Protracker Command Reference

Effect Commands

Effect commands on Protracker should be compatible with almost all other trackers.

0 – None/Arpeggio

1 – Portamento up

2 – Portamento down

3 – Tone portamento

4 – Vibrato

5 – Tone portamento + volume slide

6 – Vibrato + volume slide

7 – Tremolo

8 – *not used*

9 – Sample offset

A – Volume slide

B – Position jump

C – Set volume

D – Pattern break

E – Misc. commands (see below)

F – Set speed

E-commands

*The **E** command has several sub-commands…*

E0 – Set filter on/off

E1 – Fine pitch slide up

E2 – Fine pitch slide down

E3 – Glissando control

E4 – Vibrato control

E5 – Set fine tune

E6 – Pattern loop

E7 – Tremolo control

E8 – *<not used>*

E9 – Retrigger note

EA – Fine volume slide up

EB – Fine volume slide down

EC – Note cut

ED – Note delay

EE – Pattern delay

EF – Invert loop

Command descriptions

Cmd 0. Arpeggio [Range: $0-$F/$0-$F]

Usage: $0 + 1st halfnote add + 2nd halfnote add

Arpeggio is used to simulate chords. This is done by rapidly changing the pitch between 3(or 2) different notes. It sounds very noisy and grainy on most samples, but ok on monotone ones.

Example:

C-3 00 **047** – C-major chord
(C + E + G, or C + 4 + 7 halfnotes)

C-3 00 **037** – C-minor chord
(C + D# + G, or C + 3 + 7 halfnotes)

Cmd 1. Portamento up [Speed: $00-$FF]

Usage: $1 + portamento speed

Portamento up will simply slide the sample pitch up. You can NOT slide higher than B-3! (period 113)

Example:

C-3 00 **103**
1 is the command, **3** is the portamento speed.

NOTE: The portamento will be called as many times as the speed of the song. This means that you'll sometimes have trouble sliding accurately. If you change the speed without changing the sliderates, it will sound bad...

Cmd 2. Portamento down [Speed: $00-FF]

Usage: $2 + portamento speed

Just like command 1, except that this one slides the pitch down instead (adds to the period).

You can NOT slide lower than C-1! (period 856)

Example:

```
C-3 00 203
```
2 is the command, **3** is the portamento speed.

Cmd 3. Tone portamento [Speed: $00-$FF]

Usage: Dest-note + $3 + slide speed

This command will automatically slide from the old note to the new. You don't have to worry about which direction to slide, you need only set the slide speed. To keep on sliding, just select the command $3 + 00.

Example:

```
A-2 00 000 – First play a note.
C-3 00 305 – C-3 is the note to slide to.
```
3 is the command, and **5** is the slide speed.

Cmd 4. Vibrato [Rate: $0-$F, Depth: $0-$F]

Usage: $4 + vibrato rate + vibrato depth

Example:

```
C-3 00 481
```
4 is the command, **8** is the speed of the vibrato, and **1** is the depth of the vibrato.

To continue the vibrato, just use the command $4 + 00.
To change the vibrato, you can alter the rate, depth or both.
Use command E4 to change the vibrato waveform.

Cmd 5. Tone portamento + volume slide [Speed: $0-$F/$0-$F]

Usage: $5 + upspeed + downspeed

This command will continue the current tone portamento and slide the volume at the same time. Stolen from *Noisetracker 2.0*.

Example:

```
C-3 00 503
```
5 is the command, **3** is the speed to decrease the volume.

```
C-3 00 540
```
5 is the command, **4** is the speed to increase the volume.

Cmd 6. Vibrato + volume slide [Speed: $0-$F/$0-$F]

Usage: $6 + upspeed + downspeed

This command will continue the current vibrato and slide the volume at the same time. Stolen from *Noisetracker 2.0*.

Example:

```
C-3 00 605
```
6 is the command, **5** is the speed to decrease the volume.

```
C-3 00 640
```
6 is the command, **4** is the speed to increase the volume.

Cmd 7. Tremolo [Rate: $0-$F, Depth: $0-$F]

Usage: $7 + tremolorate + tremolodepth

Tremolo vibrates the volume.

Example:

    C-3 00 **794**
    7 is the command, **9** is the speed of the tremolo, and
    4 is the depth of the tremolo.

To continue the tremolo, just use the command $7 + 00.
To change the tremolo, you can alter the rate, depth or both.
Use command E7 to change the tremolo waveform.

Cmd 9. Set sample offset [Offset: $00-$FF]

Usage: $9 + sample offset

This command will make the note play from a chosen position in the sample, and not from the beginning. The two numbers represent two most significant numbers of the length of the sample. Handy for speech-samples.

Example:

    C-3 00 **923**
    Play sample from offset $**2300**.

Cmd A. Volume slide [Speed: $0-$F/$0-$F]

Usage: $A + upspeed + downspeed

Example:

    C-3 00 **A05**
    5 is the speed to turn the volume down.
    C-3 00 **A40**
    4 is the speed to slide it up.

NOTE: The slide will be called as many times as the speed of the song. The slower the song, the more the volume will be changed on each note.

Cmd B. Position jump [Position: $00-$7F]

Usage: $B + song position to continue at

Example:

```
C-3 00 B01
```
B is the command, **1** is the song position to jump to.

This command will also perform a **pattern break** (see **Cmd. D**). You can use this command instead of restart as on *Noisetracker*, but you must enter the position in hexadecimal!

Cmd C. Set volume [Volume: $00-$40]

Usage: $C + new volume

Sets the volume of the currently playing note. The maximum volume is $40. All volumes are represented in hexadecimal. (Programmers do it in hex, you know!)

Example:

```
C-3 00 C10
```
C is the command, **10** is the volume (16 decimal).

Cmd D. Pattern break [Pattern Position: 00-63, decimal]

Usage: $D + pattern position

This command just jumps to the next song-position, and continues playback from the pattern position (line number) you specify.

Example:

```
C-3 00 D00
```
Jump to the next song position and continue playback from pattern position **00**.

Or: `C-3 00 `**`D32`**
> Jump to the next song position and continue playback from pattern position **32** instead.

Cmd E0. Set filter on/off [Range: $0-$1]

Usage: $E0 + filter status

This command toggles the Amiga's low-pass sound-filter.

Example:

> `C-3 00 `**`E01`**
> Disables filter (turns off/dims power LED)

> `C-3 00 `**`E00`**
> Enables filter (turns on/undims power LED)

Cmd E1. Fine pitch slide up [Range: $0-$F]

Usage: $E1 + value

This command works just like the normal portamento up, except that it only slides up once. It does not continue sliding during the length of the note.

Example:

> `C-3 00 `**`E11`**
> Slide up **1** at the beginning of the note.
> (Great for creating chorus effects)

Cmd E2. Fine pitch slide down [Range: $0-$F]

Usage: $E2 + value

This command works just like the normal portamento down, except that it only slides down once. It does not continue sliding during the length of the note.

Example:

> `C-3 00 `**`E26`**
> Slide down **6** at the beginning of the note.

Cmd E3. Glissando control [Range: $0-$1]

Usage: $E3 + glissando status

Glissando must be used with the tone portamento command. When glissando is activated, tone portamento will slide a halfnote at a time, instead of a straight slide.

Example:

> C-3 00 **E31**
> Turn glissando on.
>
> C-3 00 **E30**
> Turn glissando off.

Cmd E4. Set vibrato waveform [Range: $0-$7]

Usage: $E4 + vibrato waveform

Example:

> C-3 00 **E40** – Set sine (default)
> C-3 00 **E44** – Continuous sine (no retrigger)
>
> C-3 00 **E41** – Set ramp down
> C-3 00 **E45** – Continuous ramp down (no retrigger)
>
> C-3 00 **E42** – Set square wave
> C-3 00 **E46** – Continuous square wave (no retrigger)
>
> C-3 00 **E43** – Set random
> C-3 00 **E47** – Continuous random (no retrigger)

Cmd E5. Set fine tune [Range: $0-$F]

Usage: $E5 + fine tune value

Sets fine tune value for the note; overrides sample fine tune setting.

Example:

> C-3 00 **E51** – Set fine tune to **1**.

Use these tables to figure out the fine tune value:

Fine tune:	+7	+6	+5	+4	+3	+2	+1	0
Cmd. value:	7	6	5	4	3	2	1	0

Fine tune:	-1	-2	-3	-4	-5	-6	-7	-8
Cmd. value:	F	E	D	C	B	A	9	8

Cmd E6. Pattern loop [Loops: $0-$F]

Usage: $E6 + number of loops

This command will loop a part of a pattern.

Example:

> C-3 00 **E60** – Set loop start.
> C-3 00 **E63** – Jump to start of loop **3** times before playing on.

Cmd E7. Set tremolo waveform [Range: $0-$7]

Usage: $E7 + tremolo waveform

Example:

      C-3 00 **E40** – Set sine (default)
      C-3 00 **E44** – Continuous sine (no retrigger)

      C-3 00 **E41** – Set ramp down
      C-3 00 **E45** – Continuous ramp down (no retrigger)

      C-3 00 **E42** – Set square wave
      C-3 00 **E46** – Continuous square wave (no retrigger)

      C-3 00 **E43** – Set random
      C-3 00 **E47** – Continuous random (no retrigger)

Cmd E9. Retrig note [Value: $0-$F]

Usage: $E9 + tick to retrig note at.

This command will retrigger the same note every number of ticks specified, within the space of one note, before playing the next. Where the retrig occurs depends on the speed of the song. If you retrig with value 1 in a song whose speed is 6, that note will be trigged 6 times in one note slot. Retrig on hi-hats!

Example:

      C-3 00 **F06** – Set speed to **6**
      C-3 00 **E93** – Retrig at tick **3** out of **6**.

Cmd EA. Fine volume slide up [Range: $0-$F]

Usage: $EA + value

This command works just like the normal volume slide up, except that it only slides up once. It does not continue sliding during the length of the note.

Example:

    C-3 00 **EA3**
    Slide volume up **1** at the beginning of the note.

Cmd EB. Fine volume slide down [Range: $0-$F]

Usage: $EB + value

This command works just like the normal volume slide down, except that it only slides down once. It does not continue sliding during the length of the note.

Example:

    C-3 00 **EB6**
    Slide volume down **6** at the beginning of the note.

Cmd EC. Note cut [Value: $0-$F]

Usage: $EC + Tick to Cut note at.

This command will cut the note at the selected tick, creating extremely short notes.

Example:

    C-3 00 **F06** – Set speed to **6**
    C-3 00 **EC3** – Cut at tick **3** out of 6.

Note that the note is not really cut, the volume is just turned down.

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Cmd ED. Note delay [Value: $0-$F]

Usage: $ED + ticks to delay note.

This command will delay the note by the specified number of ticks.

Example:

       C-3 00 **F06** – Set speed to **6**.
       C-3 00 **ED3** – Play note at tick **3** out of 6.

Cmd EE. Pattern delay [Notes: $0-$F]

Usage: $EE + notes to delay pattern.

This command will delay the pattern by the specified numbers of notes.

Example:

       C-3 00 **EE8** – Delay pattern **8** notes before playing on.

 All other effects are still active whilst the pattern is being delayed.

Cmd EF. Invert loop [Speed: $0-$F]

Usage: $EF + invert speed

This command will need a short sample loop ($10, 20, 40, 80 etc. bytes) to work. It will invert (NOT) the loop byte by byte. Replaces the "funk repeat" command of old ST/PT versions.

Example:

       C-3 00 **EF8** – Set invert speed to **8**.

 To turn off the inverting, set invert speed to **0**, or press **Ctrl + Z**.

Cmd F. Set speed [Speed: $00-$FF]

Usage: $F + speed

This command will set the speed of the song.

Values of **01 – 1F** sets song speed, i.e. the amount of ticks per row.
Values of **20 – FF** sets the BPM, which essentially is the speed of the ticks.
F00 stops playback.