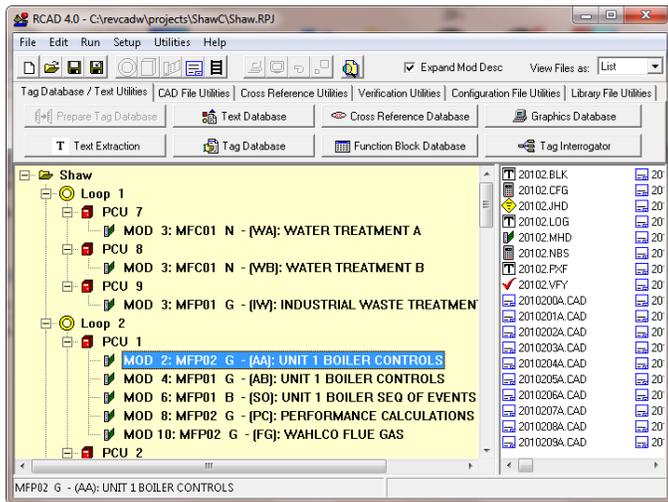# RCAD 5.0 for Infi-90 / Net-90 DCS

Complete Engineering Workstation Solution

C.A.R. Systems Ltd. is proud to present RCAD 5.0, a complete suite of Engineering Tools to compliment the ABB Automation Inc. Infi-90 and Net-90 DCS.
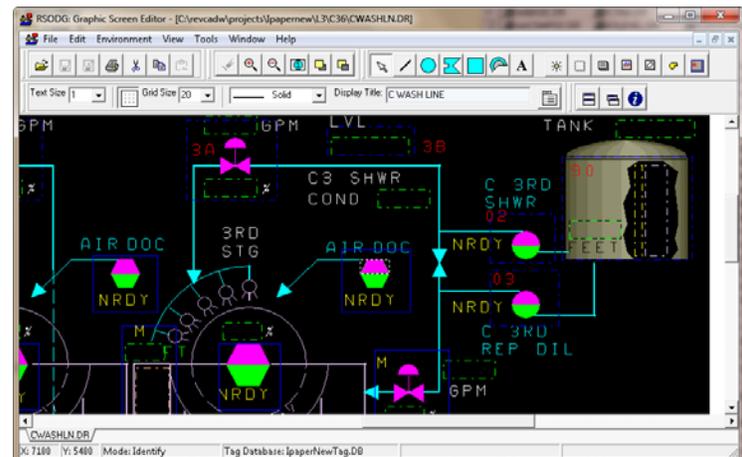

Features include:

- True Windows 32 Bit CAD Compiler
- Project Oriented front end
- Tag Database Maintenance
- Edit, Save and Print CAD drawings via our CADVIEW editor
- Superior Block Location Utilities (locate a block anywhere instantly.)
- Edit, Add and Delete Blocks from CFG files
- Combine user libraries instantly
- **TCP/IP CIU Sharing Client / Server architecture (Multiple clients share the CIU simultaneously)**
- Automatic Client lockout of modules being written to (Only 1 client can write to a module at a given time).
- Multiple clients may read from module simultaneously
- Complete Seamless EWS CIU Package (Upload / Download / Monitor / Tune / Online Configuration Changes / Change Module Mode).
- View Module Problem Reports.
- Secure TCP/IP connection to CIU (Internet Compatible)
- Compatible with SPM01, CPM01-03, CIU01, CIU02, CIU03, CIU04 and CIC01, ICI01, ICI12 and ICI03 (SLC02 with CIC communications module also supported)
- Works with USB Serial Port Devices.
- Global Save Verify Routines to Save CFG files and verify for multiple modules.
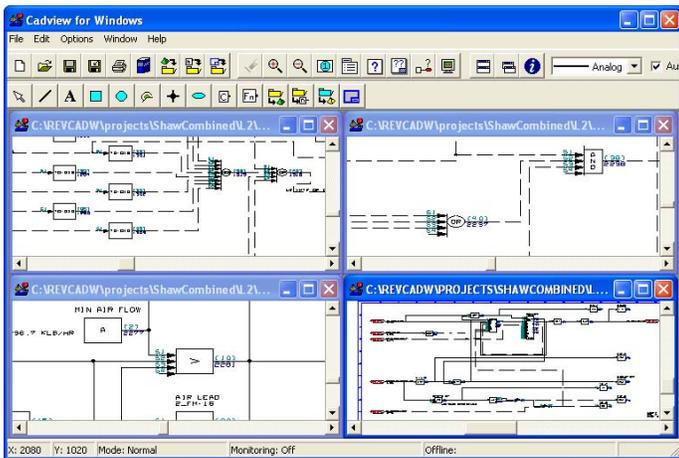- Safe Binding across multiple modules and PCU Cabinets

- **RSODG Graphics Editor** featuring an easier and much more user friendlier interface.
- Identification and editing of Graphics items is faster and easier using RSODG. **No more moving items to work with the desired element. Just click and identify it.**
- Instantly link between CAD logic and Graphic items.
- Tag interrogator – Find where a tag is used in any graphic instantly. Hyperlink to any CAD drawing or Graphic display.
- User Friendly Tag Browsing.
- **Version Control system – Store and Retrieve as many versions of a file as you wish.**
- **System Administrator's database** – Records all changes made to your documentation and system. Query and instantly see who did what to what block, Tag etc. and from which computer and on what date.
- **Alarm Auditing features** permit finding tags configured for specific alarm types.
- User Friendly context sensitive HTML help (F1 Key)
- 32 Bit Windows Ladder Logic Editor compatible with SLAD files.
- **Automatic update of databases.** As changes are made to the RCAD Documentation Files, the background databases are automatically updated. Unlike DBDOC, users don't have to wait hours for the Documentation to Compile before it can be used.

With the addition of a Client / Server Architecture, multiple users may now communicate through a single CIU to their Infi-90 DCS. Multiple clients may read from any module simultaneously while only one user may write to any module at any given time. The RCAD 5.0 server maintains an internal list of all clients connected to the CIU and is responsible for blocking any user attempting to write to a module that is currently being written to by another client.

Editing Drawings has never been easier!

Our CADVIEW windows EWS editor permits users to easily edit their drawings. Using a Multiple Document Interface, users may add, delete and explore their DCS configurations in this easy to user graphical interface. Monitoring of multiple CAD drawings is permitted. While each client connects to the CIU via a TCP/IP connection, monitoring individual block outputs may bottleneck the CIU (running at 19.2 Kbaud). Not true with RCAD 5.0. The RCAD 5.0 server automatically sets up a monitoring cache which permits clients that are monitoring block outputs to retrieve live plant data instantly from the server. The server will automatically update it's monitoring cache every second.
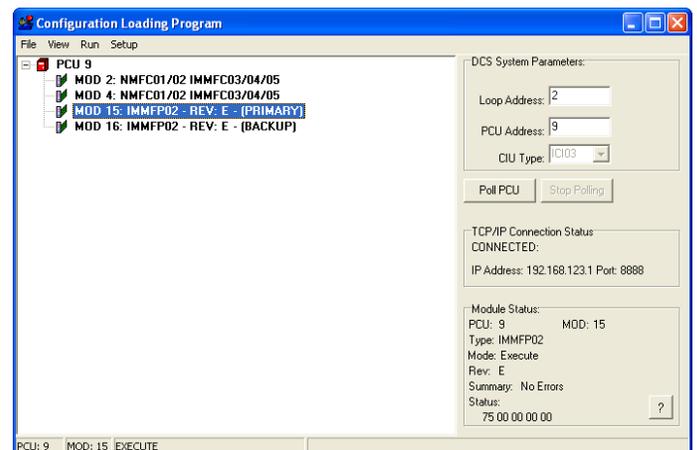

CADVIEW Features:

- Easy to use Windows interface
- Add / Delete / Edit blocks using an easy to read windows environment.
- Utilize true windows cut / copy and paste functionality retaining all block numbers and internal specs of cut blocks
- User library preview functionality permits identification of individual user shapes and macros without having to print the contents of large user libraries.
- Network compatible library search path means multiple clients may share the same user library without multiple copies of the same library becoming to large to maintain.
- CADVIEW connects to the RCAD 5.0 server as a client through a seamless TCP/IP connection.
- Superior block location utilities. Locate any block on any drawing instantly.
- Verify the contents of individual blocks to saved configuration files without having to print the contents of the configuration files.
- Block Specification properties are color coded to permit easy identification of internal and external specifications.
- Three modes of Block Specification Values (CAD Drawing, CFG file or Module Live).

- **Enhanced Specification editing** (complex specification settings are now easier to set based on bitmapping of spec values in a user friendly window).
- **Hyperlink through Cross Reference Bubbles** by simply **double clicking** (Even works across Module and PCU Cabinet boundaries).
- **Hyper Link to graphics instantly from any Tag identified in a CAD drawing**. Automatically displays where the tag is used in which graphic display and can load the graphic in our RSODG graphics editor in an instant.

Configuration Loading Program

Our Configuration Loading Program (CLP) permits users to easily save and edit module configuration files. Users connect to the CIU via a seamless TCP/IP connection. Because the connection is Client / Server based, multiple users may safely share the CIU communications path to permit simultaneous saving of configuration files. The TCP/IP connection permits users to remotely maintain their DCS using the internet as a backbone.
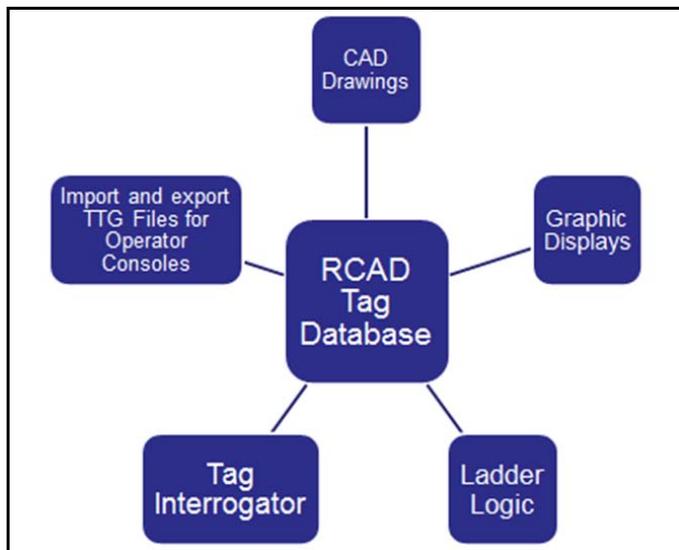
CLP Features:

- Secure and Seamless TCP/IP connection to CIU communications
- Upload / Download module configurations
- View module status bytes and interpret individual status bits in an easy to read user interface.
- View module problem reports
- Change module mode (Execute / Configure / Initialize / Reset)
- **Perform Online Configuration** changes to redundant modules using a very user friendly interface identifying the status bits of each module and the front panel LEDs. Quickly step through the Online Configuration process and monitor the modules' progress. Front Panel LEDs blink in real time, just as they do on the module's face plate.
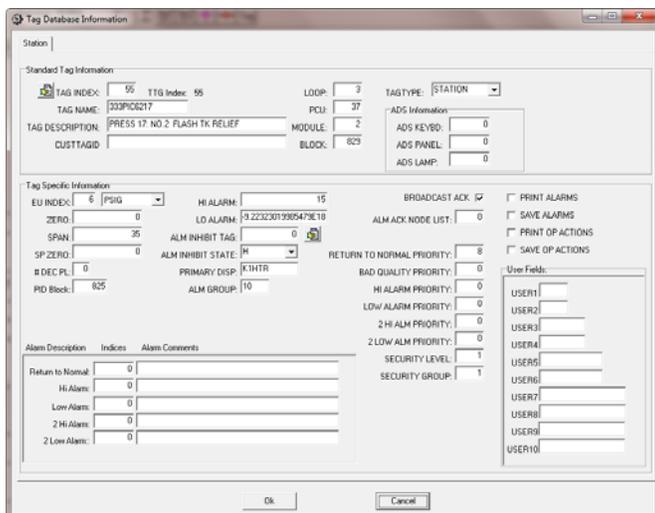- Monitor block outputs in a spreadsheet based user interface.

- Utilize smart write technology for tuning blocks in real time. Depending upon the mode of the module, CLP will either write block specifications to the module using a write algorithm (if the module is in configure mode) or a tuning algorithm (if the module is in execute mode). This is done automatically.

Tag Database Architecture

The heart of the RCAD system is the Tag Database. Unlike Wintools or Composer where only the tag name and description is used, RCAD permits configuring ALL fields of the operator console Tag Database. Tag information is imported to RCAD via TTG files. These files can be easily extracted from all operator consoles. After making changes to the Tag Database, fresh TTG files can be made by exporting them from the RCAD database and these can be used to update the Operator Consoles in an instant.

Actual Tag Database Interface in the RCAD CAD Editor

How Valuable is your time?

Our clients who have purchased RCAD are reporting a dramatic improvement in their documentation productivity at their sites. The following is an actual testimonial from one of our clients:

"I do NOT use Composer here at my site. The Bailey (ABB) Reps that we deal with have our files converted to Composer and they use that vehicle when they come-in and poke around our system, but I enjoy the freedom and security of having individual CAD files to work with via RCAD, in the same vein as the legacy WinTools software. I have watched the Bailey Reps work with all of the features of Composer, but in my opinion, **RCAD has it beat in all respects.** Composer is a vast improvement over the old WinTools suite, but others will point-out, the Composer base architecture is flawed in its original design and those flaws are exacerbated with large systems, state-of-the-art hardware and current operating systems. I have all of the same features in RCAD that Composer offers without any of the heartaches. C.A.R. Systems Ltd. and I have worked together in a close relationship for over 10 years refining the features and capabilities of RCAD. I make suggestions about improvements and they make it happen, often rolling-in other changes that are triggered by the first suggestion. Any changes to the RCAD software are immediately posted on the update website and available to all registered users to download and use. The product continues to improve and evolve and registered users benefit. In addition, if I have a concern about the functionality of an operation (proper sequence, underlying operations in the modules, etc.) I can always call or e-mail C.A.R. Systems Ltd. and get the right answer…try that with ABB!!

In summary, I would not personally recommend committing to Composer for your requirements to maintain your system now or in the foreseeable future when RCAD is such an attractive (and proven) alternative. I know that if you have already procured Composer, making a decision to move to RCAD is one you would not make lightly. RCAD outperforms Composer in all of the routine tasks that I have witnessed while the Bailey guy used it when he's was here. The simplicity of the smaller, discrete file system with RCAD and the avoidance of committing to Composer and then running into operational problems later-on, after the labor has been invested, because of its problems with large systems and computer operating system quirks that make it unreliable all make RCAD the preferred choice. I know that this probably sounds like a sales pitch, but it really isn't, it is just how I feel and a fair appraisal of what I have seen in both systems. If I can help you in any other way, or if you have additional questions, don't hesitate to e-mail or call."

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RCAD 5.0 System requirements

Both Client and Server:

Intel Pentium Dual Core or better (We suggest Core I5 or I7)
2.0 GB Ram
100 MB Hard drive space
TCP/IP network adapter card
Windows 98 / ME / NT4.0 / 2000 / XP / Vista / 7 / 8 / 8.1 / 10
        (Both 32 and 64 Bit platforms supported)

Contact Information:

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