

# Software Product Description

PRODUCT NAME: XMedia Tools, Version 1.1A

SPD 36.55.02

## DESCRIPTION

XMedia Tools is audio/video enabling software which assists software developers in building distributed multimedia applications, or adding audio/video components to existing applications or documentation. It includes an Audio/Video Runtime Kit and an Audio/Video Developer Kit.

The Audio/Video Runtime Kit includes on-line documentation, drivers, servers, sample applications, the Software Motion Pictures compiler and a few sample audio and video clips. This is used to run audio and video applications or play sample audio and video clips.

The Audio/Video Developer Kit adds more on-line documentation, audio and video libraries, a more extensive audio clip library, and tools, to the functionality found in the Runtime Kit. This is used to develop applications which use audio and video functionality.

### *Audio/Video Runtime Kit*

Audio and Video Drivers provide support for the DECAudio and DECvideo TURBOchannel options as well as the built-on audio in the Personal DECstation 5000.

The Audio Server allows multiple audio events, e.g., music, sound effects, and recorded speech to occur simultaneously. Its synchronization primitives allow commands and devices to be sequenced. It also manages audio resources among different clients. The Audio Server supports both DECAudio and the Personal DECstation 5000's audio capabilities.

The Xv Video Extension to the X Server allows live video to be displayed in a workstation window. The DECvideo TURBOchannel option can convert a channel of analog video into a digital format (uncompressed) for display on a workstation. The extension attaches the digitized video frame to a user-specified window and allows sharing of the screen between the video window and other windows.

### *Sample Applications*

The sample applications are executables found in the XMedia Tools Runtime Kit.

The audio and video control applications, aset and vset, assist the user in setting audio and video parameters such as: global gain, sound library path, brightness, contrast, hue, and saturation.

The Frame Grabber application (dxgrabframes) is used to grab frames from a video input using the Pioneer protocol.

The Video Player application (dxvideoplayer) plays either a Software Motion Pictures compiled video clip or live video through the DECvideo TURBOchannel option.

The Audio Record program and Audio Play program record and play sounds, respectively.

The Sound Browser application (dxsoundbrowser) enables the user to:

- View a list of the sound libraries
- Select libraries from the list
- Play and record sounds

The Audio Editor application (dxplayview) enables the user to play sounds as well as to cut and paste pieces of sounds together. It includes a visual audio editor.

A few sample audio and video clips are provided to illustrate the capabilities of the Runtime Kit applications, as well as to validate system installation.

### *Audio/Video Developer Kit*

The Audio Library (Alib) provides the interface to the Server protocol.

The audio toolkit provides several Motif® widgets and utility functions that interface X programs to audio.

Programmer Documentation for Audio and Video follows a hypertext, rather than a book-oriented, paradigm for delivery with Bookreader V2.0. It is a set of reference, contextual and procedural information modules that are linked to one another, to the header files for the software libraries, and to the example programs. Video and Audio programming examples are included.

The programmer documentation is available in hardcopy and can be purchased separately if desired. Runtime Kit documentation is also available in hardcopy and can be purchased separately if desired.

Software Motion Pictures Builder includes a compiler, utilities, and an X toolkit widget. The compiler compresses digital frames into Software Motion Pictures format. The Software Motion Pictures widget decompresses and displays clips in an X window. Software Motion Pictures frames can also be exported to DDIF files.

#### *Example Applications*

Example applications include source code to illustrate the use of the various XMedia tools in meaningful applications. Source code is provided for the following applications:

- dxgrabframes
- dxsoundbrowser
- playsoundname (which plays a server-side audio sound)
- playsoundfile (which plays a client sound file through the audio server)
- playstdin (which plays audio data presented on standard input)
- dxsoundbrowser
- smptext (which demonstrates text overlay on Software Motion Pictures clips using SMP widget)
- video overlay (which demonstrates text overlay on video clips using XvVideoWidget)
- recordsoundname (which records a server-side sound using the audio server)

#### *Libraries*

The following libraries are included in the Developer's Kit:

- A library of Motif widgets and audio utilities called libaudiotool.a
- Two libraries of Motif widgets for video called libvwwidget.a and libsmpwidget.a
- A library of Software Motion Pictures utilities called libsmclip.a

- A library of routines to interface to the audio server called libaudio.a

The Audio Clips Library provides sound clips for inclusion in multimedia documents and presentations, just as clip art provides graphics for inclusion in desktop publishing documents and presentations. The Audio Clips Library is only available on CDROM.

#### **HARDWARE REQUIREMENTS**

Processor and/or hardware configurations as specified in the System Support Addendum (SSA 36.55.02-x).

#### **SOFTWARE REQUIREMENTS**

ULTRIX Worksystem Software

Motif

Bookreader

Refer to the System Support Addendum (SSA 36.55.02-x) for availability and required versions of prerequisite /optional software.

#### **ORDERING INFORMATION**

XMedia Tools Developer Kit: QB-XUVAA-AA  
 XMedia Audio Developer License: QL-XTPA8-3B  
 XMedia Video Developer License: QL-XTRA8-3B  
 XMedia Audio Cluster License: QL-XTTA8-AA  
 Software Media: QA-XTTAA-H8

XMedia Tools Full Developers Kit: QB-XUWAA-AA  
 XMedia Audio Developers License: QL-XTPA8-3B  
 XMedia Video Developers License: QL-XTRA8-3B  
 XMedia Audio Cluster License: QL-XTTA8-AA  
 Software Media: QA-XTTAA-H8  
 Software Media QA-MB4AA-H5

XMedia Tools Runtime Kit: QB-MB5AA-AA  
 XMedia Tools Runtime License: QP-LBDAA-01  
 XMedia Audio Runtime License: QL-XTQA8-AA  
 XMedia Video Runtime License: QL-XTSA8-AA  
 Software Media: QA-MB4AA-H5

XMedia Audio Runtime Guide: AA-PQ0MA-TE  
 XMedia Video Runtime Guide: AA-PQ0PA-TE  
 XMedia Audio Developer Guide: AE-PQL0A-TE  
 XMedia Video Developer Guide: AA-PQ0NA-TE

#### **SOFTWARE LICENSING**

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about Digital's licensing terms and policies, contact your local Digital office.

#### *License Management Facility Support*

This layered product supports the License Management Facility (LMF).

License units for this product are allocated on a traditional basis for the Runtime Kit and on a concurrent use basis for the Developer Kit.

For more information on the License Management Facility, refer to the ULTRIX Operating System Software Product Description (SPD 28.22.xx) or the *Guide to Software Licensing* in the ULTRIX Operating System documentation set.

### **SOFTWARE PRODUCT SERVICES**

A variety of service options are available from Digital. For more information, contact your local Digital office.

### **SOFTWARE WARRANTY**

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

- ® Motif is a registered trademark of Open Software Foundation, Inc.
- ™ The DIGITAL Logo, Bookreader, DDIF, DEC, DECAudio, DECsystem, DECstation, DECvideo, Digital, RRD42, TK, TURBOchannel, ULTRIX, and VAX are trademarks of Digital Equipment Corporation.

# System Support Addendum

PRODUCT NAME: XMedia Tools, Version 1.1A

SSA 36.55.02-A

## HARDWARE REQUIREMENTS

### *Processors Supported*

DECstation: Personal DECstation 5000 Model 20/25 HX,  
Personal DECstation 5000 Model 20/25 MX,  
Personal DECstation 5000 Model 20/25 TX,  
Personal DECstation 5000 Model 20/25 PXG+,  
Personal DECstation 5000 Model 20/25 PXG  
Turbo+

DECstation 5000 Model 120/125/133 CX,  
DECstation 5000 Model 120/125/133 HX,  
DECstation 5000 Model 120/125/133 MX,  
DECstation 5000 Model 120/125/133 PX,  
DECstation 5000 Model 120/125/133 TX,  
DECstation 5000 Model 120/125/133 PXG,  
DECstation 5000 Model 120/125/133 PXG+  
DECstation 5000 Model 120/125/133 PXG  
Turbo,  
DECstation 5000 Model 120/125/133 PXG  
Turbo+

DECstation 5000 Model 200 CX,  
DECstation 5000 Model 200 HX,  
DECstation 5000 Model 200 MX,  
DECstation 5000 Model 200 PX,  
DECstation 5000 Model 200 TX,  
DECstation 5000 Model 200 PXG,  
DECstation 5000 Model 200 PXG+,  
DECstation 5000 Model 200 PXG Turbo,  
DECstation 5000 Model 200 PXG Turbo+

DECstation 5000 Model 240 HX,  
DECstation 5000 Model 240 MX,  
DECstation 5000 Model 240 TX,  
DECstation 5000 Model 240 PXG+,  
DECstation 5000 Model 240 PXG Turbo+

At least one of the following TURBOchannel boards:

- DECAudio TURBOchannel option — Requires one TURBOchannel slot. (DECAudio is not required for audio on Personal DECstation 5000.)

- DECvideo/PIP daughter card to the TX frame buffer — Requires one TURBOchannel slot

If XMedia live video components are used, one of the following is required:

- Personal DECstation 5000 Model 20/25 TX (including PIP Option)
- Personal DECstation 5000 Model 120/125/133 TX (including PIP Option)
- Personal DECstation 5000 Model 20/25 TX (including PIP Option)
- Personal DECstation 5000 Model 120/125/133 TX (including PIP Option)
- Personal DECstation 5000 Model 200 TX (including PIP Option)
- Personal DECstation 5000 Model 240 TX (including PIP Option)

If only the Software Motion Pictures are used, any of the DECstation 5000s or Personal DECstation 5000s will support Software Motion Pictures.

### *Processors not Supported:*

- Non-TURBOchannel DECstations, e.g., DECstation 2100, DECstation 3100, and DECstation 3100s
- All VAX-based processors
- DECsystem processors

DECsystem 3100,  
DECsystem 5000 Model 25,  
DECsystem 5000 Model 200,  
DECsystem 5000 Model 240,  
DECsystem 5100, DECsystem 5400,  
DECsystem 5500, DECsystem 5810,  
DECsystem 5820, DECsystem 5830,  
DECsystem 5840, DECsystem 5900

### **Other Hardware Required**

- DECAudio and/or DECvideo TURBOchannel options (or Personal DECstation 5000 with DECvideo TURBOchannel option). Each of the TURBOchannel options requires one slot.

- For video, a VRT 16 or VRT 19 monitor is required.
- For installation, a TK50 Tape Drive or RRD40 or RRD42 CDROM drive is required, either on the host workstation or on the host local network.
- For the audio clip library on CDROM, an RRD42 CDROM drive is required.
- Acceptable microphones must have the following:
  - A sensitivity specification between -44 and -71 dBV (the dBV number is the open-circuit output voltage relative to 1 V at an input pressure of 1 ubar). This range of acceptability was calculated assuming the microphone would be held 6 inches from the mouth, while speaking at a normal level.
  - An output resistance less than 1k ohms.
  - A plug type which is a 1/8-inch (3.5mm) mini phone plug. A 1/4-inch phone plug can also be used with an appropriate adapter.

**Disk Space Requirements:**

Disk space required for installation:

Root file system: 3.5M bytes

Disk space required for use (permanent):

Root file system: 0.5M bytes  
 Other file systems: usr 27M bytes  
 var 0 bytes

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

**SOFTWARE REQUIREMENTS**

ULTRIX Worksystem Software V4.2A, V4.3  
 Motif V1.1  
 Bookreader V2.0

Motif and Bookreader are included in the ULTRIX Worksystem Software.

**GROWTH CONSIDERATIONS**

The minimum hardware/software requirements for any future version of this product may be different from the requirements for the current version.

**DISTRIBUTION MEDIA**

TK50 Streaming Tape

This product is also available as part of the ULTRIX Consolidated Software Distribution on CDROM.

**ORDERING INFORMATION**

XMedia Tools Developer Kit: QB-XUVAA-AA  
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 XMedia Video Developer License: QL-XTRA8-3B  
 XMedia Audio Cluster License: QL-XTTA8-AA  
 Software Media: QA-XTTAA-H8

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 Software Media: QA-XTTAA-H8  
 Software Media QA-MB4AA-H5

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 XMedia Video Runtime License: QL-XTSA8-AA  
 Software Media: QA-MB4AA-H5

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 XMedia Video Runtime Guide: AA-PQ0PA-TE  
 XMedia Audio Developer Guide: AE-PQL0A-TE  
 XMedia Video Developer Guide: AA-PQ0NA-TE

The above information is valid at time of release. Please contact your local Digital office for the most up-to-date information.

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