

How to make sure the right bar code is read with multiple barcodes in the field of view?

System

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Information

Question/Problem How to configure the Centering feature on a hand-held scanning devices?
EZConfig for Scanning - what value has to be entered /selected in order to enable centering feature?
How can we calibrate the field and crosshair?
Can centering also be used in presentation mode?
Do Honeywell product support Center Decode?
There is an offset between my aimer and the center of my image?
What are the Centering options 2 and 3 in EZConfig fore?
My User's Guide only supports DECWIN 0 and 1, but EZConfig has DECWIN2 and DECWIN3 as well?
How to set center decoding?
Customer needs to scan one of the barcodes on a label?
Need to scan a specific barcode form a pick-list?

Applies To

- Scanning Hardware: 46x0 / 48x0, Genesis 7580g, Granit 191Xi, N5600, Voyager 1400g, VuQuest 3310g, Xenon 190X, Granit 1980i, Granit 1981i, Voyager 1602g, Voyager 1450g, Voyager 1452g, 8670 2D BT Ring scanner
- N660x

Resolution With (2D) area imagers there can be multiple barcodes in the field of view, and sometimes it's not decoding the barcode that was meant to be decoded. Especially with so called pick-list where just an specific barcode in a column of barcodes should be read. Also for linear (1D) products centering can be used, but then just for the horizontal plane to avoid that adjacent bar codes to the left or right are accidentally being read. This article however continues from a 2D perspective.

The centering feature is used to narrow the imager's field of view so that the imager only reads the barcode which is intended to be read by the user. When Centering is turned on, the imager only reads barcodes that intersect or that are contained within a predefined Decode Window. At least part of the barcode must be within the defined Decode Window to be decoded by the imager.

How to enable the 'Centering' feature – pre-defined Decode Window (DECWIN):

In the User's Guide, which can be downloaded from the [Honeywell Website](#), there is a paragraph named 'Centering'. In order to enable this feature, read the barcode called 'Centering On' (DECWIN1), which uses the defined decode window centered on the aimer center. By default the scanners are set up with the following Centering Window parameters:

- Left of Decode Window = 40% (1D,2D).
- Right of Decode Window = 60% (1D,2D).
- Top of Decode Window = 40% (2D).
- Bottom of Decode Window = 60% (2D).



Aimer Centered Centering

Following hyperlinks on [Configuring Centering Windows](#) and [Horizontal Aimer offset](#) provide additional technically detailed information. Although the functionality is called "Centering" this feature can also be used to decentralize the decode window e.g. for the purpose of compensating the aimer offset (DECWIN1 will automatically eliminate the aimer offset).

The Decode Window parameters can be modified depending on the scanning purposes. For instance, the smaller the decode window is set, the more accurate the scanner will aim. Theoretically the window can be narrowed down to 1 pixel, which comes close to legacy 'Center Decode' functionality. In order to change the Window parameters read the corresponding configuration code followed by the desired value expressed in a 3 digit percentage.

E.g.: Reducing the vertical window to 45% / 55% read:

1. Scan barcode '**Top of Decode Window**':
 1. 0 from the Programming Chart.
 2. 4 from the Programming Chart.
 3. 5 from the Programming Chart.
2. Scan barcode '**Bottom of Decode Window**':
 1. 0 from the Programming Chart.
 2. 5 from the Programming Chart.
 3. 5 from the Programming Chart.

NOTE: The [Programming Chart](#) can be found on the last page of the User's Guide.

EZConfig for Scanning can be used to configure the centering feature, and sometimes with this software configuration utility more options are available as can be found in the User's Guide. Following options for DECWIN are available;

- **0 - No Centering or Windowing applies:** Full Field of View (FOV) 100% passed to the decoder and no centering qualification is applied.
- **1 - Centering Aimer Based:** A bar code is decoded only if some part of it is in the area centered on the aimer center and defined in the decode window. (DECTOP, DECBOT, DECLFT and DECRGT).
- **2 - Centering Based on Native Image Center:** A bar code is decoded only if some part of it is in the area defined in absolute position defined in the decode window (DECTOP, DECBOT, DECLFT and DECRGT).
- **3 - Windowing Based on Native Image Center:** A bar code is decoded only if it is totally contained in the area defined in the decode window (DECTOP, DECBOT, DECLFT and DECRGT).

WARNING: DECWIN3 with a rather small decode window may result in not being able to read any bar code, including any programming bar code to undo DECWIN3. (For that reason DECWIN3 is not printed in any User's Guide.)

Presentation Centering:

Besides Centering, the Xenon supports Presentation Centering. Presentation Centering is used to narrow the scanner's field of view when it is in the stand to make sure the scanner only reads those bar codes intended by the user. The configuration is quite similar to the default centering feature, see the User's Guide paragraph 'Presentation Centering'.



PDCWIN1.

Presentation Centering On