

FLEXlm[®] Release Notes

Version 9.2

Overview

These release notes contain the following sections:

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 - Version 9.2
 - Version 9.0
- Resolved Problems
 - Version 9.2
 - Version 9.0
- Platform Notes
- Copyright

Summary of Enhancements in Version 9.x

Version 9.2

FLEXLM LICENSE MANAGER EVENT LOGGING

- Support is available to log actionable FLEXlm license manager events via the Microsoft Windows event-logging service.
- For more information see the *FLEXlm Programmers Guide*.

INTERNATIONALIZATION SUPPORT FOR FLEXLM PARAMETER NAMES

- Internationalization support is now available for the full complement of FLEXlm parameters. FLEXlm v9.1 adds support for the following parameters:
 - Host names
 - User names
 - File names

These parameters can contain characters in any language and any codepage, including the UTF-8 encoding of Unicode.

- See the *FLEXlm Programmers Guide* for complete details regarding internationalization support in FLEXlm.

UNIVERSAL NAMING CONVENTION (UNC) SUPPORT IN FLEXLM

- FLEXlm recognizes path name specifications using the Universal Naming Convention (UNC). As an example, the UNC path name specification for lmgrd would be:
`\\myserver\c\Program Files\flexlm\i86_n3\lmgrd`

NEW OPTIONS FILE KEYWORDS

- GROUPCASEINSENSITIVE - controls case sensitivity for user name and hostname lists in GROUP or HOST_GROUP keywords.
- MAX_BORROW_HOURS - provides a way to change the maximum borrow period of a feature.
- For further details, see the *FLEXlm End Users Guide*.

NEW PLATFORM SUPPORT

- Support added for Red Hat Linux v9.0 on Intel x86 processors.

REVISED LMSTRIP UTILITY FOR WINDOWS PLATFORMS

- The utility, `lmstrip`, has been revised for Windows platforms.

NEW VENDOR DAEMON VARIABLE

- A new vendor daemon variable, `ls_hud_hostid_case_sensitive`, is introduced in this release. It provides case sensitivity control for `HOSTNAME`, `DISPLAY`, and `USER` hostid types in served, node-locked licenses.

Version 9.0**COMPOSITE HOSTIDS**

- A new hostid type, composite hostid, is provided in this release. A composite hostid allows the vendor to combine one or more FLEXlm simple hostids together, in a manner that is not apparent to the end user, providing a more secure hostid.
- A composite hostid can be used anywhere a simple hostid is used.
- Use `COMPOSITE=` for this hostid type in the license file.
- For more information, see the chapter entitled “Composite Hostids” in the *FLEXlm Reference Manual*.

NEW FLEXIBLE API FUNCTIONS

- `lc_borrow_return()`: this function provides support for early return of borrowed licenses.
 - This new FLEXible API function is used to return a borrowed license to the pool of available licenses before the borrow period expires.
 - Provides you with the means to include support for early return of borrowed licenses from your proprietary interface.
- `lc_init_simple_composite()`: this function initializes a composite hostid in the current job.
- See the *FLEXlm Reference Manual* for more information.

NEW ENVIRONMENT VARIABLE

- A new environment variable, `FLEXLM_TIMEOUT`, is introduced in this release. This variable sets the timeout value a FLEXlm-licensed application uses when attempting to connect to a license server port in the range 27000-27009. The default setting is 100000 microseconds.
- See the *FLEXlm End Users Guide* for more information.

SUPPORT FOR FLEXLM JAVA V9.0 (PACKAGED SEPARATELY)

- FLEXlm Java v9.0 (packaged separately) requires FLEXlm v9.0.

Resolved Problems

Version 9.2

Problem Number	Description
P6576	In certain circumstances, <code>lc_vsend()</code> does not connect to the second license server in a colon separated list of servers.
P6742	The utility, <code>lmstrip</code> , is not properly stripping some FLEXlm internal symbols. This causes subsequent linking to have unresolved references.
P7014	A checkout filter is called duplicate times, in some circumstances, for the same license file line when license file is accessed via <code>port@host</code> . This causes undefined results for the FLEXlm-enabled application.
P7190	Contrary to the documentation, the value of a <code>HOSTNAME</code> <code>hostid</code> is treated as case sensitive.
P7266	A request to borrow one or more package components fails if the package uses CRO authentication.
P7341	The license server does not append to an existing debug log, if configured to do so, if started as a service at boot time.
P7342	When using <code>lc_auth_data()</code> on a <code>FEATURE/INCREMENT</code> line within a <code>PACKAGE</code> , the <code>NOTICE=</code> field is returned as <code>NULL</code> .
P7359	When <code>ls_use_all_feature_lines</code> is set to 1, multiple <code>FEATURE</code> lines for a given feature within a <code>PACKAGE</code> are ignored.
P7404	The options file keyword, <code>BORROW_LOWWATER</code> , incorrectly evaluates the number of available licenses for borrowing.
P7148	When a queued license request is made to a component of a package suite, the request pends forever.

Version 9.0

Problem Number	Description
P6140	FLEXlm gives an invalid license error in some circumstances where a decimal license is used inside of a <code>START_LICENSE/END_LICENSE</code> block.
P6380	<code>lmnewlog</code> returns failure even though report logs were successfully switched.
P6594	With identically named features from different vendors, a <code>SUPERSEDE</code> line affects the feature from the wrong vendor.
P6666	The <code>UPGRADE</code> keyword does not follow the standard license-file sorting rules.
P6931	A request for an early-borrowed-license-return FLEXible API function.

Problem Number	Description
P6960	With one node-locked and one floating license for the same feature, FLEXlm always looks at the node-locked license first. If it is denied, it won't continue to check out the floating license.
P6984	In some instances, queued license requests are not dequeued when the licenses become available.
P7000	The command line help for <code>lmgrd</code> does not match the documentation.
P7001	The command line help for <code>lmstat</code> does not match the documentation.
P7008	FLEXlm gives an invalid license error if the first word after a continuation character inside a quoted string is a license keyword.
P7034	An application with a borrowed license continues to run after the license has expired.
P7054	On Windows Itanium platforms, a checkout request specifying the <code>LM_CHECK_BADDATE</code> policy modifier crashes the application.
P7067	The <code>lmremove</code> command does not give the appropriate error message for a feature that was not checked out.
P7082	The <code>EXCLUDEALL</code> and <code>INCLUDEALL</code> options file keywords do not have an effect.
P7101	Cannot return a borrowed license early if a semicolon (;) is used to delimit multiple pathnames in <code>LM_LICENSE_FILE</code> or <code>VENDOR_LICENSE_FILE</code> .
P7106	<code>lc_hostid()</code> is undefined in <code>lmgr8c.dll</code> .
P7113	A Windows service not able to create a <code>C:\Documents and Settings\All Users\Application</code> folder with SafeCast installed.
P7118	When the <code>LM_CO_QUEUE</code> policy is specified in <code>lc_checkout()</code> and a checkout data string is set, a subsequent checkin labeled with the checkout data string can fail in some circumstances.

Platform Notes

The following operating systems are supported in this version of FLEX/m®. See “Detailed Platform Information” for more information on each platform.

Operating System	Hardware Platform
AIX 32-bit	<ul style="list-style-type: none"> PowerPC general PowerPC, RS6000
AIX 64-bit	<ul style="list-style-type: none"> PowerPC, RS6000
Compaq Tru64 UNIX	<ul style="list-style-type: none"> DEC Alpha
DEC Alpha OSF	<ul style="list-style-type: none"> DEC Alpha
HP-UX 32-bit	<ul style="list-style-type: none"> Intel Itanium HP 32-bit
HP-UX 64-bit	<ul style="list-style-type: none"> Intel Itanium HP 64-bit
Intel FreeBSD	<ul style="list-style-type: none"> Intel x86
IRIX 32-bit	<ul style="list-style-type: none"> SGI 32-bit
IRIX 64-bit	<ul style="list-style-type: none"> SGI 64-bit
Mac OS	<ul style="list-style-type: none"> PowerPC
Microsoft Windows 95/98/NT/2000/XP/ME	<ul style="list-style-type: none"> Intel x86
Microsoft Windows XP Professional, Win 64, Windows 2000 Server, Windows Server 2003	<ul style="list-style-type: none"> Intel Itanium
Red Hat Linux	<ul style="list-style-type: none"> DEC Alpha Intel x86 Intel Itanium
Siemens Nixdorf RM400 Sinux	<ul style="list-style-type: none"> Siemens Nixdorf RM400 (mips)
Solaris 32-bit	<ul style="list-style-type: none"> Sun 32-bit Intel x86
Solaris 64-bit	<ul style="list-style-type: none"> Sun 64-bit

Detailed Platform Information

The following sections list the operating systems and their associated hardware platforms for which support is provided by FLEXlm. Each platform entry contains the following information:

- Platform
The specific hardware platform for which support is provided.
- OS
The specific operating system version or versions supported on the platform.
- FLEXlm platform name
This code specifies both the binary base name of the installer and the installation folder that contains the platform-specific FLEXlm components.
- Built with
The compilation and linkage command lines used to build the FLEXlm client library and other components included in the Software Development Kit.
- Notes
Additional notes and caveats specific to that platform, which are useful for developing your FLEXlm-enabled product.

AIX 32-BIT

Platform:	PowerPC, RS6000
OS:	AIX 3.2 to 4.3
FLEXlm Platform name:	rs6000_u3
Built with:	cc: /bin/cc -D_BSD -D_BSD_INCLUDES link: /bin/cc -lbsd
Notes:	<ul style="list-style-type: none"> • Multi-threaded heartbeats not supported.
Platform:	PowerPC, RS6000
OS:	AIX 4.x or higher
FLEXlm Platform name:	ppc_u4
Built with:	/bin/cc -DRS6000 -D_BSD -D_BSD_INCLUDES -DAIX_PPC
Notes:	<ul style="list-style-type: none"> • <code>uname -a: AIX sysxxx 1 4 00FFFFFF4D00</code>

AIX 64-BIT

Platform:	PowerPC, RS6000
OS:	AIX 4.3 to 5.x
FLEX/m Platform name:	rs64_u4
Built with:	cc: /bin/cc -DRS64 -DRS6000 -D_BSD \ -D_BSD_INCLUDES -qnoIm -q64 link: /bin/cc -lbsd -q64 -lpthreads
Notes:	<ul style="list-style-type: none"> • <code>uname -a: AIX sysxxx 3 4 000687724C00</code> • You have to use <code>ar -x64</code> and <code>strip -x64</code> on this platform. • Older 32-bit binaries run fine on this OS. • Multi-threaded heartbeats not supported.

Platform:	PowerPC, RS6000
OS:	AIX 5L 5.0 or higher
FLEX/m Platform name:	rs64_u5
Built with:	cc: -DAIX5 -DRS64 -DRS6000 -D_BSD \ -D_BSD_INCLUDES -qnoIm -q64 link: -lbsd -q64 -lpthreads
Notes:	<ul style="list-style-type: none"> • <code>uname -a: AIX sysxxx 1 5 000687724C00</code> • You have to use <code>ar -x64</code> and <code>strip -x64</code> on this platform. • Older 32-bit binaries run fine on this OS. • Multi-threaded heartbeats not supported.

COMPAQ TRU64 UNIX

Platform:	DEC ALpha
OS:	OSF 3.2 or higher
FLEX/m Platform name:	alpha_u3
Built with:	/usr/bin/cc -std -DDEC_UNIX_3
Notes:	<ul style="list-style-type: none"> • <code>uname -a: OSF1 sysxxx V3.2 17 alpha</code>

DEC ALPHA OSF

Platform: DEC ALpha

OS: OSF 3.2 or higher

FLEX/m Platform name: alpha_u3

Built with: `cc: /usr/bin/cc -std -DDEC_UNIX_3`

Notes:

- `uname -a`: OSF1 sysxxx V3.2 17 alpha

HP-UX 32-BIT

Platform: HP 32-bit

OS: HP-UX 10.20 to 11.20

FLEX/m Platform name: hp700_u10

Built with: `cc: /bin/cc -Aa -D_HIUX_SOURCE -D_HPUX_SOURCE +DA1.0 +DS1.0`

Notes:

- `uname -a`: HP-UX sysxxx B.10.20 A 9000/715 2005771344
- Hostid note: we no longer recommend using ethernet address as a hostid. It may fail on some HP-UX 11.x systems.
- No multi-threaded heartbeat support (use hp700_u11 if needed)

Platform: HP 32-bit

OS: HP-UX 11.20 or higher

FLEX/m Platform name: hp700_u11

Built with: `cc: /bin/cc -Aa -D_HIUX_SOURCE -D_HPUX_SOURCE +DA1.0 +DS1.0`

Notes:

- `uname -a`: HP-UX sysxxx B.11.00 A 9000/780 2013810305
two-user
- Hostid note: we no longer recommend using ethernet address as a hostid. It may fail on some HP-UX 11.x systems.

Platform: Intel Itanium

OS: HP-UX 11.20 or higher

FLEX/m Platform name: it32_hp11

Built with: `cc: /bin/cc -DHP -DHP64 -DHPINTEL_64
-D_HIUX_SOURCE-D_HPUX_SOURCE +DD64`

Notes:

- `uname -a:`

```
HP-UX sysxxx B.11.20 U ia64 2625004313
unlimited-user license
```
- **hostid note:** Use `lmhostid` from the FLEX/m platform directory to determine the hostid. This returns the machine identification and is equivalent to the identification returned by the HP-UX command:

```
getconf CS_PARTITION_IDENT
```
- **For example:**

```
> lmhostid
> The FLEX/m host ID of this machine is
"ID_STRING=9c766319-db72-d411-af62- 0060b05e4c05"
```
- **Older methods of obtaining the hostid which return the ethernet address are still supported, but may fail on some systems. The older methods include:**

```
> uname -i (returns decimal hostid)
2625004313
> lmhostid -long (returns hexadecimal hostid)
The FLEX/m host ID of this machine is
"9c766319"
```

HP-UX 64-BIT

Platform: HP 64-bit

OS: HP-UX 11.00 or higher

FLEX/m Platform name: hp64_u11

Built with: `cc: /bin/cc -D_HIUX_SOURCE -D_HPUX_SOURCE
+DA2.0W +DS2.0W`

Notes:

- `uname -a:` `HP-UX sysxxx B.11.00 A 9000/780
2013810305 two-user license`

Platform: Intel Itanium

OS: HP-UX 11.20 or higher

FLEX/m Platform name: it64_hp11

Built with: `cc: /bin/cc -DHP -DHP64 -DHPINTEL_64
-D_HIUX_SOURCE -D_HPUX_SOURCE +DD64`

Notes:

- `uname -a:`

```
HP-UX sysxxx B.11.20 U ia64 2625004313
unlimited-user license
```
- **hostid note:** Use `lmhostid` from the FLEX/m platform directory to determine the hostid. This returns the machine identification and is equivalent to the identification returned by the HP-UX command:

```
getconf CS_PARTITION_IDENT
```
- **For example:**

```
> lmhostid
> The FLEX/m host ID of this machine is
"ID_STRING=9c766319-db72-d411-af62- 0060b05e4c05"
```
- **Older methods of obtaining the hostid which return the ethernet address are still supported, but may fail on some systems. The older methods include:**

```
> uname -i (returns decimal hostid)
2625004313
> lmhostid -long (returns hexadecimal hostid)
The FLEX/m host ID of this machine is
"9c766319"
```

INTEL FREEBSD

Platform: Intel x86

OS: FreeBSD 3.4 or higher

FLEX/m Platform name: i86_f3

Built with: `cc: /usr/bin/cc
link: -pthread`

Notes:

- This is the FreeBSD platform. We no longer support i86_f2, which is incompatible with i86_f3. i86_f3 however, is completely compatible with i86_f4 (freebsd 4.x)
- `uname -a:`

```
FreeBSD sysxxx 3.4-RELEASE FreeBSD 3.4
-RELEASE #0: Mon Dec 20 06:54:39 GMT 1999
jkh@time.cdrom.com:/usr/src/sys/compile/
GENERIC i386
```

IRIX 32-BIT

Platform: SGI 32-bit

OS: IRIX 6.2 or higher

FLEX/m Platform name: sgi32_u6 (mips3)
sgio32_u6 (-o32 compiler option, for mips2)

Built with: cc: /bin/cc -DSGI6 -DSGI32 -DSGI {-n32 -mips3 | -o32 }
link: /bin/cc {-n32 -mips3 | -o32 } -lpthread

Notes:

- `uname -a`: IRIX sysxxx 6.2 03131015 IP22
- Note that -o32 format is in liblmgrr_o32.a in the platform directory.

IRIX 64-BIT

Platform: SGI 64-bit

OS: IRIX 6.5 or higher

FLEX/m Platform name: sgi64_u6

Built with: cc: /bin/cc -DSGI6 -DSGI -DSGI64 -64 -mips3
link: /bin/cc -64 -mips3 -lpthread

Notes: `uname -a`: IRIX64 sysxxx 6.5 05190003 IP26

MAC OS

Platform: PowerPC

OS: Mac OS X 10.1 or higher

FLEX/m Platform name: ppc_mac10

Built with: cc: /usr/bin/cc

Notes:

- `uname -a`:


```
Darwin sysxxx 1.4 Darwin Kernel Version 1.4:
  Sun Sep 9 15:39:59 PDT 2001;
  root:xnu/xnu-201.obj~1/RELEASE_PPC
  Power Macintosh powerpc
```

MICROSOFT WINDOWS 95/98/NT/2000/XP/ME

Platform:	Intel x86
OS:	Windows 95/98/NT/2000/XP/ME
FLEXlm Platform name:	i86_n3 (installer name is flexlm.exe)
Built with:	cl: Microsoft Visual C++ v6
Notes:	<ul style="list-style-type: none"> • genlic GUI license generator utility support not available, please use lmcrypt or makekey command-line utilities. • FLEXlock changes have occurred in this release of FLEXlm. Please see <i>FLEXlm Programmers Guide</i> for additional information.

MICROSOFT WINDOWS XP PROFESSIONAL, WIN 64, WINDOWS 2000 SERVER, WINDOWS SERVER 2003

Platform:	Intel Itanium
OS:	Windows XP Professional, 64-bit, Microsoft 2000 server, or Microsoft Server 2003
FLEXlm Platform name:	it64_n (installer name is flexlmia64.exe)
Built with:	<ul style="list-style-type: none"> • Microsoft Platform SDK July 2002, 64-bit • Microsoft C/C++ compiler version 13.10.2154.8 for IA-64 • Microsoft Incremental Linker version 7.10.2154.8 • Microsoft Program Maintenance Utility version 7.10.2154.8
Notes:	<ul style="list-style-type: none"> • Itanium CPU B3 Stepping or greater • BIOS Firmware revision 89 or greater • Memory RAM, 500 MB or greater • Hard Disk, 25 MB space free or greater • genlic GUI license generator utility support not available, please use lmcrypt or makekey command-line utilities. • Parallel or USB Dongle (FLEXid) support not available. • CPU Serial number support (Pentium III) not available on Itanium Chip. • The following situation can occur while building a vendor daemon in it64_n: <pre> if exist lm_new.c del lm_new.c lmnewgen.exe demo.exe -o lm_new.c Verify failed, 0xc6f8 != 0x30f8NMAKE : fatal error U1077: 'lmnewgen.exe' : return code '0xffffffff' Stop. </pre>

The workaround for this error is to run nmake again. This error may occur many times before a successful build.

RED HAT LINUX

Platform:	DEC Alpha
OS:	Red Hat Linux 6.2 or higher
FLEX/m Platform name:	alpha_r6
Built with:	cc: /usr/bin/cc -DLINUX -DALPHA_LINUX
Notes:	<ul style="list-style-type: none"> • <code>uname -a: Linux sysxxx 2.2.14-6.0 #1 Tue Mar 28 16:56:56 EST 2000 alpha unknown</code>
Platform:	Intel x86
OS:	Red Hat Linux 5.2 or higher
FLEX/m Platform name:	i86_g2 - Red Hat 5 i86_r6 - Red Hat 6 i86_r9 - Red Hat 9
Built with:	cc: /usr/bin/cc -DLINUX -DGLIBC -DREDHAT
Notes:	<ul style="list-style-type: none"> • <code>uname -a: Linux sysxxx 2.2.5-15 #1 Mon Apr 1922:21:09 EDT 1999 i586 unknown</code> • i86_g2 binaries will run fine on Red Hat 6, but mixing objects and libraries between Red Hat 5 and 6 will not behave correctly when linked and run,. • Multi-threaded heartbeats supported with Red Hat 6 and Red Hat 9 only.
Platform:	Intel Itanium
OS:	Red Hat Linux 7.0 or higher
FLEX/m Platform name:	it64_lr2
Built with:	cc: /usr/bin/gcc -DLINUX -DLINUX64 -DRHLINUX64
Notes:	<ul style="list-style-type: none"> • <code>uname -a: Linux sysxxx 2.4.0-0.43smp #1 SMP Mon Dec 4 18:37:06 EST 2000 ia64 unknown</code>

SCO UNIXWARE

Platform: Intel x86

OS: UnixWare 3.2 to 7.5

FLEX/m Platform name: sco_u3

Built with: cc: /bin/cc

Notes:

- If CRO is used, you will get lots of warnings during link. These are harmless and should be ignored.
- Multi-threaded heartbeats not supported.

Platform: Intel x86

OS: UnixWare 7.5 or higher

FLEX/m Platform name: i86_u7

Built with: cc: /bin/cc -DSCO -DSCO5

Notes:

- `uname -a: UnixWare sysxxx 5 7 i386 x86at SCO UNIX_SVR5`

SIEMENS NIXDORF RM400 SINUX

Platform: Siemens Nixdorf RM400 (mips)

OS: SINIX-N 5.41 or higher

FLEX/m Platform name: rm400_u5

Built with: cc: /bin/cc -Dsinix -DSINIX -DSINIX_MIPS
link: /bin/cc -lsocket -lnsl

Notes:

- `uname -a: SINIX-N sysxxx 5.41 C0005 RM400 1/64 R3000`

SOLARIS 32-BIT

Platform:	Intel x86
OS:	Solaris 2.4 or higher
FLEX/m Platform name:	i86_x5
Built with:	cc: /bin/cc -DSUNOS5 -Dsun
Notes:	<ul style="list-style-type: none"> • <code>uname -a: SunOS sysxxx 5.4 generic i86pc i386</code>
Platform:	Sun 32-bit
OS:	Solaris 2.5 to 2.6
FLEX/m Platform name:	sun4_u5
Built with:	cc: /usr/ucb/cc -DSUNOS5 link: /usr/ucb/cc -lsocket -lnsl -lintl -lpthread
Notes:	<ul style="list-style-type: none"> • <code>uname -a: SunOS sysxxx 5.5 Generic_103093-27 sun4m sparc SUNW,SPARCstation-4</code> • Supports synchronous I/O multiplexing, via <code>select()</code>, for up to 1024 file descriptors.
Platform:	Sun 32-bit
OS:	Solaris 2.7 or higher
FLEX/m Platform name:	sun4_u7
Built with:	cc: /opt/SUNWspro/SC5.0/bin/cc -DSUNOS5 -DFD_SETSIZE=65535 link: /opt/SUNWspro/SC5.0/bin/cc -lsocket -lnsl \ -lintl -lpthread
Notes:	<ul style="list-style-type: none"> • <code>uname -a: SunOS ultra5 5.7 Generic_106541-17 sun4u sparc SUNW,Ultra-5_10</code> • Supports synchronous I/O multiplexing, via <code>select()</code>, for up to 65535 file descriptors.

SOLARIS 64-BIT

Platform:	Sun 64-bit
OS:	Solaris 2.7 or higher
FLEX/m Platform name:	sun64_u5
Built with:	<code>cc: /usr/ucb/cc -DSUNOS5 -DSUN64 -xarch=v9</code> <code>link: /usr/ucb/cc -lsocket -lnsl -lintl -xarch=v9</code> <code>-xildoff -lpthread</code>
Notes:	<ul style="list-style-type: none">• <code>uname -a: SunOS sysxxx 5.7 Generic_106541-02 sun4u</code> <code>sparc SUNW,Ultra-5_10</code>• Older, 32-bit binaries run fine on this OS.

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