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
        Truncate({@Time in True Time} / 3600)

- @MINUTES: which displays the minute value
        Truncate (({TIMES.time1} - ({@hours} * 3600)) / 60)

- @SECONDS: which displays the second value
        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**
ToText ({@hours}, 0) + ":" + ToText ({@minutes},0) + ":" + 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.

TIMEFLD.DOC