Description of plugin Features of software license use Restrictions General order Installation of CodeMeter software Creating license request Installation of "APTO stream processing (Linear Acoustic)" plugin software Configuration of "APTO stream processing (Linear Acoustic)" plugin Applying of licenses Checking information about licenses

Description of plugin

The "APTO stream processing (Linear Acoustic)" plugin allows you to normalize output audio signal during real-time broadcasting ("on-the-fly") without preliminary processing.

Linear Acoustic company adaptive algorithms (APTO) are used.

The plugin works with products based on FDExt boards (FD322, FD422, FD722, FD842, FD788) or in solutions that do not use board but work with the FDExtSrvs service (for example, Forward TS IP).

The "APTO stream processing (Linear Acoustic)" plugin is a software option additional to the main software. The "APTO stream processing (Linear Acoustic)" plugin is purchased separately. The license is purchased for 1 stereo sound channel.

Important! The "APTO stream processing (Linear Acoustic)" plugin is an additional software option that is purchased separately.

All who want are provided with a temporary license for a period of 1 month to test work of the plugin if necessary. Please inform us about number of your FDExt series board (FD322, FD422, FD722, FD842, FD788). You may also tell the Support department HASP key number and you will be provided with a temporary license then. How to identify number of board or HASP-key study <u>here</u>.

Features of software license use

The "APTO stream processing (Linear Acoustic)" plugin uses a virtual key with software license. The license is linked to computer, i.e. it is computer dependent. The license must be used only on computer where request for temporary or permanent license is made and where virtual key is created.

The computer where the plugin is tested may differ from computer on which the plugin with permanent license will work.

It is possible to transfer license from one machine to another one in the following cases:

- physical malfunction of computer (for example, failure of system hard disk)
- upgrade of computer in order to improve its features (for example, processor performance)

Important! When contacting the Support (<u>forward@softlab.tv</u>) or the Sales (<u>sales@softlab.tv</u>) department concerning transfer of license from one PC to another one inform on serial number of license - see the <u>"</u><u>Information on licenses</u> section.

Restrictions

- The "APTO stream processing (Linear Acoustic)" plugin does not work with products based on the FD300 board.
- The plugin requires a 64-bit operating system. List of supported OS.
- The CodeMeter software of version not earlier than 6.20 (see the "Installing CodeMeter software" section) must be preinstalled.

General order

Receiving temporary license for testing

- 1. Install the CodeMeter software (see the <u>"Installation of CodeMeter software</u>" section).
- 2. Collect information for license request (see the <u>"Creating license request"</u> section).

Important! Computer dependent license is used. So, license request must be created on computer where plugin will be tested or work under a permanent license.

- 3. Send a file with information (with the WibuCmRac extension) either to the Sales (<u>sales@softlab.tv</u>) or to the Support department (<u>forward@softlab.tv</u>).
- 4. Get a file with temporary license (with the WibuCmRaU extension) from either the Sales or the Support department.
- 5. Apply file with temporary license (see the <u>"License applying"</u> section).
- 6. Check information on licenses (see the <u>"Checking information about licenses</u> section).
- 7. Install software for "APTO stream processing (Linear Acoustic)" plugin (see the <u>"Installation of software for the</u> <u>"APTO stream processing (Linear Acoustic) plugin"</u> section).
- 8. Configure plugin (see the <u>"Configuration of the "APTO stream processing (Linear Acoustic) plugin</u>" section).
- 9. Reboot PC.

Applying permanent license after purchasing the plugin

Important! It is supposed that CodeMeter software and software for the "APTO stream processing (Linear Acoustic)" plugin are installed. If not than examine corresponding sections of the document.

1. Collect information for license request (see the <u>"Creating license request"</u> section).

Important! Computer dependent license is used. So, license request must be created on computer where plugin will be tested or work under a permanent license.

- 2. Send a file with information (with the WibuCmRac extension) either to the Sales (<u>sales@softlab.tv</u>) or to the Support department (<u>forward@softlab.tv</u>).
- 3. Get a file with permanent license (with the WibuCmRaU extension).
- 4. Apply file with permanent license (see the <u>"License applying"</u> section).
- 5. Check information on licenses (see the <u>"Checking information about licenses</u> section).

6. Reboot PC.

Installation of CodeMeter software

1. Preinstal the CodeMeter software of version not earlier than 6.20 for "APTO stream processing (Linear Acoustic)" plugin.

You can download CodeMeter software from the developer's site: https://www.wibu.com/us/support/user/downloads-user-software.html

2. Run CodeMeter software installer.



3. Accept an end-user license agreement.

😸 CodeMeter Runtime Kit v6.20 Setup
End-User License Agreement Please read the following license agreement carefully
WIBU-SYSTEMS AG, Karlsruhe, Germany and Wibu-Systems USA Inc., Edmonds, WA, USA Software License Agreement, Single Use License CodeMeter and WibuKey Software PLEASE READ THIS SOFTWARE LICENSE AGREEMENT ("LICENSE") BEFORE USING THE SOFTWARE, BY USING THE SOFTWARE, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS LICENSE. IF YOU ARE ACCESSING THE SOFTWARE ELECTRONICALLY, SIGNIFY YOUR AGREEMENT TO BE BOUND BY THE TERMS OF THIS LICENSE BY CLICKING THE "AGREE/ACCEPT" BUTTON. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE. RETURN THE WIBU-SYSTEMS
Print Back Next Cancel

4. Choose installation scope of CodeMeter software.



5. Select directory where CodeMeter software is installed.

📙 CodeMeter Runtime Kit v6.20 Setup				
Custom Setup Select the way you want features to be installed.				
Click the icons in the tree below to change t	the way features will be installed.			
CodeMeter Runtime Kit	This features installs the CodeMeter Runtime Kit on your computer.			
	This feature requires 32MB on your hard drive. It has 2 of 2 subfeatures selected. The subfeatures require 19MB on your hard drive.			
	Browse			
Reget Disk Usage	Back Next Cancel			

6. Start installation of CodeMeter software.



7. Wait finish of installation.

B CodeMeter Runtime Kit v6.20 Setup	
Installing CodeMeter Runtime Kit v6.20	
Please wait while the Setup Wizard installs CodeMeter Runtime Kit v6.20.	
Status:	
	Cancel
<u>B</u> ack Next	Cancel

8. Exit the Setup Wizard.



9. The CodeMeter software icon in the notification area (system tray) appears.



Creating license request

Creating license request is necessary for getting a temporary license for testing or permanent after plugin purchasing.

Important! Computer dependent license is used. So, license request must be created on computer where plugin will be tested or work under a permanent license.

1. Right-click CodeMeter software icon in notification area (system tray).



- 2. Select "Show" in the opened menu. Run the CodeMeter Control Center application.
- 3. Drag and drop the specific LinearAcoustic_APTO_stream_OEM.WBB file into the program window to the "License" tab. You may download this file <u>here</u>.

	File Process View Help	
	License Events	
	Suffer a coustic APTO.stream C Name: Linear Acoustic APTO.stream OEM	
	Serial: 32767-59201	
	Version: CmActLicense 1.19	
Linea/Acousti c APTO sirea	Status: 🎯 Empty license container	
m_0EM/WBB	Activate License Remove License	
	CodeMeter is started.	oAdmin

Temporary virtual key is created.

4. Click "Activate License".

CodeMeter Control Center	
<u>F</u> ile <u>P</u> rocess <u>V</u> iew <u>H</u> elp	
License Events	
Linear Acoustic APTO.stream C 32767-59201	Name: Linear Acoustic APTO.stream OEM
	Serial: 32767-59201
	Version: CmActLicense 1.19
	Status: 🎯 Empty license container
	Activate License Remove License
CodeMeter is started.	WebAdmin

5. The CodeMeter Field Activation Service assistant runs. It assists in collecting information and applying licenses.

CmFAS Assistant	? ×	
	Welcome to the CmFAS Assistant! The CodeMeter Field Activation Service (CmFAS) assistant helps you adding, changing and deleting licenses from the license management system CodeMeter. With the CmFAS assistant you can create license request files, which you can send to the vendor of the software by email. You can also import the received license update files with the CmFAS assistant into the license management and create a receipt of the import for the vendor.	
	< <u>B</u> ack <u>N</u> ext > <u>H</u> elp	

6. Click "Next". Then select "Create license request".

CmFAS Assistant	? ×
	Please select the desired action
	Oreate license request
	Choose this option if you want to create a license request file in order to send it to the vendor of the software.
	Import license update
-	Choose this option, if you received a license update file from the software vendor and want to import this file.
	Create receipt
	Choose this option if you want to confirm the successful import of a license update file for the software vendor.
	< <u>B</u> ack <u>N</u> ext > <u>H</u> elp

7. Select path to file where information is saved. Then click "Commit"

CmFAS Assistant	? ×
	Please select the file name
	F:\LA\32767-59201.WibuCmRaC
	Select a file name for storing the license request file file. Then click on 'commit' to create the file. You can then send this file to the vendor by email.
	< <u>B</u> ack Commit <u>H</u> elp

8. Click "Finish". Close Assistant and the CodeMeter Control Center program.



9. Send license request file (with the WibuCmRac extension) to the Support (<u>forward@softlab.tv</u>) or the Sales department (<u>sales@softlab.tv</u>).

Installation of "APTO stream processing (Linear Acoustic)" plugin software

Run plugin <u>installer</u>. Select "APTO stream processing (Linear Acoustic)" on the "Select Components" page.

Important! The "APTO stream processing (Linear Acoustic)" item can be absent in the list with plugins if:

- OS different from 64-bit is used
- CodeMeter software is not installed or its version below 6.20 is installed

💑 Setup - ForwardPlugins	
Select Components Which components should be installed?	1
Select the components you want to install; clear the components you o install. Click Next when you are ready to continue.	do not want to
IPOut/ASIOut and IPInput/ASIInput files	0,1 MB 🔺
NDIInput and NDIOutput files	0,6 MB
IP2PostPlay files	1,7 MB
MXF Playback files	1,9 MB
SLScreenCapture files	3,8 MB
Srt2Teletext files	0,2 MB
SLSocials files	5,6 MB
APTO stream processing (Linear Acoustic)	=
SLSportTitler files	14,8 MB
SLAdsRemover files	1,2 MB 👻
Current selection requires at least 0,9 MB of disk space. Select all ForwardPlugins 5.8,900	Deselect all
< Back Next >	> Cancel

Next procedure of plugin installation is as usual.

Configuration of "APTO stream processing (Linear Acoustic)" plugin

Run the FDConfig2 program when plugin is installed.

•		Decoder #1		Decoder #2	21
	CVBS+YC[A1+A2,3] CVBS+YC[B1+B2,3] Virtual inputs VBI	License present		5761 50 License present	
+IP	Other	Output #1		Output #2	2
. +IP		ouque » 1		ouput #2	
	Registration info: Found 2 valid key(s) {0x1F95 {0x670936CA6EA08029.Plug	8077AA3BE2C5.Plugin_IPCamera (lic: 1), 0 in_SLAdsRemover (lic: 7), 0xAAA24611BAB	x95975C37371A B6197.FD322_D	86ED.Demo_TS (lic: 1)} and 2 invalid key emo (lic: 1)} for selected board !!!	(s)
ut #2 #2	Registered product Plugin_IPCamera (lic: 1) Demo_TS (lic: 1) Software info:	S:			

Click "Audio processing ... ".

Audio P	rocessing	9		×
Input	t's delay			
1L (M	lono 1) ()	2L (Mono3)	0
1R (M	lono2) ()	2R (Mono4)	0
Outp	ut's delay	/		
Out	out #1 0		Output #2	0
APTO) Stream (processing	, by Linear Acoust	ic
	Output #1	1	Output	#2
	Pro	file EBU F	128	-
Tar	get loudn	ess -23 Ll	UFS 🔻	
Ada	ptaion spe	eed 60	× %	
H	listory de	pth 180	sec	
Re	eset		Save	Cancel

Select for which of output channels the plugin should be used in the "Audio Processing" opened dialog window in the "APTO Stream processing, by Linear Acoustic" group.

You may select necessary profile from the "Profile" list.

Settings:

- "Target loudness" denotes target value of level (in LUFS) for selected profile;
- "Adaptation speed" denotes speed of response to changes in sound level; the higher, the adjustment to target level is faster but with reasonably high sound distortion;
- "History depth" denotes time interval when analysis of sound parameters is executed.

Click "Save" to exit the FDConfig2 program.

Applying of licenses

1. Licenses (both temporary and permanent) are in the file with the WibuCmRaU extension.

Important! Computer dependent license is used. So, license request must be created on computer where plugin will be tested or work under a permanent license.

2. Right-click CodeMeter software icon in notification area (system tray) to apply licenses.



3. Select "Show" in the appeared menu. Run the CodeMeter Control Center application. Then click "License Update".

CodeMeter Control Center	
<u>File Process View H</u> elp	
License Events	
LinearAcousticAPTOloudnessN 128-13309061	Name: LinearAcousticAPTOloudnessMonoStereo
	Serial: 128-13309061
	Version: CmActLicense 1.19
	Status: 🕒 License activated
	License Update Femove License
CodeMeter is started.	WebAdmin

4. CmFAS Assistant for collecting information and applying licenses is run.

CmFAS Assistant	? ×
	Welcome to the CmFAS Assistant! The CodeMeter Field Activation Service (CmFAS) assistant helps you adding, changing and deleting licenses from the license management system CodeMeter.
	With the CmFAS assistant you can create license request files, which you can send to the vendor of the software by email. You can also import the received license update files with the CmFAS assistant into the license management and create a receipt of the import for the vendor.
	< <u>B</u> ack <u>H</u> elp

5. Select "Import license update".

CmFAS Assistant	? ×
	Please select the desired action
	Create license request
	Choose this option if you want to create a license request file in order to send it to the vendor of the software.
	Import license update
-	Choose this option, if you received a license update file from the software vendor and want to import this file.
	Create receipt
	Choose this option if you want to confirm the successful import of a license update file for the software vendor.
	< <u>B</u> ack <u>N</u> ext > <u>H</u> elp

6. Select file with licenses. Click "Commit".

CmFAS Assistant	? ×
	Please select the file name
	F:/LA/32767-59201.wibucmrau
	Select a file under which the license update file is stored on your computer. Then click on 'commit' to import the new licenses.
	< <u>B</u> ack Commit <u>H</u> elp

- 7. Message about successful applying of registrations appears. Close the Assistant.
- 8. Exit the CodeMeter Control Center program. Check newly applied licenses see the <u>"Checking information</u> <u>about licenses"</u> section.

Checking information about licenses

Right-click CodeMeter software icon in notification area (system tray).



Select WebAdmin item in the appeared window. Corresponding page in the browser opens. Click link with 1070 code product on the "Container" tab.

SYSTEMS	CodeMeter WebAdmin						C	
Dashboard	Container ~	License Monitoring ~	Diagnosis 🗸	Configuration ~ Info				
All Containe	er LinearAcou	sticAPTOloudnessMonoSter	eo (128-1330908	37)		0	English (US)	
C	LinearAcou	sticAPTOloudnessMon	oStereo	128-13309087		CmActLicense	9 1.19 🌘	
<u>_</u> 2	▲ Licenses	✓ CmContainer Info	💙 User Data					
A 500	0124 Minne	tonka						
Product Code	n Name			Unit Counter	Valid Until	License Quantit	y Feature Map	
1070	D LnearAcousticA	PTOloudnessMonoStereo		n/a	2018-05-01 06:00:00		1 n/a	

You can see information about license index, time of validity and quantity on opened page.

JIBU YSTEMS	C	odeMeter Web	Admin		(
ashboard Container ~	License Monitoring ~ Di	iagnosis ~ Configuration ~	Info		
All Container LinearAcoust	icAPTOloudnessMonoStereo (128-1	.3309087) Firm Code 5000124	Product Code 1070	0	🖼 English (US)
roduct Item Det	alls 0 of CmContainer "LinearAcc	ousticAPTOloudnessMonoSter	eo" (128-13309087)		
roduct Item Det Product Item 5000124:107	alls 0 of CmContainer "LinearAcc Type Size (8	ousticAPTOloudnessMonoSter Bytes) Dependencies	eo" (128-13309087) Value		
roduct Item Det roduct Item 5000124:107 Product Item Option Text	alls 0 of CmContainer "LinearAcc Type Size (B	ousticAPTOloudnessMonoSter Bytes) Dependencies 36	eo" (128-13309087) Value LinearAcousticAPTOloudness	:MonoStereo	
roduct Item Det roduct Item 5000124:107 Product Item Option Text Expiration Time	alls 0 of CmContainer "LinearAcc Type Size (B	ousticAPTOloudnessMonoStern Bytes) Dependencies 36 4 data, serial, counter	eo" (128-13309087) Value LinearAcousticAPTOloudness 2018-05-01 06:00:00	MonoStereo	
Product Item Det Product Item 0ption Text Expiration Time License Information	alls 0 of CmContainer "LinearAcc Type Size (8	ousticAPTOloudnessMonoStern sytes) Dependencies 36 4 data, serial, counter 9 data, serial, counter	eo" (128-13309087) Value LinearAcousticAPTOloudness 2018-05-01 06:00:00 APT234567	MonoStereo	

Important! When contacting the Support (<u>forward@softlab.tv</u>) or the Sales (<u>sales@softlab.tv</u>) department concerning transfer of license from one PC to another one inform on serial number of license (s/n is circled in red). We recommend you to keep this index serial number not on the machine on which it is applied.