

# LM-X Developer utility

## Overview

The LM-X Developer utility (`lmxddev`) is an essential utility within the LM-X License Manager SDK, primarily used during the development and build processes. This utility facilitates creating, embedding, and verifying security configuration files and licensing information, ensuring that the security and licensing features are integrated seamlessly into your applications.

## Purpose

The LM-X Developer utility is designed to assist developers in managing and implementing security configurations and license management features effectively. By automating the inclusion of these elements, the LM-X Developer utility helps maintain consistency and integrity across different builds and deployments. The LM-X Developer utility is a powerful utility that enhances the security and licensing capabilities of software developed using the LM-X SDK, providing you with robust utilities to manage and secure your applications effectively.

## Usage

Usage details for `lmxddev`, including command line options and examples, are detailed below.

### Command line options

The `lmxddev` utility includes the following commands for specific development needs related to security and licensing.

Command-line option	Description
<code>-genconfig filename</code>	Generates an LM-X security configuration file, specified by <i>filename</i> , that contains developer-specific security parameters
<code>-embedlicense license_file target_file</code>	Embeds an LM-X License Manager license from the specified <i>license_file</i> into the license server executable or the client library specified by <i>target_file</i>
<code>-embedsecurityconfig config_file target_file</code>	Embeds a security configuration from the specified <i>config_file</i> into the license server executable or the client library specified by <i>target_file</i>
<code>-verifysecurityconfig file</code>	Verifies that the security configuration is properly embedded in the specified <i>file</i>

### Extended command features

For advanced security needs, the `lmxddev` utility also includes the following extended commands.

Command-line option	Description
<code>-embedsecurityconfigext config_file target_file</code>	Extends the usage of <code>-embedsecurityconfig</code> (described above) to allow embedding of additional security elements such as private keys
<code>-verifysecurityconfigext file</code>	Extends the usage of <code>-verifysecurityconfig</code> (described above) to include the verification of embedded private keys in addition to the security configuration

## Example usage

### Generating a security configuration file

To generate a security configuration file, use `lmxddev` as shown in the following example.

```
$ ./lmxddev -genconfig ../config/security_config.lmx
LM-X Developer Utility v5.5.6
Copyright (C) 2002-2024 X-Formation. All rights reserved.

Please wait while a configuration file is being created...
#####
File ../config/security_config.lmx successfully written...
```

### Embedding a license file

To embed a license file, use `lmxddev` as shown in the following example.

```
$ ./lmxdev -embedlicense ../config/lmx.lic ./liblmx.so
LM-X Developer Utility v5.5.6
Copyright (C) 2002-2024 X-Formation. All rights reserved.

License file successfully embedded!
```

## Verifying security configuration

To verify the security configuration, use lmxdev as shown in the following example.

```
$ ./lmxdev -verifysecurityconfig ../config/security_config.lmx ./liblmx.so
LM-X Developer Utility v5.5.6
Copyright (C) 2002-2024 X-Formation. All rights reserved.

Public security configuration is verified.
```