

# APPLICATION TIPS



## Using a CO<sub>2</sub> Laser to Create 2D Data Matrix UID Barcodes

CO<sub>2</sub> laser systems are ideal for creating high quality, permanent UID bar codes and 2D matrix codes on a wide variety of coated, painted and bare metals\* including stainless steel, aluminum, anodized aluminum, brass, titanium, nickel, chrome plated metals and tungsten carbide as well as laser-markable label stock and AlumaMark material.

\*Using special optics or metal marking compound.

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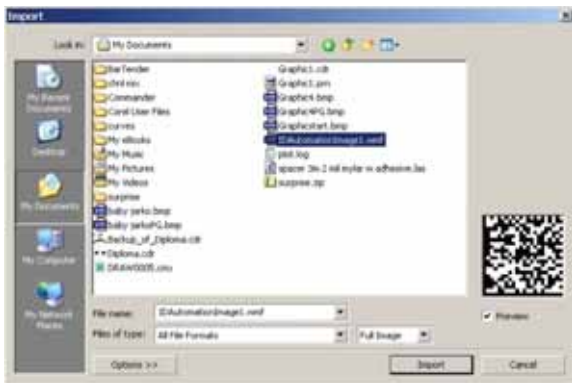
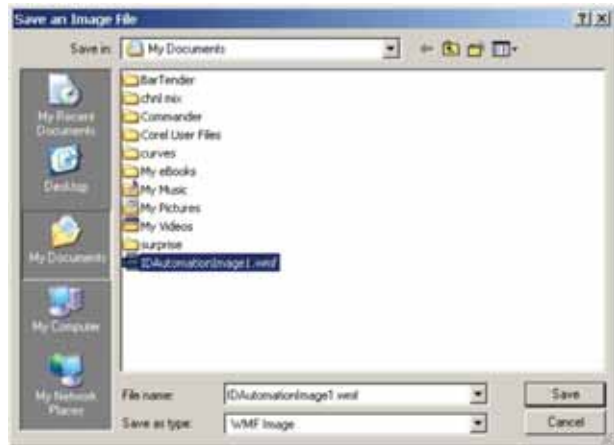


## « Step 1

Generate 2D data matrix UID barcode using software available from ID Automation. ([www.idautomation.com](http://www.idautomation.com))

## Step 2 »

Select "Generate Image File" from ID Automation's Main Menu Toolbar and save in .WMF Image file format.



## « Step 3

Import the .WMF file into CoreIDRAW.

## Step 4 »

Size the 2D barcode in CoreIDRAW to fit the metal object on which it will be imaged.



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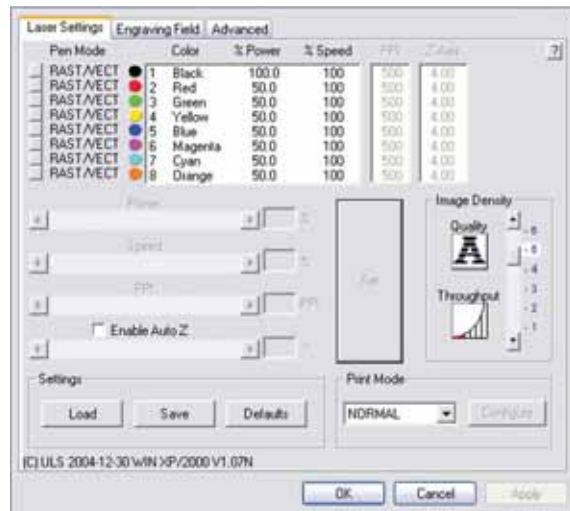


### « Step 5

Here is an example CorelDRAW file with four different size 2D barcodes that we will process onto a stainless steel tag.

### Step 6 »

Process the file using at least 25 watts of laser power, Universal Laser Systems High Power Density Focusing Optics™ lens and metal marking compound.



### « Step 7

Inspect the tag. The HPDFO lens and metal marking compound produce highly readable 2D barcodes that exhibit excellent contrast, density and resolution.

Universal Laser Systems' experience with Department of Defense UID specifications makes us a good partner to guide you through UID compliance and verification requirements. Our Applications Laboratory will be happy to mark sample parts or materials and provide documented certification of quality, durability and readability – call 1-800-859-7033 for details.