

User's Guide

Contents

1. Introduction	1
1.1 Scope	1
1.2 Normative and other references	1
2. Delivery package composition	2
3. Deployment.....	2
4. Reading Technique.....	3
5. Running the Applications	3
5.1 DPM_EH_ScanWedge	4
5.2 DPM_EH_MSWord.....	6
5.3 DPM_EH_Demo.exe.....	6
6. Licensing DPM Decoder	7
7. Verifying that DPM Decoder is installed/enabled	8

1. Introduction

1.1 Scope

This document is applicable to the **Nautiz-X4 and Janam-X5 Mobile Computers (“Terminal”)** with **Windows Embedded Handheld 6.5** and **2DTG Data Matrix** Decoding applications, utilizing its **DPM Edition library (DM_DPM)** and compiled in Windows Embedded Handheld 6.5 environment.

Library features are the same as for the full Windows version. They are described in detail in the User's Guide “**Data Matrix Decoding SDK (Enterprise, Professional, DPM Editions)**”.

1.2 Normative and other references

ISO/IEC 16022 - Symology specification - Data Matrix

ISO/IEC 15415 - Symbol quality - Two-dimensional symbols

DPM Decoder for Nautiz-X4 / Janam-X5 Mobile Computers

2. Delivery package composition

Delivery package is notated as **DPM_WEH6.5.zip**, and includes the following applications/files:

- **DPM_EH_ScanWedge.exe** – Scan Wedge application – emulates key board entry (sends decoded data to any “active window” application).
- **DPM_EH_MSWord.exe** – Data Matrix DPM Decoder, allows data to be automatically pasted directly to the Mobile MS Word/WordPad and monitor scanned sample on Terminal’s display at the same time.
- **DPM_EH_Demo.exe** – Data Matrix DPM Decoder returning decoded data into the message box popping-up over the image of the captured symbol. Provides for monitoring scanned sample on Terminal’s display while decoding.
- **License.txt** – license file (not required for trial mode).

Important!

All programs delivered as trial versions. Trial versions are fully functional but some characters in the decode output are artificially replaced with asterisks. Licensing (License.txt) is required in operational mode only.

3. Deployment

If 2DTG’s DPM Decoding software is purchased together with the Terminal from 2DTG, it comes as pre-installed add-on software. No further installation is required for its operation.

If it is purchased without the device, on-site installation is required. It’s an easy procedure that practically does not take any time.

- Synchronize Terminal with the host computer via Windows Mobile Device Center - WMDC (WIN 7-10, Vista) or ActiveSync (WIN XP).

Note: 1. Windows 8&10 requires small adjustment to connect to WMDC both on your PC: <https://support.tracerplus.com/article/291-windows-mobile-device-center-no-longer-working-in-windows-10>

and on your Terminal:

2. Go To: Settings=>Connectivity=>USB to PC and uncheck “Enable Advanced network functionality” (for Windows 7 and XP it should be leaved checked)

- Create a folder on the Terminal for DPM applications, received from 2DTG, – for example **File Explorer > 2DTG** - and unpack all files from the delivery package to this folder.
- From this folder you can start any application – just by selecting and tapping appropriate file name.

DPM Decoder for Nautiz-X4 / Janam-X5 Mobile Computers

4. Reading Technique

Follow the general guideline described in the Terminal User's Guide.

Two of DPM applications, supplied by 2DTG, allow for Image Preview to assist in selecting the optimal reading distance and angle, which sometimes is crucial for DPM marks. When the image capturing process is initiated, the touch screen displays a preview of the mark. Select the best view by slightly changing reading distance and angle.

Overall DPM mark reading involves few steps as follows:

- Position the terminal over the barcode.
- Project the aiming brackets by pressing and holding "Scan" key on the face of the Terminal.

Note: side Scan keys (both Left and Right) are disabled in DPM mode.

- Center the aimer crosshair over (or near) the barcode.
- Hold the Device such that its front surface is tilted to the mark surface (to prevent unwanted reflection), and the mark is within the "high-vis aiming pattern". Depending upon the type of the mark the hade may vary within a ~ 15-45 degree range.
- Slightly change reading distance and angle as necessary to read the DPM mark by monitoring the Image Preview.
- Hold the "Scan" button until the symbol is decoded or you decided to terminate this attempt. When image is decoded the device will stop reading automatically (the decode LED lights green (or blue) and the terminal beeps).

Reading Distance for DPM marks is from 0.5 to 10 inches for most samples. The optimal distance would be ~ 4-5 inches. Depending upon the mark and lighting conditions maximum distance might be as great as ~ 15 inches.

Important!

Try to avoid direct lighting or bright ambient light when scanning DPM (particularly Dot Peen) samples to prevent patches of reflected light .

Important!

Terminal is equipped with Honeywell's 56XX image engine - Standard Range, which has resolution of 7.5 mil on a Data Matrix "paper" label. Please note, that for DPM marks the effective resolution is even slightly lower than that (might be ~ 10 mils).

5. Running the Applications

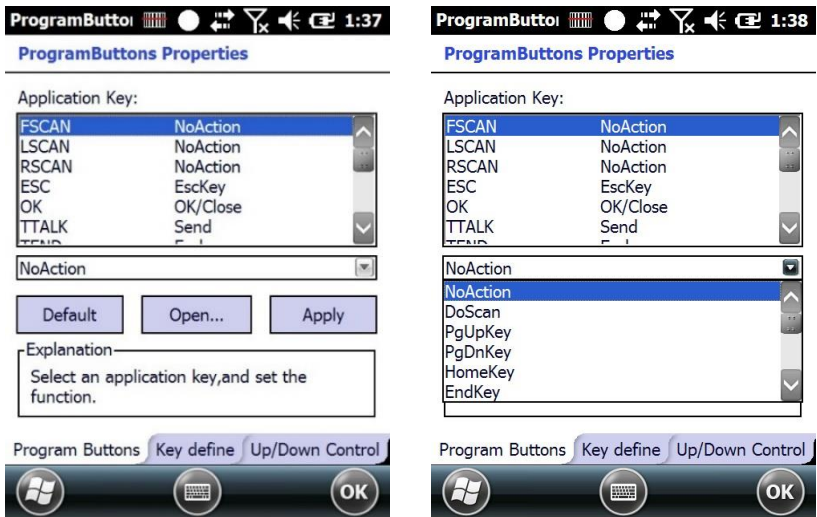
2DTG offers three DPM software applications designed to meet different decode requirements: DPM_EH_ScanWedge, DPM_EH_MSWord and DPM_EH_Demo.

DPM Decoder for Nautiz-X4 / Janam-X5 Mobile Computers

All of them are seamlessly integrated with the system (Terminal's) decoder. It means that you can use both decoders from 2DTG's application without switching back and force between them.

System ScanWedge must be disconnected from the Scan keys before running 2DTG's applications:

- GOTO:
Start > Settings > System > ProgramButtons
- Change
“DoScan” to “NoAction” for FSCAN, LSCAN, RSCAN application keys.
- Tap “Apply”



To access 2DTG's applications, tap File Explorer > 2DTG:

- Select **DPM_EH_ScanWedge** to be able to send decoded data to the foreground application as keystrokes,
- Select **DPM_EH_MSWord** to be able to automatically paste decoded data directly to the Mobile MS Word/WordPad application installed on the terminal (it should be opened in the background at this time), or
- Select **DPM_EH_Demo** if you just want to see the decode result on the Terminal screen.

When a DPM application is open, press the “Face” **Scan** key to activate the imager engine.

Important!
Only one application can access Imager at the same time. Close any APP accessing the Imager before starting the new one.

5.1 DPM_EH_ScanWedge

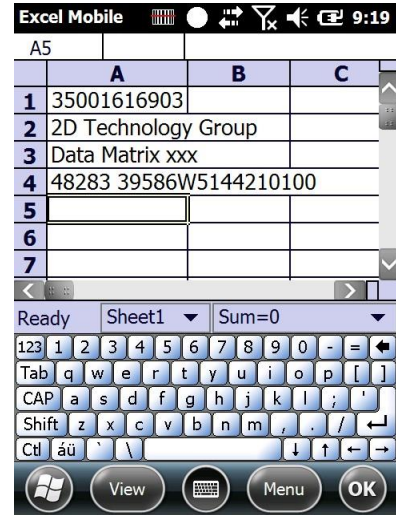
This application is functionally like the system's ScanWedge utility – it sends data from the DPM Decoder to the foreground application as keystrokes (as if the data were entered via a keyboard). The foreground application is the open software application whose window is currently active on the display.

DPM Decoder for Nautiz-X4 / Janam-X5 Mobile Computers

This is particularly useful when working in the network environment with the software programs providing a direct connection from a mobile device to any web or legacy host application - like, for example, a ClientMax - client software platform for mobile devices.

For parsing decode data to the foreground application:

- Launch the program - tap **File Explorer** > **2DTG** > **DPM_EH_ScanWedge**
- Launch data collection application while keeping DPM_EH_ScanWedge running (MS Excel, for instance).
- Place cursor into a position where you want the decode data to be parsed.
- Project the aiming brackets by pressing and holding “Face Scan” key as it is described in Section 4.
- Hold “Scan” button until a symbol is decoded.
- Decoded data will be parsed to the foreground application (MS Excel, for example) Each new read will be placed on a new line (cell).

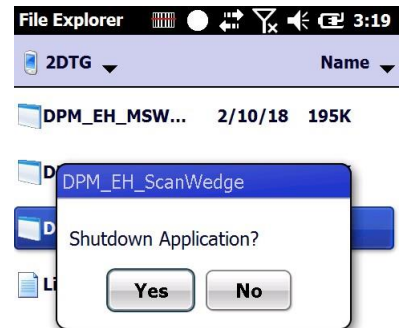


Overall this application operates the same way as DPM_EH_MSWord with the exception that you cannot monitor the image on the Terminal display while scanning.

Important!
Only alphanumeric characters of the English alphabet and special symbols can be sent.

To close application:

- GOTO – Start > File Explorer > 2DTG
- tap DPM_EH_ScanWedge
- “Pop-up” message box will ask to confirm that you want to close application
- Choose “Yes”



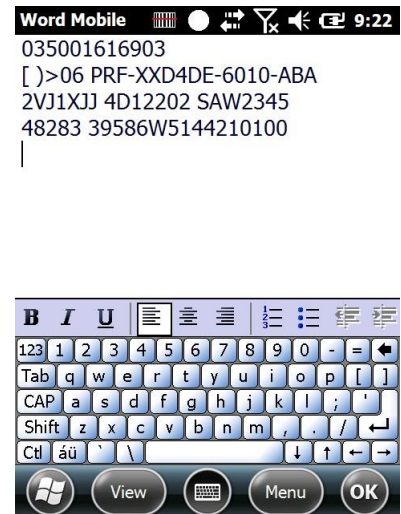
DPM Decoder for Nautiz-X4 / Janam-X5 Mobile Computers

5.2 DPM_EH_MSWord

- Launch the program - tap **File Explorer > 2DTG > DPM_EH_MSWord** - a blank Decoder's window opens.
- Project the aiming brackets by pressing and holding "Scan" key as it is described in Section 4 - you can monitor the image quality while changing the reading distance and angle (see pictures below).

For parsing decode data into MS Word/WordPad:

- Launch MS Word/WordPad.
- Place cursor into the position where you want the decoded data to be parsed.
- Launch DPM_EH_MSWord (you can also scan while keeping it in the background, but in this case, you will not be able to monitor the image in the Decoder's window, while reading DPM marks).
- Read the symbol (press and hold "Scan" button).
- Switch to the MS Word/WordPad. All decoded data are parsed to here - each new read on a new line.

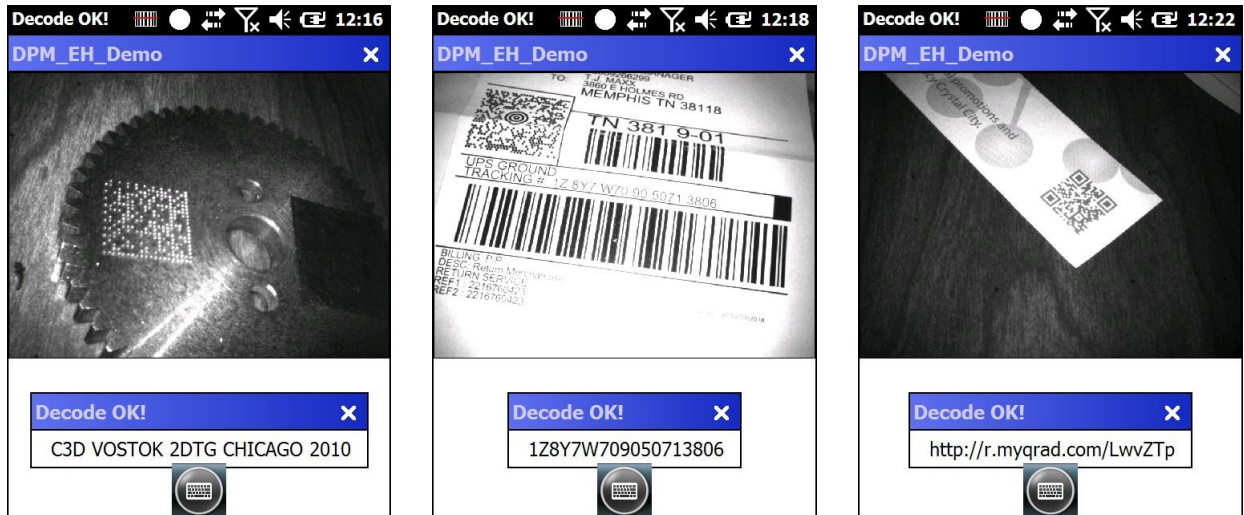


5.3 DPM_EH_Demo.exe

This application is particularly useful when you do not need to parse data into the data collection system but want just to see the decode result. The result is printed to the "pop-up" Message Box. Like with the DPM_EH_MSWord you can monitor the image while finding the best scanning position for your device.

DPM Decoder for Nautiz-X4 / Janam-X5 Mobile Computers

- Launch the program - tap **File Explorer > 2DTG > DPM_EH_Demo** - a blank Decoder's window opens.
- Project the aiming brackets by pressing and holding "Face Scan" key as it is described in Section 4 - you can monitor the image quality while changing the reading distance and angle (see pictures below).
Decode result is shown in the "pop-up" Message Box.
- To close application - tap "x" in the upper-right corner of the Decoder's window.



6. Licensing DPM Decoder

License for each Mobile Computer is generated using proprietary encryption mechanism, which uses Device's **Terminal Number** as an input parameter to generate configuration file **License.txt**. The Computer will check the license status every time the DPM Decoder is launched.

How to get your License:

1. Enter Terminal Serial Number(s) in the "Order Comments" window at the end of the Check-out process when buying licenses from 2DTG' web-site.
2. License file for each submitted **Terminal Serial Number** will be e-mailed to you within 24 hours.
3. Contact Customer Support if you have any questions regarding this matter.

Copy received **License** file into the same directory where you have placed **2DTG's** applications.

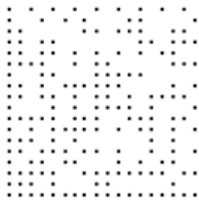
How to find your Serial Number:

DPM Decoder for Nautiz-X4 / Janam-X5 Mobile Computers

1. On your Terminal, under the battery.
2. On your Terminal: **Start > Settings > System > DevInfo**
Scroll down to the **Terminal Serial Number**
You can save the file and keep it on your host computer for convenience.

7. Verifying that DPM Decoder is installed/enabled

If, at any time, you need to make sure the DPM Decoder is enabled try to read Data Matrix symbols below. If you can decode these symbols – Decoder is installed and running correctly.



Operational Decoder:			Trial Decoder:		
2D Technology Group	Test1	Data Matrix xxx	2D Technol*****	Tes**	Data Mat*****