USER MANUAL C-Cast Agent

Version 3.5 - February 2017



C-Cast Agent





Disclaimer

This manual and the information contained herein are the sole property of EVS Broadcast Equipment SA and/or its affiliates (EVS) and are provided "as is" without any expressed or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. In particular, EVS makes no warranty regarding the use or the consequences of use of this manual and the information contained herein. Furthermore, EVS may not be held liable for any direct or indirect, incidental, punitive or consequential loss, damage, cost or expense of any kind whatsoever and howsoever resulting from the normal or abnormal use of this manual and the information contained herein, even if advised of the possibility of such loss, damage, cost or expense.

While every effort has been made to ensure that the information contained in this manual is accurate, up-to-date and reliable, EVS cannot be held liable for inaccuracies or errors that may appear in this publication. The information in this manual is furnished for informational purpose and use only and subject to change without notice.

This manual cancels and replaces any previous versions thereof.

Copyright

Copyright © 2014-2017 EVS Broadcast Equipment SA. All rights reserved.

This manual may not be reproduced, transcribed, stored (in a database or an retrieval system), translated into any language, computer language, transmitted in any form or by any means – electronically, mechanically, printed, photocopied, optically, manually or otherwise – in whole or in part without the prior written consent of EVS.

Trademarks

All product and brand names are registered trademarks and trademarks of EVS or of their respective owners.

Improvement Requests

Your comments will help us improve the quality of the user documentation. Please send improvement requests, or report any error or inaccuracy on this user manual by e-mail to <u>doc@evs.com</u>.

Regional Contacts

You will find the full list of addresses and phone numbers on the following webpage: http://www.evs.com/contact.

User Manuals on EVS Website

The latest version of the user manual, if any, and other user manuals on EVS products can be found on the EVS download center, on the following webpage: https://www.evs.com/en/download-area.



Table of Contents

TABLE		
WHAT'S	S NEW ?	/
1. INTE	RODUCTION	1
1.2. Openi	uct Description ing C-Cast Agent	2
2. SET	TING UP THE PRODUCTION	7
2.1.1. 2.1.2. 2.2. Step 2 2.3. Step 2 2.4. Step 2 2.5. Step 4 2.5.1. 2.5.2. 2.5.3.	Mapping the Recorders	7 8 0 1 3 4 8 0 2 2
3. MON	NITORING THE PRODUCTION	6
3.2. Servic3.3. Monita3.4. Jobs I	view of the Monitoring Windows	6 9 1



What's New ?

In the C-Cast User Manual, the icon **NEW!** has been added on the left margin to highlight information on new and updated features.

The changes linked to new features in version 3.5 are listed below.

Restoring a Production

• See section "Opening the Production Setup Wizard" on page 7

Connecting a C-Cast Agent to a single C-Cast Central

• See section "Overview of the C-Cast Agent Menu" on page 4



1. Introduction

1.1. Product Description

C-Cast Agent Application

C-Cast Agent is the hardware and software that manage the extraction and transfer of the requested A/V content from the venue premises to C-Cast Central.

The C-Cast Agent software is connected to the EVS servers network (XT/XS series) via PC LAN and gigabit networks. It automatically receives requests from the C-Cast Central to extract footage from the EVS servers. It needs to be connected to internet, or at least to have access to the C-Cast Central.

The C-Cast Agent relies on Xsquare and XTAccess for the actual file extraction.

C-Cast Agent User Interface

The C-Cast Agent user interface serves two purposes:

- It makes it possible to easily set up the C-Cast Agent software on the venue, so that it can fulfill its extraction and transfer management role.
- It makes it possible to monitor that the services built in the C-Cast Agent application are running and operating properly.

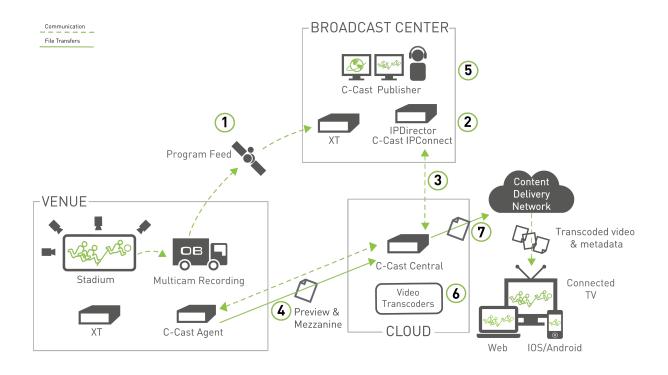
The actual management of extractions and transfers is fulfilled in the background by the C-Cast Agent services.

C-Cast Agent Workflow

The C-Cast Agent installed on the venue premises plays a major role in the generation of files for the C-Cast workflow, as explained in step 4 of the following workflow.

- 1. From the OB production van at the venue, a reference program feed is sent back to an EVS server in the broadcast center.
- In the broadcast center, the operator accesses, with IPDirector, the reference feed on which (s)he defines IN and OUT points to identify the media to be made available in C-Cast Publisher.
- 3. The media selection information (IN and OUT points, and metadata) is transmitted to the C-Cast Central via C-Cast IPConnect.
- 4. The C-Cast Central requests the C-Cast Agent to extract the media corresponding to the selection. The C-Cast Agent, and the underlying Xsquare service, extracts and transfers the preview files and mezzanine files to the C-Cast Central. Based on the configuration, all camera angles associated to the selected media are also generated as preview and mezzanine files.

- 5. In the broadcast center, the operator browses the preview files of all requested camera angles (video asset) in C-Cast Publisher. The operator validates the publication items and video assets (s)he wants to publish to viewers.
- 6. The C-Cast Central requests the integrated cloud video transcoders to generate the requested output files.
- 7. The C-Cast Central exposes the output files to the viewers' applications.



1.2. Opening C-Cast Agent

How to Launch C-Cast Agent

When C-Cast Agent has been installed, launch the application in one of the following ways:

Click the application icon on the desktop



 Click the Start button and select the application name in the EVS Broadcast Equipment > C-Cast Agent > C-Cast Agent



How to Access a Launched C-Cast Agent

When the C-Cast Agent application is started, you can access the C-Cast Agent menu by clicking the icon in the notification area at the far right of the taskbar. The C-Cast Agent menu gives access to all configuration and monitoring commands.

How to Exit C-Cast Agent

- 1. Click the C-Cast Agent icon Nin the notification area
- 2. Select **Exit** from the C-Cast Agent menu.

1.3. Overview of the C-Cast Agent Menu

Introduction

The C-Cast Agent application consists of a menu that gives access to the commands or windows.

To open the C-Cast Agent menu, click the C-Cast Agent icon on the notification area of the taskbar:

To close the C-Cast Agent menu, click outside the C-Cast Agent icon and menu.

C-	-Cast Agent	≡∨s
	Start New Production	
V	Barcelone - Juventus	•
	Traces	
	Jobs Monitoring	
×	Services Monitoring	
	Help	
	Exit	

Menu Item Description

Start New Production

It launches the C-Cast Agent wizard to set up a new production.

NEW !

You can concurrently start more than one production only if they are pointing to the same C-Cast Central. A single C-Cast Agent is limited to work with one C-Cast Central at a time. As long as at least one production is still active, the C-Cast Agent will be limited to work with the C-Cast Central associated to that production.



<Name of Production>

When a production is set up, a menu item corresponding to the production name is available.

It gives access to secondary menu items:

Launch Wizard

It allows you to start the C-Cast Agent wizard again, and change the production settings.

Terminate Production

It allows you to remove the production from the C-Cast Agent menu and purge the working folder content when you no longer want to use C-Cast Agent for this production on the venue.

Traces

It displays the logs with references to all service operations.

See section "Traces Window" on page 34 for more information on logs.

Jobs Monitoring

It displays all incoming jobs in the C-Cast Agent.

See section "Jobs Monitoring Window" on page 31 for more information on the job monitoring.

Services Monitoring

It displays the services built-in the C-Cast Agent, as well as their running status.

See section "Services Monitoring Window" on page 26 for more information on the service monitoring.

Help

It gives access to the help file, and to information about C-Cast Agent.

Exit

It exists the C-Cast Agent application, closes all associated services, as well as the AppGuard application.

Status Icons

Production Statuses

One of the following status icons is displayed in front of the production name in the C-Cast Agent menu:

Status Icon	Meaning
1	The production is correctly configured and is functional.
•	The production is not functional. You need to go through the wizard again or check the C-Cast services.

Service Monitoring Statuses

Status Icon	Meaning
1	The C-Cast solution is compatible with the C-Cast Central.
•	The C-Cast solution is deprecated compared to the C-Cast Central. In this case, it is recommended to upgrade as soon as possible the C-Cast solution to a more recent compatible version.
•	The C-Cast solution is not compatible with the C-Cast Central. In this case, you cannot use the C-Cast solution. You need to install a compatible C-Cast solution.



2. Setting up the Production

2.1. Overview and Startup

2.1.1. Opening the Production Setup Wizard

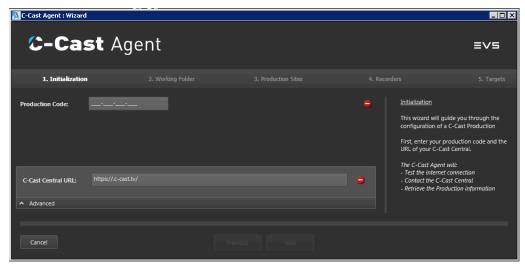
How to Open the Wizard for Initial Setup

To launch the wizard to set up a production for the first time, proceed as follows:

- 1. Click the C-Cast Agent icon Nin the notification area
- 2. Select the Start New Production item from the C-Cast Agent menu:



The C-Cast Agent production wizard opens with the focus on first window: 1. Initialization.



See section "Step 1 - Initialization" on page 10.

How to Open the Wizard for Modifying the Setup

To launch the wizard to modify a production you have set up earlier, proceed as follows:

- 1. Click the C-Cast Agent icon 🆄 in the notification area
- 2. Select the production name item in the C-Cast Agent menu, and the **Launch Wizard** menu item:



The C-Cast Agent production wizard opens with the focus on first window: 1. Initialization.

3. Click Next until you reach the requested window.

See the section corresponding to the configuration step you want to modify.

NEW !

How to Reactivate a Remotely Terminated Production

If an administrator has remotely terminated a production in the C-Cast Administration module, and you had not previously terminated the given production in C-Cast Agent, you will get a warning message similar to the following one when you try to launch C-Cast Agent:



In this message, you can click **Launch Wizard** to reactivate the production, or click **Terminate** to properly close the production in C-Cast Agent.

2.1.2. Overview on the Production Setup

For C-Cast Agent to be functional on a venue, you need to set up the production relevant for the venue using the production setup wizard.

The production setup wizard consists of several windows, each corresponding to one of the configuration steps detailed in this chapter.



The procedure to set up a production has therefore been divided into the following steps, after the initial step "Opening the Production Setup Wizard":

For detailed information on a step, click one of the steps mentioned below to reach the relevant section:

Step 1 - Initialization

Step 2 - Working Folder

Step 3 - Production Sites

Step 4 - Recorders

Step 5 - Targets

2.2. Step 1 - Initialization

Introduction

In the Step **1: Initialization**, you initialize the production. This step allows the C-Cast Agent to establish the communication with and start receiving information from the C-Cast Central.

Procedure

1. Open the production setup wizard as described in the section "Opening the Production Setup Wizard" on page 7.

The wizard opens on page 1. Initialization:

1. Initialization			5. Targets
Production Code:	×	configuration o	nt will: et connection
 ✓ Advanced Cancel 			

- 2. In the **Production Code** field, type the production code that you has received and uniquely identifies the production you want to set up.
- 3. Do one of the following:
 - If you work in a C-Cast production environment, jump directly to step 5.
 - If you work in a C-Cast staging or test environment, click Advanced at the bottom of the window to open the Advanced pane.
- 4. In the Advanced pane, in the **C-Cast Central URL** field, type the URL of the C-Cast Central the C-Cast Agent has to communicate with.

The URL must start with https://.





5. Click Next to validate the information you have entered.

This opens the next configuration window: See section "Step 2 - Working Folder" on page 11.

Results

When you enter the Production code (and the C-Cast Central URL), the application only checks that the format is valid. If the format is not valid, the \bigcirc icon is displayed. In this case, check you have entered the correct information, and contact your system administrator if necessary.

When you click **Next**, you validate the data entered and proceed to the next step, the C-Cast Agent does the following:

- Establishing the internet connection with C-Cast Central
- Checking that the production code exists in C-Cast Central

2.3. Step 2 - Working Folder

Introduction

In the step **2: Working Folder**, you define a working folder where C-Cast Agent will store the media extracted by Xsquare for the C-Cast workflow.

Prerequisite

You have opened the production setup wizard, and have already configured the first step (1. Initialization) of the setup wizard. See section "Step 1 - Initialization" on page 10.

Procedure

To define the working folder, proceed as follows:

1. In the production setup wizard, open the 2. Working folder window using the **Next** (or **Previous**) buttons:

	on 2. Working Folder			
Destination folder: Disk space available:	\\10.129.131.111\Data\PY}AGENT 150 G8		This work creation proton This extu	rking Folder s step will let you define where the king folder will be placed. ect a folder in which the C-Cast Agent will ate a working folder dedicated to your duction's need. s working folder will contain all the media racted, prior to the transfer. c-Ccast Agent will: reate and configure the working folder of r production
Cancel		Previous Next		

- 2. In the **Destination folder** field, select a shared folder on the network where you will store the extracted media in one of the following ways:
 - Click and point to the folder.
 - Type the UNC path of the targeted folder.

If you type a destination folder that does not exist, the **Next** button will not be available.

3. Click Next to validate the information you have entered.

This opens the next configuration window: See section "Step 3 - Production Sites" on page 13

Results

When a destination folder is specified, the disk space available is automatically displayed as a read-only field.

The size of the working folder has to be large enough to store the media generated by Xsquare during a production. The working folder is indeed only purged when you terminate the production.

When you click **Next** to proceed to the next step, a subfolder is created in the path with the name of the production followed by a unique ID, for example <code>Football 2013-882dc065-24c8-41cc-a017-688a5a124ff9</code>. The material will be stored in this folder.



2.4. Step 3 - Production Sites

Introduction

In C-Cast Administrator, the administrator has configured production sites involved in the production.

In C-Cast Agent, in the step **3: Production Sites**, you need to associate the C-Cast Agent to a production site. This will make it possible to identify its position and role in the C-Cast workflow.

Prerequisite

You have opened the production setup wizard, and have already configured the steps up to 3. Production Sites. See section "Overview on the Production Setup" on page 8 for links to the previous configuration steps.

Procedure

To select the production site, proceed as follows:

1. In the production setup wizard, open the 3. Production Sites window using the **Next** (or **Previous**) buttons:

	1. Initialization	2. Working Folder	3. Production Sites	4. Recorde	rs	5. Targets
•	Production Site C-Cast Agent Studio n Site(s) used				Production Sites The next steps of the wizard determined by your selection Production Site. Each Production Site can or configured in once. Product already configured will not	on of a nly be ion Sites
Cance	21	Pre	vious Next			

2. In the **Choose a Production Site** area, click the production site corresponding to the place where the C-Cast Agent you are configuring is installed.

The production sites in the **Production Site(s) used** area are already used by another C-Cast Agent in the C-Cast setup, and are therefore unavailable.

3. Click Next to validate the selected production site.

This opens the next configuration window: See section "Step 4 - Recorders" on page 14 to go directly to the next step.

Results

The C-Cast Agent is associated to the appropriate production site, which is necessary for C-Cast Agent services and C-Cast Central to manage the C-Cast setup.

2.5. Step 4 - Recorders

2.5.1. Recorders Window

Introduction

In the production setup wizard, the **Recorders** window (step 4) aims at specifying the EVS servers and the record channels the AV content will be extracted from on the production site.

The Recorders window contains the areas highlighted on the screenshot below:

			5
1. Initialization	2. Working Folder 3. Production Sites	4. Recorders	5. Targets
Recorder Profile : football Truck11 (5/N : 136490) REC1 000A REC2 000B REC3 000C REC4 000D REC5 000E REC6 000F REC1 000A REC2 000B	Standard Cam01 - Main Camera • Standard • Standard cam02 - Close Camera • Standard • Standard cam03 - Offside Left • Standard • Standard •	Camera Map	Recorders Here you can find a list of all the servers and recorders automatically discovered. Each of these XT's Recorders can be linked to one of the C-Cast Recorders configured for this production. A C-Cast Recorder can only be linked to one single XT Recorder. If you can't find a server in the list, you can add it manually: - Using LinX, by putting server PCLAN's IP address in the field. - Using IP Director
REC2 000B Discovery by LinX - Address(es) PCLan Advanced	Standard	Discover via LinX	



The table below describes the various parts of Recorders window:

Part	Area Name
1.	Item bar
2.	EVS Server area
3.	Advanced area
4.	Action buttons
5.	Help pane

Area Description

Item Bar (1)

The item bar is common to all steps in the production setup wizard.

As you move from one page to the other in the wizard, the item bar shows in bold the configuration step corresponding to the open window.

EVS Server Area (2)

In the EVS Server area, you can map the camera names defined as part of your production in C-Cast Administrator with the actual record channels of the EVS servers installed on the production site:

1 2 3		C	4	
Recorder Profile : Frotball				Camera Map
 TT XT3ADL (S/N : 24940) 				4 🏣
REC1 000A	Standard	cam00 - I	PGM	•
REC2 000B	Standard	cam01 - I	Main Camera	-
REC3 000C	Standard	cam02 - (Close Camera	•
REC4 000D	Standard	cam03 - (Offside Left	•

In the EVS Server area, the following fields are available:

Part	Name	Description
1.	Information bar	 It displays the following information: On the left, name of the recorder profile associated to the C-Cast Agent in production configuration; On the right, Camera Map button to open an illustration with the camera mapping.
2.	EVS Server	 Expandable header displaying, from left to right, the following information on each detected EVS server: server icon specifying the server series; server name; server serial number; number of record channels in the running configuration 6 6 6 6 7 When the header is expanded, the record channels area is displayed below the header.
3.	Record Channels	 Read-only field displaying the following information from left to right: name of the record channels in the following pattern <pre><server name="" net=""> + <camera id="">;</camera></server></pre> camera angle; recorder type (Standard, 3x,4x, etc. for SLSM recorders or Unknown if not identified).
4.	Camera Name	Drop-down field where you can select a camera name defined in the production configuration, and map it to a given record channel. In the drop-down field, the cameras are divided into two groups: unmapped cameras and mapped cameras. You can select a camera that has already been assigned. In this case, you are prompted to confirm the action. The AV content from the associated record channel will then be made available in C-Cast.

Advanced Area (3)

By default, the EVS servers and their record channels are automatically discovered with the LinX protocol. In addition, you can discover EVS servers using two methods available in the Advanced area:

Individual Server Discovery via LinX using LAN IP Address

Discovery by LinX -	
Address(es) PCLan	
▲ Advanced	

In the Advanced area, the following fields are available when the LinX protocol is selected in the **Discovery by** field:



Name	Description
Address(es) PCLan	Field to enter the PC LAN IP address of the EVS server
Discover via LinX	Button to launch the discovery process

Automatic Server Discovery via IPDirector API

Discovery	by IPDirector 👻			
Address				
Login	administrator	Password	evs	
Advance	ed	_		

In the Advanced area, the following fields are available when the IPDirector protocol is selected in the **Discovery by** field:

Name	Description
Address	IP address of the computer where the IPDirector API is installed. The IPDirector API you are pointing to must be started when you launch the discovery process
Login	Login to be used by C-Cast Agent to access the API
Password	Password to be used by C-Cast Agent to access the API
Discover via IPD API	Button to launch the discovery process

Action Buttons (4)

The action buttons are similar in all steps of the production setup wizard:

Name	Description
Cancel	Exits the wizard without applying the changes on the last window you have opened.
Previous	Goes back to the previous window, saves the changes on the current window in memory, but does not apply them.
Next	Goes to the next window, saves the changes on the current window in memory, but does not apply them.
Finish	(On the last window) Applies the changes brought to the setup wizard, and exists the wizard.

Help Pane (5)

The help pane is displayed in all windows of the wizard. It provides information on the window, and the actions you have to perform in the window.

2.5.2. Mapping the Recorders

Introduction

In the step **4: Recorders**, you need to specify the record channels the AV content will be extracted from on the production site.

You achieve this by mapping the camera names defined in your production in C-Cast Administrator with the actual record channels of the EVS servers installed on the production site.

The AV content from the record channels will only be available in C-Cast if you perform this recorder mapping.

Prerequisites

Previous Steps Configured

You have opened the production setup wizard, and have already configured the steps up to 4. Recorders. See section "Overview on the Production Setup" on page 8 for links to the previous configuration steps.

EVS Servers Correctly Displaying

When the Recorders window opens, C-Cast automatically discovers the EVS servers using the LinX protocol.

Should you not find the requested EVS servers, click once **Previous** and **Next** to come back to the Recorders window and refresh the server display.

Other discovery processes can also be triggered in the Advanced area. See section "Modifying the Recorder Discovery Process" on page 20 for more information how the other discovery processes.

C-Cast Cameras Selected in C-Cast Administrator

In C-Cast Administrator, in the production configuration, a number of cameras have been selected to be made available in the C-Cast Agent Production Site you have associated to your C-Cast Agent.



Procedure

In C-Cast Agent, you can only map the cameras associated to the C-Cast Agent Production Site in the production configuration in C-Cast Administrator.

To map the recorders, proceed as follows:

1. In the production setup wizard, open the **4. Recorders** window using the **Next** (or **Previous**) buttons:

	2. Working Folder	3. Production Sites	4. Recorders	5. Targets
Recorder Profile : football Truck11 (5/N : 136490) REC1 000A REC2 000B REC3 000C REC4 000D REC5 000E	Standard Cam01 - Main Camera Standard Cam02 - Close Camera Standard Cam02 - Close Camera Standard Cam03 - Offside Left		Camera Map	Recorders Here you can find a list of all the servers and recorders automatically discovered. Each of these XT's Recorders can be linked to one of the C-Cast Recorders configured for this production. A C-Cast Recorder can only be linked to one single XT Recorder. If you can't find a server in the list, you can add it manually: - Using Link, by putting server PCLAN's IP address in the field.
REC6 000F	Standard		10 🛀	adaress in the neid. - Using IP Director
REC1 000A REC2 000B	3x cam04 - Offside Right Standard	•		
Discovery by LinX Address(es) PCLan Advanced			Discover via LinX	
Cancel		Previous Next		

See section "Recorders Window" on page 14 for a detailed description of the Recorders window.

2. For the requested server, select the appropriate C-Cast camera name in front of each record channel whose content you want to make available in C-Cast.

Click the **Camera Map** button if you want to have a look at the camera map to help you assign the right EVS record channel to the C-Cast camera name.

- Repeat step 3 for all record channels of all EVS servers you want to retrieve AV content from.
- 4. Click Next to validate the recorder mapping.

This opens the next configuration window: See section "Step 5 - Targets" on page 22 to go directly to the next step.

Result

All record channels whose AV content you want to make available from this C-Cast Agent have been mapped to a camera name of your production.

2.5.3. Modifying the Recorder Discovery Process

Introduction

Depending on the C-Cast setup on your production site, you may want or have to modify the way the EVS servers and associated record channels are discovered by C-Cast Agent. By default, the EVS servers are automatically discovered using the LinX protocol.

Two additional discovery processes are available in the Advanced Area of the Recorders window (step 4) in the production setup wizard:

- Automatic discovery via the IPDirector API;
- Manual discovery with LinX using the EVS server PC LAN IP address.

How to Discover the EVS Servers via IPDirector API

To discover the EVS servers via the IPDirector API, proceed as follows:

- Make sure that the IPDirector API you are going to use for the discovery process is correctly started.
- 2. In the Recorders window of the production setup wizard (step 4), click **Advanced** at the bottom of the window.

The Advanced area opens:

Discovery by LinX -	
Address(es) PCLan	Discover via LinX
Advanced	

3. Select IPDirector in the Discovery by field.

The Advanced area changes to:

Discovery	by IPDirector 🔻		
Address			
Login	administrator	Password	
 Advance 	ed		

- 4. In the **Address** field, type the IP address of the computer where the IPDirector API is installed and started.
- 5. In the **Login** and **Password** fields, type the login and password that C-Cast Agent has to use to connect to the IPDirector API. This must be an administrator login to the IPDirector API.

The Discover via IPD API button becomes available.

6. Click the Discover via IPD API button.

The list of EVS servers is regenerated.



How to Discover an EVS Server with its IP Address

To discover manually a given EVS server, proceed as follows:

1. In the Recorders window of the production setup wizard (step 4), click **Advanced** at the bottom of the window.

The Advanced area opens:

Discovery by LinX	
Address(es) PCLan	
▲ Advanced	

- 2. In the **Address(es) PCLan** field, type the PC LAN IP address of the requested EVS server.
- 3. Click the **Discover via LinX** button to trigger the connection process.

The EVS server is added to the list.

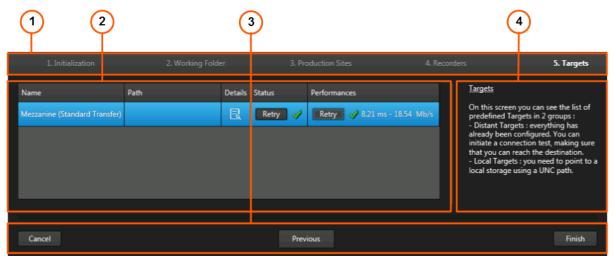
2.6. Step 5 - Targets

2.6.1. TargetsWindow

Introduction

In the production setup wizard, the **Targets** window (step 5) aims at viewing and specifying where the AV content extracted on the production site will be sent to in the C-Cast setup.

The Targets window contains the areas highlighted on the screenshot below:



The table below describes the various parts of Targets window:

Part	Area Name
1.	Item bar
2.	Targets area
3.	Action buttons
4.	Help pane

Area Description

Item Bar (1)

The item bar is common to all steps in the production setup wizard.

As you move from one page to the other in the wizard, the item bar shows in bold the configuration step corresponding to the open window.



Targets (2)

Name	Path	Details	Status	Performances
Mezzanine (Standard Transfer)		Ę	Retry 🛷	Cancel > 8.74 ms - 12.43 Mb/s

In the Targets area, the following fields, buttons or status icons are displayed from left to right for each target.

The fields are not editable, and come from the Transfer Profile and Target definitions in C-Cast Administrator, Settings section.

Name	Description
Target Name	Name of the target
Target IP Address	IP Address through which the target can be reached
Details	Icon giving access, through a right-click, to a summary of the transfer and target information
Status	 This cell provides information about the connection status to the target, via one of the following icons: = failed to connect to target = connection being tested = successfully connected to target Hie cell includes a Retry button which allows you to try establishing again the connection when the status is on .
Performances	 This cell allows you to test the transfer speed of the connection before a production, to determine whether the setup should be adapted. Click the Test button to launch the test. The test is only available if the connection status is The test status is displayed via one of the following icons: = connection to target has been lost = test being initialized As the test is initializing, you can cancel it by clicking Cancel. = test finished When the test is over, you can restart it by clicking Retry. The test results are displayed on the right of the icon: round-trip time in ms average speed value in Gambit

Action Buttons (3)

The action buttons are similar in all steps of the production setup wizard:

Name	Description
Cancel	Exits the wizard without applying the changes on the last window you have opened.
Previous	Goes back to the previous window, saves the changes on the current window in memory, but does not apply them.
Next	Goes to the next window, saves the changes on the current window in memory, but does not apply them.
Finish	(On the last window) Applies the changes brought to the setup wizard, and exists the wizard.

Help Pane (4)

The help pane is displayed in all windows of the wizard. It provides information on the window, and the actions you have to perform in the window.

2.6.2. Setting up the Targets

Introduction

In the step **5**: **Targets**, you will view the various targets, which means the devices and folders where the AV content extracted on the production site will be sent to in the C-Cast setup.

From this window, you will need to perform the following action on targets:

- Checking the targets based on which the media will be extracted and transferred.
- Testing the connection to the distant targets, and detecting connection problems.

Target Types

These are targets for media files that are sent outside the production site.

This is, for example, a target for the mezzanine files (used as source file to generate the distributed outputs). The mezzanine files are indeed stored on C-Cast Central.

Such targets are not editable in C-Cast Agent. Their definition comes from C-Cast Administrator. In C-Cast Agent, you can only test the connection to the targets.

Prerequisite

You have opened the production setup wizard, and have already configured the steps up to 5. Targets. See section "Overview on the Production Setup" on page 8 for links to the previous configuration steps.



How to Test Targets

The targets are automatically tested, and a connection status icon is displayed in the row corresponding to each target.

In case the icon \bigcirc (failed connection) is displayed on the row of a distant target, click the **Retry** button next to the icon.

This launches the connection process again, and the icon changes to be while C-Cast Agent tries to connect.

If the connection status changes to \checkmark , the connection is established.

If the connection status remains b for more than 1 minute, or changes to , contact your C-Cast Central administrator.

3. Monitoring the Production

3.1. Overview of the Monitoring Windows

The following monitoring windows are available in C-Cast Agent from the C-Cast Agent menu:

- The <u>Traces window</u> is available from the **Traces** menu item
- The Jobs Monitoring window is available from the Jobs Monitoring menu item.
- The <u>Services Monitoring window</u> is available from the **Services Monitoring** menu item.

3.2. Services Monitoring Window

Introduction

In C-Cast Agent, the Services Monitoring window allows you to check that the C-Cast Agent services are correctly started. From this window, you can also edit service connection parameters, and test the connection.

The Services Monitoring window contains the areas highlighted on the screenshot below:

			(1) (2 3	\mathbf{b}		
🂫 Servic	es Monitoring						_ 🗆 ×	
	℃-Cast A	gent	3.3					
Status	Name	Version		Service IP add	lress/Server name	Port	Local Network IP Address	
1	C-Cast Agent Engine	3.3.6.0		N/A		N/A	N/A	
×	EVS Notification Center	2.1.21.5		127.0.0.1		48888	127.0.0.1	
1	C-Cast Transfer Service	4.0.3.0	A	127.0.0.1		8000	127.0.0.1	
1	C-Cast Resource Locator Service	6.1.1.0	A	127.0.0.1		8001	127.0.0.1	
1	C-Cast Thumbnail Extraction Service	5.0.2.0	A	127.0.0.1		8002	127.0.0.1	
1	EVS Xsquare Service	3.4.7.29		127.0.0.1		9002	127.0.0.1	
Туре	Xsquare		IP address/Server	_	7.0.0.1:9002		- ×	
Name	EVS Xsquare Service		Local Network IP	Address 127	7.0.0.1		•	
Status	Running				Test	connect	ion Update	
Version	n 3.4.7.29		 Advanced 					
Messad	ae		Specific service IF	address/Serve	er name			
			Login Admini:			trator		
			Password		•••		Add	



The table below describes the various parts of Services Monitoring window:

Part	Area Name
1.	Header area
2.	Services List area
3.	Services Details area

Area Description

Header Area (1)

This area features the C-Cast Agent solution name and version number.

Services List Area (2)

The Services Lists area displays all Windows services linked to C-Cast Agent, and provides the following information on the services. The fields are described from left to right:

Name	Descri	ption			
Status	See se	Connection status of the C-Cast Agent service. See section "Monitoring the C-Cast Agent Services" on page 29 for more information.			
Name	Name Cast A	of the service or the EVS product acting as a service in C- agent.			
Version	Next to display	n number of the service used. o the version number, one of the following icons may be ved if there is an issue related to the compatibility between en service and the C-Cast solution:			
	Icon	Meaning			
	The service version is unknown				
		The service version has not been validated with the C-Cast solution.			
	•	The service version is not compatible with the C-Cast solution. In this case, roll over the icon, which displays a tooltip providing a link to the compatible service version.			
Service IP Address/ Server Name	IP address C-Cast Agent used to contact and send requests to the C-Cast Agent service.				

Name	Description
Port	Port number C-Cast Agent used to contact and send requests to the C-Cast Agent service.
Local Network IP Address	IP address the C-Cast Agent service shall use to answer to C-Cast Agent.

Service Details Area (3)

When you open the Services Monitoring window, you first have to double click a service for the Service Details area to be displayed.

The Services Details area displays the detailed information on the service selected in the Services List area.

• In the main zone, all fields from the Services List area are available, as well as a **Message** field where messages are displayed in case of error.

See section "Services List Area (2)" on page 27.

In the main zone, the buttons have the following role:

Name	Description
Test Connection	Button to test the C-Cast Agent connection to the C-Cast service.
Update	Button to establish the connection with the modified connection settings.
Cross	Button to hide the Service Details area.

 In the Advanced zone, additional fields are displayed to allow users to define new settings for C-Cast Agent to connect to the C-Cast Agent service:

Name	Description
Specific Service IP Address / Server Name	New IP address C-Cast Agent needs to use to communicate with the C-Cast Agent service.
Login	Login C-Cast Agent needs to use to communicate with the C-Cast Agent service
Password	Password C-Cast Agent needs to use to communicate with the C-Cast Agent service
Add	Button to apply the connections settings defined in the Advanced zone. These new settings will overwrite the settings in the main zone of the Service Details area.



3.3. Monitoring the C-Cast Agent Services

Overview of the C-Cast Agent Services

The C-Cast Agent application relies on five services to perform its tasks.

These services, which are custom Windows services, are automatically installed when you install the C-Cast Agent suite:

Service Name	Purpose
C-Cast Agent Engine	Service managing the C-Cast Agent Solution
EVS Notification Center	Service responsible for the communication of C-Cast Agent with C-Cast Central.
C-Cast Transfer Service	Service responsible for the transfer of the generated files to external targets. It can handle the transfers via different protocols.
C-Cast Resource Locator Service	Service responsible to identify the location(s) of all files in the C-Cast workflow. The purpose of this service is to prevent transform and transfer operations to be processed several times. The service is local: if you delete the service, all information related to the resource locations are deleted.
C-Cast Thumbnail Extraction Service	Service responsible for the extraction of the thumbnails to be made available in the thumbnails area (thumbwall) in C-Cast Publisher.
EVS Xsquare Service	Service responsible for the extractions, transcoding and rewrap requested to C-Cast Agent.

Checking the Overall Service Status

The C-Cast Agent services should be configured to:

- be automatically started when you start the C-Cast application
- be automatically restarted after one minute should they accidentally stop running.

When all services are correctly started, the C-Cast Agent icon in the taskbar is blue:

When one of the services is stopped, the C-Cast Agent icon in the taskbar is red:

Checking the Individual Service Status

In C-Cast Agent, you can check for each service that the service is correctly started, and can communicate with C-Cast Agent:

 Click the C-Cast Agent icon in the notification area, and select Services Monitoring from the contextual menu. The Services Monitoring window opens.

The services status is displayed in the **Service State** column and symbolized by one of the following icons:

lcon	Service Status
	Service starting
~	Service correctly started
	Service paused
	Service stopping
	Service stopped
Ċ	Service shut down
A	Error

When a service is stopped, it is automatically restarted within one minute.

When a service is in error state, modify the connection settings to redirect to another service on the network.

Modifying the Connection Settings of a C-Cast Agent Service

If you want your C-Cast Agent to work with a service that is not installed on the C-Cast Agent hardware, for example another Xsquare service, you will have to specify and apply the connection settings for this service.

To modify the connection settings for a service in C-Cast Agent, proceed as follows:

1. Click the C-Cast Agent icon in the notification area, and select **Services Monitoring** from the contextual menu.

The Services Monitoring window opens.

2. Double click the row corresponding to the service whose connection settings you want to modify.

The Services Details area opens at the bottom of the window with detailed information on the service.

- 3. In the Services Details area, click Advanced to expand the Advanced area.
- 4. In the Advanced area, specify the IP address, login and password C-Cast Agent has to use to communicate with the service.
- 5. Click Add next to the password field to move the IP address to the upper part of the Details pane.



6. Click Test connection in the Services Details area to check whether the C-Cast Agent can contact the service using the given IP Address and the credentials.

If the test is successful, the service state will be \checkmark .

- 7. Depending on the outcome of the test, do one of the following actions:
 - a. If the test is unsuccessful, check the settings and repeat steps 4 to 6
 - b. If the test is successful, click Update to validate and apply the new connections settings.

The service connection settings have been modified, and successfully applied.

3.4. Jobs Monitoring Window

Introduction

In C-Cast Agent, the Jobs Monitoring window allows you to monitor all jobs processed by the C-Cast Agent services.

The following screenshot shows an example of the Jobs Monitoring window:

Abs/Monitoring								. .							
Job ID	Asset Id	Received date	s State	Priority	Production Type			Initiator	Name		Source Filename Destination			Extraction	Transfer
6960			1		Demo - Techwriter (XSTR) Target				Studio12_0181			TechWriter_Contrib_77f85566-36e3-4471-ba67-3a00708af783.mxf		~	V
6959	77f85566-36e3-4471-ba67-3a00708af783	10:46:21				(XSTR) Mezzar			Studio12_018			64A0575A7927D6332B7	1EF8B7A809F1C.mp4		1
6952		10:46:20	1			(XSTR) Target			Studio12_018			TechWriter_Contrib_b94		1	1
6951	b94bf397-6620-4b53-b289-44e1110e4563	10:46:20				(XSTR) Mezzar			Studio12_018			54CE8F1E5BAB238BBF3	32061AA40FE1D.mp4		1
6948		10:46:20	1	Medium		(XSTR) Target			Studio12_018						1
6947	b21f3a6f-15a5-4259-a4b9-cebaa6067a54	10:46:20				(XSTR) Mezzar			Studio12_018			AA9C73E0BFD167B8FB97407F3E3DF5B6.mp4			1
6944	776e1c82-d3c0-4376-b54a-c3c89062fbcd	10:46:19	1	Medium		(XSTR) Target			Studio12_018		Truck12-REC2	TechWriter_Contrib_776	e1c82-d3c0-4376-b54a-c3c89062fbcd.mxf		1
6943	776e1c82-d3c0-4376-b54a-c3c89062fbcd			Medium	Demo - Techwriter (XSTR) Mezzanin				Studio12_0181 Truck12-REC2 DA716326F0					4	
6940	c90000c9-76e5-4d65-b786-62d3629d58f7	10:46:19	1	Medium	Demo - Techwriter (XSTR) Target			IPConnect (C-Cast IF		Studio12_0181 Truck11-REC4 TechWriter_Contr		TechWriter_Contrib_c90	000c9-76e5-4d65-b786-62d3629d58f7.mxf	~	1
6939	c90000c9-76e5-4d65-b786-62d3629d58f7	10:46:19		Medium	Demo - Techwriter (XSTR) Mezza				nnect (C-Cast IF Studio12_0181			193B80B5516AEA8484F395E14BA722F8.mp4			4
6936		10:46:00	1		Demo - Techwriter (XSTR) Target				Connect (C-Cast IF Studio12_0180 True			TechWriter_Contrib_8d3175d2-2588-40b9-8132-ab9541bce028.mx			1
6935	8d3175d2-2588-40b9-8132-ab9541bce028	10:46:00				(XSTR) Mezzar			nect (C-Cast JF Studio12_0180 Truck11-REC3 48FCA3D78900B92038F492F1ABBC8231.mp4		492F1ABBC8231.mp4		1		
_	III. Show System jobs														
Job ID	6940 XSquare Id 1641	Start at 2	2016/08/09	10:46:20		Extraction Pro	file Contribut	ion	S	ierver name	Truck11				
Asset Id	c90000c9-76e5-4d65-b786-62d3629d58f7	Finished at	2016/08/09	10:46:30		Transfer Profil	e To local f	older P1	F	lecorder name	REC4				
State	Completed	Elapsed time	00:00:09.53	2											
Priority	Medium														
Id	Service		State	Started	at Finisł	hed at	Elapsed time	Message				Depends			
	2e766ee-b5af-4a68-b531-b204e97ed155 VideoExtractionService Completed 2016/08/09 10.4620 2016/08/09 10.4628 00:00:07.659 XSquare job is completed														
	le-f739-4438-b912-5556b29a7cc5 UpdateMe		Complete	_		5/08/09 10:46:28							-b5af-4a68-b531-b204e97ed155		
0a7f75e2	2-b8ee-4d5e-a6b3-e8c9ff9e50dc TransferSe		Complete	d 2016/0	8/09 10:46:28 2016	5/08/09 10:46:30	00:00:01.711	Transfer completed				8b6c93de	-f739-4438-b912-5556b29a7cc5		

About Jobs

A job sent by the IPConnect initiator to a C-Cast Agent through C-Cast Central, to make AV content available in C-Cast Publisher, will usually be divided into minimum three items in the Jobs Monitoring window. Each item corresponds to one part of the job:

- A group of thumbnails. This file is displayed in the Thumbnails area (thumbwall) in C-Cast Publisher (system job);
- A lo-res file, also called a system rendition. This file can be viewed in the player in C-Cast Publisher (system job);
- A mezzanine file. This is the high-quality source video file.

A job sent from the Publisher initiator to a C-Cast Agent, to generate several output files for the distribution workflow will consist of as many jobs as output files need to be generated. C-Cast Agent will usually try to group jobs in a multi-destination job in Xsquare in order to optimize resource usage.



Field Description

The Jobs Monitoring window contains job-related data that helps monitoring the job process.

By default, the system jobs are not displayed in the grid. You can display them by selecting the **Show System Jobs** check box at the bottom of the page.

Click on a job item to open the details pane with more detailed information about the item, such as the services involved in the job processing.



The Xsquare ID is specified in the details pane.

If a job requires a rendition that is already available in C-Cast Central, the extraction step is not processed once again, and the job will solely consist in transferring the existing rendition to the requested destination.

Name	Description					
Job ID	Unique number which increments for each row in the Jobs Monitoring window.					
Asset ID	ID number of the video asset.					
Received Date	Date when the C-Cast Agent has received the job.					
State	Current status in the job process. The job status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progress statuses, and can have the following values:Image: Status is derived from both extraction and transfer progression and t					
Priority	Priority for processing the job. The processing priority is defined on the asset item in C-Cast Publisher if it differs from the default priority.					
Production	Production name.					
Туре	 Type of target. The following types are possible: Mezzanine: job to generate outputs for the distribution workflows. System (Video): job to generate the video in C-Cast Publisher. System (Thumbwall): job to generate thumbs in C-Cast Publisher. 					

Name	Description
Initiator	 C-Cast application that requests the job. The following initiators are possible: Publisher (+ name of the user who requested the job) IPConnect (+ production site name)
Name	Name of the clip.
Source	 Source of the clip specified in the following pattern: If this is an EVS server: <server name="">-<recorder name="">.</recorder></server> If this is a file: <file path=""></file>
Filename Destination	Name of the output file.
Extraction	 Status of the transform task of the job. If the job is not running, the status is displayed (See State field). If the job is running, a progress bar is displayed.
Transfer	 Status of the transfer task of the job If the job is not running, the status is displayed (See State field). If the job is running, a progress bar is displayed.

3.5. Traces Window

Introduction

When you need to deliver the log files to the Support team for further investigation on an issue, you can zip and send the **CCast** folder stored in C: EVSLogsCCast.

In C-Cast Agent, the Traces window also allows you to monitor the messages generated by C-Cast Agent and its services.

The following screenshot shows an example of the Traces window:

🔁 Traces
2014-09-24 11:09:33,771 DEBUG LinxControllerV2.LinxController [Linx] Found 0 recorders from interface GbE Left (Jumbo Frame Capapble) on Ip address 192.168.129.103
2014-09-24 11:09:33,771 DEBUG LinxControllerV2.LinxController [Linx] Trying to get Recorder from interface Teredo Tunneling Pseudo-Interface on Ip address 192.168.129.103
2014-09-24 11:09:33,865 DEBUG LinxControllerV2.LinxController linx.Connect
2014-09-24 11:09:33,865 DEBUG LinxSimpleEngineLibInternalLogger BEFORE connect:192.168.129.103
2014-09-24 11:09:33,865 DEBUG LinxSimpleEngineLib.InternalLogger AFTER connect:192.168.129.103 connectionId:0
2014-09:24 11:09:33,865 fRR0R UnixSimpleEngineEibUnternatLogger Error in Connect: No more connection available
2014-09-24 11:09:33,865 fRRX0R LinxControllerV2.timxController unable to get xt recorders from 192 168.129.403
2014-09-24 11:09:33,871 DEBUG LinxControllerV2.LinxController [Linx] Found 0 recorders from interface Teredo Tunneling Pseudo-Interface on Ip address 192.168.129.103
2014-09-24 11:09:33,871 INFO LinxSimpleEngineLibilintemaiLogger Initializing LinX API 25:18
2014-09-24 11:09:33:953 INFO LinxSimpleEngineLibInternalLogger Discover connected on Teredo Tunneling Pseudo-Interface
2014-09-24-11:09:33,954 (1980)R LineSimpleEngineSiDinbarnalLogger Error in Diacover No more connection available
2014-09-24 11:1:0:08,475 DEBUG EVS.CCast.Agent.Services.Manager.ProductionManager Keep Alive - URL : https://demo.c-cast-staging.tv/Content/ Token : 71c605be-9662-476b-87a8-56b669f63155
2014-09-24 11:1:0:08,604 DEBUG EVS.CCast.Agent.Services.Manager.ProductionManager Keep Alive - URL : https://demo.c-cast-staging.tv/Content/ Token : fd131ff9-6889-4e29-9b90-a0226282d566
2014-09-24 11:10:08,942 DEBUG EVS.CCast.Agent.Services.Manager.ProductionManager Keep Alive - URL : http://demo.c-cast-staging.tv/content/ Token : 6c57377e-7t76-42ab-b943-01918b164fc1
2014-09-24 11:10:20,124 DEBUG EVS.CCast.Agent.Services.Tools.SignalR.SignalRManager [SignalRManager][StartTimer] Need to call all jobs not ack
2014-09-24 11:10:20,148 DEBUG EVS.CCast.Agent.Services.Tools.SignalR.SignalRObserver [SignalRObserver][SendMeAllNotACK] SendAllNAck notification sent to NotificationCenter
2014-09-24 11:11:20,159 DEBUG EVS.CCast.Agent.Services.Tools.SignalR.SignalRObserver [SignalRObserver][SendMeAlINotACK] SendAlINAck notification sent to NotificationCenter



Severity Level

The records are categorized according to their severity level:

Information type	
Debug	Messages, in white font, the developers can use for debug purpose in case of failure.
Information	Messages, in green font, providing useful information to C-Cast Agent users.
Error	Messages, in red font, referring to errors in one of the C-Cast Agent services.
Critical	Messages, in red font, referring to errors that can prevent C-Cast Agent and C-Cast Agent services to work correctly.
Fatal	Messages, in red font, referring to errors that prevent C-Cast Agent and C-Cast Agent services from being used.

Record Components

Each record is made up of the following sequence:

<Date> <Time> <Severity Level> <Code-Related Info> <Message>

Information type	
Date	Date (yyyy-mm-dd) when the error or information has been generated.
Time	Time (hh:mm:ss;ms) when the error or information has been generated.
Severity Level	Degree of importance of the error
Code-Related Info	Information relevant to EVS developers
Message	Message describing the event.

Corporate +32 4 361 7000

North & Latin America +1 973 575 7811

Asia & Pacific +852 2914 2501

Other regional offices www.evs.com/contact



EVS Broadcast Equipment is continuously adapting and improving its products in accordance with the ever changing requirements of the Broadcast Industry. The data contained herein is therefore subject to change without prior notice. Companies and product names are trademarks or registered trademarks of their respective companies.

EVS Headquarters Liège Science Park 13, rue Bois St Jean B-4102 Seraing

Belgium