

**Analog Devices, Inc.
Hex-to-Binary LIN-downloadable File Generator
Command Line Version**

Date: 22nd May 2007

Version: 3.0

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Disclaimer

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Purpose

This document describes a utility that converts Intel Hex Format (.hex) files into a binary data format, which can then be interpreted by the respective CANoe.LIN configuration for Flash/EE programming via LIN. This "*Binary LIN-downloadable File Generator*" (called "*BLFGenee*" for short) is intended only for use in conjunction with either of the following two CANoe.LIN configurations:

- "Protocol4FlashEEProgramming.cfg"
- "Protocol6FlashEEProgramming.cfg"

This is a draft document and is subject to change.

Overview

This *BLFGenee* utility is executed from the DOS command line, enabling the user to convert an Intel Hex Format file into a binary format file. The user must specify five arguments/parameters on the command line:

1. The name of the utility executable, i.e. BLFGenee
2. the input Intel Hex format file, with '.hex' file extension
3. the target directory and output binary file, with '.blf' file extension (standing for Binary LIN-downloadable File)
4. the ADuC703x part variant, i.e. 7030, 7032, or 7033
5. and finally, the desired protocol type number, i.e. 4 or 6

Note: The recommended target directory for the '.blf' output file is the same directory as that of the CANoe configuration file (.cfg), which defines the respective ADuC703x Flash/EE Programming via LIN application.

Introduction

This utility requires the use of a DOS command prompt. To open a command window, go to 'Start' -> 'Run...', enter 'cmd', then click OK. The following section outlines a brief sequence of steps on how to use the *BLFGenee* command line utility.

Procedure

1. Installing the BLFGenee command line program

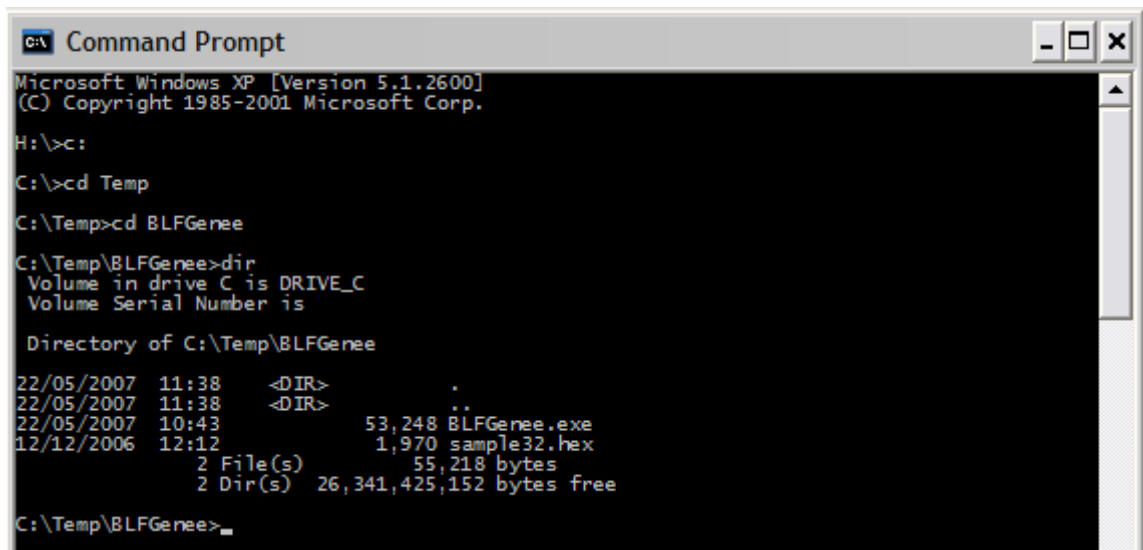
In order to install the BLFGenee program simply copy the executable file named "BLFGenee.exe" to the required location on the hard drive.

The user may wish to then add this directory location to the environment variable 'PATH'.

2. Running the program

Open a 'Command Prompt' window.

Navigate to the location where the BLFGenee.exe file has been copied.



```
C:\>cd Temp
C:\Temp>cd BLFGenee
C:\Temp\BLFGenee>dir
Volume in drive C is DRIVE_C
Volume Serial Number is

Directory of C:\Temp\BLFGenee

22/05/2007  11:38    <DIR>          .
22/05/2007  11:38    <DIR>          ..
22/05/2007  10:43                53,248 BLFGenee.exe
12/12/2006  12:12                1,970 sample32.hex
             2 File(s)          55,218 bytes
             2 Dir(s)  26,341,425,152 bytes free

C:\Temp\BLFGenee>
```

The BLFGenee command line utility requires five arguments:

1. Utility executable name: "BLFGenee" (without quotes) followed by a space
2. Full directory path and filename of the Intel HEX format (.hex) file to be converted, again followed by a space

3. Full directory path and filename of the Binary LIN Format (.blf) file to be generated, again followed by a space
4. ADuC703x part variant, e.g. "7030" (without quotes):
 - For ADuC7030, enter "7030"
 - For ADuC7032, enter "7032"
 - For ADuC7033, enter "7033"
5. Flash/EE Programming via LIN protocol type:
 - For Protocol 4, enter "4" (without quotes)
 - For Protocol 6, enter "6" (" ")

```
Directory of C:\Temp\BLFGenee
22/05/2007  11:38    <DIR>          .
22/05/2007  11:38    <DIR>          ..
22/05/2007  10:43                53,248 BLFGenee.exe
12/12/2006  12:12                1,970 sample32.hex
             2 File(s)              55,218 bytes
             2 Dir(s)        26,341,425,152 bytes free

C:\Temp\BLFGenee>BLFGenee sample32.hex C:\Temp\CANoeConfiguration\sample32.blf 7032 6
```

Press 'Enter'.

3. Specifying the directory of the generated file

Due to limitations on directory locations from where CANoe can access files that are to be programmed to Flash/EE via LIN, it is necessary to save the generated file to one of the following locations:

- i. The same directory as that of the CANoe.LIN Flash/EE programming configuration's application LIN database (.ldf) file
- ii. The same directory as that of the CANoe.LIN Flash/EE programming configuration (.cfg) file itself

4. Converting the file

The user will be notified as to whether the conversion succeeded or failed.

```
C:\Temp\BLFGene>BLFGene sample32.hex C:\Temp\CANoeConfiguration\sample32.blf 7032 6
>> Program: BLFGene
>> Version: 3.0.0
>> Date: 21.May.2007
>> Email: Shane.Clifford@analog.com
>> Conversion Succeeded

C:\Temp\BLFGene>_
```

In the case of a failure notice, the most likely cause is the specification of an incorrect filename/directory path, or an invalid part variant or protocol type.