

SuperPlay-Library

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Chapter 1

SuperPlay-Library

1.1 SuperPlay Library Documentation

superplay.library V6.3

- FREeware -

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This program was written under OS V3.1 and is therefore fully compatible. It needs OS V2.04+.

Release Date : 3.4.1997

Copyrights
Disclaimer
Distribution
Requirements
How to install and configure it
Short: Purpose and Abilities
Supporting Software
SPObject Descriptions/History
Possible future enhancements ...
History
Thanks and Greetings
Credits
How to contact the author

_ //
Only \X/ Amiga makes it possible!

Please visit:

SuperPlay WWW Site
<http://www.amigaworld.com/support/splib/>

Die CHAOS-Theorie:

"Dabei geht es zum Beispiel darum, den verdammten Schmetterling zu finden, dessen Flügelschläge die vielen Stürme in letzter Zeit verursacht haben." (Terry Pratchett in "Total verhext")

In English means something like:

The CHAOS theory:

"Like finding that bloody butterfly whose flapping wings cause all these storms we've been having lately and getting it to stop." (see "Witches Abroad" by Terry Pratchett)

Ahm...well:

...and thanks for all the fish.

1.2 Copyright

The program superplay.library V6.3 and its documentation files are (C)opyright 1994-97 by Andreas R. Kleinert. All rights reserved.

Usage of the "superplay.library" for non-commercial programs (Freeware, Shareware), is allowed without any restrictions. With commercial programs an explicit license is required.

Some of the mentioned names or products above may be copyrighted by companies or trademarks of companies.

Remark: Drawericons have been taken from Fred Fish's AmigaLibDisks.

1.3 Disclaimer

The author takes no responsibility for any results of the use of this program.

This software is provided "AS IS" and there is no warranty of any kind, so that you use this software at your own risk.

1.4 Distribution

The program superplay.library V6.3 is freely distributable (FREWARE). You may copy it, if the copyright notice is left intact and all of its parts are included in the distribution.

This program must not be included in commercial packages or commercial program collections without my written permission.

This program must not be sold in any way, but it is allowed to take a nominal fee including the costs for copying.

This program may be put on public domain disks or included in public

domain disk libraries.

Special permission hereby goes to Fred Fish's AmigaLib-Disks and the german series (in alphabetical order) :

AmigaSzene, BerndsPD, FRANZ, GPD, SaarAG, TAIFUN and TIME.

Also CD-ROMs by Fred Fish, AmiNet and ADX (Amiga Demos and Tools).

This program may also be distributed via electronic mail and may be put into mailboxes as long as the redistribution conditions are respected in all points.

By using or distributing this program you automatically agree to all of the above conditions and terms.

1.5 Abilities, Purposes and much more

The "superplay.library" is used in many of my programs and it consists of many functions, which make playing, saving and converting of various sound formats (SoundTracker, MED, IFF-8SVX, VOC, ...) much easier. External Player-Libraries (SPOjects) allow highest possible flexibility and easy to do expansions.

Just send me your own SPOjects if you want to have them added to the main distribution archive or onto the developer disk.

1.6 Installation and Configuration

Just copy the "superplay.library" into your "LIBS:"-directory. Copy all the SPOjects to "LIBS:spobjects/".

1.7 Overview of currently available SPOjects

Available SPOjects (as far as included) :

SPOject	Formats	Type	Write
8SVX	IFF-8SVX (unencoded)	Sample	Sample
JAM	JamCracker V1.00+	Module	-
MED	MMD0	Module	-
SPO	SPO V1.00	Sample	Sample
ST	Sound/ProTracker	Module	-
VOC	PC VOC V1.10	Sample	Sample
WAV	RIFF-WAVE (Windows)	Sample	Sample
SoundDT	OS3 Sound Datatypes	Sample	-

1.8 Software supporting SuperPlay.library


```

|
| Any snail mail to the old address will still be routed.
|
|           Phone:  +49-271-22869 also FAX + AM
|                   +49-271-22838
|
|           Weekdays after 17.00h.
|
|           When calling via phone you may leave a message,
|           if I'm not available - but don't expect me
|           calling back to USA, Australia, ... since
|           german phone rates are HIGHLY expensive.
|_____

```

E-Mail:

Please send binaries via ARK@COB.wwbnet.de, and keep them smaller than 16 KB. Please think twice before sending them - my postbox is not unlimited in size.

* Do not send binaries via Fido or Fido-Gates ! *

```

- Fido   Andreas Kleinert 2:2457/350.18
- Usenet
      ARK@superview.ftn.neckar-alb.de   (Fido-Gate)
      Andreas_Kleinert@t-online.de     (T-Online)
      ARK@COB.wwbnet.de                (Z-Netz)
      ARK@amigaworld.com               (AmigaWorld)

```

- If nothing else works, try one of these public Fido-Usenet gateways:

```

In Germany:
  Andreas_Kleinert@p18.f350.n2457.z2.fido.sub.org

```

```

From USA or elsewhere:
  Andreas_Kleinert@p18.f350.n2457.z2.fidonet.org

```

When reporting any bugs, please don't forget to include a detailed description of the bug and tell me, if it is reproduceable or not. Also mention the version number of `superplay.library` (and e.g. SuperPlay) which caused the bug and describe your system configuration (Amiga model CDTV/CD-32/600 (HD)/500 (+)/1000/1500/1200 (HD)/1300/2000/2200/2500 (UX/AT)/3000 (+/T)/4000 (/030/040/060) (T)/DraCo, Kickstart/OS Version, RAM, HardDisk, GfxCard, any special Hardware/Software ;-)

Since there recently have been some problems: please don't forget to mention, whether your machine is accelerated in any way, or not (68020/.../060, 68881/882, PMMU).

1.11 The future of the SuperPlay.library

The Future (or: The Undiscovered Zone ;-)

=====

Well, ideas cannot be planned and creativity is not able to be calculated ;-)

So I can only express, what I'm thinking about the future of the library: There are many things, which I want to implement, on the other hand there are things, which are just necessary to be implemented sooner or later. So much work has to be done (still).

I'll try to do this, but I hope that there's enough support from the Amiga programmers all over the world (via Inter/AmiNet, Fido, etc.) to help me to continue doing so.

This does not only mean financial support, but also additional programming efforts like third-party improvements on the library (why not also write your own SPOjects ?)

- Andy

1.12 History

V6.3 (3.4.1997) :

- added updated V6 Oberon-2 programmers stuff by Sven Drieling
- also added updated autodocs

V6.2 (17.3.1997) :

- merged main distribution and V6.1 fixes
- updated docs
- module buffer freed twice in SP.spobject (-> Andreas Smigielski)
- fixed error texts
- Programmers: - added some new error codes
 - renamed some error codes, more verbose names now
 - new include file for old error codes: spobsolete.h

V6.1 (22.1.1997) :

- the program archive obviously did contain some screwed up library binaries (-> Andreas Smigielski)
- improved all SPOjects, each one a little bit
- changed naming conventions
- updated/fixed SuperPlay
- updated docs, email, WWW site
- most stable version for now
- bumped version to 6 (request for most stable version)

V5.3 (4.1.1997) :

- Library: - info string still reported V5.1
 - new startup-code
 - removed last assembler fragments
 - removed unused code
- ALL SPOjects: - rewrote completely, new start code, removed

unused code, fixed bugs, etc. - changed a lot

- SPObjects: - ST, JAM, SPO: - removed direct PP20 support,
now requires xpkmaster.library for that
- SuperPlay: reworked
- Programmers: - updated FD-stuff
- new sample sources (ST, SPO)
- updated docs
- updated xpk notes
- etc.

V5.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57
- various changes on spobjects and SuperPlay

V5.1 (8.8.1996) :

- MAJOR release
(small, but effective changes)
- upgraded library to V5
- V5 now is lowest support version,
removed all references to older versions
- upgraded version of all included SPObjects to V3
- V3 is now lowest supported version for SPObjects
- fixed bugs for some SPObjects
- added Oberon-II Interfaces by Sven Drieling (thanks !)
- reworked includes
- added programmers docs in Autodoc-format and a german
translation, which both also have been done by
Sven Drieling (thanks again !)
- fixed some bugs in example programs
(-> Sven Drieling)

Note: Why did I change lowest supported versions to V5 (library)
and V3 (spobjects) ?

Well, I did the same for superview.library, and it is
because of some changes in the internal module startup-code,
which uses Semaphores now, and should no longer directly
read some "private" (from Amiga OS 4 on) fields of ExecBase.

Also, I now could drop that compatibility workaround stuff
for Clipboard access (dummy file).

```
*****
* Revision history entries below V5.1 have been deleted      *
*                   to save diskspace !                      *
*****
```

1.13 Credits

ST.spobject, JAM.spobject, SPO.spobject

The "xpkmaster.library" (part of the useful Xpk package, which can be
found on Aminet) is developed under the concept of the GNU license by

its authors (c/o Dirk Stöcker, stoecker@rcs.urz.tu-dresden.de).
This freely distributable Library is needed by several SPOjects
to read and decode XPK-packed files.

ST.spobject

Upto V1.2 the main Player Source-Code in Assembler had been taken from
the Public Domain Library "STReplay" by Oliver Wagner, which can be
found on AmigaLib-Disk #258.

Oliver said in the Docs to STReplay, that he did not obtain any rights
to the Source, so I used it for my own purposes.

Nevertheless I did not just "include" the Source, but made many - more
or less useful and important - changes to it.

Since V1.3 the new ProTracker V2.2a Player Routine is used.

I got it from Gerd Frank (thanks Gerd !) and modified it for my own
purposes : Some changes had to be made to assemble it with the SAS/C
ASM V6.55 and to make it living in the multitasking better than before.
Finally, I had to change and add some more code to create an interface
to the C-SourceCode of the SPOject's main routines.

Here's an excerpt from the SourceCode as far as concerning the original
authors (no special copyright notice was found, so it is perhaps
Public Domain) :

* ProTracker2.2a replay routine by Crayon/Noxious. Improved and modified
* by Teeme of Fist! Unlimited in 1992. Share and enjoy! :)
* Rewritten for Devpac (slightly..) by CJ.

JAM.spobject

The main Player Source-Code in Assembler was taken from a Public
Domain Assembler Source-Code, which has originally been written
by M. Gemmel and re-written by "Arcade of CADCAM".
Some changes had to be made to assemble it with the SAS/C ASM V6.55
and to make it living in the multitasking better than before.
Finally, I had to change and add some more code to create an interface
to the C-SourceCode of the SPOject's main routines.

Here's an excerpt from the SourceCode as far as concerning the original
authors (no special copyright notice was found, so it is perhaps
Public Domain) :

*
* JamCracker V1.0 Replay routine, written by M. Gemmel
*
* [...]
*
* This is not a demonstration source, showing how to write
* a song-play routine. This source is merely ment for
* inclusion in other sources, or as assembly module for
* linkage with other programs.
*
* This source was modified for the MasterSeka V1.53 assembler

```

* and can be easily modified for other assemblers. (Not true, it's a lot of work ←
  - Arcade)
* The song should be inserted at 'mysong' near the bottom of
* this source, in chip memory.
*
*           Modified for MasterSeka 1.53 by Arcade of CADCAM
*
* Note from Arcade: I saved all of you who want to use the replayer
* with MasterSeka a lot of work. So leave this text here, I want the credits.

```

1.14 Requirements for the SuperPlay.library Package

Generally, you need at least an 68000 Amiga, running with OS 2.04+. Better performance results require better Software/Hardware.

```

\textdegree{} For usage of the IFF-based SPOjects, like 8SVX,
  you should take care to have iffparse.library V37+ on your bootdisk.
\textdegree{} For DataType support with OS 3.x+ you need datatypes.library V39 ←
+
  to be present. If it is not present, datatype-support is disabled,
  but you might not need it, anyway.
\textdegree{} SPOjects with Packer support - like ST, JAM and SPO - usually
  do require the following:

```

Packer	needed Libraries
-----	-----
XPK	xpkmaster.library V2+, specific xpk-compressor libraries (supports PP20 powerpacker.library as well)
<None>	No special libraries are needed, but they will simply pass through unpacked data modules.

```

\textdegree{} MED.spobject does require med.library V1+ (see Credits)

```

Additionally there are some more requirements, which do not necessarily depend on the OS or the Hardware:

```

\textdegree{} Some SPOjects additionally require
  different Hardware/Software configurations, but usually this is
  stated within their own documentation.

```

Turbo versions would be installed by the Installer-Script automatically, if it makes sense (CPU auto-detection).

1.15 ST.spobject

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Version : 3.5
Release Date : 26.01.1997

Description

~~~~~

ST.spobject is an external Library-Module for the superplay.library V1+.

It supports reading of ST Modules (SoundTracker V2.4+, ProTracker V2.2a, NoiseTracker and compatible Modules).

## Remarks

~~~~~

- As with other Players, the filename of the Module has to begin or end with the prefix/extension "MOD" ("MOD.module" or "module.MOD")
- ST.spobject supports xpkmaster.library (thus also powerpacker.library). After loading the data is checked, so that modules which could not be decompressed are rejected without any further notice.

History

~~~~~

V3.5 (26.01.1997) :

- module buffer freed twice  
(-> Andreas Smigielski)

V3.4 (22.01.1997) :

- checked for inconsistencies
- fixed some bugs, problems, EHits
- sample list now only generated, when requested (not in general)  
Obviously something caused crashes, here.

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57
- fixed memory loss

V3.1 (08.08.1996) :

- bumped to V3

V2.5 (27.05.1996) :

- completely recompiled with SAS/C V6.56  
(with new GST and using utility.library)
- using new startup-code as with sobjects

V2.4 (21.10.1995) :

- removed calls for disabling/enabling of Inst/Data cache.  
Has been reported to cause drastically reduced system performance on 040 systems while playing samples.  
(-> Dimitri Eskalow - not sure about last name)

V2.3 (26.8.1995) :

---

- completely recompiled with SAS/C V6.55
- now saves A1 within assembler routines

V2.2 (11.12.1994) :

- extraction of samples only worked with modules, which had been XPK-packed. Now also PP20 or unpacked modules can be handled.
- fixed internal bug

```
*****  
* Older revision history entries have been deleted for space reasons *  
*****
```

## 1.16 MED.spobject

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Version : 3.4  
Release Date : 22.01.1997

Description

~~~~~

MED.spobject is an external Library-Module for the superplay.library V1+.

It supports reading of MED Files.

History :

~~~~~

V3.4 (22.01.1997) :

- checked for inconsistencies

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57

V3.1 (08.08.1996) :

- bumped to V3

V2.4 (27.05.1996) :

- completely recompiled with SAS/C V6.56  
(with new GST and using utility.library)
  - using new startup-code as with sobjects
-

V2.3 (26.8.1995) :

- completely recompiled with SAS/C V6.55
- now saves A1 within assembler routines

V2.2 (11.12.1994) :

- fixed internal bug

```
*****
* Older revision history entries have been deleted for space reasons      *
*****
```

## 1.17 JAM.spobject

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Version : 3.4  
Release Date : 22.01.1997

### Description

~~~~~

JAM.spobject is an external Library-Module for the superplay.library V1+.

It supports reading of JAM Modules (JamCracker 1.00+).

Remarks

~~~~~

- As with other Players, the filename of the Module has to begin or end with the prefix/extension "JAM" ("JAM.module" or "module.JAM")
- JAM.spobject supports xpkmaster.library (thus also powerpacker.library). After loading the data is checked, so that modules which could not be decompressed are rejected without any further notice.

### History

~~~~~

V3.4 (22.01.1997) :

- checked for inconsistencies

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57

V3.1 (08.08.1996) :

- bumped to V3
-

V2.3 (27.05.1996) :

- completely recompiled with SAS/C V6.56
(with new GST and using utility.library)
- using new startup-code as with sobjects

V2.2 (26.8.1995) :

- completely recompiled with SAS/C V6.55
- now saves A1 within assembler routines

V2.1 (11.12.1994) :

- first version

1.18 8SVX.spobject

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Version : 3.4
Release Date : 22.01.1997

Description

~~~~~

8SVX.spobject is an external Library-Module for the superplay.library V1+.

It supports reading and writing of unencoded IFF-8SVX Sample-Files.

History :

~~~~~

V3.4 (22.01.1997) :

- checked for inconsistencies
- sample list now only generated, when requested (not in general)
Obviously something caused crashes, here.
- player tasks was not __saveds compliant
- reenabled clipboard support
- "stopping"/"continuing" now works as expected, and "continuing" while
already running or "starting" twice returns silently returns (no error)

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57

V3.1 (08.08.1996) :

- bumped to V3
-

- had been compiled for utility.library, but not correctly linked

V2.5 (27.05.1996) :

- completely recompiled with SAS/C V6.56
(with new GST and using utility.library)
- using new startup-code as with svobjects

V2.4 (26.8.1995) :

- completely recompiled with SAS/C V6.55
- now saves A1 within assembler routines

V2.3 (11.12.1994) :

- fixed internal bug.

```
*****
* Older revision history entries have been deleted for space reasons      *
*****
```

1.19 SPO.spobject

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Version : 3.4
Release Date : 22.01.1997

Description

~~~~~

SPO.spobject is an external Library-Module for the superplay.library V1+.

It supports reading and writing of SPO Sample-Files.

### File Format Information

~~~~~

Sound Samples in the "SPO Sample File Format" consist of two Files :
The Header-File (<Sample>.spo) and the Data-File (<Sample>).
The Header-File contains information about the Raw-Data in the
Data-File. For loading and saving the Sample it makes no difference,
which FileName - Header-File or Data-File - is given.
This is managed by the SPOobject.

Because recognition of the Types of packed Files is only possible
by reading the whole File into a buffer and then check it, we use
two different Files for both : Sample Information and Sample-
The Data-File CAN be packed, the Header-File MUST NOT be packed.

The SPO.object does NOT save packed data, but it is possible, to pack
the Data File with ANY XPK-Packer you like, because the SPO.spobject
uses the xpkmaster.library for decoding.

This allows efficient packing and unpacking with PowerPacker and all other XPK-Packers.

Remember, that the original Data written by the SPO.sobject is NOT packed and therefore needs a lot of Diskspace. So pack it immediately after it has been written.

The Data saved into the <Sample> File is written almost in the same way like in an IFF-8SVX. The only difference is : Future versions might contain 12- or 16-Bit Sample Data.

History :

~~~~~

V3.4 (22.01.1997) :

- checked for inconsistencies
- "stopping"/"continuing" now works as expected, and "continuing" while already running or "starting" twice returns silently (no error)

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57

V3.1 (08.08.1996) :

- bumped to V3
- had been compiled for utility.library, but not correctly linked

V2.4 (27.05.1996) :

- completely recompiled with SAS/C V6.56 (with new GST and using utility.library)
- using new startup-code as with sobjects

V2.3 (26.8.1995) :

- completely recompiled with SAS/C V6.55
- now saves A1 within assembler routines

V2.2 (21.07.1994) :

- added possibility to save all Samples from all multiple-SampleList and to accept NULL parameters for the Source-SPObjct with SPO\_Write(), so that custom applications may save their self-created SampleLists by simply setting them via SPO\_SetSampleList(). The old way behaviour is still supported (as also handling of V1 SPObjcts).
- will correctly write Samples with more Bits than 8, if it is confronted with them

\*\*\*\*\*  
\* Older revision history entries have been deleted for space reasons \*

\*\*\*\*\*

## 1.20 VOC.sobject

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Version : 3.4  
Release Date : 22.01.1997

Description  
~~~~~

VOC.sobject is an external Library-Module for the superplay.library V1+.

It supports reading and writing of PC VOC-Sample-Files (V1.10).

Features / Handicaps
~~~~~

- Currently only VOC-Version V1.10 is supported.
- All Blocks except Block 1 and the Header are ignored, e.g. Stereo-Sample-Data.

History :  
~~~~~

V3.4 (22.01.1997) :

- checked for inconsistencies
- player tasks was not __saves compliant
- "stopping"/"continuing" now works as expected, and "continuing" while already running or "starting" twice returns silently returns (no error)

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57

V3.1 (08.08.1996) :

- bumped to V3
- had been compiled for utility.library, but not correctly linked

V2.5 (27.05.1996) :

- completely recompiled with SAS/C V6.56 (with new GST and using utility.library)
- using new startup-code as with sobjects

V2.4 (26.8.1995) :

- completely recompiled with SAS/C V6.55

- now saves A1 within assembler routines

V2.3 (11.12.1994) :

- fixed internal bug

```
*****
* Older revision history entries have been deleted for space reasons      *
*****
```

1.21 WAV.spobject

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Version : 3.4
Release Date : 22.01.1997

Description

~~~~~

WAV.spobject is an external Library-Module for the superplay.library V1+.

It supports reading and writing of PC RIFF-WAVE (WAV) Sample-Files,  
playing is supported as far as the Amiga is able to (8 Bit only).

### History :

~~~~~

V3.4 (22.01.1997) :

- checked for inconsistencies
- player tasks was not __saves compliant
- "stopping"/"continuing" now works as expected, and "continuing" while already running or "starting" twice returns silently returns (no error)

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57

V3.1 (08.08.1996) :

- bumped to V3

V2.5 (27.05.1996) :

- completely recompiled with SAS/C V6.56
(with new GST and using utility.library)
- using new startup-code as with sobjects

V2.4 (26.8.1995) :

- completely recompiled with SAS/C V6.55
- now saves A1 within assembler routines

V2.3 (11.12.1994) :

- fixed internal bug

```
*****
* Older revision history entries have been deleted for space reasons      *
*****
```

1.22 SoundDT.spobject

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Version : 3.4
Release Date : 22.01.1997

Description

~~~~~

SoundDT.spobject is an external Library-Module for the superplay.library V1+.

It supports reading of Sound Datatypes.

### Features / Handicaps

~~~~~

- once a sample has been loaded, it will be repeated until an explicit stop command arrives
- an arriving stop command waits (asynchronous) until the current repeat loop ends
- there's no possibility to continue a once stopped Sample

History :

~~~~~

V3.4 (22.01.1997) :

- checked for inconsistencies

V3.3 (04.01.1997) :

- fixed and changed A LOT...

V3.2 (15.11.1996) :

- completely recompiled with SAS/C V6.57

V3.1 (08.08.1996) :

- bumped to V3
  - had been compiled for utility.library, but not correctly linked
-

V2.3 (27.05.1996) :

- completely recompiled with SAS/C V6.56  
(with new GST and using utility.library)
- using new startup-code as with sobjects

V2.2 (26.8.1995) :

- completely recompiled with SAS/C V6.55
- now saves A1 within assembler routines

V2.1 (11.12.1994) :

- first version
-