



OPTA2000

HP Nonstop

**CURRENT Time
and
Time Zone Simulator**

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OPTA2000 is an HP Nonstop(Tandem) CURRENT Time and Time Zone simulator, which intercepts System Time requests made by an application to the NSK operating system procedures and returns a customer-configured simulated CURRENT time or Time-Zone value.

Only Customer Selected Applications will receive a Simulated Time value, while the other applications, not selected, continue to receive the local Tandem System time value.

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OPTA2000 Product Suite

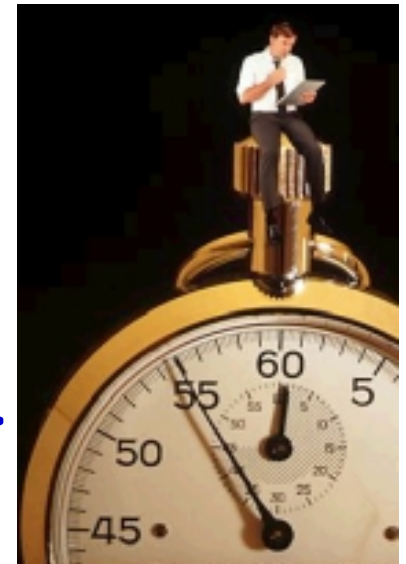
- ◆ OPTA2000 - User Library version - supports TNS programs with file code 100.
- ◆ OPTA2000-Native - User Library version - supports TNSr(Native) programs with file code 700.
- ◆ OPTA2000-Itanium - User Library version - supports TNSe(Native Itanium) programs with file code 800.
- ◆ OPTA2000-O/S - NSK O/S version - supports TNS, TNSr, TNSe, SQL/MP and SQL/MX programs(file code 100, 700 and 800)

OPTA2000 Architecture

- OPTA2000 Library Version is associated(User Library, DLL or linked into the application program) with an application program and Intercepts all CURRENT Time or Time Zone system calls(Time, Timestamp, Juliantimestamp and Converttimestamp).
- OPTA2000-O/S resides within the NSK O/S, Native Code Space(SCr,SLr) and Intercepts all CURRENT Time or Time Zone system calls(Time, Timestamp, Juliantimestamp and Converttimestamp).
- OPTA2000 calculates a Simulated Time offset for an executing application, on the First Current Time call only. All subsequent Time calls use the saved Simulated time offset value.

OPTA2000 Features

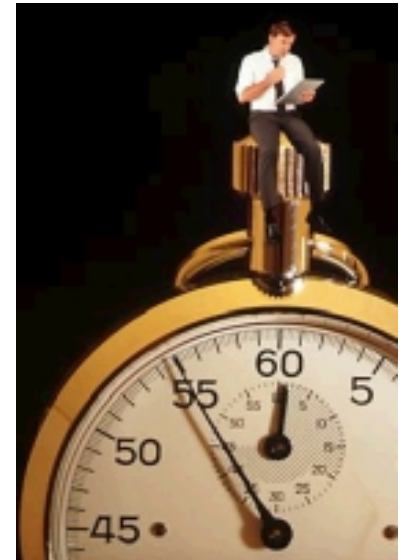
- No Application Source Code, Binding, Linking or Library Changes required.
- Supports multiple Date-Time and Time-Zone Simulation application groups.
- Test Multiple Applications and Date-Times Simultaneously.
- Supports all Tandem Programming Languages, SQL, Third party and Tandem Utilities.
- Supports Future, Historic or Static Date-Time Simulation.



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OPTA2000 Features

- List all OPTA2000-enabled Applications receiving simulated Date-Time values.
- Dynamic Date/Time re-configuration.
- Simple and Powerful method to select Applications for Date-Time Simulation.
- Supports Tandem TNS, TNSr & TNSe(Native) Modes.
- Architecture Supports small or large System workloads.
- Use Existing Development & Test Environments



OPTA2000 Features

- A HP Integrity Nonstop Server with OPTA2000 supports multiple Time-Zone application groups, where each application group executes within a distinct Time-Zone. One application group can execute in Time-Zone(GMT-05:00), while another application group can execute in Time-Zone(GMT+01:00), and yet another application group can execute in Time-Zone(GMT-08:00), all on one HP Integrity Nonstop Server.
- Multiple HP Nonstop systems(Production, Disaster Recovery) located in different Time Zones, can be consolidated onto one HP Nonstop server in one location.



OPTA2000 - How to Use it

- ◆ **Install Clock Simulator.**
 - OPTA2000 - Attach Clock Simulator library to all Target applications.
 - OPTA2000-O/S - Sysgen and coldload once.
- ◆ **Identify application(s) for Time Simulation.**

Applications can be identified by any combination of Program Filename or User-id or Ancestor process name, etc.

OPTA2000 - How to Use it

- ◆ **Define Simulated Time.**
Specify Future, Historic, Static Date-Time or Time Zone for application groups.
- ◆ **List applications receiving simulated Times**
With the OPTA2000 command interface, list all applications receiving OPTA2000 simulated Times

OPTA2000 - Example

◆ Identify application(s) for Time Simulation

Applications can be included or excluded for Time Simulation, based on any one of several process run-time attributes;

(PAID, Program file name, Process name, Ancestor Process, Define name, Gmomjobid, etc...)

(Application Wildcarding & Grouping is supported)

OPTA2000 - Example

◆ Identify application(s) for Time Simulation

For this example we will select the following Applications and Future Dates:

- Application = CURRTIME
Future Date = 1999/12/31
- Application = TACL
Process \$TACL1 = 1999/12/31
Process \$TACL2 = 2000/02/28

OPTA2000 - Example

OPTA2000 Configuration

== Group-01 Test Date 1999/12/31

GROUP-01 START-TIME	1999/12/13.00:00
GROUP-01 FUTURE-TIME	1999/12/31.00:00
GROUP-01 PROG-FILENAME	*.\$*.*.CURRTIM*
GROUP-01 PROCESS-NAME	*.\$TACL1

== Group-02 Test Date 2000/02/28

GROUP-02 START-TIME	1999/12/13.00:00
GROUP-02 FUTURE-TIME	2000/02/28.00:00
GROUP-02 PROCESS-NAME	*.\$TACL2

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OPTA2000 - Example

Test CURRTIME with OPTA2000

TACL > TIME

December 13, 1999 10:58:11

TACL > RUN CURRTIME / name \$CURR /

<u>Current Time</u>	<u>Procedure Called</u>
1999/12/31 10:58:26	Time
1999/12/31 10:58:26	Timestamp
1999/12/31 10:58:26	Juliantimestamp

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OPTA2000 - Example

Test Tacl (\$TACL1) with OPTA2000

TACL > TIME

December 13, 1999 11:00:01

> TACL / Name \$TACL1 /

TACL > logon

TACL (T9205D30 - 26MAY95), Operating..

CPU 0, process has no backup

December 31, 1999 11:00:10

TACL 1 > TIME

December 31, 1999 11:00:16

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OPTA2000 - Example

Test Tacl (\$TACL2) with OPTA2000

TACL > TIME

December 13, 1999 11:00:55

> TACL / Name \$TACL2 /

TACL > logon

TACL (T9205D30 - 26MAY95), Operating..

CPU 0, process has no backup

February 28, 2000 11:00:59

TACL 1> TIME

February 28, 2000 11:01:04

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OPTA2000 - Example

Manage OPTA2000 Environment

With OPTAcom, View the Simulated Dates and Times being returned to Applications.

```
TACL > RUN OPTAcom
```

```
OPTAcom - Version (Dxx) - (02APR96)
```

```
> STATUS OPTA2000
```

Process	Program File	Time Returned
\$TACL2	\$System.Sys24.TACL	2000/02/28 11:01:18
\$TACL1	\$System.Sys24.TACL	1999/12/31 11:01:18

TANDsoft Products

FileSync

Synchronize Guardian & OSS Files, Tables & Applications

OPTA2000

System Clock & Time Zone Simulator

AutoASAP

Monitor more with ASAP Availability & Performance monitor

ASAP Reporter

ASAP Historical Trend Analysis for all ASAP entities

BusinessLink

Application enabler - Automatic TMF, Application monitor

OPTA

Online Process Tracer & Analyzer for TNS and Native applications

OPTA2000 Bridge

Dynamic Application & File Bridging



Thank You !

For More Information.

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