



## GUIDE LINES TO TECHNICAL STANDARDS FOR JETIX COMMERCIAL COPY

This document sets out the technical requirements for supply of material to  
**Jetix**

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copy and may be subject to revision at any time.

## INDEX

### 1. Introduction.

#### General Requirements

1. Tape Format
2. Video
3. Audio

#### Material Supplied on Videotape

1. Tape Storage & Carriage
2. Multiple Cassettes
3. Recording Specification
4. Audio Channels and Track Designations
5. General Audio Requirements
6. Time Code
7. Documentation
8. Relaxation of Standards
9. Send tapes to

## INTRODUCTION

- a) Jetix aims to maintain the highest technical standards. In consequence this document clearly stipulates the **minimum** acceptable technical quality. Jetix is transmitting programmes in digital compressed formats from digital play-out facilities. A crucial factor in being broadcast in the MPEG 2 digital format is the quality of the video master. Introduction of noise into the video signal is one of the key detrimental factors concerning video compression. We must therefore make sure that the whole process from Telecine, to the master tape that we receive, is **strictly kept in the digital domain** and of the **highest possible quality**.
- b) Jetix requires signals that conform to **CCIR 601 / 656**.

- c) Programme material sent to any of Jetix U.K.'s Television Facilities should be to a high technical standard and shall meet **at least level 4 of the CCIR 500 - 4**. 5-point Quality Grading Scale. (A copy of the above specifications list is available on request)
- d) **Special circumstances** may arise where material of a lower standard may be acceptable. This should be agreed with the appropriate point of authority, see relevant sections.

## **GENERAL REQUIREMENTS**

The following shall apply to all contributions.

### **1. TAPE FORMAT**

- a) The Jetix Tape Format is 625 line Digital Betacam. It is preferred that all work is carried out within the digital domain and that the generation count does not exceed 3rd generation (Digital). Please ensure that the tape stock used is, 5/10/20/30 min duration small-sized stock. All programming must be supplied on new Sony stock unless stock has been supplied by Jetix. Under no circumstances must stock from other manufacturers be supplied without prior agreement.

### **2. VIDEO**

- a) The video signal shall be free of excessive black crushing and highlight compression. Transient response shall be such that ringing, smear and echoes are not noticeable. Moire and other patterning shall not be visible. Hum, cross talk and other spurious signals should not be apparent.
- b) The timings, amplitudes and bandwidths of video material shall not violate the relevant CCIR System specification.
- c) The use of any video equipment, e.g. digital effects devices must not introduce unintentional changes to luminance and chrominance levels nor cause perceptible timing shifts on entry levels or exit from the digital effect.
- d) Please note that all material supplied must have an Aspect Ratio of 4:3  
Anamorphic or Letterboxed material will only be accepted upon prior agreement.

### **3. AUDIO**

- a) The audio shall be free of spurious signals such as noise, hum and cross talk. Sibilance and distortion wow and flutter shall not be apparent. The audio shall not show dynamic and frequency response

artefacts as a result of the action of noise reduction or low bit rate-coding systems.

- b) Dynamic range shall not be excessive. It shall be suitable for the whole range of domestic listening. Normal speech should peak at around +4db (5 on BBC PPM), with shouting, loud music and/or effects peaking at around +8db (6 on BBC PPM).
- c) Audio shall be in synchronisation with the vision such that the audio should not lead the vision more than 1 field or lag by more than 1 frame ( $\pm 20\text{ms}$ ).

## **MATERIAL SUPPLIED ON VIDEOTAPE**

### **1. TAPE STORAGE & CARRIAGE**

- a) Tapes shall be protected by suitable packaging.
- b) Material shall be transported in the manufacturer's purpose designed cassette box.
- c) Tape storage should be carried out to the EBU specifications. In particular, cleanliness is absolutely necessary.
- d) All tapes should be stored in a stable climate within the following ranges - temperature 18 - 24° C and humidity 45 - 55% RH.
- e) Jetix keeps the tapes in storage for 6 months, after 6 months, they will be destroyed.

### **2. MULTIPLE CASSETTES**

If programme is dubbed in two or more parts onto separate cassettes:

- a) Time code on the consecutive cassettes should always match the source material. In the case of there being no obvious break in programme to use as a recording split, please provide a two-minute overlap.
- b) A start time code, end time code and duration must be clearly stated on the cassettes and on the recording report.

- c) Cassettes must be clearly marked with a part number and how many cassettes the programme has been divided onto, i.e. part 1 of 2 or part 1(2).
- d)

### 3. RECORDING SPECIFICATION

#### LINE-UP SIGNALS

Programme video and audio signals must be accurately related to their associated line-up signals.

Item	Time-code
75 % EBU bars / 0 dB (PPM 4) 1khz tone [- 18dbfs for Digital tone]	09:58:40:00
Countdown clock / Slate	09:59:40:00
Black & Silence	09:59:57:00
1st Frame of Programme	10:00:00:00

The clock or ident must show the Programme Title, subtitle with episode number where appropriate.

### 4. AUDIO CHANNELS AND TRACK DESIGNATIONS

#### a) Scandinavia

All 4 tracks should carry the language of the country the campaign is airing.

If a commercial is to be aired in one language only then all other audio tracks must contain Music and Effects at Full Level.

Copy submitted with mute tracks is not acceptable unless by prior agreement with Broadcast Operations at Jetix.

### 5. GENERAL AUDIO REQUIREMENTS

- a) In all cases the accompanying recording report form shall state clearly the contents of each audio track.
- b) The Music and Effects tracks should not contain any audible English language. The only exemption is original documentary footage of an archive nature, or in the case of songs, famous recordings by well-known artists.
- c) All tracks shall be recorded such that peaks do not exceed + 8dB (PPM 6) with regard to zero level.
- d) The cue track shall not be used to supply material.

## 6. TIMECODE

- a) Tapes shall carry timecode conforming to the relevant 625 EBU specification on the designated track. In particular it must be correctly 4 field phased to the video (8 field if possible), continuous and increasing throughout the length of the clock and programme. It shall not cross the 23.59.59.24/00.00.00.00. discontinuity. Code 00.00.00.00 should correspond to field 1. The preferred time code for the first frame of the programme shall be 10.00.00.00.
- b) Vertical Interval Time code (VITC) shall be on lines 19 and 21, 332 and 334 and carry identical information to the longitudinal track (LTC).

## 7. DOCUMENTATION

Every master must be accompanied by a recording report, which must contain the following information:

- i) Title
- ii) Video standard (If relevant)
- iii) Audio programme peak level
- iv) Start time code of programme
- v) Accurate duration of programme
- vi) Any known disturbances in picture or audio with accurate time-code references. - Using the attached terminology as a guide.
- vii) Original Format
- viii) Post Production Format
- ix) VTR No. Used/Operator
- x) Audio Track Allocation
- xi) Stereo convention if applicable

## 8. RELAXATION OF STANDARDS

Any proposal to supply material which does not conform to the technical standards in these guidelines, must be agreed beforehand with:

**Stephen Brownsill, Broadcast Operations Manager.**

9. SEND TAPES TO

**Please send the tapes to Birgitte Vosper , please remember to always let Birgitte know when the tapes will go to air before she receives the tape.**

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