

EASY Starter Application Loader



Downloading applications in batch mode _ _ _

Software Manual

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About this documentation

Document history

1 About this documentation

This documentation contains information on how to use the »EASY Starter (Application Loader)« in batch mode. The batch mode enables applications to be downloaded automatically to the desired target systems.

1.1 Document history

Version			Beschreibung
1.0	10/2013	TD11	First edition
1.1	06/2014	TD11	Licence information supplemented.
1.2	12/2014	TD11	Controller 3200 C/p500 supplemented.



Tip!

Current information on the Lenze products can be found at: <http://www.Lenze.com>

Applications

Which applications can be used?

2 Applications

Depending on the device series and engineering tool, an application can contain different data (examples: FB interconnection, parameter set, signal flow diagram). Basically, an application is the sum of the data for determining the function of a device

2.1 Which applications can be used?

The applications created in the Lenze engineering tool can be exported. The »EASY Starter (Application Loader)« serves to download the applications to the desired device.

Engineering tool/file format	Creating/exporting applications for the following Lenze devices	Corresponding key in the script file
»Engineer« *.lfl	Inverter Drives 8400 Servo Drives 9400	ApplicationFileSet
»EASY Starter« »Engineer« *.gdc	Inverter Drives 8400 Servo Drives 9400	ParameterSetFile
»Global Drive Control« (GDC) *.gdc	8200 vector/motec inverter 9300 servo inverter Servo Drives ECS	ParameterSetFile
»Drive PLC Developer Studio« (DDS) *.bin	Servo Drives ECSxA Drive PLC 9300 Servo PLC	BinFile
»CamDesigner« *.lc7	9300 servo cam	AddDataFile
*.lc9	9300 Servo PLC	
»PLC Designer« *.lfl	Controller 3200 C/p500	ApplicationFileSet

More information:

- ▶ [Setting the options for the target systems](#) (📖 7)
- ▶ [Start the "Batch" mode](#) (📖 10)

"Batch" mode: Download applications automatically to target systems

What is the "Batch" mode?

3 "Batch" mode: Download applications automatically to target systems



Note!

For using the "Batch" mode, you need a valid "EASY Advanced" licence (or higher) for the Lenze »Engineer« or »PLC Designer« V 3.x.

3.1 What is the "Batch" mode?

The "Batch" mode enables the automatic download of applications to several target devices. A script file created before contains the desired communication settings and information on the target device.

- In the "Batch" mode, the »EASY Starter (Application Loader)« processes the script file defined by you. Hence, no further user entries are required.
- For diagnostic purposes, the »EASY Starter (Application Loader)« in "Batch" mode writes all processing procedures and error messages in a log file.



Note!

Observe the following behaviour in the "Batch" mode:

- Automatic activation of the controller inhibit in the target system!
- Automatic stop of the running PLC program in the target system!
- The output of the messages of the "note" and "information" category is partly suppressed.

"Batch" mode: Download applications automatically to target systems

Structure of the script file

3.2 Structure of the script file

```
[COMMUNICATION]
Baud rate=500                ; setting is optional

[COMMON]
NumberOfDevices=3
ShowProcessing=1              ; 1 = displays progress window
ExitAfterDownload=0          ; 0 = Application loader will be closed after download

[DEVICE001]
NodeAddress=Lenze OPC Ethernet Server.1
IP=172_31_201_79
ApplicationFileSet="D:\Data\9400.lfl"
StartAfterDownload=1         ; 1 = PLC program will start after download

[DEVICE002]
NodeAddress=Lenze OPC Systembus Server.1
SDO=0;
ApplicationFileSet="D:\Data\8400.lfl"
StartAfterDownload=1

[DEVICE003]
NodeAddress=Lenze OPC Diagnostics Server.00001962
ParameterSetFile="D:\Data\8400 TopLine C_00001962_8400 TopLine C~1.gdc"
StartAfterDownload=1
```

[3-1] Example: Script file for controlling three target systems

3.3 Creating a script file: Defining options

A script file defines the actions to be executed while the applications are downloaded automatically. A script file has the following properties:

- The script file can be created with any ASCII text editor, for example: Microsoft Editor.
- The script file is divided into different sections where options for processing the script file can be defined.
 - The start of a section is marked by squared brackets. Within a section, the respective keys are given.
 - Each key consists of the key name, followed by an equal sign and the key value.
 - Thus, the file structure corresponds to a typical Windows INI file.
- Only one key may be given per line.
- Optionally, you can add a comment which has to be marked by a preceding semicolon.

Example:

```
ShowProcessing=1 ; displays progress window
```



Danger!

The **StartAfterDownload=1** option in a system with several axes causes each axis to start automatically after the application has been downloaded!

- Use the setting **StartAfterDownload=0** in order to avoid a dangerous situation!

"Batch" mode: Download applications automatically to target systems

Creating a script file: Defining options



Note!

Before being processed, a script file is not checked for correctness but processed until the error source has been reached.

In case of an incorrect processing, use the log file to analyse and remove errors.

3.3.1 Communication

Define the communication settings in the [Communication] section.

Key	Parameter
Baud rate	Baud rate of the system bus in [kBaud] • Defining the baud rate in the script file is optional. • If no baud rate is given in the script file, the value set in the system bus configurator is used.

3.3.2 General options

Define the general settings in the [Common] sections.

Key	Parameter Standard setting = 0. Is valid if no parameter is given.
NumberOfDevices	Defining the number of target systems. • In the [DEVICExxx] section, the respective sections have to be entered according the number defined here.
ShowProcessing	Defines whether a status window is visible: • 0 = do not show status window. • 1 = show status window.
ExitAfterDownload	Activates the automatic closing of the »EASY Starter (Application Loader)« after the script file has been processed: • 0 = Do not close »EASY Starter (Application Loader)« after processing. • 1 = Close »EASY Starter (Application Loader)« after processing.

3.3.3 Setting the options for the target systems

In the [DEVICExxx] section, the options for the prevailing target system to which you want to download the application are defined.

- A separate [DEVICExxx] section has to be set for each target system. xxx marks the consecutive number for the prevailing target system.
- The number of the [DEVICExxx] sections has to comply with the value of the *NumberOfDevices* key in the [COMMONxxx] section.
Example: If in section [COMMON] the *NumberOfDevices*=3, three sections have to be added in [DEVICExxx]: [DEVICE001], [DEVICE002], [DEVICE003].
- The processing order of the target systems corresponds to the ascending number order, starting with [DEVICE001].

The following options can be defined in the [DEVICE] section:

"Batch" mode: Download applications automatically to target systems

Creating a script file: Defining options

Key	Parameter
	The standard setting is printed in bold. It is valid if no parameter is given.
NodeAddress	Name of the bus server and address of the target system.
Examples	Depending on the bus system, different settings are possible.
	Communication via system bus Note: The "SDO" parameter has to be given in addition! - The target system has the CAN node address "11".
	NodeAddress=Lenze OPC system bus server.11
	Communication via diagnostic adapter If only <u>one</u> diagnostic adapter is connected to the PC, the default address "0" can be used.
	NodeAddress=Lenze OPC Diagnostics Server.0
	Communication via several diagnostic adapters If <u>several</u> diagnostic adapters are connected to the PC, the non-ambiguous serial number of each diagnostic adapter is required for addressing purposes. - The serial number (S/N) is printed on the diagnostic adapter. - In the following example, the diagnostic adapter has the serial number "00002485".
	IPNodeAddress=Lenze OPC Diagnostics Server.00002485
	Communication via Ethernet NRT - Use the default value "1" as address. - The IP address has to be given with the "IP" parameter.
	NodeAddress=Lenze OPC Ethernet Server.1
	Communication via Ethernet NRT to Lenze Controllers - Use the default value "1" as address. - The IP address has to be given with the "IP" parameter. - Use the parameters "FtpUser" and "FtpPassword" to download PLC programs.
	NodeAddress=Lenze Digitec OPC Tunnel.1
	Communication via Lecom The target system has the LECOM node address "5".
	NodeAddress=Lenze OPC Lecom Server.1-5
IP	Giving the IP address of the target device. Note: The dots of the IP address have to be replaced by underscores, example: 203_0_113_195 (instead of 203.0.113.195). - The IP address only needs to be given in case of Ethernet NRT communication.
SDO	Giving the parameter channel (1 or 2) for communication. - Data only has to be given when communicating via system bus (CAN). Tip: To achieve a higher performance, the same parameter channel for all devices should be set in the script file. - The value "0" deactivates the division into parameter channels. This serves to use the total range of node addresses.
BinFile	Path and file name of the »Drive PLC Developer Studio« file (*.bin) for the download. - This option is not applicable by target systems without PLC functionality. - The indication of the file is optional (only the files given here will be transferred to the target system).
AddDataFile	Path and file name of the »CamDesigner« file/profile data for the download: *.lc7 for 9300 Servo-Kurvenscheibe/*.lc9 for 9300 Servo PLC. - This option is not applicable by target systems that do not support the download of application data. - The indication of the file is optional (only the files given here will be transferred to the target system).
ParameterSetFile	Path and file name of the »Global Drive Control« parameter set file (*.gdc) for the download. The indication of the file is optional (only the files given here will be transferred to the target system).

"Batch" mode: Download applications automatically to target systems

Creating a script file: Defining options

Key	Parameter The standard setting is printed in bold. It is valid if no parameter is given.
ApplicationFileSet	Path and file name of the »L-force Loader« file (*.lfl) for the download. • This option can be used inverters of the Inverter Drives 8400 and Servo Drives 9400 device series.
DuplicateParameterSet	Defines whether the parameter set is to be duplicated or whether the target system is replacement device: • 0 = the target system is a replacement device • 1 = duplicate parameter set Inverter Drives 8400 The following values can be used additionally for Inverter Drives 8400: • 2 = parameter set without communication parameters • 3 = parameter set without motor parameters Servo Drives 9400 • Target devices of this device series ignore the parameter. The parameters to be transferred can be selected in the »Engineer« when the download data is exported. LECOM Note: The "replacement device" function cannot be used in combination with LECOM!
StartAfterDownload	Defines whether the PLC program/9400 application is to start automatically after download has been completed: • 0 = do not start PLC program/application • 1 = start PLC program/application automatically.
ControllerEnableAfterDownload	Activates the controller enable PLC after the script file has been processed: • 0 = inverter remains inhibited after processing. • 1 = inverter is automatically enabled after processing.
FtpUser	Sets the user name for the the FTP connection. Example: FtpUser=admin
FtpPassword	Sets the password for the FTP connection. Example: FtpPassword=admin

"Batch" mode: Download applications automatically to target systems

Start the "Batch" mode

3.4 Start the "Batch" mode



Note!

The following special features have to be observed when parameters are downloaded:

A GDC file exported from the »Engineer«/ »EASY Starter« does not need to contain a complete parameter set.

- The GDC file names have to be given for the **ParameterSetFile** parameter. The transfer process writes the parameters value by value into the inverter (by analogy with the parameter download in the »EASY Starter«).

Inverter Drives 8400 and Servo Drives 9400 device series

In order to make sure that you transfer a complete parameter set into the corresponding target system, you have to use the L-force Loader (LFL) file exported from the »Engineer«/»EASY Starter«.

- The LFL file name has to be given for the **ApplicationFileSet** parameter. The transfer process passes through the complete download logic as for instance the initialisation of the FB parameters.

Other Lenze device series

In order to make sure that you transfer a complete parameter set into the corresponding target system, you have to use the GDC file exported from the »Global Drive Control«(GDC).

- The GDC file name has to be given for the **ParameterSetFile** parameter. The transfer process passes through the complete download logic, as for instance the initialisation of the FB parameter or the download of four parameter sets (if available).

Syntax of the command line call

The following syntax serves to start the »EASY Starter (Application Loader)« in batch mode:

```
Lenze.ApplicationLoader.exe /batch <Script file> <Log file>
```

- The »EASY Starter« setup writes the **Lenze.ApplicationLoader.exe** file into the installation directory, standard setting: C:\Program Files\Lenze\EASYStarter_<Version>“. As there are dependencies on other program components in the installation folder, the application has to be started there.
- The `/batch` parameter causes the »EASY Starter (Application Loader)« to execute all functions in the background controlled by script.
- The `script file` parameter is the reference to the script file to be used.
- Absolute and relative path data can be used. A relative path always refers to the current directory.
- The `log file` parameter is optional and contains the name of the log file in which all worksteps and possible error messages are recorded.
- If the log file is indicated without any path, the log file is saved in the directory which also contains the script file.
- If the log file parameter is left out, no log file is created.

"Batch" mode: Download applications automatically to target systems

Status information

Example

```
C:\Programme\Lenze\EASYStarter_1_3\Lenze.ApplicationLoader.exe /batch Script.cmd  
Logfile.txt
```

3.5 Status information

After the »EASY Starter (Application Loader)« is started in the "Batch" mode, the following icon appears in the task bar in the info area:



Tip!

Move the mouse pointer to the icon in order to show information on the program status via tooltip.

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Your opinion is important to us

These instructions were created to the best of our knowledge and belief to give you the best possible support for handling our product.

If you have suggestions for improvement, please e-mail us to:

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Thank you for your support.

Your Lenze documentation team



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