

System Performance Monitor/2 2.0

Austin, TX

System Performance Monitor/2 Ver. 2.0

- **Workstation Performance**
 - ▶ **Individual Applications and Workstations**
 - ▶ **LAN Servers and Clients**
- **Components of Performance**
 - ▶ **CPU**
 - **How Much**
 - **Where**
 - **Application**
 - **System**

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■ Components of Performance

- ▶ **Input/Output**
 - Frequency
 - Location
 - Service Time
- ▶ **Memory**
 - System
 - Application Code
 - Application Data
 - Working Set

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■ SPM/2 Components

- ▶ **Data Collection**
- ▶ **Data Logging and Graphing**
- ▶ **Data Reporting**
- ▶ **Memory Analysis**
- ▶ **Directory Analyzer**

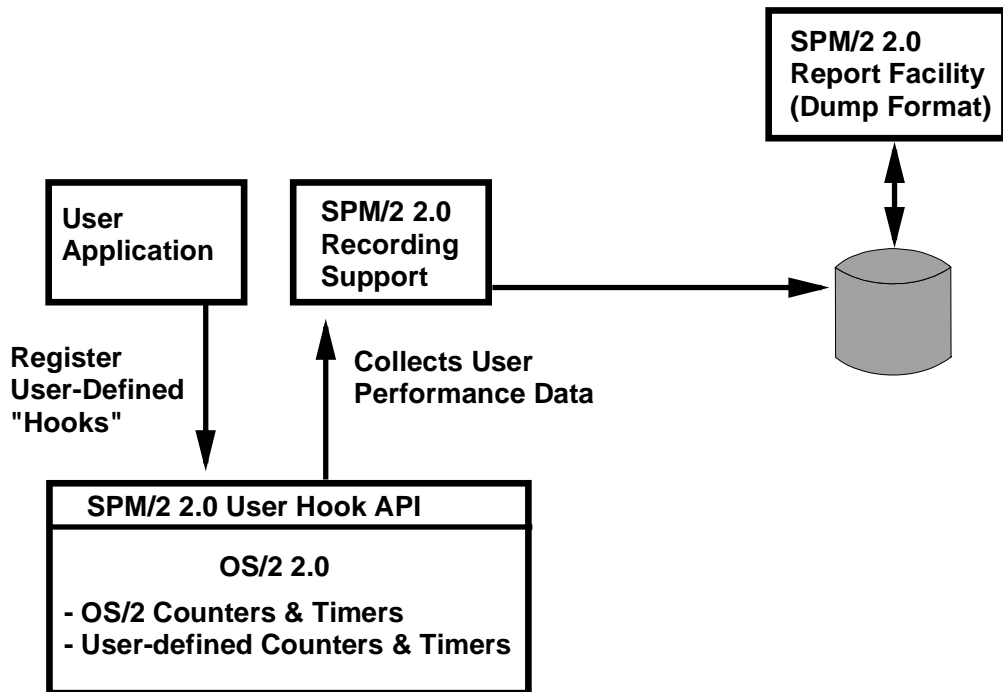
SPM/2 2.0 Application Support

- **Command Line Interface**
 - ▶ **Start/Stop Data Collection Facility**
 - ▶ **Start/Stop Monitoring Sessions**
 - ▶ **Run Reports**
- **Application Programming Interface (API)**
 - ▶ **Start/Stop Data Collection Facility**
 - ▶ **Start/Stop Monitoring Sessions**
 - ▶ **Run Reports**

SPM/2 2.0 Application Support

- **Application Programming Interface (API)**
 - ▶ **Query Status of SPM on Network**
 - ▶ **Interface to Realtime Performance Data**

User-Application Data Collection



SPM/2.0 Architecture: Performance Hook

- **SPM/2 1.0 Was "Event-Driven"**
 - ▶ Utilized Systrace Hooks
 - ▶ When Event Occured (E.G. "Process Dispatch"), Trace Record Issued
 - ▶ Utilization Computed Using Event & Time-of-Day Records
 - ▶ Heavy Activity Resulted in a Lot of Data

SPM/2 2.0 Architecture: Performance Hook

- **SPM/2 2.0 Uses Architected OS/2 2.0 Counters/Timers**
 - ▶ **Counters/Timers are Control Blocks of Varying Types**
 - ▶ **Utilization Computed Using Various Combinations of Counters/Timers**

SPM/2 2.0 Architecture: Performance Hook

- **SPM/2 2.0 Uses Architected OS/2 2.0 Counters/Timers**
 - ▶ **Amount of Data Determined by:**
 - **How Often Counters/Timers are Read**
 - **Number of Resources Being Collected (Esp. File/Thread Information)**

Types of OS/2 2.0 Performance Counter/Timer Control Blocks

■ Event Counters

- ▶ **Increment by 1 for Each Occurrence of an Event (Such as "Number of Disk Read Operations")**

■ Timers

- ▶ **Count Nano-Second Tics of the System Clock. When Combined with Other Counters, Timers are Used to Measure How Long an Event Took.**

Types of OS/2 2.0 Performance Counter/Timer Control Blocks

■ Bulk Counters

- ▶ **Increment by Quantities (Such as "Number of Bytes Read Since Data Collection Began").**

■ State Counters

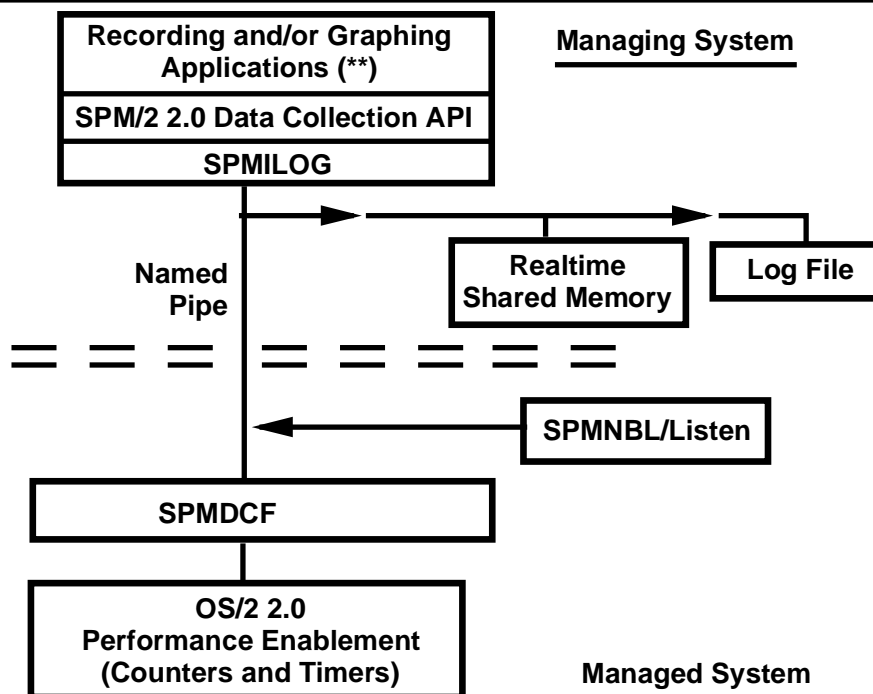
- ▶ **Indicate the current state of a resource. Their values increase or decrease one at a time (such as the "number of active pages in memory").**

Types of OS/2 2.0 Performance Counter/Timer Control Blocks

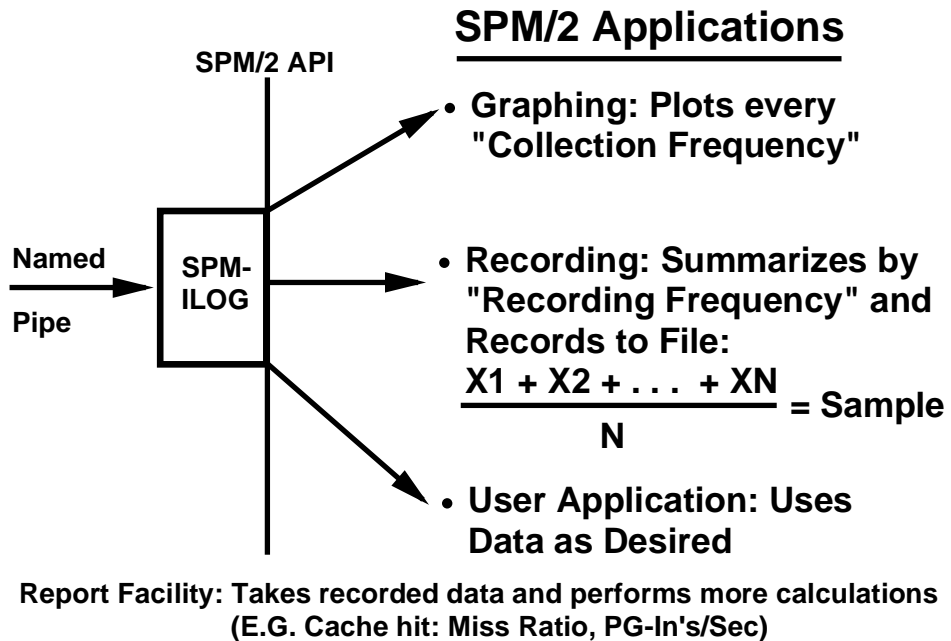
- **Bulk State Counter**
 - A combination of the bulk and state counter concepts.

- **Queue Length**
 - These hooks consist of two parts: A Bulk State Counter and a Timer. This Counter/Timer combination is used to compute the "Average Amount of Some Resource X over the Last Y Time."

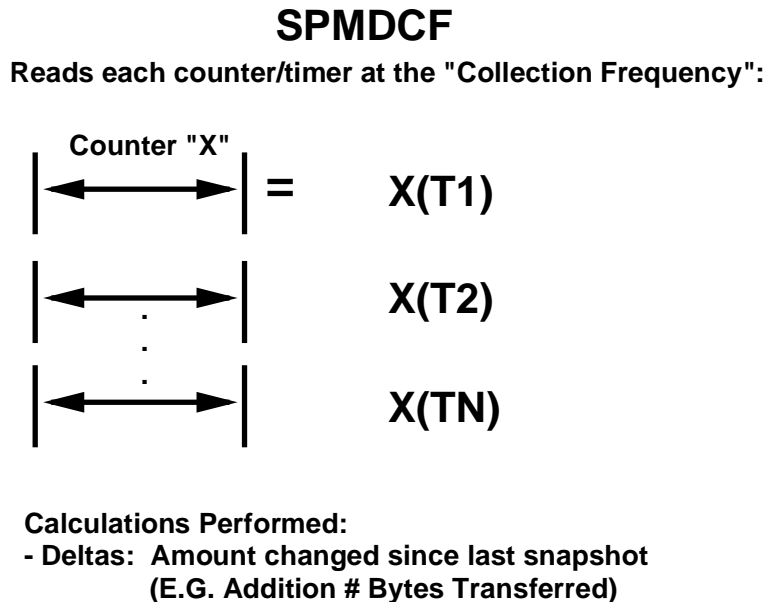
SPM/2 2.0 Arch.: Component Structure



SPM/2 2.0 Architecture: Collection & Calculations



SPM/2 2.0 Architecture: Collection & Calculations



Memory Analyzer

- **Memory/Modules/Resources**
- **View Memory/System Resources**

Directory Analyzer: SPMDIR

- **Same Function as SPM/2 1.0**
- **Additional Fix to Support "Long Subdirectory Names"**
- **Provides**
 - ▶ **Disk Capacity in Terms of Number and Size of Files**
 - ▶ **Information Summarized By:**
 - **Directory**
 - **Subdirectory**
 - **File**
 - **Cluster Length**

Demonstration

- **Graphing**
- **Reports**
- **Directory Analyzer**
- **Memory Analyzer**

Installation

- **Diskette**
- **CID Install**

SPM/2 2.0 Improvements

- **Graphing and Logging Simultaneously**
- **PM-Based Control Panel**
- **Collect User Performance Data**
- **Multiple Concurrent Monitoring Sessions**
- **PM and Hyperbloc Base for Memory Analyzer**

Packaging

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|-------------------------------------|---------------|-----------------|
| ■ Announcement Letter | | 292-601 |
| ■ Full Product | 495.00 | 5871-AAA |
| ■ Additional License | 465.00 | 5872-AAA |
| ■ Upgrade from 1.0 | 323.00 | 5873-AAA |
| ■ Additional License Upgrade | 293.00 | 5874-AAA |
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