Description

Using ISaGRAF Control Engine Software from ICS Triplex, Moore Industries’ NET Concentrator® System (NCS) can be configured to deliver highly flexible architecture, control, computation, and functional capabilities including:

- The ability to act as a single or multiple PID loop controller with simple, cascade, split action, and inverse capabilities.
- Sequential control language programmability based on IEC 61131-3, including ladder, function block diagram, and structured text.
- Complex math capabilities including add, subtract, multiply, and divide; absolute value; square root; integrate and totalize; exponential; natural logarithm; base10 logarithm; comparison; sine, cosine, and tangent; arc sine, arc cosine, and arc tangent; and boolean logic.
- Highly functional peer-to-peer configurations that allow “Free Channel Mapping” and “Sending a Process Signal to Multiple Locations”.

Using easy-to-use Windows® drag and drop functionality, custom applications providing these capabilities are developed using the ISaGRAF software. Once developed, the application is downloaded, stored, and executed by the NET Concentrator System’s Real Time Operating System (RTOS) and microprocessor.

With ISaGRAF, control strategies limited by expensive DCS and overly-complicated PLC systems can now be developed and implemented into an economical, flexible and easily expandable NET Concentrator System strategy.

What is ISaGRAF?

ISaGRAF is a control software package that enables the creation of local or distributed control systems. It offers a combination of a highly portable and robust control engine (a Virtual Machine that is embedded in the NCS), and an intuitive application development environment (Workbench). The Workbench provides a graphical and object based environment to help you create your application and port it over to the NCS’s flexible hardware platform. Since ISaGRAF supports all of the standard IEC 61131-3 control program languages, anyone familiar with traditional DCS or PLC programming techniques can easily implement their control scheme with ISaGRAF.

Features

- I/O connection (addressing of physical I/O). Providing a powerful I/O connection editor, with a simple mouse click, you can define a link between the ISaGRAF project and the NCS I/O channels without knowledge of high-level software or hardware.
- Simulation and debugging. At all stages of application development, ISaGRAF performs checks on program and language specific syntax, and corrects or prompts the user with the correct use of the programming language.
- Self-Documentation of projects. The Documentation Generator builds a complete, coherently grouped document of all project items, and provides a history of their modification.

Full IEC 61131-3 Support

ISaGRAF supports all standard IEC 61131-3 control program languages, plus Flow Chart (FC), including:

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<tr>
<th>SFC</th>
<th>Sequential Function Chart</th>
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<tbody>
<tr>
<td>FBD</td>
<td>Function Block Diagram</td>
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<tr>
<td>LD</td>
<td>Ladder Diagram</td>
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<td>ST</td>
<td>Structured Text</td>
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<tr>
<td>IL</td>
<td>Instruction List</td>
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<tr>
<td>FC</td>
<td>Flow Chart</td>
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Based on individual needs, you can use any or all of these control languages to create your custom application.

* All product names are the property of their respective companies.