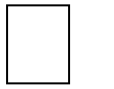
New Technical Notes

Macintosh



Developer Support

_AddDrive, _DrvrInstall, and _DrvrRemove

Devices M.DV.AddDrive

Revised by: Pete Helme December 1988
Written by: Jim Friedlander March 1987

`_AddDrive`, `_DrvrInstall`, and `_DrvrRemove` 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 `_DrvrInstall` text to reflect the use of register `A0`, which should contain a pointer to the driver when called. Also added simple glue code for `_DrvrInstall` and `_DrvrRemove` 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:DrvQE1;driveNum,refNum:INTEGER):OSErr;
```

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

_DrvrInstall

`_DrvrInstall` 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 DrvrInstall(drvrHandle:Handle; refNum: INTEGER): OSErr;
```

`A0` (input)	→	pointer to driver
`D0` (input)	→	driver `RefNum` (–1 through –64)
`D0` (output)	←	error code
		`noErr`
		`badUnitErr`

_DrvrRemove

_DrvrRemove 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):OSErr;
```

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

Interfaces

Through a sequence of cataclysmic events, the glue code for _DrvrInstall and _DrvrRemove 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 DRVRInstall(drvrHandle:Handle; refNum:INTEGER):OSErr;
;---------------------------------------------------------------

DRVRInstall   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
      _DrvrInstall                ; $A03D
      MOVE.W        D0, (SP)      ; get error
      JMP           (A1)          ; & split
      ENDPPROC


;---------------------------------------------------------------
; FUNCTION DRVRRemove(refNum:INTEGER):OSErr;
;---------------------------------------------------------------

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