

TABLE of the translator

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0 " TABEL VOOR TESTEN VERTALER
1 HBIB = 132
2 HEENHEID = 5
3 HEENHEID = 5
4 HAVIS = 16
5 HSTACKLENGTE = 201
6 HSTACKDIEPTE = 8
7 HA1 = 29696
8 HA2 = 29184
9 HA3 = 28672
10 HA4 = 28160
11 HA5 = 27648
12 HA6 = 27136
13 HA7 = 26624
14 HBOV1 = '416503403'
15 HOND1 = '416503404'
    
```

these constants transform M1 through M7 addressing into MA addressing.
 (It allowed the translator writers to use the names introduced in the table of dynamic addresses even though the addressing mode was different MA instead of M_p)

```

16 D1(2)
17 HIL(2)
18 HCL(2)
19 HNL(2)
20 HBL(2)
21 HRL(2)
22 HTEXTPASS2(2)
23 HOBTEXT(2)
24 HWIJZER(1)
25 HOWNCOUNTER(1)
26 HOWNARRAY(1)
27 HAFLOOP(1)
28 HOBTOP(1)
29 HPASS(1)
30 D2(2)
31 HSTAPEL(2)
32 HNS(2)
33 D3(2)
34 HPLOINT(1)
35 HBOVENGRENS(1)
36 HONDERGRENS(1)
37 HFOUT(1)
38 HREGELNR(1)
39 HRANGNR(1)
40 HERRORFOUND(1)
41 HREGELDEL(1)
42 HTELLER(1)
43 HNEXTDEL(1)
44 HRANGDEL(1)
45 HPOSID(1)
46 HREGPOSID(1)
47 HCIN(1)
48 HREGLASTID(1)
49 HPRIORITY(1)
50 HNEXTBLOCK(1)
51 HCBH(1)
52 HNOF(1)
53 D3(21)
54 HVERDERLEZEN(1)
55 HVOORSYM(1)
    
```

dynamic addresses translator



56	HBANDCORRECT(1)	
57	HTEXTGEWENST(1)	
58	HREGELLEEG(1)	
59	HSTRINGLEZEN(1)	
60	HCNI(1)	
61	HNIA(1)	
62	HLRP(1)	
63	HTNS(1)	
64	HNAS(1)	
65	HCOMFOUND(1)	
66	HTNL(1)	
67	HSTANTL(1)	
68	HLAATSTE(1)	
69	HSCHADUW(1)	
70	HSTRINGVARIABLE(3)	
71	HDRUM(1)	" WORDT OOK IN PASS2 GEBRUIKT
72	HLEZENVANTAPE(1)	
73	HTAPENR(1)	
74	HGROEP(1)	
75	HGROEPEND(1)	
76	D5(2)	
77	HNEXTSYM(1)	
78	HSUB(1)	
79	HCIJFER(1)	
80	HSTATUS(1)	
81	HLID(1)	
82	HASWOORD(1)	
83	HIDLENGTH(1)	
84	D7(2)	
85	HK(1)	
86	HDEXP(1)	
87	HA(1)	
88	HIN(1)	
89	HPUNT(1)	
90	HNEGEXP(1)	
91	HE(2)	
92	HPOWER(2)	
93	HLASTE(2)	
94	D2(4)	
95	HDL(2)	
96	HREVPOL(2)	
97	D3(21)	
98	HPOWN(1)	
99	HRANGFUT(1)	
100	HRESP(1)	
101	HBASE(1)	
102	HFUTSYM(1)	
103	HSPAN(1)	
104	HMAXSPAN(1)	
105	HMAXITH(1)	
106	HSPLOC(1)	
107	HOWNARRAYLINK(1)	
108	HREVTOP(1)	
109	HGASMETER(1)	
110	HNOEP(1)	
111	HREGFUTID(1)	
112	HCURRENTBLOCK(1)	

113 HPRECSYM(1)
 114 HRANGFUTID(1)
 115 HNOS(1)
 116 HNOA(1)
 117 D5[2]
 118 HOP(1)
 119 HFBEZET(1)
 120 HCBEZET(1)
 121 HCONCOR(1)
 122 HSIGCOR(1)
 123 HSPECIN(1)
 124 HANPAR(1)

125 D58[0]
 126 MG(512)
 127 MA(512)
 128 MS(512)
 129 MC(512)
 130 MT(512)
 131 MD(512)
 132 D0[0]
 133 M0(512)
 134 M1(512)
 135 M2(512)
 136 M3(512)
 137 M4(512)
 138 M5(512)

these names are introduced just like other dyn. addresses.
 MG addressing happens to be coded like M58 addressing.

139 D0[19]
 140 UBLOCKSTR(2)
 141 ULPSTREAMS(11)
 142 GL0(1)
 143 GL1(6)
 144 GIR(2)
 145 FLV(1)
 146 FRV(1)
 147 FCV(11)
 148 GBILL(3)
 149 UTRANSTIME(2)
 150 WL1ST(1)
 151 D0[111]
 152 JCURUNIT(1)

stack bottom ^{global} variables used by the translator

153 C 0
 154 M(57)
 155 F(1)
 156 G(1)
 157 A(1)
 158 S(1)
 159 B(1)
 160 T(1)
 161 D(1)

162 C '555'
 163 UPOR(12)
 164 UR = '563 400 003'
 165 C '1665'
 166 PSE39(4)
 167 SE39 = '563 400 000'
 168 RSE41(3)

169	C '2051'	
170	UDNSS(25)	
171	C '3332'	
172	UIMMORTAL(11)	
173	USTORREN(16)	
174	C '6402'	
175	RSE73(9)	
176	SE73 = '563 400 000'	
177	RSE47(22)	" 6 402
178	RSE18(26)	
179	SE18 = '563 400 000'	
180	RSE1(14)	
181	SE1 = '563 400 000'	
182	RSE6(9)	" 6 513
183	SE6 = '563 400 000'	
184	RSE20(13)	" 6 524
185	RSE21(7)	" 6 541
186	RSE22(13)	" 6 550
187	RSE23(5)	" 6 565
188	RSE24(7)	" 6 572
189	RSE25(5)	" 6 601
190	RSE26(5)	" 6 606
191	RSE27(5)	" 6 613
192	RSE28(5)	" 6 620
193	RSE29(5)	" 6 625
194	RSE30(11)	" 6 632
195	RSE31(13)	" 6 645
196	RSE32(7)	" 6 662
197	CHEENADRES(8)	" 6 671
198	CHEEN = '563 400 000'	
199	CTERUGADRES(31)	" 6 701
200	CTERUG = '563 400 000'	
201	RSE75(3)	" 6 740
202	SE75 = '571 400 000'	
203	RSE76(3)	" 6 743
204	SE76 = '571 400 000'	
205	RSE89(3)	" 6 746
206	R89E1(6)	" 6 751
207	RSE77(19)	" 6 757
208	RSE94(5)	" 7 002
209	RSE78(14)	" 7 007
210	SE78 = '562 400 000'	
211	RSE79(12)	" 7 025
212	RSE80(4)	" 7 041
213	RSE81(4)	" 7 045
214	RSE82(8)	" 7 051
215	R82E1(2)	" 7 061
216	R82E2(2)	" 7 063
217	R82E3(2)	" 7 065
218	RSE83(9)	" 7 067
219	RSE84(10)	" 7 100
220	RSE85(6)	" 7 112
221	RSE86(13)	" 7 120
222	RSE95(4)	" 7 135
223	RSE112(4)	" 7 141
224	SE112 = '562 400 000'	
225	RSE33(20)	" 7 145
226	SE33 = '563 400 000'	
227	RSE34(11)	" 7 171
228	SE34 = '563 400 000'	

229	PSE72(2)	" 7 204
230	PSE71(52)	
231	SE71 = '563 400 000'	
232	R46E3(16)	" 7274
233	C '7502'	
234	PSE92(27)	
235	C '7640'	
236	PSE115(23)	
237	SE115 = '563 600 000'	" Y, SUBCD(:)
238	PSE88(6)	
239	PSE19(1)	" 7 677
240	C '15126'	
241	PSE10(42)	
242	PSE87(3)	" 10 175
243	PSE8(3)	" 10 200
244	PSE9(23)	
245	PSE53(7)	" 10 231
246	SE53 = '563 400 000'	" SUBCD(:)
247	PSE43(6)	" 10 240
248	PSE40(16)	" 10 246
249	PSE38(5)	" 10 266
250	SE38 = '563 400 000'	
251	PSE42(4)	" 10 273
252	PSE65(3)	" 10 277
253	PSE66(3)	" 10 302
254	PSE67(13)	" 10 305
255	PSE68(21)	" 10 322
256	PSE105(15)	" 10 347
257	PSE107(7)	" 10 366
258	PSE106(7)	" 10 375
259	PSE108(3)	" 10 404
260	PSE111(14)	" 10 407
261	PSE35(1)	" 10 425
262	SE35 = '570 400 000'	
263	PSE36(9)	" 10 426
264	PSE48(13)	" 10 437
265	PSE57(7)	" 10 454
266	C '16415'	
267	PSE100(9)	
268	PSE101(6)	
269	PSE102(4)	
270	PSE104(7)	
271	PSE103(3)	
272	R103E1(3)	
273	R103E2(2)	
274	R103E3(4)	
275	PSE0(21)	
276	SE0 = '563 400 000'	
277	PSE44(6)	" 11 452
278	PSE74(3)	" 11 460
279	P50E1(44)	" 11 463
280	UCLEAR(4)	
281	C '20230'	
282	UENTIER(16)	
283	USORT(47)	
284	ULN(77)	
285	UEIDI(0)	
286	PSEINTEGERDIVISION(14)	
287	SEINTEGERDIVISION = '562 400 000'	
288	UDIDI(0)	

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289      PSERIALINTDIV(0)
290      PSERIALINTEGERDIV(18)
291      SEREALINTDIV = '562 400 000'
292      SEREALINTEGERDIV = '562 400 000'
293      UEXR(61)
294      UCOS(2)
295      USIN(58)
296      UARCTAN(58)
297      UETTR(0)
298      PSEINTEGERTOTHEPOWER(6)
299      SEINTEGERTOTHEPOWER = '562 400 000'
300      UTTR(0)
301      PSEREALTOTHEPOWER(42)
302      SEREALTOTHEPOWER = '562 400 000'
303      UCTTR(0)
304      PSECOMPLEXTOTHEPOWER(77)
305      SECOMPLEXTOTHEPOWER = '562 400 000'
306      UMOD(17)
307      UDOOR(9)
308      UCOMPOSE(10)
309      UBIT(15)
310      USHIFT(26)
311      UOR(6)
312      UAND(6)
313      UTAIL(3)
314      UHEAD(28)
315      UMOVE(55)
316 C '21644'
317      RSE116(1)
318 C '21650'
319      S HVERTALER1(1)
320      HALGOLBLOCK(130)
321      HSYM(181)
322      HTRANSNS(200) I

323      S HVERTALER2(1)
324      HBACKRAILS(170)
325      HBLOCKINI(31)
326      HBEGIN(12)
327      HLYSTD(190)
328      HAL1(105) I

329      S HVERTALER3(1)
330      HPROGEND(214)
331      HIDRRINT(63)
332      HCOLLAPSE(159)
333      HCYCLE1(75) I

334      S HVERTALER4(1)
335      HRUND(424)
336      HTRANSNL(87) I

337      S HVERTALER5(1)
338      HBOODSCHAR(379)
339      HAL40(131) I

340      S HVERTALER6(1)
341      HCREATENUMBER(256)
342      HCOLON(45)
343      HBECOMES(40)

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↓ from here invariant addresses
 of translator text are
 introduced.
 These texts occupy library segments

344		HAL2(51)
345		HAL3(43)
346		HFORGOTO(14)
347		HSQUAREOPEN(29)
348		HARITHOR(30) I
349	S	HVERTALER7(1)
350		HAL5(46)
351		HROUNDOPEN(81)
352		HAL6(46)
353		HAL12(21)
354		HRELATION(12)
355		HAL7(53)
356		HNON(16)
357		HAL8(13)
358		HBI8OP(11)
359		HAL9(25)
360		HTRUE(28)
361		HIF(18)
362		HAL10(24)
363		HTHEN(27)
364		HAL11(41)
365		HELSE(34) I
366	S	HVERTALER8(1)
367		HAL13(77)
368		HAL14(45)
369		HRCLOSE(35)
370		HAL15(49)
371		HAL16(48)
372		HEND(95)
373		HAL27(33)
374		HAL17(82)
375		HSTERWHILE(13) I
376	S	HVERTALER9(1)
377		HSEMICOLON(195)
378		HUNTIL(15)
379		HAL21(43)
380		HDO(29)
381		HAL22(68)
382		HCOMMENT(37)
383		HAL23(17)
384		HOWN(19)
385		HAL24(87) I
386	S	HVERTALER10(1)
387		HTYPE(37)
388		HARRAY(50)
389		HPROC(41)
390		HVALUE(9)
391		HLABSTR(15)
392		HAL29(13)
393		HSTRINGOPEN(104)
394		HAL18(68)
395		HSOUCLOSE(39)
396		HAL20(40)
397		HCOMMA(92) I
398	S	HVERTALER11(1)

399		HLYST(509) I
400	S	HVERTALER12(1)
401		HLYSTA(510) I
402	S	HVERTALER13(1)
403		HLYSTB(510) I
404	S	HVERTALER14(1)
405		HLYSTC(509) I
406	S	HVERTALER15(1)
407		HESPECEJDES(340)
408		HDRUM(160) I
409	S	HVERTALER16(1)
410		HLYSTE(508) I
411	S	HVERTALER17(1)
412		HLYSTF(511) I
413	S	HVERTALER18(1)
414		HVULBIB(511) I
415	S	HVERTALER19(1)
416		HVULBIB1(511) I
417	S	HVERTALER20(1)
418		HABEGIN(65)
419		HATYRE(38)
420		HAEEND(59)
421		HASTACKRR(35)
422		HAI(14)
423		HATHEN(55)
424		HABARRAY(110)
425		HABINOR(46)
426		HASELSE(73) I
427	S	HVERTALER21(1)
428		HASQUCLO(143)
429		HASEMCO(142)
430		HABECOMES(222) I
431	S	HVERTALER22(1)
432		HAPROC(474) I
433	S	HVERTALER23(1)
434		HACOLON(134)
435		HCCYCLE2(116)
436		HANOR(122)
437		HASWITCH(116) I
438	S	HVERTALER24(1)
439		HACOMMA(154)
440		HAFOR(194)
441		HAROPEN(20)
442		HAROCLO(63)
443		HASQUOR(39) I
444	S	HVERTALER25(1)

445		HAUNTIL(62)	
446		HADD(138)	
447		HAWHILE(14)	
448		HASTRING(99)	
449		HAZOEKSPROOR(104)	
450		HAFINPASS2(94)	I
451	S	HVERTALER26(1)	
452		HACONEXPR(126)	
453		HABLOCKINT(309)	
454		HADECAF(54)	I
455	S	HVERTALER27(1)	
456		HATRANSREV(460)	I
457	S	HVERTALER28(1)	
458		HATRANSRPS(191)	
459		HARUND(107)	
460		HECHECK(63)	
461		HELABVAL(80)	
462		HETRCON(69)	I
463	S	HVERTALER29(1)	
464		HECRESUB(33)	
465		HEARVAL(126)	
466		HELEETVAL(123)	
467		HEGOTO(96)	
468		HADYNAR(87)	I
469	S	HVERTALER30(1)	
470		HASTATCOL(226)	
471		HECONTIM(274)	I
472	S	HVERTALER31(1)	
473		HACREATEDB(425)	
474		HEBOVAL(85)	I
475	S	HVERTALER32(1)	
476		HEBECOMES(214)	
477		HEETHEN(130)	
478		HENON(42)	
479		HEEELSE(120)	I
480	S	HVERTALER33(1)	
481		HEAROP(192)	
482		HENEG(67)	
483		HESUBSCR(220)	I
484	S	HVERTALER34(1)	
485		HEEUFDES(511)	I
486	S	HVERTALER35(1)	
487		HEOR(46)	
488		HEIMR(74)	
489		HEEQUIV(42)	
490		HEDESEU(118)	
491		HESWITCH(24)	
492		HEKVAD(15)	
493		HEINTDIV(30)	
494		HEREL(136)	I

495	S	HVERTALE836(1)	
496		HECOMREL(157)	
497		HEPOWER(43)	
498		HECOMPLUS(230)	
499		HASTER(48)	I
500	S	HVERTALE837(1)	
501		HECOMDIV(450)	
502		HEAND(46)	I
503	S	HVERTALE838(1)	
504		HDRCL(102)	
505		HDRINVAR(100)	
506		HDRIL(309)	I
507	S	HADRUK(150)	
508		HDRUKPASS1(160)	
509		HTAPE(55)	
510		CNEXTGROUP(100)	
511		CDUMEND(15)	
512		CBOODSCHAP0(25)	
513		CALGOL(2)	I
514		URQIMTE222(28)	
515	S	HEYTRA(1)	
516		UAEVALUE(190)	
517		UOUTARRAY(19)	
518		UINVSE117(22)	
519		KARAKTERUIT(82)	
520		KARAKTERIN(160)	
521		UINVSETIME(38)	I
522	S	MAGNEETBAD(1)	
523		JREADBACK(202)	
524		INAL(20)	
525		UTELESTRING(43)	
526		CSETSTRING(20)	
527		CSTRINGSYN(14)	I
528	S	HTOEVOEG(285)	
529		CLINENUMBER(1)	I
530		URQIMTE66(1)	
531	S	JMTRROC1(1)	
532		JINSRTAPE(17)	
533		JWRITETAPE(34)	
534		JREADTAPE(1)	I
535	S	JMTRROC2(1)	
536		JOSENTAPE(133)	
537		JCLOSETAPE(100)	
538		JTAPESERR(88)	
539		JWRITERPOSITION(172)	
540		JREADPOSITION(2)	I
541	S	UINVSESEG4(1)	
542		UINVAND(26)	
543		UINVOR(26)	

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544      UINVSHIF(33)
545      UINVBIT(26)
546      UINVHEAD(17)
547      UINVTAIL(17)
548      UINVCOMPOSE(26)      I

549  S    UINVSESEG(1)
550      UINVPLT(397)
551      UINVPLTERAME(102)   I

552  S    UINVSESEG3(1)
553      UINVPLTTEXT(319)
554      UINVFIXPLT(1)
555      UINVABSELYPLT(1)
556      UINVELOREPLT(121)  I

557  S    UINVSESEG5(1)
558      UINVPLTCURVE(1)    I

559  URUIMTE44(2)

560  S    UINVARITHMSEG(1)
561      UINVENTIER(17)
562      UINVSORT(17)
563      UINVABS(18)
564      UINVLN(17)
565      UINVEXP(17)
566      UINVCOS(17)
567      UINVSIN(17)
568      UINVARCTAN(17)
569      UINVSIGN(19)
570      UINVMOD(19)
571      UINVRE(17)
572      UINVIM(19)
573      UINVCOM(23)
574      UINVGEC(22)
575      UINVSE2(5)
576      UINVSE3(5)
577      UINVSE4(4)
578      UINVSE5(219)      I

579  S    CRPROC1(1)
580      CRUTEXT2(2)
581      CRUTEXT1(45)
582      CRUTEXI1(39)
583      CRUSPACE1(2)
584      CRUSPACE2(2)
585      CRUSPACE1(16)
586      CRUSYM1(2)
587      CRUSYM2(2)
588      CRUSYM1(9)
589      CRUCHARF1(2)
590      CRUCHARF2(2)
591      CRUCHARF1(9)
592      CRUNLCR1(2)
593      CRUNLCR2(2)
594      CRUNLCR1(4)
595      CRUTAB1(2)
596      CRUTAB2(2)
597      CRUTAB1(350)

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" RUNTEXT2
" RUNTEXT1 = RUNTEXT
" RUNTEXT
" RUNSPACE
" RUNSPACE2
" RUNSPACE1 = RUNSPACE
" RUNSYM
" RUNSYM2
" RUNSYM1 = RUNSYM
" RUNCHARF
" RUNCHARF2
" RUNCHARF1
" RUN NLCR
" RUN NLCR2
" RUN NLCR1 = RUNLCR
" RUNTAB
" RUNTAB2
" RUNTAB1

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library procedures have to be known to the tr. since they occur in algol text.

598		CRUNOUT(11) I	" RUNOUT
599	S	CTRRROC2(55)	
600		CRUOCT1(2)	" RUNOCT
601		CRUOCT2(2)	" RUNOCT2
602		CRUOCT1(23)	" RUNOCT1 = RUHER
603		CRURUNOUT1(2)	
604		CRURUNOUT2(2)	" RUNRUNOUT2
605		CRURUNOUT1(17)	" RUNRUNOUT1
606		CENDTRDOC2(2)	" ENDRUNDOC2
607		CENDTRDOC1(7)	" ENDRUNDOC1
608		CENDTRDOC1(46) I	" ENDRUNDOC
609	S	UINVSESEG1(104)	
610		UNORMALEXIT(229) I	
611	S	UINVSESEG2(433)	
612		UCALCULATION(14)	
613		UINVEXECUTION(12) I	
614		CLEEG1(10)	
615	S	UINVSESEG(482)	
616		UINVENDELDOC(1) I	
617	S	CLRRROC2(1)	
618		CABSEIXT(2)	" ABSEIXT
619		CEIXT(2)	" EIXT
620		CELOT(42)	" ELOT
621		CRNTX(28)	" PRINT = PRINT
622		CRNCH2(2)	" RUNUM2
623		CRNCH1(36)	" RUNUM1 = RUNCH
624		CRNCH1(298)	" RUNUM
625		CABSEIXR2(2)	" RUNABSEIX2
626		CABSEIXR1(3)	" RUNABSEIX1
627		CEIXR2(2)	" RUMFIX2
628		CEIXR1(3)	" RUMFIX1
629		CELOR2(2)	" RUMFLO2
630		CELOR1(63)	" RUMFLO1 = FLOP
631		CABSEIXR1(2)	" RUNABSEIX
632		CEIXR1(2)	" RUMFIX
633		CELOR1(7) I	" RUMFLO
634	S	CLRRROC1(54)	
635		CRRINTTEXT(30)	" PRINTTEXT
636		CTAB(21)	" TAB
637		CENDLRDOC(8)	
638		CNEVRAGE(34)	" NEVRAGE
639		CRPSYM(50)	" PRSYM
640		CNLCR(18)	" NLCR
641		CRCHAR(78)	" RCHAR
642		CSPACE(13)	" SPACE
643		CARRIAGE(13)	" CARRIAGE
644		CLRRNT(191) I	
645	S	CTAREPROC1(145)	
646		COCT2(2)	" OCT2
647		COCT1(10)	" OCT1 = REMER
648		COCT1(2)	" OCT
649		CHARE2(2)	" CHARE2
650		CHARE1(4)	" CHARE1
651		CHARE1(2)	" CHARE

```

652      CNUMINSR(28)      " NUMINSR
653      CNUM2(2)         " NUM2
654      CNUM1(8)         " NUM1 = READ = READ
655      CNUM1(113)       " NUM
656      CSYMINSR(69)     " SYMINSR
657      CSYM2(2)         " SYM2
658      CSYM1(5)         " SYM1 = RESYM
659      SYM(116)
660      CSYM1(2) I      " SYM

661      S CTAREPROC2(52)
662      CBACKCHAR(6)    " BACKCHAR
663      CBACKSYM(4)     " BACKSYM
664      CBACKOCT(13)    " BACKOCT
665      CINICHAR(48)    " INICHAR
666      CINIPATA(4)     " INIPATA
667      CSKIPDATA(78)  " SKIP DATA
668      CORRECTION(304) I

669      C '25116'
670      HSTACK(22)
671      HBOV2 = '562 600 000'

672      HUNSTACK(22)
673      HOND2 = '562 700 000'

674      HGENERATE(50)
675      HGEN = '562 400 000'
676      HOBT = '562 400 043'
677      HANOGEN = '562 400 054'

678      HAREKENING(15)
679      HKOST = '562 400 000'
680      HBERGE(112)
681      CWRTITARE(37)
682      CINSRTARE(9)

683      C '25531'
684      HPAG(23)
685      CCOCT(32)
686      HRESTIT(12)

687      C '26135'
688      CREADBACK(6)
689      CREADKOR(26)
690      CREADTARE(28)
691      CEASTREAD(3)
    
```

a few core routines especially made for the tr.

```

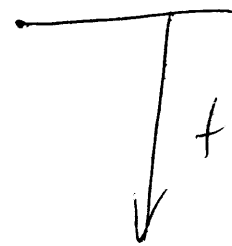
0 CEASTREAD(3)
1   SUBC(:UIMMORTAL)
2   SUBC(:CREADKOP[13])
3   GOTO(:CREADTARE[1])

4
5
6 HSTACK(22)
7   S = HBOVENGRENS
8   HSTANTL = S
9   G = - HPLOINT
10  S = :HSTAPEL ,7
11  SUBC(MS)
12  SE38
13  S = HSTANTL
14  G = MS[- HSTACKLENGTE]
15  DO(MC[- 1])
16  S = 1
17  HPLOINT + S
18  PLUSS(HSTANTL)
19  U, B = :MS[0] ,Z
20  N, JUMP(- 12)
21  B = HBOVENGRENS
22  B = HSTACKLENGTE
23  G = MS[- HSTACKLENGTE]
24  MC = G
25  S + 1
26  U, B = HBOVENGRENS ,Z
27  N, JUMP(- 5)
28  GOTOR(MC[- 1])

29
30
31 HUNSTACK(22)
32  B + HSTACKDIEPTE
33  S = HONDERGRENS
34  S + HSTACKDIEPTE[2]
35  G = MC[- HSTACKDIEPTE][- 1]
36  MS[- HSTACKDIEPTE][- 1] = G
37  S - 1
38  U, B = HONDERGRENS ,Z
39  N, JUMP(- 5)
40  B + 2
41  U, S = HONDERGRENS ,Z
42  Y, GOTOR(MC[- 1])
43  S - 1
44  MC = S
45  S = 1
46  MINS(HPLOINT)
47  G = - S
48  S = :HSTAPEL ,7
49  SUBC(MS)
50  SE39
51  S = MC[- 1]
52  MS[- HSTACKDIEPTE] = G
53  JUMP(- 13)

54
55

```


 this is permanently core resident.

```

" 6.0
" HSTACK

```

```

" 6.1
" HUNSTACK

```

```

" 6 - 2
" HGEN = 0

```

```

56 HGENERATE(50)
57     MC = S           " GENERATE VINDT DE INSTRUCTIE
58     S = HRESP       " IN S
59     U, S = 2, R
60     Y, JUMP(22)
61     S = 2, 7
62     N, JUMP(9)
63     S = MI(36)
64     SUBC(:MI(23))
65     F = - 513
66     G = HBASE
67     S = :HOBTEXT, Z
68     SUBC(MS)
69     S = A
70     DO(MD[- 1])
71     SUBC(:MI(16))
72     S = 512
73     PLUS(HBASE)
74     HOBTOP = S
75     G = - S
76     S = :HOBTEXT, Z
77     SUBC(MS)
78     S = A
79     DO(MD[- 1])
80     SUBC(:MI(7))
81     S = 511
82     HRESP = S
83     S = MC[- 1]
84     SUBC(:MI(3))
85     S = 1
86     HRESP = S
87     GOTOR(MC[- 1])
88     F = - 1
89
90
91     G = HORTOP
92     HOBTOP = - G
93     F + 1
94     MC = S
95     S = :HOBTEXT, Z
96     SUBC(MS)
97     SE38
98     G = MI(B - 3)
99     DO(MC[- 1])
100    B - 1
101    GOTOR(MC[- 3])
102    SE33
103    MC = S
104    S = G, R
105    PLUS(HSPAN)
106    Y, S = HMAXSPAN, F
107    Y, HMAXSPAN + S
108    JUMP(- 49)
109
110
111
112
113

```

*adds an instruction to object-code
 if necessary a next segment will be introduced
 and the transition to that segment generated*

" SE33 OPHALEN
 " OBTEXT[OBTOP] := S; OBTOP := OBTOP + 1;

" IDEM

" SUBROUTINE OBT[OBTOP] := S; OBTOP := OBTOP + 1

" 6 - 3
 " HGEN - 1

" EINDE SUBROUTINE IN DE SUBROUTINE

" BEGIN VAN HANOGEN

" ALS DE TEST FASE VOLTOOID IS MOET
 " ER NOG TOEGEVOEGD WORDEN
 " EEN TEST OP ERROR FOUND

" 6 - 4
 " WAEREKENING

```

114 HAFREKENING(15)
115     S + HGASMETER
116     RUS(HEENHEID), Z
117     S '*' '77777'
118     Y, S = 1
119     S + MT(9)           " S = 0
120     HGEN               " INSPRINGPUNT VANUIT HRESTIT
121     S = '1404'        " STAT + S, R
122     LUS(15)
123     S + :GBILL
124     HGEN
125     S = MT(2)         " SE115
126     HGEN
127     GOTOR(MC) - 1))
128     SE115
129     S = 0

130
131
132 HBERGE(25)
133     S = '7260'        " DYN = F
134     U, A = HSIGCOR, R
135     N, S + '100'     " MAAK ER VAN DYN = - F
136     G = HFBEZET
137     F = 1, Z
138     Y, S + 1         " MAAK ER VAN DYN = + G
139     RCS(12)
140     S + '75400'     " MC =
141     N, F = 2
142     Y, F = 1
143     HANOGEN
144     S = - HSIGCOR, R " - SIGNCORRECT?
145     Y, S = HFBEZET
146     Y, S = 3, Z
147     N, JUMP(4)
148     S = MT(7)       " F = M[B - 4]
149     HGEN
150     S = MT(6)       " M[B - 4] = - F
151     HGEN
152     S = 0
153     HFBEZET = S
154     HSIGCOR = B
155     GOTOR(MC) - 1))
156     F = M[B - 4]
157     M[B - 4] = - F

158
159
160 HPAG(1)
161     '777000'

162
163
164 HRESTIT(10)
165     S - HGASMETER
166     JUMP(1)
167     S + HGASMETER
168     RUS(HEENHEID), R
169     N, S = - S
170     S '*' '77777'

```

```

" 6 - 5
" HBERGE

```

```

" 6-6
" HPAG

```

```

" 6 - 7
" HRESTIT

```



```

171 N, S + MT(2) " S = - 0
172 Y, S + HAEREKENING(14) " S = 0
173 GOTO(:HAEREKENING(5))
174 S = - 0

```

end of corefilling translator

```

175
176
177 HVERTALER1(1)
178 HVERTALER1

179 HVERTALER2(1)
180 HVERTALER2

181 HVERTALER3(1)
182 HVERTALER3

183 HVERTALER4(1)
184 HVERTALER4

185 HVERTALER5(1)
186 HVERTALER5

187 HVERTALER6(1)
188 HVERTALER6

189 HVERTALER7(1)
190 HVERTALER7

191 HVERTALER8(1)
192 HVERTALER8

193 HVERTALER9(1)
194 HVERTALER9

195 HVERTALER10(1)
196 HVERTALER10

197 HVERTALER11(1)
198 HVERTALER11

199 HVERTALER12(1)
200 HVERTALER12

201 HVERTALER13(1)
202 HVERTALER13

203 HVERTALER14(1)
204 HVERTALER14

205 HVERTALER15(1)
206 HVERTALER15

207 HVERTALER16(1)
208 HVERTALER16

209 HVERTALER17(1)
210 HVERTALER17

211 HVERTALER18(1)
212 HVERTALER18

```

" 21.0
" HVERTALER

all tr. segments are filled with inv.addr. as first word according to convention

213 HVERTALER19(1)
214 HVERTALER19
215 HVERTALER20(1)
216 HVERTALER20
217 HVERTALER21(1)
218 HVERTALER21
219 HVERTALER22(1)
220 HVERTALER22
221 HVERTALER23(1)
222 HVERTALER23
223 HVERTALER24(1)
224 HVERTALER24
225 HVERTALER25(1)
226 HVERTALER25
227 HVERTALER26(1)
228 HVERTALER26
229 HVERTALER27(1)
230 HVERTALER27
231 HVERTALER28(1)
232 HVERTALER28
233 HVERTALER29(1)
234 HVERTALER29
235 HVERTALER30(1)
236 HVERTALER30
237 HVERTALER31(1)
238 HVERTALER31
239 HVERTALER32(1)
240 HVERTALER32
241 HVERTALER33(1)
242 HVERTALER33
243 HVERTALER34(1)
244 HVERTALER34
245 HVERTALER35(1)
246 HVERTALER35
247 HVERTALER36(1)
248 HVERTALER36
249 HVERTALER37(1)
250 HVERTALER37
251 HVERTALER38(1)
252 HVERTALER38

38 segments in all,

" 19.11
" HDRUKPASS1 - 0

```

253
254
255 HDRUKPASS1(155)
256     HDRUKPASS1
257     B + 2
258     S = 9
259     SE73
260     CNEWPAGE
261     S = 0
262     HCIN[HA3] = S
263     S = HCIN, Z
264     Y, JUMP(25)
265     B + 2
266     SE75
267     0
268     4
269     SE75
270     0
271     0
272     S = :HCIN[HA3]
273     SE78
274     S = 21
275     SE73
276     CABSEIXT
277     B + 2
278     S = :HCIN[HA3]
279     SE78
280     S = 13
281     SE73
282     WIDRINT
283     B + 2
284     S = 9
285     SE73
286     CNLCR
287     S = 1
288     PLUS(HCIN[HA3])
289     JUMP(- 27)
290     B + 2
291     S = 9
292     SE73
293     CNLCR

294
295
296     G = HWIJZER
297     S = :HTEXTPASS2
298     SUBC(:MT(29))
299     G = HTNL
300     S = :HNL
301     SUBC(:HT(26))
302     S = HNEXTBLOCK
303     MC = S
304     S = 0
305     MC = S
306     U, S = M[B - 2], Z
307     Y, JUMP(18)
308     G = - S
309     S = :HBL, Z
310     SURC(MS)
    
```

printing out of the intermediate language handed over from pass 1 to pass 2

Only used during testing, but still present in the system.

" 19.11
" HDRUKPASS1 - 1

```

311      SE39
312      HTELLER[HA3] = G
313      B + 2
314      S = :HTELLER[HA3]
315      SE78
316      S = 13
317      SE73
318      CRRNTX
319      B + 2
320      S = 9
321      SE73
322      CNLGR
323      S = 1
324      PLUS$(M[B - 1])
325      JUMP(- 20)
326      B - 2
327      CTERUG

```

```

328
329
330      MC = G
331      MC = S
332      F/6
333      U, S = M[57], Z
334      N, SUBCD(:RSE88)
335      S = G
336      F * 6
337      G = M[B - 2], R
338      Y, S - 1
339      MC = S
340      S = 0
341      MC = S
342      U, S = M[B - 2], Z
343      Y, JUMP(26)
344      S = 6
345      MC = S
346      S = 0
347      MC = S
348      U, S = M[B - 2], Z
349      Y, JUMP(16)
350      G = - M[B - 4]
351      G * S
352      G = M[B - 3]
353      S = M[B - 5], Z
354      SUBC(MS)
355      SE39
356      HTELLER[HA3] = G
357      B + 2
358      S = :HTELLER[HA3]
359      SE78
360      S = 13
361      SE73

```

```

362
363
364      CRRNTX
365      S = 1
366      PLUS$(M[B - 1])
367      JUMP(- 18)
368      B - 2

```

" 19.11
" HDRUKPASS1 - 2

" SUBROUTINE

" 19.11
" HDRUKPASS1 - 3

```

369      S = 1
370      PLUSS(M[B - 1])
371      JUMP(- 28)
372      G = S
373      F * 6
374      M[B - 1] = G
375      S = M[B - 4]
376      M[B - 2] = S
377      S = G
378      S = M[B - 2], 2
379      Y, JUMP(26)
380      B + 2
381      S = 9
382      SE73
383      CNLCR
384      S = 105
385      HTELLER(MA3) = S
386      B + 2
387      S = :HTELLER(MA3)
388      SE78
389      S = 13
390      SE73
391      CSRACE
392      G = - M[B - 1]
393      S = M[B - 3], 2
394      SUBC(MS)
395      SE39

```

```

396
397
398      HTELLER(MA3) = G
399      B + 2
400      S = :HTELLER(MA3)
401      SE78
402      S = 13
403      SE73
404      CRRNTX
405      S = 1
406      PLUSS(M[B - 1])
407      JUMP(- 28)
408      B - 2
409      S = 9
410      SE73
411      CNLCR
412      S = MC[- 1]
413      S '*' -'77000'
414      G = S
415      S = T
416      S '*' '77000'
417      S + G
418      GOTOR(S)

```

```

419
420
421      HADRUK(134)
422      HADRUK
423      B + 2
424      S = 9
425      SE73
426      CNEWPAGE

```

```

" 19.11
" HADRUKPASS1 - 4

```

```

" 19.10
" HADRUK - 0

```

*printing of object code in octal form
only used in testing*

```

427      JUMP(5)
428      MADRUK(7)
429      '063 046 056'
430      '051 047 070'
431      '070 051 074'
432      '070 167 776'
433      B + 2
434      G = MT[- 7]
435      SE112
436      S = 13
437      SE73
438      CPRINTTEXT
439      S = 0
440      MC = S
441      U, S = HOBTOP, P
442      Y, JUMP(74)
443      S = 0
444      MC = S
445      U, S = 128, Z
446      Y, JUMP(57)
447      S = 0
448      MC = S
449      U, S = 512, Z
450      Y, JUMP(42)
451      S + M[B - 2]
452      S + M[B - 3]
453      G = - S

454
455
456      S = :HOBTEXT, Z
457      SUBC(MS)
458      SE39
459      HAFLOOP = G
460      S = 0
461      MC = S
462      S = 11, Z
463      Y, JUMP(19)
464      S = HAFLOOP
465      LCS(3)
466      HAFLOOP = S
467      S '*' 7
468      MC = S
469      B + 2
470      S = :MC[- 3]
471      SE78
472      S = 13
473      SE73
474      CRRSYM
475      S = MC[- 2]
476      U, S = 1, Z
477      N, S = 4, Z
478      S = 1
479      PLUS(M[B - 1])
480      N, JUMP(- 19)
481      S = 93
482      JUMP(- 15)
483      S = 25
484      M[B - 1] = S
485      B + 2

```

```

" 19.10
" MADRUK - 1

```

```

486      S = :MC[- 3]
487      SE78

488
489
490      S = 13
491      SE73
492      CSRACE
493      B - 1
494      S = 128
495      PLUS(M[B - 1])
496      JUMP(- 44)
497      B - 1
498      S = 1
499      PLUS(M[B - 1])
500      U, S '*' 7, Z
501      W, JUMP(- 53)
502      B + 2
503      S = 9
504      SE73
505      CNLCR
506      S = M[B - 1]
507      JUMP(- 59)
508      B + 1
509      S = 9
510      SE73
511      CNLCR
512      S = 512
513      PLUS(M[B - 1])
514      JUMP(- 70)
515      HADRUK[90]
516      '167 167 066'
517      '051 053 051'
518      '060 060 075'
519      '067 070 167'
520      '776 000 000'
521      B + 2

522
523
524      G = M[- 8]
525      SE112
526      S = 13
527      SE73
528      CRRINTEXT
529      S = 0
530      M[B - 1] = S
531      G = - S
532      S = :HRL, Z
533      SUBC(MS)
534      SE39
535      S = G
536      U, S + 1, Z
537      Y, M[B - 1] = S
538      HAFLOOP = S
539      B + 2
540      S = :HAFLOOP
541      SE78
542      S = 13
543      SE73

```

" 19.10
" HADRUK - 2

" 19.10
" HADRUK - 3

" INV. ADR. STRING REGELLYST

544 CRRNTX
545 B + 2
546 S = 9
547 \$E73
548 CNLCR
549 S = 1
550 PLUSS(M(B - 1)), Z
551 N, JUMP(- 21)
552 B - 1
553 S = ULRSTREAMS
554 S = MS
555 UBLOCKSTR = S

556
557
558 CHEEN
559 CENDLRDOC
560 DO(MD[- 1])
561 SUBCD(:USTORREN)
562 DO(MD[- 1])
563 CTERUG

" 19.10
" MADRUK - 4

beginning of pass1

collects basic symbol of
algol text and performs some necessary transformations

" 7.0
" HSYM = 0

```

0
1
2 HSYM(179)
3     A = 4
4     S = 7
5     SE18
6     S = 23
7     SE1
8     U, A = HVERDERLEZEN, P
9     N, S = HVOORSYM
10    Y, SUBC(:MT(122))
11    U, S + 1, P
12    Y, JUMP(8)
13    HVERDERLEZEN = B
14    U, A = HBANDCORRECT, P
15    N, JUMP(133)
16    HFOUT = S
17    B + 2
18    S = 9
19    SE73
20    HBOODSCHAP
21    U, A = HTEXTGEWENST, P
22    N, JUMP(2)
23    U, A = HVERDERLEZEN, P
24    Y, SUBC(:MT(99))
25    U, S - 118, Z
26    N, JUMP(6)
27    S = MT(4)
28    GL0 = S
29    S = MD(3)
30    GL1 = S
31    SE34
32    HPROGEND
33    HVERDERLEZEN = B
34    U, S - 119, Z
35    N, JUMP(47)

```

" S := G := SYM
" SYM > 0?

" PRSYM(S)
" BROGEND?

" NLCR?

" 7.0
" HSYM = 1

```

36
37
38     SUBC(:MT(96))
39     HVOORSYM = S
40     S - 119, Z
41     N, JUMP(3)
42     S = HTEXTGEWENST, P
43     Y, SUBC(:MT(83))
44     JUMP(- 7)
45     S = 1
46     HREGELNR + S
47     S = 0
48     HRANGNR = S
49     HREGELLEFG = B
50     S = - HSTRINGLEZEN, P
51     Y, S = - HERRORFOUND, P
52     N, JUMP(15)
53     G = - HWIJZER, P
54     E + 2, E
55     N, JUMP(4)
56     S = :HTEXTPASS2, Z
57     SUBC(MS)

```

" PRSYM(HVOORSYM)

" DAN MOET WIJZER = 0 ZIJN GEWEEST

```

58      SE39
59      F + 7799, Z          " WAS ER HET LAATST EEN NLGR IN TEXTPASS2 GESTOPT ?
60      N, S = 2
61      N, HWIJZER + S
62      N, S = - 7799
63      N, F = 2
64      N, SUBC(:MT(52))    " TEXTPASS2[WIJZER - G] := S
65      F = 1
66      S = HREGFLNR
67      SUBC(:MT(49))      " TEXTPASS2[WIJZER - G] := S
68      S = HTEXTGEWENST, R
69      N, JUMP(13)
70      B + 2
71      SE76
72      + 0
73      + 4
74      SE76
75      + 0
76      + 0
77      S = :HREGELNR

78
79
80      SE78
81      S = 21
82      SE73
83      CABSEIXT
84      SUBC(:MT(44))      " RRSYM(HVOORSYM)
85      HVERDERLEZEN = - B
86      JUMP( - 75)
87      U, S = 93, Z       " SPATIE?
88      N, JUMP(3)
89      S = - HSTRINGLEZEN, R
90      Y, JUMP( - 77)
91      S = 129           " STRINGSPATIE
92      HREGELLEEG = - B
93      G = S
94      U, S = HSTRINGLEZEN, R
95      Y, JUMP(4)
96      U, S = 123, Z
97      Y, F = 63
98      U, S = 124, Z
99      Y, F = 93
100     U, S = 62, R
101     Y, S = - HDRUM, R
102     Y, S = 1
103     Y, HRANGNR + S
104     S = G
105     S = 90, Z
106     Y, S = - HSTRINGLEZEN, R
107     N, JUMP(45)
108     SUBC(:MT(28))      " S := G := SYM
109     HVOORSYM = S
110     U, S = HTEXTGEWENST, R
111     Y, SUBC(:MT(17))   " RRSYM(HVOORSYM)
112     U, S = 93, Z       " SPATIE?
113     Y, JUMP(- 6)
114     U, S = 70, Z
115     Y, F = 344

```

" 7.0
" HSYM - 2

of some frequently used num. procedures the algol-text is permanently on drum, they may be declared by: library <identifierlist>; no body has to be given.

" REPRESENTATION FOR MIARE
" LIBRARY ?
" GEEN LETTER OF DIGIT ?

```

116
117
118 N, F = 90
119 N, HVERDERLEZEN = - B
120 JUMP(34)
121 MC = S " TEXTPASS2[WIJZER - G] := S
122 G = HWIJZER
123 S = :HTEXTPASS2, Z
124 SUBC(MS)
125 SE38
126 G = MIB - 31
127 DO(MCI - 11)
128 B - 1
129 GOTOR(MCI - 11)
130 HVOORSYM = S " PRSYM(S)
131 B + 2 " PRSYM(HVOORSYM)
132 S = :HVOORSYM
133 SE78
134 S = 13
135 SE73
136 CRFSYM
137 G = HVOORSYM
138 JUMP(22)
139 S = 15 " SUBROUTINE S := G := SYM
140 GBILL + S, R
141 SE115
142 S = HDRUM, R
143 Y, JUMP(5)
144 U, S = HLEZENVANTAPE, R
145 Y, JUMP(28)
146 CHEEN
147 SYN
148 JUMP(11)
149 E = :HSTRINGVARIABLE
150 SURCD(:UDNSS)
151 S = A
152 DO(MCI - 11)
153 U, S = 510, Z " EINDE STRING ?
154 JUMP(4)
155 S = 17
156 GBILL + S, R
157 SE115
158 SE71
159 Y, JUMP(9)
160 G = S
161 S = MCI - 11
162 S '*' = HRAG
163 MC = S
164 S = :MT(0)
165 S '*' HRAG
166 MIB - 11 + S
167 S = G
168 GOTOR(MCI - 11)
169 CHEEN
170 CD

```

THIS SECTION has been reproduced seperately

