

# On-Line! Detective<sup>®</sup> for Sun Workstations and Servers



A comprehensive knowledge -  
base delivering superior reference  
and diagnostic information for  
Sun™ system support

Fast Access to Information

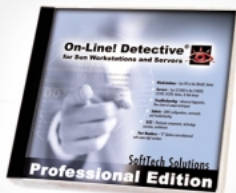
System Administration / Solaris™

Field Engineering / System Troubleshooting

Unique Diagnostic Routines

Comprehensive Part Information

Configuration Rules, Guidelines, & Tech-Tips



# The **On-Line! Detective**<sup>®</sup> is **Your Sun**<sup>™</sup> **Expert**



## **What is the Detective?**

The **Detective**<sup>®</sup> is a comprehensive knowledge-base containing superior reference and diagnostic information for the Sun<sup>™</sup> environment. The **Detective** uses a unique combination of organized menus, photographs, flowcharts and hypertext to interlink relevant information and procedures. The **Detective** is a virtual Sun expert. The **Detective** covers the hardware, operating system, SCSI technology, connectivity, third-party products, advanced troubleshooting, system tuning, FRU removal and replacement, system administration, and much, much more!

## **Who uses the Detective?**

System administrators, help-desk professionals, system maintainers, Sun training organizations and brokers/integrators around the world turn to the **Detective** for information regarding their Sun environment. The **Detective** contains the information and the support methodologies necessary to make all users more effective. The **Detective** also serves as a very effective training tool for those supporting, maintaining, or selling in a Sun environment.

## **Why is the Detective so valuable?**

The **Detective** combines years of internal research and input from thousands of technical users. This process translates into an incredible benefit for all end-users, extending your skills to an unparalleled level of knowledge and expertise.



The **Detective** provides answers to those that need it fast, saving valuable resources in the process. With the **Detective** knowledge-base, those within your organization will have the tools to perform their tasks with efficiency and exact precision. The **Detective** eliminates guesswork by providing a step-by-step guide for situations that require: troubleshooting, component removal and replacement, system configuration, system administration and much more.

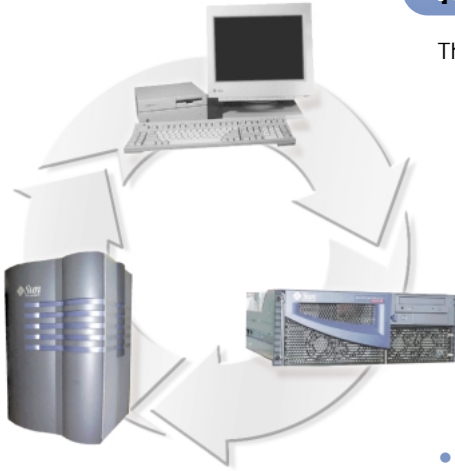
The **Detective** standardizes the approach to troubleshooting and resolving most Sun system and Solaris related issues. It provides unique diagnostic routines to pinpoint a problem's root-cause and offers sequential steps for resolution. The **Detective** covers both basic and advanced tasks including first level diagnostics, system and OS configurations, part number lookup and many other tasks for effective system administration, maintenance, and reselling of Sun systems.



Look inside this brochure for a complete breakdown of these incredible features!

# On-Line! Detective® - Professional Features

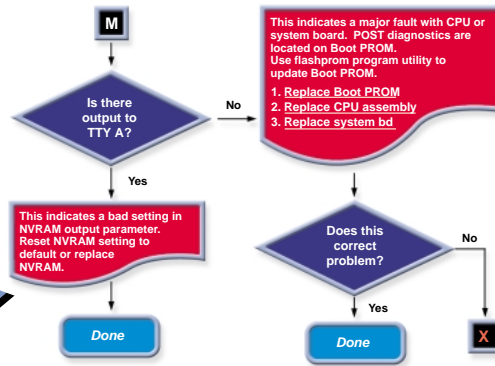
## Total System Coverage



The **Detective**® provides access to the complete spectrum of Sun™ systems. By covering all systems and retaining retired hardware information, the **Detective** taps the knowledge of seasoned experts and serves as your best source for emerging systems.

### Features:

- Workstations - IPX to the Sun Blade 2500
- Servers - SS1000 to the Sun Fire 12K/15K
- Rackmount systems
- Netra workstations and servers
- Storage devices and disk arrays
- Over 6,000 Sun parts
- Solaris administration
- All peripheral boards (SBus, PCI, UPA, etc.)
- Third-party devices and cables
- Two formal releases annually
- Interim updates via secured FTP site
- Single source for all Sun information



Hyperlinks to procedures

Parameter	Description	Default
auto-boot?	If true, boot automatically after (POST)	True
boot-command	The first command executed after POST if "auto-boot?" is true.	boot
boot-device	Using the default setting the system will look for the boot-device in the following order: 1. disk (disk connected to the first local on-board scsi controller) 2. diskdrv (disk connected to a disk board (Enterprise 4,5/6000)) 3. diskap (a disk connected to an ISP controller) 4. diskabc (a disk connected to an optical controller e.g., disk array) 5. Net (a boot server on the network)	disk diskdrv diskap diskabc net
boot-from	Boot source (default device is sd).	vmunix
boot-from-diag	Diagnostic boot source.	net
configuration-policy	This parameter determines how the system will handle a faulty component (Enterprise only). <b>component</b> - ASR removes the faulty component and continues to run. <b>board</b> - ASR removes the faulty component and the system board that houses the component. <b>system</b> - a faulty component will remove the system from operation and allow the redundant system to operate. <b>all</b> - do not remove the faulty component from the system.	component
diag-level	min. will run a minimum set of power on self tests. max will run an extended set of POST tests.	min.

## Unique Diagnostic Routines

The **Detective** provides the clarity and methodical procedures needed to interpret Sun's "cryptic" error messages. Our goal is to help you keep your system up and running by quickly and accurately determining problem origin. In addition, the **Detective** features unique tech-tips and dynamic troubleshooting flowcharts you won't find anywhere else!

### Features:

- System log interpretation
- POST listing and analysis
- LED interpretation (Keyboard LEDs & other diagnostic indicators)
- OpenBoot PROM diagnostic commands
- System troubleshooting flowcharts
- Component troubleshooting flowcharts
- Unique troubleshooting techniques
- Keyboard diagnostic commands
- NVRAM configuration parameters
- Technical tips from actual problems
- Forth Toolkit diagnostic tools

# On-Line! Detective® -

## System Administration / Solaris

By covering both software and hardware issues, the **Detective®** provides those responsible for Sun™ system support, the tools to effectively administrate, troubleshoot, and maintain all aspects of the Sun environment. These include hard-to-find fixes and techniques known and used by only the most experienced Sun administrators.

### Features:

#### Solaris

- Solaris Certification
- Solaris overview
- Installing and upgrading the operating system
- System administrators' daily duties
- System panic error information
- Solaris patch information
- Cryptic system log errors interpreted
- Handling system crashes, hangs, lockouts, threads, race conditions and dumps

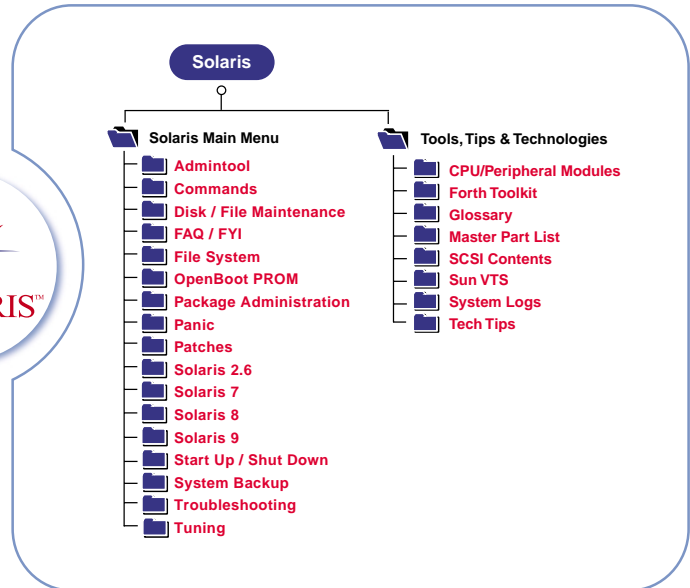
#### Administration

- Backup
- Security
- Administration tools
- Startup/Shutdown
- Sun VTS user instruction
- SunDiags™ user instruction
- UNIX file structure

#### System Tuning

- Configuration rules and guidelines
- Configuring the NVRAM
- Determine SCSI transfer rates
- Software tuning techniques

... and Much More!

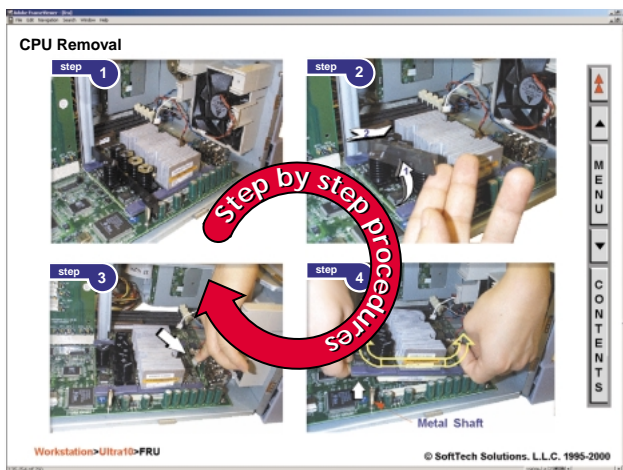


## Field Engineering / System Troubleshooting

With the **Detective**, you have the confidence to open any system with expert-like familiarity. The goal of effective Field Engineering is to identify and implement the right procedures the first time. By systemizing the entire repair process, the **Detective** can help you avoid indecision, professionally compromising mistakes, and time wasted from "trial and error" methods of repair. The **Detective** troubleshooting techniques and service tips were specifically developed by service personnel to ensure fast and accurate fault isolation. These are features any level support Engineer will appreciate.

### Features:

- Troubleshoot utilizing a laptop
- Active troubleshooting flowcharts with links to procedures
- Troubleshooting guide and flowcharts by component and system
- FRU removal and replacement procedures
- Hot-swap procedures, techniques, and guidelines
- Thousands of tech tips from the experts
- Systemization of the entire repair process
- Comprehensive part Information
- Traverse the device tree to locate faulty components
- Jumper setting locations and definitions
- SCSI device configuration rules and guidelines
- SCSI technology overview
- Detailed photographic component identification
- Commands (test-all, show-tty-mesgs, show-devs, probe-scsi-all, etc.)
- Little-known, yet powerful UNIX diagnostic commands



# Professional Edition

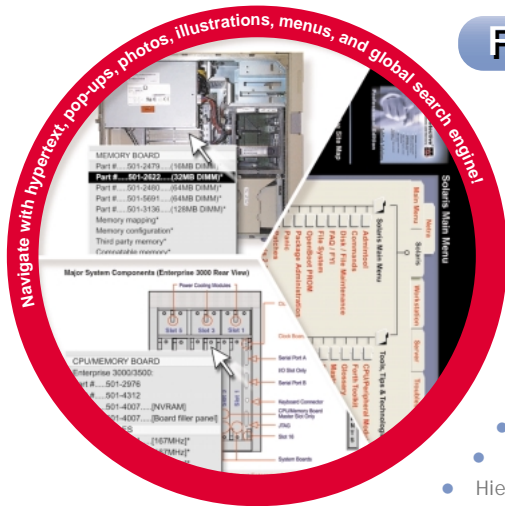
## Comprehensive Part Information

Simply stated, the **Detective®** is the most comprehensive, single-source for Sun™ and related third-party information...period. Via the **Detective's** "fast access to information" navigation, users have links to detailed part descriptions, configuration guidelines, useful substitute options, and replacement procedures. See what leading technology organizations have already discovered: that these powerful features have helped increase repair options, optimize inventory and improve profitability.



### Features:

- All Sun part numbers
- Third-Party part numbers
- "X-Options" cross-referenced with 7-digit numbers
- FRU configuration breakdown
- Substitute & compatibility references
- Parts categorized by type & system
- Master part list



## Fast Access to Information

Both images and documentation use hypertext-links. This allows for easy navigation and quick jumps to related information. Whether you like traversing pictographically, browsing by system menus, tables and lists, or using a search engine, the **Detective** is organized and engineered to retrieve critical Sun information fast.

### Features:

- Relevant information logically organized
- Information organized by system and components
- Multi-view photographs of systems detailing major components
- Active-image pop-ups provide pertinent information and related links
- Exploded view illustrations with navigational links
- Hypertext throughout documentation
- Hierarchical menu structure
- Hypertext table of contents and alphabetical index
- Powerful search engine
- Site map
- Electronic note and bookmark capabilities
- Extensive technical glossary

## Configuration Rules, Guidelines, & Tech Tips

### Features:

- System configuration rules and guidelines
- Component compatibility guidelines
- Minimum and maximum configurations
- Third-party component options
- System and component-specific tips and cautions
- Architecture references
- Hardware positioning guidelines for optimal performance
- SCSI device targeting guidelines
- SCSI rules and guidelines

UltraSPARC (CPU) Configurations and Rules (Exx00)

Speed	Part Numbers	Systems	Cache Size	OBP Revision	Solaris™	Patches	Clock Board	System Board
167 MHz	501-2941	Exx00	512 KB	3.2 ver 6	2.5.1	-	501-2975 501-4286 501-4946	All
167 MHz	501-2959	Exx00	1 MB	3.2 ver 6	2.5.1	-	501-2975 501-4286 501-4946	All
250 MHz	501-4178	Exx00 E10000	1 MB	3.2 ver 6	2.5.1	103640-06	501-4286	All
250 MHz	501-4249	Exx00 E10000	4 MB	3.2 ver 7	2.5.1	103640-06	501-4286	501-2976 501-4312 501-4882
250 MHz	501-4836	Exx00 E10000	4 MB	3.2 ver 7	2.5.1	-	501-4286 501-4946	501-2976 501-4312 501-4882
333/336 MHz	501-4363	Exx00 E10000	4 MB	3.2 ver 12	2.5.1	-	-	-



"Super Product! The **On-Line! Detective**<sup>®</sup> saved me troubleshooting time over and over"... "It is easy to use and allows us to find critical information quickly."



# Professional Edition

## Deployment / Updates

The **Detective** stays current with (1) formal (CD) release annually and interim updates available on SoftTech's FTP site. The **Detective** is deployable on all Solaris and Windows operating systems.

## Detective Customer List

The **Detective** is used extensively by the global 1000, independent maintenance organizations, resellers and government agencies. An abbreviated customer list includes the following:

Akibia	Fujitsu	MasterCard
AT&T	Harvard University	NASA
Dow Jones	HP	NSA
EDS	IBM Global Services	Veritas
EMC	Lockheed Martin	Verizon
Federal Reserve	Lucent Technologies	

## Technical Support



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**Toll Free:** (888) 786-4393



**Hours:** Mon-Fri • 8am-6pm (EST)

## About SoftTech Solutions

SoftTech Solutions is a leading developer of advanced on-line diagnostic software and hardware repair tools for the UNIX industry. SoftTech specializes in structuring comprehensive troubleshooting algorithms and repair procedures in an on-line format. We take the mystery out of problem resolution by providing solutions.

SoftTech is currently serving customers worldwide. Explore the benefits of the **Detective** and discover how we "*Turn information into knowledge!*" Contact SoftTech for more information or to inquire about our other great products and services.



[sundetecive.com](http://sundetecive.com)