

This call returns the address of a global and local information segment, specific to a process.

Syntax

DosGetInfoSeg (GlobalSeg, LocalSeg)

Parameters

;GlobalSeg (PSEL) - output : Address of the global information segment structure, as defined below:
:time (ULONG): Time in seconds since 1/1/1970. :millisecs (ULONG): Time in milliseconds. :hours
(UCHAR): Current hour. :minute (UCHAR): Current minute. :seconds (UCHAR): Current second.
:hundredsec (UCHAR): Current hundredth of a second. :timezone (USHORT): Minutes from UTC; if hex
FFFFH, timezone is undefined. :interval (USHORT): Timer interval in tenths of milliseconds. :day
(UCHAR): Day. :month (UCHAR): Month. :year (USHORT): Year. :weekday (UCHAR): Day-of-week:
Value Definition 0 Sunday 1 Monday 2 Tuesday 3 Wednesday 4 Thursday 5 Friday 6 Saturday
:majorversion (UCHAR): Major version number. :minorversion (UCHAR): Minor version number.
:revision (UCHAR): Revision letter. :currentsession (UCHAR): Current foreground full-screen session.
:maxnumsessions (UCHAR): Maximum number of full-screen sessions. :hugeshift (UCHAR): Shift count
for huge segments. :protmodeind (UCHAR): Protect-mode-only indicator: Value Definition 0 DOS mode
and OS/2 mode. 1 OS/2 mode only. :lastprocess (USHORT) : Process ID of the current foreground
process. :dynvarflag (UCHAR) : Dynamic variation flag: Value Definition 0 Absolute 1 Enabled.
:maxwait (UCHAR) : Maximum wait in seconds. :mintimeslice (USHORT) : Minimum timeslice in
milliseconds. :maxtimeslice (USHORT) : Maximum timeslice in milliseconds. :bootdrive (USHORT) :
Drive from which the system was booted: Value Definition 1 Drive A. 2 Drive B. . . . n Drive n.
:traceflags (UCHAR): 32 system trace major code flags. Each bit corresponds to a trace major code,
hex 00-FFH. The most significant bit (left-most) of the first byte corresponds to major code hex 00H.
Value Definition 0 Trace disabled.

Trace enabled.

:maxtextsessions (UCHAR): Maximum number of VIO windowable sessions. :maxpmsessions (UCHAR):
Maximum number of Presentation Manager sessions.

;LocalSeg (PSEL) - output : Address of the selector for the local information segment structure, as
defined below: :processid (PID): Current process ID. :parentprocessid (PID): Parent process ID.
:threadpqty (USHORT): Priority of current thread. :threadid (TID): Current thread ID. :sessionid
(USHORT): Current session ID. :procstatus (UCHAR): Process status. :unused (UCHAR): Unused.
:foregroundprocess (BOOL): Current process is in foreground (has keyboard focus). Value -1 implies
yes, 0 implies no. :typeProcess (UCHAR): Type of process: Value Definition 0 Full screen protect mode
session. 1 Requires real mode. 2 VIO windowable protect mode session. 3 Presentation Manager
protect mode session. 4 Detached protect mode process. :unused (UCHAR): Unused. :environmentsel
(SEL): Environment selector. :cmdlineoff (USHORT): Command line offset in the segment addressed by
environmentsel. :dataseglen (USHORT): Length of data segment in bytes. :stacksize (USHORT): Stack
size in bytes. :heapsize (USHORT): Heap size in bytes. :hmodule (HMODULE): Module handle. :dssel
(SEL): Data segment selector.

Return Code

;rc (USHORT) - return:Return code description is: * 0 NO_ERROR

Remarks

Items of general interest are kept in the global information segment. Items of information specific to a particular process are kept in the local information segment. This information can be directly read by the application program. Both of these segments are defined as read-only segments. The application program cannot modify this data.

Assuming n1, n2, and n3 are the maximum number of full-screen sessions, VIO-windowable sessions, and Presentation Manager sessions, the first 0 through (n1-1) session numbers are assigned to full-screen sessions. The next n2 session numbers are assigned to VIO-windowable sessions, and the next n3 session numbers are assigned to Presentation Manager sessions. Session numbers in the range (n1+n2+n3) through 255 are reserved. Applications should use (n1+n2+n3-1) as an upper boundary. Applications should not assume that all session numbers starting with (n1+n2) and higher are Presentation Manager sessions.

The application program must be careful when referencing the date or time fields in the global information segment. A timer interrupt can be received by the system in between the instructions that read the individual fields, changing the data in these fields. For example, if the time is currently 23:59:59 on Tuesday, 6/2/87, the program can read the hours field (23). A timer interrupt can now be received, changing the time to 00:00:00 on Wednesday, 6/3/87. The program reads the rest of the time field (0 minutes) and the date field. The program would then think the current time and date is 23:00:00 on Wednesday, 6/3/87, which is incorrect.

The application program should read all time and date fields it uses as quickly as possible. It can then compare the least significant time field it uses (milliseconds, hundredths, seconds, or minutes) against the current value in the global information segment. If the value has not changed, the rest of the information is valid. If the value has changed, the program time or date information should be read again, as the information is updated while the program reads it.

Bindings

C

```
<PRE> typedef struct _GINFOSEG {
```

```
    ULONG    time;          /* time in seconds */
    ULONG    msecs;         /* milliseconds */
    UCHAR   hour;          /* hours */
    UCHAR   minutes;       /* minutes */
    UCHAR   seconds;       /* seconds */
    UCHAR   hundredths;    /* hundredths */
    USHORT  timezone;      /* minutes from UTC */
    USHORT  cusecTimerInterval; /* timer interval (units = 0.0001 seconds) */
    UCHAR   day;           /* day */
    UCHAR   month;         /* month */
```

```

USHORT year;           /* year */
UCHAR weekday;         /* day of week */
UCHAR uchMajorVersion; /* major version number */
UCHAR uchMinorVersion; /* minor version number */
UCHAR chRevisionLetter; /* revision letter */
UCHAR sgCurrent;       /* current foreground session */
UCHAR sgMax;           /* maximum number of sessions */
UCHAR cHugeShift;      /* shift count for huge elements */
UCHAR fProtectModeOnly; /* protect mode only indicator */
USHORT pidForeground; /* pid of last process in foreground session */
UCHAR fDynamicSched;  /* dynamic variation flag */
UCHAR csecMaxWait;    /* max wait in seconds */
USHORT cmsecMinSlice; /* minimum timeslice (milliseconds) */
USHORT cmsecMaxSlice; /* maximum timeslice (milliseconds) */
USHORT bootdrive;     /* drive from which the system was booted */
UCHAR amecRAS[32];    /* system trace major code flag bits */
UCHAR csgWindowableVioMax; /* maximum number of VIO windowable sessions */
UCHAR csgPMMax;        /* maximum number of pres. services sessions */

```

} GINFOSEG;

typedef struct _LINFOSEG {

```

PID pidCurrent;          /* current process id */
PID pidParent;           /* process id of parent */
USHORT prtyCurrent;     /* priority of current thread */
TID tidCurrent;          /* thread ID of current thread */
USHORT sgCurrent;        /* session */
UCHAR rfProcStatus;     /* process status */
UCHAR dummy1;
BOOL fForeground;        /* current process has keyboard focus */
UCHAR typeProcess;       /* process type */
UCHAR dummy2;
SEL selEnvironment;      /* environment selector */
USHORT offCmdLine;       /* command line offset */
USHORT cbDataSegment;    /* length of data segment */
USHORT cbStack;           /* stack size */
USHORT cbHeap;            /* heap size */
HMODULE hmod;             /* module handle of the application */
SEL selDS;                /* data segment handle of the application */

```

} LINFOSEG;

#define INCL_DOSINFOSEG

USHORT rc = DosGetInfoSeg(GlobalSeg, LocalSeg);

PSEL GlobalSeg; /* Address to place global segment (selector) */ PSEL LocalSeg; /* Address to place local segment (selector) */

USHORT rc; /* return code */ </PRE>

MASM

<PRE> GINFOSEG struc

| | |
|-------------------------|--|
| gis_time | dd ? ;time in seconds |
| gis_msecs | dd ? ;milliseconds |
| gis_hour | db ? ;hours |
| gis_minutes | db ? ;minutes |
| gis_seconds | db ? ;seconds |
| gis_hundredths | db ? ;hundredths |
| gis_timezone | dw ? ;minutes from UTC |
| gis_cusecTimerInterval | dw ? ;timer interval (units = 0.0001 seconds) |
| gis_day | db ? ;day |
| gis_month | db ? ;month |
| gis_year | dw ? ;year |
| gis_weekday | db ? ;day of week |
| gis_uchMajorVersion | db ? ;major version number |
| gis_uchMinorVersion | db ? ;minor version number |
| gis_chRevisionLetter | db ? ;revision letter |
| gis_sgCurrent | db ? ;current foreground session |
| gis_sgMax | db ? ;maximum number of sessions |
| gis_cHugeShift | db ? ;shift count for huge elements |
| gis_fProtectModeOnly | db ? ;protect mode only indicator |
| gis_pidForeground | dw ? ;pid of last process in foreground session |
| gis_fDynamicSched | db ? ;dynamic variation flag |
| gis_csecMaxWait | db ? ;max wait in seconds |
| gis_cmsecMinSlice | dw ? ;minimum timeslice (milliseconds) |
| gis_cmsecMaxSlice | dw ? ;maximum timeslice (milliseconds) |
| gis_bootdrive | dw ? ;drive from which the system was booted |
| gis_amecRAS | db 32 dup (?) ;system trace major code flag bits |
| gis_csgWindowableVioMax | db ? ;maximum number of VIO windowable sessions |
| gis_csgPMMax | db ? ;maximum number of pres. services sessions |

GINFOSEG ends

LINFOSEG struc

| | |
|--------------------|--|
| lis_pidCurrent | dw ? ;current process id |
| lis_pidParent | dw ? ;process id of parent |
| lis_prtyCurrent | dw ? ;priority of current thread |
| lis_tidCurrent | dw ? ;thread ID of current thread |
| lis_sgCurrent | dw ? ;session |
| lis_rfProcStatus | db ? ;process status |
| lis_dummy1 | db ? ; |
| lis_fForeground | dw ? ;current process has keyboard focus |
| lis_typeProcess | db ? ;process type |
| lis_dummy2 | db ? ; |
| lis_selEnvironment | dw ? ;environment selector |
| lis_offCmdLine | dw ? ;command line offset |
| lis_cbDataSegment | dw ? ;length of data segment |

```
lis_cbStack      dw  ? ;stack size
lis_cbHeap       dw  ? ;heap size
lis_hmod         dw  ? ;module handle of the application
lis_selDS        dw  ? ;data segment handle of the application
```

LINFOSEG ends

EXTRN DosGetInfoSeg: FAR INCL_DOSINFOSEG EQU 1

PUSH@ WORD GlobalSeg ;Global segment selector (returned) PUSH@ WORD LocalSeg ;Local segment selector (returned) CALL DosGetInfoSeg

Returns WORD </PRE>

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