FACT$ - Calculate the Factorial of a Number

The highly-specialised FACT$ routine can be used to calculate the factorial of a number.

1. Invocation

To calculate a factorial code:

```
CALL FACT$ USING numb fact
```

where *numb* is a PIC 9(4) COMP field, or literal, containing the number and *fact* is a PIC 9(15) COMP field into which the factorial of the number is returned.

2. STOP Codes and Exception Conditions

No STOP codes are generated by FACT$.

The following EXIT codes may be returned by FACT$:

EXIT code	$$COND	Description
19102	2	The result of the factorial calculation exceeded the capacity of a PIC 9(15) COMP field.

3. Programming Notes

FACT$ is only available with GSM SP-44, or later. FACT$ can only be used to calculate 0! to 18!. Any attempt to calculate 19!, or above, will result in an EXIT code (see above). Note that the numeric value of 18! (i.e. 6,402,373,705,728,000) exceeds the display format of a PIC 9(15) field.

4. Examples

[EXAMPLES REQUIRED]

5. Copy-Books

None.

6. See Also

None.