

1. FPD97, ěŠT—v

2. ‘€ñìà-¾

3. MIDI—p, ìĚ, đ••, «•û

fTfì[]fg, μ, Ä, ç, éMIDI fCxf“fg

4. ñìĚ, ì, μ, ©, ½

MML, ì•¶-@

fRf“fpfCf<Žž, ìo—íf[]fbfZ[]fW

ŠyŠí%o¹[]F’î%ož•\

5. fTfì[]fg

6. fVfFfAfEfFfA“o~^, É, Â, ç, Ä

FPD97, ĭŠT—v

FPD97, ĭAMIDI%¹CE¹, ĭ'ã, í, è, ð, μ, Ä,, è, é\ftfgfEjFfA, Å, ·Bfpj\frf""à•", ĭPCM
%¹CE¹, ðŽg, Å, ÅA'½d~a%¹, É, æ, éfŠfAf<f^fCf€%¹%'t, ðŽÀCE», μ, Ä, ç
, Ü, ·B, à, ĭ, àAMIDI%¹CE¹, ĭ•s—v, Å, ·B

FPD97, ĭAGM/GS<KŠi, É'ĭ%ž, μ, ½MIDIftf@fCf<(.MIDCE`Ž®A.RCPCE`Ž®), É'ĭ
%ž, μ, Ä, ç, Ü, ·, ĭ, ÅACE»Ÿo%ň, Å, Ä, ç
, é, Ü, Æ, ñ, Ç, ĭMIDIff[f^, ðA, , çfNf\šfefB, Å%%'t, ³, ¹, é, ±
, Æ, ^a, Å, «, Ü, ·B, Ü, ½AfŠfAf<f^fCf€CE®"Ö•\Ž!A%%'tff[f^, ĭWAVftf@fCf<o—
ĭAMML(Music Macro Language), É, æ, é<Éff[f^, ĭiĭ—A, É, Ç, àfTf|
[f, g, μ, Ä, ", è, Ü, ·B

"Á'¥

ĭEPCM, ĭ%¹fff[f^, ĭA(Š")KORG, æ, èf%ofCfZf"fX<-'ø, ðŽó, ", ½, ·i^Ê, È
%¹f"gCE`, ðŽg—p, μ, Ä, ç, Ü, ·B
ĭEĭÄŸfCE[f, g, ð"C^Ó, É•ĭ, ĭ, é, ±, Æ, ^a, Å, «, Ü, ·BŠeĭ, ĭfpj\frf", ĭf, fš—Ê, àCPU, ĭ«"\
, É, ĭ, ĭ, ĭ, ÄĭA—Ç, ĭ%%'t, ^a, Å, «, éĭÄŸfCE[f, g, ð'l'ð, ·, é, ±, Æ, ^a, Å, «, Ü, ·B
ĭEfofbfNfof%ofEf"fh, Å^—, ðs, ç, Ü, ·, ĭ, ÅA'¼, ĭAfvfšfP[fVf#f", ðŽg, ç
, È, ^a, çBGM, ð%%'t, ³, ¹, é, ±, Æ, ^a, Å, «, Ü, ·B
ĭEšfAf<f^fCf€CE®"Ö•\Ž!, ĭ<@"\, ð"ð, ĭ, Ä, ç, Ü, ·B%%'t't, ĭSeŠyŠí, ^a, Ç, ĭ%¹ŠK, ĭ
%¹, ð-Ä, ç, μ, Ä, ç, é, ©, šfšfAf<f^fCf€, É•^a, ©, è, Ü, ·B
ĭEšfo[fu, ÆfR[f%ofX, ĭGftfFfNfg, ð"ð, ĭ, Ä, ç, Ü, ·B, æ, è, ·i^Ê, È%¹Šy%%'t, ^a
%Å"\, Å, ·B
ĭEMML(Music Macro Language), Æ, ç, x
%¹Šy<LqCÉ¾CEè, ðŽg, Å, Å<Éff[f^, ðiĭ—, ·, é, ±
, Æ, ^a, Å, «, Ü, ·BMMML, ĭ'ZZžŠÔ, Å, ĭ, "x, É<Éff[f^, ð"ü—ĭ, ·, é, ĭ, ÉCEü, ç, Ä, ç
, Ü, ·BMMML, É, æ, é<Éff[f^, ĭfTf"fvf<, à•t, ç, Ä, ç, Ü, ·B
ĭEPCM%¹CE¹, É, æ, é, '—, È
%¹ŠyĭÄŸ, ĭ, ½, ß, ĭ"ÆŽ©ftf@fCf<CE`Ž®u.FPDCE`Ž®v, ðiĭ—p, μ, Ä, ç
, Ü, ·Bĭê"É, ĭ.MIDftf@fCf<, à.RCPftf@fCf<, ðA^ê"x.FPDCE`Ž®, ĭftf@fCf<, É•ĭŠ, ·, é
, ±, Æ, É, æ, èA^—'—"x, ĭ'á%⁰, ðA'áCEÀ, É%¹Šy, ð%%'t, μ, Ä, ç
, Ü, ·B

ffBfCEfNfgfŠ, Æftf@fCf<, ĭà-¾

FPD97.EXE	fvf[fOf%of€-{ĭ
FPD97.DLL	fTfufvf[fOf%of€
CFGCMP.EXE	FPD.CFG, ©, çFPD.CFB, ðŸĭ—, ·, éfRf"fpfCf% % ¹ ffpf%of[f^Ÿ'èftf@fCf<(fRf"fpfCf<ĭ, Y)
FPD.CFB	% ¹ ffpf%of[f^Ÿ'èftf@fCf<
FPD.CFG	% ¹ ffpf%of[f^Ÿ'èftf@fCf<
FPD97.HLP	FPD97—pwwf<fvftf@fCf<
MMLMAN.HLP	MMLf}fjf...fAf<—pwwf<fvftf@fCf<

HOTNEWS.HLP ÅVî•ñfwf<fvftf@fCf<
FPD97.INI FPD97ŽÀsCEă,É,Ā,«,éŠĀ<<•Ů'ŋftf@fCf<

[POP_SONG] %oì—w<Èff[f^i!,Pj
*.FPD %o%o'tftf@fCf<i!,Pj
*.TXT »iŽÒfhfLf...f[f"fgi!,Pj
*.WOS %oìŽCEftf@fCf<i!,Pj
[SAMPLE] FPD97fTf"fvf<
*.MML MMLfTf"fvf<ftf@fCf<
*.MID MIDIfTf"fvf<ftf@fCf<
*.FPD Šg'£ŽqMML,Ů,½,íMID,æ,è•iŠ·,³,ê,½%o%o'tftf@fCf<
*.TXT \$iŽÒfhfLf...f[f"fg
[KORG] (Š")KORG,©,ç,²'ñ<Ÿ',,ç,½fTf"fvf<
*.MID AG-DEMO,íMIDIfTf@fCf<
*.FPD ä<L,ìftf@fCf<,©,ç•iŠ·,³,ê,½%o%o'tftf@fCf<
*.TXT \$iŽÒfhfLf...f[f"fg

[PCM97] FPD97,ĀŽg—p,·,éPCM%o¹F"gCE`ff[f^
*.FPV PCM%o¹F"gCE`ff[f^
[PCM95] FPD95,ĀŽg—p,³,ê,Ā,ç,½PCM%o¹F"gCE`ff[f^
*.FPV PCM%o¹F"gCE`ff[f^

!,P[FfVfFfAfEfFfA"o~^ŽÒ,É—X'—,Ā"í,«,Ů,·B

MIDI—p, ì<È, ì••, «•û

,Ü, _ □AMIDIftf@fCf<(Šg'£Žq,ª.MID,Ü,½,Í.RCP,Æ,È,Á,Ä,ç,é,à,ì),ð—p^Ó,μ,Ä,-
,¾,¾,ç □B.MIDCE`Ž® ,â.RCPCE`Ž® ,ìMIDI,ìff □[f^ ,í □Afpf\

fRf""É □M,âfCf"f^ □[f]fbfg □ã,Å“üŽè%oÂ"\,Å,· □B—á,ì,î □ANIFTY-

Serve,Å,μ,½,ç □uMIDI Data Forum □v(GO FMIDIDAT),É'u,ç,Ä, ,è,Ü,· □B

FPD97,ðŽg,ì,î □AMIDI%o¹CE¹,ð,“Ž □,¿,Å,È,ç•û,Å,à □,,çfNfIfŠfefB,Å MIDIff □[f^ ,ì
%o%o't,ð'® ,,±,Æ,ª,Å,«,Ü,· □B,ç,ë,ç,ë,Æf_fEf"f □□[fh,μ,Ä%o
%o't,ð,“••,«,É,È,Á,Ä,Ý,Ä%oº,¾,ç □B

,È,“ □A.MIDCE`Ž® ,â.RCPCE`Ž® ,ìMIDIff □[f^ ,í □A^ê“x □AFPD,ì □ê—

pCE`Ž® ,ìftf@fCf<(Šg'£Žq,ª.FPD,ìff □[f^)

,É•İŠ•,¾,ê,Ä,©,ç □Ä □¶,¾,ê,Ü,· □BFPDftf@fCf<,É^ê“x•İŠ•,μ,Ä,“ ,“ ,î □A.MIDftf@fCf<,â.
RCPftf@fCf<,í•s—v,É,È,è,Ü,· □B

ftf|[][fg,μ,Ä,ç,éMIDI|fCxf“fg

[]@ftf|[][fg,μ,Ä,ç,éMIDI|fCxf“fg,ðMIDI|fCf“fvfšf[]f“fe[][fVf#f“[]Ef`ff[][fg•—,É[]',ç,½,à,ì,Å,·[]B

FUNCTION	Žó[]M	”õ[]l
BASIC CHANNEL	1[]`16	
MODE	OMNI OFF,POLY	
NOTE NUMBER	12[]`107	1[]`11,108[]`127,à^ê%ž%Å”\
VELOCITY NOTE ON	[]> 9n,V=1[]`127	
NOTE OFF	[]~	
AFTER TOUCH	[]~	
PITCH BENDER	[]>	Default Range 2
CONTROL CHANGE 1	[]>	Pitch Modulation
6	[]>	Data Entry (MSB) [] 1
7	[]>	VOLUME
10	[]>	PANPOT
11	[]>	EXPRESSION
98	[]>	NRPN (LSB)
99	[]>	NRPN (MSB)
100	[]>	RPN (LSB)
101	[]>	RPN (MSB)
PROGRAM CHANGE	[]> 0[]`127	Ch.10,í0,25,É^î%ž 0=STANDARD Set 25=ANALOG Set
EXCLUSIVE	[]>	Roland ID [] 2
COMMON(SONG,TUNE)	[]~	
REALTIME(CLOCK,COMMAND)	[]~	

[]>[]F, ,è
[]~[]F,É,μ

[]|1 Pitch bend sensitivity when LSB=0 and MSB=0
>[]|2 Only GS Model is Supported

␣̀␣È,ì,μ,©,½

␣œ^ê"Ê"l,ÈŠJ"Žè␣‡

,P␣D MML<L␣q,É,æ,èftf@fCf<,đ␣ì␣¬,μ,Û,·␣B
␣@␣Å␣%o,ì"à,í␣AMML,ì•¶-@,ÆfTf"fvf<MML,đ,à,Æ,É␣ì␣¬,·,é,Æ,ç,ç
,Å,μ,â,⊘␣BfTf"fvf<MML,í [SAMPLE]ffBfÇEfNfgfŠ,ì't,É"ü,Á,Ä,ç
,Û,·␣Bftf@fCf<,ìŠg'£Žq,í •K,„.MML ,É,μ,Ä%oo^o,³,ç␣B

,Q␣DfhfLf...f␣f"fg,ì␣ì␣¬
FPD97,Å,í␣A<È,đ%oo%oo't't,ÉŠg'£Žq.TXT,ìftf@fCf<,đ•\Ž!,μ,Ä,ç,Û,·␣B<È,ì␣à-
³/₄,đ•t,¬,½,ç␣ê␣‡,É,í␣A.TXTftf@fCf<,É␣',ç,Ä,"„,Æ•Ö—~ ,Å,·␣B

ftf|[]fg

,²Žg—p,ÉŠÖ,.,é'∩^Ó

∩E—{f|ftfgfEjFfA,ì'~∩iCE ,í—LCEÀ%öiŽĐf%öfbfg,É, ,è,Ü,·∩B

∩E—{f|ftfgfEjFfA,đŽg—p,μ,½,ϕ,©,È,é•s<i∩#É,Â,ϕ,Ä,à∩A,±,¿,ç,É,»∩Ó" C,Í,È,ϕ
,à,ì,Æ,³,¹,Ä,ϕ,¹/₂,³/₄,«∩Ü,·∩B

∩E—{f|ftfgfEjFfA,É"∩«,³,ê,Ä,ϕ,éPCM%ö¹∩F" gCE`ff∩[f^,í∩AŠ"Ž®
%öiŽĐKORG,Æ,ìf%öfCfZf"fXCE_—ñ,ÉŠî,Ä,ϕ,ÄŽg—p,μ,Ä,ϕ,é,à,ì,Â,·∩B-³f—∩—
p,í^ê∩Ø,μ,È,ϕ,Ä,,³/₄,³,ϕ∩B

∩E•İŠ·CEã,ìWAVftf@fCf<,đ∩A-³∩ž,Ä"z•z,.,é,±,Æ,đ<-
%öÂ,μ,Ü,·∩B,¹/₂,³/₄,μ∩A•İŠ·CE³,ìff∩[f^,É•É,ì'~∩iCE ŽÒ,â'∩∩Ý,.,é∩ê∩#É,í∩A,»∩i•û,
ì—¹∩³,đ"³/₄,Ä,,³/₄,³,ϕ∩B,È,"∩A—L∩ž,đŠó-],.,é∩ê∩#É,í,²'Š'k
%ö⁰,³,ϕ∩BFPD∩AMMLftf@fCf<,É,Ä,ϕ,Ä,í∩A—L∩ž∩E-³∩ž,É,©,©,í,ç,, "z•z,íŽ©—
R,É∩s,È,Ä,Ä,à,ç,Á,ÄCE<∩\,Ä,·∩B

ftf|[]fg

∩@ftf|[]fg,í"dŽqf∩∩[f<,ÅŽó,~•t,~,Ä,"è,Ü,·∩B
fpd97@platz.or.jp

,Ü,¹/₂∩A'Ê∩M,â,Ä,«È,ϕ•û,Ä∩A,Ç,π,μ,Ä,à•K—v,È∩ê∩#É,í%ö⁰<L∩Z∩Š,Ü,Ä,²~A—∩,-
,³/₄,³,ϕ∩B

∩§110-0008 "CE<ž"s'ä"CE<æ'r"V'[1-6-20
—LCEÀ%öiŽĐf%öfbfg FPD97CEW
(TEL/FAX 03-5685-7181)

FPD97,ìfz∩[f€fy∩[fW

<http://www.platz.or.jp/~fpd97/>

∩Å∩V∩î•ñ∩AfofO∩î•ñ,É,Ä,ϕ,Ä,í∩ã<L,ÉCEf∩Ú,μ,Ü,·∩B
^è'∩,∩Å∩V"Ä,đŽè,É"ü,ê,¹/₂,ϕ•û,àCE©,É—^,Ä,,³/₄,³,ϕ∩B

fVfFfAfEfFfA“o~^,É,Â,ç,Ä

FPD97,ÍfVfFfAfEfFfA,Ä,·B

3,800‰~ ,ð ANIFTY,Í—à‘ã sfT [frfX,Ü,½,Í—
X•Ö<ÇE<â sCEû A U,èž,Ý,É,Ä,“Žx•¥,ç‰º,³,çB,È,“A}‘CE”,Ü,½,Í—
X•Ö—^x‘Ö(3,800‰~•ª),ð—,Á,Ä‰º,³,Á,Ä,à\,ç,Ü,¹,ñB
@

NIFTY,Í—à‘ã sfT [frfX

@uGO SWREGv,ð“ü—

ÍCEã A u3.‘—à‘ã sfT [frfXv A u2.‘—àfVfXfef€v A u1.fVfFfAfEfFfA”Ô†Ž
w’èv,ð±, ,Ä’l’ð,µAfvfFfAfEfFfA”Ô†,Æ,µ,Ä6891”Ô,ðŽw’è,µ,Ä
‰º,³,çB’—àŠm”FCEã AID,ÆfpfXf [fh,ð“dŽqf [f<,É,Ä,²~A—v,µ,Ü,·B

<â sCEû A

‘æ^êŠ©<Æ<â s ‘â^ä’—ŽX“X

CEû A”Ô†F•‘É 1695834

CEû A-¼< F—LCEÀ‰ºiŽĐf‰ºfbfg

—X•Ö<ÇEû A

CEû A”Ô†F10170-74942691

‰ºÄ“üŽÖ-¼F—LCEÀ‰ºiŽĐf‰ºfbfg

}[‘CE”E—X•Ö—^x‘Ö,Í—X’—æ

[§110-0008 “CE<ž“s’ä“CE<æ’r“V’[1-6-20

—LCEÀ‰ºiŽĐf‰ºfbfg FPD97CEW

U,èž,Ý,ð,³,è,½•û,Í A-¼‘O A ZŠ A Už“ú,ðf [f<,É,Ä,“m,ç,¹,,¾,³,çB

f [f<‘•tæ Ffpd97@platz.or.jp

iNIFTY,Í—à‘ã sfT [frfX,ð—~—p,³,è,½•û,Í•K—v, ,è,Ü,¹,ñj

ššš f‰ºfbfgŽæ^µ»•i,Ì“Žžw“ü,ìŠ,,è^ø,«,É,Ä,ç,Ä šššš

FPD97,ÍfVfFfAfEfFfA’ã<à,Æ“~Žž,É,“U,èž,Ý,É,³,è,éèè†,É,Í A

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E,l,j,q,ì‰º¹Šy,b,c i‰ºžŠi,P,,T,O,O‰º~j” ,P,,O,O,O‰º~

.Lj,qŽ,ª AfAf}f`f...fA,Íf‰ºfWfIfhf‰ºf},Ä,a,f,l,Æ,µ,Ä”•\,µ,Ä,«,½MIDI<È,ð,P-
†,ì,b,c,É,Ü,Æ,ß,½,à,ì,Ä,·BfTfEf“fhfgf‰ºfbfN,Æ,µ,Äi—,³,è,Ä,ç,é,ì,Å A^ê”É,ì
‰º¹Šy,b,c,Æ,µ,Ä,“’®,«,É,È,è,Ü,·B

‰º¹CE¹ FSC33,MU80,P50m,M-SE1,JV-2080i iŠiŽžŠú,ÅŽg—p

‰º¹CE¹,ª^Ü,È,è,Ü,·j

@<È” F25<È,Ü,Ç

ŽžŠÔF60•ª,Ù,Ç

“~Žž,Éw“ü,đŠó-],³,ê,é•û,íA‡CEv<àŠz 4,800%o~ ,đ,“U,èž,Ý,,¾,³,çB
(,±,ìê‡A’—<à’ãsfT[fxfX,í,²—~—p,Å,«,Ü,¹,ň,ì,Å,²’^Ó,,¾,³,ç)

,l,j,qž,É,Â,ç,Ä

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ÇCE\$□¶<âCES•½CEQ'¬□o□g□B1993"N□H,ÉFPD97,ì'O□g,Å, ,éFPD,ð"•\
□B,»,)□æCE©,ì-¾,É,í½,,ìl,â<Á,«,ì□°,ð□ă,°,½□Bfvf□fOf%of€ŠJ"-
,Æ"~Žž,É□ì<ÈŠ^"® ,É,à—í,ð"ü,ê,Ä,ç,é□B

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□"□@MML•\<L,É,Â,ç,Ä

□@MML(,ç,í,ä,é<È,ì¶[fXfŠfXfg),ì•¶-@,É,Â,ç,Ä□à-¾,μ,Ä,ç,«,Ü,·□BfTf"fvf<<È,ì¶
□[fXfŠfXfg,ðŒ©,È,ª,ç"Ç,ß,î"»»,è,â,·,ç,ÆŽv,ç,Ü,·□B

□@,Ü,·,□s"ª,É□A,»),ì¶s,ì¶p□[fg-¼,ð□',«,Ü,·□B%o

%o'tfp□[fg,í□u□"Žš(0~3)□{□%opŽš(A~P)□v,Æ,ç,κŒ`Ž®,Á□A,»),ì'¼,ì<@"\
,ðŽ□,Áfp□[fg,í%opŽš,ì,Ý,Á•\<L,μ,Ü,·□B□æ"ª,É□u0A□v,Æ,·,è,î,»),ì¶s,í□u0Afp□[fg□
v□AT,Æ,·,è,í□uTfp□[fg□v,Æ,ç,Á,½Š',¶,Á,·□B
□@FPD97,Á,í^È%oº,ì¶p□[fg,ðŽg,κ,±,Æ,ª,Á,«,Ü,·□B

0Afp□[fg ---- f`fff"f|f<,P,ì%o%o't"à—e

0Bfp□[fg ---- f`fff"f|f<,Q,ì%o%o't"à—e
□i"r't□È—ª□j

0Pfp□[fg ---- f`fff"f|f<16,ì%o%o't"à—e

1Afp□[fg ---- f`fff"f|f<17,ì%o%o't"à—e

1Bfp□[fg ---- f`fff"f|f<18,ì%o%o't"à—e
□i"r't□È—ª□j

3Pfp□[fg ---- f`fff"f|f<64,ì%o%o't"à—e

Tfp□[fg ---- 'S%o¹•,,',·,Æ□%oŠúfef"f|,ð□éŒ¾

Vfp□[fg ---- %o¹□Fftf@fCf<,ì"Ô□t,Ö,ìŠ,,,è"-,Ä

\$fp□[fg ---- f}fNf□□i•¶Žš—ñ□j,ì□éŒ¾

!fp□[fg ---- f^fCfjf<□Y'è

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□@0A~0Pfp□[fg,í□"Žš,ì0,ð□È—ª,μ,Ä%opŽš^èŽš,Á•\<L,·,é,±,Æ,ª□o—^,Ü,·□B

□@%o%o'tfp□[fg□i0A~3P□j,ÉŒÀ,Á,Ä□A•À,x□',«,ª,Á,«,Ü,·□B,±
,è,í□A1,Á,ì¶s,É•i□",ì¶p□[fg,ðŠ,,,è"-,Ä,é<@"\,Á,·□B

—á□j

0A c2d4e4 >c8c8

0B c2d4e4 >c8c8

0A0B c2d4e4 >c8c8

□@□ã,ì,Q,Â,í□A'S,"^,¶^Ó—j,ð,·,ç,í,μ,Ü,·□B

—á□j

1C c8d8e8f8

2E c8d8e8d8

1C2E c8d8e8

1C f8

2E d8

□@,±,ì,Q,Â,à□A'S,"^,ŋ^Ó-; ,É,È,è,Ü,·□B

□@,Ü,½□AŽš□",đ□,È,,·,é·\<L,ªŠô,Â,©—p^Ó,³,ê,Ä,ç,Ü,·□B^È%°º,É-}—
á,đŽ!,μ,Ü,·□B

1A1B1C =□@1[ABC]

1A2A = 12A

1A2A1B2B = 12[AB]

□@?fp□[fg,í□A□u0A~0P<y,Ñ□A1A~3P,ì,π,¿,» ,ê^È'O,ÉŽg—p,³,ê,½,±,Æ,ì, ,éfp□[f
g□v,Æ,ç,π,±,Æ,Â,·□B"]'²,ìŽw'è,â□",É,æ,é%°°°'tfXfCfbf` ,È,Ç□A'S%°
%°'tfp□[fg,É,©, ,½,ç-½—β,đŽg,πŽž,É•Ö—~,Â,·□B

—á□j,±,±,Ü,Â,É0A~0L,Æ1A,1Bfp□[fg,ªŽg,í,ê,Ä,ç,é□ê□‡

? %

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Tfp□[fg,ì□Ž® ,í□A

T fef"f|,'S%°¹•,,,'ì'·,³

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,đŽw'è,μ,½Žž,ìfXfefbfv□",Â,·□BMML"à,Â,í,±,ì□""l,ì-ñ□",ª

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□@,±,ì^Ó-; ,ª,æ,"» ,ç,È,ç□l,í□A,Æ,è, ,ì,,□uTfp□[fg,ì2,Â-Ú,ì□"Žš,í192□v,Æ,ç

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0B g2 a2 b1

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- 2. •,“_ ,Q•â%oo¹•,□B,Q•â%oo¹•,,,Æ,» ,ì”¼•â ,ì’ ,³□i□□,S•â %oo¹•,□j,ð’« ,μ,½’ ,³ ,É,È,è,Ü,·□B
- 4.. •,“_ ,ð,Q,Â,Â ,⁻ ,é,±,Æ,à,Â,« ,Ü,·□B,±,ì□ê□‡,Í□A,S•â %oo¹•,,,Æ,» ,ì”¼•â ,ì’ ,³□i□□,W•â%oo¹•,□j,Æ□A□X,É,» ,ì”¼•â ,ì’ ,³□i□□,P,U•â %oo¹•,□j,ð’« ,μ,½’ ,³ ,É,È,è,Ü,·□B
- 2^16 ,±,ê,Í,Q•â%oo¹•,,,Æ,P,U•â%oo¹•,,,ð’« ,μ,½’ ,³ ,É,È,è,Ü,·□B
- 2-16 ,±,ê,Í,Q•â%oo¹•,,,©,ç,P,U•â%oo¹•,,,ð^ø,ç,½’ ,³ ,É,È,è,Ü,·□B,±,ê,Í,Q,Â□ã,ì
- 4.. ,Æ’S,“⁻ ,¶’ ,³ ,ð^Ó-ì,μ,Ü,·□B

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- 2.^16 •,“_ ,Q•â%oo¹•,,,Æ,P,U•â%oo¹•,,,ð’« ,μ,½’ ,³ ,É,È,è,Ü,·□B
- 4^1-8 ,S•â%oo¹•,,,Æ’S%oo¹•,,,ð’« ,μ,Ä□A,W•â%oo¹•,,,ð^ø,ç,½’ ,³ ,É,È,è,Ü,·□B

□@%oo¹·Žw’è,ìŽž,É□A•K—v,È□”Žš,ð□È—^a ,μ,½□ê□‡□A□È—^a%ooÓ□Š,É,Í’S,ĂŠî- {’·□i,ÆfRf}f“fh,ĂŽw’è□AŽw’è,^a ,È,çŽž,Í,S•â%oo¹•,□j,^a , ,é,à,ì,Æ,Y,È,μ,Ü,·□B

-}-á□j ,Æ□iŠî- {’·□j,^a ,S•â%oo¹•,,,ì□ê□‡,Â,·□B

- a f%oo,ì%oo¹ ,Â ,^a□A’ ,³ ,^a□È—^{a,3} ,ê,Â,ç,é,ì,Â,Æ,ì’l,^a%oo¹· ,É,È,è,Ü,·□B
- a. •,“_ ,S•â%oo¹•,,,É,È,è,Ü,·□B
- a^16 ,±,ì,Q,Â,Í□A—¼•û,Æ,à,S•â%oo¹•,,,Æ,P,U•â%oo¹•,,,ð’« ,μ,½’ ,³ ,Â,·□B
- a^ ,±,ê,ÍŠî- {’·,ì” { ,ì’ ,³□A,Q•â%oo¹•,,,É,È,è,Ü,·□B
- a^ ^ ,±,ê,ÍŠî- {’·,ì,R” {□A•,“_ ,Q•â%oo¹•,,,Â,·□B

□@’P^Ê,ð□u□`•â%oo¹•,,,□v,Â,Í,È, ,Ă□u□`fXfefbfv□v,Â□’ , ,±,Æ,à□o—^ ,Ü,·□B,± ,ìŽž,Í□A□”Žš,ì’O,É ~ ,ð,Â,⁻ ,ĂŽw’è,μ,Ä%oo^{0,3} ,ç□B

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- c~192 fh,ì%oo¹ ,ð192fXfefbfv□A,Â,Ü,è c1 ,Æ’S,“⁻ ,¶^Ó-ì,É,È,è,Ü,·□B
- c4~1 ,S•â%oo¹•,,,©,ç,PfXfefbfv’Z,μ,½’ ,³ ,Â,·□B

□@,μ,©,μ□A , ,Ü,èÆ© ,É, ,ç\<L,ÍŠÔ^á,ç,ì,à,Æ,Â , ,©,ç□A”ð ,⁻ ,½•û,^a ,ç,ç ,Â,μ,â,α□B,È,“□A%oo¹· ,^a ,O^È%oo⁰ ,É,È,é,æ,α,ÈŽw’è,ð , ,é,ÆfGf%oo□[,É,È,è,Ü,·□B

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[cde]3 fjjbfR“à,ð,R%^{0,3}ñ%^{0,3}’t,μ,Ü,·□B,Å,Ü,ècdecdecde,Æ“~,¶,Å,·□B

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%^{0,3}’t,^{3,1},½,çŽž,È,Ç,ÉŽg,ì,Ü,·□B

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,s ŠĒ^ŎfR□[f<,ìšf^□[f“□ifR□[f<’t,Å,È,~,é,î-³Ž<□j
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,Ü,¹,ñ,^a□A,r,Æ,s,ðf<□[fv,ì“àŠŎ,É,í,~,È,ç,æ,α,É,μ,Ä,-
,^{3/4},³,ç□B,Ü,½□A,r□` ,sŠŎ,Åf<□[fv,ðŽg,Á,Ä□A16□df<□[fv,ì’t,Å,tfRf}f“fh,ðŽg,Á,Ä,àf
Gf%^{0,3}□[,Æ,È,è,Ü,·□B

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,É,È,è,Û,·ĀB,k,ª,È,çĀĕĕ,Í,»,ì,Û,Û%’t,đĀ—¹,μ,Û,·ĀB

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@,±,ÍfRf}f“fh,ÍĀ%¹•,,,ì¼ĀĀ,É“ü,ê,È,,Ā,Í,È,è,Û,¹,ñĀB

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- a4&b4 ‘OĀĀ,ì%¹,đ,Ā,È,¬,Û,·
- a4)&b4 ,±,ê,ÍĀ%¹•,,,ì¼ĀĀ,É,È,ç,ì,ĀfGf%Ā [Ā,Ā,·ĀB
- a4&)b4 ,±,ê,Í,Ā,Ā,·ĀB

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@%¹•,,ĀE<x•,,,ì%¹·Žw’è,Æ“~,Ā,Ā•,,“_đ,Ā,¬,½,è^,â-,Ā’,³,ì
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(n:0~255)

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%o¹□F•İ□X,ÌŽŽ,É□A%o¹□Fff□[f^“à,ÅfGf“fxf□□[fv,^aÝ’è,μ,Ä, ,ê,ÎfGf“fxf□□[fv•İ□X,à
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□@%o¹□tŠJŽnŽž,ì□%o¹□Šú’l,Í,O,É□Ý’è,³,ê,Ä,ç,Ü,•□B

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(n:0~135)

□”),Ž %o¹—Ê,đ□ã,°,é

□” (,Ž %o¹—Ê,đ%o^o,°,é
(n:1~127,□È—^aŽž,Í,P)

□@%o¹—Ê,đ•İ□X,μ,Ü,•□B□”’l,^aâ,«,ç’ö□A%o¹,Í’â,«,,È,è,Ü,•□B□
%o¹□Šú’l,Í111,Å,•□Bv=135,ÌŽŽ□A□Å’â,Å15ËP~Ä,ì□o—Í,^a, ,è,Ü,•□Bf□[fo□[ftf□□[,ì”»’
è,□s,Ä,Ä,ç,Ü,¹,ñ,ì,Å□A’□^Ó,μ,Ä%o^o,³,ç□B,³/₄,ç,¹/₂,çv=100~130, ,¹/₂,è,ÅŽg,α,ì,^a,ç
,ç,©,ÆŽv,í,ê,Ü,•□B

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(n:-127~127)

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(n:1~8)

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□” □f f|fNf^□[fu,ð,P%°° ,° ,é

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(n:0~4)

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(n:-127~127)

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(n:1~127,□È—ªŽž,í,P)

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(n:-24□`24)

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(n:6~255)

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(n:-127~+127)

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(h:-95~95,l:1~255)

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AL (Attack Level) 0~127

□@%º¹,ª-Ä,èŽn,β,éŽž,ì□A□Å□%º,ì%º¹-Ê,Å,·□B,e,í%º¹Ç¹,Å,í□í,É,O,Å,μ,½,ª□A,±
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‘í,Í‘S,^Ó-í,ðŽ□,ζ,Ü,¹,ñ□B

AR (Attack Rate) 0~95

%º¹,ª-Ä,èŽn,β,Ä,©,ç□A%º¹-Ê,ª’ ,“´,É‘B,·,é,Ü,Å,ìfXfs□[fh,Å,·□B95,ª□Å‘-Ä
,·,ª□A,±,ìfhf%ºfCfo,ìfGf“fxf□□[fv,í, ,Ü,è^Ú□s‘-“x,ª□,,È,ç,í,Å□AAR,í,¾
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Ü,·□B

DR (Decay Rate 1) 0~95

SL (Sustain Level 1) -127~127

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Ê,ðSL,»,ìÇ,□Š‘-“x,ðDR,ÅŽw‘è,μ,Ü,·□B,±,ì□”í,ð•%º
,É,·,é□ê□#□ATL,ð127+SL,ì‘í,É□Ý‘è,μ,ÄfAf^fbfN,ð□§ÇÊ,·,é•K-v,ª, ,è,Ü,·□B-
á,í,ÍSL=-4,ìŽž,ìTL=123^É%ºº,Ä,È,,Ä,í,È,è,Ü,¹,ñ□B

DRB (Decay Rate 2) 0~95

SLB (Sustain Level 2) -127~+127

□@,±,ì,Q,Ä,í,e,o,c“Á-L,ìŽw‘è,Å,·□B,±,è,íDR,SL,ª,à,α^è‘g, ,é,ÆŽv,Á,Ä
%ºº,³,ç□BSLB,ð•%º,É□Ý‘è,μ,½□ê□#□A^è“xÇ,□Š,μ,½
%º¹,ª□Ä,Ñ□ãÇü,«,É,È,è,Ü,·□B□@,Ü,½□ASLB=0,Æ,μ,½□ê□#,í□AfGf“fxf□□[fv□^—
□,í,r,q•”,É^Ú□s,¹, ,É□AfL□[fi,Ü,Å,»,ì,Ü,Ü□i•½□s^Ú“®□j,É,È,è,Ü,·□B

SR (Sustain Rate) 0~95

□ã,ì,R‘iŠK,ì^Ú□s,ª□í,í,Á,½Çä□A%º¹-Ê,í,O,ÉÇü,©,Á,ÄÇ,□Š,μ,Ä,ç,«,Ü,·,ª□A

,» ,lfXfs [fh, đŽw' è, μ, Ü, · BSR=0, Æ, μ, Ä, à · ½ s, É, Í, È, è, Ü, ¹, ñ B

RR (Release Rate) 0~95

fL [flft, μ, Ä, ©, ç, ì CE, Š, lfXfs [fh, Ä, · B' ^ Ó" , Æ, μ, Ä A
%o¹ · „, [fRf} f" fh" < x · „, ì [±, É · Ä, ñ, Ä, ç, ½ [ê [± ACE, Š %o¹, lfRf} f" fh, ì
%o Ó Š, Ä Á, ¡, Ä, μ, Ü, ç [AZÿ, ì < x · „, Ü, Ä, ç, ©, È, ç, Æ, ç, x Ž d—l, a, , è, Ü, · B %o ½, Æ, ©
%o¹ · „, [< x · „, [fRf} f" fh, Æ · Ä, Ô, æ, x, É, μ, Ä, ¾, ç B

TL (Total Level) 0~127

, ±, ê, í AfAf ^ fbfn · „, a [—¹, ·, é %o¹ — Ê, Ä A [i, Ü, Ä, `fRf} f" fh, Ä Ž w' è, μ, Ä, ç
, ½ [" ' l, Æ " , ¶ ^ Ó — i, Ä, · B' Ê [í u f Af ^ fbfn, í %o¹ — Ê, a 127, É, È, é, Ü, Ä' ±, [v, Æ, ç, x Ž d—
l, Ä, ·, a [ATL, đ Ž w' è, ·, ê, í A, » , ì %o¹ — Ê, É, È, Ä, ½ Ž Ž " , Ä f Af ^ fbfn · „, í [—
¹, μ Ž Ÿ, ì · „ a [iffBfPfc · „ [j, É ^ Ú s, μ, Ü, · B, ±, ì [" ' l, í [AZÿ, lfBfPfc · „, Ä X, É %o¹ —
Ê, đ [ã, °, ½, ç [ê [±, É Ž w' è, μ, Ü, · B, ç, í, ä, é, Q' i f Af ^ fbfn, ì, æ, x, È Š ' , ¶, a · \CE » [o—
^, Ü, · B

MR (Moving Rate) 0~12

DR, DRB, SR, É, æ, é ^ Ú " @ Ž Ž Š Ô, đ [A' · , -
, μ, Ü, · BMR=0, ì [ê [±, í A [i, Ü, Ä, Æ " , ¶, Ä, ·, a [AMR=1, È, ç [i, Ü, Ä, ì, Q" { [AMR=2, È, ç
[i, Ü, Ä, ì, S" { [E [E [E, Æ, ç, x, Ó, x, É ^ Ú " @ Ž Ž Š Ô, a' · „, È, Ä, Ä, ç
, «, Ü, · B, Ü, ½ [A [i, Ü, Ä, í SLB=0, ì Ž Ž, É, í %o¹, í %o „, Ñ' ±
, , Ü, μ, ½, a [AMR > 0, ì [ê [±, í DRB, Æ SLB, a < x, É 0, Ä, È, ç, Æ %o „, Ñ, Ä, Ä, , È, ç
, ì, Ä [A' ^ Ó, μ, Ä %o ², ³, ç [B — { — ^, È, ç [ADR, DRB, SR, ì Ž w' è " í í, Æ' P ^ Ê, đ · Ì, ¡, ê, Ì
%o đ CE ^ , ·, é, ì, Ä, ·, a [ACE Ÿ Š ·, ì — â' è, đ [l, ¡, Ä [A, ±, ì, æ, x, È · ú Ž ®, É, È, è, Ü, μ, ½ [B · ¶ —
@ " l, É, í [X, Ý, É, , ç · „ a, a, , è, Ü, ·, a [ACE ä — e Ž í %o ², ³, ç [B

, È, [AAR, DR, DRB, SR, RR, ì [— [— f CE [fg, Æ, Ä, , à, ì [A [" ' l, a' ä, «, ç, Ü, Ç ^ Ú s, í' —, -
, È, è, Ü, · B (ç, , , è, à [Ä' ä' l, a 95, Ä, ±, ì Ž Ž, a [Ä' —, É, È, è, Ü, · B [j

TL, MR, í [A Ver 2.1, Ä' Ç %o Ä, ³, ê, ½ f pf %o f [f ^ , Ä, · B %o¹ [F ft f @ f C f < " à, É, í, ±
, ì, Q, Ä, lf pf %o f [f ^ , í " o ~ ^ , ³, ê, Ä, ç, Ü, ¹, ñ B [— — ½ — ß, Ä %o¹ [F, đ · ì X, μ, ½ [ê [± [A, ±
, ì, Q, Ä, í [%o Š ú %o » , ³, ê, Ü, · B (TL=127, MR=0)

—á [j
E127,95,80,4,40,2,20,85,127,0
E110,93,40,2,1,0,0,85,127,0
, ±, ê, í, Q, Ä, Æ, à [A, ·, x, Ä, ì [" ' l, đ [Ý' è, ·, é — á, Ä, · B

, Ç, ì [" ' l, à [A [È — a, a %o Ä " \, Ä, · B [È —
a, ·, é, í, » , ì [" ' l, í · ì X, μ, Ü, ¹, ñ B, Ü, ½ [" Ž š, đ 10, Ä · Ä, x, , , É [A " r' t, Ä [l, í, é, ±, Æ, à %o Ä " \
, Ä, · B

—á [j
E127, , , , 0, , 70 AL=127, SLB=0, RR=70 , É [Ý' è [A, » , ê ^ È Š O, í · ì X, ¹, · B

E110,20 AL=110,AR=20 ,ÉŸ'è,μ,Ü,·B

“r't,©,ç”'lŸ'è,đs,α,±,Æ,à,Å,«,Ü,·B

—áj

EDR40,4 DR=40,SL=4 ,ÉŸ'è,μ,Ü,·B

ESR0 SR=0 ,ÉŸ'è,μ,Ü,·B

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” ,d,m,Ž %¹F•ÊfGf“fxf[fvCE`ó”Ôt,đŽw'è
(n:0~3,È—^aŽž,íffftfHf<fg,đ^Ó-i)

 ,±,lfhf%ofCfo,Å,íA%¹Fff[f^ - ^,ÉÅ,,SŽí—
p,lfgf“fxf[fv,ŸŸ'è,μ,Ä, ,è,Ü,·B,±,ì-½—β,É,æ,Á,ÄAfGf“fxf[fv,ì,α
,ç,ê,©,đ'l,ñ,ÅŸ'è,·,é,±,Æ,Ÿo—^,Ü,·BŠ®‘S,ÉŽv,ç'É,è,ìCE`ó,í,È,-
,Ä,àA[ã,ì,d-½—β,æ,è,í,í,é,©,ÉŠÈ'P,ÉŽg,ì,Ü,·B
,É,“A%¹F,É,æ,Á,Ä,í,Q` ,RŽí—p,μ,©€”ö,μ,Ä,ç,È,ç,±,Æ,^a ,è,Ü,·B-
çŸ'è,ì”Ôt,ŸŽw'è,³,ê,½Žž,íAfGf“fxf[fv,ì•X,đs,ç,Ü,¹,ñB
,Ž,đÈ—^a,μ,½é±,íA,O` ,R,ì,α,çAfffHf<fg”Ôt+i
%¹F•X,ìŽž,É'l,î,ê,éj,đŽw'è,μ,½,±,Æ,É,È,è,Ü,·B

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” ,emode,iv,l1,v1,l2,v2,¥¥,ln,vn,¥¥@il8,v8,Ü,ÅŽw'è%Å”\j@%¹
—Ê,,^Ú,đŸ'è

(mode:1~3,iv:-63~63,ln:%¹·Žw'è,Æ“ ,¶,vn:-63~+63)

” ,e,O %¹—Ê,,^Ú,đ'áŽ~

 @%¹—Ê,,^Ú,đŸ'è,μ,Ü,·B
 @,±,ê,íA,P,Ä,ì%¹•,“à,Å%¹—Ê,đã%⁰,·,é,½,β,ì-½—β,ÅAfGf“fxf[fv,ì—pŽ
—<@“\,Æ%⁰đŽβ,μ,Ä-á,ì,ê,î,ç,ç,ÆŽv,ç,Ü,·B,½,¾A,±,ç,ç,íîŠ´,đ•\CE»,μ,â,·,ç
,æ,α,Éì,Á,Ä, ,è,Ü,·B
 @-½—β,ìŠî- {“l,Èl,ì•û,íu,Ž•%¹•,¾, ,ìŽžŠÔ,đ,©, ,Ä%¹—Ê,đ,-ã,°i
%⁰,°j,é±v,Æ,ç,α§CEä,đ~A'±iíA'â,WCEÄ,Ü,Åj,μ,ÄŸ'è,μ,Ü,·Bfj<f^f“fg,ì
%¹—Ê”Å,Æ,àCE¾,ì,é,©,à'm,ê,Ü,¹,ñB

@Šefpf%of[f^ ,ì^Ó-i,đà-¾,μ,Ü,·B

mode: , ^ Úf, [fh, ì Ñ Ý' è
 @ E mode = 1, È, ç Ž Ÿ, ì, P % 1, 3/4, -, É, ^ Ú, ^, ©, ©, è, Ü, · B, ±, ì ê Ñ †, Í, » , ì, P
 % 1, ^ f L [f l f t, μ, 1/2 Ž Ž " _ , Á Ž © " ® " l, É, ^ Ú - 1/2 - β, í - 3 C E ø, É, È, è, Ü, · B
 @ E mode = 2, È, ç f L [f l f " - ^ , É " ^ , ¶, ^ Ú f p f ^ [f " , ^, ©, ©, è, Ü, · B, ±, ì ê Ñ †, í A, ^ Ú -
 1/2 - β, ð Ž ~ , β, é Ž Ž, É F 0, Á Ž ~ , β, é • K - v, ^ , è, Ü, · B
 @ E mode = 3, È, ç f L [f l f t A f L [f l f " , ð - 3 Ž < , μ, Ä, ^ Ú, ð C E p ' ± , μ, Ü, · B Ž w ' è , ^ , 1/2
 % 1 - Ê, ^ Ú, ^ I - 1, · , è, í A Ž Ÿ, ì f L [f l f " , ©, ç, ^ Ú - 1/2 - β, ^ - 3 C E ø, É, È, è, Ü, · B

iv: % Š ú % 1 - Ê i ñ ä C E ü, «, ^ 3 j
 @ @ f G f " f x f [f v, A E 3 • % , ^ t, È, ì, Á ' ^ Ó, μ, Ä % 0, 3, ç B
 @ @
 ln, vn: , Ž " Ô - Ú, ì % 1 ' , ^ Ú " ® % 1 - Ê
 @ , ±, ì, Q, Á, í u, C E ^ % 1 • , , ì ' , 3, Á, -, 3/4, - % 1 - Ê, ð ñ , ° , é v, A E, ç, x ^ Ó -
 ; , Á, · B, Q, Á f y f A, Á, P, Á, ì § C E ä, É, È, è, Ü, · B ñ i Á ' á, W % ñ, ì § C E ä, ^ o - ^ , Ü, · B
 @ ln, í A % 1 ' , Á, · B % 1 • , ' P ^ Ê, Á Ž w ' è, μ, Ü, · B • , " _ , È, Ç, à Ž g - p o -
 ^ , Ü, · B vn, í A ln, Á Ž w ' è, μ, 1/2 % 1 ' • Š Ô, É ' % Á, · , é % 1 - Ê, Á, · B f } f C f i f X, É, · , è, í % 1 -
 Ê, í C E , μ, Ü, · B

@ - á, ð Ž , μ, Ü, · B
 @ @ F 1, - 3, 2, - 2, 4, 0, 2, 2
 @ @ @ @ @ @ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
 Ž Ÿ, ì, P % 1, 3/4, -, Ö, ì Ž w ' è, Á, · B ' Ê í % 1 -
 Ê, æ, è, R - , ^ , ç ó ' Ó, Á f L [f l f " , μ A, » , ì C E ä, Q • ^ % 1 • , , ì Ž Ž Š Ô, ð, ©, -, Ä % 1 - Ê, ^ , Q
 % 0, ^ , è, Ü, · B, » , ì C E ä, S • ^ % 1 • , , ì Š Ô % 1 - Ê, í • ì % » , ^ , A, » , ì C E ä, Q • ^
 % 1 • , , ì Ž Ž Š Ô, ð, ©, -, Ä % 1 - Ê, ^ , Q ñ ä, ^ , è, Ü, · B

" g ü, Á, Ü, A E, β, Ä, , é, ì, ^ A, P % ñ, ì § C E ä, Á, · B, ±, ì ê Ñ †, í, R % ñ, ì § C E ä, ð s, È, Á, Ä, ç
 , Ü, · , ^ A, ±, è, ^ Á ' á, W % ñ, Ü, Á Ž w ' è o - ^ , é, í, -, Á, · B, È, " A " % 1 ' t, É, ±
 , ì f R f } f " f h, É, æ, é § C E ä, ^ I, Á, 1/2 ê Ñ †, í A f L [f l f t, Ü, Á, » , ì, Ü, Ü, ì % 1 - Ê, ^ ±, «, Ü, · B

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" , ` , Ž f G f " f x f [f v, ì f A f ^ f b f N ' 2 @
(n: 32 ~ 127)

f G f " f x f [f v, ì f A f ^ f b f N • " , í A ' Ê í, í 127, Ü, Á ñ ä , , μ, Ü, · , ^ A, ±
 , ì f R f } f " f h, Á, » , ì ñ ä C E Ä, ð Ž w ' è, · , é, ±
 , A E, ^ , Á, «, Ü, · B A L, æ, è, à ' á, ç " " l, ð Ž w ' è, μ, 1/2 ê Ñ †, í A, ±, ç, ^ - D æ, A E, È, è, Ü, · B
 , ±, ì f R f } f " f h, Á f A f ^ f b f N, ð - } , !, Ä, " , - , í A f f f B f P f C • " , Á X, É % 1 - Ê, ð ñ , ° , é, ±, A E, ^
 % Á " \, Á, · B, Q ' ì f A f ^ f b f N, ì, æ, x, É Š ' Š o, Á Ž g, !, í • Ö - ~ , È, ±, A E, à, , è, Ü, · B

,±,lfRf}f“fh,í□AETL,Æ,Ù,Ú“~,¶^Ó-¡,É,È,è,Û,·□BCEÝŠ·,ì-
â“è□ãžc,μ,Û,μ,½,ª□A,É,é,x,ETL,ì•û,đžg,Á,Ä',,¯,é,æ,x□A,“Šè,ç,μ,Û,·□B

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□” ,g,ž fAf^fbfN□È—ªftf%ofO,ì□Ý'è
(n:0~1)

□@FPD,Å—p^Ó,·,é,o,b,lftf@fCf<,í□A□ufAf^fbfN•”□{f<□[fv•”□v,Æ,ç,x□\
□¬,É,È,Á,Ä,ç,Û,·,ª□A<È'²,É,æ,Á,Ä,ÍfAf^fbfN,đ”□º,¹,·,É□Af<□[fv•”,ì%º¹,ì,Ý,đžg—
p,μ,½,ç□ê□†,ª, ,è,Û,·□B

,±,lfRf}f“fh,Ån=1,đžw'è,·,ê,ÍfAf^fbfN,đ”□º,¹,·,Éf<□[fv•”,ì,Ý,đ”□º,μ,Û,·□B,±
,ì□ê□†fvf`fmfCfY,ª-Ä,è,â,·,·,É,é,ì,Å□AfGf“fx□□□[fv,ìAL,đ'½□'á,ß,É,μ,Äžg,Á,Ä
%ºº,³,ç□Bn=0,Æžw'è,·,ê,ÍfAf^fbfN,đ”□º,·,é,æ,x,É,È,è,Û,·□B

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□” □“,ž %%%'tfXfCfbf` ,ì□Ø,è'Ö,¡
(n:0~1)

%%%'tfXfCfbf` ,ìžw'è□^□Ø,è'Ö,¡,đ□s,ç,Û,·□B
'É□í,í%0,É□Ý'è,³,ê,Ä,ç,Û,·,ª□A%1,đžw'è,·,é,Æ□A,»,ìfp□[fg,Å,í,»,ê^È□~□u
%º¹•,„□v□u<x•,„□v,lfRf“fpfCf<,đfXfLfbfv,·,é,æ,x,É,È,è,Û,·□B
%0,đCE©,Å,¯,½žž“_,ÅCE³,ì□Ý'è,É-ß,è,Û,·□B,Û,½□A,ž,ìžw'è,đ□È—
ª,·,é,Æ□A□Ø,è'Ö,¡,đ^Ó-¡,μ,Û,·□B
<È,ìŠJ”“r't,É□u<È,đ“r't,©,ç-Ä,ç,μ,½,ç□v,±,Æ,í,æ,, ,é~b,Å,·,ª□A,±
,lfRf}f“fh,í□A,»,x,ç,çžž,É“r't,ì%ºº't,đfXfLfbfv,³,¹,é,±,Æ,ª□o—^,Û,·□B

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□” □^□- fp□[fg•È'□žB•¶ŠJžn
□” □-□^ fp□[fg•È'□žB•¶,ì□l—¹

,±,ê,í□A,bCE¾4CEê,ì'□žB•¶,Æ'S,“~,¶,Å□Afp□[fg•È,É□ì“® ,μ,Û,·□B
/* ,Æ */ ,É<²,Û,ê,½•”•ª,đ'□žB,Æ,Ý,È,μ,Û,·□B'□žB•¶'t,É%ºü□s,ª, ,Á,Ä,à□A*/
,đCE©,Å,¯,é,Û,Å'□žB,ª±,«,Û,·□B */

,^aÅĀĒã,Ü,ÅĒ©,Â,©,ç,È,̄,ê,ÎÅ,»\,fp[fg,Í,»,±,Å'Å,¿∅,è,Ü,·,Ì,ÅÅ/*
,¾,̄,đŽg,!,ÎÅu,»\,fp[fg,lfRf"fpCf<,đ∣—¹v,Æ,ç,αŽg,ç•û,à∣—[^],Ü,·B

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□" ,— "¼f`fff"flf<,©,ç,ì"~Šú□M□t,đ'Ò,Â
□" ," "¼f`fff"flf<,É"~Šú□M□t,đ'—,é
□i," ,lf`fff"flf<Žw'è•û-@,Í%^o—",Å□à-¾□j

,—fRf}f"fh,Æ,"fRf}f"fh,ÍÅ'Î,É,μ,ÄŽg,Í,ê,Ü,·□B
,Ü,·□A, ,éfp[fg,Å,—fRf}f"fh,^a, ,é,Æ□A,»\,žž"_,Å,»\,fp[fg,ì%
%o't,đ^êŽž'âŽ~ ,μ,Ü,·□B,»\,μ,Å□A'¼,lf`fff"flf<,©,ç,"fRf}f"fh,É,æ,Å,Ä□±□},^a—
,ç,ê,Ä—[^],½,È,ç□A%o%o't,đ□ÄŠj,μ,Ü,·□B,±,ì<@"\\,žžã,ÈŽg,ç,Ý,¿,Å,·,^a□A—á,!,Î

A l8 [a>a<]4 [d>d<]4 [g>g<]4 [c>c<]4 [f>f<]4
B [r1]4 a4b8>c8c4<a8>c8....

,ì,æ,α,È%o%o't,đ,³,¹,½,ç,Æ,μ,Ü,·□B,±,ê,ÍÅ,`fp[fg,^a[f>f<]4 ,đ%
%o't,·,é,Æ"~Žž,É□A,afp[fg,ì a4b8>... ,đ%o%o't,³,¹,½,ç•\<L,Å,·,^a□A,±
,ìŽž,É,`fp[fg,ì%o%o't,^a[f>f<]4 ,ì
%oÓ□Š,É□i,p,Ü,Å□A,afp[fg,Í<x•,,,đ"ü,ê,Ä'Ò,½,È,̄,ê,Î,È,è,Ü,¹,ñ□B,±,ì—
á,Å,Í[r1]4 ,Å,·,ñ,Å,ç,Ü,·,^a□A'·,ç<È,É,È,é,Æ"ü,ê,é<x•,,,ì·,³,đ,©,¼,!,é,¾,̄,Å-Ê"|
,É,È,Å,Ä,« ,Ü,·□B
,»,±,Å□A,±,ì"~ŠúfRf}f"fh,^a—LĒ∅,É,È,Å,Ä,« ,Ü,·□B

A l8 [a>a<]4 [d>d<]4 [g>g<]4 [c>c<]4 sB [f>f<]4
B w a4b8>c8.....

,±,ê,Å□A□ã,Æ"~ ,¶%o%o't,É,È,è,Ü,·□B
,afp[fg,Í,—fRf}f"fh,^a, ,è,Ü,·,Ì,Å□A□Å%o,É"~Šú'Ò,¿□ó'Ô,É,È,è,Ü,·□B,`fp[fg,ì
%o%o't,^a□i,p,Æ sB ,É,æ,è"~Šú□M□t,^a,`fp[fg,©,ç,afp[fg,É'—,ç,ê□A,afp[fg,Í
%o%o't,đ□ÄŠj,μ,Ü,·□B

, "fRf}f"fh,ì•¶-@,đ□à-¾,μ,Ü,·□B
-}—á)

- 1) sA □]—[^]Ê,è□AAfp[fg,É□M□t,đ'—,è,Ü,·□B
- 2) s0A □ã,Æ'S,"~ ,¶[^]Ó-¡,Å,·□B
- 3) s2C 2Cfp[fg,É□M□t,đ'—,è,Ü,·□B
- 4) s? A~Pfp[fg,É□M□t,đ'—,è,Ü,·□B
- 5) s2? 2A~2Pfp[fg,É□M□t,đ'—,è,Ü,·□B
- 6) s"1G2AF" 1G,2A,Ffp[fg,É□M□t,đ'—,è,Ü,·□B

1., í□A'¼Œã,Éfp□[fg-¼,đ,Â,¯,Ä□A"C^Ó,ì,Pf`fff"flf<,É□M□t,đ'—,è,Ü,·□Bfp□[fg-¼,í'â•¶Žš,Å,à□→•¶Žš,Å,à"¯,¶^Ó-; ,É,È,è,Ü,·□B□isA,Æsa,í"¯,¶□j □□M□t,đ•;□",ìfp□[fg,É'—,è,½,ç□ê□‡,Í4.^È□~ ,ì•\<L,ª•Ö—~ ,Å,·□B

□@Œë,Á,½Žg,ç•û,ì—á,đ□à-¾,μ,Ü,·□B

—á,P□j

A sB a4a4

B c4 w

,±,ê,í□A,—fRf}f"fh,ª,"fRf}f"fh,æ,èŒã,è,ÉŽg,í,ê,Ä,ç,é,ì,ÁfGf

%o□[,É,È,è,Ü,·□B,—fRf}f"fh,í□A•K, , 'í%ž,·,é,"fRf}f"fh,ì'O,ÉŽg—p,μ,Ä%oº,³,ç□B

—á,Q□j

A [a4a4 sB]3

B f1 w

,±,ì—á,ì,æ,π,É□Af<□[fv"à,É,"fRf}f"fh,đŽg,π,±,Æ,í□o—^ ,Ü,¹,ñ□B,—,à"¯— l,Å,·□B

—á,R□j

A

B w

,—fRf}f"fh,É,í•K, , 'í%ž,·,é,"fRf}f"fh,ª•K—v,Å,·□B,È,¯,ê,îfGf

%o□[,Æ,È,è,Ü,·□B<t,É□A,"fRf}f"fh,É'í%ž,·,é,—fRf}f"fh,ª,É,ç□ê□‡,íGf

%o□[,É,í,È,è,Ü,¹,ñ□B

'¼,É□A,—,Å,ì'Ò,¿ŽžŠÔ,ª, ,Ü,è,É'·,ç,Æ□^—□,μ,«,ê, ,ÉfGf%o□[,ª,Å,Ü,·□B

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□" ,Ž,Ž %o¹'ö,đ□"'l,Åžw'è,·,é□i,Ž,Ž,í,P,Â,β,ªfRf}f"fh□A,Q,Â,β,ª□"'l,Æ,ç,π ,±,Æ,Å,·□j (n:0~95)

%o¹'ö,í'Ê□í□A,□□` ,‡,ÆflfNf^□[fuŒnfRf}f"fh,Åžw'è,μ,Ü,·,ª□A,ŽfRf}f"fh,Å'¼□ÚŽ w'è,·,é,±,Æ,à,Å,« ,Ü,·□B

n0 ,È,ç o1c, n1,È,ç o1c+ ¥¥¥¥ n95 ,È,ç o8b□@,Æ,ç,π'í%ž,É,È,Á,Ä,ç,Ü,·□B %o¹'·,đžw'è,·,é□ê□‡,í□A, , Å<æ□Ø,Á,Äžw'è,μ,Ä%oº,³,ç□B

—á□j

n48,4 o4c4 ,Æ"¯,¶^Ó-; ,Å,·

n52 o4e□@,Æ"¯,¶^Ó-; ,Å,·

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□” ,j,ž Ć®”Ō%‰‰‘tžž,ÉŽg—p,·,éĆ®”Ō,đžw’è,·,é
(n:0~16)

,±,ì-½—β,í□A%‰‰‘t,É,í’S,ŠÖĈW,^a, ,è,Ü,¹,ñ□B
FVIEW,Ā,ìĆ®”Ō%‰‰‘t,đ□s,È,αžž,É□A,±,ì-½—
β,^a, ,é,Æ□A^ÈĈă,»,ìf`fff“flf<,ížw’è,³,è,½Ć®”Ō,đžg—p□i,Ā,Ü,è□ŌŠŪ,đ•\
Ž!□j,μ,Ü,·□Bn=0,È,ç^ê”Ō□ă,ìĆ®”Ō,Ā□An=16,Ā^ê”Ō%‰‰,ìĆ®”Ō,đžg—p,·,é,±
,Æ,É,È,è,Ü,·□B
%‰‰‘t’t,É•ĭ□X,·,é,±,Æ,à‰‰Ā”\,Ā,·,^a□A•ĭ□X,í•K, ,fL□[flft’t,É□s,È,α,æ,α,É,μ,Ā
%‰‰,³,φ□B

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□” ,m Ć®”Ō%‰‰‘tžž,ÉĆ®”Ō‰‰E,É•\Ž!,³,é,é•ŋžš,đ□Y’è,·,é

FVIEW,Ā,ìĆ®”Ō%‰‰‘tžž,É□AĆ®”Ō‰‰E,ìf□f,—“ ,É•\
Ž!,·,é□fbfZ□[fW,đ□Y’è,μ,Ü,·□B,m,ìĈă,É’±, ,Ā•ŋžš—ñ,đ•\<L□A",Ü,½,í
%‰‰s,ĀfGf“fhf}□[fN,Æ,μ,Ü,·□B
%‰‰½’i—U,ìf□f,,đ□Y’è,·,é,©,í□A,j,Āžw’è,³,è,½Ć®”Ō”Ō□t,É^È,é,ì,Ā□A,±,ì-½—
β,í,j-½—β,ìĈă,ÉŽg,í,è,é•K—v,^a, ,è□A,Ü,½•K, ,□u□Ā□%‰,ì<x•,,Ü,½,í
%‰‰•,,ì’O□v,ÉŽg—p,μ,Ā%‰‰,³,φ□B,PfXfefbfv,Ā,à‰‰
%‰‰‘t,^a□s,í,è,½Ĉă,í□A□Y’è,μ,Ā,à•\Ž!,³,è,Ü,¹,ñ□B
•i□”f`fff“flf<,Ā,P,Ā,ìĆ®”Ō,đžg—
p,·,éžž,í□A,Ç,è,©,P,Ā,ìf`fff“flf<,Āf□f,,đ□Y’è,·,é,îž-‘«è,Ü,·□B,Ü,½□Af□f,í”¼Šp17
•ŋžš,Ü,Ā,μ,©•\Ž!,Ā,«è,Ü,¹,ñ□B

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□” □”,ž Šef`fff“flf<,ìfGftfFfNfgfOf<□[fv,đžw’è,·,é
(n:0~1)

□@,»,ìf`fff“flf<,^aÇ,ìfGftfFfNfgfOf<□[fv□i,O”Ō,Æ,P”Ō,^a, ,é□j,É’® ,·,é,©,đžw’è,μ,Ü,
·□B<È,ì“r’t,Ā,ì•ĭ□X,à‰‰Ā”\,Ā,·□B
□@FPD,ìfGftfFfNf^Ĉn,í□A□^—□’—“x,ìŠÖĈW□ă□Af`fff“flf<-

í,É,È,è,Ü,·□i“-‘R□^—□,Í—Ž,ž,Ü,·□j□D
□@,È,“□A□^—□’¬“x,í□A,f,ì□u%°¹,ìÆú,Ý□v,ì□‡Æv,É□[,ŠÖÆW,ª, ,è,Ü,·□B,Å,·,ì,Å

A #C0,1,-1,100,4,1 #C1,1,-1,90,2,2

A #C0,1,-1,100,6,2

□@,±,ì,Q,Â,ìŠ|,·•û,Å,í□A’¬“x,í, ,Ü,è•İ,í,ç,È,ç,í,¬,Å,·□BŽÀÆ±,Å,í‘OŽÒ,ì•û,ª%°¹,ª
—Ç,,È,é,æ,κ,È,ì,Å□AÆú,Ý,đÆ, ,ç,μ,Ä,Q,ÂŽg,κ,Ù,κ,ª,ç,ç,æ,κ,Å,·□B

[EOF]

fefNfjff<f}fjf...fAf<

□@FPD97ŠJ”ŠÖŒWŽÒ,ì,½,ß,±,ì□€-Ú,đ—p^Ó,μ,Ä, ,è,Ü,·□D,»ì,½,ß□C-
ÚŽŸ,ì•û,©,ç,±,ì□€-Ú,Ö,ìfŠf“fN,í’£,ç,ê,Ä,ç,Ü,¹ñ□D

1.FPD,ìŽd—l

FPD, ěžd—l

□@, ±, ěfhfLf... f□f“fg, Ā, í□A%oo%o’tftf@fCf<, ěžd—l, đžâ, é□à-¾, μ, Ā, ç, «, Ü, ·□B□ì□—“—
Žž, í, đ, ½, ·, ç□ì, Ā, Ā, ç, ½, à, Ì, Ā, ·, ¢□ACEã, ©, çCE©, Ā, Ý, é, ĀE, È, ©, È, ©, â, â, ±, μ, □A□\‘ç
, ì□à-¾, à”» , è, É, ,, È, é•”•ª, í□A’½□X, , é, ĀEžv, ç
, Ü, ·, ¢□A□ĀCEã, Ü, Ā, “•t, «□ž, ç’ , , , ê, î□K, ç, Ā, ·□B

^È%oo, ì“ _ , É’□^Ó, μ, Ā%oo, ¾, ç□B

□@□E□f□□□fh□Af_fuf<f□□□fh, Ìšì”[, í□A’S, Ā%oo^Ê, ©, çŠì”[, ¾, ê, Ü, ·□B
□@□E%oo%o’tftf@fCf<“à, Ā, ěfłtfZfbfg□E□fZfOf□f“fg, í□A%oo
%o’tftf@fCf<, ì□æ“ª, đ0, ĀE, μ, Ā□’, ©, ê, Ā, ç, Ü, ·□B
□@□E□”“l, í□A’Á, É’f, è, ¢, È, ^ , ê, î10□i□” , Ā□ACEã, è, É h
, ¢ , ê, î16□i□” , ĀE, μ, Ü, ·□B, ½, ¾, μ□A□fZfOf□f“fg□E□fłtfZfbfg, ĀE, μ, Ā□’, ©, ê, Ā, ç
, é□ê□ž, í□A’S, Ā16□i□” , Ā, ·□B
□@□E%oo^’ , É—p, ·, é, à, Ì, í□A’S, ĀfXfjefbfv’P^Ê, Ā, ·□B□u□`•ª%oo^’ , P^Ê□v, Ā, í, È, ç
, Ì, Ā’□^Ó, μ, Ā%oo, ¾, ç□B
□@□E%oo%o’tff□[f^ , ¢Šì”[, ¾, ê, Ā, ç, éfZfOf□f“fg-¾, đ MSeg
, ĀE•\<L, ·, é□ê□ž, ¢ , è, Ü, ·□B

□”□@, P□D%oo%o’tftf@fCf<, ì□\□—

□@, Ü, ·□A%oo%o’tftf@fCf<“à, É□A, Ç, x, ç, Ā, ½ff□[f^ , ¢ , é, Ì, ©, đ^ê’É, è□à-¾, μ, Ü, ·□B
□@, È, “□A, ±, ì□í, Ā, ì□à-¾, í□AŠì”[□ž, Ā, í, È, □A”» , è, â, ·, ç, ĀEžv, í, è, é□ž”Ô, Ā□s, ç, Ü, ·□B

□@□E□f□w□bf_•” Ž^-Ê, h, c, âŠe□î•ň, Ìšì”[□ê□Š, È, Ç, ¢“ü, Ā, Ā, ç, Ü, ·□B
□@□E%oo%o’tff□[f^•” Šef`fff“fłf<, ì□AŽĀ□Ú, Ì%oo%o’tff□[f^ , Ā, ·□B
□@□E%oo%o’tff□[f^fe□[fuf< Šef`fff“fłf<, Ì%oo
%o’tff□[f^ , ¢□A, » , ê, ¼, ê, Ç, Ì”Ô’n, ©, çŽn, Ü, é, ©, đžl, μ, ½fe□[fuf<, Ā, ·□B
□@□E%oo^□F’è<`•” □u%oo^□F”Ô□†□Cftf@fCf<-
¼□v, ¢, P□fZfbfg, É, È, Ā, Ā□A, P, Ā, Ì, o, b, l, ¢’è<` , ¾, ê, Ü, ·□B, ±, ěfZfbfg, ¢□Ažg—p
%oo^□F□” , ¾, ^ , Ā, ñ, Ā, ç, Ü, ·□B
□@□E%oo^□Ffe□[fuf< □ã, Ì%oo^□F’è<`•”“à, Ā□A, Ç, Ì%oo^□F’è<` , ¢, Ç, ±, ÉŠì”[, ¾, ê, Ā, ç
, é, ©, ¢fe□[fuf<, É, È, Ā, Ā, ç, Ü, ·□B
□@□E□f^fCf□g< <È, ěf^fCf□g<, Ā, ·□B
□@□E□E®”Ô•\žì^Ê’u Še%oo^□F”Ô□†, ÉŠÖ, μ, Ā□A, » , Ì%oo^ , đžg—p, μ, Ā, ç

,éžž,ÉĈ®"Ō,ì\Ž!^Ê'u,đ<□\$,·,é,©□A,Ü,½<□\$,·,é,È,ç,Ç,±,É•\
Ž!,³,ê,é,©,đŽw'è,μ,Ü,·□B%¹□F,Í0~255,Ü,ĀŽg—p%Ā"\,È,ì,Ā□AĈ®"Ō•\
Ž!^Ê'u,í256fofCfg,Ā□□¬,³,ê,Ü,·□B

□"□@,Q□Dfwfbf_•",ì□□¬

□@%º%º'tftf@fCf<,ì□Ā□%º,ì16fofCfg,í□A%º%º'tftf@fCf<'S'ì,ì•K—
v□î•ñ,ªŠi"[,³,ê,Ā,ç,Ü,·□B^È%ºº,É□\`ç,đŽ!,μ,Ü,·□B

□@□@0 ~ 3 : ffwfbf_'FPDM'
,±,ìftf@fCf<,ª□A,e,o,c—p,ì%º%º'tftf@fCf<,Ā, ,é,±,Æ,đŽ!,·ID,ªŠi"[,³,ê,Ā,ç,
Ü,·□B•¶Žš—ñ FPDM ,ª□Ā□%º,ì,SfofCfg,É, ,ê,ì,e,o,c,í,»,ìftf@fCf<,đ%
%º'tftf@fCf<,Æ,Ý,È,μ,Ü,·□B

□@□@4 : □%ºŠúŠî-{'
,ĈfRf}f"fh,Ā□Ý'è,·,é□uŠî-{'·□v,ì□%ºŠú'ì,ªŠi"[,³,ê,Ü,·□B

□@□@5 ~ 6 : □%ºŠú%º%º't'—"x
fef"f|,đ□A,PfXfefbfv, ,½,è,ìžžŠŌ,ÉŠ·ŽZ,μ,½□A%º
%º't'—"x'ì,ªŠi"[,³,ê,Ü,·□BžžŠŌ,ì'P^Ê,í□un/2760•b□v,Ā,·□B,PfXfefbfv,ª%º½•ª
%º¹•,,Ā, ,é,©,í□A,ì,l,k't,ì□u'S%º¹•,,ì',³□v,É,æ,Ā,Ā,ì,Ý'm,é,±,Æ,ª%ºĀ"\,Ā,·,ª□A
%º%º'tftf@fCf<'t,É,»,ìff□f^,í, ,è,Ü,¹,ñ□B□],Ā,Ā%º%º'tftf@fCf<,¾,¯,Ā,í□A%º
%º't'—"x,đfef"f|'ì,ÉŠ·ŽZ,·,é,ì,í□A•s%ºĀ"\,Æ,ç,α,±,Æ,É,È,è,Ü,·□BfXfefbfv,É,Ā,ç,
,Ā,ìžŸ□í,ĀŠÈ'P,É□à-¾,μ,Ā, ,è,Ü,·□B

□@□@7 ~ 8 : %º¹□Ffe□[fuf<š]ŽnflftfZfbfg
,e,o,c,ì%º%º'tftf@fCf<"à,É,í□A□u,ç,ìftf@fCf<-¼,ì,o,b,l,đ□A□@%º¹□F"Ō□†
%º½"Ō,ÉŠ,,è"—,Ā,Āf□□[fh,·,é,©□v,Æ,ç,α□î•ñ,ª□AŽg—p%º¹□F□",¾,¯,ªŠi"[,³,ê,Ā,ç,
Ü,·□B,±,±,É,í□A,»,ì%º¹□F□î•ñ,ì□A□æ"ª"Ō'n,ª"ü,è,Ü,·□B,Ü,½□A
%º¹□Ffe□[fuf<,í□A•K, ,□uŠef`fff"flf<,ìš]Žn□êš□v,ì'¼ĈĀ,É'u,•K—v,ª, ,è,Ü,·□B
□@□@9 : ,o,b,l'è`□"

,ufp□[fg,É,æ,é,o,b,l%º¹□F'è` ,ª□A,ç,,Ā, ,é,©,đŽ!,μ,Ü,·□B

□@□@A : f□f,šŸ^fCfv
Šef`fff"flf<,ìš]Žn□êš□,ª□A,ç,α,ç,α'P^Ê,ĀŠi"[,³,ê,Ā,ç,é,©,đŽ!,μ,Ü,·□B
0ffh = %º%º'tftf@fCf<,ì□æ"ª,©,ç,ìflftfZfbfg,ĀŠi"[
80h = %º%º'tftf@fCf<,ì□æ"ª,©,ç,ìfZfOf□f"fg,ĀŠi"[
FCMP,Ā□□¬,³,ê,½%º%º'tftf@fCf<,í0ffh,ª□AMID2FM,Ā□□¬,³,ê,½%º
%º'tftf@fCf<,í80h,ª"ü,Ā,Ā,ç,Ü,·□B□iVer2.05Ĉ»□Ý□j0ffh,ĀŽ!,³,ê,Ā,ç,é□ê□#□A%º
%º'tftf@fCf<,í64k,đ%ºz,ì,é,±,Æ,í□o—^,Ü,¹,ñ□B

□@□@B ~ C : f^fCfjgkŠi" [flftfZfbfg
 <È,lf^fCfjgk,Ši" [,³,ê,Ä,ç,é□ê□Š,đŽ!,μ,Ü,·□Bf^fCfjgk,Š'è<` ,³,ê,Ä,ç
 ,È,ç□ê□Š,Í□A0ffffh,Š"ü,è,Ü,·□B
 □@□@D ~ E : CE®"Ö•Ž!^Ê'uŠi" [flftfZfbfg
 fhf%of€—p,É□ACE®"Ö•Ž!^Ê'u,đCEÁ'è,·,é<@"\,Á,·□B,±,±,É,Í□AŠe%o¹□F,É
 %ož,¶,½□ê□Šff□[f^,ìŠi"["Ô'n,Š"ü,è,Ü,·□B□ê□Šff□[f^,Š,È,ç□ê□Š,Í□A0ffffh,Š"ü,è,Ü
 ,·□B
 □@□@F : -çŽg—p
 CE»□Ý,Á,Í□A0ffh,đ"ü,ê,Ä," ,« ,Ü,·□B

□"□@,R□D%o%o'tff□[f^fe□[fuf<,l□\□¬

□@□@+10h,©,ç,Í□AŠef`fff"flf<,l%o%o'tff□[f^,Ši" [,³,ê,Ä,ç
 ,é□ê□Š,Š"žŽŠi" [,³,ê,Ü,·□B<i'ì"l,É,ÍŽŸ,ì,æ,α,É,È,Á,Ä,ç,Ü,·□B

- 10h~11h: ,`f`fff"flf<,l%o%o'tff□[f^,ìŠJŽn□ê□Š
- 12h~13h: ,af`fff"flf<,l%o%o'tff□[f^,ìŠJŽn□ê□Š
- 14h~15h: ,bf`fff"flf<,l%o%o'tff□[f^,ìŠJŽn□ê□Š
- 16h~17h: ,cf`fff"flf<,l%o%o'tff□[f^,ìŠJŽn□ê□Š

□E
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□@□@,±,ìfe□[fuf<,Í□A%o¹□Ffe□[fuf<ŠJŽn"Ô'n,Ü,Á'±,« ,Ü,·□B□],Á,Ä□A
 %o¹□Ffe□[fuf<,Í,±,ì%o%o'tff□[f^fe□[fuf<,l¼CEă,É,È,,Ä,Í,È,è,Ü,¹,ñ□B

□@□@ŠJŽn□ê□Š,É-1 (=0ffffh),Ši" [,³,ê,Ä,ç,½□ê□Š□A,» ,ê,Íff□[f^,Š,È,ç,±,Æ,đ•\
 ,μ,» ,lf`fff"flf<,l%o%o't,³,ê,Ü,¹,ñ□B

□@□@□uŠJŽn□ê□Š□v,ì'P^Ê,Á,·,Š□A,±
 ,ì'P^Ê,Íf□f,fŠf^fCfv□ifwfbf_,l0Ah,ÉŠi" [□j,É,æ,Á,Ä^Ù,È,è,Ü,·□Bfwfbf_·",l□à-
 ¾,Á,à□',« ,Ü,μ,½,Š□A

□@□@□E□f□f,fŠf^fCfv=0ffh,ì□ê□Š
 □@□@□@,±,ì□ê□Š,Í□AŠef`fff"flf<,ìŠJŽn□ê□Š,ÍflftfZfbfg,đ^Ó-j,μ,Ü,·□B□]
 ,Á,Ä□AZÀ□Ü,lf□[f^ŠJŽn^Ê'u,Í□uMSeg:ŠJŽn□ê□Š□v,Æ,È,è,Ü,·□B,±,ì□ê□Š□A%o
 %o'tff□[f^,Í64k,đ%oz,!,é,±,Æ,Í□o—^,Ü,¹,ñ□BFCMP.EXE,Á□ì□¬,³,ê,½%o

%'tff[f^,íA,±,lf,fšf^fCfv,đŽg—p,μ,Ä,ç,Ü,·B
@E[f,fšf^fCfv=80h,ìê±
@@@,±,ìê±,íAšef`fff`flf<,ìŠŽnêš,ífZfOf`fg,đ^Ó-í,μ,Ü,·B
,Á,ÄAZÀÛ,ìff[f^ŠŽn^Ê'u,íuMseg+ŠŽn^Ê'u:0v,Æ,È,è,Ü,·B,±
,ìê±Ašef`fff`flf<,ìæ“^Ê'u,ífpf%Of%oft'P^Ê,Á,È,-
,Ä,í,È,è,Ü,¹,ñBMID2FM.EXE,Áì-³,ê,½%%'tff[f^,íA,±,lf,fšf^fCfv,đŽg
—p,μ,Ä,ç,Ü,·B

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EN2 78h,12h
EN3 78h,13h
EN 78h,14h

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$$w = ZLEN * 2 / l$$

$$v = ( 2^(28+h/12) - 10000000h ) / ( ZLEN / l )$$

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¾,¾,è,Ä,ç,éŽ-•ç,¾, -,Á□ì□-□o—^,é,ÆŽv,ç,Ü,·□B

□@□@“à•”fAf<fSfŠfYf€,ð□à-¾,μ,¾,·,Æ□A□u%½CEì%  
%‘t’-“x,ìP^Ê,<sup>a</sup>1/2760•b,È,ì,©□v□ufGf“fxf□□[fv,ì□^—□□v□ufxf“fh,<sup>a</sup>Žü”g□”,ÉŠÖ  
—^,·,éŽž,ìŽ®□v,È,Ç□A<É,ß,Ä,â,â,±,μ,çŽ-□€,É~b,<sup>a</sup>y,Ñ,Ü,·□B  
□@□@—v-],<sup>a</sup>, ,ê,Í□A,»,ì,α,çCEöŠj,·,é,©,à,μ,ê,Ü,<sup>1</sup>,ñ□B,±,ê,Í”é-šŽâ<`,Á,Í,È,-  
,Ä□A’P,ÉfhfLf...f□f“fg,ð□’,ì,<sup>a</sup>ß,ñ,Ç,,<sup>3</sup>,ç,ì,Á□A,±,α,ç  
,αCE¾,ç•û,É,È,é,í,-,Á,·□B(^ ^;

□@□@,±,ìfhfLf...f□f“fg,ð“Ç,Ü,ê,Ä□u,±,±,Í”»,è,É,,ç□v□u,±,α,ç,α□î•ñ,à•K—  
v,¾□v□u,±,±,ÍŠÔ^á,ç,Á,Í,È,ç,©□v,Æ,ç,α^ÓCE©,<sup>a</sup>, ,è,Ü,μ,½,ç□A□¥”ñ,“Šñ,<sup>1</sup>  
%□<sup>2</sup>,<sup>3</sup>,ç□B

**□”□@,P,O□D’~ìCE □E□\$□ìŽÒ□Eftf|□[fg**

□@□E,±,ìfhfLf...f□f“fg<y,Ñ<L□Ú,<sup>3</sup>,è,½%□%‘tff□[f^,ìŽd—l,ì~ìCE ,Í□AŽ,,□A“j^ä□G  
Ž÷□i,l,j,q□j,<sup>a</sup>•ÛŽ□,μ,Ü,·□B

□@□E,±,ìfhfLf...f□f“fg,ð—~—p,μ,Ä□ì□-,<sup>3</sup>,è,½fAfvfŠfP□[fvf#f“,É,Á,ç,Ä,Í□AŽ©—  
R,É”z•z“™,ð□s,È,Á,Ä□\,ç,Ü,<sup>1</sup>,ñ□B,Ü,½□A,»,ìfAfvfŠfP□[fvf#f“,É,Á,ç,ÄŽ,,<sup>a</sup>CE —  
~,ðŽâ’£,·,é,±,Æ,Í^ê□Ø, ,è,Ü,<sup>1</sup>,ñ□B





## fRf“fpfCf<Žž,ì□o—Íf□fbfZ□[fW

□”,Ü,□CŽÀ□Ù,ÉfRf“fpfCf<,μ,½Žž,ìf□fbfZ□[fW,δ^È%º,ÉŽ!,μ,Ü,□D  
□ifXfy□[fX,ì“s□#,ÁŽÀ□Ù,ì□o—Í,Æ%ºü□s^Ê'u,ª^Ù,È,Á,Ä,ç,Ü,□j

### ----- **FPD Music Marco Language Compiler.. (Filename)**

**Set \$ Part .... 0 Macro is defined.**

**Set V part .... 6 Voice setting.**

**Fin. 0A Part - Step 2880 ( 0)**

**Fin. 0B Part - Step 2884 ( 0)**

**Fin. 0C Part - Step 2880 ( 0)**

**Fin. 0D Part - Step 2880 ( 0)**

**Fin. 0E Part - Step unknown,w is found.**

**Fin. 0F Part - Step unknown,w is found.**

**Fin. 0G Part - Step unknown,w is found.**

**Fin. 0H Part - Step unknown,w is found.**

**Analyze sync-command ...**

**Wait 0E Part - Step 2880 ( 0)**

**Wait 0F Part - Step 2880 ( 0)**

**Wait 0G Part - Step 2880 ( 0)**

**Wait 0H Part - Step 2880 ( 0)**

**Compile Completed. Object data is 924 bytes.**

-----  
,»,ê,¼,ê,ì^Ó-; ,É,Á,ç,Ä□C□à-¾,μ,Ä,ç,«,Ü,□D

### **>FPD Music Marco Language Compiler.. (Filename)**

,±,ì□s,Í□Cf□[fvjff“fOf□fbfZ□[fW+•İŠ·ftf@fCf<-¼,Á,□D

**>Set \$ Part .... 0 Macro is defined.**

□@,±,ê,Í□C\$ fp□[fg□C,Á,Ü,èf}fNf□'è<`fp□[fg,ì%ºđ□íCE<%ºÊ,đ•\Ž!,μ,Ä,ç,Ü,□D,±  
,±,Á,Í□C0 **Macro is defined.** ,Æ•\Ž!,ª,ê,½,ì,Á□Cf}fNf□'è<` ,í,È,ç,Æ,ç,ª^Ó-  
; ,É,É,è,Ü,□D

**>Set V part .... 6 Voice setting.**

□@Vfp□[fg□□PCMftf@fCf<'è<`•” ,ìRf“fpfCf<CE<%ºÊ,Á,□D,ç,-  
,Á,ìPCMftf@fCf<□@,ª^è<` ,ª,ê,½,ì,©,đ•\Ž!,μ,Ü,□D,½,¾,μ□C,±,±  
,ÁŽ!,ª,ê,é□”Žš,Í□C, ,Ü,Á,àVfp□[fg,É,æ,é□Y'è□” ,Á□C,±  
,ì¼,É,àRf“ftfBfOf tf@fCf<,đŽQ□Æ,μ,ÄPCMftf@fCf<,ìY'è,đ, ,é,±,Æ,ª, ,è,Ü,□D

**>Fin. 0A Part - Step 2880 ( 0)**

~~[1]

~~~~~[2]

~~~~~[3]

□@%o%o't"fp□[fg□i0A□`3P,Ü,Å64f`fff"flf<□j,l}Rf"fpfCf<CE<%oÉ,ð□#ŽŸ•\  
Ž!,μ,Ü,·□D

[1],ì•"•ª,Å,í□C□I—<sup>1</sup>,μ,½fp□[fg,ð•\Ž!,μ,Ü,·□D

[2],í□C,».,l}p□[fg'S'ì,l}Xfefbfv□",Å,·□D

[3]

,í□CLfRf}f"fh□i<È,ì□ÄfXf^□[fg□ê□Š,ì□éCE¾□j^è□~.,l}Xfefbfv□",Å,·□DLfRf}f"fh,  
h,ª,É,ç□ê□#.,í,O,É,È,è,Ü,·□D

□@fXfefbfv□",í□C,Æ,,Éf`fff"flf<ŠÔ,ì,,è,ð"CE©,·,é,ì,É•Ö—~.,Å,·□D

### >Fin. OE Part - Step unknown,w is found.

□@,Ü,½□CfXfefbfv□",ð•\Ž!,·,é,©,í,è,É□C,±,ì,æ,κ,Èf□fbfZ□[fW,ª□o,é,±,Æ,à,·,è,  
Ü,·□D,±,è,í□C,».,l}p□[fg,Åw("˘Šú□M□t'Ò,¿)fRf}f"fh,ªŽg,í,è,Ä,ç

,½,½,β□CfXfefbfv□",ª"Á'è,Å,«.,È,çŽŽ,É□o,Ä,«.,Ü,·□D

□@,±,l}f□fbfZ□[fW,ª□o,½fp□[fg,Å,í□CfXfefbfv□",ªCE^,Ü,Á,½Žž"\_,Å□C

### >Wait OE Part - Step 2880 ( 0)

□@,ì,æ,κ,É•\Ž!,ª,·,è,Ü,·□D

### >Analyze sync-command ...

'É□ifRf"fpfCf<,ª□I—<sup>1</sup>,μ□C"˘ŠúfRf}f"fh,ì□^—□,É"ü,éŽž,É•\

Ž!,ª,è,Ü,·□D"˘ŠúfRf}f"fh,ªŽg—p,ª,è,Ä,ç,È,ç□ê□#.,í□C,±,l}f□fbfZ□[fW,í•\

Ž!,ª,è,Ü,<sup>1</sup>,ñ□D

### >Compile Completed. Object data is 924 bytes.

fRf"fpfCf<,ªŠ®—<sup>1</sup>,μ,½f□fbfZ□[fW,Å,·□DfIfufWfFfNfg□i%o%o't—  
p□jftf@fCf<,l}TfCfY,ð•\Ž!,μ,Ä□I—<sup>1</sup>,μ,Ü,·□D

□"□@fGf%o□[f□fbfZ□[fW,É,Ä,ç,Ä□E□E

□@MML,ì•\Lf~fX"™□C%o½,©-â'è,ª<N,±,é,Æ□CfGf

%o□[f□fbfZ□[fW,ð□o,μ,ÄfRf"fpfCf<,ð'âž~.,μ,Ü,·□D,±,ìžž□CfGf%o□[,ìží—

p,É,æ,Ä,Ä,í□C□^—□t,l}f%ofCf"˘Ó□t,Æ•¶Žš,ª□o,Ü,·,ª□C•K,·,μ,àfGf

%o□[,ì□ê□Š,ðŽw,μ,Ä,ç,é,Æ,íCEÀ,ç,È,ç,ì,Å□CŽQ□l'ö"x,É—,β,Ä

%o<sup>º</sup>,ª,ç□D,Ü,½□CAnalyze config-file... ,l}f□fbfZ□[fW,ìCEã,ÄfGf

%o□[,ª□o,½□ê□#.,í□Cf%ofCf",l}Rf"ftfBfOfyf@fCf<"à,l}f%ofCf",É,È,è,Ü,·□D

□@,Ü,½□Cf}fNf□"à,ÄfGf%o□[,ª□o,½□ê□#.,É,í□Cf}fNf□,l'è<`□s,Å,í,È,,ÄŽg—

p□s,ì•ù,ÄfGf%o□[,ª□o,Ü,·□DfGf%o□[,ª□o,½f%ofCf",Äf}fNf□,ðŽg—p,μ,Ä,ç

,é□ê□#.,É,í□Cf}fNf□'è<` ,ì•ù,àŠm" F,μ,Ä%o<sup>º</sup>,ª,ç□D

□@fGf%o□[f□fbfZ□[fW,Æ□C□I,!,ç,è,éŽž,ÈCE'^ö,ð□à-¾,μ,Ä,ç,«.,Ü,·□D

### 0. Out of memory.

□@□@f□f,š,ª'«.,è,Ü,<sup>1</sup>,ñ□D

□@□@,±,lfGf%□□[,í□C^È%□□,ì,æ,κ,È□ó<μ,É□o,Ü,·□D  
1. f□f,fŠ,ìŠm•Ů,ÉŽ, "s,μ,½  
2. Šm•Ů,μ,½f□f,fŠ,ÉfífufWfFfNfgff□[f^□i□¶□-ff□[f^□j,ª"ü,ç,È,ç  
□@,±,lfRf"fpfCf%□□  
,í□C<N" @ŽŽ,ÉMMLftf@fCf<,ðŠi" [,·,éf□f,fŠ,Æ□¶□-ff□[f^,ðŠi" [,μ,Ä,ç,-  
f□f,fŠ,Æ,ðŠm•Ů,μ,æ,κ,Æ,μ,Ü,·,ª□C,» ,ìŽž,Éf□f,fŠ•s'« ,ÁŠm•Ů□o—  
^,È,ç□ê□‡,ª,P,lfP□[fX,Á,·□D  
□@,Q,íŠm•Ů,μ,½f□f,fŠ,æ,è□¶□-ff□[f^,ª'â,«,-  
,È,Á,Ä,μ,Ü,Á,½□ê□‡,Á,·□DCE»fo□[fWf‡f" ,Á,í□CfífufWfFfNfg—  
pfofbftf@,ð48k,Æ,Á,Ä,ç,Ü,·□D

### 1. File not found.

fRf"fpfCf<,μ,æ,κ  
,Æ,μ,½ftf@fCf<,Ü,½,lfRf"ftfBfOftf@fCf<,ªCE©,Á,©,è,Ü,¹,ñ□DMMLftf@fCf<,í□C•K,  
·.MML,ìŠg'£Žq,Á,È,·,ê,î,È,è,Ü,¹,ñ□D  
□@fRf"ftfBfOftf@fCf<FPD.CFB,ªCE©,Á,©,ç,È,·,ê,î,â,í,è,±,lfGf  
%□□[,ª□o,Ü,·□D,È,·"S,Ä,ìŽg—p%□¹□F,ªVfp□[fg,ÁŸ'è,ª,ê,Ä,ç  
,è,í□CfRf"ftfBfOftf@fCf<,í•K—v,È,ç,ì,Á□C"Ç,Ý,É□s,« ,Ü,¹,ñ□D

### 2. Syntax error.

□@•¶-□□ã,ìCEè,è,Á,·□DŽã,É□C%□□ðí•s"\,È•¶Žš,ª ,Á,½□ê□‡□C•K—  
v,È□""'l"™ ,ª,È,ç□ê□‡,É□o,Ü,·□D"Á,ÉCEãŽÒ,í"CE©,μ,É,,ç,ì,Á□C,æ,CE©'¼,μ,Ä  
%□□,ª,ç□D  
□@,±,lfGf%□□[,íf%□ofCf" ,â•¶Žš,ð—Š,è,É,·,ê,î□C□C□³,í—e^Õ,©,ÆŽv,ç,Ü,·□D

### 3. Illegal function call.

□""l,ª<K'è,ì"í^í,ð%□z,ì,Á,ç,Ü,·□D

### 4. Missing ? Part.

□È—ª•s%□□Á"\,Éfp□[fg,ªCE©,Á,©,è,Ü,¹,ñ□D,½,¾,μ□CCE»fo□[fWf‡f" ,Á,í•K,·•K  
—v,Éfp□[fg,í, ,è,Ü,¹,ñ,ì,Á□C,±,lfGf%□□[,í□o,È,ç,ÆŽv,ç,Ü,·□D

### 5. Undefined Marco.

□@'è<` ,ª,ê,Ä,ç,È,çf}fNf□,ªŽg—p,ª,ê,Ü,μ,½□D

### 6. Macro name error.

□@Žg—p•s%□□Á"\,Éf}fNf□-¼,ªŽg,í,è,Ü,μ,½□Df}fNf□,ÉŽg,ì,é,ì,í□C'â□-  
%□p•¶Žš,Æ□"Žš,PCE...,ì□C□‡CEv,U,Q•¶Žš,Á,·□D

### 7. Too many voice names.

□@%□¹□F'è<` ,ì□" ,ª'½,·,·,Ü,·□D  
□@FPD97,Á,í□C"~Žž,É127CEÁ,Ü,Á,μ,©%□¹□F,ðf□□[fh,Á,« ,Ü,¹,ñ□D□]  
,Á,Ä□C,P,Á,ìMML'†,Á127CEÁ,ð%□z,ì,½Žw'è,ª ,è,ífGf%□□[,Æ,È,è,Ü,·□D



**8. Out of octave.**

□@f|fNf^□[fu,ª1□`8,ì"í^í,ð%ºz,!,Ü,µ,½□D,±,ìfGf%º□[,ª□o,é,ì,í o,<,> ,ì,R,Â,Â,·□D

**9. Nesting Macro.**

□@f}fNf□`†,Âf}fNf□,ðŽg,Á,Ä,ç,Ü,·□D,±,ìfGf%º□[,à□Cf}fNf□Žg—

p□s,Â□o,Ü,·,ì,Â'□^Ó,µ,Ä%ºº,³,ç□D—á,!,í□C

\$a c4c4c4

\$b \$ae8g8

A [\$b]2

□@,±,ì,æ,æ,È□ê□±,Â,à□CAfp□[fg,ì□s,ÂfGf%º□[,ª□o,Ü,·□D

**10. Too many loops.**

□@f□[fv,ìf|fXfg,ª16,ð%ºz,!,Ü,µ,½□D

□@17ÆÂ-Ú,ì [ ,ðŠm" F,µ,½Žž" ,Â,±,ìfGf%º□[,ª□o,Ü,·□Df□[fv,ð16□d,àŽg,æ,±,Æ,í,Ü,·,È,ç,Æ,ÍŽv,ç,Ü,·,ª□C,±,ìfGf%º□[,ª□o,½Žž,í,È,ñ,Æ,©,µ,Âf□[fv,ðÆ,·,ç,µ,Ä%ºº,³,ç□DSTU ,ìŠÈ^ÕfR□[f<,ðŽg,æ,ì,àŽè,Â,·□D

□@,Ü,½□CŠÈ^ÕfR□[f<□æ,Âf□[fv,ðŽg,Á,Ä,ç,é□ê□±,í□C,» ,ìf|fXfg,àf|fEf"fg,³,è,Ä,ç,Ü,·□D—á,!,ìS~T,ìŠÔ,Â,P,Âf□[fv,ðŽg,Á,Ä,ç,Ä□C16□df□[fv,ì'†,ÂU,ðŽg,æ,Æ,±,ìfGf%º□[,ª□o,Ä,µ,Ü,ç,Ü,·□D

**11. ] Without [**

□@,±,±,©,ç13"Ô,Ü,Â,í□Cf□[fv,ì'í%ºž,ìŠÔ^á,ç,É,æ,éfGf%º□[,Â,·□D

□@,±,è,í□C],ª[ ,æ,è'½,ç,Æ□o,Ü,·□D

**12. : Without [**

□@f□[fvŠO,Â:fRf}f"fh□if□[fvfAfEfg□j,ªŽg,í,è,Ü,µ,½□D

**13. [ Without ]**

[ ,É'í%ºž,·,é ] ,ª ,è,Ü,¹,ñ□D,±,ìfGf%º□[,ìf%ºfCf" ,â•¶Žš,í'S,, ,Ä,É,È,ç,·□C"-Æ©,í,©,È,è,â,Â,©,ç,È,±,Æ,à ,è,Ü,·□D

**14. Easy call error.**

□@ŠÈ^ÕfR□[f< STU ,ÉŠÖ,·,éŠÔ^á,ç,ª ,è,Ü,·□D<ì"l,É,í□C□uST,ª,È,ç,ì,É U ,ðŽg,Á,½□v□uS ,ª,È,ç,ì,É T,ðŽg,Á,½□v□uS,ÆT,ªf□[fv,ì"àŠO,É,í,©,è,Ä,ç,é□v,È,Ç,Â,·□D

**15. & after command,r**

□@&fRf}f"fh□if^fC□j,ª<x• ,,,âfRf}f"fh,ìÆă,è,É, ,è,Ü,·□Df^fCfRf}f"fh,í□C•K, ,%º¹• ,,,ì'¼Æă,É,Â,¯,Ä%ºº,³,ç□D

**16. w must be out of loop**

**17. s must be out of loop**

□@“~ŠúfRf}}f“fh,af<□[fv’t,Ü,½,ÍS~T,ìŠÔ,É, ,è,Ü,·□DwfRf}}f“fh□CsRf}}f“fh,í□C,»,) □«Ž¿□ã□Cf<□[fv,ì’t,ÅŽg,α,±,Æ,Í,Å,«,Ü,<sup>1</sup>,ñ□D

**18. too many w.**

**19. too many s.**

□@w,Ü,½,Ís,<sup>a</sup>½,·,¬,Ü,·□Dw,s ,í□C,»),ê,¼,ê’Sf`fff“flf<□‡,í,<sup>1</sup>,Ä128ĈÂ,Ü,Å,Å,·□D

**20. Send not found.**

□@wfRf}}f“fh,<sup>a</sup>, ,é,ì,É□C,»),ê,É□M□t,ð’—,ésfRf}}f“fh,<sup>a</sup>, ,è,Ü,<sup>1</sup>,ñ□D

**21. w found after s.**

□@wfRf}}f“fh,<sup>a</sup>□C’Î%ž,·,ésfRf}}f“fh,æ,èĈã,ë,É, ,è,Ü,·□D

**22. Wait step is too long.**

□@wfRf}}f“fh,É,æ,é’Ò,¿fXfefbfv□”,<sup>a</sup>ã,«,,·,¬,Ü,·□DwfRf}}f“fh,É,æ,éfEfGfCfG,í□C Ĉ»fo□[fWf‡f“,Å,Í16581375(=255,ì,R□æ) ,Ü,Å,μ,©’Î%ž,μ,Ä,ç,Ü,<sup>1</sup>,ñ□D

**23. N without K**

□@KfRf}}f“fh,<sup>a</sup>,È,ç,ì,ÉNfRf}}f“fh,<sup>a</sup>Žg—p,<sup>3</sup>,ê,Ü,μ,½□D

□@NfRf}}f“fh,í□CŽg—p’t,ìĈ®”Ō,Éf□f,,ð□Ý’è,·,éfRf}}f“fh,È,ì,Å□CŽg— p,·,éĈ®”Ō,ðŽw’è,·,éKfRf}}f“fh,ìĈã,É,È,¯,ê,Î,È,è,Ü,<sup>1</sup>,ñ□D



ŠyŠí%°¹□F'î%°ž•\

,±,±,É□o,Ä,,é%°¹□F"Ô□†,í□AMMLftf@fCf<,ì□u@fRf}f"fh□v,ÅŽw'è,·,é□Û,ÉŽg,ç,Ü,·□B

**200"Ô□` 327"Ô,É,í□AFPD97,ìf}f<f` %°¹□F,²Š,,è"-,Ä,ç,ê,Ä,ç,Ü,·□B**  
**□if}f<f` %°¹□F,ì,½,ß"gCE`ftf@fCf<-¼,í□È—²□j**

### **fsfAfmCEn**

- 200: Acoustic Grand97
- 201: Bright Acoustic97
- 202: Electric Grand97
- 203: Honky-Tonk97
- 204: Electric Piano97 1
- 205: Electric Piano97 2
- 206: Harpsichord97
- 207: Clav97
- 208: Celesta97
- 209: Glockenspiel97
- 210: Music Box97
- 211: Vibraphone97
- 212: Marimba97
- 213: Xylophone97
- 214: Tubular Bells97
- 215: Dulcimer97

### **fIf·fKf"CEn**

- 216: Drawbar Organ97
- 217: Percussive Organ97
- 218: Rock Organ97
- 219: Church Organ97
- 220: Reed Organ97
- 221: Accoridan97
- 222: Harmonica97
- 223: Tango Accordion97

### **fMf^□[CEn**

- 224: Acoustic Guitar97(nylon)
- 225: Acoustic Guitar97(steel)
- 226: Electric Guitar97(jazz)
- 227: Electric Guitar97(clean)
- 228: Electric Guitar97(muted)
- 229: Overdriven Guitar97

230: Distortion Guitar97  
231: Guitar Harmonics97

### **fx[]fXEn**

232: Acoustic Bass97  
233: Electric Bass97(finger)  
234: Electric Bass97(pick)  
235: Fretless Bass97  
236: Slap Bass97 1  
237: Slap Bass97 2  
238: Synth Bass97 1  
239: Synth Bass97 2

### **fXfgfŠf“fOfXEn**

240: Violin97  
241: Viola97  
242: Cello97  
243: Contrabass97  
244: Tremolo Strings97  
245: Pizzicato Strings97  
246: Orchestral Strings97  
247: Timpani97

### **fAf“fTf“fuf<En**

248: String Ensemble97 1  
249: String Ensemble97 2  
250: SynthStrings97 1  
251: SynthStrings97 2  
252: Choir Aahs97  
253: Voice Oohs97  
254: Synth Voice97  
255: Orchestra Hit97

### **fuf%ofXEn**

256: Trumpet97  
257: Trombone97  
258: Tuba97  
259: Muted Trumpet97  
260: French Horn97  
261: Brass Section97  
262: SynthBrass97 1  
263: SynthBrass97 2

**fŠ[]fhCEn**

264: Soprano Sax97  
265: Alto Sax97  
266: Tenor Sax97  
267: Baritone Sax97  
268: Oboe97  
269: English Horn97  
270: Bassoon97  
271: Clarinet97

**fpfCfvCEn**

272: Piccolo97  
273: Flute97  
274: Recorder97  
275: Pan Flute97  
276: Blown Bottle97  
277: Shakuhachi97  
278: Whistle97  
279: Ocarina97

**fVf“fZ[]EfŠ[]fhCEn**

280: Lead97 1 (square)  
281: Lead97 2 (sawtooth)  
282: Lead97 3 (calliope)  
283: Lead97 4 (chiff)  
284: Lead97 5 (charang)  
285: Lead97 6 (voice)  
286: Lead97 7 (fifths)  
287: Lead97 8 (bass+lead)

**fVf“fZ[]EfpfbfhCEn**

288: Pad97 1 (new age)  
289: Pad97 2 (warm)  
290: Pad97 3 (polysynth)  
291: Pad97 4 (choir)  
292: Pad97 5 (bowed)  
293: Pad97 6 (metallic)  
294: Pad97 7 (halo)  
295: Pad97 8 (sweep)

**fVf“fZ[]EfGftfFfNfgCEn**

296: FX97 1 (rain)  
297: FX97 2 (soundtrack)

- 298: FX97 3 (crystal)
- 299: FX97 4 (atmosphere)
- 300: FX97 5 (brightness)
- 301: FX97 6 (goblins)
- 302: FX97 7 (echoes)
- 303: FX97 8 (sci-fi)

**fGfXfjfbfNCEn**

- 304: Sitar97
- 305: Banjo97
- 306: Shamisen97
- 307: Koto97
- 308: Kalimba97
- 309: Bagpipe97
- 310: Fiddle97
- 311: Shanai97

**fp[fjfbfVf+f“CEn**

- 312: Tinkle Bell97
- 313: Agogo97
- 314: Steel Drums97
- 315: Woodblock97
- 316: Taiko Drum97
- 317: Melodic Tom97
- 318: Synth Drum97
- 319: Reverse Cymbal97

**fTfEf“fh[EfGftfFfNfgCEn**

- 320: Guitar Fret Noise97
- 321: Breath Noise97
- 322: Seashore97
- 323: Bird Tweet97
- 324: Telephone Ring97
- 325: Helicopter97
- 326: Applause97
- 327: Gunshot97

**2128”Ô` 2226”Ô,É,Í[AFPD97,lhfh%of€%o¹[F,Š,,è“-,Ä,ç,ê,Ä,ç,Ü,-B**

- 2128: realkick      fofXfhf%of€97\_1
- 2129: prockick     fofXfhf%of€97\_2
- 2130: sidestic     fTfCfhfXfefBfbfN97
- 2131: r\_snare      f[fbfNfXflfAfhf%of€97

2132: handclap fnf"fhfNf%ofbfv97  
 2133: lgt\_snar fQ[fgfXflfAfhf%of€97\_1  
 2134: tom\_lo f^f€97\_1('á,ç)  
 2135: tite\_hh f^fCfG[EfnfCfnfbfg97  
 2136: pedal\_hh fvf\_f<[EfnfCfnfbfg97  
 2137: open\_hh fl[fvf"fnfCfnfbfg97  
 2138: tom\_hi f^f€97\_1(□,,ç□j  
 2139: crashcym fNf%ofbfVf...fVf"fof<97  
 2140: ridecym1 f%ofCfhfVf"fof<97\_1  
 2141: chinacym f`fffCfj□[fYfVf"fof<97  
 2142: ridecup f%ofCfhfVf"fof<97\_2  
 2143: tambour f^f"fofSf"97  
 2144: spl\_cym fXfvf%ofbfVf...fVf"fof<97  
 2145: cowbel fjfEfxf<97  
 2146: vibrasp frfuf%ofXf%ofbfv97  
 2147: hi\_bongo f{f"fs97(□,,ç)  
 2148: lo\_bongo f{f"fs97('á,ç)  
 2149: mt\_conga fRf"fK97(f~f...□[fg)  
 2150: op\_conga fRf"fK97(fl□[fvf")  
 2151: hitimbal fefBf"fof<97\_1(□,,ç)  
 2152: lotimbal fefBf"fof<97\_1('á,ç)  
 2153: agogo fAfSfS97  
 2154: cabasa fjfofT97  
 2155: maracas f}f%ofJfX97  
 2156: whistles Œû"J97\_1  
 2157: whistle Œû"J97\_2  
 2158: gurio\_s fOfCf□97('Z,ç)  
 2159: gurio\_l fOfCf□97('·,ç)  
 2160: claves fNf%ofxfX97  
 2161: wdblock2 fEfbfhfuf□fbfN97\_1  
 2162: wdblock3 fEfbfhfuf□fbfN97\_2  
 2163: mt\_cuica fNfCfK97(f~f...□[fg)  
 2164: op\_cuica fNfCfK97(fl□[fvf")  
 2165: mt\_trian fgf%ofCfAf"fOf<97(f~f...□[fg)  
 2166: op\_trian fgf%ofCfAf"fOf<97(fl□[fvf")  
 2167: jinglebl fWf"fOf<fxf<97  
 2168: thing thing97  
 2169: castanet fjfXf^flfbfg97  
 2170: taiko\_lo '¾ŒÛ97('á,ç)  
 2171: gt\_kick fofXfhf%of€97\_3  
 2172: ml\_kick fofXfhf%of€97\_4  
 2173: powsnare fpf□□[fXflfAfhf%of€97  
 2174: gt\_snare fQ[fgfXflfAfhf%of€97\_2



2175: prc\_tom f^f€97\_2  
2176: rideedge f%ofCfhfVf"fof<□EfgfbfW  
2177: sy\_kick1 fofXfhf%of€97\_5  
2178: syn\_rim fVf"fZ□EfŠf€97  
2179: sysnare1 fVf"fZfXflfAfhf%of€97\_1  
2180: synclaps fVf"fZ□Efnf"fhfNf%ofbfv  
2181: snare2 fXflfAfhf%of€97\_1  
2182: sytom\_lo fVf"fZf^f€97('á,ç)  
2183: closeshh fNf□□[fYfhshh97  
2184: open\_shh fi□[fvf"shh97  
2185: sytom\_hi fVf"fZf^f€97(□,,ç)  
2186: symaraca fVf"fZf}f%ofjfX97  
2187: syclaves fVf"fZfNf%ofxfX97  
2188: zap2 fUfbfv%o<sup>1</sup>97  
2189: ambisnar fAf"frfGf"fg□EfxflfAfhf%of€97  
2190: scrat\_hi fXfNf%ofbf`%o<sup>1</sup>97(□,,ç)  
2191: scrat\_lo fXfNf%ofbf`%o<sup>1</sup>97('á,ç)  
2192: cr\_kick1 fofXfhf%of€97\_6  
2193: sycowbel fVf"fZfjfEfxf<97  
2194: punchkic fofXfhf%of€97\_7  
2195: r\_kick fofXfhf%of€97\_8  
2196: softsnar fXflfAfhf%of€97\_2  
2197: ridecym2 f%ofCfhfVf"fof<97\_3  
2198: metro2 f□fgf□%o<sup>1</sup>97  
2199: br\_tap f^fbfv%o<sup>1</sup>97  
2200: br\_slap fXf%ofbfv%o<sup>1</sup>97  
2201: beltree fxf<,lŽ÷97  
2202: br\_swish fXfEfBfbfVf...%o<sup>1</sup>97  
2203: br\_tom f^f€97\_3  
2204: baya1 fof,,97\_1  
2205: baya2 fof,,97\_2  
2206: tabla1 f^fuf%o97\_1  
2207: tabla2 f^fuf%o97\_2  
2208: tabla3 f^fuf%o97\_3  
2209: wdblock1 fEfbfhfuf□fbfN97\_3  
2210: orch\_bd fofXfhf%of€□Efl□[fPfxfgf%o97  
2211: scratdbl fXfNf%ofbf`dbl97  
2212: slpconga fXf%ofbfv□Efrf"fK97  
2213: timbales fefBf"fofCEfX97  
2214: r\_timbal fefBf"fof<97\_2  
2215: fngsnar fXflfAfhf%of€□EftfBf"fK□[97  
2216: taiko\_hi '¾4CEÚ97(□,,ç)  
2217: rlsnare1 fXflfAfhf%of€97\_3

2218: rlsnare2 fXflfAfhf%œf€97\_4  
 2219: orchcrsh fl[]fPfXfgf%œ[]EfNf%œfbfVf...97  
 2221: applause "[]Žè97  
 2222: ambikick fAf"frfGf"fg[]EfofXfhf%œf€97  
 2223: dankick fofXfhf%œf€97\_9  
 2224: sysnare2 fVf"fZfXflfAfhf%œf€97\_2  
 2225: orch\_bd fofXfhf%œf€[]Efl[]fPfXfgf%œ97 (2210"Ô,Æ"~,¶)  
 2226: orchcrsh fl[]fPfXfgf%œ[]EfNf%œfbfVf...97(2219"Ô,Æ"~,¶)

,±,±,©,ç[]æ,íFPD95,ÅŽg,í,ê,Ä,ç,½%œ¹[]F,Å,·[]B  
 0"Ô[]`188"Ô,đ—~—p,µ,Ü,·[]B

%œ¹[]F"Ô[]†: "gœ`ftf@fcf<-¼ %œ¹[]F-¼,ì[]‡,É•À,ñ,Å,ç,Ü,·[]B

**fsfAfmœn**

000: 03piano1 fAfR[]fXfefBfbfN[]EfsfAfm  
 001: m3harpsi fn[]fVfVfR[]fh  
 002: m3ep2 fGfœfNfgfŠfbfN[]EfsfAfm  
 003: m3clav fNf%œfrflfbfg

**fxf<œn**

007: m3vibe frfuf%œfzf",P  
 008: m3marimb f}fŠf"fo  
 009: m3tblar fxf<  
 010: 03vibe frfuf%œfzf",Q

**flf<fKf"œn**

014: 03organ2 fhf[][]fo[][]Eflf<fKf"  
 015: 03peorg2 f[]fbfN[]Eflf<fKf"  
 016: m3church f`ff[]f`[]Eflf<fKf"  
 017: m3organ2 fŠ[]f[]Eflf<fKf"  
 018: 03accord fAfR[]fffBflf"  
 019: 03harmon fn[]f,ffj

**fMf^[]œn**

024: m3guit1 fifCf[]f"[]EfMf^>[]  
 025: m3guit2 fXfefB[]f<[]EfMf^>[]  
 026: m3jzguit fWfffY[]EfMf^>[]  
 027: m3elguit fNfŠ[]f"[]EfMf^>[]  
 028: m3mtguit f~f...[]fg[]EfMf^>[]  
 029: 03dist fffBfXfg[]fVf‡f"[]EfMf^>[]

### **fX[]fXĈEn**

034: m3rnbass fGfĈEfNfgfŠfbfN[]Efx[]fX  
035: m3abass fAfR[]fXfefBfbfN[]Efx[]fX  
036: 03slbass fXf%fbfv[]Efx[]fX  
038: m3ftless ftfĈefbfgfĈfX[]Efx[]fX  
039: m3sbass1 fVf"fZ[]Efx[]fX,P  
040: 03tcbass fVf"fZ[]Efx[]fX,Q

### **fXfgfŠf"fOfXĈEn**

044: 03violin fofCflfŠf"  
046: 03strens fVf"fZ[]EfxfgfŠf"fOfX,P  
047: 03pizzic fofCflfŠf"[]Efsf`fj[]fg  
048: 03harp fn[]fv  
049: 03timpan fefBf"fpfj

### **fAf"ftf"fuf<ĈEn**

053: 03str2 fVf"fZ[]EfxfgfŠf"fOfX,Q  
054: 03anastr fVf"fZ[]EfxfgfŠf"fOfX,R  
055: m3str fVf"fZ[]EfxfgfŠf"fOfX,S  
056: 03choir fR[]f%ofX,P  
057: 03doovox f{fCfX,P  
058: 03schoir fR[]f%ofX,Q  
059: 03ohit fl[]fPfXfgf%ofqfbfg

### **fuf%ofXĈEn**

063: 03trump1 fgf%of"fyfbfg  
064: m3tr&tp fgf[]f"f{[]f"  
065: m3mutetp f~f...[]fg[]Efgf%of"fyfbfg  
066: 03ftuba f`f...[]fo  
067: m3power fVf"fZfuf%ofX,P  
068: 03brass1 fVf"fZfuf%ofX,Q  
069: m3brass1 fVf"fZfuf%ofX,R

### **fŠ[]fhĈEn**

073: 03sopsax f\fvf%ofm[]EftfbfNfX  
074: 03tensax fefm[]f<[]EftfbfNfX,P  
075: m3tensax fefm[]f<[]EftfbfNfX,Q  
076: 03oboe fl[]f{fG  
077: m3clari fNf%ofŠflfbfg

### **fpfCfvĈEn**

081: 03hflute ftf<[]fg  
082: m3dreed fŠ[]fh

083: m3pflute fpf“ftf<[]fg  
084: 03shaku ŽÚ”<sup>a</sup>  
085: 03voice f{fCfX,Q

### **fVf“fZ[]EfŠ[]fhCEn**

089: 03square <éCÉ`”g  
090: 03saw ,ì,±,¬,è”g  
091: 03pwm fVf“fZ[]EfŠ[]fh

### **fVf“fZ[]EfpfbfhCEn**

095: 03ether fxf<[]•fR[]f%ofX  
096: 03synvox f[]f^f<f{fCfX

### **fVf“fZ[]EfGftfFfNfgCEn**

100: 03ghost fVf“fZ[]EfGftfFfNfg

### **fGfXfjfbfNCEn**

104: 03banjo fof“fWf#[]  
105: m3sitar fVf^[]f<,P  
106: 03shami ŽO-i[]ü  
107: m3kalimb fJfŠf“fo

### **fp[]fjfbfVf#“CEn**

111: m3pole f[]f<  
112: m3sitar2 fVf^[]f<,Q  
113: m3vbhit fEfbfhfuf[]fbfN,P  
114: 03taiko ‘¾CÉÙ  
115: m3etom fGfCÉfnfgfŠfbfN[]Ef^f€

### **fTfEf“fh[]EfGftfFfNfgCEn**

119: 03fret ftfCÉfbfgfmfCfY  
120: 0369o4g- fufCÉfXfmfCfY  
121: 03stad fXf^fWfAf€  
122: 03bird ‘<sup>1</sup>,ì-Â,«[]<sup>o</sup>  
123: 03ring “d~b,lfxf<  
124: 03heli fwfŠfRfVf^[]  
125: m3hnoon2 fKf“fVf#fbfg

### **fhf%of€CEn**

150: 03d47 f^f€  
151: 03ccym2 fNf%ofbfVf...[]EfVf“fof<,P  
152: 03d35 fofXfhf%of€,P  
153: 03d36 fofXfhf%of€,Q

154: 03d37 fTfCfhfXfefBfbfN  
155: m3snare2 fXflfAfhf%of€,P  
156: 03d39 fnf"fhfNf%ofbfv  
157: 03d40 fXflfAfhf%of€,Q  
158: 03d41 ftf[]fA[]Ef^f€  
159: 03d42 fNf[][]fYfh[]EfnfCfnfbfg,P  
160: 03d44 fyf\_f<[]EfnfCfnfbfg  
161: m3opph2 fl[]fvf""[]EfnfCfnfbfg,P  
162: m3asnr fAfjf[]fO[]EfXflfA  
163: m3d21h3 fNf%ofbfVf...[]EfVf"fof<,Q  
164: m3ahh fNf[][]fYfh[]EfnfCfnfbfg,Q  
165: m3ride f%ofCfh[]EfVf"fof<  
166: 03d51 f`fffCfj[]fY[]EfVf"fof<  
167: 03d53 f%ofCfh[]Efxf<  
168: 03d54 f^f"fofŠf"  
169: m3opph1 fl[]fvf""[]EfnfCfnfbfg,Q  
170: 03d56 fJfEfxf<  
171: m3vibsp frfuf%ofXf%ofbfv  
172: 03d60 f{f"fS  
173: 03d62 f~f...[]fG[]EfRf"fK  
174: 03d64 fRf"fK  
175: 03d65 fefBf"fof<  
176: 03d68 fAfSfS  
177: 03d69 fJfofT  
178: 03d70 f}f%ofJfX  
179: 03d71 fzfCfbfXf<[]i'Z,¢[]j  
180: 03d72 fzfCfbfXf<[]i'·,¢[]j  
181: 03d73 fOfCf[]i'Z,¢[]j  
182: 03d74 fOfCf[]i'·,¢[]j  
183: 03d75 fNf%ofxfX  
184: 03d76 fEfbfhfuf[]fbfN,Q  
185: 03d78 f~f...[]fG[]EfNfCfK  
186: 03d79 fNfCfK  
187: 03d80 f~f...[]fG[]Efgf%ofCfAf"fOf<  
188: 03d81 fl[]fvf""[]Efgf%ofCfAf"fOf<

## '€□□à-¾

ftf@fCf<frf...□[f□□[ ,ª•\Ž! ,³,ê,Ä,ç,é□ó'Ô,Å□A%□□'tftf@fCf<,đ'l'đ,μ,Ä,-  
,¾,³,ç□B,» ,ìĀě□A'l'đ, ,é□€-Ú,đf\_fuf<fNfŠfbfN , ,é, ©□A, ,é,ç,í□A%□□'tf{f^f" ,đ  
%□Y , ,±,Æ,Å%□□'t,ªŠ]Žn ,³,ê,Ü, □B

FPD97,í^È%□□,ÉŽ! ,.ftf@fCf<Ā`Ž® ,É'î%□□ž,μ,Ä,ç,Ü, □B

\*.FPD □FFPD97—p,ì%□□'tftf@fCf<

\*.MID □FMIDI%□□'tftf@fCf<('□,P)

\*.RCP □FRCP%□□'tftf@fCf<('□,P)

\*.MML □FFPD97—pMMLftf@fCf<('□,P)

\*.WAV □FWindows•W□€,ìfEfF□[fufuf@fCf<

'□,P□F\*.MID,Æ\*.RCP,Æ\*.MML,í□A\*.FPD,É•İŠ•Āě,É%□□'t,³,ê,Ü, □B

## f□ffj...□['€□

### ftf@fCf<

ŠJ, □Fftf@fCf<frf...□[f□□[ ,đ•\Ž! ,μ,Ü, □B

•Â,ŕ,é □Fftf@fCf<frf...□[f□□[ ,đ•Â,ŕ,Ü, □B

□I—<sup>1</sup> □FFPD97,đ□I—<sup>1,3,1</sup>,Ü, □B

### □@•İŠ•

□@□@ftf@fCf<Ā`Ž® ,đ•İŠ• , ,é,Æ,« ,ÉŽg,ç,Ü, □B

□@□@MML->FPD

□@□@MID->FPD

FPD->WAV

RCP->MID

RCP->FPD

### □@□Y'è

□@□@ŠeŽí□Y'è,đ□s,π,±,Æ,ª,Å,« ,Ü, □B

□@□@%□□'t□ó'Ô

□@□@%□<sup>1</sup>□Fftf@fCf<,ìfffBfĀfNfgfŠ

□@□@MIDIftf@fCf<,©,ç,ì•İŠ•

□@□@WAVftf@fCf<,Ö,ì•İŠ•

### □@fwf<fv

□@□@-UŽŸ

MML□%□□ŠŽÒĀü, ~f}ffj...fAf<

□@□@□V'...□î•ň

fVfFfAfEfFfA“o~^

fo□[fWf#f“□î•ň

## fc[f<f{f^f",i'€]

### %%'tf{f^f"

'l'đ,³,ê,Ä,ç,éftf@fCf<,đ%%'t,μ,Û,·B

### 'tŽ~f{f^f"

%%'t,đ'tŽ~,μ,Û,·B

### Y'èf{f^f"

@@%'t'ó'Ô,ìY'è,đ,μ,Û,·B

### @CE®"Öf{f^f"

@@CE®"Ö,đ•Ž!,μ,Û,·B

### @fhfLf...f"fgf{f^f"

@@%'t,μ,Ä,ç,éff[f^,ÉŠÖ,·,é↑•ñ,đ•Ž!,μ,Û,·B%

%'t't,ìff[f^,Æ"- ,!ftf@fCf<-¼,ÅAŠg'fŽq,ª\*.DOC,Û,½,Í\*.TXT,Æ,È,Á,Ä,ç,éftf@fCf<,đ•Ž!,μ,Û,·B

## flfvfVf#f"ff^f",i'€]

### PLAYMODE

@ NORMAL [F'I'đ,μ,½1<È,¾,¯,đ%%'t,μ,Û,·B

REPEAT [F,P,Â,ì<È,đCEJ•Ô,μ%%'t,μ,Û,·B

NEXT [FŽŸ,ì<È,đ^ø,«±,ç,Ä%%'t,μ,Û,·B

RANDOM [Ff%of"f\_f€,É<È,đ'I'đ,μ,Ä%%'t,μ,Û,·B

### FILETYPE

\*.FPD [FFPD97—p,ì%%'tftf@fCf<

\*.MID [FMIDI%%'tftf@fCf<

\*.RCP [FRCP%%'tftf@fCf<

\*.MML [FFPD97—pMMLftf@fCf<

\*.WAV [FWindows•W€,ìfEfF[fuftf@fCf<

## MML->FPD

FPD97—p%<sup>1</sup>Šyfl[fXftf@fCf<(\*.MML),đFPD97—p%<sup>o</sup>%<sup>o</sup>'tftf@fCf<(\*.FPD)  
,É•ĪŠ,μ,Ü,·B  
@FPD97,í%<sup>o</sup>%<sup>o</sup>'tŽž,É,ÍCFPD97—p%<sup>o</sup>%<sup>o</sup>'tftf@fCf<(\*.FPD),đŽg—p,μ,Ü,·B



## MID->FPD

□@MIDI%%'tftf@fCf<(\*.MID),đFPD97—p%%'tftf@fCf<(\*.FPD),É•iš·,μ,Ü,·□B  
□@FPD97,í%%'tŽž,É,í□CFPD97—p%%'tftf@fCf<(\*.FPD),đŽg—p,μ,Ü,·□B



# %%'t'ó'Ô,ì'Ý'è

Ⓜ@FPD97—p%%'tftf@fCf<,ð%%'t,·,é,Æ,«,ìpf%%f[]f^,ì'Ý'è,ðs,ç,Ü,·B

## Ä'fCE[]fg

Ⓜ@'l,ª'ã,«,ç,Ü,ç%¹,ª—ç,,È,è,Ü,·,ª“®[]ì,í[]d,-  
,È,è,Ü,·BCEÀŠE^È[]ã,ìÄ'fCE[]fg,ð'Ý'è,μ,½[]ê[]‡,í[]A[]^—,ªŠÔ,É[]‡,í,È,ç,½,β,É  
%¹”ð,Ñ,ª<N,±,è,Ü,·B%¹”ð,Ñ,ª,·,é[]ê[]‡,É,í[]A[]Ä'fCE[]fg,ð%º,°,Ä%%'t,μ,Ä,-  
,¾,¾,ç[]B

## fpf“[]šCEä

Ⓜ@[]o—í,ðf,fmf%of<,©fXfefCEfl,ì,ç,ì,ç,Å[]s,æ,©,ì'ð,ª,Å,«,Ü,·Bfpf\rf“—{ì“à' ,ìf  
Xfs[]fj[][,©,ç%¹,ð[]o,·,Æ,«,ìf,fmf%of<[]AŠO·”fXfs[]fj[][,©,ç  
%¹,ð[]o,·,Æ,«,ìfXfefCEfl,É'Ý'è,·,é,Æ,æ,ç,Å,μ,ã,æ[]B,Ü,½[]Afpf\l  
rf“ ,É·t'® ,ìPHONE'[]Žq,©,çfXfefCEfl—  
pfCf,,fzf“ ,Å,“® ,«,É,È,é,Æ,«,É,à[]AfxfefCEfl,É'Ý'è,μ,Ä%º,¾,ç[]B

## fGftfFfNfg[]^—[]

Ⓜ@[]u,È,μ[]v[]ufŠfo[]f[]u,ì,Ý[]v[]ufŠfo[]f[]u[]Efr[]f%ofX[]v,ì,RŽí—p,ì't,©,ç'ì'ð,μ,Ä  
%º,¾,ç[]BfR[]f%ofX,ì,Ý,ì'Ý'è,í[]s,ì,Ü,¹,ñ[]B,±,è,ç,í[]AFPdftf@fCf<(\*.FPD)  
,ì't,ÅŽg,í,è,Ä,ç,È,·,è,ìCEø%È,í,·,è,Ü,¹,ñ[]B,Ä,Ü,è[]A%  
%¹'tftf@fCf<(\*.FPD)“à,ÅŽg,í,è,Ä,ç,é[]ê[]‡,É[]A,±,±,ì'Ý'è,Å<-%Å,ª,¾,è,Ä,ç  
,È,·,è,í[]AfgftfFfNfg,ìCEø%È,ð-³Ž<,μ,Ü,·BfgftfFfNfg,í,©,È,è[]^—  
[],É,b,o,tjpf[][][,ð—v,μ,Ü,·,ì,Å[]A%¹”ð,Ñ,μ,â,·,ç[]ê[]‡,É,í[]A,±,±,ì'Ý'è,ð·ì[]X,μ,Ä  
%º,¾,ç[]B^è”É,ÉfR[]f%ofXfgftfFfNfg,í,©,È,è,ìCPUfjpf[][][,ð·K—v,Æ,μ,Ü,·B

## ftfF[]fhfAfeFg

Ⓜ@f<[]f[]v[]—¹Žž,É,“ ,·,éftfF[]fhfAfeFg,ì'—“x,ðCE^,β,Ü,·B,±,è,í[]A%%'t[]l—  
¹ŠÔ<β,Ä%¹,ª,¾,ñ,¾,ñ,Æ[]—,¾,,È,èŽn,β,Ä,©,ç%%'t,ª[]l—  
¹,·,é,Ü,Å,ìžžŠÔ,ì'·,¾,É'Š“—,μ,Ü,·Bf<[]f[]v,ì[]EJ·Ô,μ,ì,·,é%%'tftf@fCf<,ì[]ê[]‡,É“K—  
p,μ,Ü,·Bf<[]f[]v,ì[]EJ·Ô,μ,ì,È,ç<È,Å,í^Ó—; ,ðž[],ì,Ü,¹,ñ[]B

## f<[]f[]v,ì[]EJ·Ô,μ

Ⓜ@f<[]f[]v,ì[]EJ·Ô,μ%ñ[]” ,ð'Ý'è,μ,Ü,·B^è·” ,ì%%'tftf@fCf<,É,í[]A·W[]€,ì'Ý'è,Å,í  
%%'t,ª[]l—¹,μ,È,ç,Åf<[]f[]v,ð[]EJ,è·Ô,·,à,ì,ª,·,è,Ü,·B·[]'É,í2,É'Ý'è,μ,Ü,·,ª[]A<È,ðž  
Ý[]X,Æ·ì,ì,Ä'® ,«,½,ç[]ê[]‡,É,ç,í1,É'Ý'è,μ,Ä,“ ,·,Æ,ç,ç  
,Å,μ,ã,æ[]B,È,“[]A·W[]€MIDIfTf@fCf<(\*.MID),ì<È,Å,ìf<[]f[]v,Æ,ç,æŠT”O,ª,·,è,Ü,¹,ñ,ì,  
Å[]A,±,±,Å,ì'Ý'è,í^Ó—; ,ðž[],ì,Ü,¹,ñ[]B

%o<sup>1</sup>F”gCE`ff[f^,iffBfCEfNfgfŠ

%o<sup>1</sup>F”gCE`ff[f^,iffBfCEfNfgfŠ@

@ŠyŠí%o<sup>1</sup>F”gCE`ff[f^(\*.FPV),ì, éffBfCEfNfgfŠ,đÝ’è,μ,Ä,,<sup>3</sup>/<sub>4</sub>,<sup>3</sup>,çB  
@,Q,Â,Ü,ÅÝ’è,Å,«,Ü,·B,Ü,½AfCf<fhj[fh,à—~—p,Å,«,Ü,·B

—áFC:\FPD97\PCM97

MIDIftf@fCf<, ©, ç, ì•İŠ•

□@

□@•W□€MIDIftf@fCf<(Šg'£ŽqMID), ©, çFPD97—p%%'tftf@fCf<(\*.FPD)  
, Ö•İŠ•, , é, Æ, «, ìfpf%of□□[f^, ì□Y'è, ð□s, ç, Ü, •□B

**fŠfo□[fu**

□@fŠfo□[fu□EfgftfFfNfg, ì<,³, ð□Y'è, μ, Ü, •□BfŠfo□[fu□EfgftfFfNfg, í  
%o¹, ì<ž, «, ÉŠÖŒW, μ, Ü, •□B0, ©, ç255, ì"í^í, Å□Y'è, μ, Ä%oº,³, ç□B□  
%oŠú□Y'è'ì, í64, Å, •□B

**fR□[f%ofX**

□@fR□[f%ofX□EfgftfFfNfg, ì—Ê, ð□Y'è, μ, Ü, •□BfR□[f%ofX□EfgftfFfNfg, í  
%o¹, ìŒú, Ý, ÉŠÖŒW, μ, Ü, •□B0, ©, ç255, ì"í^í, Å□Y'è, μ, Ä%oº,³, ç□B□  
%oŠú□Y'è'ì, í96, Å, •□B

**fR□[f%ofX**

fR□[f%ofX□EfgftfFfNfg, ì<,³, ð□Y'è, μ, Ü, •□B□%oŠú□Y'è'ì, í2, Å, •□B

**'S%o¹—Ê**

□@'S'ì, ì%o¹—Ê, ð'S'î"ì, É•ï□X, , é, ±, Æ, º, Å, «, Ü, •□B-15, ©, ç15, ì"í^í, Å□Y'è, μ, Ä  
%oº,³, ç□B'â, «, , , ê, ì□A'S'ì, ì%o¹—Ê, º□ã, º, è, Ü, •□B□%oŠú□Y'è'ì, í0, Å, •□B

**fhf%of€%o¹—Ê**

□@fhf%of€fp□[fg, ì%o¹—Ê, ¾, ¯, ð'S'î"ì, É•ï□X, , é, ±, Æ, º, Å, «, Ü, •□B-  
15, ©, ç15, ì"í^í, Å□Y'è, μ, Ä%oº,³, ç□B'â, «, , , ê, ì□Afhf%of€fp□[fg, ì%o¹—  
Ê, º□ã, º, è, Ü, •□B□%oŠú□Y'è'ì, í0, Å, •□B



f<[fv,ìĈJ•Ô,μ%ñ" ,đŸ'è,μ,Û,·B^ê•",ì%%'tftf@fCf<,É,íC•W€,ìŸ'è,Å,í  
%%'t,ª|—<sup>1</sup>,μ,È,ç,Åf<[fv,đĈJ,è•Ô,·,à,ì,ª, ,è,Û,·B,±,±,Å,íA,±,ìf<[ç,ª  
,ìĈJ•Ô,μ%ñ" ,đŸ'è,μ,Û,·B,<sup>1</sup>/<sub>2</sub>,<sup>3</sup>/<sub>4</sub>AWAVftf@fCf<,Ö,ìo—  
í,ìê#A2,ÉŸ'è,μ,Ä,àf<[fv•"•ª,Å,í" ,ff[f^,ª2"xĈJ,è•Ô,<sup>3</sup>,è,é,<sup>3</sup>/<sub>4</sub>, ,Å,·B,» ,ì,  
<sup>1</sup>/<sub>2</sub>,ßA,<sup>1</sup>/<sub>2</sub>,ç,Ä,ç,í1,Å\•ª,Å,μ,â,ªB,È, "C•W€MIDIftf@fCf<(\*.MID)  
,âRCPftf@fCf<(\*.RCP),©,ç•İŠ•<sup>3</sup>,è,<sup>1</sup>/<sub>2</sub>FPDftf@fCf<,ìê#,É,íA,±,±,Å,ìŸ'è,í^Ó-  
i,đŽ,ì,Û,<sup>1</sup>,ñB

'^ó

%<sup>1</sup>ŠyCD,đì¬,·,éÛ,É,íA44.10KHzAfXfefĈfĈAfTf"fvfŠf"fofrfbfg"16,ÉŸ'è  
,μ,Ä%<sup>0</sup>,<sup>3</sup>,çB





