

SDATA\$ - Allocate a Temporary or Permanent Data Page

The SDATA\$ routine can be used to allocate a Temporary or Permanent 32-bit Data Page. A Temporary Data Page will be automatically de-allocated when the next STOP RUN occurs. A Permanent Data Page will remain resident, and accessible, until the user runs \$E, or is restarted. Both types of 32-bit Data Page can be explicitly de-allocated using the UNLO\$ sub-routine.

1. Invocation

To allocate a Data Page code:

```
CALL SDATA$ USING name size type
```

where *name* is a PIC X(8) field, or literal, that specifies the name of the Data Page; *size* is a PIC 9(4) COMP field, or literal, that specifies the size of the Data Page; *type* is a PIC X field, or literal, that must be either "T" (Temporary Data Page) or "P" (Permanent Data Page).

The 32-bit address of the Data Page, in Page;Offset format, is returned in \$\$EPT.

2. STOP Codes and Exception Conditions

The following STOP codes may be generated by SDATA\$:

STOP code	Description
19410	The size of the Data Block supplied is not in the range 1 to 32767.
19412	A Data Page of the same name is already allocated but the size of this data block is different from the size passed to SDATA\$.

The following EXIT codes may be returned by SDATA\$:

EXIT code	\$\$COND	Description
19403	3	Insufficient memory or Page Table entries to allocate the 32-bit Data Page.

3. Programming Notes

The 32-bit SDATA\$ sub-routine is compatible with the 16-bit equivalent. The size limit of 32767 is a result of this compatibility.

A freshly allocated Data Page is initialised to binary zeroes.

If a Data Page of the same name exists the size field specified must be the same as the size of the existing page. Furthermore, the type field is ignored if the Data Page already exists (i.e. it is

not possible to use SDATA\$ to allocate a Temporary Data Page then change the type to a Permanent Data Page without using UNLO\$ to de-allocate the original Data Page).

A program may allocate any number of 32-bit Data Pages by calling SDATA\$ repeatedly with different Page Names.

The type file is not strictly validated. Although only a value of "T" will allocate a Temporary Data Page. All other values will allocate a Permanent Data Page.

The following fields in the 32-bit System Area may make it unnecessary to use SDATA\$ to create Permanent Data Pages under some circumstances:

\$\$AR32	PIC X(256)	* 256-byte supplement to 16-bit PIC X(16) \$\$AREA
\$\$3000	PIC X(1024)	* 1024-byte work area reserved for use by
		* Global-3000

4. Examples

[EXAMPLES REQUIRED]

5. Copy-Books

None.

6. See Also

UNLO\$	De-allocate Data Page
FREEX\$	Allocate Temporary 32-bit Data Page
XDATA\$	Extended SDATA\$