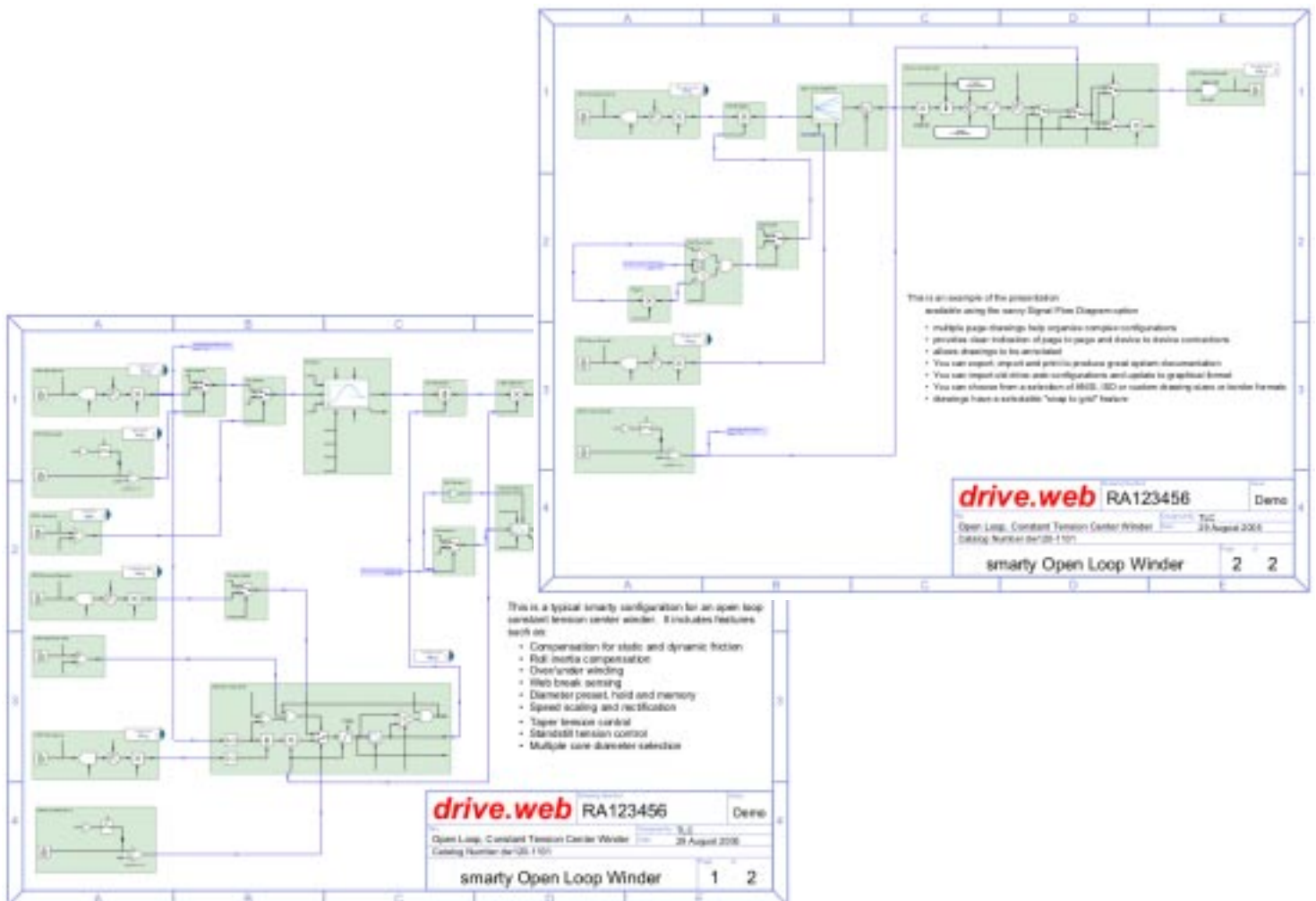


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Introduction to **savvy-SFD** graphical Signal Flow Diagram

savvy graphical Signal Flow Diagram option features

- an editable graphical signal flow diagram of any drive.web device configuration.
- multiple page drawing organization for complex configurations of drives or complete systems
- clear indication of page to page and unit to unit connections
- the ability to annotate drawings
- the ability to export, import and print graphical configurations and produce great system documentation
- the ability to import old drive.web configurations and update to graphical presentation
- the ability to choose from a selection of ANSI or ISO drawing size and border formats
- a selectable "snap to grid" drawing feature



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To check out the **savvy-SFD** option try this:

1. From the "Directory" menu select "Create Phantom Devices" and select "**smarty**"
2. Give the **smarty** lots of features by selecting:
 - "Basic I/O + 2 Encoders"
 - "Standard FBE + Winders"
 - "ModbusTCP + modbusRTU"

enter an IP address such as 192.168.1.1
3. Left click on the **smarty** image to drill down to the "Function Block Engine" level
4. From the FBE menu select "Change Border" and select "ANSI A Landscape".
5. Hit the "H" (home) key to get the full picture of your drawing.
6. Right click anywhere in the blank drawing space to open the Function Block List and select I/O > UIP1 Analog and you will see analog input terminal D1 appear on your drawing.
7. Repeat step 6 and select from I/O > UIP2 Analog, from Control > PID and from I/O > AOP1.
8. Click and drag the function blocks to convenient and logical locations on your drawing (ie. analog inputs on the left, PID in the middle and the analog output on the right).
9. Remember:
 - As the cursor passes over any object or connection its key data appears in the top of the window
 - Zoom in by "Shift" and drag box or by hitting the "+" key
 - Zoom out by hitting the "-" key
 - Zoom in and out with a mouse wheel
 - Pan by hitting the up, down, left, right arrow keys
 - Get the optimum "Home" view in your window by hitting the "H" key
 - Drill down into function blocks by left clicking on them
 - Open a parameter setter by left clicking on the parameter
10. Pass your cursor over the output of the UIP1 block and when the little target circle pops up, click and drag a connection to the target pop up circle at the PID setpoint input. Release the click and you should now see a blue connection line - it's as easy as that!
11. Similarly connect the output of the UIP2 block to the PID feedback input and connect the PID output to the input of the AOP1 block.

Now, with a few easy mouse actions you have created a PID controller with high quality documentation you can print and save!

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Other **savvy** things to remember:

- To save your configuration go to the "Directory" menu at the top "Device Directory" level, and select "Export Data".
- To retrieve your configuration go to the "Directory" menu and select "Import Data and Create phantoms".
- To enter your drawing description drill down to the Function Block Engine drawing page and from the "FBE" menu select "Set User Attributes".
- Right click on any object to rename it, get information or delete it.
- Right click on any parameter also enables you to add it to a parameter dock or make a connection to a remote location.
- To move a function block onto a new page simply drag it to the top right corner of the page. A new page will open and you can drop the block onto the page. Note that savvy will automatically reference the page and page location on any connections that are made from page to page. There is a page "go to" in the bottom left corner of the Function Block Engine window.
- To display a key parameter value on the Function Block Engine window start to drag a connection from the parameter, press the "control" key and when a "+" sign appears near the cursor let the mouse button go. A parameter display will appear and you can drag it to wherever you want it in your drawing.
- To show a trend chart for selected parameters right click on each parameter either at the Function Block Engine level or at the Function Block detail level and select "Add to Parameter Dock". With the "Dock" window active select the "Dock" menu > "Show Trend"

... and this is just the basics!

You can use **savvy** to create, document and operate drive systems of any complexity cost effectively. With it's multi-user remote access capability for configuration, monitoring and control it is an unbeatable drive systems design and management tool.

drive.web savvy Training Courses

The drive.web technology and the savvy drive system design tools are very sophisticated and we strongly recommend that to get the most out of your systems you attend one of our in-house training courses. These are run on a regular basis at our plant in Stevensville, Maryland - please call 410-604-3400 for details.

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To get **savvy** or a free **savvy** update ...

Go to www.driveweb.com, click on "get savvy" and choose the version you need for your computer operating system.

drive.web products

Currently there are two basic **drive.web** product groups that interface to the **savvy** tools:

smarty - is a DIN rail mounted distributed control processor with a variety of i/o options that can either work as a stand alone programmable systems processor or can be integrated into an Ethernet LAN with drives, operator stations, PLCs and SCADA systems.

speedy - is a range of high speed drive.web processor boards that interface directly with a drive microbus. These are available for our E-Series AC vector drives and our PL-Series Digital DC drives for high performance applications.

I hope this is a useful introduction to **savvy** and the drive.web technology. If you would like someone to go through a more detailed presentation of savvy-SFD please do not hesitate to call us at 410-604-3400.

For more information, please visit: www.bardac.com & www.driveweb.com

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