

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

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.