

# Plugin Installation Instruction

---

## User's Guide

### Plugin installation and licensing

**Xenon 1900/1902, Vuquest3310g/3320g, Granit1910i/1911i/1920i, N5600,  
Voyager 1400g**

## Table of Contents

1. Introduction .....	2
2. Installing Plugin.....	2
2.1 Uploading Plugin into the Imager .....	2
2.2 Licensing Plugin.....	4
2.3 Checking Plugin Installation .....	4
2.4 Finalizing Installation.....	5
3. Migrating from Trial- to-Licensed Plugin .....	5
4. Removing Plugin .....	5
5. Appendix 1. EZConfig-Scanning utility and related software .....	6
5.1 HSM Driver.....	6
5.2 EZConfig-Scanning Installation.....	6
5.3 Working with EZConfig-Scanning .....	6
5.3.1 Establishing communication with the Imager.....	6
5.3.2 Working with Command Center.....	7
6. Appendix 2. Quick Reference Chart.....	8
6.1 Installation / Enabling Plugin for Granit 1920i.....	8
6.2 Testing and Diagnostics / Operations.....	9
6.3 Removing Plugin.....	10
6.4 Configure Common Interfaces .....	10
7. Appendix 3. Plugin Testing and Diagnostic .....	11
7.1 Plugin Directory (PLGDIR.).....	11
7.2 Plugin Information (PLGINF.).....	11
7.3 Reading Data Matrix symbol in DEBUG Mode .....	12

# Plugin Installation Instruction

---

## 1. Introduction

This Guide provides information about installation and licensing of the Data Matrix DPM Decoder/Plugin for **Honeywell Xenon 1900/1902, Vuquest3310g, N5600 scan engine, Granit 1910i/1911i/1920i** and **Voyager 1400g** area images, integrated by means of **TotalFreedom™** Plugin Software Development Kit.

Since the installation procedures for these platforms are identical, the description is combined into one manual and all devices (jointly or separately) may be referenced further in the text as an **Imager**. The references to the **Honeywell Xenon 1900/1902 User's Guide** shall mean that there are similar references to the **Vuquest™ 3310g Area-Imaging Scanner User's Guide**, etc. and they are not mentioned only for conciseness.

This Guide deals only with EZConfig-scanning utility versions 4.0 and onward. These versions have been updated to be browser-based and improved to provide both an intuitive interface and enhanced efficiency.

Appendix 1 contains basic information about EZConfig-scanning utility that you might need when installing plugin.

## 2. Installing Plugin

Unpack purchased/downloaded from 2DTG site Multi-Platform plugin "**Plugin\_x.x.zip**" file, containing **icEveryCode\_x.x.moc**.

### **Important:**

1. "Cyrillic" configuration Set-Up (if required) should be done prior to installing Plugin (see **USER'S GUIDE** for multi-platform plugin for more detail).
2. Keyboard in the receiving window should be switched to Cyrillic configuration.
3. EZConfig does not supports Cyrillic configuration, so this option can be used only in HID Mode.

### 2.1 Uploading Plugin into the Imager

#### 2.1.1 *Checking/Updating Imager Firmware*

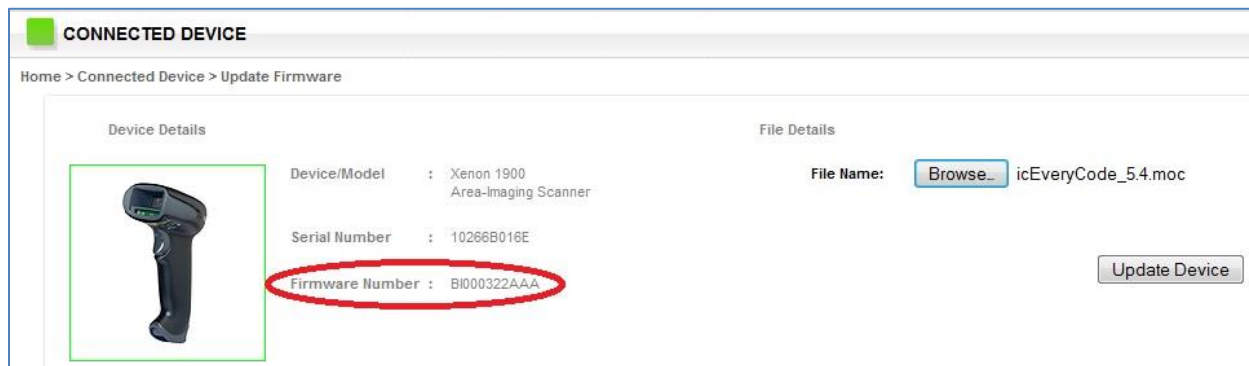
### **Important:**

Earlier Firmware versions of an Imager may not be compatible with Multi-Platform Plugin. Please check if the firmware version is up-to-date (Appendix 1) before proceeding further.

## Plugin Installation Instruction

If firmware is not up-to-date, download it (<http://www.2dtg.com/supporting-software-downloads>) to your PC and upload into the imager by clicking **Update Firmware** on the “Home > Connected Device” page.

Note: the upload procedures for the imager firmware and plugin are identical.



### 2.1.2 Firmware/Plugin Uploading Procedure

- In the opened *Update Firmware* Window click on “Browse” to the firmware/plugin file and click “Open”.
- Then click on “**Update Device**” to upload the firmware file into the device ROM.
- Wait until download process is finished (it may take 1-2 minutes).

**At this point Plugin becomes already functional (except for Granit 1920i – Section 3.1.3) in DEMO mode and can read DPM samples (Section 3.4).**

### 2.1.3 Enabling Plugin for Granit 1920i

Unlike all others Total Freedom platforms Granit 1920i requires one more step to make plugin working – enabling exposure mode setting (default mode is EXPMOD9). We recommend changing it to EXPMOD2:

- Scan **EXPMOD2** command code (*on the right*) or send this command from EZConfig Command Center.



**For Trial version of the Plugin GO TO Section 2.3**

**For Operational version continue with Section 2.2**

## Plugin Installation Instruction

---

### 2.2 Licensing Plugin

License for each Imager is generated using proprietary encryption mechanism, which uses Scanner's **Serial Number** (SN) as an input parameter and returns **License Key** (alphanumeric string of 20 characters). Scanner will call "check license function" by passing the SN as parameter every time the Imager is powered on.

The syntax for the license command to send to Imager is: **<Prefix>LIC#<License Key>**, where **<Prefix>:= 990009C72** – Xenon 1900 and Vuquest3310g or **:\*:990009C72** – Xenon 1902 (see Appendix 1 for more detail).

#### 2.2.1 Get License Key

There are three ways to get your License Key:

1. In the "My Account" section of the site (under Order No.) when you are logged in.

Note: enter 10-character Serial Number(s) in the "Order Comments" window at the end of the Check-out process (we recommend to scan all serial numbers into this window to avoid typos).

2. License Key (20 characters string) for each submitted Serial number will be e-mailed to you within 24 hours together with the **License command code**.
3. Contact Customer Support.

#### 2.2.2 Scan License command code

or Send License Key to the Imager using EZConfig Command Center:

**990009C72LIC#<License key>** - Xenon 1900 and Vuquest3310g or  
**:\*:990009C72LIC#<License key>** – Xenon 1902.

#### 2.2.3 Scan *RESET\_* command code to save the configuration



**Important: If License Key entered is incorrect, Plugin may lock itself and would not be able to read barcodes even in DEMO Mode.**

### 2.3 Checking Plugin Installation

Check DPM Plugin. If you can read Data Matrix symbols below, installation was successful.

Note: for Granit 1920i you would need to temporarily disable System's Data Matrix Decoder first by scanning **IDMENA0** code.



# Plugin Installation Instruction

---



Operational Plugin:			Trial/Demo Plugin:		
2D Technology Group	Test1	Data Matrix xxx	2D Technol*****	Tes**	Data Mat*****

## 2.4 Finalizing Installation

Scan **TRMUSB124**. command code to switch device to USB-Keyboard (HID) Mode to be able to receive Scan Data in any regular applications like, Notepad, Excel, etc.



Note: **Command Center** becomes disabled in this mode.

---

## 3. Migrating from Trial- to-Licensed Plugin

If the Trial version of the Plugin has already been installed into the Imager, the installation of the purchased licensed version includes only three steps, as follows (see Section 3.2 for detail):

- Get License Key
- Scan License command code
- Scan **RESET\_.** command code to save the configuration



## 4. Removing Plugin

Removes all files from Plugin folder – **PLGDLA** (including **License**).

---

Scan **PLGDLA**. command code to remove Plugin and save configuration - scan **RESET\_.** (above)



## Plugin Installation Instruction

---

### 5. Appendix 1. EZConfig-Scanning utility and related software

#### 5.1 HSM Driver

Download and Install «**Honeywell Scanning and Mobility (HSM) USB Serial driver**» (currently **Ver.3.5.7**: <http://www.2dtg.com/supporting-software-downloads>)

- Uninstall any previous installed Honeywell USB Serial Drivers.
- Extract the driver files and follow “Honeywell USB Serial Driver Installation” instructions in the README-file that comes with the package.

**Installation notice:**

*If the driver is installed correctly, **Device Manager**>**Universal Serial Bus Controllers** of your computer will be appended with a “**Honeywell Control Device**” line.*

#### 5.2 EZConfig-Scanning Installation

Download and Install “**EZConfig for Scanning**” Utility (currently Version 4.5.25) using the

Unpack **EZConfig-Scanning.zip** file, lunch **EZConfig-Scanning v4\_v4.5.25\_Setup** and follow on-screen installation instructions.

#### 5.3 Working with EZConfig-Scanning

##### 5.3.1 Establishing communication with the Imager

- Scan **TRMUSB130** command code (*on the right*) to program the Imager to emulate a regular RS232-based COM Port (**Honeywell Xenon 1900/1902 User’s Guide**, page 2-5)
- Start **EZConfig Scanning** and connect **Imager** to PC via USB cable.
- Click “Connected Device” on the opened HSM *Home* window

**Connection Notes:**

*At this point **Device Manager** of your computer will be updated with 2 new lines:*

- “*Xenon 1900/1902 Area-Imaging Scanner*” - under “**Universal Serial Bus Controllers**”
- “*Xenon 1900/1902 Area-Imaging Scanner (COM##)*” - under “**Ports (COM & LPT)**”.
- Upon connection the left side of the **EZConfig** “*Home > Conneceted Device*” window should be depicting the parameters of the device:

# Plugin Installation Instruction

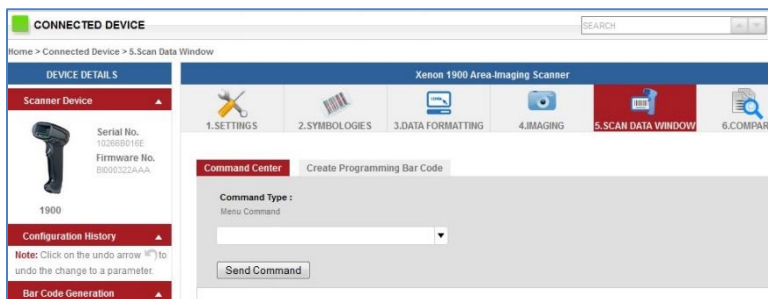
The screenshot shows a software interface with two main panels. The left panel, titled 'CONNECTED DEVICE', displays a 'Xenon 1900 Area-Imaging Scanner' with its model, serial number (10266B016E), firmware number (BI000851EAA), and connection type (USB SERIAL). It also indicates that the firmware is up to date and provides a link to 'Show License/Plug-in Info'. The right panel, titled 'License/Plug-in Info', lists various options with checkboxes: Stacked Linear Symbolologies, Matrix Symbolologies, OCR, Imaging Available, PDF Symbology, Plug-in Enable, Postal Symbolologies, Linear Symbolologies, Image Capture, and Color Fusion. Under 'Plug-in Info', the '2DTG\_DecodePlugIn' option is checked. An 'Ok' button is located at the bottom right of the right panel.

It's important to check out two things on this screen:

- If the Firmware in your device is up-to-date (otherwise, you may not be able to install plugin).
- If you have already another plugin installed in this device (you may need to remove it before installing the new one) – right picture above.

## 5.3.2 Working with Command Center

Though in most cases it is more convenient to send the command to the imager using appropriate Command codes, some commands can be sent only by means of **Command Center**.



To call the **Command Center**, go to “*Home > Connected Device > 5.Scan Data Window*” by clicking **Scan Data Window** on the “*Home > Connected Device*” page.

The Serial Command Window allows you to use serial commands to communicate with a connected device. Type a serial command in the text box and click on **Send Command** to send a command or a query to the device.

## Plugin Installation Instruction

---

### 6. Appendix 2. Quick Reference Chart.

This Appendix provides a list of the commands related to Plugin installation process or operation. Some of them shall be executed in a Debug mode for the results to be displayed.

#### 6.1 Installation / Enabling Plugin for Granit 1920i

---

##### License Plugin

Scan Command Barcode or  
Use Command Center:

**990009C72LIC#<License key>.**  
**:\*:990009C72LIC#<License key>. (1902)**

##### Enabling Plugin for Granit 1920i



**EXPMOD2**

---

##### Reset (Save)



**RESET\_.**

---

##### Disable System Data Matrix Decoder    Enable System Data Matrix Decoder



**IDMENA0.**



**IDMENA1.**

---

##### Disable System Decoder (ALL)



**ALLENA0.**

##### Enable System Decoder (ALL)



**ALLENA1.**

---



## Plugin Installation Instruction

---

### 6.2 Testing and Diagnostics / Operations

---

**Enable Debug Mode**



**PLGDBG1.**

**Disable Debug Mode**



**PLGDBG0.**

---

**Display Plugin Directory**



**PLGDIR.**

**Display Plugin Information**



**PLGINF.**

---

**Enable Plugin**



**PLGDCE1.**

**Disable Plugin**



**PLGDCE0.**

---

**Set Plugin Configuration File**



**PLGDCNicEveryCode.**

**“Clear” Plugin Configuration  
Settings**



**PLGDCN.**

---

## Plugin Installation Instruction

---

### 6.3 Removing Plugin

---

**Remove Plugin (including License)**



**PLGDLA.**

**Reset (Save)**



**RESET\_.**

---

### 6.4 Configure Common Interfaces

---

**USB – Keyboard (HID) Mode**



**TRMUSB124.**

**USB Serial Emulation**



**TRMUSB130.**

---

# Plugin Installation Instruction

## 7. Appendix 3. Plugin Testing and Diagnostic

### 7.1 Plugin Directory (PLGDIR.)

Scan **PLGDIR**. Command code to display Plugin directory

Operational Plugin		Demo Plugin	
icEveryCode.plugin	224816	icEveryCode.plugin	224816
icEveryCode	795	icEveryCode	794
OptModes	168	OptModes	168
Lic.key	10	2097152 total, 1871374 free,225778 used	
2097152 total, 1871363 free,225789 used			

Note: “**Lic key**”-line above may return one of two values, as follows:

- “**Lic key 0**” – submitted License Key has incorrect syntax.
- “**Lic key 10**” – means that syntax is correct. However, it does not necessarily mean that License Key itself is correct. If Plugin is still in DEMO mode after licensing - check PLGINF (Section 5.2).



### 7.2 Plugin Information (PLGINF.)

Scan **PLGINF**. Command code twice to display information about Plugin



Operational Plugin		Demo Plugin	
[Decode Plugin Configuration] <Decode.plugin> [name]: 2DTG_DecodePlugin [company]: 2D Technology Group, Inc. [licensed]: YES [active]: YES [majorrevision]: 15 [minorrevision]: 03 [build]: 25 [certificate]: 102148 [certificatetime]: 2009/08/10 15:00:05 [guid]: abcd1234 [filename]: icEveryCode.plugin [mainroutineorder]: AFTER [barcodeinterceptmode]: YES [entrydatastate]: MODIFIED CHAINIFFAILURE [loadstatus]: SUCCESS		[Decode Plugin Configuration] <Decode.plugin> [name]: 2DTG_DecodePlugin [company]: 2D Technology Group, Inc. [licensed]: <b>NO</b> [active]: YES [majorrevision]: 15 [minorrevision]: 03 [build]: 25 [certificate]: 102148 [certificatetime]: 2009/08/10 15:00:05 [guid]: abcd1234 [filename]: icEveryCode.plugin [mainroutineorder]: AFTER [barcodeinterceptmode]: YES [entrydatastate]: MODIFIED CHAINIFFAILURE [loadstatus]: SUCCESS	

**Majorrevision**

**Minorrevision**

**Build**

indicate the Date of the installed Plugin file → year (yy)  
month (mm)  
date (dd)

## Plugin Installation Instruction

---

**Mainroutineorder** indicates the order of the Plugin in the decode routine (AFTER or BEFORE the system decoder)

**[licensed]: YES/NO** - indicates if the Plugin is licensed or not.

*Note:*

- Plugin is not licensed (by default) after its download (Section 3.1.1) to the scanner. The decode output is modified to make plugin to return “\*” instead of some characters (DEMO Mode). Accordingly, the **[licensed]**-line in the print-out above will display “NO”.
- If licensing (Section 3) failed for any reason (License Key or its syntax is incorrect) plugin will stay in DEMO mode and “**[licensed]**”-line in the print-out above will display “NO” (as it’s supposed to do for DEMO mode).
- “**[licensed]**”-line displays “YES” only when correct License Key is entered to the scanner.

### 7.3 Reading Data Matrix symbol in DEBUG Mode

When reading Data Matrix in the Debug Mode (**PLGDBG1.**), Plugin returns the information about the type of the decoding algorithm that has been used for this particular symbol (Dot Peen or Standard) and relative level of symbol distortion (Focus: 0-3). Plugin calling procedure is also displayed.

```
[PLGUIN_DEBUG] Plugin decode process
[PLGUIN_DEBUG] Call system decoder for menuing
[PLGUIN_DEBUG] Plugin decode process
[PLGUIN_DEBUG] Next decoder is a plugin
[PLGUIN_DEBUG] ==== Focus: 0 ==== ----- Dotpeen Decoding OK -----
2D Technology Group
```