

## Information for your Blu-ray Disc Production

### Checklist in preparation of production

- to sign the contract with AACS LA and receive an own AACS ID duration: 2-3 weeks
- to apply for an ISAN Number (optional) duration: 1 day
- to create a Master CMF image done by the authoring studio and burn and test a sample (BD-R) of this CMF image duration: N/A
- to send the tested and released CMF material together with the AACS ID as hard disc or via FTP (Aspera Server) to optimal duration: 1 day

### Guidelines for the AACS licensing

The application of AACS (Advanced Access Content System) copy protection is obligatory for Blu-ray Disc productions.

The rights' owner is obliged to sign a Content Participant Agreement or a Content Provider Agreement with AACS LA. This contract incorporates fees, which are to be paid to AACS LA directly by the rights' owner. You will be given a Content Provider ID. Please send this to optimal with your Blu-ray master.

An International Standard Audiovisual Number (ISAN) for authoring can be issued optionally to clearly identify audiovisual works. For this please register on <http://www.isan-deutschland.de> resp. <http://www.isan.org> and create the requested ISAN online.

For further information on AACS LA please visit the following link:

<http://www.aacsla.com>

The relevant licence agreements can be found under:

[http://www.aacsla.com/license/AACS\\_Content\\_Provider\\_Agrmt\\_090619.pdf](http://www.aacsla.com/license/AACS_Content_Provider_Agrmt_090619.pdf)

[http://www.aacsla.com/license/AACS\\_Content\\_Participant\\_Agrmt\\_090619.pdf](http://www.aacsla.com/license/AACS_Content_Participant_Agrmt_090619.pdf)

### **Contact details AACS LA:**

AACS Administration  
3855 SW 153rd Drive  
Beaverton, Oregon 97006 USA

phone: +1-503-619-0863  
fax: +1-503-644-6708  
e-mail: [admin@aacsla.com](mailto:admin@aacsla.com)

The master will be checked here at optimal following receipt of your order and master. We will subsequently send an e-mail to AACS LA requesting the Content Certificate (CC), using your Content Provider ID. This process usually takes two working days.

After the generation of the Content Certificate at AACS LA and the respective notification by e-mail, your master will be completed with this CC as well as an individual Media Key Block (MKB). With AACS your master is complete and ready for glass mastering.

### Please note:

It is compulsory for each replicated Blu-ray Disc to be equipped with AACS copy protection. It is not permissible and technically impossible to manufacture a BD video title without AACS copy protection.

Burned Blu-ray Discs are an exception and we will gladly provide these separately for small runs.

The following AACIS costs apply for a Blu-ray Disc production.

1. Content Provider Licence  
(usually a one-off fee per rights' owner)  
You will receive the invoice directly from AACIS LA together with your Content Provider ID.
2. One-off costs per title  
[Content Certificate (CC) and Media Key Block (MKB)]  
optimal will charge you for these fees which will be passed on to AACIS LA as licence fees.
3. Licence fee per replicated disc  
optimal will charge you for these fees which will be passed on to AACIS LA as licence fees.

Please be informed that AACIS licence fees are determined by the AACIS LA and are subject to change. optimal will reserve the right to adapt charges in case fees change.

Project timeline for Blu-ray productions

Please take this rough timeline as a guide for your Blu-ray Disc production.

Check of suitability for mastering:	1 working day
AACIS Encryption:	2 working days (depending on AACIS capacity)
Mastering & Galvanic:	2 working days (depending on capacity)
Check Disc run:	4 working days
Check Disc approval:	Time taken depends on the client
Production of the order quantity:	10 working days (depending on order quantity/packaging)

The timeline is based on ready-to-process masters according to current industry standards. Please note that these are non-binding timings for the respective production steps, dependent on factors beyond our control and should be taken as a guidelines only. We will, of course, process your orders to your complete satisfaction as fast as possible.

Master delivery formats

The standard for Blu-ray delivery formats has not been officially stipulated. The following formats are viable / recommended:

- external hard disc including cable with CMF 2.00 or BDCMF Image; type A
- BD-R, BD-RE with CMF 2.00 or BDCMF Image; type A

You are also free to use the BD+ copy protection or the interactive functions of BD Live for your production. Please label your master accordingly and inform us before the planned production.

Information about the playability of Blu-ray Discs

The proper functioning of Blu-Ray discs (BD) depends considerably on the software on your player. In the unlikely event that a BD does not work as expected, we kindly ask you to update your player to the latest firmware and Java version (BD-J) first. You will find the instructions in your players' manual. During the programming of your BD the authoring studio makes a conscious effort to avoid popular players' common vulnerability. In case the disc does not work despite the use of the latest firmware, we are able to relate to your problem better, when you communicate the model and firmware version you are using in addition to the BD to us. There are a few players that do not function properly and there are no updates available for these.

If you have any questions, please do not hesitate to contact the person responsible at optimal:

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