



## Master Submission Guidelines

A description with an asterisk (\*) may incur additional charges. Contact your Sales Representative or CSR for additional information.

### 1. General Information:

- Do not send IMS your only copy of a master. Make sure that you have a back-up master before releasing any master to IMS.
- All masters are assumed to be production ready and should be edited and sequenced exactly as the final product is expected to be.
- All audio masters require a sequence listing with accurate timings and any noises or anomalies noted.
- All masters must be the best quality available, free of errors and physical damage.
- On digital masters, there may be an optional calibration tone of 1KHz recorded @ 16dB below digital peak. At IMS, this equates to 0 dB VU.
- Sony/Philips Red Book standard specifies that a CD should not exceed 74 minutes and 40 seconds. Any master longer than 78:20 minutes will be accepted only if the customer signs a Waiver of Extended Length form.
- (\*) For Cassettes, the side break must be clearly marked on the sequence listing. On digital tape masters (U-Matic, DAT, etc.) there must be at least 30 seconds of silence between the end of side A and the beginning of side B. A Cassette master on CD-R must have at least two seconds of silence between the end of Side A and the Beginning of Side B. There can be no cross-faces or butt-edits. When required, a side break may be inserted for an additional charge.
- Maximum playtime for a single cassette side is: 55:00, however, this maximum time is not recommended. Some players may have trouble playing the cassette without damaging the tape due to the thickness of the tape and the amount of tape wound into the cassette shell. A time of about 48:00 is recommended.
- (\*) Masters submitted that do not meet the recommended specifications may cause delays and / or additional expense.
- (\*) Masters requiring Quality checks beyond the normal processes of IMS may result in additional charges.

## 2. Preferred Formats for Each Product:

Master formats other than those listed below may be accepted. Please contact your Sales Representative or CSR for additional information. See Master Format Descriptions for further detail.

Acceptable formats are listed in order of preference:

- Cassette:
  - o Compact Disc Replica
  - o CD-R
  - o 1630 U-Matic Tape
  - o R-DAT Tape
  
- Compact Disc:
  - o Compact Disc Replica
  - o CD-R
  - o DDP fileset
  - o 1630 U-Matic Tape
  - o 8mm Exabyte Tape
  - o R-DAT Tape
  
- CD-ROM:
  - o CD-ROM Replica
  - o CD-R
  - o DDP fileset
  - o 8mm Exabyte Tape
  
- DVD-5:
  - o DLT
  - o DVD Replica (not copy protected)
  - o DVD-R
  
- DVD-9 or DVD-10:
  - o (2) DLT
  - o DVD Replica (not copy protected)
  - o DVD-R-DL (DVD-9 only)
  
- Dual Disc:
  - o One side DVD-5 and one side CD
  - o See CD and DVD-5 formats.
  - o Limitations:
    - CD side = 68:24 min or 601 MB (multi-session OK.)
    - DVD side = normal DVD-5 4.37 Gigabytes (4.7 billion bytes)

- Multi-Session or Enhanced CD:
  - o A pre-mastered multi-session CD-R may be submitted as a master. Set the CD format description for details. Total capacity of Audio and Data is 76:20 without a deviation agreement. Absolute maximum capacity is 82:00.
  - o The Audio and ROM data may be supplied separately and IMS will combine them. Be sure that the ROM data works as it should on the final product. Additional charges may apply if repairs or programming is needed.
  - o Most multi-session product is compatible with both Windows and Macintosh operating systems. To avoid delays, the customer should make it very clear if the data is intended for only one operating system.

### **3. Master Format Descriptions:**

- Compact Disc / CD-Recordable (preferred format):
  - o All CD-R audio masters should be recorded in a single session (Disc-At-Once) and meet Red Book specifications.
  - o Multisession discs must be closed and finalized.
  - o Masters containing CD-TEXT must be clearly identified.
- DLT III; DLT IV:
  - o IMS will accept DLT masters recorded on DLT-2000; DLT-4000; DLT-7000; DLT-8000; DLT1; DLTVS-80 and DLTVS-160 recorders. Since not all players are compatible, please note which recorder has been used on the DLT label.
- DVD-R:
  - o A DVD-R master should be provided using Authoring Grad DVD-R.
  - o DVD-R masters must have a UDF or ISO9660 file system in order to be mastered.
- DVD Replica (Replicated DVD):
  - o A Replicated DVD (5: 9: 10:) must not be copy protected in order to be used as a master format.
- Exabyte 8mm :
  - o DDP format
- R-DAT (4mm Digital Audio Tape):
  - o An R-DAT should be a continuous recording to prevent edit noises and mutes.
  - o A minimum of one minute (including any reference tones) is required before the beginning of the program. There should be at least 30 seconds from the end of the reference tones and the beginning of the program.
  - o The tape should have continuous SMPTE time code or A-Time, with no breaks from at least one minute before the program to at least one minute after the program.

- o The tape should be recorded at a sampling frequency of 44.1KHz.
- UóMatic Sony PCM-1630:
  - o A minimum of two minutes (including any reference tone) is required before the beginning of the program.
  - o 1630 U-Matic tapes must be recorded at a sampling frequency of 44.1KHz.
  - o The tape must have continuous SMPTE time code.
  - o A Digital Tape analysis must accompany each tape.
  - o Any tape without a PQ burst (table of contents) at the beginning of the tape must have detailed sequence listing with frame-accurate start and stop times for each track. (Additional charges may apply for creating a PQ burst.)

#### **4. Media Length Limitations:**

Industry standard specification of CD Audio and CD-ROM format is 74.5 minutes or 650MB. Exceeding this length has proven to be problematic on consumer grade players. IMS will manufacture the CD format to a maximum length or 79 minutes or 690MB. Selections that exceed 74.5 up to 76 minutes or 650MB up to 660MB will require a signed Waiver of Extended Length form. IMS will not manufacture discs that exceed total play length of 79 minutes or 690MB.

- CD Audio formats with lengths greater than 76 up to 79 minutes and/or CD-ROM formats greater in size than 660MB up to 690MB in length will require:
  - o A signed Waiver of Extended Length form
  - o An additional charge of \$400.00 per title
  - o An additional \$0.05 added to each disc
  - o Additional turn time of three days

#### **5. Anti-Piracy and Copy Management Systems:**

IMS can help customers protect their digital content from digital piracy. Contact IMS for how to protect digital software products, digital e-books, digital audio content and digital video content.

IMS can replicate optical media using various copy protection/management formats. Most of these formats require some form of pre-mastering before sending the masters to IMS for replication. You should contact the owner of the copy management system for specific details regarding how you should create your replication master. The following list is constantly changing. Contact your IMS Sales Representative or CSR for current updates.