

# FEATURE settings

*The information on this page refers to LM-X v5.0 and newer, which added the upgrade license type. If you are using an older version of LM-X, refer to [documentation for earlier versions](#).*

As a minimum requirement, each feature must have a name. All other feature settings are optional. The syntax for settings is `<SETTING tagname="value">`. All strings in settings are empty by default and version numbers default to 1.0.

The following is a list of valid values that can be used in `<FEATURE>` tags. This section contains only information for setting each feature. For full descriptions of feature settings, see [Feature descriptions](#).

Value	Usage
<b>Required Settings</b>	
<code>FEATURE="feature_name"</code>	<p>Specify the feature name.</p> <p>The specified value is case-insensitive and may be up to 64 characters in length. Feature names must consist of only letters, numbers, underscores and dashes, and cannot contain spaces.</p> <p>Example:</p> <pre>&lt;FEATURE="F1"&gt;   &lt;SETTING MAJOR_VERSION="2" /&gt;   &lt;SETTING MINOR_VERSION="1" /&gt;... &lt;/FEATURE&gt;</pre>
<b>General License Information Settings</b>	
<code>MAJOR_VERSION="version number"</code>	<p>Specify the major version of the feature. If no version number is set, the version number defaults to 1.</p> <p>Example:</p> <pre>&lt;SETTING MAJOR_VERSION="2" /&gt;</pre>
<code>MINOR_VERSION="version number"</code>	<p>Specify the minor version of the feature. If no version number is set, the version number defaults to 0.</p> <p>Example:</p> <pre>&lt;SETTING MINOR_VERSION="5" /&gt;</pre>
<code>LICENSEE="customer name"</code>	<p>Specify the LICENSEE field (customer name) in the license.</p> <p>Example:</p> <pre>&lt;SETTING LICENSEE="ABC Inc." /&gt;</pre>
<code>START="YYYY-MM-DD"</code>	<p>Specify the license activation date in YYYY-MM-DD format.</p> <p>Example:</p> <pre>&lt;SETTING START="2014-01-25" /&gt;</pre>
<code>END="YYYY-MM-DD"</code>	<p>Specify the license expiration date in YYYY-MM-DD format.</p> <p>The specified date may be up to 9999-12-31.</p> <p>Example:</p> <pre>&lt;SETTING END="2015-01-25" /&gt;.</pre>
<code>MAINTENANCE_START="YYYY-MM-DD"</code>	<p>Specify the license maintenance start date in YYYY-MM-DD format.</p> <p>Example:</p> <pre>&lt;SETTING MAINTENANCE_START="2014-01-25" /&gt;</pre>
<code>MAINTENANCE_END="YYYY-MM-DD"</code>	<p>Specify the license maintenance end date in YYYY-MM-DD format.</p> <p>The specified date may be up to 9999-12-31.</p> <p>Example:</p> <pre>&lt;SETTING MAINTENANCE_END="2015-01-25" /&gt;</pre>

ISSUED="YYYY-MM-DD"	<p>Specify the license issue date in YYYY-MM-DD format.</p> <p>The special keyword "TODAY" can be used to set the current date.</p> <p>Example:</p> <pre>&lt;SETTING ISSUED="2014-01-25" /&gt;</pre>
DATA="custom data"	<p>Set the DATA field (custom data) in the license.</p> <p>Optional field for specifying a comment, such as additional licensing options and additional licensing restrictions. This field is not evaluated during the generation of the KEY checksum; therefore, you can edit the DATA field values without needing to generate a new key.</p> <p>Example:</p> <pre>&lt;SETTING DATA="My custom data" /&gt;</pre>
COMMENT="product description"	<p>Specify the COMMENT field (product description) in the license. (<b>Note:</b> This field is the same as the OPTIONS field.)</p> <p>The specified value is validated in the key, so it is protected from tampering.</p> <p>Example:</p> <pre>&lt;SETTING COMMENT="My software product description" /&gt;</pre>
OPTIONS="licensing options"	<p>Specify the OPTIONS field (licensing options) in the license. (<b>Note:</b> This field is the same as the COMMENTS field.)</p> <p>The specified value is validated in the key, so it is protected from tampering.</p> <p>Example:</p> <pre>&lt;SETTING OPTIONS="My option" /&gt;</pre>
REPLACES="feature name or license key"	<p>Specify the REPLACES field in the license.</p> <p>A license can be replaced by specifying the feature name or the license key.</p> <p>Multiple entries are separated by commas.</p> <p>Example:</p> <pre>&lt;SETTING REPLACES="FEATURE=F1" /&gt; or &lt;SETTING REPLACES="KEY=0fNzdLhI5MJGgDyJV... " /&gt;</pre>
KEYCOMMENT="my text"	<p>Set the KEYCOMMENT field (raw data) in the license.</p> <p>The specified value is hidden inside the KEY field in the generated license.</p> <p>Example:</p> <pre>&lt;SETTING KEYCOMMENT="My comment" /&gt;</pre>
PLATFORMS="platform strings"	<p>Specify a single platform or a subset of platforms to which license usage will be restricted.</p> <p>Multiple entries are separated by spaces.</p> <p>See <a href="#">PLATFORMS</a> for more details, including a list of platform keywords.</p> <p>Example:</p> <pre>&lt;SETTING PLATFORMS="Win32_x86 Linux_x64" /&gt;</pre>
TIME_ZONES="GMT offset values"	<p>Specify the time zones in which to limit license usage relative to GMT.</p> <p>Time zones earlier than GMT use a minus sign preceding the number (for example, an entry of "-1" specifies the time zone GMT -01:00). Multiple entries are separated by commas.</p> <p>Example:</p> <pre>&lt;SETTING TIME_ZONES="1,-4,-5,-6,-7,-8" /&gt;</pre>
Settings for Network Licenses	

COUNT= <i>"number of network licenses"</i>	<p>Set the license count to the specified number, making this a network license that requires a license server.</p> <p>The license count can be up to 2147483647 (the 32-bit integer limit). The count can alternatively be set to "UNLIMITED," which creates a network license with no upper limit.</p> <p>Example:</p> <pre>&lt;SETTING COUNT="10" /&gt;</pre>
TOKEN_DEPENDENCY= <i>"FEATURE=product_name VERSION=version_number COUNT=number of network licenses to fulfill token-based license checkout requests"</i>	<p>Define the license as token-based, and specify the real license upon which the token-based license is dependent, including the real product's name, version number, and number of licenses required to fulfill checkout requests for the token-based license.</p> <p>This setting must be used together with KEYTYPE="TOKEN" and is used in place of the COUNT setting. The value for COUNT used within this setting can be up to 2147483647 (the 32-bit integer limit).</p> <p>Example:</p> <pre>&lt;SETTING TOKEN_DEPENDENCY="FEATURE=realproduct VERSION=1.5 COUNT=5" /&gt;</pre>
KEYTYPE="EXCLUSIVE/ADDITIVE/UPGRADE/TOKEN"	<p>Used for network licenses only. Enable the license type for a network license to be:</p> <ul style="list-style-type: none"> <li>• <a href="#">Exclusive</a> - the default network license type; used with COUNT for a regular network license</li> <li>• <a href="#">Additive</a> - used with COUNT to add a license pool alongside an exclusive network license</li> <li>• <a href="#">Upgrade</a> - used with COUNT to add licenses to an exclusive network license</li> <li>• <a href="#">Token-based</a> - used with TOKEN_DEPENDENCY for a token-based license</li> </ul> <p>Example:</p> <pre>&lt;SETTING KEYTYPE="UPGRADE" /&gt;</pre>
SN= <i>"serial number"</i>	<p>Set the SN field (custom serial number) in the license.</p> <p>The special keyword "RANDOM" can be used to specify a random serial number in the format AAAA-BBBB-CCCC-DDDD, output as hexadecimal characters.</p> <p>Example:</p> <pre>&lt;SETTING SN="RANDOM" /&gt;</pre>
SOFTLIMIT= <i>"number of network licenses"</i>	<p>Enable segmentation of the license count. The number of licenses must be less than that specified for the COUNT field.</p> <p>Example:</p> <pre>&lt;SETTING SOFTLIMIT="8" /&gt;</pre>
HAL_SERVERS= "3"	<p>Enable redundant servers, known as high availability licensing (HAL). Using HAL requires the end user to have a set of 3 license servers, so the HAL_SERVERS setting is set to 3.</p> <p>See <a href="#">HAL_SERVERS (redundant servers)</a> for more information.</p>
BORROW= <i>"hours"</i>	<p>Enable the license borrow time for a network license up to the specified number of hours, from 1 to 8760 hours (1 year).</p> <p>Example:</p> <pre>&lt;SETTING BORROW="168" /&gt;</pre>
GRACE= <i>"hours"</i>	<p>Enable the license grace time for a network license, from 1 to 168 hours (7 days).</p> <p>Example:</p> <pre>&lt;SETTING GRACE="48" /&gt;</pre>

HOLD=" <i>seconds</i> "	<p>Enable the license hold time (time before licenses are checked in) for a network license, from 1 to 31536000 seconds (1 year).</p> <p>Example:</p> <pre>&lt;SETTING HOLD= "60 " /&gt;</pre>
USERBASED=" <i>number of user-based licenses</i> "	<p>Specify a number of licenses that will be available only to named users. The number of licenses can be up to 2147483647 (the 32-bit integer limit). The number can alternatively be set to "ALL," which reserves all licenses. This setting may be used only with network licenses.</p> <p>Example:</p> <pre>&lt;SETTING USERBASED= "10 " /&gt;</pre>
HOSTBASED=" <i>number of host-based licenses</i> "	<p>Specify a number of licenses that will be available only to named hosts. The number of licenses can be up to 2147483647 (the 32-bit integer limit). The number can alternatively be set to "ALL," which reserves all licenses.</p> <p>This setting may be used only with network licenses.</p> <p>Example:</p> <pre>&lt;SETTING HOSTBASED= "5 " /&gt;</pre>
<b>License Share Settings</b>	
<p><b>Note:</b> For network licenses, HOST, USER, CUSTOM and VIRTUAL sharing can be used together. For local licenses, TERMINALSERVER and VIRTUAL can be used together. When combining multiple share options, separate them with a vertical bar (   ); for example, SHARE = HOST USER CUSTOM.</p>	
SHARE="HOST"	For counted network licenses, enable license sharing amongst multiple processes running on the same host. If you combine this with another share option, sharing is enabled only if the combination matches (for example, HOST+USER).
SHARE="USER"	For counted network licenses, enable license sharing amongst processes running as the same user on multiple hosts. If you combine this with another share option, sharing is enabled only if the combination matches (for example, USER+HOST).
SHARE="CUSTOM"	For counted network licenses, enable license sharing amongst processes running with the same custom sharing criteria. If you combine this with another share option, sharing is enabled only if the combination matches (for example, CUSTOM+USER).
SHARE="TERMINALSERVER"	For local licenses, enable application license sharing for remote terminal server clients. If this flag is not used, terminal server clients cannot check out local licenses.
SHARE="SINGLE"	For local licenses, enable application license sharing to limit checkouts to one instance of a feature across multiple sessions.
SHARE="VIRTUAL"	Enable application usage with virtual machines. If this flag is not used, checkout requests for local licenses are denied and license servers will refuse to load the license.
<b>Additional Security Settings</b>	
SYSTEMCLOCKCHECK="LOCAL/INTERNET/FALSE"	<p>Specify the system clock check performed by the client application and license server. You can set this value to LOCAL to check the clock against the local file system (the default) or to INTERNET to check the clock against a remote Network Time Protocol (NTP) time server. Setting the value to FALSE disables the system clock check.</p> <p>Example:</p> <pre>&lt;SETTING SYSTEMCLOCKCHECK= "LOCAL " /&gt;</pre>

HOSTID_MATCH_RATE=" <i>match rate percentage</i> "	<p>Specify a HostID match rate for the license feature. Possible values are 0 to 100. The default value is 100.</p> <p>See <a href="#">HOSTID_MATCH_RATE</a> for more information about using HostID match rate.</p> <p>Example:</p> <pre>&lt;SETTING HOSTID_MATCH_RATE="50" /&gt;</pre>
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