



# **Q-Message**

*Reliable,  
High Performance Messaging  
for Distributed Applications*

**Q-Message™** is a reliable,  
high performance messaging  
system that enables integration  
of distributed applications across  
all levels of your enterprise—from  
the shop floor to the board room.



### **Your Challenge**

Management expects you to deliver more functionality by integrating distributed applications across a constantly evolving mix of proprietary and open systems. And you must achieve this added functionality, of course, without increasing costs. Your systems must perform optimally and reliably, with no disruption to the plant.

### **Your Solution**

Q-Message provides reliable and high speed inter-application communication from the shop floor to the board room. Q-Message supports both internode and intranode communication across a broad range of hardware and software platforms.

Q-Message enables you to fully integrate existing distributed applications while minimizing costly upgrades or replacements.

#### **Alpha and Intel**

##### **Windows NT**

#### **Q-Message™ API**

Application

Application

#### **IBM, HP, SUN and Alpha**

##### **UNIX**

#### **Q-Message™ API**

Application

Application

#### **Alpha and Intel**

##### **LINUX**

#### **Q-Message™ API**

Application

Application

### **Q-Message Delivers . . . Connectivity.**

Distributed applications can be integrated to suit your specific requirements. With Q-Message, you can deliver the right data . . . to the right place . . . at the right time . . . to make the right decision.

**High Performance.** High data throughput and advanced features assure overall system execution meets your particular requirements.

**Reliability.** Numerous successful installations and extensive run-time in world-class manufacturing plants ensure that your integration project will be 100% successful.

**Flexibility.** Distributed applications can be integrated to suit your specific needs despite the limitations of individual applications.

**Ease of Use.** Broad platform support and a built-in API or optional object-oriented interface simplify configuration and maintenance.

**Product  
Benefits**



## The Q-Message Tool kit

### Product Features

#### High Performance

Q-Message's efficient message processing routines support thousands of message transmissions per second to enable the integration of virtually all applications, from the shop floor to the board room.

#### Variable Message Sizes

Variable message sizes enable developers to optimize inter-application communication to support both small and large message transfers.

#### Asynchronous and Synchronous Messaging

Q-Message supports both asynchronous and synchronous messaging.

Asynchronous messaging enables applications to operate completely independently. An application transmitting a message does not wait for a response from the message recipient.

Synchronous messaging allows applications to wait for a response from a message recipient. This assures that program execution across platforms can be coordinated.

#### Store and Forward

Q-Message's "Store and Forward" mode retains messages on hard disk for applications that cannot tolerate message loss in the event of a processing interruption.

#### Call-back Functions

"Call-back Functions" can be specified to automate actions to be performed upon message receipt. This built-in capability simplifies integration.

#### Routing

Q-Message can route messages between non-contiguous nodes. This additional functionality enhances routing between older computing platforms.

#### File Transfer

Q-Message supports file transfer between applications, simplifying one of the most often used application integration tasks.

#### Assured Delivery and Error Checking

Q-Message supports four acknowledgement modes, including an "Assured Delivery" mode for critical message exchange. Standard built-in error checking ensures that message transmission failures are detected.

#### Broad Platform Support

Q-Message is supported on the following widely used operating systems (and processors):

- Windows NT (Intel and Alpha)
- UNIX (Alpha, HP, IBM, SUN)
- LINUX (Alpha and Intel)
- OpenVMS (Alpha)

#### Programming Interface

Q-Message includes a comprehensive Application Programming Interface (API) to support application development in C, C++, and FORTRAN. A comprehensive set of calling routines enables the development of high-performance messaging interfaces.

Q-Message also includes an object interface via the Q-Class Library. Q-Class Library contains classes, objects, and functions that are commonly required for process automation applications. It is available as a stand-alone product, as well, from Queue Systems.

#### Performance Tuning Tools

Build-time and run-time performance tuning tools aid application development.

#### VAX and Alpha

##### OpenVMS

### Q-Message™ API

Application

Application

#### Legacy System

##### MAXIV or MAX32 OS

### Q-Message™ API

Application

Application

**Cost Savings.** An enhanced ability to manage a constantly changing mix of hardware and software lowers development and maintenance costs, reduces project risk, and ultimately increases your return on investment.

*Q-Message delivers all these features and can be implemented in as little as 5-10 days.*





## Complementary Products and Services

### *Q-Connect Product Suite:*



**Q-Freedom Bridge™** provides the leading non-disruptive migration path from legacy systems to modern PIMS (Process Information Management Systems).

**Q-PIMS Link™** is a high-speed client/server application that enables a plant to interface its PIMS with enterprise-wide corporate technology systems and ERP systems.

**Q-Message™** is a reliable, high performance messaging system that enables integration of distributed applications across all levels of your enterprise—from the shop floor to the board room.

**Q-Class Library™** is a field-proven object library developed specifically for factory automation. Q-Class Library is included with Q-Message, providing support for object-oriented message interfaces. It also is available as a separate product to assist with application development. Q-Class Library contains classes, objects, and functions that are commonly required for process automation applications. Q-Class Library saves development time by eliminating the need to develop, test and support these unique functions.

**Q-Alive™** is software that maximizes the availability of your mission-critical applications. It continually monitors mission-critical applications and automatically switches to a backup processor if it detects an application or platform failure. Q-Alive is an essential part of any high availability computing infrastructure.

### *Queue Systems Professional Services*

*Project Management* services range from coordination with your in-house personnel to complete project oversight. Queue's extensive experience managing complex systems integration projects ensures that your project will satisfy all requirements and will be completed on time and within budget. We can assist you with a range of strategic planning, requirements analysis, and project scoping services.

*System Integration* services transform your project requirements into the final Supervisory Control and Data Acquisition (SCADA) or PIMS that fulfills your business objectives. Queue Systems analyzes and documents your system requirements, develops high level and detailed object models, and implements the object-oriented system software that results in a high performance, easily maintained solution. We have extensive experience in the development of interfaces for SCADA systems, PIMS, Manufacturing Execution Systems (MES), and Enterprise Resource Planning (ERP) systems. We support a range of SCADA and PIMS products from well known suppliers like Aspen Technology, OSI Software, Intellution, and Wonderware.

*System Documentation and Training* services help you to gain maximum benefit from your new or existing systems. Queue Systems' experienced documentation specialists develop operations and training materials for your specific needs. In addition, Queue can train your personnel to use the products implemented in your system.

**For more information contact our sales department**

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## Queue Systems, Inc.

*Providing Connectivity from the Shop Floor to the Board Room*