

## Using edm entryFormClass objects with arrays

Creating property and data entry forms for scalar data is straightforward. The entry form is created and fields are simply added to the form. The user application need do nothing further.

Doing the same with array data is slightly more complicated. In addition to creating the form and adding fields, the user application must participate in the management of displayed values. This is done as follows:

1. An object of type (`entryListBase *`) is declared for each array that is associated with a field on the form.

Example:

```
#include "entry_form.h"

class myClass {

    entryFormClass ef;
    int efX, efY, efW, efH, efLH;

    // you get fi from the active window object
    fontInfoClass *fi;

    double dblArray[10];
    entryListBase *dblArrayEntryFormObj;

    char strArray[10][31+1], *strArrayPtr[10];
    entryListBase *strArrayEntryFormObj;

    .
    .
    .

};

// Note that for string arrays, you probably have a two
// dimension array that holds user application data but
// you need a single dimension array of (char *) for
// the entry form.
```

2. A call back function is written that updates the displayed value for the current indexed element of each array. This function is called every time the index changes.

Example:

```
void callback_func (
    void *ptr
) {

    // efSetItemCallbackDscPtr is declared in entry_form.h

    efSetItemCallbackDscPtr dsc = (efSetItemCallbackDscPtr) ptr;
    entryFormClass *ef = (entryFormClass *) dsc->ef;
    myClass *obj = (myClass *) dsc->obj;

    strArrayEntryFormObj->setValue(
        obj->strArrayPtr[ef->index] );

    dblArrayEntryFormObj->setValue(
        obj->dblArray[ef->index] );

}
```

3. The form is created as follows:

```
int stat, arrayDim=10, numberofItemsInUse;

// (numberofItemsInUse might hold the number of items that
// have been set, perhaps after reading data from a
// file, or it might be initialized to some default
// value)
numberofItemsInUse = 5;

efX = efY = efW = efH = 0;
efLH = ?; // set this to max monitor vertical resolution

stat = ef.create( NULL, &efX, &efY, &efW, &efH, &efLH,
    "Test Form", arrayDim, numberofItemsInUse,
    (void *) callback_func, (void *) this, fi,
    NULL, NULL );
```

**4. Fields are added as follows:**

```
// (First, add all the scalar data fields)

// (Then, the array data)
for ( i=0; i<10; i++ ) {
    strArrayPtr[i] = strArray[i];
}

ef.addFieldArray( "str array", arrayDim, strArrayPtr, 31,
&strArrayEntryFormObj );

ef.addFieldArray( "dbl array", arrayDim, dvalArray,
&dblArrayEntryFormObj );
```

**5. Complete the form creation process and pop it up**

```
stat = ef.finished( (void *) ok, (void *) apply,
(void *) cancel, &ef );

stat = ef.popup();
```