

New Technical Notes

Macintosh



®

Developer Support

_AddDrive, _DrvInstall, and _DrvRemove Devices

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December 1988
March 1987

`_AddDrive`, `_DrvInstall`, and `_DrvRemove` are used in the sample SCSI driver in the SCSI Development Package, which is available from APDA. This Technical Note documents the parameters for these calls.

Changes since March 1, 1988: Updated the `_DrvInstall` text to reflect the use of register A0, which should contain a pointer to the driver when called. Also added simple glue code for `_DrvInstall` and `_DrvRemove` since none is available in the MPW interfaces.

`_AddDrive`

`_AddDrive` adds a drive to the drive queue, and is discussed in more detail in Technical Note #36, Drive Queue Elements:

```
FUNCTION AddDrive(DQE:DrvQEl;driveNum,refNum:INTEGER):OSError;
```

| | | |
|---------------------|---|-------------------------|
| A0 (input) | → | pointer to DQE |
| D0 high word(input) | → | drive number |
| D0 low word(input) | → | driver RefNum |
| D0 (output) | ← | error code |
| | | noErr (always returned) |

`_DrvInstall`

`_DrvInstall` is used to install a driver. A DCE for the driver is created and its handle entered into the specified Unit Table position (−1 through −64). If the unit number is −4 through −9, the corresponding ROM-based driver will be replaced:

```
FUNCTION DrvInstall(drvrHandle:Handle; refNum: INTEGER): OSError;
```

| | | |
|-------------|---|--------------------------------|
| A0 (input) | → | pointer to driver |
| D0 (input) | → | driver RefNum (−1 through −64) |
| D0 (output) | ← | error code |
| | | noErr |
| | | badUnitErr |

DrvRemove

DrvRemove is used to remove a driver. A RAM-based driver is purged from the system heap (using ReleaseResource). Memory for the DCE is disposed:

```
FUNCTION DrvrRemove(refNum: INTEGER):OSError;
```

| | | |
|-------------|---|---------------|
| D0 (input) | → | Driver RefNum |
| D0 (output) | ← | error code |
| | | noErr |
| | | qErr |

Interfaces

Through a sequence of cataclysmic events, the glue code for DrvInstall and DrvRemove was never actually added to the MPW interfaces (i.e., “We forgot.”), so we will include simple glue here at no extra expense to you.

It would be advisable to first lock the handle to your driver with HLock before making either of these calls since memory may be moved.

```
;-----  
; FUNCTION DRVRIInstall(drvrHandle:Handle; refNum:INTEGER):OSError;  
;-----
```

```
DRVRIInstall      PROC      EXPORT  
    MOVEA.L        (SP)+, A1      ; pop return address  
    MOVE.W          (SP)+, D0      ; driver reference number  
    MOVEA.L        (SP)+, A0      ; handle to driver  
    MOVEA.L        (A0), A0        ; pointer to driver  
    _DrvRIInstall   ; $A03D  
    MOVE.W          D0, (SP)       ; get error  
    JMP             (A1)           ; & split  
ENDPPROC
```

```
;-----  
; FUNCTION DRVRIRemove(refNum:INTEGER):OSError;  
;-----
```

```
DRVRIRemove      PROC      EXPORT  
    MOVEA.L        (SP)+, A1      ; pop return address  
    MOVE.W          (SP)+, D0      ; driver reference number  
    _DrvRIRemove   ; $A03E  
    MOVE.W          D0, (SP)       ; get error  
    JMP             (A1)           ; & split  
ENDPPROC
```