

Application Note #1213: GP-Pro Ex - Cognex Demo

Introduction

The Pro-face Cognex driver supports the Insight 5000 Series and Insight Micro Vision Sensors. Any Ethernet enabled AGP/LT/AST3000 series display can be used. Models with higher screen resolution are better choices to display live images.

Benefits: An Operator Interface that also...

- Displays Vision Sensor Images
- Interacts with Vision Sensor data
- Logs data
- Captures still images
- Stores and recalls recipes
- The same device also provides machine logic and I/O control.
- Exchange data with information systems at the enterprise level.

The new driver, released with GP-Pro EX 2.7, has various enhancements including these new features:

- Display live images from up to 3 cameras simultaneously on a single screen
- Downsize capability making it possible to reduce the size of the screen images
- Simplified screen image pan and zoom
- Read / Write the job file name

Two demonstration projects accompany this application note. One interfaces a Pro-face AGP3000 Ethernet enabled HMI with two Cognex sensors. The second project that requires only one Cognex sensor. For your convenience, in the event you do not have access to Cognex vision sensors to set up the demo, this document includes screen shots to illustrate how it works.

Materials

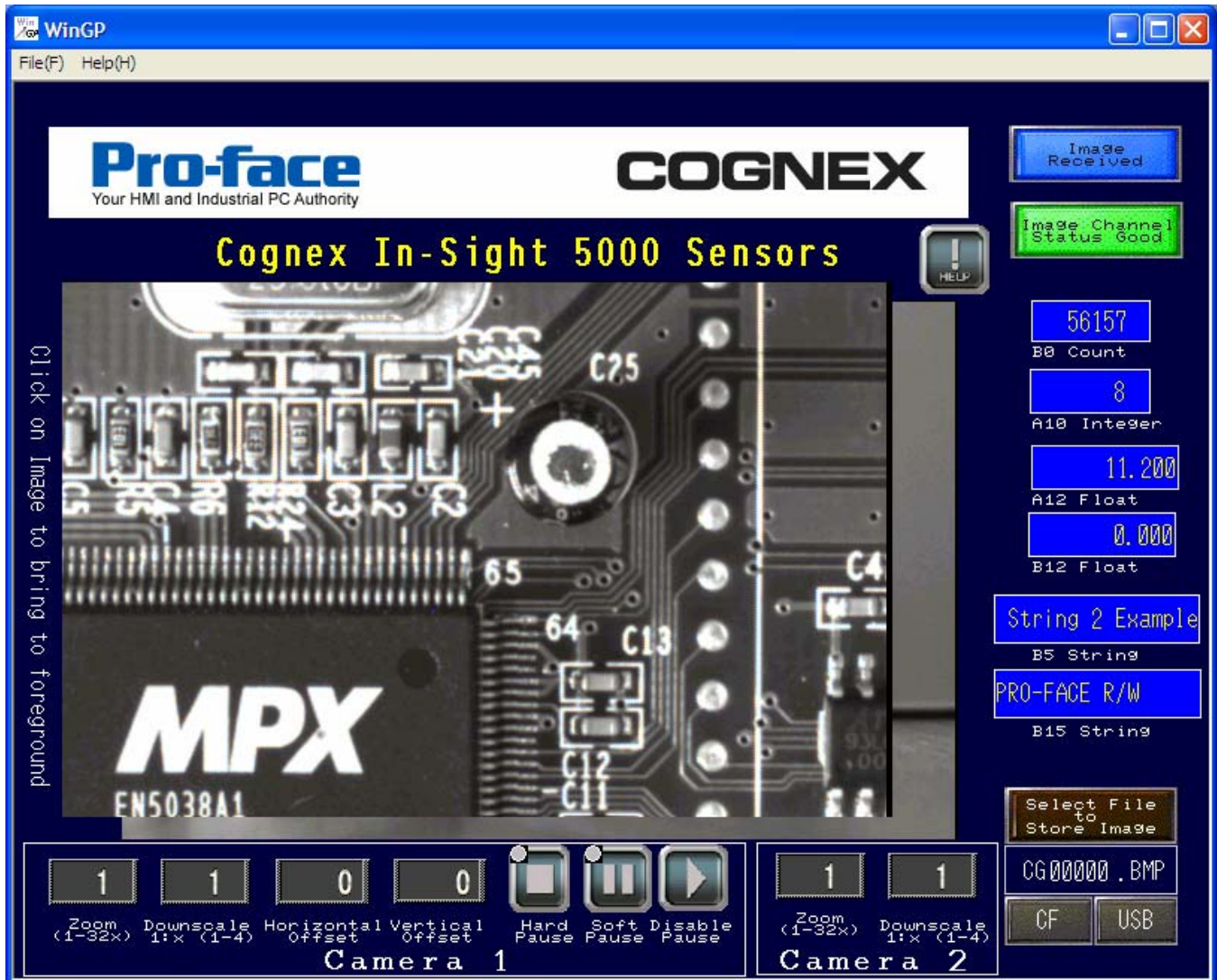
Requirements to run this demo project:

1. GP-Pro EX 2.7 or greater
2. AGP with 800 x 600 resolution or greater such as AGP3510, 3560, 3600 or greater, or Win GP
3. Cognex In-Sight 5100 camera
4. Cognex ism1050 camera
5. Cognex Insight Explorer v3.4 or greater
6. Project file PFA5100_Demo_6-1-2009.job
7. Cognex3-PFA_Test.job

Also recommended: A Pro-face CF card or a known Pro-face AGP compatible CF card to store images.

The Demo Project Illustrated

Don't have the hardware to run the demo project? The following illustrations from the demo project provide a quick overview of some of the features of the Cognex driver.

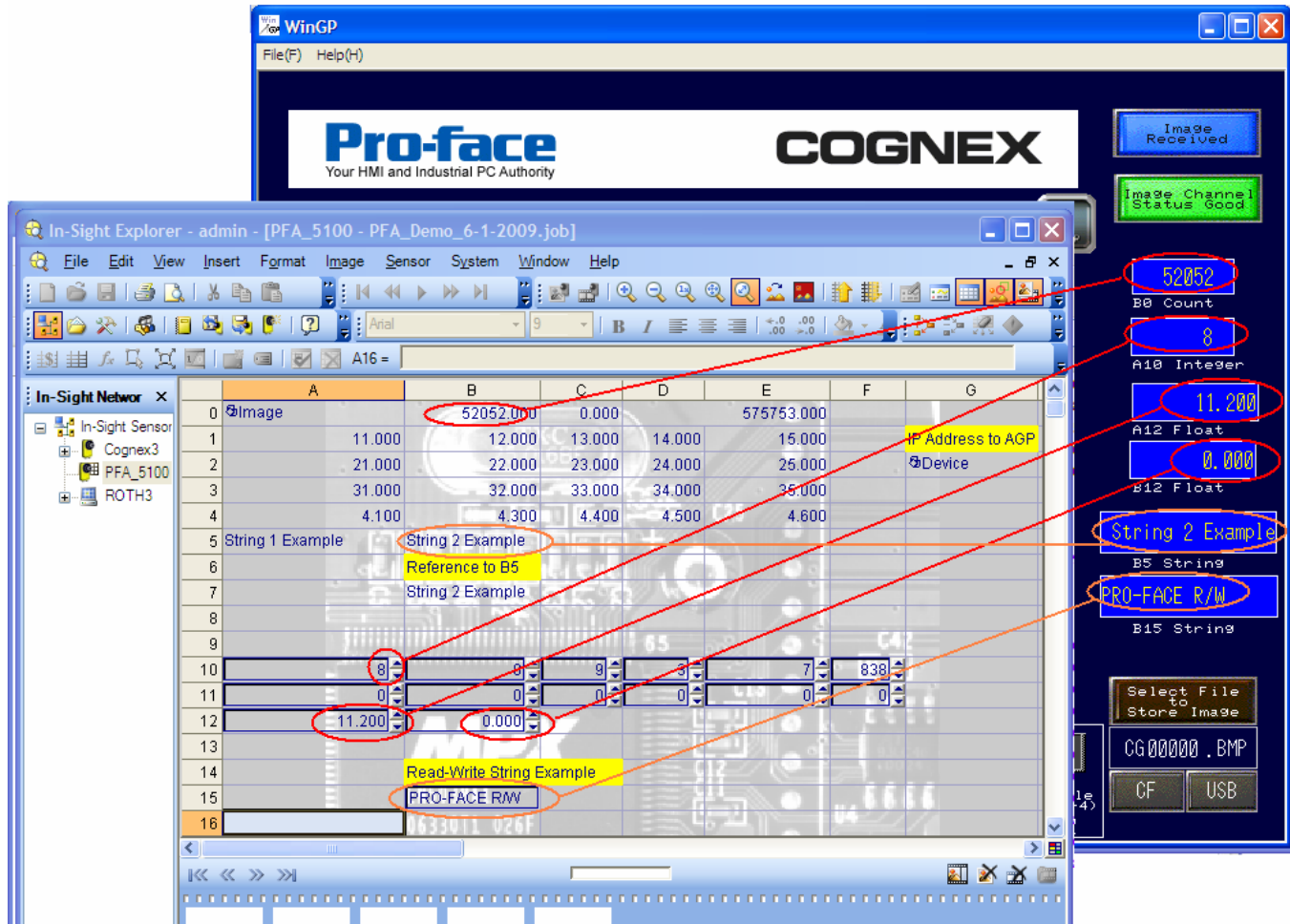


On this screen the 2 images on the screen overlap. Touching the image in the background will it to the front.....

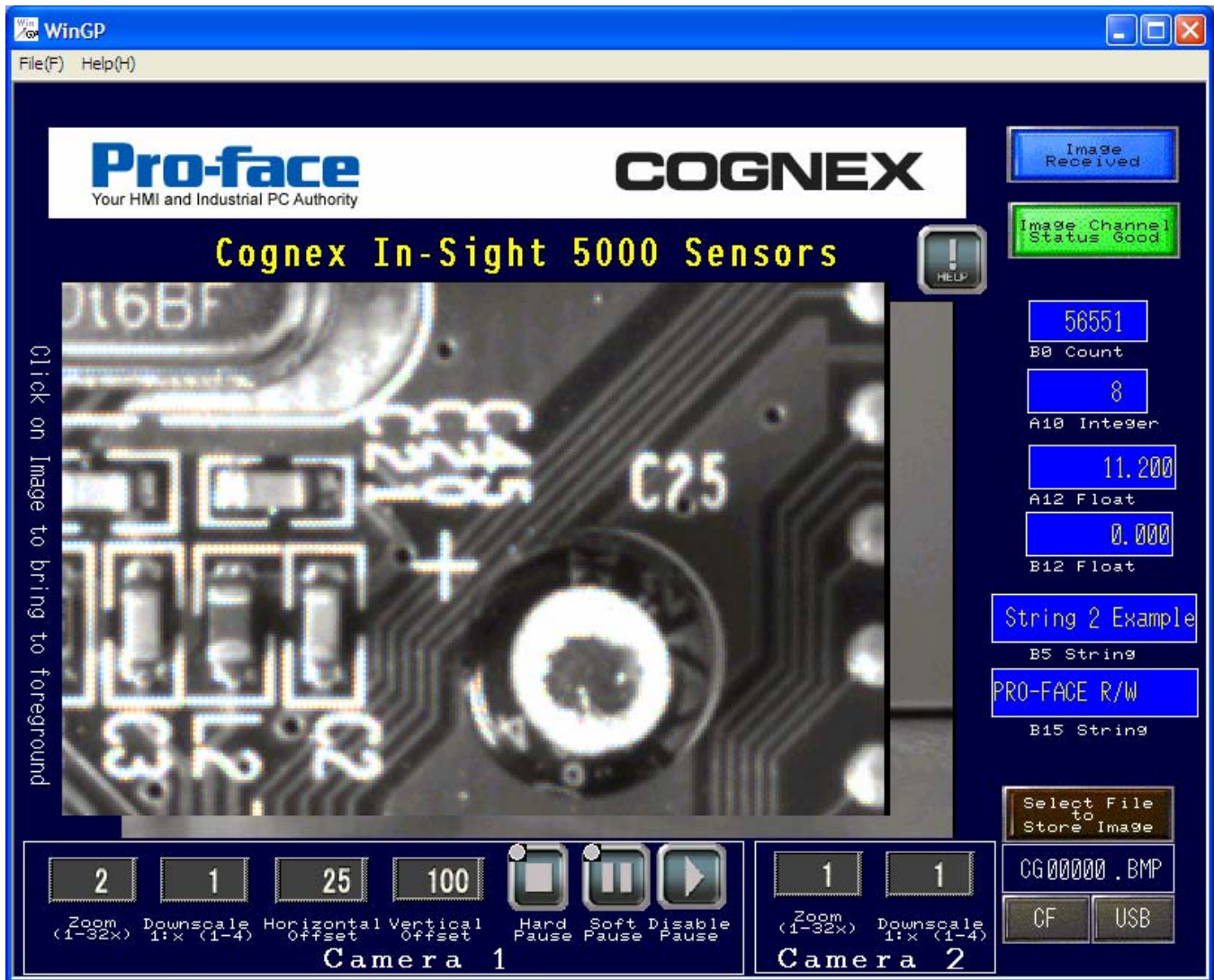


....demonstrating multiple images on a single screen, and that they can overlap. It is even possible to have a window screen pop up in the foreground over the images. The visible portions of the image continue to update.

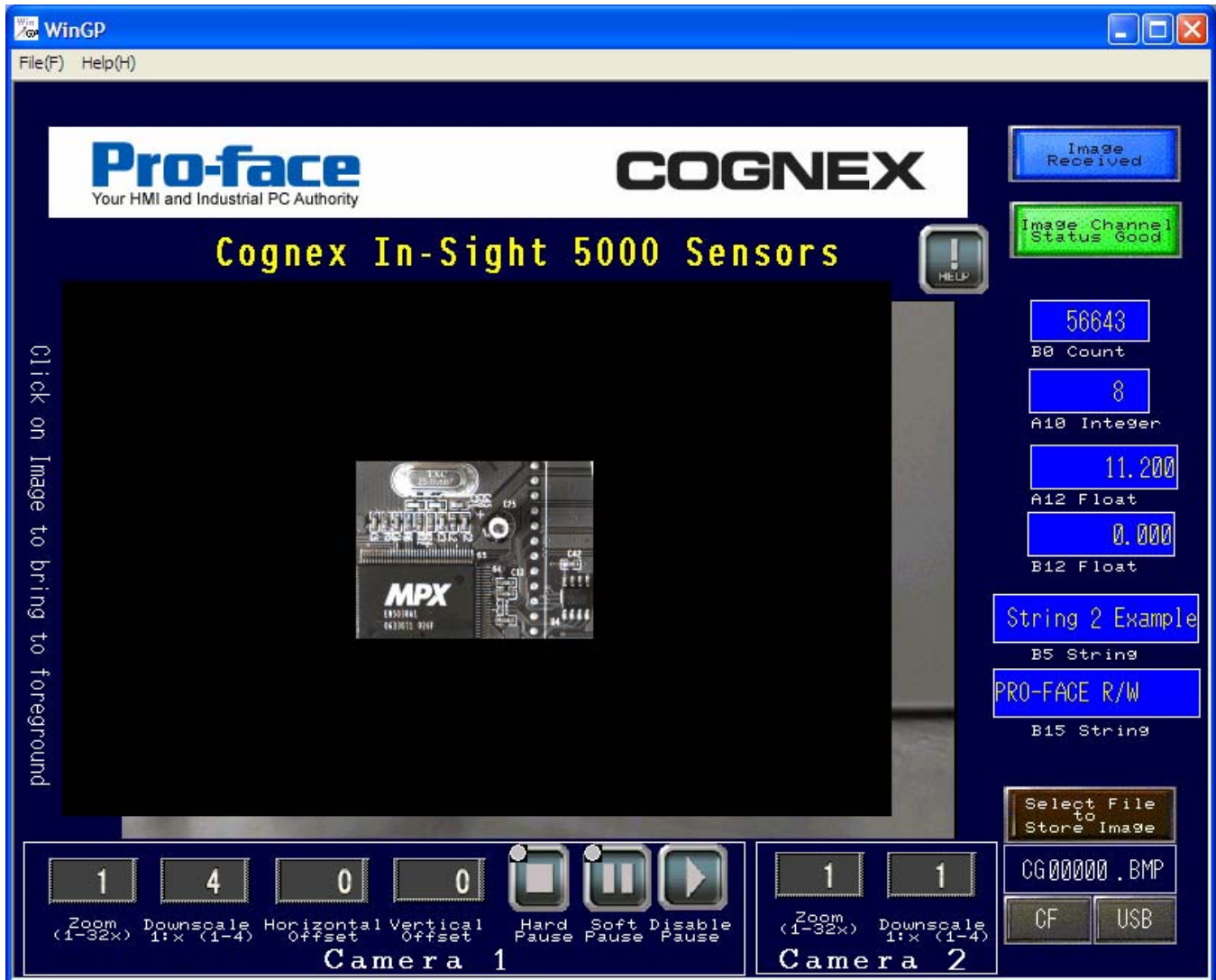
Note: The maximum number of live sensor images and window screens displayed at one time is 3. (2 if you are also using global windows)



The illustration above shows the relationship of data in the AGP to the data in the Cognex camera. To display the data or use it the GP-Pro Ex application only requires the cell number and the data type from the Cognex sensor job file. The AGP can both read and write to the Cognex sensor.



The screen shot above shows the zoom and pan feature in use.



This screen shot shows the downscale feature. The downscale feature allows you the option to allocate a smaller area of the screen for the sensor image, or portion of the image, freeing up more area for other things. It may be possible to use a smaller Pro-face unit and be able to display the entire image.

For more information on Pro-face and our full line of HMI, Operator Interface and Industrial PC products please visit our web site at www.profaceamerica.com.

For technical support email: support@profaceamerica.com or call: 734-944-0482.

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