

# UPPER\$ - Convert Text-string to Upper Case

The UPPER\$ routine converts a text-string to upper case.

## 1. Invocation

To convert a text-string to upper-case:

```
CALL UPPER$ USING string length
```

where *string* is a PIC X(n) variable length text-string and *length* is a PIC 9(4) COMP variable, or literal, indicating the length of the text-string.

## 2. STOP Codes and Exception Conditions

No STOP codes are generated by UPPER\$.

No exceptions are returned by UPPER\$.

## 3. Programming Notes

UPPER\$ is only available with GSM SP-12, or later.

UPPER\$ merely calls the case conversion function within the GSM kernel, SVC 21. The behavior of SVC 21 depends on the registry setting "StrictAlphabeticCaseConversionInSVC21" within the "Nucleus" registry key.

By default, SVC 21 assumes an 8-bit character set. However, if StrictAlphabeticCaseConversionInSVC21=On, a 7-bit character set is assumed.

StrictAlphabeticCaseConversionInSVC21	Off	On
Byte values #61 - #7A converted to	#41 - #5A	#41 - #5A
Byte values #E1 - #FA converted to	#C1 = #DA	Not converted

UPPER\$ uses a bit-wise conversion so that some non-alphabetic characters may be converted. See the following before/after results:

```
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNPQRSTUVWXYZ[\]^_@ABCDEFGHIJKLMNPQRSTUVWXYZ[\]^
```

## 4. Examples

None.

## 5. Copy-Books

None.

## 6. See Also

LOWER\$     Convert to lower-case  
 LCASE\$     Convert alphabetic characters to lower-case  
 UCASE\$     Convert alphabetic characters to upper-case