

# HID Identity on Demand™ Services

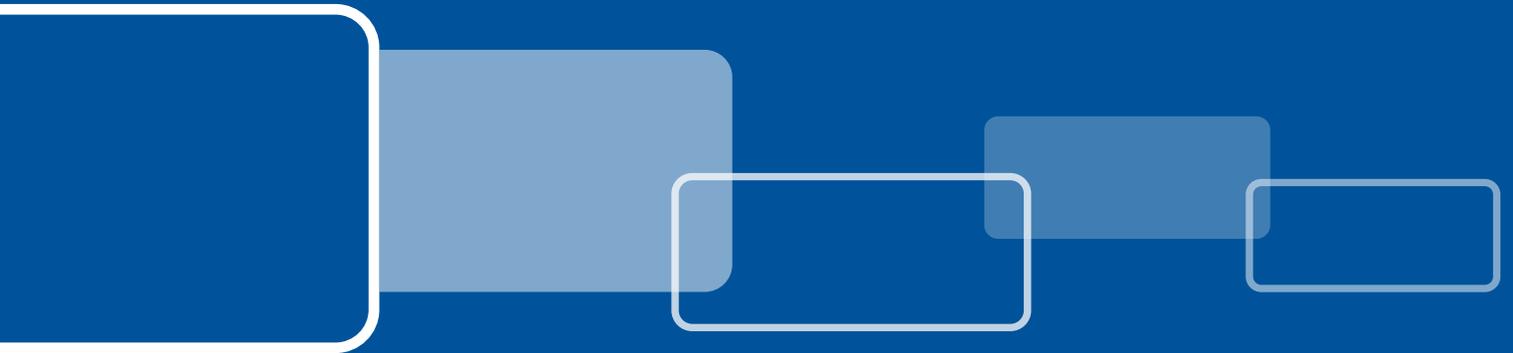


**SUCCESS GUIDE**





HID Global is focused on creating customer value as the trusted source for products, services, and know-how related to the delivery of secure identity.



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## Did You Know...

HID assigns a dedicated team to work with each customer, creating a detailed plan to ensure mutual commitment to project requirements and deliverables, seamless integration of the personalized card within the system in which it will be used, and successful deployment — anywhere in the world.



- 1 Choose appropriate technologies
- 2 Add visual enhancements and security
- 3 Personalize with graphical and electronic information
- 4 Accessorize the finished credential!

## Introduction

Whether you're personalizing your access control cards for the first time or re-badging due to a technology upgrade, regulatory compliance, logo change, or merger, HID Identity on Demand card services has the expertise and portfolio you demand for superior personalized credentials.

As the trusted source for secure identity credentials, HID Global provides the technologies, visual security elements, personalization, and delivery services to meet your specific project needs.

# Simplified, streamlined, secure ID credential issuance.

HID makes it fast, convenient, and efficient.

If you're charged with producing credentials for your organization, you don't have to face the challenge alone. Count on HID Global's Identity on Demand™ (IoD) service bureau for the expertise and speed you need to make your next custom credential and ID project a success. One of HID's value-added Plus Services, our fully integrated IoD card services can produce even the most demanding credentials quickly, efficiently, and within your budget, ensuring complete customer satisfaction worldwide.

## Identity on Demand's comprehensive portfolio of services includes:

**Online portal.** We've made it easier than ever to securely transfer sensitive data, confirm formatting and layout, and track project status from start to finish. No matter what you need — first-time badges, revisions to existing formats or straight re-orders — the IoD online portal simplifies the process and saves time and resources.

**Fast delivery worldwide.** Whether it's 50,000 credentials within a month or 1,000 credentials within a week, HID Global can produce and deliver projects quickly and reliably anywhere around the world.

**Secure production and delivery.** HID's secure facilities and processing are critical parts of an ID credential program. From rigorous auditing and process controls to secure data transfer and delivery infrastructures, IoD services follow the most advanced security protocols.

**End-to-end solutions.** HID Global manages each project throughout the entire process, from documenting specific requirements, to card manufacturing and personalization, through final packaging and delivery.

**Design expertise.** Make a statement with a card design that stands out from the rest. Completely redesign your cards or tweak an existing template — either way, IoD services can help develop effective and attractive credentials that are resistant to counterfeiting and deliver the right functionality for any organization.

**Database management.** Whether you need to clean and consolidate multiple databases or apply different rules based on specific access rights, HID Global has the capabilities and know-how to process record databases securely.

**Multiple technology options.** IoD services can produce credentials with one specific technology or a combination to meet custom application requirements, including proximity cards, contact and contactless smart cards, magnetic stripes, and bar codes.

**Best practices.** Dedicated IoD service teams work with each customer, creating a detailed plan to ensure mutual commitment to project requirements and deliverables as well as seamless integration within the system in which the personalized cards will be used.

**Customized fulfillment.** New credentials can be pre-sorted and delivered to one location, mailed directly to multiple addresses designated by the customer, or both.

**Worldwide coverage.** With production facilities around the world, HID Global is able to deliver credentials to facilities and employees anywhere around the globe.

- How can I cost-effectively personalize my company's access control cards for the first time?
- How can I implement a large-scale re-badge of personnel under an extremely tight deadline?
- How do I reissue badges for multiple locations on a regular basis if I don't have the people to do it?



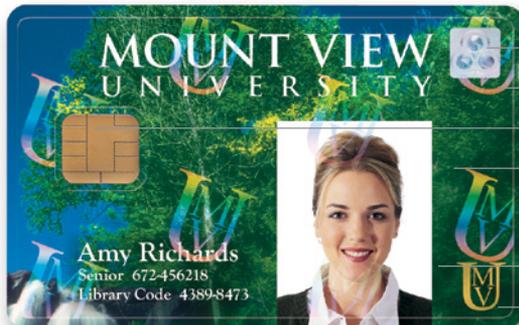
# The Anatomy of a Secure ID Card



Deploying ID cards for your organization is a major responsibility. A secure ID card is more than a name and a photo – it requires visual security elements to protect against tampering and forgery. Technology cards may include embedded electronics, antennas, and smart chip contacts that

often affect card design. Additionally, you can enhance the look of the card with features like Pantone spot colors and true metallic inks. Embedded high-resolution lithographic and digital printing ensure consistent color matching results.

## Card Elements



- Registered embedded hologram
- Holographic overlaminate
- Smart card contacts
- High-definition, lithographic and digital printing
- Over-the-edge high-definition printing
- Personalized record data and variable graphics
- Sub-surface lithographic and digital printing, and embedded anti-counterfeiting

## Card Layers



- Overlaminate (clear or holographic)
- High-definition printing film (personalized record data and variable graphics)
- Clear PVC layer
- PET layer containing lithographic and digital printing, and embedded anti-counterfeiting
- Prelam containing contactless technology (i.e., iCLASS, Prox, Mifare, Legic)



## How to get started with HID Identity on Demand services

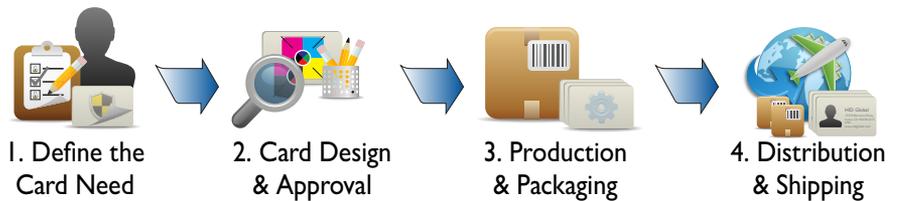
### Implementing an effective ID card program...

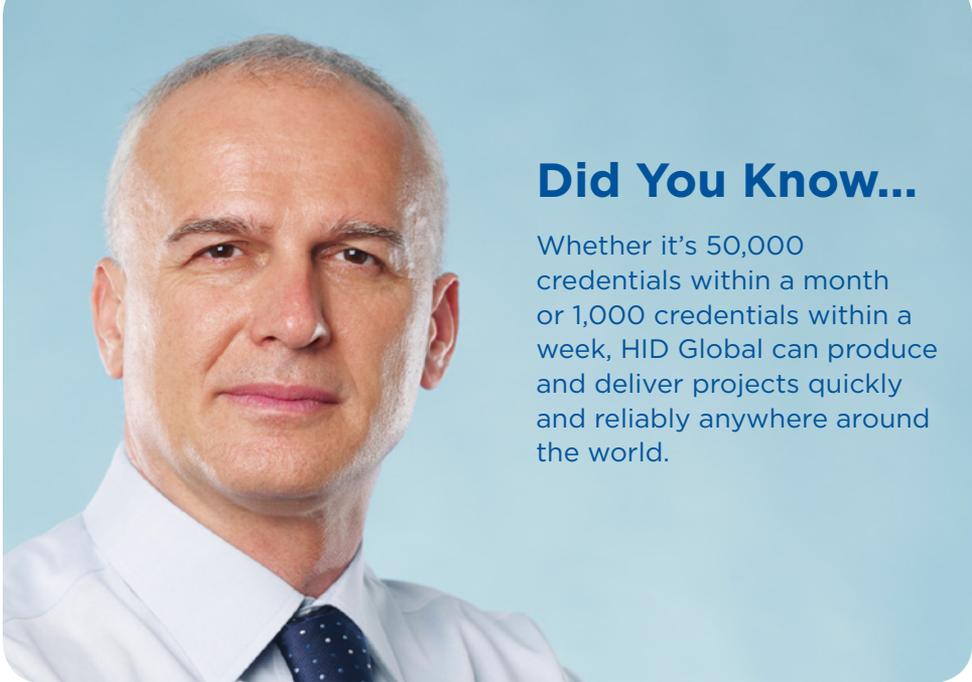
involves a clearly defined set of objectives, established best practices, and the infrastructure to securely deploy quality credentials worldwide.

The first step in the process requires that the end-user or HID Global channel partner complete and submit an IoD information form; in return, HID will provide a pricing estimate for the project. HID sales representatives will then engage a project

manager to further detail the project specifications and manage the data transfer, proofing, and ordering logistics. From initiation to shipping, a dedicated project manager will ensure the speed and success of even the most demanding project

#### Card Order Process Flow





## Did You Know...

Whether it's 50,000 credentials within a month or 1,000 credentials within a week, HID Global can produce and deliver projects quickly and reliably anywhere around the world.

# Lead times for HID Identity on Demand™ services

Fully personalized cards produced by Identity on Demand services are typically delivered within days or weeks, not months. Lead times are largely dependent upon:

1. Customer involvement up front (specification and approvals can now be managed via an online portal for faster, easier processing)
2. The number and types of surface and sub-surface elements added to a card
3. The card volume to be personalized

Identity on Demand services are committed to working closely with each customer to ensure the most efficient turnaround time based on the scope of the project. Upon initial project scoping, a lead time can be determined.

### First time ordering



### Pasos del proceso de solicitud de tarjetas



### Second time ordering

\*Samples requiring laminated art = Card ATP + Personalization Charges may apply.  
 \*\*ECO: engineering change order. An ECO is the documentation used to control the release of a part number and any revisions to it.  
 \*\*\*ATP: available to promise. This is the lead time for the part number ordered.



## Graphics, Anti-Counterfeiting, and Durability



Surface Holograms



Embedded Holograms



Invisible Ultra-Violet (UV) Fluorescing Images

### Security Options

To enhance the visual appeal and security of a personalized technology card, Identity on Demand services offer several surface and sub-surface features that can be added to a card design for a truly secure and custom product.

Additionally, clear and translucent materials can be incorporated into manufacturing, exposing the internal card components for a progressive appearance.

### Surface Holograms (Applied on top of the card surface)

Adding a hologram to an ID badge is one of the most commonly recognizable anti-counterfeiting measures available on the market. This device is almost impossible to reproduce without the counterfeiter making a significant investment into the specialized equipment needed to reproduce this technology. Choose a generic design from HID or create a unique graphic based on your corporate logo.

### Embedded Holograms (Applied within the card material)

Embedded holograms are positioned under the rigid clear top surface of the card. Unlike surface holograms, embedded holograms allow dye sublimation — enabling personalization of the entire card surface. This application style furthers the effectiveness of the anti-counterfeiting feature by requiring expensive and specialized manufacturing equipment.

### Invisible Ultra-Violet (UV) Fluorescing Images (surface or sub-surface)

Common on credit cards, currency, and travel documents, invisible ink images provide a covert anti-counterfeiting mechanism. Though blue/violet fluorescing ink is inexpensive and readily available, red, green, yellow, and orange fluorescing pigments remain difficult to acquire. Fluorescing images can be applied at the card surface or sub-surface level.



## Did You Know...

HID's secure facilities and processing are critical parts of ID credential programs. From rigorous auditing and process controls to secure data transfer and delivery infrastructures, IoD services are structured to meet the highest security standards.

# Graphics, Anti-Counterfeiting, and Durability

### Optically Variable Inks (OVI) (sub-surface)

Color-shifting inks reflect various wavelengths in white light differently, depending on the angle of incidence to the surface. An unaided eye will observe this effect as a change of color as the viewing angle changes. This anti-counterfeiting method is commonly used on currency and travel documents.

### Guilloche Printing (sub-surface)

Fine line interlocking spot color patterns are used to make complex background graphics that are extremely difficult to scan and reproduce. Often multicolor, these design elements are commonly used on currency and travel documents.

### Micro-Fine Printing (sub-surface)

Originally developed by credit card organizations, micro-fine text (which can only be read under magnification) can be hidden within a graphical design. An increasingly popular application of this technology involves printing micro-fine text around the photo window to highlight photo tampering or replacement on genuine cards that have been stolen.

### Laminated High-Resolution Lithographic Printing (sub-surface)

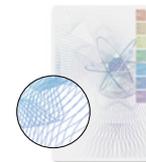
Identity on Demand services can provide embedded high-resolution lithographic printing to ensure consistent color matching results. This technology also minimizes the issuance time when card personalization is continued at an end-user location on an ongoing basis. Pantone spot colors and true metallic colors can be printed with this technique.

### Secure Overlamines (surface)

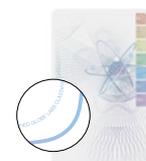
Secure Overlamines add vital protection to your ID cards — and to your organization. Today's digital technology makes it all too easy to forge legitimate-looking IDs. But an HID Global Secure Overlamine gives an ID card an extra level of protection by adding security elements that are extremely difficult to forge, yet easy to authenticate. An overlamine also makes cards more resistant to everyday wear and tear.



Optically Variable Inks (OVI) (sub-surface)



Guilloche Printing (sub-surface)



Micro-Fine Printing (sub-surface)



Laminated High Resolution Lithographic Printing (sub-surface)



Secure Overlamines (surface)



## Graphics, Anti-Counterfeiting, and Durability (cont.)

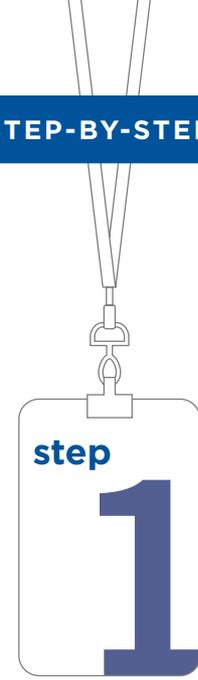
### Graphics, Anti-Counterfeiting, and Durability Table

The previous section explains some of HID's surface and subsurface anti-counterfeiting options. See the table below for a summary of their application upon a card.

	Surface	Sub-surface
Surface Holograms	■	
Embedded Holograms		■
Invisible Ultra-Violet (UV) Fluorescing Images	■	■
Optically Variable Inks (OVI)		■
Guilloche Printing		■
Micro-Fine Printing		■
Laminated High-Resolution Lithographic Printing		■
Secure Overlaminates	■	

### Warranty Information

The standard HID Global lifetime warranty applies for the card body. Personalization services provided by Identity on Demand services are covered for a one- (1) year warranty period [plus one (1) additional year if an overlaminate is applied to the card]. The warranty period commences with the date of shipment to the original end-user. Please refer to the Identity on Demand services warranty statement for more information.



▲ ID card program objectives will strongly influence your ID card parameters.

## Define the parameters of your ID card

Once you have decided to move forward with your ID project, it's good practice to involve your IoD project manager early in the process. Besides the wealth of experience they bring, IoD project managers also have access to additional experts and resources that can ensure the timely execution of important deliverables. Whether your cards are designed to protect your organization or promote it, HID Global's IoD services team will work closely with your chosen integrator to help you define and achieve your project objectives.

Creating an effective ID card design involves more than meets the eye. That's why this first step is so important. You need to understand the objectives of your organization's entire ID card program.

**While designing a visually attractive card is important, it's secondary to designing a card that helps:**

- Enhance physical and logical security
- Increase efficiency and productivity
- Reduce vulnerability to counterfeiting
- Reflect the organization's brand identity

**Here are a few questions to help you start defining the parameters of your ID card project:**

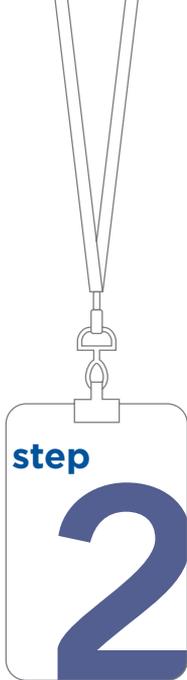


- How many employees, departments, contractors, and visitors do you have? Will you have separate card designs for each?
- How many different areas of your organization will interact with the cards? Will you need different levels of security clearance for each?
- Does your card design need to comply with any government regulations?
- How will you verify and authenticate the identity of each cardholder?

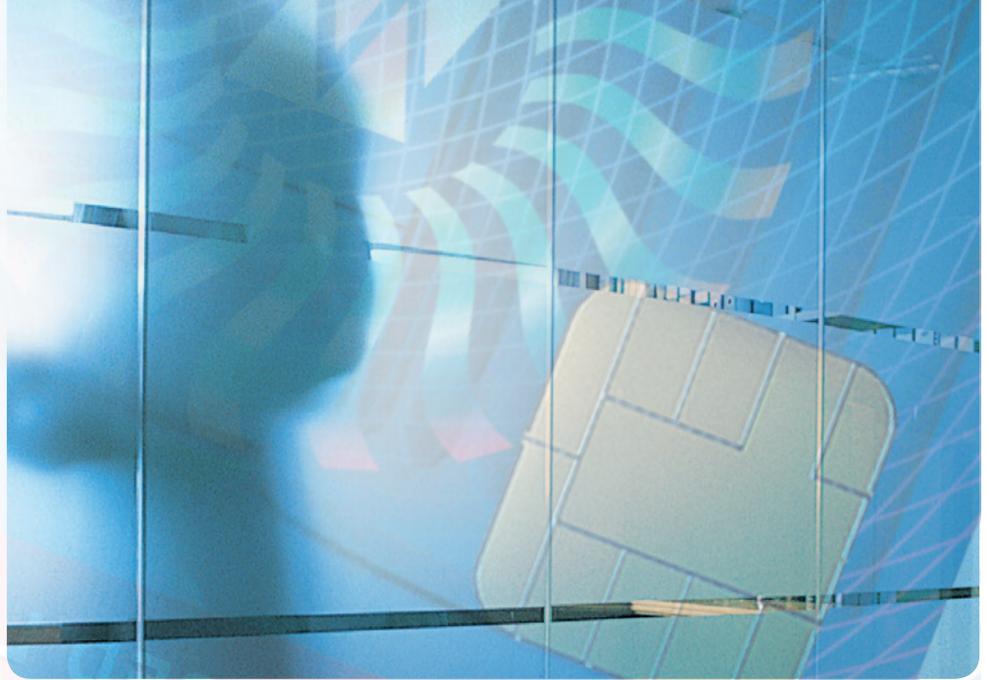
**These objectives will help determine the parameters of your card project.**

## Did You Know...

HID Global's Identity on Demand services can help you make a statement with a card design that stands out from the rest. Whether it's a complete redesign or an existing template, our design team can help develop effective, attractive and counterfeit-resistant credentials for your organization.



▲ Cards with embedded electronics, like smart cards or proximity cards, will affect your design options.



## Determine the technologies that your ID card will have

### Did You Know...

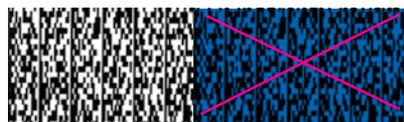
To speed the deployment of your project, HID Global's Identity on Demand services can provide you with an electronic cross reference list that associates a new card number with a specific employee record.

The technologies your organization uses will influence your card design. When making decisions about these elements, it's smart to involve the experts, such as your IoD project team, your security personnel,

system integrator, graphic designers, or all of the above. Achieving an effective ID card involves three key elements: functionality, authentication, and validation.



◀ Do you plan to utilize a **bar code** in your operations? What kind of bar code would best suit your needs? Different barcodes have different space requirements. Remember to allow adequate space around it to ensure **trouble-free scanning**.



◀ Barcodes can be masked to prevent copying. Also, if your bar code is printed on a background color, be sure that background color provides sufficient contrast for scanability.



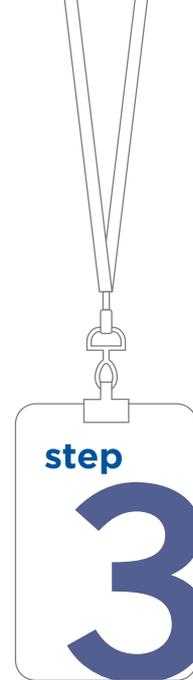
◀ Designing a card with a **magnetic stripe**? Remember that some elements like this have fixed positions on ID cards.



◀ The electronics inside **technology cards** create an irregular card surface. For consistent image quality on Prox, iCLASS®, or other HID technology cards, HID uses **High-Definition Printing™ technology**.



◀ Most traditional direct-to-card printers can't print tightly around smart card contacts without risking damage to their print heads. High-Definition Printing Technology **prints up to the contact's edges**, and over the card edge for a high-quality appearance.

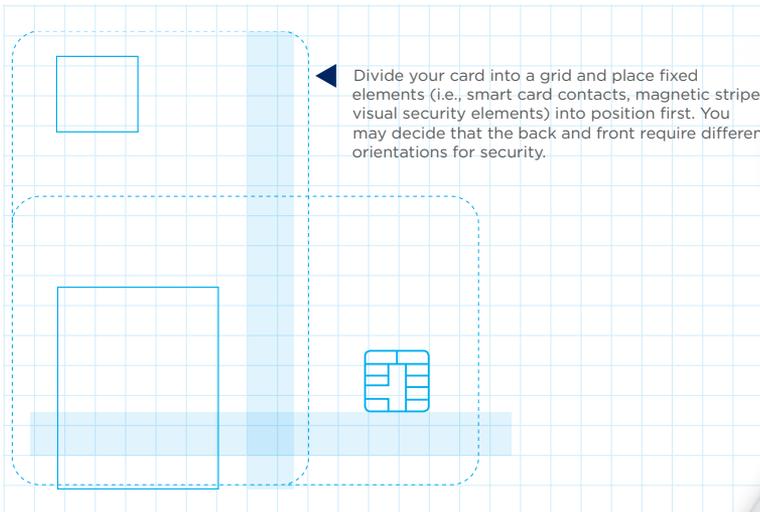


## Determine your ID card's orientation and layout

For maximum effectiveness, explore both portrait and landscape orientations. There is no one right answer. As you arrange the graphical elements of the card around the technology elements, ask yourself questions such as:

- How will the card be best displayed and most used?
- Where do the electronics on the card fall?
- Will the card require a badge holder and lanyard?
- Is there critical information printed on the card that, over time, might be rubbed off because of swipe abrasion? If so, consider adding a protective overlamin.

Many companies utilize both orientations as an at-a-glance verification aid. Fully functional vertical cards are worn by full-time employees. Less functional horizontal cards are worn by visitors and short-term contractors.

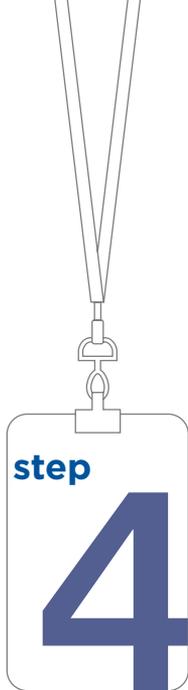


Divide your card into a grid and place fixed elements (i.e., smart card contacts, magnetic stripes, visual security elements) into position first. You may decide that the back and front require different orientations for security.

Using a badge holder is a great way to ensure the longevity of the card, while accommodating a place for your lanyard to be connected and maximizing the space for your card design.



▲ Don't forget! If you're going to have a lanyard connect directly onto the card, you'll need to leave room for your design to accommodate it. Don't get caught with your organization's logo being covered up.



▲ Your ID Badges are only as safe as the system that supplies them. That's why HID Global's Identity on Demand services are structured to meet the highest security standards.



## Determine the level of visual security you will need on your card

A color photo on a plain white card just isn't enough anymore. Today, anyone with a computer can create a legitimate-looking ID card with ease. Proper card design can help reduce your vulnerability to counterfeiting. Incorporating anti-counterfeiting security elements that are difficult to forge, yet easy to authenticate, should be the first

consideration in a secure card design. There are choices for every need and budget, from moderate elements such as micro-fine printing and optically variable inks to more sophisticated solutions such as registered holograms and laser engraving.

### Did You Know...

HID will create sample cards based on a sample database you provide. Photos and data may be a subset of the actual data or fabricated, but should closely resemble the data and photos that will be provided to produce the project.



▲ To enhance the visual appeal and security of a personalized technology card, Identity on Demand services offer several surface and sub-surface features that can be added to a card design for a truly secure and custom product.

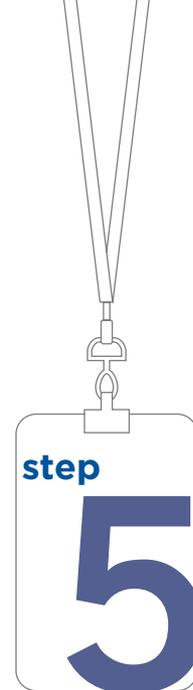


▲ The starting point of any secure ID card design is a **300 dpi color photograph**. From a design perspective, the larger and more vivid the photo is, the easier it is to authenticate the cardholder. To save time and money, it is good practice to ensure all photos maintain a standard and consistent aspect ratio.



▲ **Optically Variable Inks (OVI)** are color-shifting inks that reflect various wavelengths in white light differently, depending on the angle at which the card is viewed. An unaided eye will observe this effect as a change of color while the viewing angle is changed. This anti-counterfeiting method is commonly used on currency and travel documents.

▲ **Embedded holograms** are positioned under the rigid clear top surface of the card and allow dye sublimation — enabling the entire card surface to be personalized. This application style furthers the effectiveness of the anti-counterfeiting feature by requiring expensive and specialized manufacturing equipment.

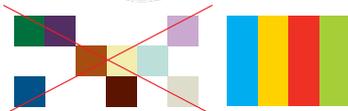


▲ Does your color imagery print as you had planned? Take the extra time to make it right. You'll be looking at your ID cards, and the design on them, for a long time.

## Select graphics and a typeface for your card

When designing your ID card, keep in mind that it's more than just a security device and functional tool — it can also be an extension of your organization's image and brand. An attractive and professional card will reinforce the right message about your organization and its employees. And because a well-designed card is more likely to be worn, it will go a long way toward ensuring the effectiveness of your entire card program.

Let HID Global turn an ordinary white access card into an identity credential your employees will be proud to wear. From high-resolution lithographic printing and anti-counterfeiting techniques to variable record printing and advanced personalization, HID Global's Identity on Demand services deliver the global know-how, tools, delivery, speed, and support needed to ensure the success of even the most demanding credential program.



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 IT: Server Support  
 2007~~

Damini Basu  
 IT: Server Support  
 2007

- ▲ **Sub-surface lithographic printing** ensures consistent color matching results. Pantone spot colors and true metallic inks can be printed with this technique.
- ▲ **Bright colors** typically work best. Dark colors can adversely affect readability. Likewise, pastel backgrounds can look washed out.
- ▲ **Textured backgrounds** minimize flaws in the card surface better than solid backgrounds.
- ▲ **Contrasting colors** are often used to indicate different levels of access or security clearance.
- ▲ The cardholder's photo is typically the primary feature. That's why it is important to **use images of at least 300 dpi** and make the photo as large as possible.
- ▲ A good typeface promotes **easy readability** for fast and accurate authentication.
- ▲ The use of **only one or two fonts** is suggested. Too many fonts can make a card difficult to read.



## Health Care

**Children's Hospital:** One of the nation's leading pediatric hospitals

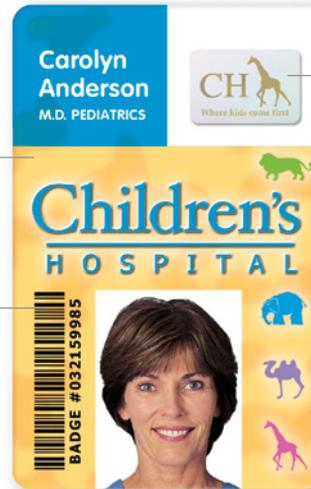
### Key Requirements

HIPAA regulations require health care facilities to verify staff member identities. A secure badge will help accomplish that objective.

- Access control
- Data tracking
- Security
- Brand
- enhancement
- Patient experience

The card's colors and simple design were chosen for their ability to communicate the hospital's pediatric focus.

New patient-safety measures require caregivers to scan their card's bar code and then the patient's chart before administering drugs. That information is then transmitted to a central patient database.



The card's surface hologram not only provides a strong measure of security, it's often a starting point for communication between hospital staff and shy patients.

A smiling face and the use of animal shapes on the front of the card help provide a measure of comfort for the hospital's young patients.

The hospital's CEO requested that the hospital's mission statement be included on the back of the card "as a daily reminder of the importance of our mission."



HID technology restricts floor access.



# University

**Monroe University:** A highly regarded liberal arts university

## Key Requirements

What better way to reinforce its reputation as one of the nation's most prestigious and scenic campuses than by choosing a custom holographic overlaminates to go over a background photograph of a landmark on the renowned Monroe University campus?

Your ID Badges are only as safe as the system that supplies them. That's why HID Global's Identity on Demand services are structured to meet the highest security standards.

- Financial
- Transactions
- Fraud
- Prevention
- Facility access brand
- Enhancement

A student's identity and tuition account balance — read via the card's smart chip — must be verified before he is allowed to register for each semester's classes.



Student identification numbers are used to authenticate the user in legacy campus facilities that do not yet have advanced card-reading equipment.

Monroe University was able to offset some of its card printing costs through a sponsored partnership with FastBank. The card's magnetic stripe offers students and faculty access to FastBank's self-service kiosks throughout campus.



MU students and staff have convenient and speedy access to library and media center materials as well as recreational equipment — all thanks to a convenient scan of a 2D bar code.



# Government

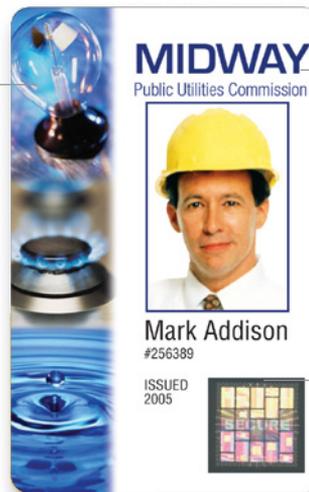
**Public Utilities Commission:** A highly secure government agency

## Key Requirements

HID Global provides government organizations with an effortless migration path for physical and logical access control and badge printing requirements

- Regulatory compliance
- Legacy system interoperability
- Security and authority

The crisp colorful graphic depicting MIDWAY's charter adds a level of expertise and pride for cardholders.



A large cardholder photo on the card front and ghosted duplicate monochrome image on the back are easy and effective ways to deter counterfeiters who may only get a look at the front of an ID card.

The card's embedded registered hologram reinforces MIDWAY's commitment to integrity and security while establishing a sense of authority.

The use of several technologies on a single card — a bar code, a smart chip, magnetic stripe, and proximity antenna — are used to interface with both new and legacy systems in facilities of varying sophistication.





# Corporate

**Globe Labs:** A global high-tech engineering conglomerate with multiple divisions

## Key Requirements

To enhance the visual appeal and security of the card, Globe Labs added several sub-surface features for a truly secure and custom product. In addition to printing the background graphic with high-resolution lithographic inks, this card contains OVI (Optically Variable Ink – Globe Labs logo), which produces noticeable reflecting color shifts.



The complex “turbine” hologram around the Globe Labs logo reinforces the company’s origins in the space engineering field.

Varying security clearance levels are communicated to security personnel via a prominent color-coded system on the front of the card.

A large and prominent photo ensures quick and easy visual identification.

The use of several technologies on a single card – a bar code, a contactless chip, and magnetic stripe – are used to interface with both new and legacy systems in facilities with varying application needs and sophistication.



Whether it’s 50,000 credentials within a month or 1,000 credentials within a week, HID Global can produce and deliver your new ID credentials quickly and reliably anywhere around the world.

- Security
- logical access
- Brand enhancement
- Access control
- Productivity



The images below have different resolutions, but appear the same on a computer monitor.



This is a 72 dpi image.

## Graphic Submission Guideline for Card Artwork

All graphic files need to be examined by a HID graphic artist to determine if final production will meet customer expectations and exceed HID quality standards. In this section, we identify a few characteristics that can easily remedy problems before production begins.

### Resolution

The most important graphic file attribute is image resolution. This describes the measure of detail a graphic file can display. Image resolution depends on the number of pixels that make up that image. A pixel is the smallest single component of a digital image and is about the size of a period. Each pixel has an individually defined color. When computers combine thousands of pixels together, you get an image. The standard to measure pixels is called dots per inch (dpi). Graphic image resolution on

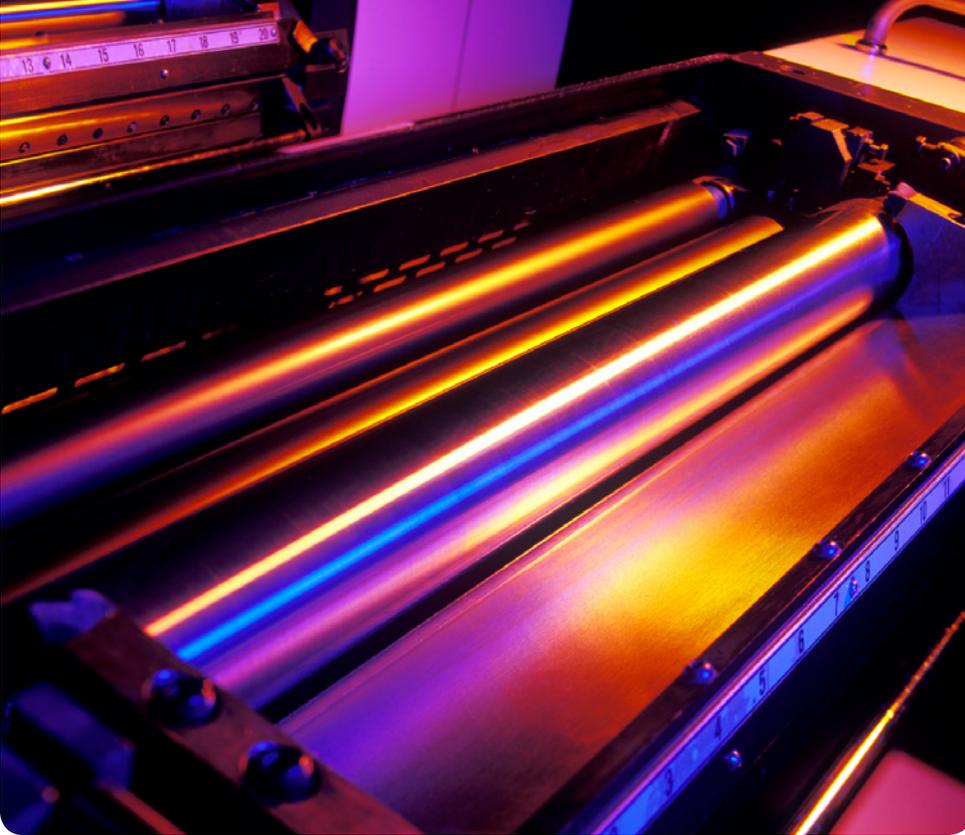
computer monitors and printing devices from commercial presses to inkjet printers are measured in the dpi standard.

**The minimum graphic resolution for a laminated or printed credential is 300 dpi.**

Computer monitors generally show images at 72 dpi. This is why graphic files that look normal on a computer monitor are sometimes rejected for printing.



This is a 300 dpi image.



## Graphic Submission Guideline for Card Artwork

If these files were used to print on a credential, each would give a different result.

To the right is an example of the previous page's images as printed on a credential. Because the 72 dpi image lacks enough dots per inch to meet the minimum press resolution, the file becomes distorted. This is called **bit-mapped** and is undesirable in commercial printing.

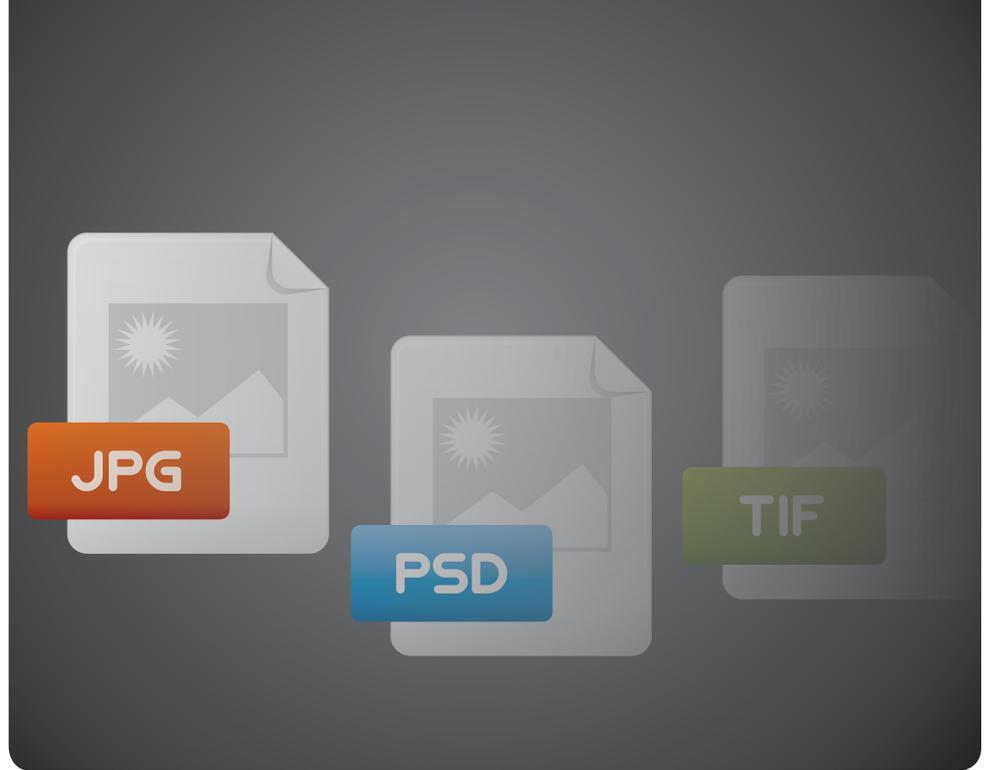
When a graphic artist asks someone unfamiliar with printing specifications for a high-resolution image, the customer-supplied artwork is normally only 72 dpi. The most common customer error occurs from supplying 72 dpi logos taken from a website. Most websites use 72 dpi images for content as they look good on-screen and download fast, but these will not provide high-quality printing.



This is a 72 dpi image printed at 300 dpi.



This is a 300 dpi image printed at 300 dpi.



## File Types, Names, and Identification

Graphic files can be produced with different graphic programs or image capture devices. Any image produced by a digital camera or scanner is considered a raster image. Adobe® Photoshop is the most common raster image editing program.

Any image produced in a drawing program that uses lines and curves based upon mathematical equations is a vector image. Adobe Illustrator® is the most common vector image development program.

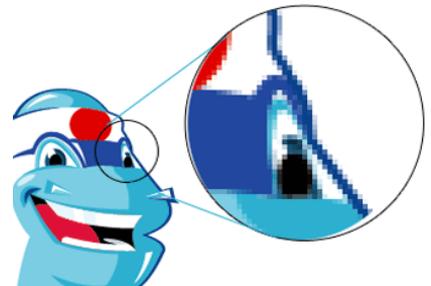
### Raster versus Vector Images

There are two very important differences between these image formats. Raster images are considered resolution-dependent (the starting dpi at file creation matters and cannot be changed). Raster images cannot be increased in height or width without loss of image detail. In most cases, a raster image created at 72 dpi cannot be changed to 300 dpi without major loss of image quality.

Below are some examples of Raster images. Photographs and scanned pictures fall into this category.



*Increasing image size results in loss of detail or pixilation.*



Vector images are considered resolution-independent (the starting dpi doesn't matter). Vector graphics can be re-sized larger or smaller with no loss of detail.



# File Types, Names, and Identification

## The most common raster images have the following naming conventions:

- .jpg** — the most common acceptable image type
- .tiff** — acceptable, usually used in high-end commercial printing and duotones
- .png** — acceptable multi-purpose file type
- .gif** — not acceptable, most common web page format, used for display on computer monitors only
- .psd** — native Photoshop document, acceptable

## The most common vector images have the following naming conventions:

- .pdf, .eps, or .ps** — are all acceptable.
- .ai** — native Illustrator document, acceptable

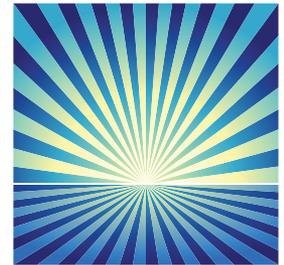
## Images used for holograms and clamshell credentials can only be submitted in vector format.

**Adobe® Acrobat® .pdf** files and vector graphics can contain both a mix of raster and vector elements and are an acceptable format as long as the original raster elements included were created at 300 dpi.

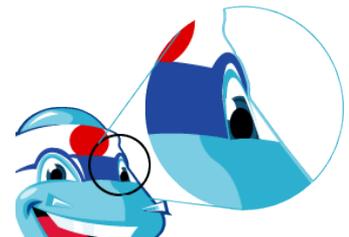
**Microsoft® Word® .doc** files typically can only be used to supply text to be printed on a card. This will be imported into Adobe Illustrator for highest quality output.

Customers who use **QuarkXPress®** or **Adobe InDesign®** should export and submit files in Acrobat .pdf format.

Below are some examples of vector images:

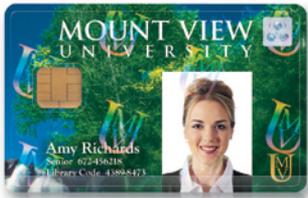


*Increasing image size results in NO loss of detail or pixilation.*

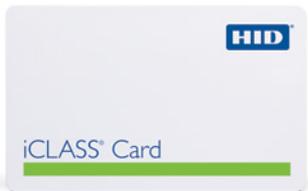




## Full Bleed and Non-Bleed Printing



Example of a card with full bleed



Example of a card with no bleed

Bleed is a printing term that refers to printing that goes beyond the edge of the credential before die cut trimming. To achieve this effect, the supplied artwork must be larger than the finished card size.

The minimum file size for printing required to go to all four edges of a credential is 3.477" x 2.227"

HID offers metallic inks in two formulas: Litho and Silkscreen Printing. Generally, Litho metallic is shiny, uniform in color, has very small metallic flakes and is printed on

our standard lithographic printing press. Silkscreened metallic inks have a much larger metallic flake, more shimmer in the light, and can only be printed using a silkscreen press. At left is an example of both silver Litho PMS 877 and silver Silkscreen PMS 877.

We require customers to specify which formula should be used when requesting metallic inks. For full bleed metallic cards, Silkscreen metallic is the best choice. For standard graphic images with silver printed on top, Litho metallic is best.

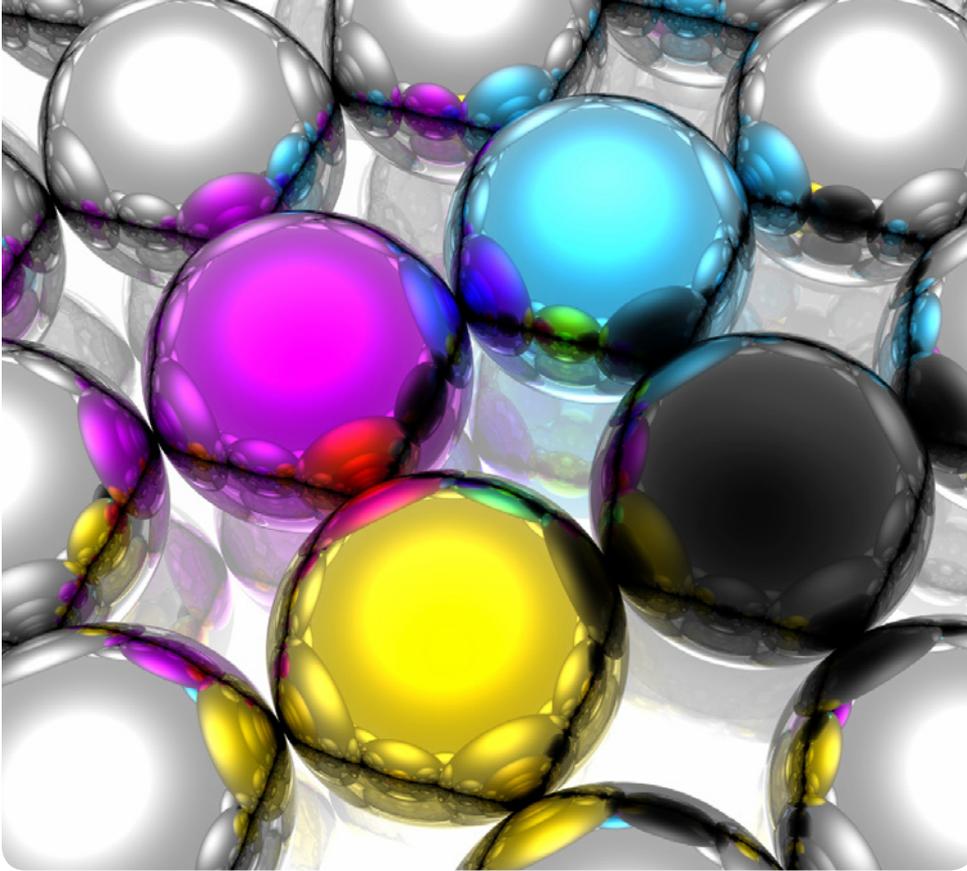
Below is an example of both silver Litho PMS 877 and silver Silkscreen PMS 877.



Example of silver Litho PMS 877



Example of silver Silkscreen PMS 877



# Color

Credentials created by HID are printed using 2 common color models.

## 1) CMYK

Also known as process color or four-color, CMYK consists of a set of four separate color mixing inks used in printing called Cyan, Magenta, Yellow, and Black. These four inks can combine to produce millions of different colors on a printing device. The vast majority of the world's printed material is produced using the CMYK process.

## 2) Pantone Matching System (PMS or spot color)

The Pantone Color Matching System is a standardized color reproduction system. By standardizing the colors, different manufacturers in different locations can all refer to the Pantone system to make sure colors match without direct contact with one another. Special inks like UV and metallics are done using PMS color. Pantone colors are described by their allocated number (for example, 'PMS 287'). PMS colors are almost always used in branding and for company logos.

Customers requesting PMS colors should only submit files in .eps or .pdf format. PMS swatches can be provided on request. Many of the Pantone system's spot colors cannot be reproduced using the CMYK process.



Cyan, Magenta, Yellow, and Black combine small overlapping dots on a printer to make a final image.



PMS swatches can be provided on request.



Fonts are a character set and style of a particular typeface.

Helvetica 45 Light  
 Helvetica 55 Roman  
**Helvetica 85 Heavy**

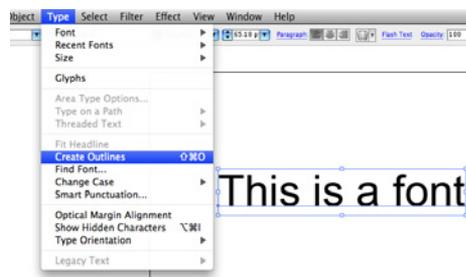
## Typefaces and Fonts

Fonts are not automatically embedded or included in .eps or .pdf files. Custom or non-standard fonts must be included with file submission if HID is required to make changes to customer-supplied editable text. Avoid using custom or stylized theme fonts not found in a standard PC library.

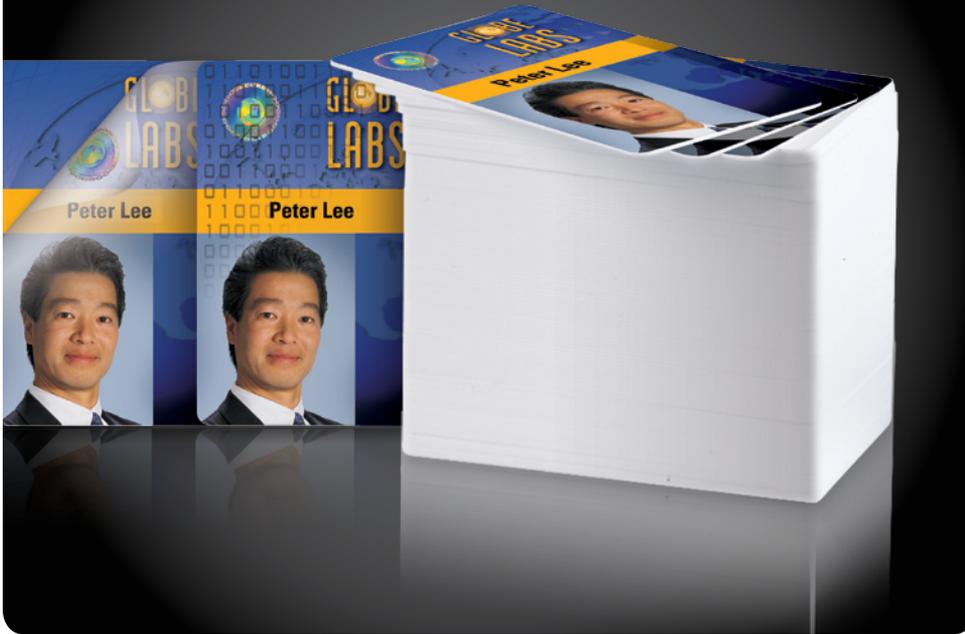
To avoid delays in proof requests, customers should make sure all .eps, .ai, or .pdf files with editable text are converted to outlined fonts. Customer graphic personnel can do this in Adobe Illustrator by selecting the font and choosing "Create Outlines" from the type menu.

Fonts submitted with .eps or .pdf files should be in Open type or Postscript format.

Once converted to outlines, the font is no longer editable, but is now a vector art element that guarantees no font error when graphic files are submitted.



Finished outlined font.



## Matching Existing Cards

HID will make every effort to match color from cards made by different manufacturers. Previous run sample cards are required.

### Send sample cards to:

#### **HID Global Americas Graphics Department**

333 State Street  
North Haven, CT  
06473 USA

#### **HID Global EMEA Graphics Department**

Haverhill Business Park  
Phoenix Road  
Haverhill, Suffolk  
CB9 7AE England

\*Please indicate if sample cards provided need to be returned.

### Graphics Checklist Review

- 1) The minimum graphic resolution for a laminated or printed credential is 300 dpi.
- 2) Minimum file size for printing required to go to all four edges of a credential is 3.477" x 2.227"
- 3) Customers requesting PMS colors can only submit files in .eps or .pdf format.
- 4) Images used for Clamshell or hologram creation can only be submitted in vector image format.
- 5) Editable font text submitted with .eps or .pdf files should be in Open type or Postscript format.
- 6) If no text editing needs to be done, request fonts be turned into outlines to avoid processing delays.

Failure to follow the above guidelines will result in rejection of supplied graphics and could delay the project. Graphic proofs for signature cannot be generated without approved graphics.

HID Global will match the original files as close as possible, but an exact match cannot be guaranteed.



## Excellence in Quality and Technology

Through years of dealing with complex customer requests, HID has demonstrated the capacity, ability, and experience to handle large sets of requirements. Customers can rely on HID Global's Identity on Demand™ services to produce complex, fraud-resistant ID cards that can discourage the most diligent and determined counterfeiters. These customized ID cards with security elements are virtually impossible to alter or duplicate, yet easy to authenticate.

As a three-time recipient of the Shingo Prize, including the 2008 Shingo Bronze Medallion for Operational Excellence Business Program, HID has spent time developing the "technology of quality" throughout the product lifecycle — from well-thought R&D, strict manufacturing, and technology standards to rigorous testing. With true dedication to this manufacturing technique, HID Global's manufacturing

and operations processes are designed to drive efficiencies to increase productivity, directly benefiting customers and their businesses by saving them time and money.

HID Global has adopted standards as set forth by the International Standards Organization (ISO) in order to ensure quality, environmental friendliness, safety, reliability, efficiency, interoperability, and overall cost-effectiveness. With a wide range of products and solutions that meet all relevant ISO standards and specifications, HID Global's technology enables customers to use their credentials worldwide.

As the trusted worldwide leader in providing solutions for the delivery of secure identity, HID Global has unparalleled experience and expertise that you can count on.





# HID Worldwide Support

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## Support Locations

HID's corporate offices are located in Irvine, California. Operations serving the Americas are also based in Irvine, with regional headquarters in Haverhill, England (Europe) and Hong Kong (Asia Pacific). The company also maintains regional offices throughout the world for localized assistance organization.

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