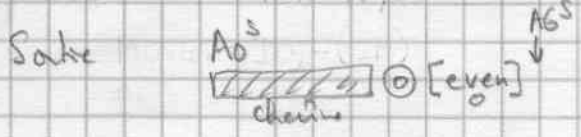


② Pose en libre str(<A0>)

Enhies A1 #TFRMTY
x=<A0> flottant
AG libre



XPRTAG: MOVE #1, TILDEF

sortie du tilde

MOVE.L AG, -(SP)

CMP #4000, 2(A0)

BNE GIB80

BSR MH33

↓ x=0v

BRA GIB82

GIB80: TST (A1)

BMI KE272

→ format < 0

BNE KE275

→ format > 0

BSR XUNFL

↓ format = 0

MOVE.L A2, A0

BSR XPRTA20

p/q = A0

GIB82: TST TILDE

BNE KE276

TST -(A6)

00 → v0

BNE GIB84

x0 → xv00

MOVE #FE00, (A6)+

BRA KE276

GIB84: OR #FE, (A6)+

CLR (A6)+

BRA KE276

KE275: BSR XUNFL

format > 0

MOVE.L A2, A0

BSR XPRTA2F

KE276: MOVE.L A0, A2

MOVE.L (SP), A0

BSR XLB76

KE277: MOVE.L (SP)+, A0

RTS

② détermine s'il y a lieu de normaliser le nombre pour sortie plus rapide 24.a.1

```

KE272: MOVE TPREC, D0
      MOVE D0, D1
      MULU #57374, D1
      SWAP D1
      SUB #100, D1
      CMP (A0), D1
      BGT GIB68
      CMP #800, D0
      BGT GIB66
      MULU #58081, D0
      SWAP D0
      ADD #200, D0
      BRA GIB67
  
```

precision 2

$$d1 = r_{min} = \frac{57374 p}{2^{16}} - 100$$

$(A0) < d1_{min} \rightarrow$ normaliser

X
X

$p \in [0, 800]$ $d0 = r_{max} = \frac{58081}{2^{16}} p + 200$

```

GIB66: MOVE D0, D1
      MULU #716, D1
      SWAP D1
      ADD D1, D0
      ADD #100, D0
  
```

$p > 800$ $d0 = r_{max} = \frac{716 p}{2^{16}} + p + 100$

```

GIB67: CMP (A0), D0
      BGE KE275
  
```

si $(A0) < d0_{max}$ ne pas normaliser

```

GIB68: MOVE.L A0, -(SP)
      ADDQ #2, A0
      BSR XINTLGA @118
      MOVEM.L (SP), A0/A6
      SUB (A0), D1
      MOVE D1, -(SP)
      LEA TPREC, A1
      MOVE (A1), -(SP)
      MOVE #20, (A1)
      LEA TBASE, A0
      BSR XALOG
      MOVE (SP)+, TPREC1
      MOVE (SP)+, D0
      BSR XLGCV
      MOVE.L D0, D1
      DIVS TFRMTM+2, D1
      SWAP D1
      SUB D1, D0
  
```

sortie par pronomalisation de x détermine k tel que $x b^k \approx 1$

① $k_2 = \text{int} \log_2(x)$

```

      LEA ESCAPE, A1
      MOVE (A1), -(SP)
      MOVE.L A1, -(SP)
      MOVE #8, (A1)
  
```

② $k_b = \log_2(b)$ à 5 chiffres

```

      MOVE.L (A1)+, -(SP)
      MOVE.L A1, -(SP)
      MOVE.L #320000, -(A1)
      MOVE #16, -(A1)
      MOVE.L A2, A0
      BSR XINVS2
      LEA NIVEAU7, A0
      TST.B (A0)
      BSR ESC2
      CLR.B (A0)
      MOVE.L (SP)+, A1
      MOVE (SP)+, (A1)
  
```

③ calcule k

met $d0.w = \text{int} \left[\frac{k \log(2)}{\log(b)} \right]$

$d0.w = k$ l'exposant normalisateur

2

```

MOVE DO,-(SP)
MOVE TPRG,DO
BSR XLGCV
MOVE (SP),D1
NEG D1
EXT.L D1
DIVS DO,D1
MOVE.L D1,D2
SWAP D2
TST D2
BPL GIB76
ADD DO,D2
SUBQ #1,D1

```

① calcule h précision

② $d_0 = h$ tel que $b^h \sim 2^m$ machine

③ calcule m et r

$$d_1 = -k$$

$$-k = mh + r$$

$$d_1 = m$$

$$d_2 = r$$

$$d_0 = h$$

```

GIB76: MOVEM h,m DO,D1 -(SP)

```

$$\text{④ calcule } b^{-k} = \left[\text{float}\left(b^h\right) \right]^m * \text{float}\left(b^r\right)$$

↑ ↑
 autres

```
BSR XEXPFG
```

$\langle A2 \rangle = \text{float}(b^r)$ plus loin que libre

```

MOVE (SP)+,D2
MOVE.L A2,-(SP)
BSR XEXPFG
MOVE.L A2,A0
MOVE 4(SP),d1

```

$$(bw)^n$$

$$\langle A2 \rangle = \text{float}(b^r)$$

```

MOVE (SP)+,D2
MOVE (SP)+,D3

```

```

X BEQ GIB78
MOVE.L A2,-(SP)
MOVE D3,-(SP)

```

si $m=0$ $\langle A2 \rangle = b^{-k}$

```

MOVE #-1,(A6)+
BSR XEXPFG
LEA -2(A2),A0

```

$\langle A2 \rangle = \text{float}(b^h)$ en plus loin que libre

```

MOVE.L A2,A0
MOVE #-1,-(A0)

```

```

MOVE (SP)+,D3
BSR XFCEXP
LEA 2(A2),A1
MOVE.L (SP)+,A0
BSR XFLMUL

```

$$\langle \langle A2 \rangle \rangle = b^{hm}$$

$$b^r$$

$$b^{r+hm}$$

```

GIB78: MOVE.L 2(SP),A0
MOVE.L A2,A1
BSR XFLMUL
MOVE.L 6(SP),A0
BSR XLB76

```

⑤ x' normalisé

$$x' = x b^{-k}$$

mis en libre

MOVE.L A2, A0

BSR XUNFL

MOVE.L 6(SP), A0

BSR XLB76

MOVE (SP)+, D0

ADDQ #4, SP

MOVE.L (SP), A2

BSR XPRTA2E

BRA KE276

k

x' exact
BCLR #7, (A2)

mit en libre

k

soit x' et rajoute k à l'exposant

24a

⊗