StreamDevice: scalcout Records

Note: The scalcout record is part of the *calc* module of the *synApps* package. Device support for scalcout records is only available for *calc* module release 2-4 or higher. You also need the synApps modules *genSub* and *sscan* to build *calc*.

Up to release 2-6 (synApps release 5.1), the scalcout record needs a fix. In sCalcout.c at the end of `init_record` add before the final `return(0)`:

```
        if(pscalcoutDSET->init_record ) {
            return (*pscalcoutDSET->init_record)(pcalc);
        }
```

Normal Operation

Different record fields are used for output and input. The variable *x* stands for the written or read value.

DOUBLE format (e.g. `%f`):
   Output: *x*=`OVAL`
   Input: `VAL`=*x*
   Note that the record calculates `OVAL` from `CALC` or `OCAL` depending on `DOPT`.
LONG format (e.g. `%i`):
   Output: *x*=`int(OVAL)`
   Input: `VAL`=*x*
ENUM format (e.g. `%{`):
   Output: *x*=`int(OVAL)`
   Input: `VAL`=*x*
STRING format (e.g. `%s`):
   Output: *x*=`OSV`
   Input: `SVAL`=*x*

For scalcout records, it is probably more useful to access fields `A` to `L` and `AA` to `LL` directly (e.g. `"%(A)f"` or `"%(BB)s"`). However, even if `OVAL` is not used, it is calculated by the record. Thus, `CALC` must always contain a valid expression (e.g. `"0"`).

Initialization

During initialization, the `@init` handler is executed, if present. All format converters work like in normal operation.

aai aao ai ao bi bo mbbi mbbo mbbiDirect mbboDirect longin longout stringin stringout waveform calcout

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