



Czech Television

VAT No.: CZ00027383

and

LES FILMS FIGURES LIBRES company

VAT No.: FR75513096362

COOPERATION AGREEMENT

No. 1084650/542

Object of Agreement: rights and obligations in the production and distribution of an audio-visual recording

Price or value: 17 473 EUR

Date of signature: 24/08/17

**COOPERATION AGREEMENT
BETWEEN**

(1) **LES FILMS FIGURES LIBRES company**, registered address 103 rue des fontaines 31300 Toulouse, France (hereinafter the "**Producer**"); France VAT number: FR75513096362; bank account number: 08000449155, IBAN: FR76 1313 5000 8008 0004 4915 512, SWIFT: CEPAFRPP313, represented by: [REDACTED], Manager

AND

(2) **ČESKÁ TELEVIZE** registered address Kavčí hory, 140 70 Prague 4, Czech Republic (hereinafter "**ČT**"), IČ: 00027383, VAT No.: CZ 00027383, Account No.: 1698682/0800, IBAN: CZ60 0800 0000 0000 0169 8682, SWIFT: GIBACZPX, represented by [REDACTED], Head of Production

WHEREAS

ČT and the Producer set forth in this Agreement the terms and conditions under which they will work together on the creation and distribution of a tv programme which is defined further below (hereinafter the "**Programme**").

1. Definition of Terms

In addition to those terms that are defined in the body of the Agreement, in this Agreement:

Programme means an audio and visual recording of a theatre performance entitled [REDACTED] [REDACTED] (hereinafter the "**performance**") [REDACTED]
[REDACTED]

ČT territory means the [REDACTED]

Materials for delivery are materials that are further specified in Annex 1 to this Agreement;

Overspend means any amount by which the actual cost of production of the Programme exceeds the production budget.

2. Tasks and Responsibilities of the Producer

2.1. The Producer shall be solely responsible for the production of the Programme and will provide all services necessary during the production and use of the Programme that are standardly provided by producers of theatre performances, including but not limited to:

- (i) the Producer is responsible for the production of the Programme and financing of the Programme, and agreeing all necessary related contracts;
- (ii) the Producer is solely responsible for managing production finances and finances arising from the distribution of the Programme;
- (iii) the Producer is responsible for securing copyright protection and other legal protection for the Programme; settling all related financial requirements associated with thereof unless stated otherwise;

- (iv) the Producer has exclusive control of the production budget for the Programme including the payment of any potential Overspend;
- (v) the Producer shall deliver the completed Programme to ČT as further specified in Art. 5.

2.2. The Producer shall provide its services on a non-exclusive basis during the production and distribution of the Programme.

2.3. The Producer hereby undertakes to make and deliver to ČT the Programme under the terms and conditions, and within the deadlines stated below:

Working title:

Length:

Directed by:

Shooting dates:

Shooting location:

Deadline for completion works:


Place of completion works:

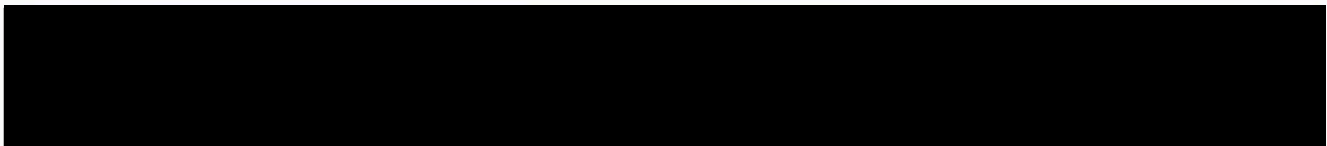
Deadline for the delivery of the rough cut of the Programme to ČT: 

Deadline for the delivery of the final cut of the Programme to ČT: 

Delivery of the Delivery Materials to ČT: 

2.4. The Producer undertakes to deliver the necessary number of hard disks to the ČT broadcasting vehicle so that rough materials can be made; the technical parameters of the hard disks and their quantity shall be specified by ČT no later than 2 weeks prior to the shooting.

2.5. The Producer is aware of the fact that ČT is negotiating with the  with regards to the technical and implementation conditions, concerning performance under Article 3 below (the time schedule for the installation of the technical equipment, reserving tickets for the seats occupied by the technical equipment etc.).



2.7. The parties acknowledge and agree that the value of performance that will be provided by the Producer under this Agreement amounts to [REDACTED].

3. Role and Responsibilities of ČT

3.1. ČT undertakes to provide [REDACTED] during the shooting in the Czech Republic within the scope defined in Annex 3 hereto, in particular:

(i) comprehensive [REDACTED] necessary to make the visual and audio recording of the performance;

(ii) comprehensive [REDACTED] necessary to make the visual and audio recording of the performance;

(iii) [REDACTED] necessary to make the visual and audio recording of the performance excluding the director and the director of photography.

3.2. ČT is solely responsible for recruiting persons (including remuneration payments, taxes and other payments) stated in Annex 3 hereto. Furthermore, ČT shall be responsible for procuring consents necessary for the use of the Programme by Czech Television in accordance with Paragraph 4.1 from the composer of the music ([REDACTED]), the author of the libretto [REDACTED] and [REDACTED], [REDACTED], the director of the Programme [REDACTED] and [REDACTED], and the choreographer [REDACTED]), and for settling any and all financial claims related thereto.

3.3. The parties acknowledge and agree that the value of the performance provided by ČT under this Agreement amounts to 463 028 CZK, i.e. 17 473 EUR.

4. ČT Rights

4.1 Under this Agreement the Producer grants to ČT the following rights [REDACTED] (hereinafter "ČT Rights"):

- a) the right to have a Czech version of the Programme including opening and closing credits
- b) exclusive licence to make permanent or temporary, direct or indirect copies of the Programme or its parts and to distribute, rent and lend the original of the Programme or its copies [REDACTED]
- c) exclusive licence to use the Programme, or its part, and broadcast to the public in the [REDACTED], i.e.:
 - television broadcasting
 - transmission of television broadcasting
 - operating television broadcasting
 - distribution through a computer network or a similar network

- d) exclusive licence to distribute the Programme with a split, or otherwise amended image which includes a self- promotion, or other text or visual information in a separate part; a shared image can also be an image covered with information
- e) authorisation to furnish the Programme with a logo or another designation of the operator of the TV broadcasting, including text, visual and other information as often and whenever
- f) authorisation to promote the Programme and ČT in all usual ways (annotations in the press, use of trailers and excerpts for the Programme in ČT, in other televisions and radio stations, at press events, trade fairs and festivals or in cinema theatres and like venues, use of photographs and excerpts on the Internet, in particular the website of ČT etc.)
[REDACTED]
- g) non-commercial use for educational and promotional activities, public screenings, festivals, etc. [REDACTED]
[REDACTED]
[REDACTED]
- h) authorisation to provide the aforementioned licences, fully or partly to any third party [REDACTED]
[REDACTED]

5. Approval and delivery

- 5.1 ČT will be given the opportunity to see the Programme and to raise justified objections to the Programme during the rough and final cuts. Upon delivery of any relevant materials, ČT will give to the Producer's representative notes and commentaries within 10 days from the delivery; if this deadline expires and no action is taken the Programme is considered approved by ČT. During the rough and final cuts the Producer will deliver the Programme in the following manner: on-line following the conditions in Annex 1. The Producer will exert all reasonable efforts to comply with justified requests made by ČT.
- 5.2. The Producer is obligated to incorporate all comments made by the Czech Republic with regards to compliance with the laws of the Czech Republic, in particular the Radio and TV Broadcasting Act and the Audiovisual Media Services Act as required, and any other generally binding legal regulations.

6. Ownership of the Programme

- 6.1 The parties hereby acknowledge that all the rights, ownership and stake, including but not limited to copyrights, ownership rights of executive artists, rights of action and any other rights of any nature, which can exist in any part of the world, in the Programme and related to the Programme, [REDACTED]

7. Credits, marketing

- 7.1 The closing credits of the Programme will include the names of persons provided by ČT, their list will be delivered by ČT to the Producer no later than by October 31, 2017.
- 7.2 The Programme will include in the opening credits the following:

„LES FILMS FIGURES LIBRES [REDACTED] and Česká televize
present“

7.4 The Programme shall bear the following copyright notice:

© **LES FILMS FIGURES LIBRES and Česká televize** + year of the first public broadcast

7.5. The Producer shall send opening and closing credits to ČT for approval well in advance.

7.6. The final version of the opening and closing credit list in English will be made by the Producer and will be delivered to ČT together with the final master of the Programme.

7.7 The Parties shall ensure that the logos of both Parties as delivered by the respective Party are included in all printed promotional materials, DVD covers, etc. The logos of the Parties must comply with graphic manuals delivered by the respective Party regulating the use of the logos and are subject to prior approval by contact persons specified below. The artworks shall be deemed approved if the other Party does not give any comment in writing on the request for approval of the relevant printed materials within five (5) working days following the receipt of such a request. Both Parties shall be introduced and designated as co-producers during all communication activities intended to promote the Programme, in particular at promotional events and press conferences relating to the Programme or when communicating via electronic social networks.

Names of the contact persons:

For Producer:

- [REDACTED]

For ČT:

- [REDACTED]

with a copy to

- [REDACTED]

and to

- [REDACTED]

7.8. The Parties agreed that each Party shall obtain promotional photographs from the shooting of the Programme at its own cost and responsibility.

8. Invoicing

8.1. ČT shall pay to the Producer for the Rights provided under Paragraph 4 the amount of 17 473 EUR. The price stated is VAT exclusive; pursuant to legal regulations valid in the Czech Republic, the input VAT must be calculated and paid by ČT since ČT is fully responsible to the Czech Inland Revenue for the compliance with this duty.

8.2. The Producer is entitled to invoice the sum stated in paragraph 8.1 after signing the Agreement.

- 8.3. The Producer shall pay to ČT for the performance stated in Paragraph 3 the amount of [REDACTED]. The price stated is VAT exclusive; pursuant to legal regulations valid in France the input VAT must be calculated and paid by the Producer who is fully responsible to the French Inland Revenue for the compliance with this duty.
- 8.4. ČT is entitled to invoice the sum stated in paragraph 8.3 after signing the Agreement.
- 8.5. Invoices shall be payable within 30 days after delivery to the other contracting party.
- 8.6. It is agreed that if the Producer takes the opportunity to send the invoice by e-mail, the Producer must send the invoice in a PDF format from its e-mail address to the following ČT e-mail address faktury@ceskatelevize.cz. The invoice is considered delivered to ČT on the day it is delivered to the ČT e-mail address which is also considered to represent a consent to use this form of communication. The same method of electronic delivery is used if the invoice does not include the stipulated requirements, or the day stated is incorrect and a corrected invoice must be sent.
- 8.7. Unless stated in this Agreement otherwise, ČT shall pay a withholding tax deducted from the amount stated in Paragraph 8.1. and other costs on behalf of the Producer, and ČT shall provide to the Producer all necessary documentation and any other assistance which the Producer can reasonably request in order to claim a discount or payment deduction of the withholding tax paid; in this context ČT undertakes to deliver to the Producer a confirmation of tax domicile no later than by the date the invoice at issue is payable.
- 8.8. Unless stated in this Agreement otherwise, the Producer shall pay a withholding tax deducted from the amount stated in Paragraph 8.3. on behalf of ČT, and any other costs, and ČT shall provide to the Producer all necessary documentation and any other assistance which ČT can reasonably request in order to claim a discount or payment deduction of the withholding tax paid; in this context the Producer undertakes to deliver to ČT a confirmation of tax domicile no later than by the date the invoice at issue is payable.
- 8.9. Providing that the confirmations of tax domicile are delivered within the agreed deadlines, the contracting parties agreed that mutual receivables will be set off.

9. ČT Guarantees

9.1 ČT guarantees and commits itself to the Producer that:

- (i) ČT has the opportunity to perform its duties under this Agreement and it has not made, and will not make other commitments which are, or could be in conflict with the full wording of ČT obligations under this Agreement;
- (ii) ČT will not make a contract, either written or oral, and it will not bind the Producer or promise anything on its behalf without the previous written consent of the Producer.

(iii) ČT shall strictly comply with, and fulfil all its agreements, obligations, declarations and duties stated herein;

(iv) ČT shall inform the Producer about any non-compliance or infringement of rights in connection with the Programme in the ČT Territory or anywhere which ČT learns of;

(v) ČT will use filter technology by the geographical location (geofilters) in order to ensure that access to the Programme is clearly restricted to the recipients located in the ČT Territory. The Contracting Parties expressly state that this obligation is not breached in case of signal overlap outside the Territory of ČT in connection to authorised broadcasting of the Programme by ČT or a third party in the ČR Republic (i.e. spillover).

9.2 ČT hereby agrees that the Producer will be compensated with regards to any legitimate claims, suits, costs (including duly arisen cost of legal representation), damages, requirements and expenses claimed from the Producer as a result of the violation or non-compliance with agreements, duties, representations, duties or guarantees by ČT as stated herein by ČT.

10. **Producer's Obligations**

10.1 The Producers hereby guarantees and commits itself to ČT that:

(i) The Producer has the opportunity to perform its duties under this Agreement and it has not made, and will not make any other professional commitments which are, or could be in conflict with the full wording of the Producer's obligations under this Agreement;

(ii) The Producer acquired, or will acquire all rights to the Programme by September 28, 2017 so that the Programme can be used according to this save for the exception laid down in Paragraph 3.2, i.e. with the exception of consents granted by the persons specified in Paragraph 3.2, as necessary for the use of the Programme by Czech Television in accordance with Paragraph 4.1; in this regard the Producer represents that no other legitimate claims of the owners of copyright, executive artists, manufacturers and holders of other rights will be made against ČT in connection to using the Programme under the terms and conditions stated herein; should such claims be made against ČT, the Producer undertakes to satisfy the claims and compensate ČT for any actually arisen costs associated with the claims.

(iii) The Producer shall not licence the Rights to the programme to any third party in the ČT Territory; and

(iv) The Producer shall not authorise and(or) allow and (or) mediate and (or) perform any task within the Territory from the date of this Agreement which will infringe the Rights provided by ČT herein, providing that the breach of the Agreement does not regard broadcast spillover to ČT Territory caused on the basis of a satellite rights licence to the Programme for another territory.

- 10.2 The Producer hereby agrees that ČT will be compensated with regards to any legitimate claims, suits, costs (including duly arisen cost of legal representation), damages, requirements and expenses claimed from ČT as a result of the violation or non-compliance with agreements, duties, representations, duties or guarantees by the Producer as stated herein by the Producer.

11. FINAL PROVISIONS

- 11.1. All rights and responsibilities inherent in this Agreement shall be transferred to any legal successors of the contracting parties.
- 11.2. It is possible to withdraw from this Agreement in case of a major breach of the Agreement by either of the contracting parties providing that the breach is not rectified, not even within a reasonable period stipulated on the basis of a written notice; the right to compensation for damage and a contractual fine remains hereby unaffected. If the Producer defaults on the performance of its obligations arising from this Agreement, even partially, ČT is entitled to stop its performance under the Agreement, until all previous obligations of the Producer are met. This suspension shall have no effect on validity of this Agreement. For the period of suspended performance in accordance with this paragraph, ČT is not in default and it is entitled to the right of compensation for damage.
- 11.3. The Parties agree that the content of this Agreement, as well as any information that may have come to either Party's attention during the process of negotiation preceding the execution of this Agreement and/or its fulfillment, is considered to be confidential and neither contracting Party shall be authorized to disclose to any third party such information without the prior written consent of the other Party. This prohibition remains in effect after the performance of the Agreement is completed or terminated, with the exception of information: (i) that came to the other Party's attention independently of the other contracting Party; (ii) that ČT provides to third parties in relation to the preparation, production, distribution and/or promotion of its program content to which this Agreement relates and/or in relation to its own promotion (with the exception of information marked by Lecturer as its trade secret); (iii) that a contracting Party provides or makes public based on a legal regulation or enforceable decision of a court and/or authorized administrative body; and (iv) that a contracting Party provides to its specialist advisors and/or other associates equally bound by the legal or contractual duty of confidentiality. As this Agreement is subject to an obligation to make the contents of this Agreement public based on the Act on Registration of Agreements (Act No. 340/2015 of the Czech Collection of Laws – hereinafter as the "Act on Registration of Agreements"), information about the contracting Parties in this Agreement highlighted in yellow shall be redacted (blackened out) pursuant to the Act on Registration of Agreements upon mutual Agreement. Such redacting shall be implemented especially in cases of, but not limited to, trade secrets that are subject to the appropriate measures of the Parties to keep such information confidential. Information not highlighted in yellow shall not be subject to the duty of confidentiality pursuant to this provision. Only ČT shall be entitled to make this Agreement public pursuant to the Act on Registration of Agreements within the time period of 30 days commencing upon its execution. Provided that ČT does not make the Agreement public within this time period, either Party shall be authorized to make the Agreement public

pursuant to the Act on Registration of Agreements. [REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- 11.4. The Parties declare that the definition of the subject matter of this Agreement and the price or value of the subject matter of the Agreement on the cover page of this Agreement has no normative significance and is cited only for the purposes of making possible the publication thereof in the Register of Agreements.
- 11.5. All changes, clarifications or additions and amendments of this Agreement shall be in form of written and numbered amendments signed by authorized representatives of both contracting parties.
- 11.6. Issues not set forth by this Agreement shall be governed by the provisions of the Civil Code and the Copyright Act applicable for the relationship of the contracting parties arising from this Agreement.
- 11.7. In the event that some of the provisions of this Agreement, or any part thereof, are not considered as apparent legal conduct by law, or that some of the provisions of this Agreement, or any part thereof, are or become invalid, void and/or unenforceable, these shall be separated, within the relevant extent, from the rest of the provisions of this Contract and this will not affect the validity, effectiveness and enforceability of the rest of the arrangements hereof. The Parties undertake to replace such apparent, or invalid, ineffective and/or unenforceable provision or part thereof with a new provision, which will be valid, effective and enforceable and whose substance and economic importance will be the same or as close as possible to the replaced provision, such that the purpose and sense of this Agreement remains unchanged.
- 11.8. The Parties have agreed that customs do not override the provisions of the Agreement and provisions of the law.
- 11.9. This Agreement is governed by legal regulations of the Czech Republic and it shall be interpreted in accordance with Czech law. The contracting parties will strive to resolve any potential disputes in an amicable manner. In case of disputes, arising from this Agreement or in connection with hereof, which cannot be resolved in an amicable manner, the parties will approach relevant courts in the Czech Republic.
- 11.10. This Agreement is made in three counterparts (two for ČT, one for the Producer).

Annexes to the Agreement:

No. 1 - Delivery Materials

No. 2 - Total Budget ((in accordance with Sec. 3 (2) of the Act on Registration of Agreements, this Schedule will not be published (not even in blacked out form), and shall be regarded as highlighted in yellow pursuant to Clause 11.3)

No. 3 - ČT Budget ((in accordance with Sec. 3 (2) of the Act on Registration of Agreements, this Schedule will not be published (not even in blacked out form), and shall be regarded as highlighted in yellow pursuant to Clause 11.3)

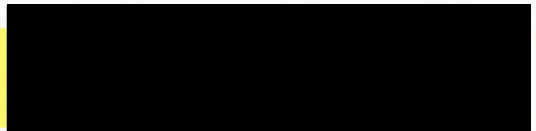
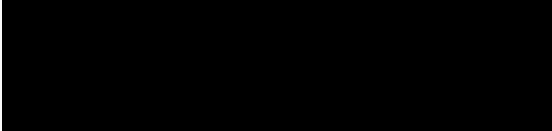
No. 4 - General Technical Conditions for Programmes delivered and produced by ČT

No. 5 – Production Schedule in Czech Republic (in accordance with Sec. 3 (2) of the Act on Registration of Agreements, this Schedule will not be published (not even in blacked out form), and shall be regarded as highlighted in yellow pursuant to Clause 11.3)

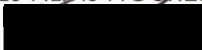
21-08-2017

In Toulouse, dated _____

In Prague, dated 20.7.2017



LES FILMS FIGURES LIBRES



Česká televize

Annex No. 1

Delivery Materials

- a completed Programme on HDD in a following format:
Video: QT.mov / ProRes HQ 422 or mxf / DNxHD 185 Mbps
Audio: Stereo 24bit/48kHz R 128 EBU
In case of mix in 5.0, 5 separate audio channels/tracks to be supplied alongside the stereo mix; Czech TV will in such case create its own 5.0 mix.

The final AVW version shall be without opening and end credits („textless version“) and in a quality corresponding to the General Terms and Conditions for Programs Produced and Broadcasted by the ČT (Annex 4 of the Agreement)

- list of opening and closing credits in English
- music cue sheets - overview of musical works including a list of the music used, stating the titles of the compositions, the exact length of each musical recording used, the first names and last names of the authors of the music and text, all in the electronic and printed format using the form "Background Document for Reporting to OSA, INTERGRAM" delivered by ČT.
- a list of visual recordings, visual and sound recordings, photographs, artistic and other piece of works if included in the Programme, including the scope of the acquired licences; for visual and audio visual recordings the name, used footage and the time code, where the sample is located on the Programme, will be stated, together with the producer of the sample, the name of the musical composition, the author of the music and the author of the text (providing there is a musical piece), the performers and the scope of licence - all this shall be reported in the electronic and printed format using a form "Report on Using Audio Visual Works" delivered by ČT
- Texts presenting the Director (biography)

General Technical Conditions for programmes delivered to and produced in Czech Television

valid from 1 Feb 2014

1. Introduction

- 1.1 Technical conditions specified below are obligatory for all production in Czech Television („CT“) and they apply to any programme essence recordings regardless of the fact whether it refers to its own production, coproduction, commissioned production, programme purchase or licences from external suppliers.
- 1.2 Technical parameters stated in this regulation are crucial to assess whether CT would accept any material delivered with respect to its technical possibilities and particularly in line with its effort to observe the highest possible technical quality of the whole production, which should be in the interest of all creators, coproducers and external suppliers.
- 1.3 The specific technical conditions for the programmes produced in CT are to be set before beginning of their production in the moment of taking over technical consultation on the technical acceptance meeting. For the programmes produced in coproduction, in commission or for programmes purchased from external suppliers the specific technical conditions must be stated in the contract.
- 1.4 If there is in this material a formulation „at the prearranged projects“ then this agreement must be authorized by chief production engineer.
- 1.5 Any exception from the rules stated in these Conditions must be authorized in advance and in writing by chief production engineer.

2. Quality and technical requirements on the programme essence

- 2.1 The programme essence recording must always be made in the best possible technically attainable quality while using technical equipment of the „broadcast quality“ and in accordance with the recommendations of the equipment manufacturer.

Video

- 2.2 The reproduced video signal must always be compatible with the PAL system.
 - The amplitude of component signals R, G, B must be within the range of -5% to +105%.
 - The amplitude of the output luminance signal must be within the range of -1% to +103%. When converting among different systems it must be assured, that the final signal also conforms to these limits which correspond to the Recommendation EBU R103-2000.
 - As the basis for the tolerance stated above is the range from 0 to 700 mV.

2.3 Required SD signal characteristics:

- Materials delivered as composite analogue must satisfy the standard PAL ITU-R BT.470-7.
- Materials with digitized signals must comply with the Recommendation CCIR Rec.601 or the ITU-R BT.601-5A standard.

2.4 Required HD signal characteristics:

- Materials delivered in a digitized form must comply with the Recommendation CCIR Rec.601 or the ITU-R BT.709-5 standard.
- Colometric parameters of the signal must comply with the ITU-R BT.1361 standard.
- CT allows delivery of the programme essence in a digitized form on condition of at least eight bit sampling 3:1:1 (HD Cam) or 4:2:2 and the usage of a signal compression of the type I-frame only. The minimum data flow for these materials is at least 100Mbit/s.
- When using the MPEG-2 compression with the long GOP the minimum data flow required is at least 50Mbit/s CBR or 35 Mbit/s VBR.
- Downconverted SD signal must comply with the PAL ITU-R BT.470-7.

2.5 The video signal must not contain any subjective perceptible defects such as noise, picture out of focus, judder, digital artifacts, distortion of geometry, distorted colour rendering, vignetting, lens dirt etc. The video signal must make use of the whole acceptable dynamic range.

2.6 The primary recording delivered for the further processing must not contain any electronically generated effects. In this sense the primary recording is understood as taken directly from a camera (take technology). This requirement does not apply to the signal recording taken after the vision mixer processing directly during the shooting in a studio or in an OB-van.

Accepted image formats

2.7 SD format:

- **576i/25** 720 x 576 interlaced, 25 frames (50 fields) in one second.

2.8 HD format – for HD projects only two following formats are allowed:

- **1080i/25** 1920 x 1080 interlaced, 25 frames (50 fields) in one second – format preferred
- **1080p/25** 1920 x 1080 (or **1080PsF/25** - progressive segmented frame), 25 frames in one second (S3 system according to the EBU Tech 3299 specification) – the use of this format is acceptable in cases when this is specifically stated in the protocol from the technical acceptance meeting.

Decision of the General Manager dated from 28 Jan 2014

- 2.9 No processing combination of materials **1080PsF/25** (S3) and **1080i/25** (S2) allowed.
- 2.10 Final cut for archiving may use either the format 1080i/25 or 1080PsF/25 and must be the same as the format used in acquisition and in postproduction.
- 2.11 In case of the format 576i/25 the electronic production in the progressive mode (PsF, sometimes also called cinema mode) it is not allowed. This means, that for the takes of moving objects shot by the television camera there is corresponding sequence of interlaced fields, where each of them is taken in the following time moment after the preceding one and so its video information is different, because it is newer by 1/50 of a second.
- 2.12 The delivered material can be classified as **HD** only if it contains at least **75%** of video material shot in **native HD definiton**.
- 2.13 Up-conversion methods are allowed to make use of SD essence in HD projects only in case the source materials are of perfect vision quality.
- 2.14 The only accepted aspect ratio format in CT for its own production is 16:9.
- 2.15 Remarks:
- CT does not support video 3DTV materials.
 - The format 720p/50 1280 x 720 progressive (non-interlaced), 50 frames per second (S1 system according to the EBU Tech 3299 specification), cannot be processed in CT.
 - The format 1080p/50 1920 x 1080 progressive (non-interlaced), 50 frames per second (S4 system according to the EBU Tech 3299 specification), cannot be processed in CT.
 - Timing relations of individual image formats can be seen in the Appendix 10.3.

Audio:

- 2.16 The audio signals must be digitized in conformity with the Recommendation EBU R85, which means the use of sampling frequency of 48 kHz, the bit depth of 24 bits (in exceptional cases 16 bits) and that in the whole production processing as well as at the storing on the recording medium the signals shall not be compressed.
- 2.17 Level of the sound signal must be processed in accordance with the Recommendation EBU R 128. The permitted and measured parameters over the duration of a programme are as follows: Programme Loudness -23.0+/-1.0 LUFS, Loudness Range < 25 LU and Maximum True Peak Level < -3.0 dBTP. Observing the demanded parameters does not depend on the audio format used (stereo or MCH) and the use of the Relative Gate -10 LU is supposed.
- 2.18 There must be no subjectively perceptible time shift between the picture and the sound in the range of the whole material and according to the Recommendation EBU R37-1997 must not exceed 40 ms in case of sound before picture and 60 ms for sound trailing picture.

- 2.19 Because of the necessary compatibility with the mono signal the phase difference between both channels of the stereo programme must not in the longer time interval exceed the value of 90° in the whole bandwidth.
- 2.20 Identical mono signals delivered on more tracks must not show any level difference exceeding 1 dB and the phase difference of $15^\circ / 10$ kHz.
- 2.21 Materials with programme elements on two and more tracks or channels must follow the standard sequence L – R – C – LFE – Ls – Rs – Lo – Ro in accordance with the Recommendation ITU R-BR 1384.
- 2.22 The TV sound of finalized programmes can be delivered in any of the programme modes and tracks allocations as in the table in Appendix 10.2.
- In channel CH4 (LFE) there must be also provided the „no signal“ mode for the 5.0 format.
- 2.23 In all cases the signals must retain the appropriate phase. The derived mono signal must always satisfy the basic rule $\text{MONO} = (L + R) / 2$.

Audio dramaturgy

- 2.24 In order to face justified and repeated complaints of viewers, CT will in future take as suited for further processing or for transmitting only programmes respecting in their final version following rules:
- 2.25 Final version of TV sound should have balanced ratio of spoken word, music and other sound components without any disturbing effects like noise, hum, tone pitch fluctuations, distortion and any other undesirable coding artefacts. The sound must be in correlation with the picture and must be free of any parts that due to the missing or on the contrary excessive sound elements would be in contradiction with the picture content.
- 2.26 It is necessary to minimize the number of sound plans used in the TV programme and take the dialog and the commentary for the dominant component. The ratio of other components must be adjusted so as not to mask the speech itself.
- 2.27 Any combination of music background with dialog or commentary is in TV programmes permissible only in cases, when there are serious dramaturgical or artistic reasons. Even if the use of background music is necessary, following rules must be observed:
- If in combination with the speech, only low music level should be used.
 - When using the music background, it is necessary to maintain dialog quality.
 - Avoid vocal and excessively dynamic music as a background.
 - Respect, that some solo music instruments are not in some interpretations suitable for background of the spoken word (piano, trumpet, percussion instruments).

- 2.28 The sound composition in programmes oriented on seniors should be very sensitive, because the problem of decreasing comprehensibility turns to be serious approximately from the viewer's age of 50 years.
- 2.29 The comprehensibility of programmes with multichannel sound must be monitored in the lower format modes (stereo, mono).
- 2.30 Questionable cases of comprehensibility should be always assessed with a small sound monitor in mono mode. The producer of TV programmes for the CT should always bear this aspect on his mind and therefore check the questionable comprehensibility during the sound mixing.

Subtitles

- 2.31 Subtitles produced in CT's workplaces are accepted in the STL format (STL file) in compliance with the EBU Tech. 3264 specification.
- 2.32 Subtitles produced outside of CT's workplaces are accepted in formats described in the article 2.31 and furthermore in the SRT format with Unicode.
- 2.33 Files with subtitles must be delivered to CT one day before a planned production at latest. Files must be delivered as attachments to the e-mail (3,5" floppy disc medium is no more accepted). In addition specifications of the font, colour, size of the background and the location of subtitles must be included. If the specification is missing the CT's default format will be applied.
- 2.34 The CR/LF marks must be present in the end of the individual lines in the SRT subtitles files.
- 2.35 The master Time Code format included in the file must correspond to the picture frame rate.
- 2.36 In case of subtitles designed for subtitling to broadcast carries the reference Time Code must correspond to the delivered programme essence without necessity of any further modifications.
- 2.37 In case of subtitles designed for the DVD and BR production the reference point must be determined for setting of offset.
- 2.38 When using other formats of files with subtitling it must be agreed in advance and furthermore these formats must be compatible with formats used in the FAB Subtitler Profesional 7 SW.
- 2.39 The insertion of subtitles to the programme essence must be made by the determined equipment that allows to create a backup files with subtitles corresponding lastly inserted subtitles for possible further use.

3. Media accepted only for the programme essence recording

- 3.1 Cinematographic film 35 mm or Super 16 mm.
- 3.2 Digital Betacam cassettes.
- 3.3 HDCam cassettes.
- 3.4 HDCam SR cassettes.
- 3.5 Optical discs Sony XDCam (Professional Disc), with capacity 23 GB (single-layer PFD-23A), 50 GB (dual-layer PFD-50DLA) and 100 GB (triple-layer PFD-100TLA).
- 3.6 Memory cards SxS.
- 3.7 Exceptionally and with projects arranged in advance or in case of archive programmes it could be accepted to deliver the material on DVCAM, HDV, BETACAM SP or EBU C (standard PAL) medium. In case of archive materials on historical recording media (even not mentioned here) delivered as elements for further processing in postproduction it is always necessary to consult the feasibility of using them and if possible to use the lowest record generation accessible.

4. Accepted recording media

- 4.1 Portable hard disc drives (HDD) with the USB 2 or 3, E-SATA, Thunderbolt or FireWire 400/800 interface or fixed storage media with USB 2/3 interface formatted in the file system FAT32, NTFS, HFS or HFS+.
- 4.2 CD media – pressed, CD-R or CD-RW with the capacity up to 750 MB in compliance with the standard ISO 10149 or ISO 9660.
- 4.3 DVD-ROM media (one or two layers) in compliance with the standard ISO 16448, DVD-R and DVD+R (one or two layers) in compliance with the standard ISO 20563.
- 4.4 Blue-Ray media (BD-ROM, BD-R, BD-RE) – in compliance with the standard UDF 2.5.
- 4.5 Programme essence can also be obtained by the file data transfer to the server determined for this type of acquisition. It is always necessary to agree upon a precise mechanism of the transfer and the target location in the server.

5. Compressing and file formats

- 5.1 Acceptable file and data formats are stated in the Appendix 10.1 and 10.4.

6. Time Code

- 6.1 Time Code TC must be recorded on the LTC track according to the SMPTE 12M standard.
- 6.2 Time Code TC must be recorded on each single recording media along the whole of its length without interruption and in an increasing order. If daily TC is used, it must be on each medium in an increasing order and for each shooting day a new medium or a new data file must be used.
- 6.3 If the take (shot) technology is used and the requirement for an uninterrupted TC cannot be met, the TC must be recorded in an increasing order along the whole length of the medium and each single take must start with technical lead lasting at least 7 seconds. (It means, that the shooted action must not start earlier than seven seconds after the beginning of the continuous recording).
- 6.4 If the VITC code is used it must be inserted on the lines 19, 21, 332 and 334 and it must be identical with LTC code.
- 6.5 The rules stated similarly apply for the programme essence in a file form. The way of inserting the TC into files must not contradict the standard definition of the container used. If the container allows to insert several TC codes the time information must be identical in all fields used.

7. Metadata

- 7.1 The delivered material must contain all necessary data called mandatory metadata listed below:
 - Name of organization that produced the programme
 - Rights to the programme
 - Title of the programme (including episode number, subtitle)
 - Beginning of the programme (in LTC)
 - End of the programme (in LTC)
 - Video standard and picture format
 - Colour status
 - Allocation of sound tracks
 - Duration and level of setting signals
 - Format audio
 - Value of Dialogue Level for Dolby E

7.2 Form of metadata delivered:

- Both the packaging and the medium (if practicable) must be identically labeled. Inseparable part is also The List of the Videorecording containing the desired metadata in „paper“ form. Should the medium and the package be unambiguously identified by a shelf mark, no further description on the medium label is required.
- The text file assigned to the programme essence either in file or stream form by means of suitable identification.

8 Arrangement of recorded signals

8.1 Leading parts of the programmes and final clean copies produced in the CT are to be set as follows:

- | | |
|--|---|
| a) set-up part (test)
9° 58'00''00 ^F - 9° 59'30''24 ^F | - video: colour bars 100/0/75/0
- audio: reference tone |
| b) leading part, duration 30 s
9° 59'30''00 ^F - 10° 00'00''24 ^F | - video: black
- audio: silence |
| c) programme
10°00'00''00 ^F - ... | - the beginning and the end of the programme must be identical with the data on media labels (metadata) |
| d) trailing part | - 30 s after the end of the programme with the black in video and silence in audio. |

There must be a continuous video signal without interruption in the parts black – programme – black (b-c-d).

8.2 If the programm consists of two media, than the first one will be produced as in paragraph 8.1 and the TC on the second one will be recorded in the following way:

- | | |
|---|---|
| a) set-up part (test)
19° 58'00''00 ^F - 19° 59'30''24 ^F | - video: colour bars 100/0/75/0
- audio: reference tone |
| b) leading part, duration 30 s
19° 59'30''00 ^F - 20° 00'00''24 ^F | - video: black
- audio: silence |
| c) programme
20°00'00''00 ^F - ... | - the beginning and the end of the programme must be identical with the data on media labels (metadata) |
| d) trailing part | - 30 s after the end of the programme with the black in video and silence in audio. |

There must be a continuous video signal without interruption in the parts black – programme – black (b-c-d).

8.3 Requirements from the paragraphs 8.1 and 8.2 need not be maintained at the media:

- a) bought for the CT apart from commission or coproduction.
- b) made as a recording from the transmission net line or direct „from air“, where there it was not possible to determine an exact beginning of the programme.

8.4 Original and contribution tape media must contain video and audio set-up signals in the minimal duration of 30''.

- 8.5 If the contribution is passed over in the file format, the whole essence must form a programme part according to paragraph 8.1 c). The file passed over must not contain parts 8.1 a), b) and d).
- 8.6 The mandatory ordering of the clips on XDCam discs are in the Appendix 10.5.

9. Specific conditions for recordings chosen for direct transmitting

- 9.1 Recordings may be delivered only on Digital Betacam or HDCam cassettes or in a file form in one of the formats contained in the Appendix 10.1 chart – „Formats OMNEON“.
- 9.2 Audio must be delivered in one of the programme modes contained in the Appendix 10.2 and it must be complete. All its tracks must be tied to the transmitted programme and they must be recorded along the whole length of the programme. The main transmitted audio must be always recorded in the first track pair.
- 9.3 In case of the MCH audio it is demanded for the stream Dolby E to be recorded according the Appendix 10.2 of this document with the usage of metadata:
- Dialogue Level – 27
 - Channel Mode 3/2
 - Line Mode Pro: Film: Standard
 - Apart from MCH version the tracks A1 + A2 must always contain a complete transmittable stereo mix.
 - For internal materials the recording system Dolby E with the time shift of 1 Fr in advance is used, which means in sync with video up to the track decoding. In the frame of the programme exchange the timing SYNC ON TAPE is respected, but this must be stated.

Support of handicapped

- 9.4 The delivered materials represented by supplementary files aimed to support the handicapped must have the following form:
- Subtitles
 - The format of subtitles chosen for the play-out must comply with the EBU Tech. 3264-E specification.
 - The final version of subtitles can be sent as an attachment to the e-mail or physically delivered on a portable storage medium with the USB interface formatted in the file system FAT32 or NTFS. 3,5" floppy disc medium is no more accepted even if mentioned in the specification.
 - The content in the file with subtitles must correspond to the delivered programme essence with the right format and address mode without necessity of any further editing.

- The initial files determined for the production of subtitles in CT's workplaces must be compatible with formats used in the FAB Subtitler Profesional 7 SW preferably as a structured text in the Simple text format or the Word 97-2003 format with lines ended by CR/LF marks and language coding either WIN CR 1250 or Unicode UTF-8.
- Audio description – The audio track of the audio description is accepted only in form AD only, which does not mean the complete mix, but with regard to contents a commentary of the audio description. The time binding to the programme essence is direct without the use of offset. Into the metadata QLTY-chunk part of the file must be inserted the information about the assignment to the first frame address, which is to be really transmitted from the final transmittable copy (which is not the address of the start of the audio modulation). The file BWF must be always produced with the audio signal PCM mono coding 48 kHz, which is a necessary condition for the following synchronization according the time stamp in the header.

10. Appendix

10.1 Review of chosen formats of television materials, the processing of which on the chosen postproduction workplaces of CT is quite routine. When using other formats it is always necessary to consult in advance the concrete technical specifications with the television processing specialists. Any deviations must be agreed and stated in the protocol from the technical acceptance meeting

Allowed XDCAM formats

Format name	Container	Video coding	Bit depth	Color sampling	Frame size	Frame rate and scanning type	Video bit rate, Mbit/s	Audio coding
MPEG IMX	MXF	MPEG-2 422P@ML	8	4:2:2	720x576	25i	30 (CBR), 50(CBR)	PCM 8 ch/16 bit/48 kHz or 4 ch/24 bit/48 kHz
MPEG HD422	MXF	MPEG-2 422P@HL	8	4:2:2	1920x1080	25i	50 (CBR)	PCM 8 ch/24 bit/48 kHz, 1 kanál na 1 track
Proxy AV *)	MXF	MPEG-4 Part-2 (ASP)	8	4:2:0	352x288	25p	1,5 (VBR)	A-Law 4 ch/8 bit/8 kHz
EX	MP4	MPEG-2 MP@HL	8	4:2:0	1920x1080	25i	35(VBR)	PCM 2 ch/16 bit/48 kHz,

*) may be used only as viewing material

OMNEON formats
(data formats allowed for direct transmission)

Format name	Container	Video coding	Bit depth	Color sampling	Frame size	Frame rate and scanning type	Video bit rate, Mbit/s	Audio coding
SD IMX 422	MXF-OP1a	MPEG-2 422P@ML	8	4:2:2	720x576	25i	30, 40, 50 (CBR)	PCM 8 ch/24 bit/48 kHz *)
SD IMX 420	MXF-OP1a	MPEG-2 MP@ML	8	4:2:0	720x576	25i	30, 40, 50 (CBR)	PCM 8 ch/24 bit/48 kHz *)
HD MPEG 422 Long-GOP	MXF-OP1a	MPEG-2 422P@HL	8	4:2:2	1920x1080	25i	50 (CBR)	PCM 8 ch/24 bit/48 kHz *)
HD MPEG 420 Long-GOP	MXF-OP1a	MPEG-2 MP@HL	8	4:2:0	1920x1080	25i	50 (CBR)	PCM 8 ch/24 bit/48 kHz *)
HD MPEG I-Frame	MXF-OP1a	MPEG-2 422P@HL	8	4:2:2	1920x1080	25i	100 (CBR)	PCM 8 ch/24 bit/48 kHz *)

*) except main audio in the 1. pair there may be precoded Dolby E audio in the 2. pair

Yellow formats are used for the ingestion in the broadcasting department.

White formats may be used only after agreement with the broadcasting department.

Allowed postproduction formats (Avid, FCP)

Format name	Container	Video coding	Bit depth	Color sampling	Frame size	Frame rate and scanning type	Video bit rate, Mbit/s	Audio coding
See table "Allowed XDCAM formats"								
DNxHD	MXF, QT	DNxHD	8, 10	4:2:2	1920x1080	25i	X	48 kHz/24 bit
Apple ProRes	QT	Apple ProRes	8, 10	4:2:2	1920x1080	25i	X	48 kHz/24 bit
Avid 1:1 8bit, 10 bit	MXF	X	8, 10	4:2:2, 4:4:4	1920x1080	25i	X	48 kHz/24 bit
Apple Uncompressed	QT	X	8, 10	4:2:2, 4:4:4	1920x1080	25i	X	48 kHz/24 bit

10.2 Programme modes and audio tracks assignment for the finalized programmes

Highest nr. of tracks	Type of recording	Notes	Number of the track											
			1	2	3	4	5	6	7	8	9	10	11	12
4	Stereo	5	Czech mix L R	International L R										
	Stereo	1,5	Original mix L R	International L R										
	Dual stereo	5	Czech mix L R	Original mix L R										
	Surround	6	Czech mix L R	Czech mix Dolby E										
	Surround	6	International L R	International Dolby E										
8	Stereo	2,5	Czech mix L R	International L R										
	Stereo	1,5	Original mix L R	International L R										
	Dual stereo	1,5	Czech mix L R	Original mix L R										
	Surround	6	Czech mix L R	Czech mix Dolby E	International L R	International Dolby E								
	Surround	4,6	Original mix L R	Original mix Dolby E	International L R	International Dolby E								
	Dual Surround	3,6	Czech mix L R	Czech mix Dolby E	Original mix L R	Original mix Dolby E								
	Surround	2	Czech mix L R	L R	Czech mix C	LFE	Ls	Rs						
12	Stereo	2,5	Czech mix L R	International L R										
	Stereo	1,5	Original mix L R	International L R										
	Dual stereo	5	Czech mix L R	Original mix L R										
	Surround	6	Czech mix L R	Czech mix Dolby E	International L R	International Dolby E								
	Surround	4,6	Original mix L R	Original mix Dolby E	International L R	International Dolby E								
	Dual Surround	3,6	Czech mix L R	Czech mix Dolby E	Original mix L R	Original mix Dolby E	International L R	International Dolby E						
	Surround	2	Czech mix L R	L R	Czech mix C	LFE	Ls	Rs						






Notes:

This overview is valid for analogue and digital formats and is completely in line with the recommendation SMPTE 320M or ITU-R BR-1384. The demanded track pattern is valid both for tape media and data files.

Yellow marked signals may be transmitted, the other may be used only for further postproduction processing.

- 1 Transmittable track 1,2 in case of programme with Czech captions and transmitted with original audio.
- 2 Transmittable only stereo from the track1,2.
- 3 Dual not transmittable - can be transmitted only in one language version from the track 1-4.
- 4 Transmittable track 1,2,3,4 in case of the programme with Czech captions transmitted in original audio.
- 5 May be mono signal as well. This mono must be recorded always in both track of the pair in question with identical amplitude and phase.
- 6 Dolby-E stream must conform with following specification:
AES 3 stream must be marked as non-audio according to SMPTE 337M.
Lip sync after decoding the Dolby E stream must be guaranteed.
Preferred format: 5.1+2; 25fps; 20bit

10.3 Review of video formats

time		0ms	20ms	40ms	60ms	80ms
phase of moving						
nomenclature	EBU system					
576i/25		288 odd lines phase 1	288 even lines phase 1	288 odd lines phase 3	288 even lines phase 4	
576i/25 (cinema)		288 odd lines phase 1	288 even lines phase 1	288 odd lines phase 3	288 even lines phase 3	***)
720p/50	S1	720 lines phase 1	720 lines phase 2	720 lines phase 3	720 lines phase 4	*)
1080i/25	S2	540 odd lines phase 1	540 even lines phase 2	540 odd lines phase 3	540 even lines phase 4	
1080PsF/25		540 odd lines phase 1	540 even lines phase 1	540 odd lines phase 3	540 even lines phase 3	**)
1080p/25	S3	1080 lines phase 1		1080 lines phase 3		**)
1080p/50	S4	1080 lines phase 1	1080 lines phase 2	1080 lines phase 3	1080 lines phase 4	

*) the way of transmission corresponds to 1080i/25
 **) the format is not used in CT
 ***) the format is not acceptable in CT

10.4 Materials accepted for audio postproduction

Look – in (orientation) video:

- Format QuickTime (*.mov) / DV codec, MJPEG codec (11Mbit/s), H264 (SD 3-6 Mbit/s, HD 6-12 Mbit/s)
- Format AVI type2 (*.avi) / DV codec or MJPEG codec (11 Mbit/s)
- Format Vcube (*.cube) / DV codec or MJPEG codec (11 Mbit/s)

Audio for processing:

- File format WAV or BWF (Broadcast WAV) with additional information in the file header according to the Recommendation EBU N-22. These files must have only the extension „.wav“!
- File format AAF embedded.
- File format Pyramix, compatible with Pyramix Virtual Studio systems up the version 5.
- File format ProTools, compatible with ProTools HD systems up the version 5.
- Data files compatibility of each project must be tested in advance.
- Except for delivered materials data media must not contain any other files (neither data nor programmes).

10. 5 The structure of the clips (ordering) and start address setting on XDCam discs

XD CAM - The whole programme stored on one carrier (medium) or the first part of the programme				
MXF clip	IN	OUT	DUR	the content of the clip
C0001	09:59:00:00	09:59:29:24	00:00:30:00	test bars
C0002	09:59:30:00	09:59:59:24	00:00:30:00	black
C0003	10:00:00:00	10:59:16:24	00:57:17:00	programme
C0004	10:59:17:00	10:59:46:24	00:00:30:00	black - The end - 30 sec.

XD CAM - the second part of the programme				
MXF clip	IN	OUT	DUR	the content of the clip
C0001	19:59:00:00	19:59:29:24	00:00:30:00	test bars
C0002	19:59:30:00	19:59:59:24	00:00:30:00	black
C0003	20:00:00:00	20:59:16:24	00:57:17:00	programme
C0004	20:59:17:00	20:59:46:24	00:00:30:00	black - The end - 30 sec.

XD CAM with several programmes stored on one carrier (medium)				
MXF clip	IN	OUT	DUR	the content of the clip
C0001	09:59:00:00	09:59:29:24	00:00:30:00	test bars
C0002	09:59:30:00	09:59:59:24	00:00:30:00	black
C0003	10:00:00:00	10:21:59:24	00:20:00:00	programme 1
C0004	10:22:00:00	10:22:59:24	00:01:30:00	The black signal between programmes must be in the minimal duration of 20 sec
C0005	10:23:00:00	10:42:59:24	00:20:00:00	The second programme must start from the integer minute
C0006	10:43:00:00	10:43:29:24	00:00:30:00	black - The end - 30 sec.