

*Description of the
BIS510/VOS412
configuration and parameters*

Date: 2014-01-27

The parameters in the table below can be set using the `SetSpecificSingleParameter` method in the software interface. To do this, the interface DLLs has to be integrated into the programming environment and the programming lines mentioned below must be executed.

All the examples relate to the Visual Studio 2010 programming environment and to the C# (C sharp) programming language.

Below is an example program for integrating and triggering a VSX sensor:

```
class Program
{
    static void Main(string[] args)
    {
        PF.Foundation.VsxFactory.PFVsxFacoryVCCustom sensor;
        sensor = new PF.Foundation.VsxFactory.PFVsxFacoryVCCustom();
        sensor.Connect("192.168.2.3", 50005);

        sensor.SetSpecificSingleParameter(1, "Command", "TriggerStart", "1");

        System.Threading.Thread.Sleep(1000);

        sensor.Disconnect();
    }
}
```

Configuration Overview BIS510 / VOS412-BIS

| Config ID | Parameter ID | Value | Config Version | | Description | From Firmware |
|--------------|---------------------|--------------|----------------|----|--|---------------|
| | | | from | to | | |
| General | OptionSendErr | 1/0 | 1 | | Send automatic error images on/off | 2114 |
| | OptionAutoResult | 1/0 | 1 | | Send automatic results on/off | 2114 |
| | OptionShowHWTrigger | 1/0 | 1 | | Set time stamp when receiving a trigger pulse | 3138 |
| | PosMark | 1/0 | 1 | | Activate LEDs for position marking (not on F200 chassis) | 4095 |
| | IPAdress | | 1 | | Configure IP address | 2114 |
| | SubNetMask | | 1 | | Configure subnet mask | 2114 |
| | Gateway | | 1 | | Configure gateway | 2114 |
| | EnableBtn1 | 1/0 | 1 | | Enable button one on the backside; used to indicate field of view (only F200 chassis) | 3894 |
| | EnableBtn2 | 1/0 | 1 | | Enable button two on the backside; used to start teach process manually (only F200 chassis) | 3894 |
| Camera | FlashTime | 1 ..100 µs | 1 | 1 | Duration of the flash | 1108 |
| | | 1...200 µs | 1 | 1 | Duration of the flash | 3817 |
| | | 1...10000 µs | 1 | 1 | Duration of the flash | 4282 |
| | | 1...10000 µs | 2 | | (only F119/124 chassis) | 4314 |
| | | 1...255 µs | 2 | | (only F200 chassis) | 4314 |
| | Gain | 1..255 | 1 | | Gain of the camera in grey levels | 1108 |
| | Snapshot | 1/0 | 1 | | Take image | 1775 |
| | UseCamSettings | 1/0 | 1 | | Discard all changes and use last saved parameter | 3633 |
| | GetCamTeachParams | 1/0 | 1 | | Get parameter values (gain, flashtime) used during the last teach process | 3633 |
| | StartLive | 1/0 | 1 | | Start live image mode | 4015 |
| | StopLive | 1/0 | 1 | | Stop live image mode | 4015 |
| | CheckImages | 1/0 | 1 | | Check every image in live image mode | 4015 |
| | DisplayPause | 1..10000 µs | 1 | | Time between two images in live mode | 4026 |
| SearchParams | Sensitivity | 0..6 | 1 | | Sensitivity of the pattern match Level 0 weakest Level 5 strongest | 3275 |

Configuration Overview BIS510 / VOS412-BIS

| Config ID | Parameter ID | Value | Config Version | | Description | From Firmware |
|-----------|-----------------------|-------------------------|----------------|----|---|---------------|
| | | | from | to | | |
| Command | TriggerStart | 1 | 1 | | Start a single trigger defined by TeachMode | 1096 |
| | ReloadData | 1 | 1 | | Discard changing and use last parameter for next teaching | 1350 |
| | GetLastImg | 1 | 1 | | Get last image | 1108 |
| | GetErrImg | 1 | 1 | | Get last error image | 1108 |
| | GetNextErrImg | 1 | 1 | | Get next error image | 3756 |
| | GetErrorImgListSize | 1 | 1 | | Get number of error images | 3756 |
| | GetLogMsg | 1 | 1 | | Get all log messages | 1174 |
| VOS510 | TeachMode | TEACH_MODE_1_1_1 | 1 | | Take on one page one image with only one illumination configuration | 2115 |
| | | TEACH_MODE_IMAGE_AUTO | 1 | | Calculate positions of the paper automatically | 2115 |
| | | TEACH_MODE_TRIPLE_IMAGE | 1 | | Take three images on three positions with three exposure times | 2115 |
| | InspectionMode | PATTERN_INSPECTION | 1 | | Compare images against a reference image | 2115 |
| | | BARCODE_INSPECTION | 1 | | Read barcodes and compare them against a reference code | 2115 |
| | DirectTeach | 0/1 | 1 | | Activate/Deactivate direct teach- mode. Teach impulse will cause image taking. | 4146 |
| | CapturePositionOnPage | 1..5 | 1 | | Number of position on one page during teaching process | 2115 |
| | TeachTimeout | 100..1000000 ms | 1 | | Timeout for teach process | 2115 |

Configuration Overview BIS510 / VOS412-BIS

| Config ID | Parameter ID | Value | Config Version | | Description | From Firmware |
|----------------|-------------------------|----------------------------|----------------|----|--|---------------|
| | | | from | to | | |
| Barcode | CompareCode | | 1 | | Content of reference code | 1406 |
| | Update | 0/1 | 1 | | The last read code will be reference code | 1834 |
| | Timeout | 1..1000000 ms | 1 | | Timeout for code reading | 1406 |
| | StartAutomatic | 0/1 | 1 | | Read barcode in vertical and horizontal direction | 1406 |
| | Orientation | hor | 1 | | Read barcode only in horizontal direction | 1406 |
| | | ver | 1 | | Read barcode only in vertical direction | 1406 |
| | Code39 | 0/1 | 1 | | Enable Code39 | 1406 |
| | Code128 | 0/1 | 1 | | Enable Code128 | 1406 |
| | Code13 | 0/1 | 1 | | Enable Code13 | 3763 |
| | Code25 | 0/1 | 1 | | Enable 2 of 5 Interleaved | 1406 |
| | CheckSum | 0/1 | 1 | | Enable check sum for 2 of 5 Interleaved | 1995 |
| | PharmaCodeOnly | 0/1 | 1 | | Enable pharmacode and disable all other codes | 1406 |
| | MinCodeLen (CodeLenMin) | 0..20 | 1 | | Minimum number of code digits | 1569 |
| | MaxCodeLen | 0..20 | 1 | | Maximum number of code digits | 1569 |
| | MinOkLine | 0..100 | 1 | | Minimum number of reproducible line information for pharmacode | 1839 |
| | PharmaDir | BOTTOM TOP | 1 | | Reading direction of the pharmacode BOTTOM: starts from the right or bottom TOP: starts from left or top | 1920 |
| | SearchStart | BOTTOM TOP | 1 | | Search direction BOTTOM:: from left to right or bottom to top TOP: Start from right to left and top to bottom. | 1920 |
| RottionEncoder | Resolution | 1..9999999 pulses/m | 1 | | Resolution of the rotation encoder. Min Value 1 Max 9999999 pulses/m 10000 pulses/m | 1869 |
| | TrigDistance | 0..9999999 mm | 1 | | Distance between trigger sensor and center of sensor's field of view. Default value 0. | 1869 |
| | FixPos | 0..9999999 mm | 1 | | Configure manually a fix position, where the image should be taken | 1869 |
| | MaxSpeed | 10..10000 mm/s | 1 | | Max. speed during teach. Default value 3000. | 2039 |
| | TrigPolNeg | 1 | 1 | | Active low trigger | 1869 |
| | DelayActive | 0 | 1 | | Activate/Deactivate output delay | 2410 |