

# InfoSight Corporation

## INDUSTRIAL MARKING SYSTEM

## SOFTWARE UPGRADE

#### INSTALLATION AND OPERATING INSTRUCTIONS

ARM Based CPU Card ITM32137

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#### INTRODUCTION

The purpose of this document is to provide instructions for upgrading the firmware of an **InfoSight Industrial Marking System**. These instructions apply to the ARM based industrial CPU card part number ITM32137.

#### INSTALLATION

To install this new software version please follow these instructions carefully. If any problems are encountered during installation, please contact the factory at (740) 642-3600 for assistance.

**WARNING**: Installation of this software upgrade may, and probably will, by design or by accident, erase all data stored on the CPU card. Such data includes, but is not limited to, configuration parameters, buffers, messages, layouts, logos and fonts. It is **STRONGLY RECOMMENDED** that you record the current settings of all such data **before** you perform this upgrade.

If you have not previously installed the DfuSeDemo software, unzip the file DfuSe\_um0412.zip and run the appropriate installer. This will install DfuSeDemo (DFU Demonstration) and all necessary USB drivers on your computer. You may obtain the programming software from the InfoSight website at http://www.infosight.com/download/DfuSe\_um0412.zip

Verify that you have received the software update as a file with an extension of ".DFU". If you do not have the DFU file for your marker, please contact the factory at 740-642-3600.

Turn the power off to the electronics enclosure. Ensure that power to the card cage is off before proceeding.

Remove the ITM32137CPU card from the card cage. This card contains the firmware that will need to be updated. **Caution: Do not place this card on a metal surface as damage to the battery may occur.** 

Locate the Boot Mode Jumpers on the board. These jumpers are labeled J4 and J5 and are shown in Figure 1 "A" below:



Figure 1 – Location of Boot Mode Jumpers "A" and Micro USB Connector "B"

Put the board into system memory boot mode by moving jumper J4 (BOOT0) from B-C to A-B (J5 BOOT1 remains B-C). The correct position of J4 for programming is shown in the figure below:



Figure 3 – Jumpers in Program Position

Put the board back into the card cage and apply power to the system.

Attach a micro USB cable from the connector on the board to your PC. The cable is attached to the connector shown in Figure 1 "B".

A micro USB cable can be purchased at most electronic supply websites, or you can buy one directly from InfoSight using part number ITM34458.



Figure 4 - Micro USB Cable

Run DfuSeDemo.exe to load the DFU file into the board.

🧼 DfuSe Demo (v3.0.2)		
Available DFU and compatible HID Devices- STM Device in DFU Mcde Supports Upload Supports Download Car Detach Enter DFU mode/HID detach Leave D	Application Mode: DFU     Vendo: ID: Vendo     Vendo: ID: Procu     Version: Ve	Mode: or ID: C483 uct ID: DF11 sion: 2100
Actions Select Targe:(s): Target Ic Name 00 Interna Fla 01 Option Byte 02 OTP Memo 03 Device Fea	Available Sectors (Double       ash     12 sectors       tes     1 sectors       ory     2 sectors       eature     1 sectors	Clck for more)
Upload Action File: Choose Upload Transferred data size 0 KB(0 Bytes) of 0 KB(0 Bytes) Operation duration 00:00:00	Upgrade or Verify Action File: Vendor ID Targets in file: Procuct ID Version: Version: Verify after download Optimize Upgrade doration (Remove some Choose	PFs) Verify
Abor:		Qui:

Figure 5 – DfuSe Demo Program

As shown in Figure 5 above, labeled "1", first confirm that "STM Device in DFU Mode" is shown in the field "Available DFU and compatible HID Devices".

Next, click the Choose button labeled "2" in Figure 5 above. This will activate the File Open dialog as shown in Figure 6 below. Navigate to the location where you saved the DFU file that was supplied to you and select it. Note that in Figure 6 the name of the file is for example only – your file may have a different name.

Open					? 🛛
Look in:	Coljects		•	🔶 🗈 💣 🎫	<del>.</del>
My Recent Documents Desktop My Documents	DentARM.dfu				
My Computer					
My Network Places	File name: Files of type:	IDentARM.dfu Dfu Files (*.dfu)		•	Open Cancel
112003		Open as read-only			

Figure 6 – Open Dialog

After selecting the file, the program will show that the file has been successfully loaded. See below in Figure 7, labeled "3".

🧼 DfuSe Demo (v3.0.2)	
Available DFU and compatible HID Devices STM Device in DFU Mcde Supports Upload Nanifestation Supports Download Accelerated Car Detach Enter DFU mode/HID detach Leave DF	Application Mode: DFU Mode: Vendor ID: Vendor ID: C483 Procuet ID: Procuet ID: DF11 Version: Version: 2100
Actions Select Targe:(s): Target Ic Name 00 Interna Flash 01 Option Bytes 02 OTP Memory 03 Device Featu	Available Sectors (Double Clock for more)       12 sectors       1 sectors       2 sectors       2 sectors       1 sectors
Upload Action File: Choose Upload	Upgrade or Verify Action File: IDentARM.dfu Vendor ID 0483 Targets in file: Procuct ID 0000 Version: 0000
Operation duration 00:00:00	Verify after download  Optimize Upgrade duration (Remove some FFs)  Choose Upgrade Verify
Abor:	Qui:

Figure 7 – File Loaded and Ready to Upgrade

Confirm that the file is correctly loaded and then click the "Upgrade" button shown in Figure 7 above, labeled "4".

When you click Upgrade, you may see a message like that shown below in Figure 8. If you see this message, click "Yes" to continue.



Figure 8

As the program first erases and then programs the CPU card, a green progress bar at the bottom will display the upgrade status as shown in Figure 9 below:

🧼 DfuSe Demo (v3.0.2)
Available DFU and compatible HID Devices          STM Device in DFU Mcde <ul> <li>Application Mode:</li> <li>Vendor ID:</li> <li>Vendor ID:</li> <li>Car Detach</li> <li>Enter DFU mode/HID detach</li> <li>Leave DFU mode</li> </ul> <ul> <li>Application Mode:</li> <li>Vendor ID:</li> <li>Ven</li></ul>
Actions       Select Target (s):       Target Ic       Name       Available Sectors (Double Clock for more)         00       Interna Flash       12 sectors         01       Option Bytes       1 sectors         02       OTP Memory       2 sectors         03       Device Feature       1 sectors
Upload Action       Upgrade or Verify Action         File:       IDentARM.dfu         Choose       Upload         Transferred data size       Version:         O000
0 KB(0 Bytes) of 274 KB(281528         Bytes)         Operation duration         00:00:03    Choose          Upgrade
Target 00: Upgrading - Erase Phase (42%)         Abor:       Qui:



Once the software has been loaded on to the CPU card, close the DfuSe program.

Turn the power off to the electronics enclosure.

Remove the board from the rack and move the J4 jumper back to B-C as shown below:



Figure 10 – Jumpers in Run Position

Put the CPU card back into the card cage. Be sure to put it in the same slot from which it was removed. Re-connect all cables to the CPU card.

Apply power to the electronics and resume operation.

#### CONCLUSION

This concludes the installation and operating instructions for the Industrial Marking System software upgrade. If you experience any difficulties installing or operating this software, please contact the factory for assistance.

Thank you for ordering this software upgrade.