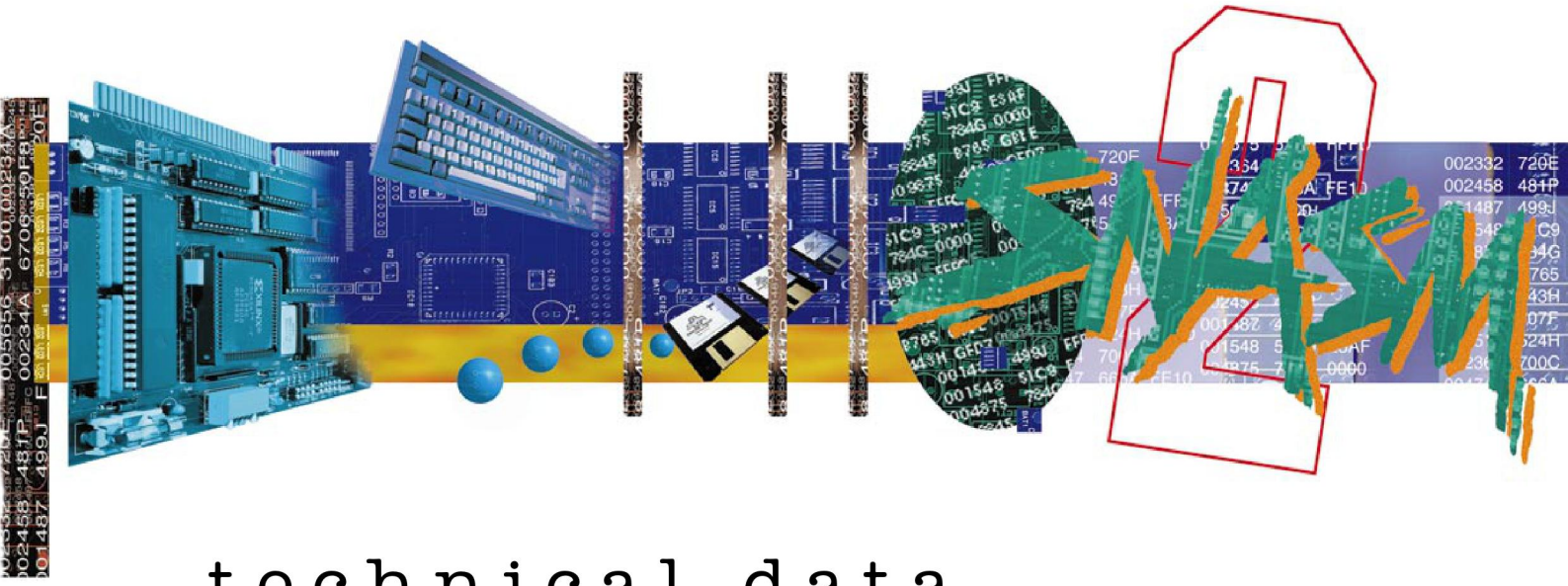

technical data

GENESIS

The SNASM2 professional development environment consists of a core set of features and syntax which are common across all processors and all platforms. This means that you don't need to learn a new set of development tools or environment each time you change target, greatly reducing the learning curve of new platforms saving both time and money. With huge advances in the technology used for SNASM2 development systems we are no longer offering just a software development tool, we're re-defining the funcionality of software tools and blurring the dividing line between these and expensive ICE equipment. We have incorporated in the GENerator many important useful features previously available only in very expensive hardware development tools.

Plugs into the Cartridge Socket and Provides more Features

The GENerator uses the cartridge socket rather than the 68000 socket but we haven't compromised on features, nor do you loose the cartridge socket as it has its own cartridge connector which accepts either RAMCarts or a standard Genesis game cartridge. When a game cartridge is plugged in you now have the ability to be able to check and trace code in the cartridge.

Vector Steal Available on any Selection of CPU exceptions

This allows selective trapping of exception vectors enabling the GENerator firmware to gain control when an exception occurs so you can debug a program without the need to change any of the vectors in the binary. An exception can be either completely trapped, which would be necessary for things such as Bus Error, or you can chain down to the user routine allowing the GENerator to gain control after a VBL without needing to insert a TRAP. No changes are required to binary for final cartridge.

VDP Access Tracking to allow non-intrusive VDP memory access.

The GENerator continuously monitors VDP access so it can keep track of the VDP access mode, access address and the value of AutoInc. This allows the SNASM2 firmware to read and write VDP memory without disturbing any VDP access that may be in progress. View and edit any video areas at will.

Latest Technology allows Hardware to be upgraded with no downtime

The GENerator holds its firmware in flash memory which is non-volatile but which can be quickly reprogrammed via the SCSI interface so the latest features can always be available. The GENerator has most of its hardware logic held in a Xilinx device which is programmed as the unit boots via the firmware so the hardware of the unit can be upgraded to allow for different types of cartridges, new versions of the Genesis or to add new debugging features.

Removeable Battery Backed RAMCart

16 Mbit of RAM supplied as standard in removable battery backed RAMCart, can be quickly user-upgraded to 32 Mbit using low cost 8 Mbit SRAM SIMMs. Detachable emulation RAM fully testable at all times. Plugs directly into standard Genesis for testing/demonstrations.

Available soon - Daughter board to plug into GENerator providing; hardware breakpointing, history buffer tracing and address checking.

SEGA

technical data

GENESIS

SNASM2 - Assembler/Linker

Fast and powerful assembler written specifically for the games industry.
32-bit 386 protected mode provides even more speed and supports large projects.
Able to send code directly to target allowing immediate testing.
Direct generation of ROM images.
Combined assembler and linker allows any combination of direct assembly and linking, and any combination of C and assembler code.

SNASM2 - Debugger

TRUE source level debugging automatically knows where to find files to step to.
Source level debug C, assembler or mixed mode projects.
Debug multiple processors on a single screen.
Split-screen code window - view source and disassembly at the same time and trace in either.
32-bit 386 protected mode to provide unlimited windows, symbols, debug info, etc.
Configurable breakpoints to allow stopping on condition, logging without stopping, etc.
Full set-up save to maintain windows, breakpoints etc. between sessions.

SNASM2 - New Features

Vector Steal capability.
Totally transparent VDP accessing.
Removeable battery-backed RAMCart.
Low cost 8 Mbit SRAM SIMMs.
Fully compatible with all types of DMA.
Plug-in cartridge interface will allow standard game cartridge to be connected.

SNASM2 - Data

Genuine download speed 300k per second.
RAMCart battery retains contents for 1 month.
Unique design low profile low power 8 Mbit SRAM SIMMs.
RAMCart capacity up to 32 Mbit.
Output file types: COFF, Binary, S19.

SN220 - Genesis Development System Contains:

SNASM2 - Standard Software

68000 Assembler/Linker
68000 Debugger
Brief macros
Librarian
Make utility
Stand-alone file upload/download.
Test utility

SNASM2 - Standard Hardware

PC Card with high-speed SCSI interface.
SCSI cable
GENerator cartridge interface.
Battery backed RAMCart fitted with 16 Mbit of SRAM SIMMs.

Detailed technical documentation.
12 months unlimited technical support and upgrades.
Access to dedicated BBS.

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SEGA