

TECHNICAL BULLETIN FROM GLOBAL BUSINESS SYSTEMS

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Speedbase Date Conversion problem

A recent Hotline investigation has identified a problem with Speedbase PM when short-dates in the 21st century are accepted and validated. The symptom of the problem is that the year value in the 21st century short-date (e.g 13/02/00) is corrupted and redisplayed as an apparently random year.

The problem is fixed by the following zaps which should be applied to all GSM PM systems **as a matter of urgency**:

GSM version/revision	Zap
V8.1b	BS8120
V8.1c	BS8120
V8.1d	BS8109
V8.1e	BS8109
V8.1f	BS8119
V8.1g	BS8108
V8.1h	BS8106

In the following technical description, a 'normal' Century Boundary Year customisation (e.g. 1950 or 1960) is assumed: The year corruption problem occurs if the characters in positions 9 and 10 of the last Speedbase accept, when appended to the end of the PIC X(8) short-date (i.e. DD/MM/YY or MM/DD/YY), cause the 'redefined' PIC X(10) long-date (i.e. DD/MM/CCYY or MM/DD/CCYY) to become a valid date. Under these conditions, the value of the 'long-date' is used instead of the expected short-date.

For example, assume the field accepted immediately before a short-date is a PIC X(10) containing the value 'ABCDEFGH12' and the short-date keyed is '13/02/00' (i.e. intending a date of 13/02/2000), Speedbase will incorrectly treat the reply as 13/02/0012 which will be interpreted as the long date 13/02/2012 and redisplayed as the short-date 13/02/12.

As a further example, if the field accepted immediately before a short-date is a PIC X(10) containing the value 'ABCDEFGH56' and the short-date keyed is '13/02/17' (i.e. intending a date of 13/02/2017) Speedbase will incorrectly treat the reply as 13/02/1756 which will be interpreted as the long date 13/02/1756 and redisplayed as the short-date 13/02/56.

The problem does not occur when a short-date towards the end of the 20th century is keyed. Repeating the 2nd example with a short-date of '13/02/99' (i.e. specifying a date of 13/02/1999) Speedbase will firstly

attempt to treat the reply as 13/02/9956 which will be rejected as an invalid long-date. This invalid long-date will cause the (correct) short-date 13/02/99 (i.e. 13/02/1999) to be used.