



hp TPDC software for
hp NonStop servers

collect and store
performance data

a product description
from hp

features at a glance

- Collection of all key performance data
- Access to performance data by client applications
- Comprehensive reporting capability
- Low system overhead

HP Tandem Performance Data Collector (TPDC) software provides an efficient, cost-effective way to collect and store performance information generated by HP NonStop™ servers.

TPDC software gathers data from the NonStop Kernel operating system, the file system, and Measure—performance measurement software by HP. As the single source for collecting performance data, TPDC software reduces the human and computer resources needed for a comprehensive analysis of your NonStop subsystems and applications.

After collecting the data, TPDC software organizes and stores it in a single file that is used for generating reports as well as for analysis by such client applications as HP Guardian Performance Analyzer (GPA) software and Flow Map software by HP.

collection of all key performance data

By gathering performance information from Measure analysis software, the NonStop Kernel operating system, and the file system, TPDC software provides a complete picture of the performance of your subsystems and applications (see figure 1).

To simplify the process, TPDC software sets the performance measurement parameters, based on the hardware and software configuration of your NonStop server. It also calculates an efficient sampling interval for your devices and processes.

During data collection, TPDC software gathers samples of data pertaining to processor availability, device paths, memory, interrupts, and system messages. This data is then normalized—that is, converted to a consistent format for analysis—and stored in a single file.

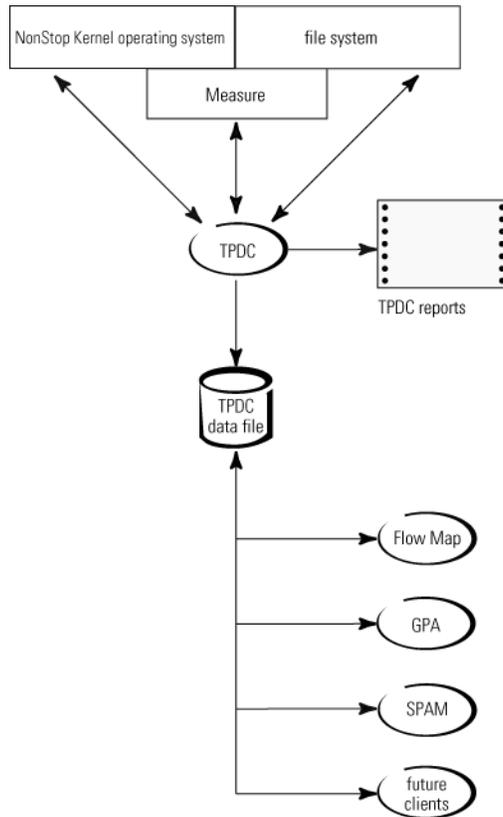


Figure 1. TPDC software gathers and stores data from the NonStop Kernel operating system, the file system, and Measure software. A TPDC data file can be used for producing reports and for performance analysis by a variety of client applications.

access to performance data by client applications

A single TPDC data file contains all of the key information for performance analysis. This file can be accessed by a variety of HP client applications, including

- System Performance Analysis using Measure (SPAM) software: Included with TPDC software, the SPAM application creates detailed performance reports about your NonStop subsystems and applications.
- Flow Map software: This performance application generates process flow diagrams, enabling you to assess the data flow and performance of a NonStop server application—quickly and accurately. It reduces the time needed for documentation, troubleshooting, and performance analysis.
- GPA: This software analyzes performance data, makes recommendations, and helps implement those recommendations to balance resources for a single server or multiple servers in a network.

comprehensive reporting capability

From a TPDC data file, you can display and print a variety of configuration, measurement, and performance reports to assess your NonStop server subsystems and applications.

TPDC system configuration reports provide detailed information about the hardware and software configuration of the server from which you are collecting data. The information you obtain about the server, hardware configuration, disks, and files can be used for configuration and utilization analysis.

In addition, TPDC software generates reports that provide status information about Measure operations, including the entities from which data is collected and the sample duration.

Used in conjunction with SPAM, TPDC software produces performance reports that contain statistics pertaining to various NonStop server components—for example, processor consumption, average disk utilization, and an overview of your communications lines (see figure 2 and table).

```

MEASURE Load ID: G1530MC1
=====
System: \TEST (Release D20)
-----
Date: 08/02/93 (MON)
From: 15:30:16
To: 16:30:41 (Window = 3624.90 seconds)
CPUs: 4 (VLX 4, CLX 0, CYC 0)

```

EST	TOTAL	AVERAGE	LOWEST	HIGH-
	-----	-----	-----	-----
Real Memory Pages	49152	12288	12288	12288
Estimated Free Pages	26356	6589	5627	8175
Static Processes	216	54	40	68
Transient Processes	0	0	0	0
Dispatches/Second	207.4	51.8	25.3	65.6
Total CPU Busy	38.3%	9.6%	6.0%	14.1%
Process Busy	32.4%	8.1%	5.3%	12.6%
Interrupt Busy	5.8%	1.5%	.7%	1.8%
CPU Queue Length	-	.1	.1	.2
Memory Queue Length	-	.0	.0	.0
Swaps/Second	.3	.1	.0	.1
Process Overhead	.1%	.0%	.0%	.0%
Send (Dynabus) Busy	.3%	.1%	.0%	.1%
TMF Transactions/Second	-	-	-	-
TMF Transaction Time (msec)	-	-	-	-
Logical Disc I-O's/Second	23.8	-	-	-
Logical Disc I-O Time (msec)	-	7.2	-	-
Records Used/Accessed Ratio	-	-	-	-
Disc Cache Hits/Second	36.8	12.3	3.9	21.1
Physical Disc I-O's/Second	5.4	1.8	.5	3.6

Figure 2. Used with SPAM, TPDC software produces performance reports that contain statistics pertaining to various NonStop server components—for example, processor consumption and average disk utilization.

low system overhead

With TPDC software, you can collect and analyze performance data with minimal impact on server resources.

This product provides a single source for gathering and storing all key performance data. Fewer computing resources are needed because many client applications access the same data file.

When collecting data for multiple performance applications, TPDC software calculates an efficient sampling interval, which reduces the overhead associated with starting and stopping Measure software.

TPDC performance reports

Global Indicators	Program Logical File Open Shares
Process Categories, Counts	Program Logical I/O Wait Shares
Relative Processor Balance	Program Disk File I/O Wait Shares
Average Processor Utilization	Program Spooler File I/O Wait Shares
Relative Disk Balance	Logical Disk File I/O Wait Shares
Disk Response Time (Milliseconds)	Disk File System I/O Shares
Average Disk Utilization	Disk File Physical I/O Shares
Disk I/Os per Second	Disk File Block Splits Shares
Disk Cache Performance	Disk File "Requests Blocked" Shares
HP Expand Communications Line Overview	Disk File Overview (Alphabetic)
Data Communications Line Overview	Disk File Overview (System I/Os)
Apportioned Program Processor Consumption	Disk Process Memory Utilization (by Processor)
Acceleration Profiles of User Programs	Disk File I/O Activity Distribution
NonStop SQL Program Overview	Process/Processor Priority Distribution
Program Overview	

ordering information

<i>product ID</i>	<i>description</i>
SJ42	Tandem Performance Data Collector software

specifications

system requirements

hardware	Any NonStop server
software	NonStop Kernel operating system, any supported software release D20 or later
recommended	Flow Map software (for developing application process flow diagrams)

For more information, go to www.hp.com/go/nonstop.

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