

Developing for PlayStation™ - An Overview



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Developing for PlayStation™

- Content
 - Intro to Development
 - Development Platforms
 - A simple game demo (source available soon)
 - Questions



Developing for PlayStation™

- Program in C using Libraries
- Complete Development Environment
- Documentation
- All the tools you need to begin
- Technical Support





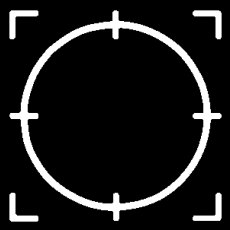
How to get Support

- Use the BBS
- Email
- Fax
- Hot line
- Normal phone



Hey, lets port something!

- Playstation™ not architecturally similar to other consoles or PC
- PlayStation™ is BETTER in many things.
- Play to the machines strengths
- Don't port the game, port the concept!



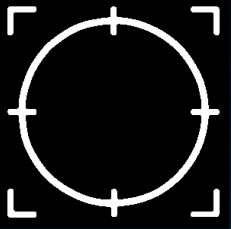
Understand what the machine does best

- Learn what works well and do this!
- Don't fight the hardware/libraries
- Then you'll make a great game!



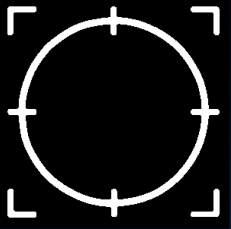
Platforms

- Development Kit (PC based)
- Debugging Station
- PlayStation™



What is a Debugging Station?

- It is blue!
- It is like a consumer PlayStation™ but with the anti-piracy mechanisms removed so it can play gold disks
- Allows you to test your code on the final machine



PlayStation™ Vs Dev Kit

- Main Ram
 - PlayStation™ 2Mb
 - Debugging Station 2Mb
 - Dev Kit 8Mb
 - Non optimised code (Debugging)
 - Load data into main ram direct from PC for rapid development



Development Kit

- Uses 2 full length slots
- Can read CDs with optional CD-ROM drive
- CD Emulator



PlayStation™ Vs Dev Kit

- Mass Storage
 - PlayStation™
 - CD ROM Dual Speed 300 Kps
 - Dev Kit
 - CD ROM Dual Speed 300 Kps
 - CD Emulation (Hard Drive)
 - PCFS (Read and Write)



A Simple Game

- Initialise the hardware
- Setup some data
- Main loop
 - graphics
 - sound
 - logic



Create Sound Effects

- Use Sound Artist Board and Sound Tools
- Play CD-DA or XA-ADPCM



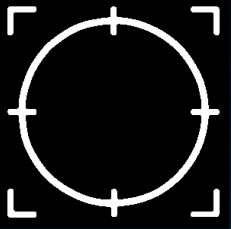
Create Graphics

- Choose from a wide variety of pixel editors and modelling packages
- Use plugins and utilities to convert these to native PlayStation™ format



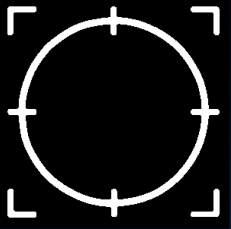
A Simple Game

- Initialise PlayStation™
 - Reset Graphics system
 - Initialise drawing environment
 - Reset CD system
 - Install Pad Reading routine
 - Create and Initial game data structures



A Simple Game

- Load game data
 - Load data from PC directly to main ram
 - Transfer sound data to sound ram
 - Transfer Texture data to video ram



A Simple Game

- Main loop
 - Read pads
 - do game logic
 - draw polys to create screen



A Simple Game

- Sound
 - Simple samples
 - Reverb



A Simple Game

- Graphics
 - 320*240 16bit double buffered
 - PolyFT4 (flat shaded, textured, four sided polygons)
 - Background loaded from main ram each frame to save vram
 - Switch buffers on Vsync()
 - Built in Font



A Simple Game

- 3D on PlayStation™
 - Dedicated 3D Co-processor (GTE)
 - 3D to 2D co-ordinate conversion
 - Z Sorting
 - Real time lighting/Depth cueing



Conclusion

- PlayStation™ is powerful
- PlayStation™ development is easy



The end.....

- Good Luck with your Products
- Question Time