



UBICAST

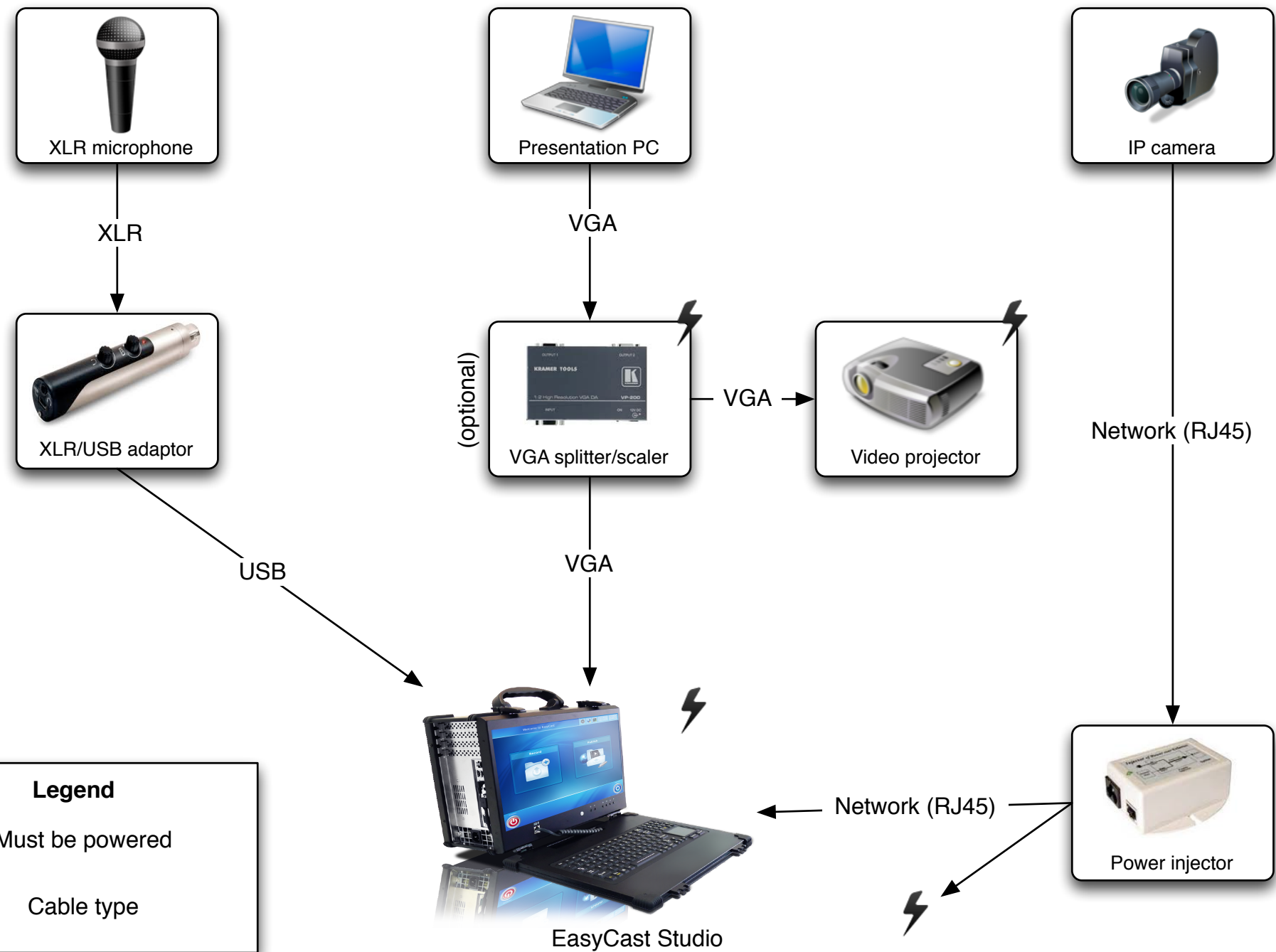
EasyCast Studio user manual
version 2.6

GUIDE CONTENTS

- Step 1.** Setup (cables and connections)
- Step 2.** Recording a presentation
- Step 3.** Editing and publishing
- Step 4.** Viewing content
- Step 5.** Advanced settings

Step 1. Setup (cables and connections)

EasyCast Studio setup



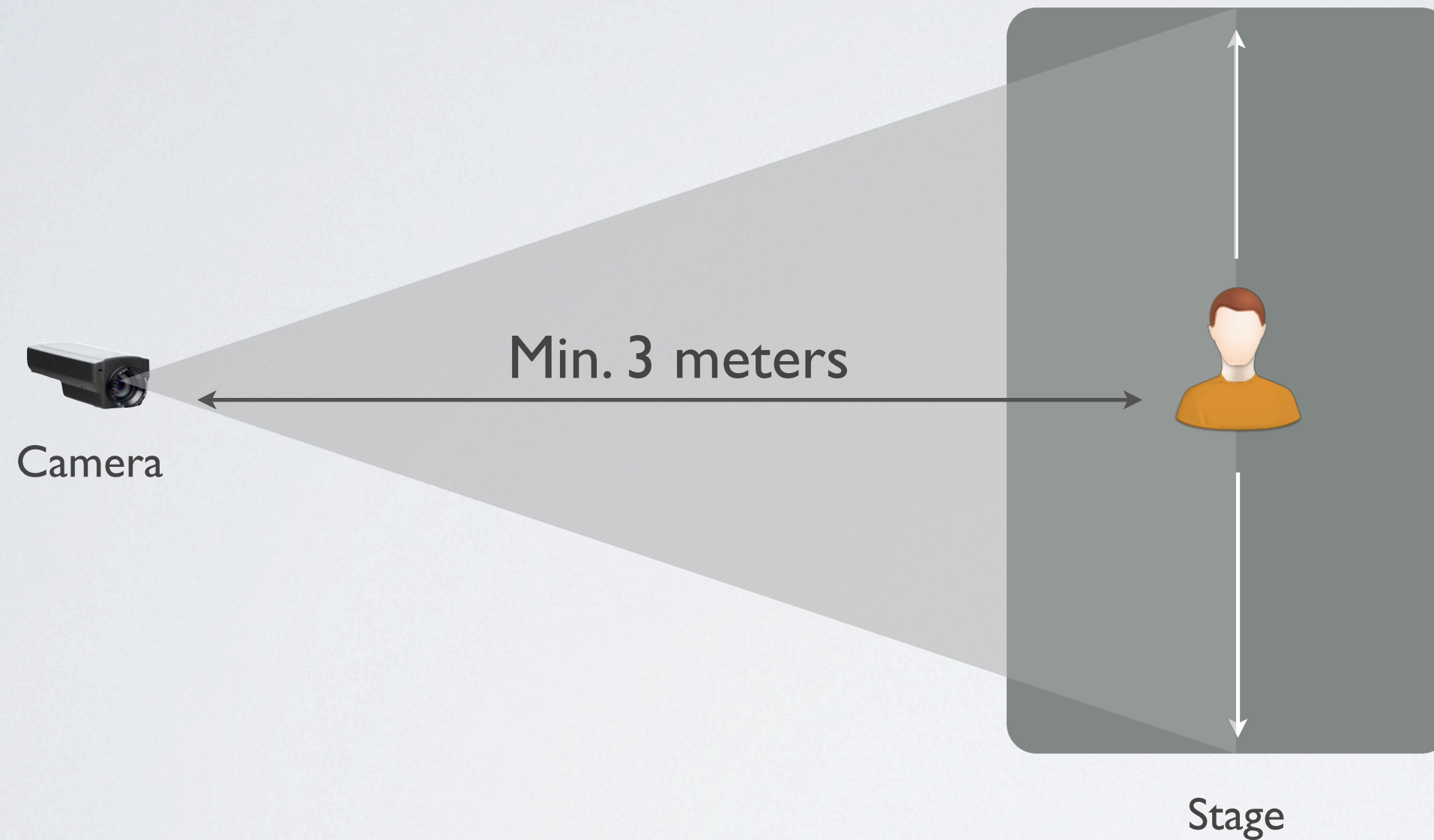
Setup time is approximately 10 minutes for a mobile system

Setup is identical whether setting up a mobile or fixed EasyCast Studio

The data input on the Studio is natively DVI, a (supplied) VGA-DVI converter will be necessary if using a VGA cable from the presentation PC to the Studio

The use of a power injector enables you to run only one network cable to the IP camera. The cable going to the camera should be plugged into the "Data & Power - Out" plug on the power injector.

Camera placement for Autocam



When using automatic speaker framing (Autocam), the camera should be placed :

- min. 3 meters away from the presenter
- ideally in the back of the room, in order to cover the entire zone in which the presenter will move.

Step 2. Recording a presentation



Home screen



*EasyCast boots **directly** into this home screen – it is a **dedicated** Linux-based appliance. The entire **operating system** is managed by UbiCast and this is a big difference with Windows-based lecture capture systems : here the user can't corrupt the system by installing updates or any third-party software.*

The entire user interface was created from the ground up by UbiCast and is optimized for touch screens.

Here, the user can :

- record a new presentation
- edit and publish existing media
- (1) press a single button for system wide updating from drivers to the deep Linux kernel (and consult the new version changelog)

Press the (2) Record button to continue.

Welcome to EasyCast



Select a profile

Computer

Record the computer's screen output in high resolution and frame rate.

1



Video Camera

Record the video camera, with audio.

2



Video Camera and Computer

Record and synchronize the video camera, audio and the computer screen output.

3



Home



Profile selection

When the user wishes to record a new media, he must first choose a Profile. The default profiles are **device-based** : you can either record just (1) the computer and audio (data) signal and audio, (2) the video camera and audio, or (3) the computer along with video and audio (to create typical Rich Media).

It is important to note that **all** of the system options can be put into a Profile, allowing for the creation of custom **user-based** profiles. For example, here we could have just 2 profiles : HR and Communications. Selecting HR tells the system that it needs to publish the content to a specific location, in a specific video format and burn a specific logo into the video. The Communications Profile can be entirely different and send the recording into the client's YouTube channel for example.

This enables the systems to be **highly automated**.

If you wish to create profiles, please contact your reseller or UbiCast directly – they can be configured and added remotely.

Select (3) to continue.



Detected peripherals

The system has tried to find all the devices and services requested by the chosen Profile.

As indicated (1-3), we have found a camera, microphones, a data signal and (4) the Studio is connected to the Internet, specifically to an EasyCast MediaServer, allowing LIVE streaming to a portal on www.ubicast.tv.



Security is built into the system here : if no audio had been found, we could not move to the next step, avoiding some users to create content with no audio.

All devices have been found, press the (5) Next button to continue.



Recording screen

Sources are previewed in zones 1 to 3, respectively video, audio and data.

In order to start a live stream, the user must press the Live button (4) then start a recording (5). This is a **security** measure built into the system : if the local network were to fail, at least we have a recording of the content for later use. Also, it is important to note that even if live streaming is in low quality because the upload connexion is weak, the recorded content is in full quality.

Before or during a manned recording, the user can enter metadata concerning the recording by tapping (6). This information can also be entered later on of course.

During a recording, a user can also manually add chapters (7) that will assist especially for media trimming : for example during a conference, press this button when a new speaker starts a talk, this will enable to quickly cut out each talk.

For most users the only interaction here should be just Start/Stop record.

Launch a recording, stop the recording and press Export (8) to proceed. You can record as many presentations in a row as the local hard disk enables.

Step 3. Editing and publishing



Media list - Publish application

This is the editing and publishing part of EasyCast. You can access this part of the system by tapping the “Publish” button from the home screen.

Here we have the list of all media stored on the system’s hard drive. Standard systems come with a 2Tb hard disk and can hold approximately 500 hours of FullHD content.

Our previous recording is the media at the top of the list. Select it and press the play (1) button for playback. Below the video, the captured slides will appear as the presenter moved from one slide to the next.

The first thing we may want to do is trim the recording, to take out the first and last few seconds. Tap the Trim (2) button to move to the next step.

Media trimming (editing)



Many EasyCast users wanted to import recorded content into desktop editing software such as Adobe Premier or Apple Final Cut only to cut out the first seconds or the coffee break. To simplify the process and because UbiCast's technical developments are client-driven, we simply developed the feature and added it to the system.

To create an edit, simply move the time cursor (1) to the desired starting point and press "Mark as start" (2). Then move the cursor (1) to the desired end point and press "Mark as end" (3). This creates a segment that can be extracted by pressing the "Extract" (4) button.

You can create multiple segments and extract each of them as separate media files (data will stay synchronized) or merge the multiple segments by pressing the "Merge" (5) button before pressing "Extract".

Trimming is simplified by the fact that EasyCast creates (colored) indicators on the timeline corresponding to Microphone ON/OFF and Data Connected/Disconnected events. So you can easily cut the video when the presenter starts speaking, or when he disconnects his PC before leaving for example.



Note that this editing is **non-destructive** : the original "parent" file will stay intact. Indeed, when you press "Extract" you will see that the new media is created as sub-media to the original video.





Media list - Publish application

We previously trimmed/edited our recording.

The second phase of editing here is related to the Autocam (tracking) feature in EasyCast. The system will automatically reframe the 1080p video we've created around the presenter for dynamic content.

Tap the "Tracking" (1) button.

Select a video to see or publish it



**This video has not been analyzed yet.
What do you want to do?**



Calibrate
Autocam



Configure
and launch
analysis



Launch
analysis



Launch
analysis
and
rendering



Skip
analysis



Previous

Settings

Manage objects

Add zoom keyframe

Delete left key frame

Use manual cropping

Launch rendering



Autocam - setup (1/3)

There are multiples cases here :

1. You have never performed a calibration of the system before the recording, you've just set up the system and pressed record. In this case, press the "Configure and launch analysis" (1) button and go to the next step.

2. You have already configured the analysis zone (red rectangle). In this case, just press "Launch analysis and rendering" (2). The system will go back to the Media list and start processing to reframe (in this case skip the next 3 steps).

Note that pressing the "Calibrate Autocam" (3) button will start a **long** processing time that will find objects in the room that might look like humans and that should be removed.

Autocam setup (2/3)

If you've pressed the "Configure and launch analysis" button you will arrive on this screen.

By factory default, the analysis zone – the area in which EasyCast will look for the presenter(s) – is the entire video frame (zone 1). You can redefine this zone by drawing a new rectangle. A few points :

- the smaller this zone is, the faster analysis time will be
- to avoid detecting people sitting in the room, the zone should contain only the presenter
- EasyCast looks for shoulder shapes (not faces), so the suggested analysis zone should just contain the presenter's bust area (in this case for example, zone number 2)
- the analysis zone should cover all the space the presenter will be moving around in, so define wide areas.

The default extracted frame's size is defined by the "Medium shot zoom factor (X)". You can modify the size of the frame using the "+" and "-" buttons (3).

You can also modify the vertical position of the extracted frame (adapt to "unusual" body shapes) by using the "Medium shot vertical offset" button (4).

Press "Apply" when you have the right settings. The system will return to the Media list and start the analysis process.





Autocam setup (3/3)

Once the analysis process is over, press the "Tracking" button once more in the Media list. You will arrive on this screen, that shows you the detected human(oid) figures.

In this example, a poster image has been found (1). As you do not wish to track this, select the rectangle and then the "Ignore" button. The preview image will then be of reduced opacity.

The same person has been found twice, so select the two images (2 and 3) and press "Join".

Press the "Apply" button to continue to next screen.

If there is only one person found (usually the case), simply press the "Apply" button.



Autocam preview

Zone (1) shows a preview of the frame that will be extracted (green rectangle) from the original video. By pressing the play button (2) you can see that as the subject moves, so does the extract.

On the video timeline (2), entry/exit of "objects" (presenter walking in and out of frame) is shown by vertical red bars. The green vertical bars indicate a change in frame, typically going from wide angle (original video) to tracked frame. Segments (3), shown in grey, are created from one green bar to the next. On each segment you can :

- activate/disactivate the tracking of detected objects (4) by simply tapping their image
- modify the zoom level, using the default "Medium shot" or the "Custom shot" (frame size defined in Settings)

You can manually create and delete segments if you wish to manually change zoom levels during media.

Press "Launch rendering" (6) to go back to the Media list and start the actual extraction of the green rectangle.

Select a video to see or publish it



- 01/29/13 18:06:10 00:01:04 ✓ ↑
- 01/09/13 16:36:29 00:04:03 ↑ 1
- 01/09/13 16:19:26 00:12:10
- 12/10/12 09:30:54 00:00:17
- 12/04/12 19:14:03 00:00:31 !
- 12/04/12 19:10:58 00:00:30 ✓
- 12/04/12 19:10:58 00:00:19 ✓
- 12/04/12 18:54:19 00:03:52
- 11/21/12 19:25:10 08:00:00
- 11/21/12 09:35:06 08:00:00
- 11/09/12 17:40:19 00:00:30

Preview Metadata Properties

00:00:16
00:01:04

UBICAST What is EasyCast ?

EasyCast is rock solid.
It's based on Linux.

- Home
- Multiple selection [S]: off
- Delete [Del]
- Trim [E]
- Tracking [T]
- Chapters [C]
- Publish [Enter]



Autocam preview and Chapters

When rendering is finished, there will be a check symbol (1) to the right of the video.

The video used for the media is replaced by the tracked version (2). The original video is always kept, so multiple autocam versions can be made.

Our last editing step is chapters. Press the "Chapters" (3) button to continue.



Editing chapters



Chapters are the result of a **human** decision to transform a slide into a chapter. To create a chapter, simply give a slide a Title (1).

On the timeline (2), there are green and white vertical bars.

- white bars indicate slide changes
- green bars indicate that a slide has been transformed into a chapter

Users can either 1) not create chapters, 2) create them manually by simply giving them Titles, or 3) use an automation “trick” :

- most companies/universities have graphical charters with titles always in the same slide area (top center)
- if users place a (supplied) small chessboard pattern (3) on any part of the slide, EasyCast will find this pattern, “read” the title inside a pre-defined zone (4) (can be modified by drawing a new rectangle) using Optical Character Recognition and automatically enter it in the “Title” (1) zone. The slide is thus automatically transformed into a chapter.

Here you can see the keywords that were found on each slide (5) and view/edit the different types of markers (6). These markers can greatly help users when trimming content, for example those that index audio on/off and data connected/disconnected events.



Publishing content

In the Media list, press the “Publish” button.

The system will search for devices and services it can publish to and display this interface.

By default, you can publish to USB, an FTP server and the EasyCast MediaServer associated with your EasyCast Studio.

If you haven't done any of the Autocam setup steps, you can simply press “Automatic tracking”(1). The system will use the previously defined analysis zone, analyze and extract.

To add a logo that will be burnt into the video upon export, insert a USB stick containing a JPG, PNG, TIF or BMP image and tap the Logo settings icon (2). Select the desired image and modify at will the proportion of the video width that the logo should take and placement. Prefer the use of large logos, they will be downsized. You only need to add a logo once : for subsequent uses, selecting the logo button (3) will add the last used logo image.

Insert a USB stick in any of the system's lateral USB ports, select USB (4) and press “Launch” (5).



Task manager 1/2

Once you have launched the export, the system will come back to the Media List.

Icon (1) indicates that the system is processing that media.

Tap the task manager icon in the top of the screen (2) to view what tasks are being performed.

Task manager 2/2

Tap on the dropdown arrow (1) to see the tasks the system is performing. The system will :

- first normalize audio, so that audio is even throughout the recording and generally so that all published content has the same audio level (more comfortable for viewers)
- then apply OCR (Optical Character Recognition) on all slides to extract keywords for search
- (if selected) perform Autocam analysis and rendering
- transcode the video into the video formats indicated in the Profile used. Here the Windows Media Video (WMV) and MP4 formats will enable compatibility with all major Web browsers (Safari, Chrome, Firefox, Internet Explorer – even version 6)
- copy the content to the USB stick

When tasks are completed, tap “Close” (2), retrieve the USB stick and show content on your PC.



Step 4. Viewing content

Exported folder content

You have just published a standalone Rich Media recording to USB. It will deliver the highest Rich Media experience you can have without the presence of a streaming server.

The USB stick contains a folder called “ubicast”. Open this folder to find the content shown left.

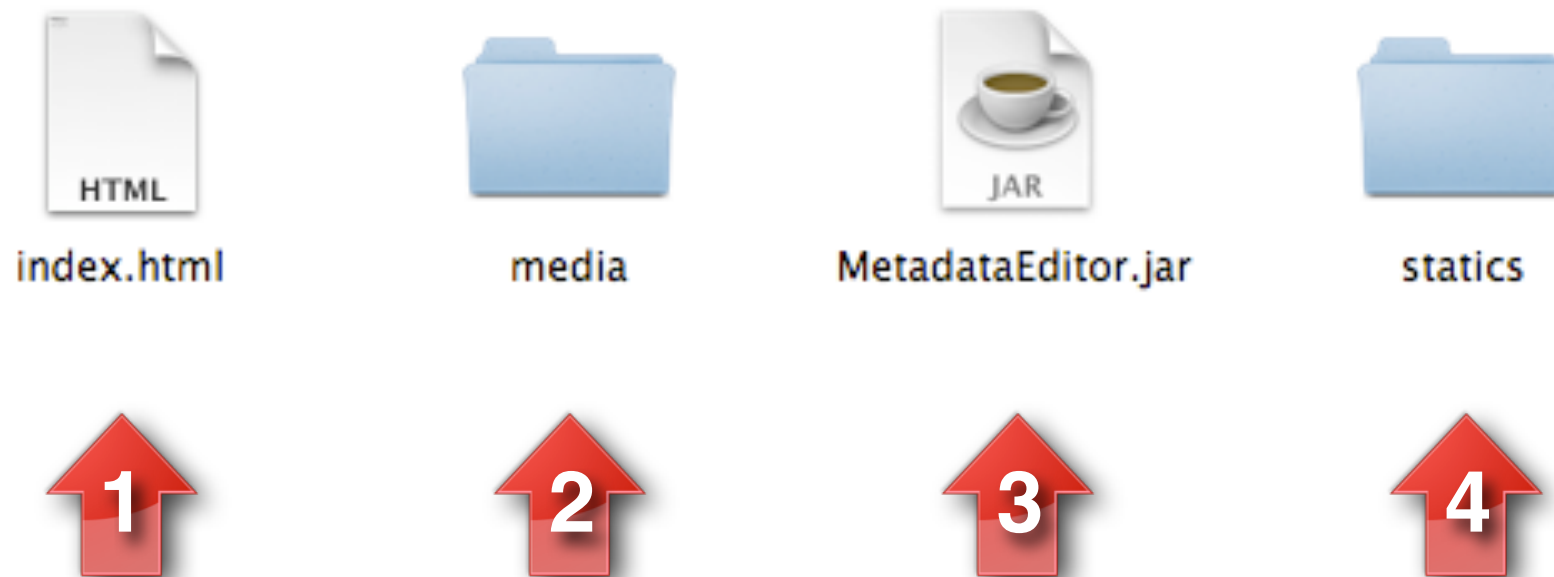
The “index.html” (1) file will open the entire “package” in your default browser. Note that by default your system will publish video in MP4 and WMV formats so **compatible browsers are : Internet Explorer, Chrome, Safari** (not Firefox – which requires WebM format, not published by default but can be activated).

The “media” (2) folder contains captured slides and video.

MetadataEditor (3) is a Java application (will thus run on Windows, Mac and Linux) that lets the user edit Metadata on the comfort of his/her PC. You can open this application, change the media’s Title and click Save.

The “statics” (4) folder contains all the graphical elements and code of the Rich Media player – all of these can be easily modified for full customer branding.

Double click on the “index.html” (1) file to view content.



Viewing the published Rich Media (1/3)

In the top lefthand side (1), we can see the title we have given to the recording (or default title) and multiple tabs.

Our recording has been exported as HD Rich Media (2). The presenter is being tracked and the presentation is rendered in high quality and full motion. The first slides show that animations are well captured.

We have chapters (3), that have been created automatically, using the chessboard pattern. Click on the "Why Linux ?" chapter. You can also navigate visually, by slide, by moving your mouse over the video timeline (4). Go back to the beginning of the video, by clicking on the beginning of the timeline.

Click the "Display current slide" icon (5). This will show the captured slides (in JPEG format). This shows how clean the captures are and a viewer can stay in this view, with just slides and audio. The slides will refresh automatically.



Viewing the published Rich Media (2/3)

The “Information” (1) tab doesn’t contain anything as it is intended for manually entered metadata.

Click on the “Slides” (2) tab to view all captured slides.

A viewer can click on a slide here to scroll to it. This is useful if you remember what a slide looked like and want to go back to it.


The screenshot displays the EasyCast Studio interface for a presentation titled "EasyCast Studio demonstration for Client X". At the top, there are navigation tabs: "Video", "Information" (marked with a red arrow and the number 1), "Slides" (marked with a red arrow and the number 2), and "Search". Below the tabs, there is a "Slides size" control with minus and plus buttons. The main area shows a grid of nine slide thumbnails, each with a timestamp and a preview image. The slides are:

- 00:00:00: Topics (What is EasyCast?, Why Linux?, Let's watch a cartoon)
- 00:00:09: What is EasyCast? (EasyCast is end-to-end. From recording presentations to sharing.)
- 00:00:13: What is EasyCast? (EasyCast is Easy to use.)
- 00:00:17: What is EasyCast? (EasyCast creates content for all devices.)
- 00:00:23: What is EasyCast? (EasyCast is rock solid. It's based on Linux.)
- 00:00:26: Why Linux? (List of Linux benefits: Entire OS source code is free, Strong community around Linux, Robust journaling filesystem, Highly modular & scalable, Rich development environment, Born and brought up on the Internet, Very strong networking support.)
- 00:00:36: Let's watch a cartoon (Video thumbnail of a cartoon rabbit)
- 00:00:42: (Video thumbnail of a landscape)
- 00:00:58: Thank you

EasyCast Studio demonstration for Client X

▶ Video ▶ Information ▶ Slides ▼ Search

Search: 1 results found for *torvalds*



Why Linux ?
Starting at: 00:00:26
Found in: chapter's keywords

Viewing the published Rich Media (3/3)

Next, click on the “Search” tab.

EasyCast will automatically extract all words within all slides and make these words searchable.

When you type in a word, the results are by slide. Click on the slide to seek within the video to that specific slide.

Step 5. *Advanced settings*



One-push maintenance

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If you encounter any issues with your system or simply wish to send us feedback, please first send an email to support@ubicast.eu

Once we have analyzed the issue, you may be instructed to put your system in Maintenance mode.

To do this, go to the EasyCast Home screen, press the “Advanced” button on the bottom right corner. You arrive on this interface.

On the top right, press the Run Maintenance (1) button.

When you press this button, the system will create an outbound secure (SSH) connexion to our support servers, our engineers are alerted and can connect to the system for system-wide remote debugging.

Please only perform this operation when instructed to do so by UbiCast personnel, after prior discussion.