Informatica Ultra Messaging Persistence
Edition (Version 6.7.1)

Documentation Introduction

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Version 6.7.1
August 2014

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Table of Contents

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C H A P T E R   1

Introduction

This chapter includes the following topics:

Getting Started

See the *UM Quick Start Guide* to get started quickly using an Ultra Messaging binary distribution. This is the best starting place for those interested in performance measurement or for those interested in getting a feel for how Ultra Messaging works without actually writing any code.

Read About Ultra Messaging Concepts

Read *Ultra Messaging Concepts* to learn some of the fundamental concepts and features of Ultra Messaging. The *Ultra Messaging Manager Guide* shows you how to use the UMM GUI to more easily configure Ultra Messaging for your applications.

The Ultra Messaging Guide for Persistence presents concepts, tutorials, implementation and configuration information about Ultra Messaging persistence.

Review Example Source Code

After considering the examples in the *UM Quick Start Guide* and familiarizing yourself with Ultra Messaging concepts, we suggest digging right into more complex source code examples to see how to use Ultra Messaging. See the following examples:

- *examples of C source code*
- *Java source code examples*
- *.NET source code examples*

When you're ready to start writing your own code, you may want to start with `minsrc.c` and `minrcv.c` from the *Quick Start Guide*. Then cut and paste code from the more complicated examples mentioned above, such as `lbmprice.c`. It demonstrates not only the API usage, but also some common design patterns used with Ultra Messaging.

Browse API Reference Information

As you read through the code, refer to the following for details on the functions and data structures.

- *C Application Programming Interface*
- *Java Application Programming Interface*
- *.NET Application Programming Interface*

Review the Ultra Messaging Configuration Guide

Refer to the *UM Configuration Guide* to learn how to set configuration options in order to tune your messaging applications and make the most of your operating environment.

Access the Ultra Messaging Knowledgebase

Next skim through the UM Knowledgebase. It contains a wealth of excellent information.

C H A P T E R 2

UM Documentation Table of Contents

This chapter includes the following topic:

Overview

And more ... refer to the *Documentation Table of Contents* below for more helpful documents about Ultra Messaging.

Document	Description
Quick Start Guide	Step-by-step guide to running binary evaluation tools and to building minimal programs.
Ultra Messaging Concepts	Fundamental concepts behind Ultra Messaging.
The Ultra Messaging Guide for Persistence	Concepts, tutorials and configuration information for UMP along with discussions about designing persistent applications.
Ultra Messaging Manager Guide	Information about using the UMM GUI to create configuration templates, application configurations and assign applications to users. Also contains information about running the UMM daemon, `ummd`.
C Example Source Code	Source code for many complete example programs using the UM C API.
Java Example Source Code	Source code for many complete example programs using the UM Java API.
C# Example Source Code	Source code for many complete example programs using the UM .NET API.
C Application Programming Interface	Documentation for the UM C API
Java Application Programming Interface	Documentation for the UM Java API

Document	Description
.NET Application Programming Interface	Documentation for the UM .NET API (Note - the Windows doc package also contains a standard Windows help package for the .Net API. See LBMCS in the LBM program group.)
UMM Java Application Programming Interface	Documentation for the UM Manager Java API
UM Configuration Guide	A guide to the configuration options for Ultra Messaging and examples.
UM Knowledgebase	A collection of notes on Ultra Messaging. Includes a list of frequently asked questions (FAQ), articles answering common support questions, new hardware issues, source code examples and more.
UM Operations Guide	Contains monitoring strategies, troubleshooting information and error message descriptions for supporting the operation of Ultra Messaging.
Release Notes	This document contains important information about changes to Ultra Messaging.

CHAPTER 3

Ultra Messaging Code

This chapter includes the following topics:

Overview

Ultra Messaging code is organized into sub-directories by the Application Binary Interface (ABI) required. The following table shows the names of the code subdirectories, descriptions of the corresponding ABIs, the ABI reference test platforms, and example platforms that may also provide these ABIs.

The table also lists any Standard C++ Library dependencies for UNIX packages running the UMP store daemon. The `libstdc++` must also be included in LD_LIBRARY_PATH. Most linux distributions have a compatibility package that installs `libstdc++`, such as Red Hat Enterprise Linux™, CentOS™: `compat-libstdc++-33` or Ubuntu™: `libstdc++5:i386`.

ABI Directory Name	Description	Reference Platform	Example Platforms	UMP Standard C++ Library Dependencies
AIX-5-powerpc64	AIX 5 on Power PC	AIX 5.2 on eServer p5	UMP store daemon not supported	
HP-UX-B.11.31-LP64-ia64	Hewlett Packard Unix on Itanium 64-bit	HP-UX Itanium 64-bit		`libstdc++.so` (current=6)
Linux-glibc-2.3-i686	Linux kernel with glibc 2.3.y on x86	Fedora Core 1 on x86	Red Hat Enterprise 3.x &4.x, CentOS 3.x	`libstdc++.so.5`
Linux-glibc-2.3-x86_64	Linux kernel with glibc 2.3.y on x86_64	Red Hat Enterprise 3 on AMD Athlon64 or Intel Xeon	Red Hat Enterprise 4.x, CentOS 4.x	`libstdc++.so.5`

ABI Directory Name	Description	Reference Platform	Example Platforms	UMP Standard C++ Library Dependencies
Linux-glibc-2.5-x86_64	Linux kernel with glibc 2.5.y on x86_64	Red Hat Enterprise 5 on AMD Athlon64 or Intel Xeon	Red Hat Enterprise 5.x, CentOS 5.x	`libstdc++.so.6`
Linux-glibc-2.3-ia64	Linux kernel with glibc 2.3.y on IA64	CentOS 4.7 on IA64	CentOS 4.x	`libstdc++.so.6`
SunOS-5.10-amd64	SunOS 5.10 kernel on amd64	Solaris 2.10 on AMD Athlon64 or Intel Xeon		`libstdc++.so.6`
SunOS-5.10-i386	SunOS 5.10 kernel on x86	Solaris 2.10 on commodity server hardware		`---`
SunOS-5.10-sparc	SunOS 5.10 kernel on 32-bit SPARC	Solaris 2.10 on SPARC		`libstdc++.so.6`
SunOS-5.10-sparcv9	SunOS 5.10 kernel on 64-bit SPARC	Solaris 2.10 on SPARC		`libstdc++.so.6`
Win2k-i386	Win32 API on x86	Microsoft® Windows® XP on x86	Microsoft Windows 2000 on x86†, Microsoft Windows 7 on x86	`---`
Win2k-x86_64	Win 64-bit API on x86_64	Microsoft Windows XP on x86_64	Microsoft Windows 2003, Vista x64, Microsoft Windows 2008	`---`
nse-tandem-nskJ0617-IA64_LA64	HP NonStop® 64-bit on Itanium 64-bit	HP NonStop 64-bit		

Note: The IO completion ports feature requires Windows XP or later.

Note: ‡ The UMP persistent disk stores do not work on Red Hat Enterprise 3, but are known to work with Red Had Enterprise 4 and other 2.6 kernel based Linux distributions. The UMP persistent disk stores do work on Solaris 5.10, but not on previous Solaris versions.

Within each ABI directory, the `bin/`, `lib/`, and `include/` directories contain the binary files, library files, and include files respectively.

Unix Packages

The following Unix packages are self-extracting archives that contain the Ultra Messaging code for the corresponding platform/ABI. If you transfer these packages with `FTP`, you must use binary mode. For Linux,

select the package that matches your glibc. After download, make these files executable with the following command.

```
chmod +x *.sh
```

Run the archives from a central directory intended for Ultra Messaging products as in the following example.

```
mkdir Informatica
cd Informatica
../UMQ_5.3_Linux-glibc-2.3-ia64.sh
```

If you have multiple packages of different platforms and ABIs, and different releases, they can all reside in the same directory without conflict.

Java Packages

When downloading jar files, some browsers offer to open the file with a java application. Override this and save the jar files to disk. After downloading the appropriate jar files for your version of Java, save them in the directory where you normally keep your Java class and/or jar files.

Important: Please make certain that your Java API package version matches your base library Ultra Messaging version.

The Ultra Messaging Java API supports Java versions 1.5, 1.6, and 1.7.

Microsoft Windows Packages

The Microsoft® Windows® packages are standard installation executables which contain the Ultra Messaging code. These packages have dependencies on the Microsoft VC++ 2005 libraries. You must install the Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package MFC Security Update which contains runtime components of the Visual C++ Libraries.

Important: All current Ultra Messaging installation packages for Microsoft Windows might cause the install process to replace the value of the Windows Path system variable. This happens when the length of the variable string exceeds 1024 bytes before you install Ultra Messaging. See the Informatica Knowledge Base for more information.

HP NonStop Package

The HP NonStop® package is a self-extracting archive that contain the Ultra Messaging Persistence Edition code for the HP NonStop platform. If you transfer these packages with `FTP`, you must use binary mode.

Ultra Messaging supports HP NonStop Version J06-17.

The following UMP components and features do not run on the HP NonStop platform.

- Ultra Messaging daemons
  - Persistent Store (umestored)

- UM Router or UM Gateway (tngwd)

- Ultra Messaging Manager (ummd)

- Java API and .NET API

- UM transports LBT-IPC, LBT-RDMA, or LBT-SMX

- Accelerated Multicast

The following Ultra Messaging products do not run on the HP NonStop platform.

- Ultra Messaging Queuing Edition

- Ultra Messaging Desktop Services

- Ultra Messaging Cache

C H A P T E R 4

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This chapter includes the following topic:

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```
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------------

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THE BASIC LIBRARY FUNCTIONS
---------------------------

Written by:       Philip Hazel
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THE C++ WRAPPER FUNCTIONS
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