



## Deliverable D21.1 TRA1

### Compilation of Technical Manuals on Project Website

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## 1. Introduction

### **1.1 Information on obsolete technology**

The training workpackage of EC Project PrestoSpace is concerned with old technology (the operation of equipment needed for obsolete formats) as well as new technology developed by the project.

The workplan includes an effort to “*compile existing technical manuals of existing machines. Contact archives through the user group and archive bodies (FIAT, FIAT, IASA) to collect documentation. These will be scanned and placed on the project Web site, where copyright permits.*”

As this work progressed, it became apparent that there were problems with the original approach:

- **Difficulty and cost of obtaining manuals:** the BBC shipped one set (for the classic RCA TR-600 2” machine; the manuals were being discarded) over from the USA, at a cost of around €150. It would have made sense to get it scanned over there, but there was no way to organise that.
- **Difficulty and cost of copying and hosting the resultant images:** The TR-600 manuals consisted of roughly 400 pages in three volumes, many of the pages being ‘fold-outs’ of non-standard size (including pages too large for an A4 scanner), many pages that had been annotated over the years in pen and pencil of various colours – and it turned out that the main technical manual was volume two, so there was a missing volume one that made the whole exercise potentially very flawed. If we had scanned at a sufficient resolution to cope with the colours and the manual annotation, the resultant images would have been at least 0.5 MB each, for a total document size of 200 MB. This is too big for most people to want to download! We would have had to break up the material into sections, with clear indications of what was in each section so that people would know what and what not to download.
- **Difficulty of obtaining copyright:** RCA retains copyright, and correspondence about release of copyright is continuing.
- **Changing nature of the market in old manuals:** there is now a significant technical manuals market on ebay (<http://www.ebay.co.uk>) and other Internet markets, which is good and bad news: it opens another source of manuals, but it also means that owners are less inclined to give away old manuals, preferring to “scan and sell” – the scans can be sold again and again.
- **The needed information is not confined to technical manuals:** while some people may just want a manual, others may want:
  - a general introduction to the format

- technical information about how the format holds the video or audio signal (or about film formats)
  - information on related devices such as timebase correctors
  - information about how to identify media
  - to know where to get spares and repairs
  - general information on companies that have expertise in old equipment
- **Much information is already available on the Internet:** We came across a lot of relevant information in our search for manuals, which has been included in Section two (or three, where appropriate). This search led to a reappraisal of the ability of the Internet to serve as a source of technical information. The Internet has certain obvious drawbacks concerning stability and reliability of information, but we believe these can be managed with reasonable effort.
  - **The Richard Hess collection and the AMPEX Museum:** this museum at the Green Library, Stanford University has a large collection of manuals, and PrestoSpace have been in correspondence with Richard Hess (a senior figure in US audiovisual technology) who in 2004 made a very large donation of additional manuals, not just for AMPEX equipment but for a wide range of audio and video equipment. The museum has started a programme of scanning of the most useful manuals, which will be made freely available through the Stanford University library website. PrestoSpace is working with this project, to help determine 'most useful manuals'. Contents of the Richard Hess donation are shown in Section three of this report.

For all these reasons, the project has used its limited resources to develop a more comprehensive strategy towards providing technical information – than the original one of 'copying manuals'.

The strategy is as follows:

- Consider four areas of technical information:
  - General guides to old formats: the media, the way signals are represented on the media and the equipment used
  - Technical manuals
  - Parts: where to get spares
  - Service providers: companies that provide technical support for old equipment
- Obtain as much as possible of the desired information, giving priority to electronic sources rather than paper documents (for the reasons of time, cost and availability already mentioned)
- Compile the information in an organised and helpful way – see Section two, below.
- Present that information on the PrestoSpace website.

## **1.2 Presentation of the Information**

This is a paper document, not a website. However it has both the basic information and the basic layout required for web presentation. It is the intention of the Training Workpackage to present this deliverable as the initial work. Further work to be done consists of:

- Conversion of the information in this document to HTML pages. That is trivial (for the simplest approach), and an HTML version of the relevant sections of this report will also be submitted as a second part of this deliverable.
- Posting of the pages on the Project Website. Again this is trivial for the simplest approach, and can easily be accomplished before the Project Review in early April 2005.
- Updating the information. A number of developments will be incorporated in the PrestoSpace website in 2005, which should generate interest and feedback, including (we expect) references to further sources of technical information, whether in electronic form or not. **A continuing task of the Training Workpackage will be collection of further information.**
- Updating the website. General update and maintenance of the website is a standard project activity.
- Maintenance of the information. The particular issue is 'dead and broken links' – dead when a site disappears altogether, broken when a site is restructured and the information is still there, but the pointer mechanism (URL) is invalid. We have made an effort to refer to stable websites associated with permanent organisations. Link Checking (but NOT link fixing) is now an automated part of modern website maintenance, and will have to be accepted as a necessary part of the sustained maintenance of the PrestoSpace website.

## 2. Online Sources of Technical Documentation

### 2.1 General Documentation

Format	Organisation	Web address (URL)	Notes
Video	Cyber College	<a href="http://www.cybercollege.com/tpv048.htm">http://www.cybercollege.com/tpv048.htm</a>	professional video format information
video & audio	Vidipacs Museum	<a href="http://vidipax.com/">http://vidipax.com/</a>	Select 'VidiPax museum' from menu; photos and descriptive literature
Video edit	Software Systems / Sierra Madre	<a href="http://www.sssm.com/editing/museum/index.html">http://www.sssm.com/editing/museum/index.html</a>	Museum of Early Video Editing Equipment

### 2.2 Specific documentation

Format	Organisation	Web address (URL)	Notes
Cylinder & disc	Glenn Sage	<a href="http://www.tinfoil.com/">http://www.tinfoil.com/</a>	general information
Film recording	The AV Team	<a href="http://ourworld.compuserve.com/homepages/PeterFincklestone/filmrec.htm">http://ourworld.compuserve.com/homepages/PeterFincklestone/filmrec.htm</a>	General information on recording television on film Narrow-bandwidth Television Association = low definition television
Video	NBTA	<a href="http://www.nbtv.wyenet.co.uk/">http://www.nbtv.wyenet.co.uk/</a>	amateur group
Video	Total Rewind	<a href="http://www.totalrewind.org/">http://www.totalrewind.org/</a>	domestic video recording equipment
2"	The AV Team	<a href="http://ourworld.compuserve.com/homepages/PeterFincklestone/2inchQuad.htm">http://ourworld.compuserve.com/homepages/PeterFincklestone/2inchQuad.htm</a>	useful information on 2" recording
2" & 1"	Quadruplex Park	<a href="http://www.lionlmb.org/quadpark.html">http://www.lionlmb.org/quadpark.html</a>	Guide to many models of 1" and 2" equipment
MII	LORE	<a href="http://loreoutlet.mine.nu/loresite/mii/mii.html">http://loreoutlet.mine.nu/loresite/mii/mii.html</a>	Guide to the MII format
Telecine	The Film Centre	<a href="http://www.filmcentre.co.uk/links.asp?str=telecine">http://www.filmcentre.co.uk/links.asp?str=telecine</a>	European telecine services

## 2.3 Manuals

Format	Organisation	Web address (URL)	Notes
Audio	The Recordist	<a href="http://recordist.com/ampex/">http://recordist.com/ampex/</a>	online manuals for Ampex audio tape recorders
Audio	The Recordist	<a href="http://recordist.com/studer/technical.html">http://recordist.com/studer/technical.html</a>	online manuals for Studer audio tape recorders
Video and Audio	Sony	<a href="http://www.iq.sony.com/srvs/sosdocs/default.asp?src=sonysupport">http://www.iq.sony.com/srvs/sosdocs/default.asp?src=sonysupport</a>	searchable database of manuals
Video and Audio	Sony	<a href="http://servicesales.sel.sony.com/">http://servicesales.sel.sony.com/</a>	manuals for sale
Video and Audio	Sony	<a href="http://bssc.sel.sony.com/Professional/webapp/Literature?t=C">http://bssc.sel.sony.com/Professional/webapp/Literature?t=C</a>	general Sony technical literature
		<a href="http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=108">http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=108</a>	
Betacam	Sony	<a href="http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=112">http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=112</a>	
Digibeta	Sony	<a href="http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=113">http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=113</a>	
DV CAM	Sony	<a href="http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=114">http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=114</a>	
HD CAM	Sony	<a href="http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=20002">http://bssc.sel.sony.com/Professional/webapp/Literature?m=0&amp;t=L&amp;p=16&amp;d=10001&amp;sp=20002</a>	
IMX	Sony	<a href="ftp://ftp.panasonic.com/pub/Panasonic/industrial_medical/downloads/MD830-835_RS232.pdf">ftp://ftp.panasonic.com/pub/Panasonic/industrial_medical/downloads/MD830-835_RS232.pdf</a>	Protocol specification for the AG-MD830 and AG-MD835 (S-VHS format):
Video	Panasonic	<a href="http://service.us.panasonic.com/operman/">http://service.us.panasonic.com/operman/</a>	Find Your Operating Manual
Video	Panasonic		Select 'Manuals' from menu; very extensive (about 900 items)!
Film	Film-Tech	<a href="http://www.film-tech.com">http://www.film-tech.com</a>	early open-reel domestic VCR documentation
Video	The Lab Guy	<a href="http://www.labguysworld.com/VTR-Museum_003.htm">http://www.labguysworld.com/VTR-Museum_003.htm</a>	
Audio	Ampex	<a href="http://www.ampexdata.com/Support/Legacy_Manuals/legacy_manuals.html">http://www.ampexdata.com/Support/Legacy_Manuals/legacy_manuals.html</a>	online manuals for Ampex

## 2.4 Parts

Format	Item	Organisation	Web address (URL)	Notes
1" videotape	Head robotics	Maha Engineering Indelt	<a href="http://www.mahaeng.com/sub002-09.html">http://www.mahaeng.com/sub002-09.html</a> <a href="http://www.indelt.it/home.htm">http://www.indelt.it/home.htm</a>	replacement heads various 'cart' systems and similar

## 2.5 Services

Format	Item	Organisation	Web address (URL)	Notes
CD, DVD	software	Infinadyne	<a href="http://www.infinadyne.com/">http://www.infinadyne.com/</a>	diagnostic and recovery products

Note: There is a Services workpackage in PrestoSpace, and that workpackage is managing the relationship between PrestoSpace and that part of the audiovisual industry which provides transfers, equipment, maintenance and related services. There is also an overlap between Services and the SAM (Storage and Archive Management) Work Area, because SAM is developing tools for estimating the costs of transfers (as part of the estimation of costs for entire preservation processes). Cost estimation procedures are essential to building a business case for preservation, which is the subject of SAM workpackage 13.

Further, SAM is building a list of storage providers, which Services is building a list of service providers. This information all needs to be consolidated in a way that makes it easy for people to use the PrestoSpace website.

For all these reasons, the list above excludes the several dozen service providers, across Europe, who are already in contact with PrestoSpace.



### 3. Offline Resources

#### 3.1 Ampex Museum:

The Ampex Museum is part of the Special Collections of Stanford University Library:  
<http://library.stanford.edu/depts/spc/index.html>

Technical manual listings are at:

<http://www.oac.cdlib.org/findaid/ark:/13030/ft4s2004rn/C01/20309499>

This collection includes the Richard Hess donation of technical manuals. The library has minimum on-line documentation at present, but does have a commitment to making this information public.

A selection of the 200+ items donated by Richard Hess:

Company	Format	Model	Title
Ampex	2"	ACR 25/25 B	Operation & Maintenance
Ampex	2"	ACR-25	Control Logic Guide
Ampex	2"	ACR-25	Systems Logic Theory of Operation
Ampex	1"	AG-440 & AG-445	Operation & Maintenance Manual
Ampex	2"	AVR-1	Operation & Maintenance Manuals
Ampex	2"	AVR-1	Operations Handbook
Ampex	2"	AVR-1	Accessory
Ampex	2"	AVR-1	Operation & Maintenance
Ampex	2"	AVR-2	Service Bulletin
Ampex	2"	AVR-2	Theory of Operation
Ampex	2"	AVR-2, EC-2	Operation & Maintenance
Ampex	2"	AVR-3	Parts Lists & Schematics
Ampex	Betacam Multitrack		Part Number-Cross Reference
Ampex	audio	MM1200	Operation & Maintenance Manual
Ampex	2" edit	Series 4000	Operation & Maintenance
Ampex	2" edit	Universal Color	Operation & Maintenance
Ampex	2" edit	Velocity Comp	Operation & Maintenance
Ampex	2" edit	Vert. Interval	Operation & Maintenance
Ampex	1"	VPR-1	Maintenance
Ampex	2"	VR 1000B	Preliminary Instruction Manual
Ikegami	Monitor	PM-14-3H	Instruction Manual
Ikegami	Monitor	PM-970	Instruction Manual
Ikegami	Telecine camera	TKC-970	Instruction Manual
RCA	Camera	TK 76B NTSC	Devices Manual
RCA	Camera	TK-28 (PAL)	Setup & Operation
RCA	2"	TR600	Operation & Maint. Manual
RCA	2"	TR-600	Owners Manual
Sony	U-Matic code rdr	BKU-701	Service Manual

### 3.2 Commercial sales of old technical literature:

#### Ebay

The rise of Internet marketing has allowed purchases and supplies to find each other across a global auction community, which in turn has created markets in specialty items that would not otherwise be commercially viable. Nobody could make a living selling technical manuals for obsolete literature in a high-street shop, as the market is small and dispersed. The largest internet market, Ebay ([www.ebay.com](http://www.ebay.com) and national variations), has developed to the point that it has a category for just the manuals of interest to audiovisual preservation:

[Home](#) > [All Categories](#) > [Cameras & Photo](#) > [Professional Video Equipment](#) > **Manuals**

The unfortunate side of Ebay is that users of the market do not need to know or understand the 'classification system', so not all manuals are listed in the above category, and the national variants of Ebay (25 as of January 2000, ranging from Argentina to the UK) may have their own way of classifying offerings.

So in addition to looking in Ebay under "[Cameras & Photo](#) > [Professional Video Equipment](#) > **Manuals**", it is also advisable to search globally, and to search in all categories – using various names of the machine model for which information is sought. For instance, search for "Sony V0 technical manual" and "Sony V0 service manual" to find U-Matic manuals on ebay.com. Once on manual has been located, it is then usually easier to find others.

In addition to directly searching Ebay, it is VERY useful to use a search engine (Google, Yahoo etc). Ebay listings do appear on Google; indeed, Google seems to index Ebay very frequently (possibly daily) – probably because of the high interest in this information.

Here are the Ebay listings for one day in January 2005, for the videotape manuals found under the category [Cameras & Photo](#) > [Professional Video Equipment](#) > **Manuals**; (altogether there were 251 manuals on that day).

Manufacturer	Format	Model	Info
AMPEX	1 INCH	VPR-2B VPR-2	SCHEMATIC
SONY	U-Matic	BVU-950	Operation Manual
SONY	U-Matic	BVU-950	Maintenance Manual
SONY	U-Matic	V0-2860A	VCR Service Manual
SONY	U-Matic	V0-2800A	VCR Service Manual
SONY	U-Matic	V0-3800A	VCR Service Manual
SONY	U-Matic	V0-2850A	VCR Service Manual
SONY	U-Matic	V0-2600A	VCR Service Manual
SONY	U-Matic	V0-1600A	VCR Service Manual
SONY	Video8	EVO-410	VCR Service Manual
SONY	S-VHS	SV0-1250	VCR Service Manual
SONY	Betamax	SL-8200	VCR Service Manual

## Ebay stores

In addition to Ebay auction listings, manuals may be found in the inventories of merchants who list themselves on Ebay as 'stores'. Stores sell at a fixed price rather than by auction. It is difficult to find 'all stores with obsolete videotape manuals', for instance, but the same Google search that locates auctioned material will also locate Ebay stores.

The general directory of Ebay stores (in the USA) is at: <http://stores.ebay.com/> .

This is an example of one items from one such store:

[Home](#) > [eBay Stores](#) > **ADVANCED MEDIA (2", 1", U-Matic, betacam manuals)**  
<http://stores.ebay.com/ADVANCED-MEDIA>

Manuals for sale, January 2005:

SONY	PVW-2650 / BTS PBC-2650 BETACAM SP MANUAL	\$19.95
SONY	PVW-2800 / BTS PBC-2800 BETACAM SP MANUAL	\$19.95
SONY	BVV-5 BETA SP OPS MANUAL, CHINESE? JAPANESE?	\$15.00
SONY	UVW-1800P BETA SP MANUAL IN GERMAN & ITALIAN	\$19.95
SONY	PVW-2650 / BTS PBC-2650 BETA SP MANUAL, FRENCH	\$19.95
LYON	LAMB RTC SCAN CONVERTER OPERATION MANUAL	\$15.00
TEKTRONIX	TEK 1730 WAVEFORM MONITOR SVC. MANUAL	\$15.00
AMPEX	TBC-2B TIME BASE CORRECTOR SCHEMATICS	\$20.00
AMPEX	TBC-2B SERVICE MANUAL for 1 INCH VPR-2	\$20.00
SONY	BVP-250 3-TUBE CAMERA SERVICE MANUAL	\$15.00
SONY	BVW-11 BETACAM BETACART OPERATION MANUAL	\$15.00
SONY	BC-1WB OPERATION & MAINTENANCE MANUAL	\$15.00
SONY	CA-3A CAMERA ADAPTER MAINTENANCE MANUAL	\$15.00
SONY	VO-2600 UMATIC RECORDER SERVICE MANUAL	\$15.00
CANON	H660A E640A 8MM CAMCORDER SERVICE MANUAL	\$10.00

## Other on-line sources

Often Google will also throw up other holders/vendors of relevant manuals: here is one result from a Google search for ["technical manual" ampeX two inch] which had 34 hits (in English):

[www.panatron.com/services/referencemanuals.asp](http://www.panatron.com/services/referencemanuals.asp)

Several hundred manuals, including :

- 1 - AMPEX CORPORATION - INSTALLATION AND ROUTINE MAINTANCE - VIDEO PRODUCTION RECORDER - VPR-6
- 1 - AMPEX CORPORATION - OPERATING INSTRUCTIONS - VIDEO PRODUCTION RECORDER - VPR6
- 1 - AMPEX CORPORATION - OPERATION, TECHNICAL REFERENCE, & PARTS LIST & SCHEMATICS - EXTENDED MEMORY SYSTEM - VISTA-DISK - 1809842
- 1 - AMPEX CORPORATION - PARTS LISTS & SCHEMATICS - EDITOR - ACE 25 - 1520500
- 2 - AMPEX CORPORATION - PARTS LISTS & SCHEMATICS - PRODUCTION VIDEO SWITCHER - AVC VISTA SERIES - VOLUME 1 - 1809816-02
- 2 - AMPEX CORPORATION - PARTS LISTS & SCHEMATICS - PRODUCTION VIDEO SWITCHER - AVC VISTA SERIES - VOLUME 2 - 1809816-02
- 2 - AMPEX CORPORATION - PARTS LISTS & SCHEMATICS - PRODUCTION VIDEO SWITCHER - AVC VISTA SERIES - VOLUME 3 - 1809816-02
- 1 - AMPEX CORPORATION - SERVICE MANUAL - TRAINING MANUAL - TBC-6
- 1 - AMPEX CORPORATION - SERVICE MANUAL - VIDEO PRODUCTION RECORDER - VPR-80

#### 4. Access to Technical Data, by Format, Manufacturer and Model

Here is basic information found to-date, organised by media, format, manufacturer and model, with the information on where to find technical information. Completion of a comprehensive database needs to be part of further Training WP work, as described in Section five, below.

##### 4.1 Audio Technology Documentation

Ampex technical data for audio recorders is at:

[http://www.ampexdata.com/Support/Legacy\\_Manuals/legacy\\_manuals.html](http://www.ampexdata.com/Support/Legacy_Manuals/legacy_manuals.html)

##### Manuals for audio tape recorders:

200A Manuals	600 Manuals	AG440 Manuals
201 Manuals	601 Manuals	AG500 Manuals
2010 Manuals	602 Manuals	AG600B Manuals
2012 Manuals	612 Manuals	AM10 Manuals
300 Manuals	620 Manuals	ATR100 Manuals
350 Manuals	A692 Manuals	F44 Manuals
351 Manuals	AA620 Manuals	GS80B Manuals
352Manuals	AG350 Manuals	MM1200 Manuals
354 Manuals	AG440-8 Manuals	MR70 Manuals
375 Manuals	AG440A Manuals	MX35 Manuals
3761 Manuals	AG440B Manuals	PR10 Manuals
385 Manuals	AG440C Manuals	SA10 Manuals

##### Service Bulletins:

- 300 Service Bulletins
- 350 Service Bulletins

##### Whitepapers:

- Magnetic Recording Theory For Instrumentation
- Ampex Basic Concepts of Tape Recording

##### 4.2 Video Technology Documentation

Media: videotape

Format: 2" Quad

Manufacturer: Ampex

Model:	General Information	Manuals
VR1000B	<a href="http://ourworld.compuserve.com/homepages/PeterFin klestone/2inchQuad.htm">http://ourworld.compuserve.com/homepages/PeterFin klestone/2inchQuad.htm</a>	
VR1001	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	
VR1100	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	
VR1200	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	
VR2000	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	
AVR-1	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	
AVR-2	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	

AVR-3	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	
VR3000	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	
ACR-25	<a href="http://www.lionlmb.org/quad/ampex.html">http://www.lionlmb.org/quad/ampex.html</a>	

Manufacturer: RCA

Model:	General Information	Manuals
TRT-1	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-2	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-3	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-4	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-5	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-11	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-22	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-50	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-60	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-61	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-70	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TR-600	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TCR-100	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	
TPR-10	<a href="http://www.lionlmb.org/quad/rca.html">http://www.lionlmb.org/quad/rca.html</a>	

There is also a non-Quad 2" format from Ampex, though this is probably now extremely rare. More information at: <http://www.lionlmb.org/quad/ampexmis.html>

There was one IVC 2" machine, the IVC 9000. Around 65 were made and sold in North America, and 3 made in England and branded Rank-IVC. More information at: <http://www.lionlmb.org/quad/ivc.html>

Media: videotape

Format: 1" Type A

Manufacturer: Ampex

Model:	General Information	Manuals
VP4500, 4500C	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR4500, 4500C	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR5000	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR5100, 100E	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR5200	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR5800	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR5800, 5800C	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
XVR5800, 5803	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR5900	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR6000, 6003	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR6050	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR6275	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR7000, 7003	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR7100	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR7450	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR7500, 7500C, 7503	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
XVR7500	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VR7800, VPR7800, VPR7803	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR7900, 7903	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR7950, 7953	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR-1	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	

Note: Most VPR-1 machines were converted by Ampex to C format.

Also: Sony EV320F (A or C?) <http://vidipax.com/museum/msm37.html>  
 Sony UV340 (A or C?) <http://vidipax.com/museum/msm42.html>  
 Panasonic NV-204C A? <http://vidipax.com/museum/msm36.html>  
 IVC-801P (A or C?) <http://vidipax.com/museum/thmvr1.html>  
 20 further IVC models described at: <http://www.lionlmb.org/quad/ivc.html>

Media: videotape  
 Format: 1" Type C  
 Manufacturer: Ampex

Model:	General Information	Manuals
VPR-1	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR-2, 2B	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR-20	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR-3	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR-80 XVR-80	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	
VPR-5	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a> <a href="http://www.mancini99.freemove.co.uk/VP_R5_Content.html">http://www.mancini99.freemove.co.uk/VP_R5_Content.html</a>	
VPR-6	<a href="http://www.lionlmb.org/quad/ampex1.html">http://www.lionlmb.org/quad/ampex1.html</a>	

Media: videotape  
 Format: 3/4" (U-Matic)

Media: videotape  
 Format: 1/2" (esp EAIJ; is this of interest to broadcasting? Probably of interest to many non-broadcast collections)

After EAIJ, all formats were 1/2" or smaller, and used cassettes rather than open-reel. These formats, beginning with Betamax and VHS in the domestic market and various professional formats (all with D numbers), are probably much less of a problem in terms of identification of formats and equipment, so this deliverable, as of January 2005, stops with the EAIJ format.

### 4.3 Film Technology Documentation

Film technology is very well documented on the Film-Tech website: <http://www.film-tech.com>

#### Sample from the Film-Tech documentation: just the list of projector documents

- Ballantyne Pro 35 projector
- Bauer U2 35/70 film path parts projector manual
- Bauer U2 35/70 parts projector manual (no film path)
- Bauer U2 35/70 projector manual
- Brenkert BX100/RCA-100 projector
- Brenkert BX40 and BX80 projector
- Brenkert BX60 projector
- Century 35mm TA & TM turret projector parts (Revision Aug 98)
- Century 35mm turret projector instructions with parts list for TU-2020C/TU-2030C turrets (Feb 98)

Century C projector instructions and parts (1942 printing)  
Century C/CC H/HH SA/DA instructions  
Century JJ projector manual  
Century JJ-2 and JJ-3 instruction manual  
Century JJ-2 and JJ-3 parts manual  
Century Model C assembly and installation  
Century Model H/HH parts  
Century MSC & SA projector parts with 4-inch lens holder (Revision Aug 98)  
Century MSC direct drive (4-inch lens holder, no turret) with water circulator  
Century SA instruction manual (1975 printing)  
Century SB-DB and SA-DA parts manual with updated parts for C/CC and H/HH (June 1972)  
Christie Epic projector model RA7035 manual  
Christie P35 projector manual  
Christie P35C projector manual NEW!  
Christie P35GP parts manual part 1  
Christie P35GP parts manual part 2  
Christie P35GP parts manual part 3  
Christie P35GP parts price list  
Christie P35GPS projector manual  
Cinemeccanica V10  
Cinemeccanica V10, V4 and older V8 aperture plate specification manual  
Cinemeccanica V18 parts  
Cinemeccanica V4 parts  
Cinemeccanica V5 parts  
Cinemeccanica V5 regular maintenance and special maintenance  
Cinemeccanica V8 operation manual  
Cinemeccanica V8 parts  
Cinemeccanica V9 parts  
Devry 12000 series projector operation and service manual  
Devry 12000 series projector parts catalog  
Devry XD projector manual  
Devry XD projector parts manual  
Ernemann 15  
Ernemann 15 diagrams  
Ernemann 15 operator's manual  
Ernemann 15 soundhead  
Ernemann IX and X (in German)  
Ernemann VIIIb manual (German)  
Gaumone-Kalee projector models 21, 20, 19  
Holmes type D/type 8 instructions manual  
Holmes type D/type 8 parts manual  
Meopta 5 XB1 and XB3 projector manual  
Monee projector manual  
Motiograph AA  
Motiograph AA parts manual  
Motiograph parts 1938 book for K, HK, HU projectors, MK soundhead, K and HU magazines & pedestals  
Norelco AAll installation and operation  
Norelco AAll part number conversion manual  
Norelco AAll parts manual  
Norelco AAll parts price list  
Norelco AAll service manual  
Prevost P55 35mm projector  
Shanghai August First model 104-X sound film projector instruction manual  
Simplex 35 model 1050 with TU2000 turret (April 91)



Simplex 35 model PR1060 projector with TU2020/2030 turret parts (Oct 93)  
Simplex 35 models PR-1014 (current version of XL, no turret), PR-1020 (studio), PR-1030 (for-rev) instruction manual  
Simplex 35 parts catalog (rev April 2000)  
Simplex 35 parts catalog (Rev Sept 97)  
Simplex 35/70 projector instruction and parts  
Simplex auto-turret and aperture changer model 1000  
Simplex complete projector parts price list (1928)  
Simplex E-7 operation and maintenance  
Simplex E-7 projector parts manual  
Simplex E-7 vertical shaft version supplement  
Simplex PR2000 Millennium projector  
Simplex PR2000 Millennium with TU2020/2030 turret (Nov 97)  
Simplex SP projector  
Simplex standard projector parts manual  
Simplex standard projector parts price list  
Simplex Super general instructions  
Simplex Super parts book and price list  
Simplex Super projector installation, maintenance and operation manual  
Simplex Super projector parts manual  
Simplex TU-2000E with automatic lens/Aperture changer  
Simplex XL instruction manual (1960 printing)  
Simplex XL parts catalog (1960 printing)  
Spectra 90-B user and service manual  
Tokiwa TSR series projectors  
Wenzel Ace, Simplex and Kaplan projector parts list

## 5. Plan for Further Development of PrestoSpace Technology Documentation Information

This deliverable is being submitted at this point because it has enough information to allow a webspaces to be made publicly available. Before doing more project work, we need to get feedback from visitors to the site, allowing them to tell us what they value, and what they need. An outline plan for further work is as follows:

- Post and open a part of the PrestoSpace site using the above information, presented a simple web-page listings (no database or search engine).
- Use this framework to solicit additional information from:
  - PrestoSpace partners
  - PrestoSpace User Groups
  - Anyone visiting the siteAn email hyperlink will allow visitors to contact the project to supply additional information on technical manuals.
- Also solicit feedback on what information visitors most need and value. For this purpose, a simple email mechanism on the site will suffice.
- Update the site at roughly quarterly intervals for the next year
- Review the site at M24. If it is generating a lot of interest, the project can decide whether to invest the required resource into converting to a search-engine and content-management approach.