Supplement on FORTRAN FORMAT

F format

```
implicit none
real x
x = 1234.567
write(*,'(a)') '1234567890'
write(*,'(a)') '----------'
write(*,*) x
write(*,'(f8.0)') x
write(*,'(f8.1)') x
write(*,'(f8.2)') x
write(*,'(f8.3)') x
write(*,'(f8.4)') x
write(*,'(f10.3)') x
write(*,'(f10.4)') x
write(*,'(f10.5)') x
end
```

Width

No of decimals

```
1234567890
----------
  1234.56702
   1235.
  1234.6
 1234.57
1234.567
********
  1234.567
 1234.5670
1234.56702
```

E format

```
implicit none
real x
x = 123.456e10
write(*,'(a)') '123456789012345'
write(*,'(a)') '---------------'
write(*,*) x
write(*,'(e12.1)') x
write(*,'(e12.2)') x
write(*,'(e12.3)') x
write(*,'(e12.4)') x
write(*,'(e12.5)') x
write(*,'(e12.6)') x
write(*,'(e12.7)') x
write(*,'(e12.8)') x
write(*,'(e15.4)') x
write(*,'(e15.5)') x
write(*,'(e15.6)') x
write(*,'(e15.7)') x
write(*,'(e15.8)') x
end
```

```
123456789012345
---------------
  1.23455996E+12
     0.1E+13
    0.12E+13
   0.123E+13
  0.1235E+13
 0.12346E+13
0.123456E+13
.1234560E+13
************
     0.1235E+13
    0.12346E+13
   0.123456E+13
  0.1234560E+13
 0.12345600E+13
```

I format (1)

```
implicit none
integer i
i = 123
write(*,'(a)') '1234'          1234
write(*,'(a)') '----'          ----
write(*,'(i1)') i              *
write(*,'(i2)') i              **
write(*,'(i3)') i              123
write(*,'(i4)') i               123
write(*,'(i5)') i                123
end
```

I format (2)

```
implicit none
integer i,ii
write(*,'(a)') '1234'
write(*,'(a)') '----'
do i=1, 11
   ii = 2**(i-1)
   write(*,'(i4.4)') ii
end do
end
```

```
1234
----
0001
0002
0004
0008
0016
0032
0064
0128
0256
0512
1024
```

A format (1)

```
implicit none
character*7 ss
ss = 'fortran'
write(*,'(a)') '123456789'    123456789
write(*,'(a)') '---------'    ---------
write(*,*) ss                  fortran
write(*,'(a)') ss             fortran
write(*,'(a1)') ss            f
write(*,'(a2)') ss            fo
write(*,'(a3)') ss            for
write(*,'(a4)') ss            fort
write(*,'(a5)') ss            fortr
write(*,'(a6)') ss            fortra
write(*,'(a7)') ss            fortran
write(*,'(a8)') ss             fortran
write(*,'(a9)') ss              fortran
end
```

A format (2)

```
implicit none
character*20 ss
ss = 'fortran'//' '//'program'
write(*,'(a)') '12345678901234567890'    12345678901234567890
write(*,'(a)') '---------'               ---------
write(*,'(a)') ss                        fortran program
end
```

A format (3)

```
implicit none
character*20 ss
integer i
ss = 'fortran'
write(*,'(a)') '12345678901234567890'
write(*,'(a)') '---------'
write(*,'(a)') ss(1:4)
write(*,'(a)') ss(5:7)
do i=1, len_trim(ss)
    write(*,'(a)') ss(i:i)
end do
end
```

```
12345678901234567890
---------
fort
ran
f
o
r
t
r
a
n
```

A format (4)

```
implicit none
character*20 ss
integer i
ss = 'fortran'
write(*,'(a)') '12345678901234567890'
write(*,'(a)') '---------'
do i=1, len(ss)
    write(*,'(a)') ss(i:i)
end do
end
```

```
12345678901234567890
---------
f
o
r
t
r
a
n
```

X format

```
implicit none
character*20 ss
ss = 'fortran'
write(*,'(a)') '12345678901234567890'  12345678901234567890
write(*,'(a)') '----------'            ----------
write(*,'(a)') ss                      fortran
write(*,'(1x, a)') ss                   fortran
write(*,'(5x, a)') ss                       fortran
end
```

T format

```
implicit none
character*20 ss
ss = 'fortran'
write(*,'(a)') '12345678901234567890'
write(*,'(a)') '---------'
write(*,'(a,a)') ss, ss
write(*,'(a,T15,a)') ss, ss
end
```

```
12345678901234567890
---------
fortran             fortran
fortran       fortran
```

R format

```
implicit none
real a, b, c
data a,b,c/1.0, 2.0, 3.0/
write(*,'(a)') '12345678901234567890123456789O'
write(*,'(a)') '------------------------------'
write(*,'(f10.5,f10.5,f10.5)') a, b, c
write(*,'(3f10.5)') a, b, c
end
```

```
12345678901234567890123456789O
------------------------------
   1.00000   2.00000   3.00000
   1.00000   2.00000   3.00000
```

Input using A format

```
implicit none
character*20 ss
read(*,*) ss
write(*,*) ss
read(*,'(a)') ss
write(*,*) ss
end
```

Input JAPAN, ‘JAPAN’, and “JAPAN”

Input using F format

```
implicit none
real x
! Input 123.45N
read(*,*) x
write(*,*) x
end
```

```
implicit none
real x
! Input 123.45N
read(*,'(f6.2)') x
write(*,*) x
end
```

Input using I format

```
implicit none                          21022
integer i, j, k                        2 10 22
! Input 021022
read(*,*) i
write(*,*) i
read(*,'(3i2)') i, j, k
write(*,*) i, j, k
end
```