



### Apple IIGS

### #96: Standard File Customization

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This Technical Note discusses particulars of using custom dialog boxes for the Open and Save File dialog boxes and custom drawing routines to display the files and folders listed.

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#### About the Templates

Volume 3 of the *Apple IIGS Toolbox Reference* states the following about the Open File dialog box template for Standard File:

“The scroll bar item (item5) is not used for single-file calls. For multifile calls, this item contains the Accept Button Definition.”

What is not stated explicitly is that, although the scroll bar item is not used for single-file calls, a place holder for it must be included in the dialog box template. Another particular not explicitly stated is that the strings used by the item templates must be Pascal strings; no `listType` field is provided in the extended list control record as was present in the List Manager's original list record structure.

#### Custom Item Draw Procedures

Custom item draw procedures have the rectangle in which the item is to be drawn, the List Manager's `memRec` structure corresponding to that item, and a handle to the extended list control record available on the stack. By including a custom item draw procedure, programs are able to get a handle to the extended list control record. The custom item draw procedure could also make the handle available to other routines, such as the `dialogHook` routine. With the handle, programs can now perform specialized operations during a standard file call, such as checking which item is selected before allowing the user to cancel. The code fragment below (from DTS Apple II Sample Code #18, `AccessPriv`) illustrates the use of `SFPGetFile2` with a custom item draw routine.

```
static char SaveStr[] = "\pSave";
static char OpenStr[] = "\pOpen";
static char CloseStr[] = "\pClose";
static char DriveStr[] = "\pDrive";
static char CancelStr[] = "\pCancel";
```

```
static char FolderStr[] = "\pNew Folder";  
static char AcceptStr[] = "\pAccept";
```

```
ItemTemplate OpenBut640 = {1,
                           61,265,73,375,
                           buttonItem,
                           OpenStr,
                           0,
                           0,
                           0L};

ItemTemplate CloseBut640 = {2,
                            79,265,91,375,
                            buttonItem,
                            CloseStr,
                            0,
                            0,
                            0L};

ItemTemplate NextBut640 = {3,
                           25,265,37,375,
                           buttonItem,
                           DriveStr,
                           0,
                           0,
                           0L};

ItemTemplate CancelBut640 = {4,
                              97,265,109,375,
                              buttonItem,
                              CancelStr,
                              0,
                              0,
                              0L};

ItemTemplate Scroll640 = {5,
                          43,265,55,375,
                          buttonItem,
                          AcceptStr,
                          0,
                          0,
                          0L};

ItemTemplate Path640 = {6,
                        12,15,24,395,
                        userItem,
                        0L,
                        0,
                        0,
                        0L};

ItemTemplate Files640 = {7,
                         25,18,107,215,
                         userItem + itemDisable,
                         0L,
                         0,
                         0,
                         0L};

ItemTemplate Prompt640 = {8,
                          3,15,12,395,
                          statText + itemDisable,
                          0L,
                          0,
                          0,
                          0L};
```

```

/*****
*
* myDialogHook
*
*****/

pascal void myDialogHook(strip1,strip2)
long strip1;
long strip2;
{
}

/*****
*
* CustomItemDraw
*
*****/

pascal void CustomItemDraw(itemDrawPtr)
Pointer itemDrawPtr;
{
static unsigned int flag, dbr;          /* result, data bank register value */
byte      StringCount;
char      *ItemPascalString;
Word      ItemFileType;
Long      ItemAuxType;
Rect      *TheItemRectPtr;
MemRec    *TheMemRecPtr;
CtlRecHndl TheSFListControlHndl;
Point     MyOldPenPos,
          MyNewPenPos;

static char FileString[] = "xxxx yyyyyyyy ";

/* save our data bank and set current to global page */
dbr = SaveDB();
/* Get the Rect from High on the Stack */
TheItemRectPtr = (Rect *)(((long *)((long)&itemDrawPtr)+ 36L)));
/* save old pen position */
GetPen(&MyOldPenPos);
/* Set our pen position */
MyNewPenPos.h = TheItemRectPtr->h1 + 5;
MyNewPenPos.v = TheItemRectPtr->v2 -2;
MoveTo(MyNewPenPos);          /* relocate the pen */

/* get our member record; this is just to reveal where it is on the stack */
TheMemRecPtr = (MemRec *)(((long *)((long)&itemDrawPtr)+ 32L)));

/* get the list cntrol handle; ditto */
TheSFListControlHndl = (CtlRecHndl)(((long *)((long)&itemDrawPtr)+ 28L)));

StringCount = (byte) *itemDrawPtr;          /* get the string length */
ItemPascalString = itemDrawPtr;            /* set our user string */
ItemFileType = *(Word *) (itemDrawPtr+StringCount+1L); /* get our FileType */
ItemAuxType = *(Long *) (itemDrawPtr+StringCount+3L); /* get our AuxType */

/* format for display */
sprintf(FileString, "%.4x-%.8lx ",ItemFileType,ItemAuxType);
c2pstr(FileString);          /* turn it into a P string */
DrawString(FileString);      /* Draw it */
DrawString(ItemPascalString); /* catenate File name to the other
info */
FrameRect(TheItemRectPtr);
MoveTo(MyOldPenPos);          /* return the pen to starting
position */
RestoreDB(dbr);              /* restore our data bank */

```

```

}

/*****
*
* ChooseFolder
*
* presents user with dialog to select folder to show/set privileges of
*
*****/

void    SomeProc()
{
DialogTemplate GetDialog640;

GetDialog640.dtBoundsRect.v1 = 0;
GetDialog640.dtBoundsRect.h1 = 0;
GetDialog640.dtBoundsRect.v2 = 114;
GetDialog640.dtBoundsRect.h2 = 400;
GetDialog640.dtVisible = -1;
GetDialog640.dtRefCon = 0L;
GetDialog640.dtItemList[0] = &OpenBut640;
GetDialog640.dtItemList[1] = &CloseBut640;
GetDialog640.dtItemList[2] = &NextBut640;
GetDialog640.dtItemList[3] = &CancelBut640;
GetDialog640.dtItemList[4] = &Scroll640;
GetDialog640.dtItemList[5] = &Path640;
GetDialog640.dtItemList[6] = &Files640;
GetDialog640.dtItemList[7] = &Prompt640;
GetDialog640.dtItemList[8] = 0L;

SFPGetFile2(    /* user selection of folder to get/set privs of */
    120, 53,
    CustomItemDraw,
    refIsPointer,
    prompt,
    0L,
    0L,
    &GetDialog640,
    myDialogHook,
    &myReply
);

```

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## Further Reference

- *Apple IIGS Toolbox Reference*, Volumes 1 & 3
- DTS Apple II Sample Code #18, AccessPriv