



ORBexpress[®] DSP

For Texas Instruments Digital Signal Processors

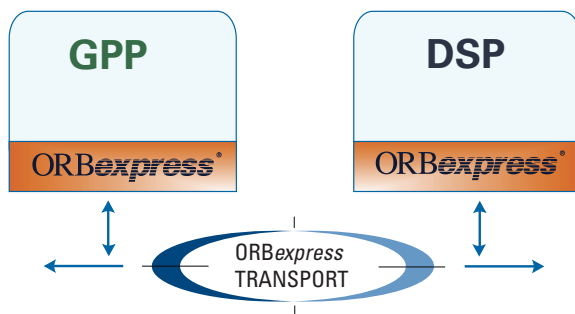
Introducing ORBexpress DSP for the Texas Instruments 64x series of Digital Signal Processors. For the first time, embedded developers can utilize the complete functionality of the Texas Instruments 64x platform through robust middleware that integrates the DSP into a system architecture.

The Challenge

- » How can a DSP developer easily communicate with the GPP without being a GPP developer?
- » How can a GPP developer easily communicate with the DSP without being a DSP developer?
- » How can you optimize your system by moving processing between the different subsystems without rewriting your communication protocols each time?
- » How can you design a system which easily takes maximum advantage of each GPP and DSP?

The Solution: ORBexpress DSP

ORBexpress enables DSPs to become first-class devices in mixed systems. This results in a portable CORBA interface that allows the DSP developers and the system architect to optimize functionality in the DSP with the same ease they now have in the GPP.



Seamless System Integration with ORBexpress DSP

DSP programmers and their GPP programmer counterparts can build a ORBexpress application as if it were a standalone application. They can then distribute the application across multiple resources with minimal effort. The programmers can also change the distribution of the application with ease, making it possible to defer deployment decisions until late in the design process. Deferring deployment decisions enables optimized resource allocation and the flexibility to adjust to changing conditions. Most importantly, it allows DSP programmers to easily move unnecessary algorithms off of a DSP to a GPP or FPGA in order to ensure that the DSP performs only those tasks for which it is optimized.

Fast, lean and predictable

Simple and fluid distribution of logic and data

Migrate functionality from DSP to GPP at any time

Easy to upgrade legacy code

Reduce costs – use an off-the-shelf standards-based communication protocol

Easy integration and interoperability of DSPs, GPPs and FPGAs in a single system

Full support for Code Composer Studio and DSP/BIOS

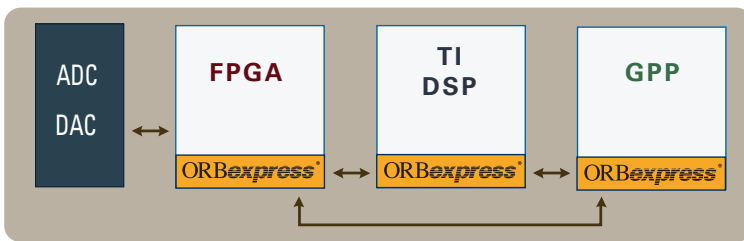
Faster time-to-market



Advantages for the DSP and GPP Developer

Standalone Systems are a Thing of the Past

DSPs need to communicate and interoperate with GPPs, FPGAs and other DSPs. The systems in which they operate are networked and highly interconnected. Software must cope with communications and interoperability issues, while delivering the same reliability and performance as the isolated embedded systems of the past. ORBexpress makes this interoperation manageable and provides easy access to a variety of sophisticated transports tuned to embedded targets. ORBexpress also allows DSP programmers to “plug-in” their own custom transports.



Platform Flexibility

There is increased pressure to preserve investment through development of reusable code that can be used with different targets. DSP programmers may need to target many different processors at the same time, and may need to migrate to new or upgraded compilers, operating systems and processors over time. ORBexpress insulates DSP developers from the headaches of rewriting code with every processor and system change.

Time to Market is Critical

By supplying a high-performance communication framework, ORBexpress enables greater productivity because it is no longer necessary for DSP programmers to write their own communication protocols and to re-write those communication protocols every time there is a change in software or hardware architecture. This ensures that a system architect can move algorithms among a DSP and a GPP to achieve greater total system efficiency without incurring any significant code or communications protocol rewriting—even if it occurs very late in the development process.

Free Training

Comprehensive training and the first year of maintenance and support are included with every developer’s license at no additional cost. Our policy is to ensure that you are well-trained and successful in the use of ORBexpress DSP.

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Focus on Application Development *not* System Code

Using ORBexpress means your developers can focus on application development, not system code. ORBexpress provides a standards-based alternative to in-house, proprietary communication protocols while adding minimal overhead and footprint to your applications. ORBexpress enables software developers:

- to simplify the development of distributed software applications
- build scalable, efficient and robust applications
- reduce overall development time meeting time-to-market requirements

ORBexpress DSP is the world’s highest performing implementation of the Common Object Request Broker Architecture (CORBA) for DSPs. Optimized for use in the real-time embedded and high-performance development environment, ORBexpress is ideal for developers who need a communications framework that combines performance with extreme reliability, robustness and a very small footprint.

For Ordering Information

Contact your OIS Account Manager or email info@ois.com.

About Objective Interface

For nearly two decades, Objective Interface Systems (OIS) continues to supply tools that rapidly build superior software communication infrastructures. By providing the most reliable middleware available, OIS maintains its market leadership in secure communication middleware for embedded, real-time and high assurance systems.

Our dedication to quality technologies is reflected in the widespread adoption of OIS products throughout the defense and aerospace community (F-22, AEGIS, AWACS, JSF, THAAD), communication systems, network management, software defined radio (JTRS), telecommunications, command and control systems and nuclear fusion ignition facilities. For more information visit www.ois.com.



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