

Crystal Reports Technical Document

Subject: Displaying time stored in date/time fields
dBase,Paradox,Btrieve)
Date: July 27, 1993
Versions: All

Description:

When using ObjectVision (OV) to define a Time field, OV will store these fields as a Numeric in Paradox, as a Num(mm, nn) in dBase and as a TIME in Btrieve. If the database used is Paradox or dBase the value is stored as a fraction of the number of seconds in one day.

For example:

If the user enters 1:20:03 in the Time field in OV,
the value stored in dBase would be: 0.055590
(Number of seconds in 1:20:03 = (3600 * 1 hour)+(60 * 20 minutes)+(3 seconds)=4803 seconds

4803 seconds as a fraction of 1 day is:
 $4803 / (24 * 60 * 60) = 0.055590$ days

As a result, for Crystal Reports to display this value as 1:20:03, the following formulas are required.

- @HOURS: which displays the hour value
 $\text{Truncate}(\{@Time \text{ in True Time}\} / 3600)$
- @MINUTES: which displays the minute value
 $\text{Truncate}((\{@TIMES.time1\} - (\{@hours\} * 3600)) / 60)$
- @SECONDS: which displays the second value
 $\text{Truncate}(\{@TIMES.time1\} - (\{@hours\} * 3600) - (\{@minutes\} * 60))$
- @TIME AS STRING: which uses the values from the 3 previous formulas to display 1:00:01
- @Time in True Time
 $\{@time.time1\} * 60 * 60 * 24$
- @Military Time String
 $\text{ToText}(\{@hours\}, 0) + ":" + \text{ToText}(\{@minutes\}, 0) + ":" + \text{ToText}(\{@seconds\}, 0)$

If OV is writing to a Btrieve file, using the above example, the Btrieve TIME field would contain 4803 and the formulas in TIME.RPT would be identical except for the following:

- the formula @TIME IN TRUE TIME is not required and should be deleted
- all other references to @TIME IN TRUE TIME should be changed to {ALIASNAME.timefield}

Remarks:

User defined functions are probably a better alternative if using 2.0 Professional.