THE DROID WORKS

An Affiliate of Lucasfilm Ltd. & Convergence Corporation

Frequently Asked Questions About EditDroid™

CONFIGURATION

1. **What is included with a basic EditDroid system?**

   The basic EditDroid system includes:

   - Hardware: SUN™ computer, monitor, and keyboard; planet controller; preview switcher; smart interface (SI) for switcher; 5 video transport SIs for source/record machines; Ethernet interface and cabling; 1200 baud modem

   - Software: SUN CPU software; EditDroid database and editing system software

   - Documentation

   Additional options include:

   - Additional smart interfaces for source/record machines

   - Dot matrix printer (for printing cut lists, log sheets, etc.)

   - 8" or 5-1/4" floppy disk drive (to interface with ISC/CMX or Convergence)

   - 1/4" tape streamer (for software backups and updates)

   - Remote logging station terminal

   - Workstation console

2. **What other equipment is needed to work with EditDroid?**

   The customer supplies the monitors and speakers, video transport equipment, the audio/video switchers, and other optional equipment. Depending on your budget and the needs of your production(s), you can configure EditDroid as a basic cuts-only system or a more elaborate effects editing system. EditDroid can be configured as an "off-line" editing system or a fully functional "on-line" system.

   The Droid Works will be happy to assist you in developing a configuration which best suits your needs.

3. **How many VTRs or videodisc players does the system use?**

The basic EditDroid system comes with five "smart interfaces" (SIs) housed in a planet controller, to control videodisc or videotape transports. Typically, one of these video transports is a VTR for recording; the remaining VTRs or videodisc players are usually source machines. A single planet controller can hold up to 10 SIs, so a basic EditDroid system can be easily expanded to accommodate up to 10 video transport machines. Additional planets can be added to the system if more than 10 video transports are required.

4. **What VTRs, videodisc players, and switchers can be interfaced with EditDroid?**

EditDroid is designed to interface directly with a variety of standard VTRs and disc players.

Current Interfaces

Videotape:	Sony 1 inch BVH-2000
	Sony 3/4 inch BVU-800/820
Videodisc:	Sony LDP-1000A
	Pioneer LDV-6000
Switchers:	GVG-Ten X-61
	GVG-100
	GVG-1600

Interfaces Under Development

Philips VP935
Panasonic Draw System: TQ 2023/4F
JVC 1/2 inch videotape: BR-8600U, BP-5300U
JVC 3/4 inch videotape: CP-5550, CR-8250U

The Droid Works will continue to develop interfaces to new switchers, tape players, and disc players as they become available.

5. **Can you mix videodisc and tape machines?**

Yes, absolutely. EditDroid can control different video transports interchangeably, in spite of the obvious differences between them. The entire design of the EditDroid system is based on this concept of interchangeability so that you can link it with a variety of off-the-shelf equipment.

6. **Is there anything you can do with discs that you can't do with tape? Vice versa?**

The major advantage of videodiscs is their ability to locate any frame in 30 minutes of program material within two to five seconds. The sheer speed of a videodisc's random access capability allows for *instant* preview, a unique feature offered only by EditDroid.

Videodiscs make it possible to preview extensive sequences of edited material in real time, without recording selections on tape. In addition, videodiscs can produce images that rival 3/4" VTRs, with the added advantage that there are no videotape "noise bars" at non-normal speeds and freeze frame.

THE EDITING PROCESS

7.   **What is an EditDroid Log Sheet?**

A log sheet is a listing of the clips that are on the source videotapes or videodiscs that you wish to edit on EditDroid. Log sheets permits you to capture a wide variety of information concerning your production, including scene, take, description, starting and ending latent edge numbers, starting and ending ink numbers, sound roll, lab roll, shooting date, format of original material (16mm/35mm/video), format of record transfer (disc, various types of tapes), and starting time of each logged clip in SMPTE time code.

8.   **Do I have to log clips before editing on EditDroid? Isn't it a lot of extra work to enter all that information?**

No, you don't *have* to log clips. You can edit any EditDroid-compatible video source material without Log Sheets.

However, if you edit without Log Sheets, you sacrifice much of the power of the system. In our experience, the logging step is not very time consuming. Also, although EditDroid is *capable* of storing a lot of different information, you don't have to enter it all. At a minimum, to distinguish among individual clips, EditDroid needs only the SMPTE time code or frame number of the starting frame. You can decide how much information to enter, depending on how valuable you find it during editing and other post-production steps.

9.   **How do I create EditDroid Log Sheets?**

You enter log sheets into EditDroid via a logging program running on EditDroid's SUN computer. You can enter log information directly into EditDroid or via a remote logging station.

10.   **How does the Log Sheet information correlate with the video images?**

The Log Sheets are correlated with video sources through SMPTE time code. When the clip's description is entered into the Log, the time code associated with its first frame is included. When you start an editing session, you tell EditDroid which Log Sheets in the database have physical source tapes or discs mounted. As you edit, EditDroid keeps track of where clips spliced into the edit list come from, so each clip in the List carries all information that was logged.

11.   **Can I produce a compatible Edit Decision List (EDL) for auto-assembly on different systems? Does the list require cleaning or rippling?**

Yes, you can produce EDLs for use on different systems. EditDroid will produce edit decision lists compatible with most popular industry standards (Convergence, ISC, CMX, etc.), as well as film cut lists for use by negative cutters (if film was the originating medium). The lists produced by EditDroid require no clean-up or rippling. One of the advantages of a system designed for real time preview is that the edit lists are *always* kept clean.

12. **How does EditDroid perform real time previews?**

Performing a real time preview is as simple as pushing the "View List" button. EditDroid uses multiple copies of the source material to perform the preview. When a preview is requested, EditDroid examines the edit list and calculates whether it can schedule and execute the preview. If it can, the machines are cued and the preview is executed. If it can't, EditDroid informs you of this fact with the suggestion that more copies be mounted. At this point you can either: (1) mount another copy, (2) ask to preview only a portion of the list, or (3) record the edit list onto videotape for viewing. Note that this process is the same whether videodiscs or videotapes, or a combination of the two are used.

13. **How many copies of source material do I need to perform real time previews?**

It depends on the machines you are using and the kind of editing you're doing. The longer the cuts in your edit list, the more likely it is that a preview can be scheduled. The faster the access time of the machines, the greater the chance that a preview can be scheduled. This is why many people prefer to use videodiscs when editing with EditDroid: because of the very short access speeds of disc players, previews can be scheduled in most editing situations in which they're used. More specifically, we've found that with 3 or 4 disc copies of your source material, EditDroid can schedule 95% of all previews. As disc players become even faster, a greater percentage of previews will be able to be scheduled.

14. **Can EditDroid handle dissolves?**

Yes. They are entered in the system via a time-line display that is also used for split edits and many optical effects. EditDroid marks dissolves, or other effects, from their center point (as film editors are used to doing), with their duration specified from the TouchPad. After a dissolve or other effect is marked, the time-line display on the Electronic Logbook display will show the traditional "grease pencil" cross marks. If you preview an edit list that includes an effect, EditDroid will use an effects switcher attached to the system to preview the effect.

15. **Does EditDroid do overlaps (split edits)?**

Yes, EditDroid does overlaps, adjusting sound or picture to preserve sync on request. Generally, in split-edit situations EditDroid does a lot to make your job easier. You can insert sound or picture clips into the middle of an edit list, with all following clips automatically adjusted. In any situation in which you might slip sync, EditDroid warns you and asks whether that is what was intended; if you say yes, the change is made and sync is slipped. Optionally, EditDroid will slug with leader or overlay material.

THE POST PRODUCTION PROCESS

15. **Is this an on-line or off-line system?**

Both. It's an on-line system if the final product is to be a broadcast quality video tape recorded on broadcast quality machines connected to EditDroid. It's an off-line system if the final product is to be an EDL destined for on-line auto-assembly on another system, or a cut list for a film negative cutter.

EditDroid is highly flexible and encourages creative experimentation; for this reason, it will often be used with less expensive off-line equipment to produce edit lists which will later be fed into a traditional on-line editing system. However, EditDroid's format independence makes it very attractive for on-line editing as well.

16. **What is 3/2 pull down? Why is it important? How does EditDroid handle it?**

3/2 pulldown is the process of transferring standard 24 frame per second film to standard 30 frame per second video by assigning successive film frames first to 3 and then to 2 video fields. At transfer time, we suggest that our customers ask the transfer facility to encode on the transfer tape special information which can later be used by videodisc player to detect on which video field each film frame begins. This will allow the videodisc players to identify the beginning of true film frames. Frames cut into an EditDroid edit list are accurately included in the negative cut list produced by EditDroid. 3/2 pulldown is described to the database when log sheet entry is done. EditDroid then treats each film frame as a number with a fractional value so that each start and end field can be identified when the frame count is rounded to the nearest .5 of a frame. (In fact, EditDroid describes every cut to a precision of l/256th of a video frame.)

17. **Do I sync workprint or negative?**

Either one. The advantage to working from the negative is that the cost of striking workprint is avoided. This can amount to a considerable cost savings.

18. **Can videodisc dubs be made cost-effectively and quickly?**

Yes. 3M and The Droid Works have agreed to offer a DroidDisc™ service exclusively for EditDroid customers. The service will produce 10 videodisc copies of footage sent to 3M's Wisconsin plant, on an expedited basis, at a price considerably lower than 3M's standard mastering charge. DroidDiscs will be produced using a modified version of the standard process used for 3M's high quality "Scotch" Laser Videodiscs, reflecting the need of editors to have discs available quickly and economically.

Other disc recording services from other suppliers in the Los Angeles area will record 30 minutes of footage at $ 150 or less per side, depending on volumes, with 24-hour turnaround. We expect similar services to be available in the New York area in 1985.

Finally, videodisc recorders are now available from Panasonic, and soon from other manufacturers, priced in the $ 30,000-$ 40,0000 range.

19. **What if I have a system problem?**

EditDroid is marketed worldwide by The Droid Works, and is fully supported and maintained by The Droid Works' full-time field service organization. Comprehensive maintenance contracts include: preventive maintenance, component swapping, and continuous software upgrades. To minimize maintenance requirements and provide fast turnaround, EditDroid features built-in diagnostic programs and a modem which allow remote, over-the-phone troubleshooting.

20. **Do I need to know how my computer operates?**

Not if you're not interested. EditDroid has been designed to insulate you from the computer itself. Instead, you should really think of it as an editing tool, not a powerful computer.

21. **What about sound editing? Can EditDroid edit sound? Can it do this easily?**

EditDroid will edit two sound tracks. You can edit the tracks in any combination with the picture – overlaps or splits, wild tracks, tracks from other shots, etc. And the cut lists produced by EditDroid can be used to conform sound on mag stock which has been edge coded at transfer time.

For more advanced audio post production, The Droid Works offers SoundDroid™, an all-digital sound processing system. SoundDroid is capable of storing, recording, editing, mixing, and processing sound. For film or television production, EditDroid works together with SoundDroid to integrate the entire post-production process. EditDroid's Electronic Logbook is shared with SoundDroid for picture referencing and cuing, and any decisions made regarding sound in picture editing are directly and automatically processed by SoundDroid.