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eZ-2D Xaminer

STRATIX XAMINER EZ-2D BARCODE VERIFIER | PRODUCT REFERENCE GUIDE

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Chapter 1 Getting Started

Unpacking

Before going any further, take a moment to check the contents of the package to ensure your order was shipped complete. Make sure no items are damaged or omitted. Xaminer eZ-2D verifier package includes:

- Carry Case
- Imager Scanner & USB Interface
- Cable Case
- Flash USB Drive
- Installation Guide
- Product Reference Guide
- Calibration Check Card
- Certification of Calibration

If any of these items are missing or damaged, please notify Stratix Corporation **within two business days** of receipt of your verifier.

System Requirements

- Windows7, Windows 8, or Windows 10
- Intel® Core™2 Duo Processor.
- 2GB of RAM.
- USB port 2.0.
- Microsoft.NET Framework 3.5 SP1
- Microsoft Office Excel, Microsoft internet
- Explorer. Adobe Reader.

Installing the Verifier

1. Plug the USB cable modular connector into the cable interface port on the bottom of the imager scanner handle. See Figure 1-1.
2. Gently tug the cable to ensure the connector is properly secured.
3. Connect the other end of the interface cable to the PC USB port.
4. Place the verifier stand on a flat desk surface.
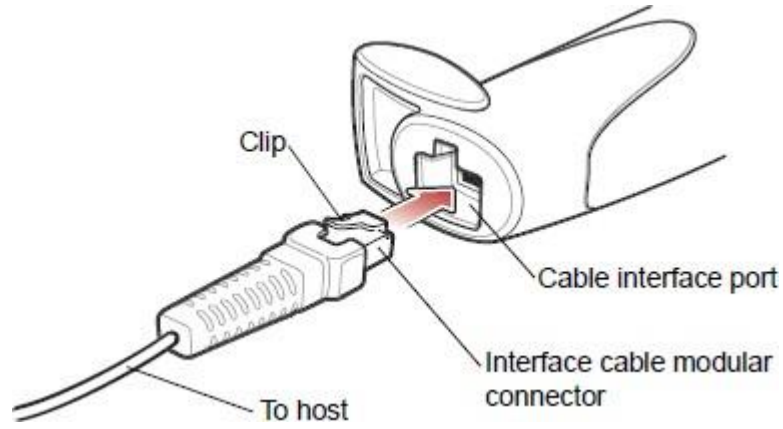5. Place the imager scanner into the scanner holder (cup). See Figure 1-2.

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Clip

Cable interface port

Interface cable modular connector

To host

Figure 1-1

Scanner Holder (Cup)

Figure 1-2

Stand Position & Field of View (FOV)

Stand position 1: Stand position 1 is the primary verification position for most barcodes. The FOV at this position is 1.10" x 1.10" (Figure 1-3 white square), and the maximum barcode size is 1.0" * 1.0". The minimum X dimension required for the barcode is 10mil.

Stand position 2: Stand position 2 is used for bigger barcode which the FOV at stand position 1 is too small for the barcode to be verified. The FOV at stand position 2 is 1.30" x 1.30" (Figure 1-4 white square), and the maximum barcode size is 1.2" * 1.2". The minimum X dimension for the barcode is 15mils.

Note: The illuminated red brackets and the red crosshair on the surface of top plate are the aiming pattern of image scanner. The relative position between the crosshair and FOV is useful for better placing the barcode in the center of FOV.
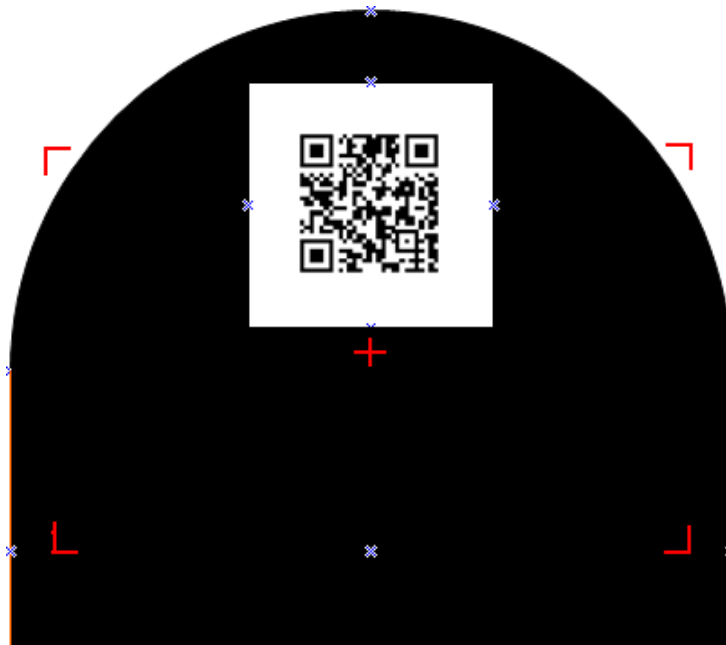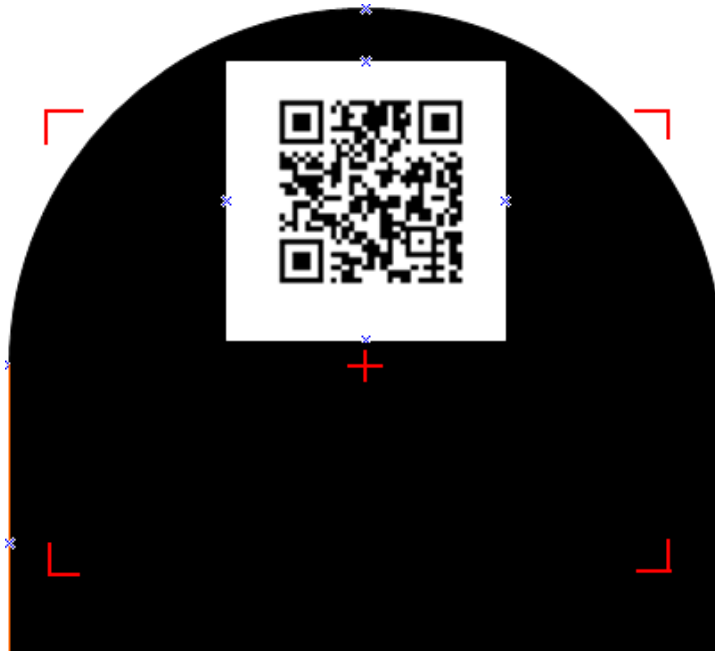

Figure 1-3 Stand Position 1 FOV

Figure 1-4 Stand Position 2 FOV

Placing the Barcode Symbol

1. Extract the plunger (Figure 1-5) and move the top plate up or down to stand position 1 or 2, and then insert the plunger into the hole of that position (Default is stand position 1).
2. Loosen the knob to move down the bottom plate to make enough room for placing the barcode item between top plate and bottom plate.
3. Place barcode item on the surface of bottom plate, make sure the barcode symbol faces the top plate.
4. Move the bottom plate up once it reaches the top plate.
5. Adjust the barcode position to ensure it is in the center of the FOV.
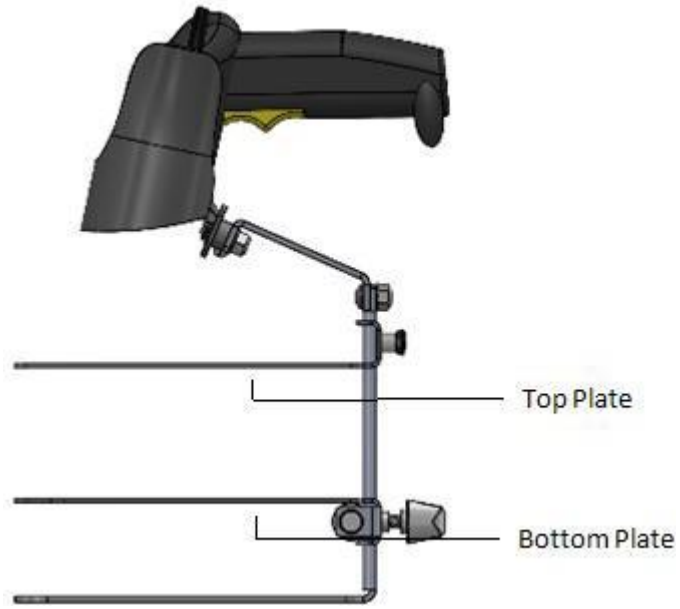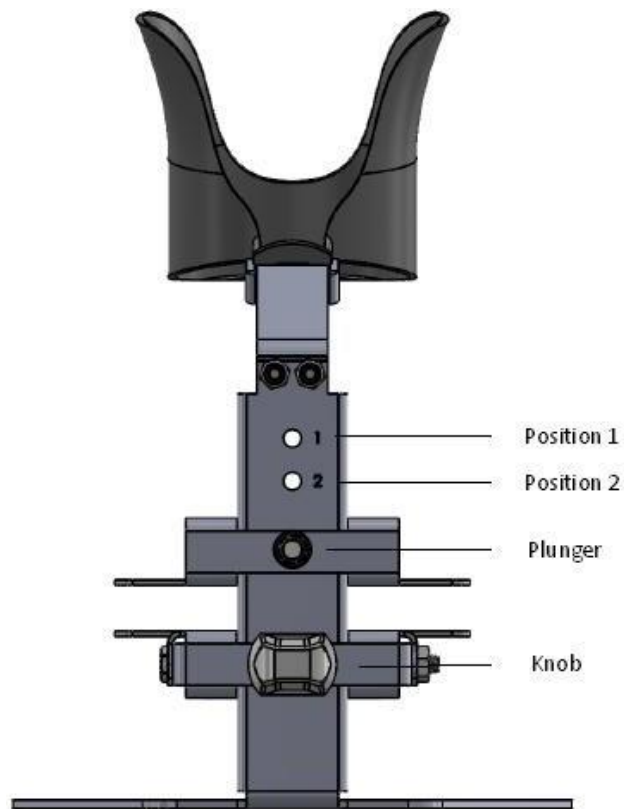6. Tighten the knob to make it ready for verifying.

Figure 1-5 (a)

Figure 1-5 (b)

Supported Barcode Symbologies

Stratix Xaminer eZ-2D supports two barcode symbologies: QR Code and Data Matrix (ECC 200). QR Code: The minimum symbol size is 21X21, and the maximum symbol size is 57X57. See Figure 1-6. Data Matrix: The minimum symbol size is 10X10, and the maximum symbol size is 52X52. See Figure 1-7.

Figure 1-6(a)

Figure 1-6(b)

Figure 1-7(a)

Figure 1-7(b)

Opening Verifier Software

To open **Stratix Xaminer eZ-2D**, click the **Stratix Xaminer eZ-2D** icon (Figure 1- 8) on your desktop, or open the **Start Menu** and click on **All Programs->Stratix Corporation->Stratix Xaminer eZ-2D.exe** (Figure 1-9)., the main user interface will open.
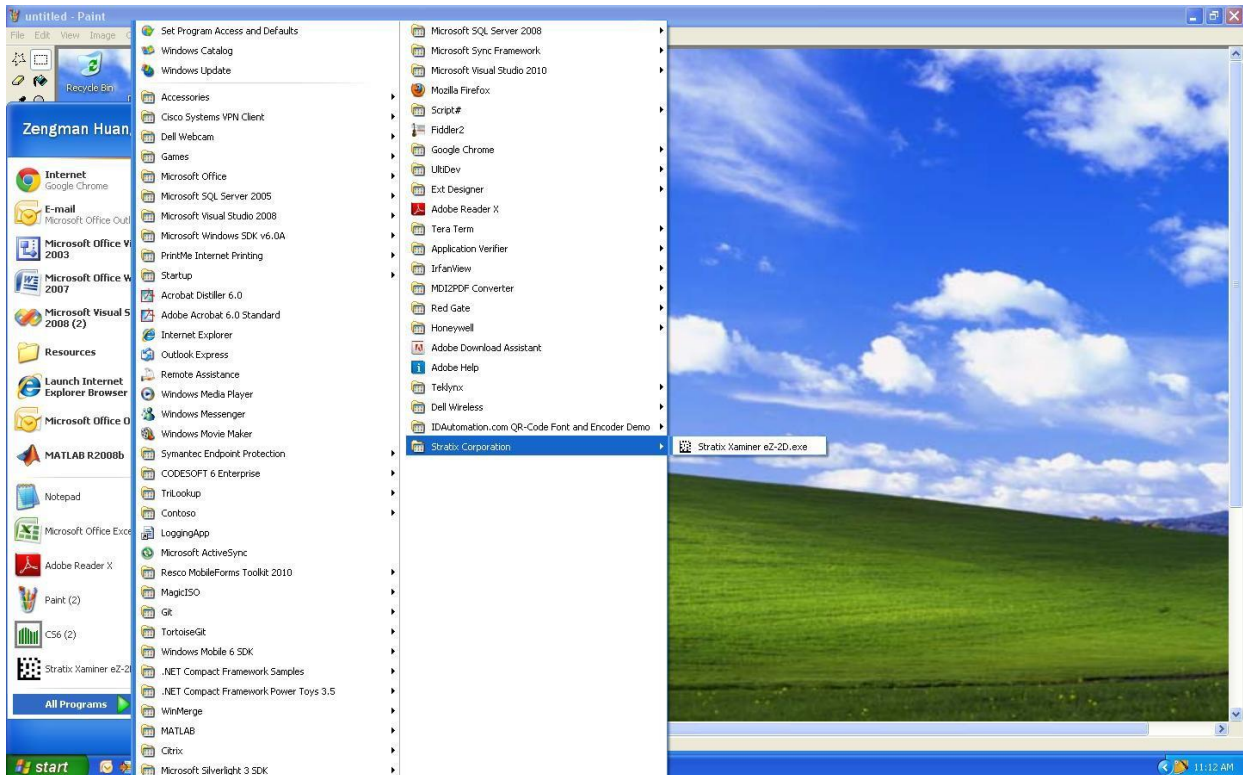

Figure 1-8

Figure 1-9

Chapter 2 Using the Verifier

Looking at Data with the Verifier

The first time you open Stratix Xaminer eZ-2D you will see the three data windows shown below (Figure 2-1). Verification reports are displayed in these windows (Figure 2-2) by commanding the Stratix Xaminer eZ-2D to scan barcode using this interface.
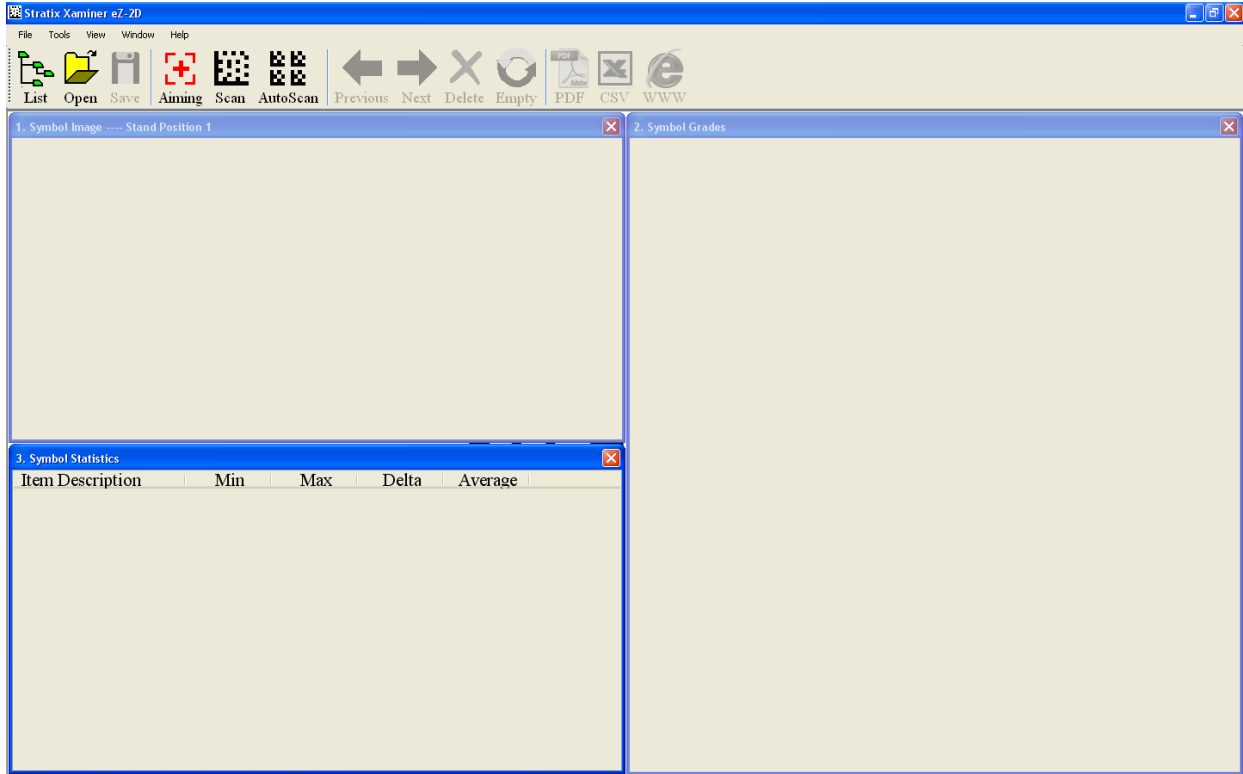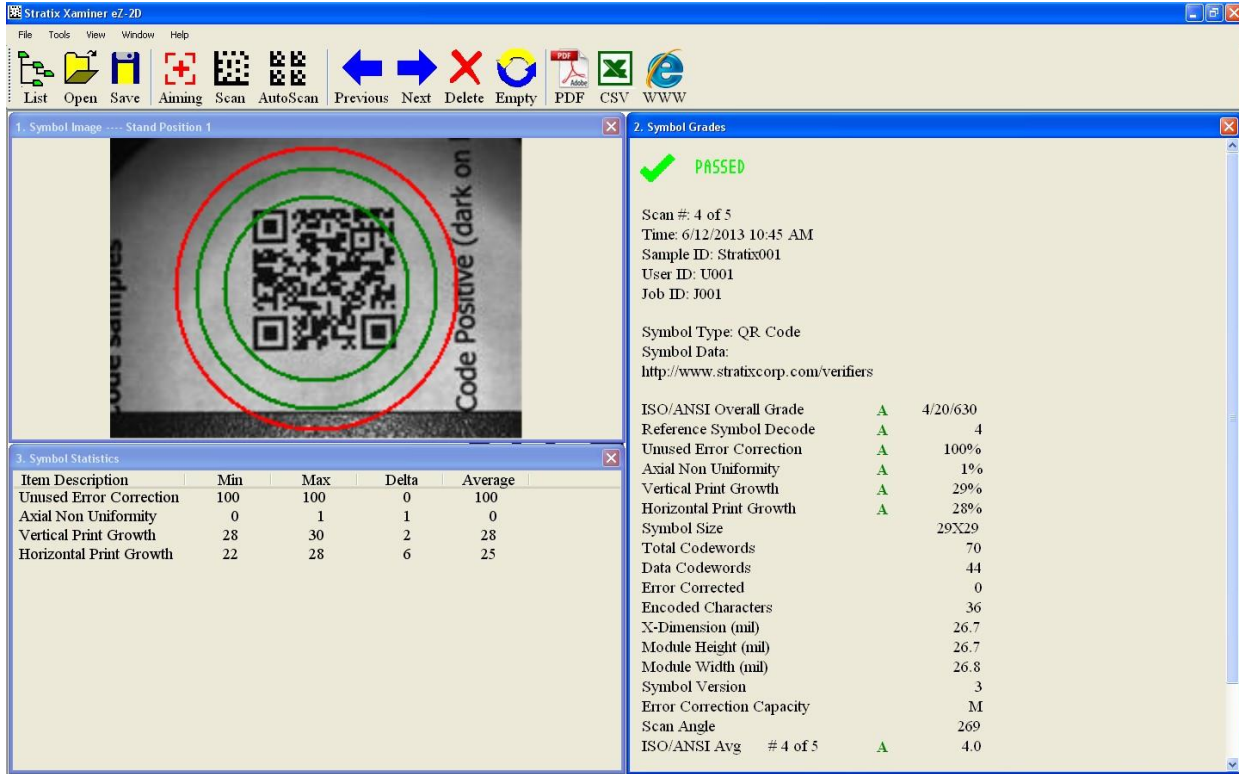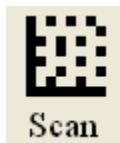

Figure 2-1

Figure 2-2

Commanding the Verifier

The imager scanner is controlled from the Stratix Xaminer eZ-2D interface with three principal selections: Aiming, Scan, and Auto Scan.

Aiming: To center a barcode in the FOV of the half circle bracket, click the **Aiming** button. This will project the laser beam from the imager scanner.

Scan: To scan a barcode, click the **SCAN** button. The scan results will immediately be displayed in the three data windows.

AutoScan

Auto Scan: The auto scan feature allows data to be collected in batches. This feature is useful for quickly generating average grades based on multiple scans for a single barcode.
To use **Auto Scan**:

1. Click the **Auto Scan** button.
2. The **Auto Scan** window will be displayed (Figure 2-3).
3. Set the number of scans required in the field labeled **Total scan number to perform**.
4. Click **Start** to begin scanning the barcode. When the requested number of scans has been completed the operation will end automatically.
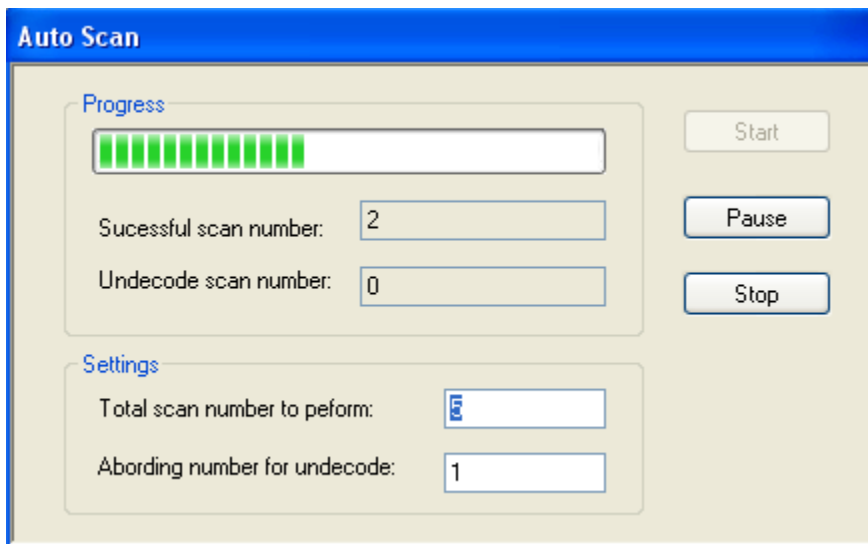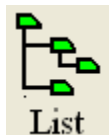5. Completed scans can be viewed by clicking the List button.

Figure 2-3

Verifier Toolbar Button Commands

The Toolbar features button commands that allow you to quickly and easily access and view verification reports.


List

List: The **List** button displays a scan report tree on the left side of the main window that contains each verification scan that has been completed. New reports will be appended to any existing reports already in the file.

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Open: The **Open** button opens a saved Stratix Xaminer eZ-2D verification report file.

Save: The **Sav**e button saves all of the stored verification reports.
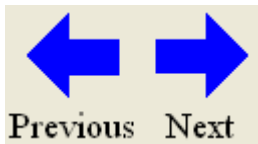
Previous or Next: The **Previous** or **Next** button reviews any of the stored verification reports.

Delete: The **Delete** button deletes the current verification report.

Empty: The **Empty** button deletes all of the stored verification reports.

PDF: The **PDF** button creates a PDF file for the current verification report.

CSV: The **CSV** button creates a Microsoft Excel CSV file for all of the stored verification reports.

WWW: The **WWW** button lunches Internet Explore Brower which the URL is embedded in the barcode of the current verification report.
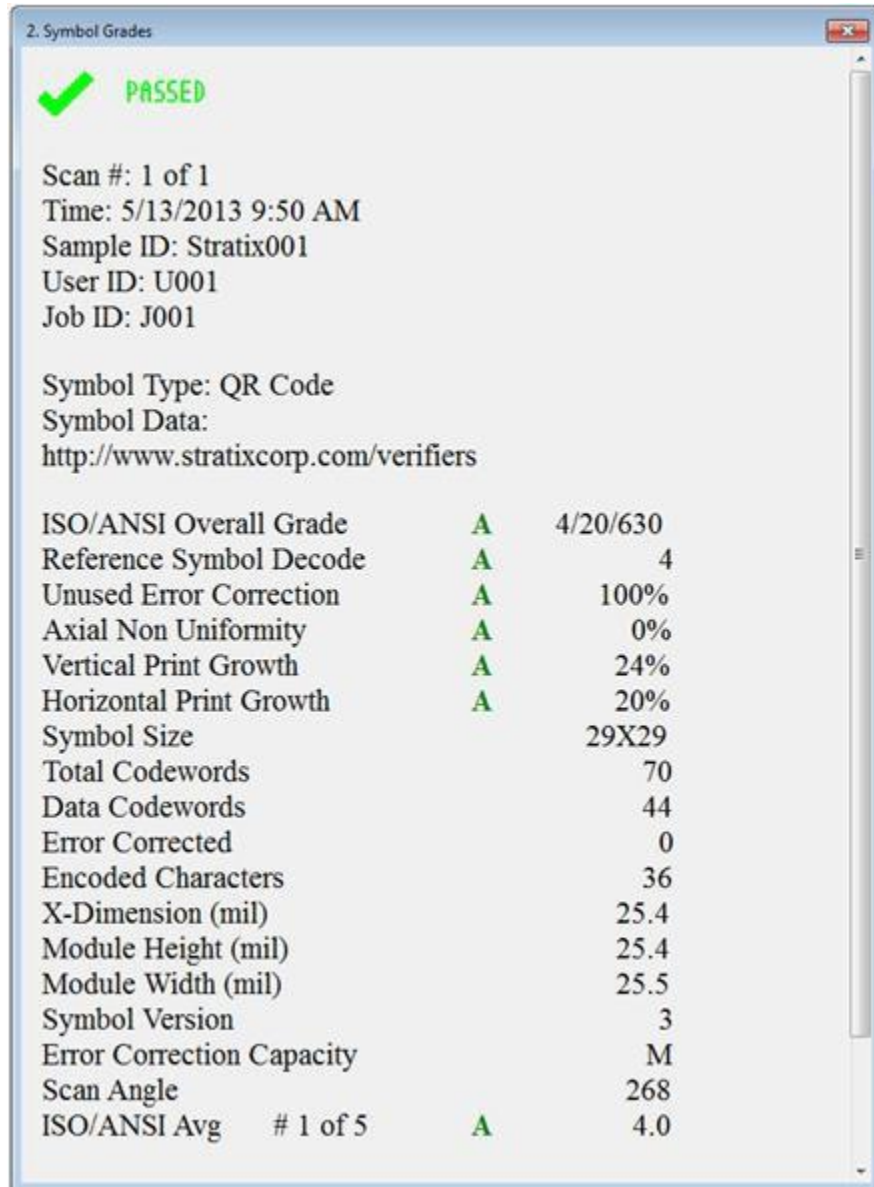
Symbol Image Window

Symbol image window (Figure 2-4) provides the symbol position in the field of view and stand position 1 or 2 which is displayed on the title bar of this window. Be sure the symbol is within the red circle area. The two green circles are used for better position the barcode in the center of the field of view.

Figure 2-4

Symbol Grades Window

Symbol grades window (Figure 2-5) provides the symbol data for the barcode and displays the Symbol verification results for the currently selected report. User may click the "List" button on the toolbar to display any verification results of all the reports in the current session.

Figure 2-5 (a) QR Code Report

```
2. Symbol Grades                                              ☒

    ✔   PASSED

Scan #: 3 of 3
Time: 5/13/2013 9:51 AM
Sample ID: Stratix001
User ID: U001
Job ID: J002

Symbol Type: Data Matrix ECC200
Symbol Data:
Stratix Data Matrix Calibration Check Card

ISO/ANSI Overall Grade          A      4/17/630
Reference Symbol Decode         A             4
Unused Error Correction         A          100%
Axial Non Uniformity            A            1%
Vertical Print Growth           A           27%
Horizontal Print Growth         A           28%
Symbol Size                              24X24
Total Codewords                             60
Data Codewords                              36
Error Corrected                              0
Encoded Characters                          42
X-Dimension (mil)                         21.8
Module Height (mil)                       21.9
Module Width (mil)                        21.8
Symbol Version                               -
Error Correction Capacity                    -
Scan Angle                                 176
ISO/ANSI Avg      # 3 of 5      A           4.0
```
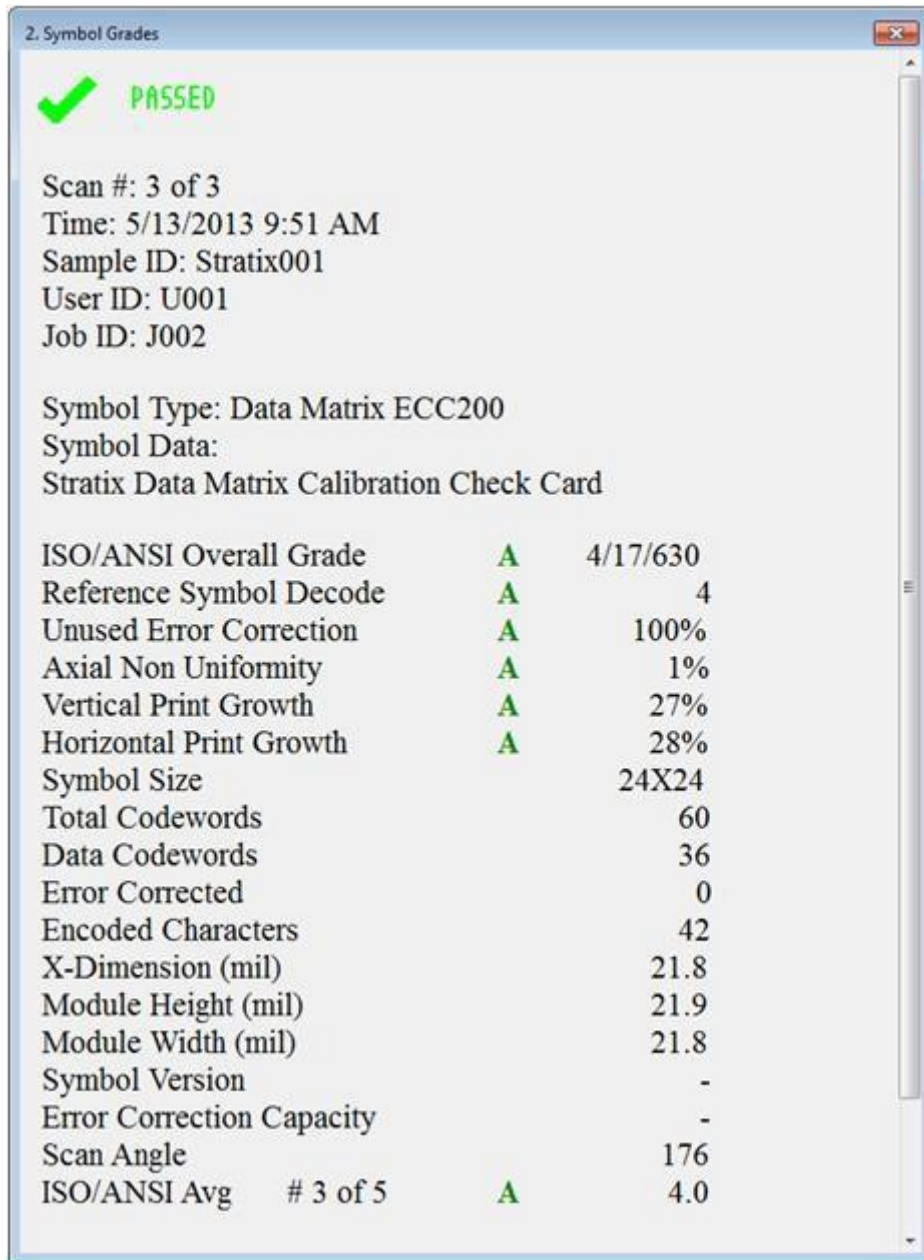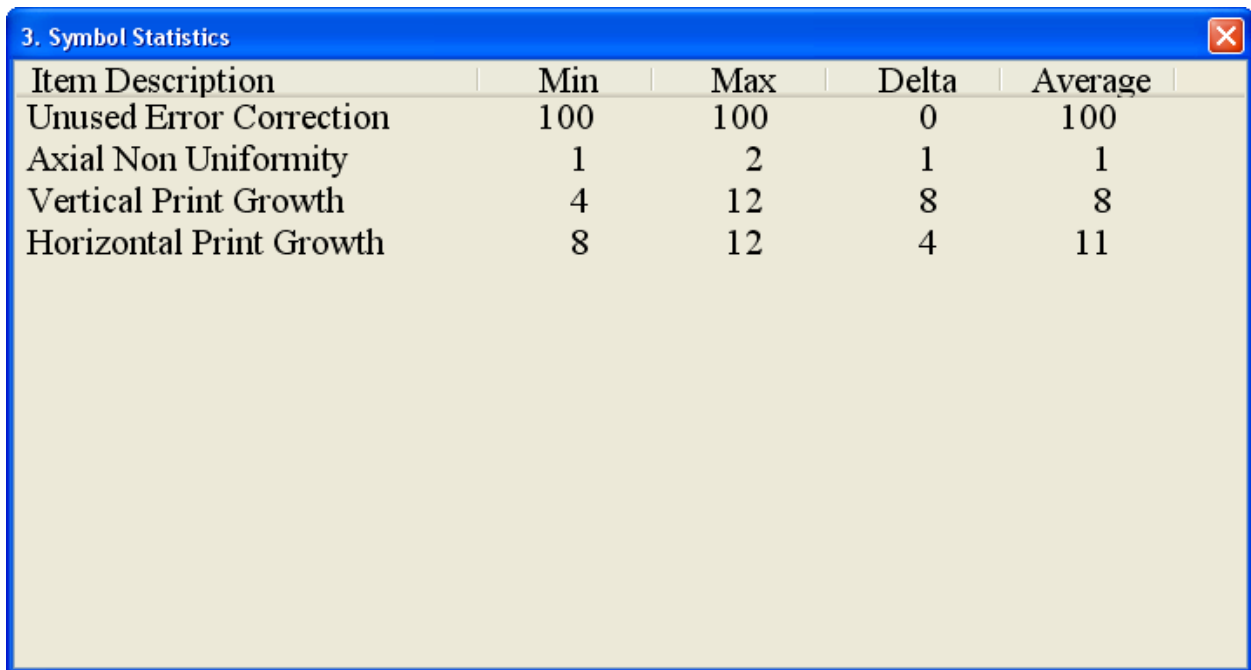
Figure 2-5 (b) Data Matrix Report

Symbol Statistics Window

Symbol Statistics window (Figure 2-6) provides cumulative measures on certain parameters for all the reports in the active file. The measures provided are Min/Max/Delta and Average for all scanned reports. The Statistics parameters including:

- Unused Error Correction
- Axial Non-Uniformity
- Vertical Print Growth
- Horizontal Print Growth

3. Symbol Statistics

Item Description	Min	Max	Delta	Average
Unused Error Correction	100	100	0	100
Axial Non Uniformity	1	2	1	1
Vertical Print Growth	4	12	8	8
Horizontal Print Growth	8	12	4	11

Figure 2-6

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Chapter 3 User Preferences Options

Accessing the Parameter Setup Window

Go to the **Tools** pull down menu, select **Parameter Setup**, the **Parameter Setup** window is displayed (Figure 3-1). Use this window option to setup:

- Stand Position
- Analysis Mode
- Sample/User/Job
- ID Miscellaneous

Stand Position Setting

1. Select tab **Stand Position** (Figure 3-1)
2. Choose 1 or 2 for stand position (Default is 1).
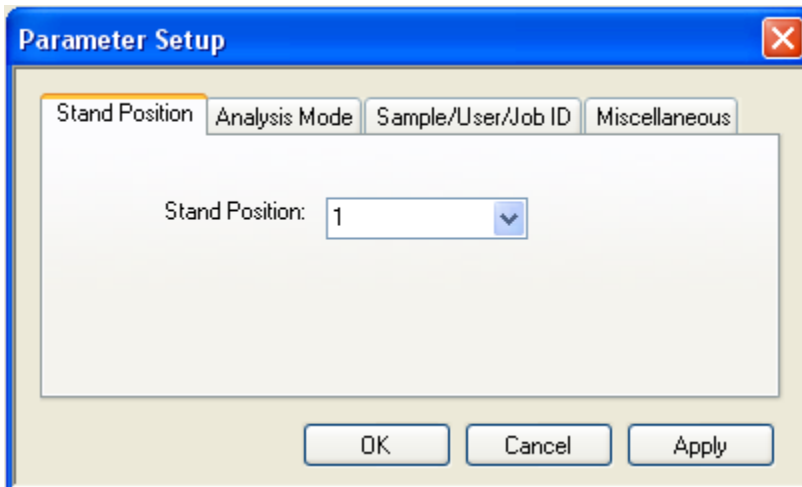3. Click **OK or Apply** button to complete the setting.

Figure 3-1

Analysis Mode Setting

1. Select tab **Analysis Mode** (Figure 3-2)
2. Choose **A, B, C, D** or **F** for **Symbol Pass On** grade (Default is C).
3. Choose **Positive** (dark on light) or **Negative** (light on dark) for **Symbol Style** (Default is Positive).
4. Click **OK or Apply** button to complete the setting.

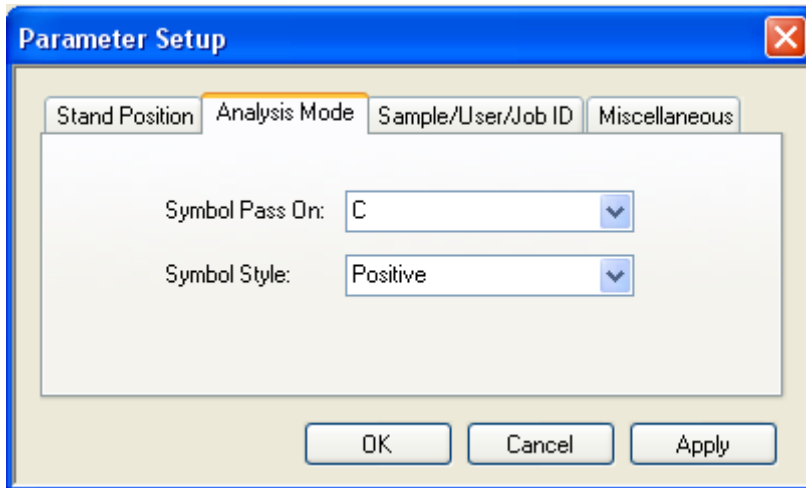Figure 3-2

Sample/User/Job ID Setting

1. Select tab **Sample/User/Job ID** (Figure 3-3)
2. Enter the desired **Sample ID**, **User ID,** and **Job ID**
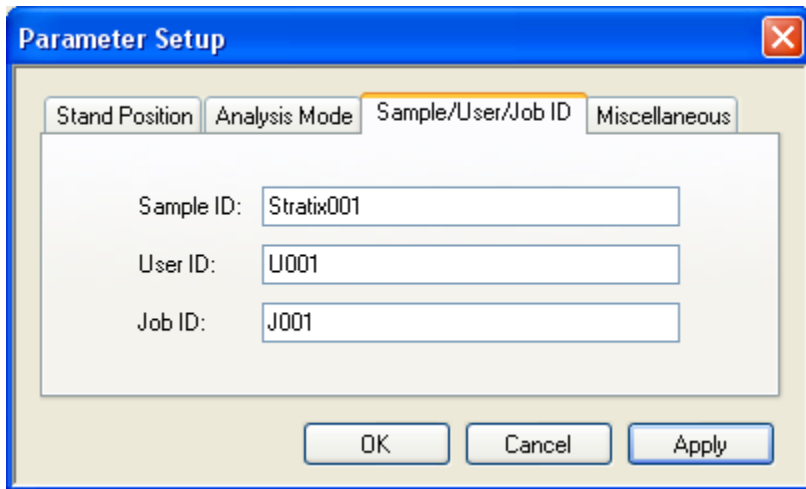3. Click **OK or Apply** button to complete the setting.

Figure 3-3

Miscellaneous Setting

1. Select tab Miscellaneous (Figure 3-4)
2. Select desired average scan number in the field labeled **Average Scan #.**
3. Enable/Disable imager scanner beeper by check/uncheck **Scanner Beeper** (Default is enable).
4. Click **OK or Apply** button to complete the setting.
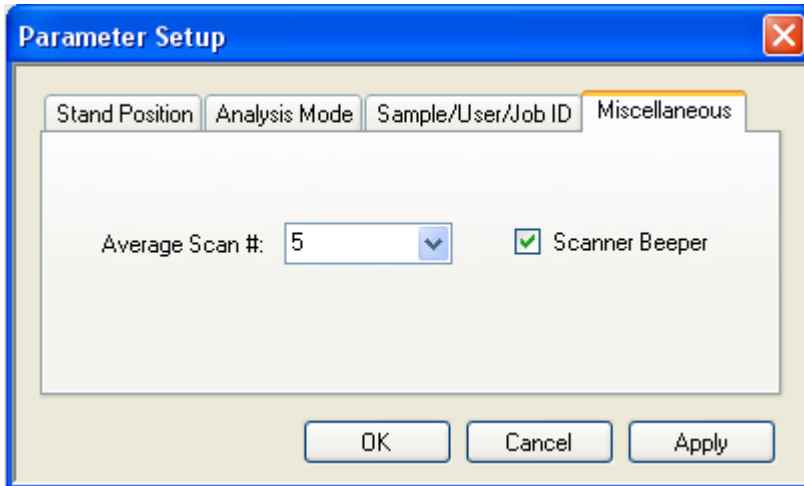
Figure 3-4

Factory Reset

1. Go to the **Tools** pull down menu, select **Factory Reset**, the **Factory Reset** window is displayed (Figure 3-5).
2. Click Yes button to perform factory reset that will fully restore the factory parameter settings.
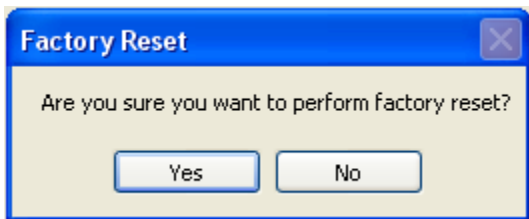

Figure 3-5

Calibration Check

1. Go to the **Tools** pull down menu, select **Calibration Check**, the **Calibration Check** window is displayed (Figure 3-6).
2. Click Start button to start the calibration check. If the calibration check continues to be failed after several attempts, contact Stratix Customer Support at 1-800-883-8300 to arrange the return of your verifier for recalibration.
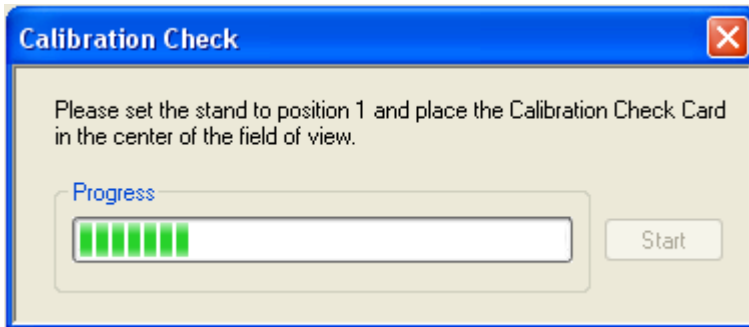
Figure 3-6

Note:

1. It is required to set the verifier stand to position 1 and place the Calibration Check Card in the center of the field of view (See Figure 3-7).
2. The Calibration Check Card must be kept in a clean environment and keep free from damage in order for it to give accurate results. When the card becomes dirty, scratched or dull it will be no longer reliable.
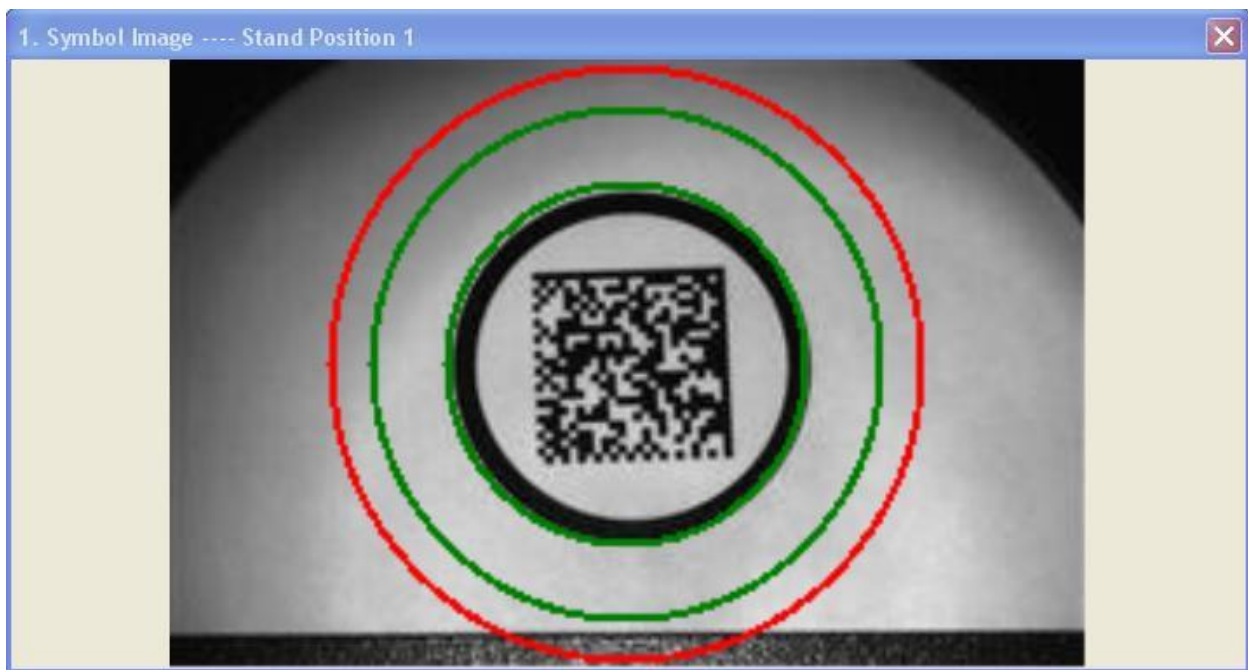

Figure 3-7

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Symbol Grades Setting

User may configure the parameters to be displayed by selecting Window from the Stratix Xaminer eZ-2D toolbar. On the drop-down menu that follows, select Symbol Grades Setting. The selection window is displayed (Figure 3-8), from which a number of analysis parameters may be chosen. These parameters may be changed during the session and the results displayed will be adjusted accordingly. Click OK when selections have been made.
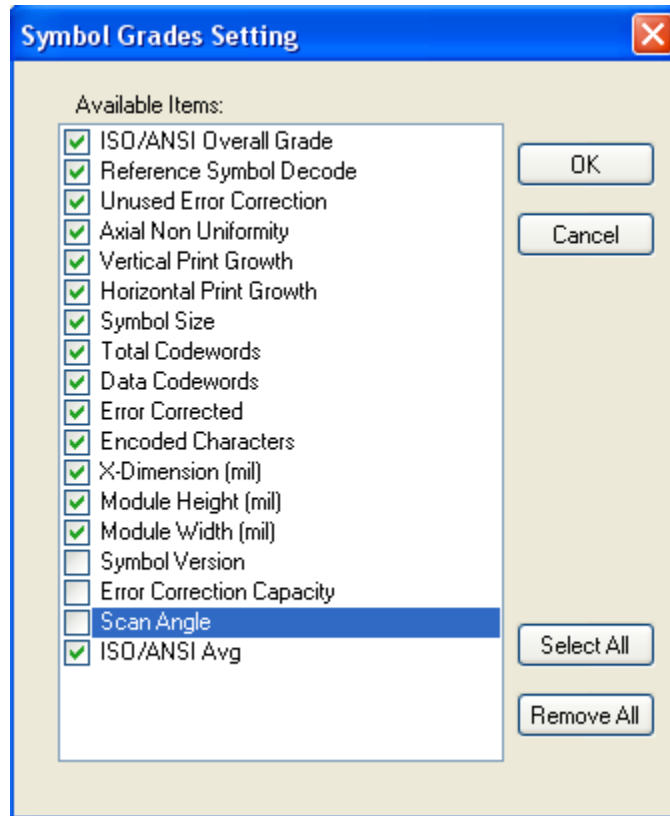

Figure 3-8

Window Text Size Setting

1. Go to the **View** pull down menu.
2. Click **Text Size**, **Text Size** window will be displayed (Figure 3-9).
3. Click **Default, Small or Large** button to select text size.
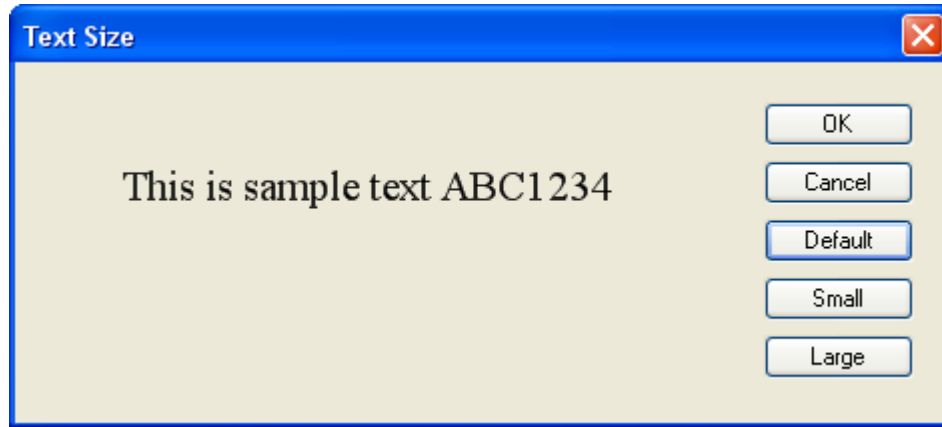4. Click **OK or Cancel** button to complete the setting.

Figure 3-9

Chapter 4 Exporting Reports

Exporting Reports to Excel

The verification reports of your scans may be exported as a Microsoft Excel CSV file, if the computer has Microsoft Excel available.

The following data is always exported by default: Symbol Type, Symbol Data, Symbol Pass/Fail, Sample ID, User ID, Job ID, Time and Error Messages. User can configure Export Data by selecting **Window** on the toolbar, then selecting **Symbol Grades Setting.**

To export, select the **Excel** icon on tool bar. The export operation automatically opens an Excel spreadsheet with preformatted column headings and places the results for each record in the appropriate column (Figure 4-1). The column width may be adjusted to the user's preferences using the standard Excel tools. Once created, the Excel CSV file may be saved as an Excel Worksheet using the standard Excel tools.

Figure 4-1

Exporting Reports to Adobe PDF File

The current displayed verification report may be exported as a Adobe PDF file for archiving or printing the report.

To export, select the **PDF** icon on tool bar. The export operation automatically opens a PDF file (Figure 4-2) with preformatted scan report. Once created, the PDF file may be saved or printed out.

Figure 4-2

Chapter 5 Error Messages

The following table lists possible error messages you may encounter when using Stratix Xaminer eZ-2D barcode verifier. Each error message listed is accompanied by a potential solution. Please contact Stratix at 1-800-883-8300 if the problems could not be resolved.

System Error Messages

Error ID	Error Messages	Action/Solution
ID_1000	Could not find scanner.	Plug the scanner to the PC USB port.
ID_1001	Could not find calibration file.	Reinstall Stratix Xaminer eZ-2D verifier calibration files from CD1.
ID_1002	A sharing violation occurred while accessing PDF file.	Close the PDF file which was opened from Stratix Xaminer eZ-2D.
ID_1003	Verifier recalibration is overdue.	Contact Stratix to reschedule the verifier recalibration.
ID_1004	Verifier recalibration is due in (10) days.	Contact Stratix to reschedule the verifier recalibration.
ID_1005	A sharing violation occurred while accessing CSV file.	Close the CSV file which was opened from Stratix Xaminer eZ-2D.
ID_1006	Calibration Check failed. Please try again.	Check verifier stand position and Calibration Check Card position.
ID_1007	A violation occurred while accessing SDMD.dll.	Reinstall Stratix Xaminer eZ-2D verifier software from CD2.
ID_1008	A violation occurred while saving report file.	Contact Stratix.
ID_1009	Decoder error. Click OK to terminate the application.	Reinstall Stratix Xaminer eZ-2D verifier software from CD2.
ID_1010	Invalid calibration file.	Reinstall Stratix Xaminer eZ-2D verifier calibration files from CD1.
ID_1011	Scanner does not in SNAPI mode. Please reset the scanner.	Perform scanner reset by scanning three barcode labels in clause "Scanner Reset" and restart the application.

Error ID	Error Messages	Action/Solution
ID_1012	Could not find scanner driver. Click OK to terminate the application.	Install scanner driver from CD2 and restart the application.
ID_1013	A violation occurred while opening report file.	Contact Stratix.
Application Error	The application failed to initialize properly (0xc000135). Click OK to terminate the application.	Download and Install Microsoft.NET Framework 3.5 SP1. http://www.microsoft.com/en-us/download/details.aspx?id=251 50

Scanner Reset

Scan the following three barcode labels in sequence:

1. Enable Scanner Parameter Scanning

2. Set Scanner Factory Default

3. Set Scanner SNAPI Mode

Appendix A: 2D Barcode Samples

A1. Data Matrix samples

Data Matrix Positive (dark on light)

Data Matrix Negative (light on dark)

A2. QR Code samples

QR Code Positive (dark on light)

QR Code Negative (light on dark)

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