

AddMusick – The Sound Envelope (ADSR) in the #instruments command

Format: @XX \$YY \$ZZ \$GG \$PP \$QQ

@XX – designates base instrument sample you’re altering

\$YY – first two values of sound envelope (the “AD” of ADSR) [1st digit must be 8 or higher, or else ADSR is ignored and Gain is used]

\$ZZ – last two values of sound envelope (the “SR” of ADSR)

\$GG – Gain [only use if first digit of ADSR is 7 or lower]

\$PP – “macro” multiplier: transposes instrument to different places in harmonic series

\$QQ – “micro” multiplier: tweaks intonation, measured in cents

The Sound Envelope – Attack, Decay, Sustain, Release (ADSR)

\$YY – *First* digit is decay (range: 8 to F); higher = faster (decays to the sustain level sooner)

Second digit is attack (range: 0 to F); higher = faster (reaches peak volume sooner)

\$ZZ – First digit is sustain, ranges 0 to F, but only 8 actual separate settings, with pairs of consecutive numbers being the same thing

(so 0 and 1 are the same sustain level, 2 and 3 are the same, 4=5, 6=7, and so on); higher = louder

Second digit shows release, 32 options for each pair of sustain levels (so 00-1F is every release possibility for the 0/1 sustain pair; 20-3F is every release possibility for the 2/3 sustain pair, etc.); higher = faster (dies out sooner)

(Confused? Go to the next page.)

Helpful Chart for \$ZZ Values (Sustain and Release)

- the higher you go on the chart, the louder the sustain level
- the further right you go on the chart, the faster the note dies out

Louder and Longer

Louder and Shorter

E0	E1	E2	E3	E4	E5	E6	E7	E8	E9	EA	EB	EC	ED	EE	EF	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	FA	FB	FC	FD	FE	FF
C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF
A0	A1	A2	A3	A4	A5	A6	A7	A8	A9	AA	AB	AC	AD	AE	AF	B0	B1	B2	B3	B4	B5	B6	B7	B8	B9	BA	BB	BC	BD	BE	BF
80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F	90	91	92	93	94	95	96	97	98	99	9A	9B	9C	9D	9E	9F
60	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F	70	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E	7F
40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F	50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F
20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F

Softer and Longer

Softer and Shorter