PARASYN

> *Specialised Driver Extensions providing significant performance enhancements and back-loading time series data capability for leading Software and Hardware combinations*

Citect Kingfisher Driver Extensions

PERFORMANCE DRIVERS

Driver development is a highly specialized task. In the RTU world of process control, large enterprise RTU drivers are particularly challenging. This is because of high point counts and high expectations from users for responsiveness and accuracy. Techniques used for driver development for PLCs that only operate in real time cannot be applied for drivers that support time series data types. RTU networks typically operate at low data rates compounding the requirement to recover large volumes of data efficiently. RTU drivers are typically the main bottleneck in the entire SCADA system.

Time series protocols retain the time and date stamp along with the value when an event occurs in the field. When the driver receives the value returned from the field device, it retains the original time and date with the value. The value and its associated time and data stamp is often referred to as an "event log". Real time drivers ignore all information other than the point value. The point value, sometimes called a process variable, is assigned the arrival time for real time drivers. The original time stamp information is consequently discarded.

Enterprise agility – Performance Middleware

Parasyn "middleware" ensures that your data assets are exploited in the manner that bests serves the needs of your organisation. Your organisation is empowered by having the freedom to mix and match "best of class" IT and Control infrastructure components without "vendor lockin" at the operating system, programming language, application server, database or hardware level.

KINGFISHER

Citect Schneider Electric

The Kingfisher Series II RTU range supports real time and event log data types. The Parasyn Citect Kingfisher Driver Extensions was developed to optimize the recovery performance of the Kingfisher RTU specifically in accordance with how Citect manages drivers natively. It improves the performance of relating an event log address to a tag name. It also provides an alarm buffer.

Cicode is normally used to resolve tag names from RTU addresses. This method is adequate for small scale systems but suffers greatly when point counts are in the tens of thousands. The driver extension manages the tag name resolution without using Cicode.

Natively the Citect Alarm Server periodically polls the I/O Server for changes in all of the alarm triggers. For this reason, if an alarm is changing faster than the alarm scan rate it will be lost. To avoid this, normally a development engineer sets the alarm scan rates so that the scan interval is very small. This reduction in scan time has adverse affects on server resources and overall performance. The driver extensions manage the alarm buffer so that no alarm information is ever lost. Small alarm scan rates are not required and alarm event log information is retained; even to the millisecond.

RICH FEATURES

- Supports Redundant Trend, Alarm, and Event data.
- Supports very large enterprise solutions.
- Driver matches maximum performance of Kingfisher Series II RTUs, nominally 50 logs per second without any compromise to SCADA server performance (15% CPU usage).
- Alarm buffering so that alarm scan times do not require adjustment.
- High performance tag resolution for resolving RTU addresses with database tag names.
- Buffer flush and driver halt to support graceful shutdowns.
- Zero lost of alarm data even with millisecond event logs from field devices.
- Enhanced error messaging includes detecting event logs not configured in the SCADA software and dumping logs to file.
- Enhanced debug information provided in a customised graphics window inside Citect. Debug options can be selected in runtime.
- Sample project to test your hardware and driver performance.

OPERATING SYSTEM COMPATABILITY

OPERATING SYSTEM	OS UPDATE	32/64 BITS	SUPPORTED
Microsoft Windows XP Professional	SP1 | SP2 | SP3	32	✓
Microsoft Windows Server 2003 (Standard & Enterprise)	SP1 | SP2	32 & 64	✓
Microsoft Windows Server 2003 R2 (Standard & Enterprise)	SP1 | SP2	32 & 64	✓
Microsoft Windows Server 2008 (Standard & Enterprise)	SP1	32 & 64	✓
Microsoft Windows Server 2008 R2 (Standard & Enterprise)	SP1	32 & 64	✓

www.parasyn.com.au

CUSTOMISED SOLUTIONS

Parasyn's specialty is joining unlike systems and developing companion products for existing application software. This ability comes from having a drive to understand your business needs, investigating your specific process data and developing a solution that is rich with information; more than just raw data. We offer solutions that include control equipment, application software (typically HMI) and databases. Typically these might include database to database, HMI to database, control device to control device, control device to database or control device to HMI. If you have a specific challenging requirement, consider discussing your needs with a member of our team.

SUPPORT

For more information or to request a trial program please email your request to kingfisher@parasyn.com.au.

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