World Leader in Small-Footprint DDS Applications

TWINOAKS COMPUTING INC.
PRACTICAL MIDDLEWARE EXPERTISE

CoreDX DDS—Source Code License

CoreDX DDS™ is an Open-Standard High Performance Publish Subscribe Middleware Component

As engineers, we understand the importance of having the source code for a critical system component like middleware. That's why Twin Oaks Computing is pleased to offer CoreDX DDS Source Code Licenses.

With a CoreDX DDS™ Source Code License your organization will have access to the source code for the leading small-footprint DDS communications middleware. Access to the source code provides many benefits: internal configuration control, stand-alone problem resolution, deep integration, product customization, unique ports, and vendor independence.

Further, with a current Source Code License Maintenance agreement, your organization will receive quarterly source code baseline updates so that you can keep up to date with API and wire-protocol changes.

CoreDX DDS

CoreDX DDS™ is the leading small footprint implementation of the Data Distribution Standard (DDS) that is sponsored by the Object Management Group (OMG). DDS was designed specifically to meet the performance and Quality of Service requirements of real-time, embedded, time-critical, and mission-critical applications.

CoreDX DDS™ offers a compliant implementation of the DDS Standard in a Small-Footprint product (measured in Kilobytes, not Megabytes) that is fully capable of exploiting multicore processing hardware.

Twin Oaks offers CoreDX DDS Source Code Licenses.

The OMG DDS Open Standard specifies a Data-Centric Publish-Subscribe infrastructure and a wire protocol for Interoperability. The standards include a robust set of configurable Quality of Service policies for precise control over data communications.

CoreDX DDS™ supports BEST_EFFORT and RELIABLE communications, so it can easily be employed in wireless and other unreliable network environments. The small-footprint of CoreDX DDS™ makes it the best choice for Size Weight, and Power (SWaP) constrained applications. The multicore architecture of CoreDX DDS™ lets you exploit the processing and power benefits of modern CPU cores.

Ordering Instructions

Get started by visiting our website and downloading the 30-day Full Featured CoreDX DDS™ Evaluation software. During the download process, you can indicate that you are interested in the Source Code License Program.

Start here: Download 30-Day evaluation

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CoreDX DDS Source Code Features

Standard Development Tools / Languages

- Source code in portable C language
- Language bindings for C++ and Java
- Baseline includes source for all development tools: CMAKE, FLEX, BISON, LEMON
- Build configuration files for all target platforms
- Simple configuration and build process
- Out-of-tree compilation for multiple architectures

Source Code

- ~30,000 LOC of library code
- ~10,000 LOC of test applications
- Requires platform specific compiler and make tools

Well Organized Source Directories

- src/

include	public include files
ddl	DDL compiler
dds	Core DDS
dds_cpp	C++ binding
dds_cf	Content Filters
dds_java	Java binding
rtps	RTPS wire protocol
util	utilities
scripts	build/config scripts
test	comprehensive test suite
examples	example applications
cdxspy	RTPS packet analyzer

CoreDX DDS Quality of Service Support

USER_DATA, GROUP_DATA, TOPIC_DATA	Supports user defined QoS data
DURABILITY: VOLITILE, TRANSIENT_LOCAL	Supports late-joining Readers
DEADLINE	Specifies a required data update interval
LATENCY_BUDGET	Performance tuning parameter
LIVELINESS	Controls mechanism used to determine Entity liveliness
TIME_BASED_FILTER	Specifies maximum desired data update frequency
PARTITION	Establishes data partitions to segregate entities and data
RELIABILITY: RELIABLE, BEST_EFFORT	Tailors reliability of the data transport
HISTORY	Configures amount of data preserved in infrastructure
RESOURCE_LIMITS	Configures limits for data resources in infrastructure
ENTITY_FACTORY	Controls the 'auto-enable' function for created Entities
WRITER_DATA_LIFECYCLE	Indicates if unregistered data instances should be automatically disposed

CoreDX Specifications

Operating Systems:

- Linux 2.6
- Windows XP / Vista
- Solaris 10
- QNX
- VxWorks

Hardware Platforms:

- X86, 32bit & 64bit
- UltraSPARC
- ARMv5

Development Languages:

- C
- C++
- Java (2010Q1)

Transports:

- RTPS
- Multicast / Unicast
- Custom

Customizations for additional platforms and transports are possible, contact us for information.

About Twin Oaks Computing

Twin Oaks Computing, Inc. provides state-of-the-art engineering in support of high-performance communications, including device drivers, communication protocols, inter-process communications, network services, and secure environments. Our unique company culture allows us to be agile and provide superior responsiveness to our customers, and our extensive domain experience is essential to our customers' ability to perform their missions. We are committed to being a premier source of quality high-performance communications technologies for use in DoD and commercial applications.

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