function, save thousands of dollars in labor and material costs a year. Designed to be a central hub in an ID Credential issuance system, CEE is built to easily exchange data with a variety of sources for diverse functions, including vetting or background checks, Physical Access System Notification, and Card Management Systems. The software is optimized for rapid biometric credential issuance, enabling a card issuer to enroll and issue biometrically enhanced smart cards within minutes. CEE is built around 103 standardized data elements found across a variety of ID markets, including Drivers Licenses, Health IDs, Enterprise Badging, Education IDs; and a wide variety of government IDs, including National, Civil, Voting and Military IDs.



Card Encoding Engine leverages an expanding network of complementary solutions and a unique methodology from the idblox® ID Credential Ecosystem. CEE supports easy data importing from M.O.S.T. Toolz™ or Smart Toolz® for a chip card's custom and pre-defined logical data structures, automatic parsing of imported and collected XML data elements, and two-way database reporting for card life-cycle management. In addition, the idblox data structures are congruent with a growing list of end-use applications and terminals.

### CEE Includes:

- M.O.S.T.® Smart Cards
- Login Cards
- License card
- ReadyStart™ Secure Cards
- Holofoil Cards
- Contactless Test Card
- Magnetic Stripe Cards
- Dual-Mode USB Card Reader
- User Guide
- Software Disc
- Quick Start guide
- 2 Years of Free Software Updates
- Discounted Product Bundling Options
- Excellent Customer Support



## Features and Benefits

### Support for the Widest Range of Card Technologies

- Support is built in from the start to encode the following technologies without programming:
- Smart Card Contact and Contactless CPU Chips
- HiCo/LoCo Magnetic Stripes
- ID and 2D bar-codes including PDF 417 and QR Codes
- ICAO MRZs
- Mini-Photos / Ghosting with security ribbons

### Program Acceleration

CEE makes it easy to design your card's unique features while increasing the card's physical security with pre-designed ultra-high resolution ReadyStart™ Secure and Holofoil Cards. These cards are installed as background card templates that graphically correspond to the designs. The graphic templates improve visualization when designing and personalizing the cards. By utilizing the standardized idblox templates for ID credentials a whole system can be architected in a manner of minutes. The software also handles complex connections from data enrolment in a seamless fashion. In-line biometric card issuance is built in. The software will automatically import captured and enrolled fingerprint, iris, face, and signature biometric modalities from Corvus' Raven™ identity software. Issue biometric enhanced smart cards within minutes!

### Easy to Use – No Programming Required

CEE is organized into four intuitive user workspaces so that learning the software takes no time at all. To configure your chip for personalization, the software features a simple drag and drop function to easily merge data fields into their corresponding card files. When idblox card files are selected, the data auto populates the files.

Thanks to true data interoperability, pre-defined logical data structures (LDSs) from idblox®, and a software solution pre-configured to work with various card printers, data can be collected, exchanged and encoded on smart cards and other card technologies without requiring any programming, scripts, or custom APIs.

### Reduced Costs

Cost containment when producing a credential is critical to a successful program. Without the need for programming, a card issuer already saves thousands of dollars in programming costs and months of development time. CEE gives the user excellent ROI and Value. Save \$5,000 to \$15,000 in programming costs per card project.

In addition, the software includes a printer contact alignment utility, adjustable biometric threshold settings, test cards, and preview modes so that no cards or ribbons get wasted. To facilitate prompt card approval from customers, CEE enables a user to generate card art proofs automatically without having to create them manually, saving on additional labor costs.

### High Security Platform

CEE ensures that your data stays safe and that unauthorized users do not have access to its functions. All data at rest is encrypted using the FIPs approved AES-256 algorithm. In addition, hierarchical user controls are set up by the administrator that enables different users to have specific roles and privileges while using the software. For ultimate sign-on security, users can be authenticated via smart card technology.



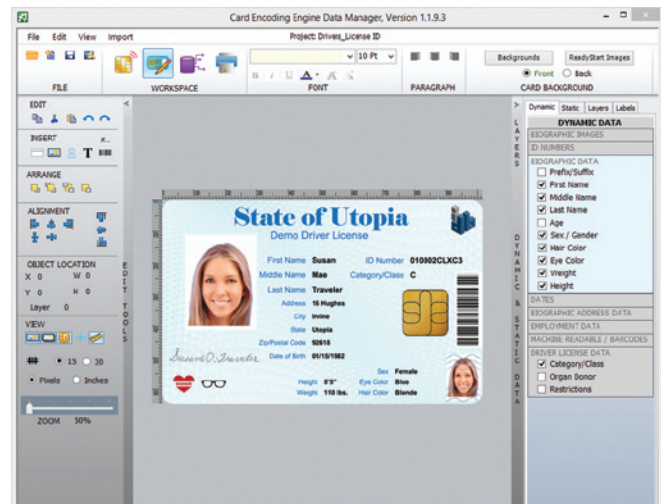
## Four Organized Workspaces for Easy and Intuitive Card Personalization

### Printing and Encoding Workspace



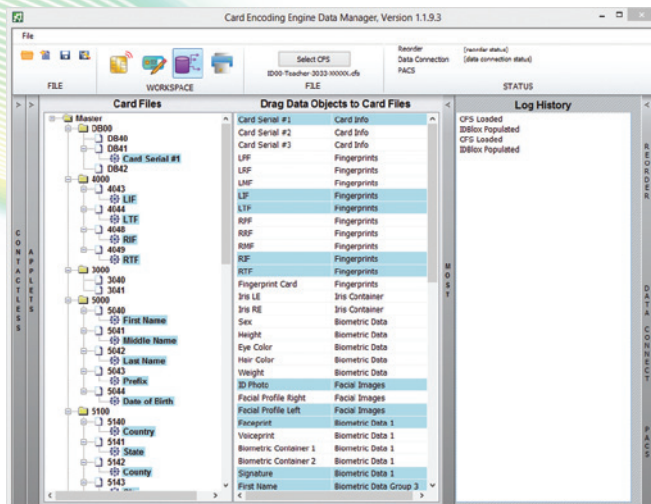
Set all CEE system options from one location. The Printing and Encoding workspace is primarily used for encoding data and printing on cards. It can also be used to set up jobs/batches and card capability containers. Record management, biometric data filtering, and importing of biographic and biometric enrollment records can also be performed in this workspace.

### Card Editor Workspace



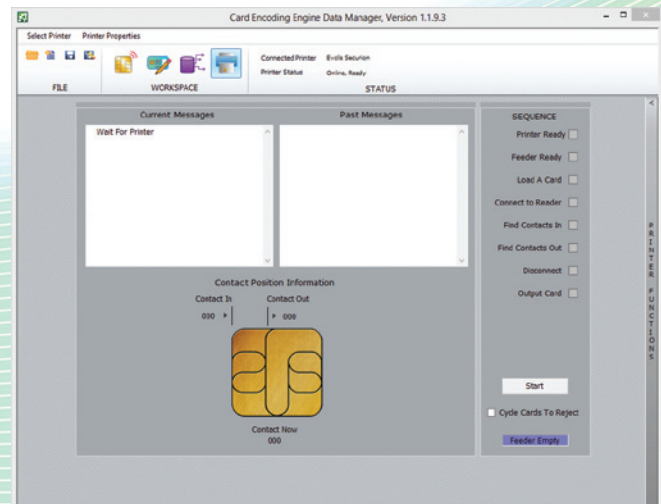
Manipulate and customize your card layout, front and back. The Card Editor workspace gives the user total control over both dynamic and fixed data/images placed on the card. Text and images can be rearranged any way you like over the graphic template that matches your imported design or a selected ReadyStart™ Card template. Other images can be created using a graphic editor utility or uploaded from outside programs or files.

### Connections Workspace



Manage your on-card files, according to the Logical Data Structure (LDS) specified. The Connections workspace enables you to manage all data notifications and imports from other databases. Pre-configured LDSs are easily uploaded from M.O.S.T. Toolz™ or Smart Toolz®.

### Printer Management Workspace



The Printer Management workspace features an electrical contact realignment utility that allows you to easily align your printer's smart contacts from the start. It also features a direct connection to your specified printer dialogue box, allowing you to set up your printer directly from CEE.



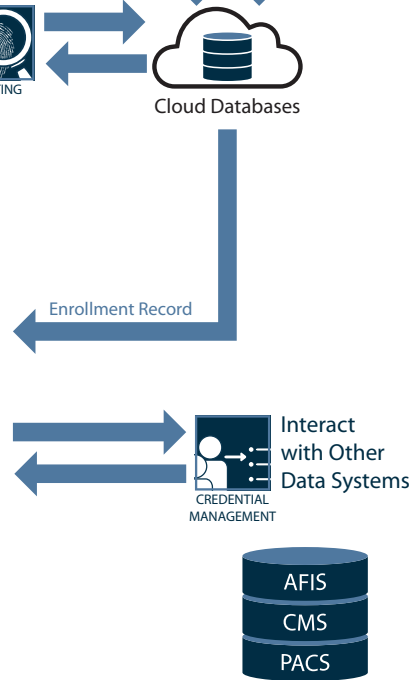
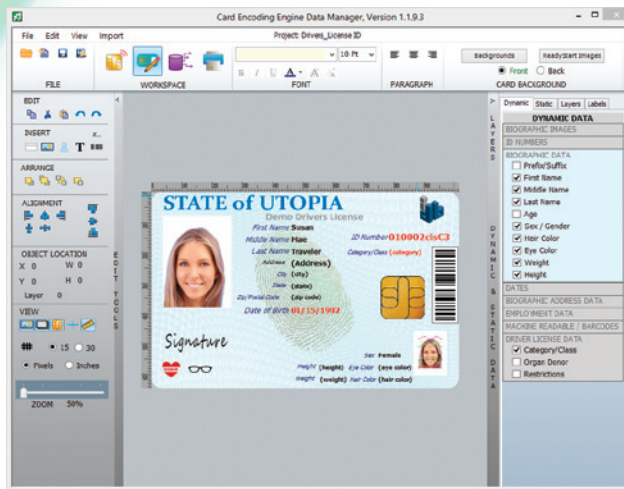
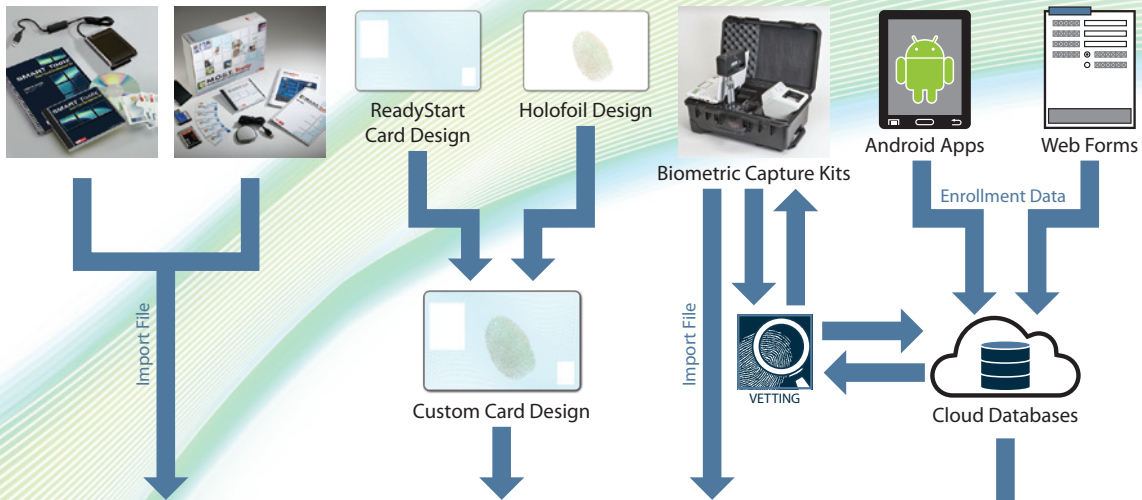
## Card Encoding Engine is at the Center of the idblox™ Ecosystem

Card Encoding Engine streamlines the creation of ID credentials, improves work flows and reduces time to market. This is due to the unique architecture that promotes data interoperability within the idblox ecosystem.

**Pick a Template and Set Your Keys**  
DESIGN

**Pick a ReadyStart™ Card and (Optional) Holofoil Design**  
DESIGN

**Capture Your Enrollment and Biometric Information**  
ENROLLMENT



**Print and Encode**  
ISSUANCE



Distribute Cards for Use





Card Encoding Engine Technical Specifications	Single Station Multi-User Edition	Network Edition (Coming Soon)	Federated PIV Edition (Coming Soon)
<b>Database Capacity</b>			
5 million records	✓		
15 million records		✓	
250 million records			✓
<b>Imports from External Databases</b>			
XML	✓	✓	✓
MDB	✓	✓	✓
ODBC	✓	✓	✓
SQL	✓	✓	✓
EFT	❖	✓	✓
SAML Connections		❖	✓
<b>Data Protection and System Security</b>			
AES 256 Data Encryption (At Rest)	✓	✓	✓
Smart Card Authentication	✓	✓	✓
Biometric Authentication		❖	✓
<b>Administrator &amp; User Management</b>			
Hierarchical User Design with Project Specific Access	✓	✓	✓
Lock-Out Screen Protection	✓	✓	✓
Support for both password and card log-on	✓	✓	✓
<b>Card Printer Compatibility</b>			
Auto Icon placement for EU Driver's License Data Elements			✓
Matica printers with encoders	✓	✓	✓
Evolis printers with encoders	✓	✓	✓
<b>Supported Card Technologies</b>			
Contact Smart Chips (ISO 7816)	✓	✓	✓
Contactless Smart Chips (ISO 14443 A & B)	✓	✓	✓
CardLogix M.O.S.T. Card® C Series	✓	✓	✓
PIV-CIV (PKI)			✓
EU Driver License		✓	✓
ICAO Passport Cards	✓	✓	✓
Magnetic Stripe 1,2,3 Tracks	✓	✓	✓
Multiple 1D/2D Barcodes (Including QR code and PDF 417)	✓(Code 39)	✓(UPC, EAC)	✓
Machine Readable Zones (ICAO MRZs)	✓	✓	✓
MIFARE®	✓	✓	✓
ProxCard	❖	✓	✓
EPC Gen 2	❖	✓	✓

❖ = This is a planned feature that will be available in a free future upgrade for the indicated edition.



Card Encoding Engine Technical Specifications	Single Station Multi-User Edition	Network Edition (Coming Soon)	Federated PIV Edition (Coming Soon)
<b>Project Management</b>			
Production log and audit files	✓	✓	✓
Customer proof generation utility	✓	✓	✓
<b>Printing and Encoding</b>			
Printer Contact Alignment Utility for automatic contact chip alignment	✓	✓	✓
Batch printing from CEE database	✓	✓	✓
Front and back printing management	✓	✓	✓
Auto import and printing options	✓	✓	✓
Print and encode preview mode (pre-production test)	✓	✓	✓
Biometric threshold settings	✓	✓	✓
Pre-configured encoding with Evolis and Matica printers	✓	✓	✓
<b>Card Design</b>			
Text / Object Alignment, Resizing & Formatting Tools	✓	✓	✓
Full support of Windows fonts and colors	✓	✓	✓
Supports importing of standard image formats (jpg, bmp, tif, png, etc.)	✓	✓	✓
Card ID Number Generator (with ICAO and ISO checksum options)	✓	✓	✓
Expiration Date Generator	✓	✓	✓
Mini ID photos with Secure Ribbons	✓	✓	✓
B&W Ghosting / UV Placement	✓	✓	✓
Avatar Images and text displays for improved design visualization	✓	✓	✓
Z order Object list for easy navigation	✓	✓	✓
Simultaneous view of multiple image and text layers	✓	✓	✓
Unique design visualization with Pre-printed cards & overlay designs	✓	✓	✓
Pre-configured variable ID data elements for text, images and graphics	✓	✓	✓
Guides, Grids and Rulers for improved design accuracy	✓	✓	✓
Easy to use MRZ Generator	✓	✓	✓
Full support for signatures, 1D/2D barcodes and magnetic stripes	✓	✓	✓
<b>Data Connections</b>			
Auto data field population for idbiox LDSs	✓	✓	✓
Easy import of custom card file structures and logical data structures	✓	✓	✓
Automated import of biometric and biographic data from idbiox vendors	✓	✓	✓
Drop and drag utility for populating custom LDSs with data fields	✓	✓	✓
PACS & AFIS notifications utility	✓	✓	✓
Card reorder notifications	✓	✓	✓
Credential Management System notifications	✓	✓	✓

❖ = This is a planned feature that will be available in a free future upgrade for the indicated edition.

CardLogix Corporation is absolutely committed to providing defect-free products and services to our customers in partnership with equally committed integration partners and authorized resellers.

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Compare CEE's total cost of ownership to standard ID card software using our online calculator at <http://www.cardlogix.com/tools/cee-calc/>

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