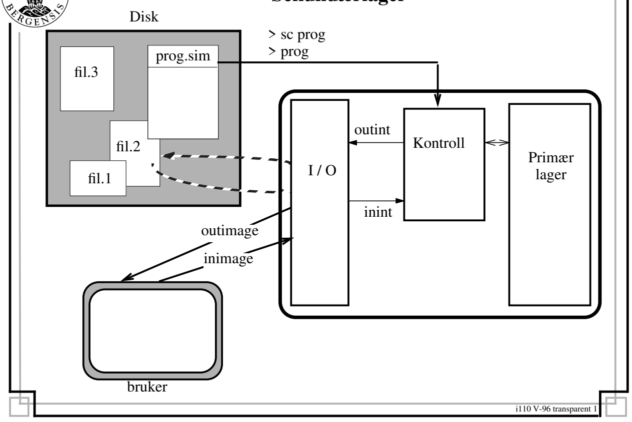
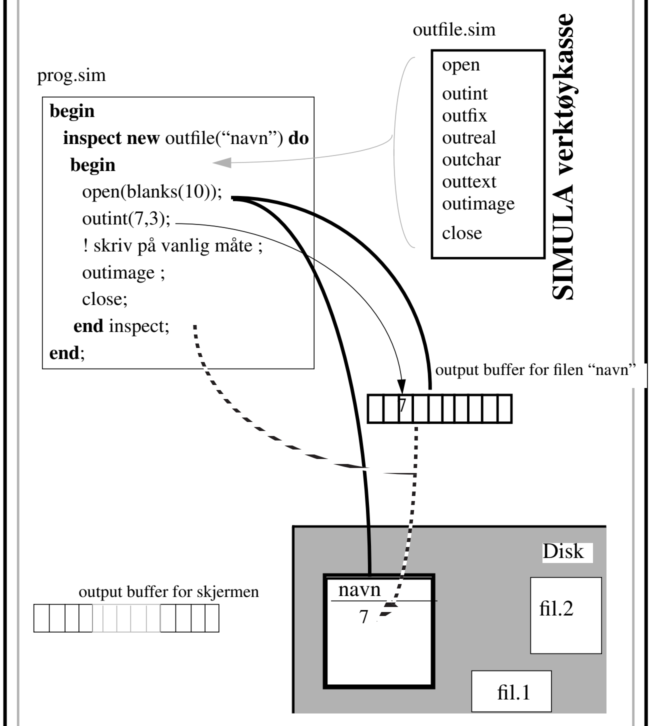
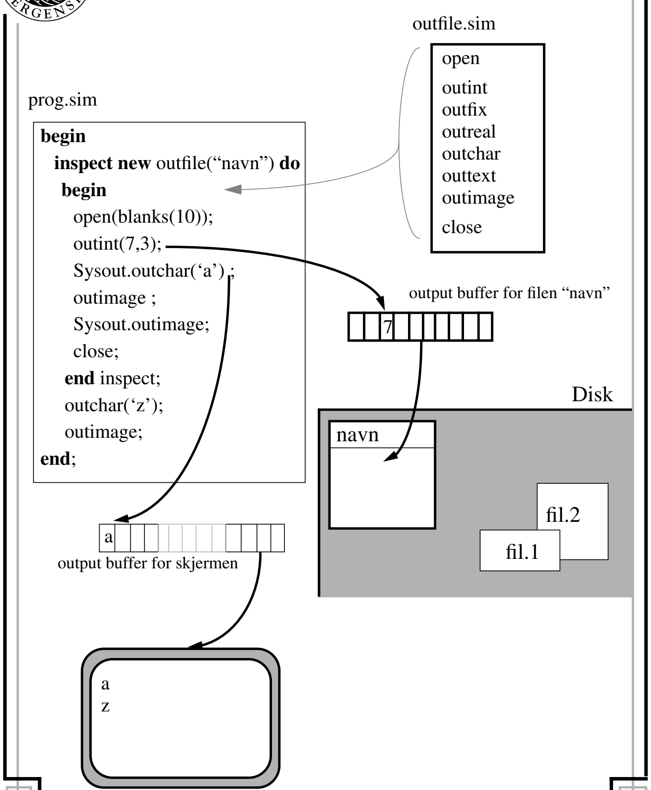
Sekundærlager



Utskrift til fil



Outfile + skjerm (Sysout)



Blokk – imperativer

```
begin
  integer x, z;
  x := 1;                                  ! x=1 ;
  z := 5;                                  ! z=5 ;

  begin
    integer x, y;
    x := 2;                                ! x=2 ;
    y := x;                                ! y=2 ;

    begin
      integer x, y;
      x := y + z;                          ! x=5 ;
      y := x;                              ! y=5 ;
    end;
                                           ! x=2, y=2 ;
  end;
                                           ! x=1 ;
  x := x + y;                ! y er ikke deklarert ;
end
```

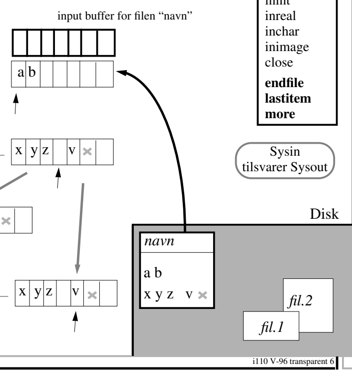
Sysout

```
inspect new outfile("Sysout") do
  begin
    open(blanks(80));
        prog.sim
    begin
      integer x, y;
      . . .
      inspect new outfile("navn") do
        begin
          open(blanks(10));
          outtext("Til filen");          ! til navn;
          outimage;                      ! til navn;
          Sysout.outtext("Til skjermen");
          close;
        end;
      outtext(" og til skjermen igjen");
      outimage;
    end;
    close;
  end
```

open
outint
outfix
outreal
outchar
outtext
outimage
close

Infile – verktøykassen

```
inspect new infile("navn") do
  begin
    open(blanks(7));
    inimage;
    if more then . . .        true
    if endfile then . . .     false
    if lastitem then . . .    false
    close;
  end
```



infile.sim

open
inint
inreal
inchar
inimage
close
endfile
lastitem
more

Sysin tilsvarer Sysout

Innlesing fra en fil

n
a b
x y z v

```
begin
inpect new infile("n") do
  begin
    open(blanks(7));
    while not endfile do
      outchar(inchar);
    close;
  end;
end
```

a b _ _ _ _ _ x y z _ v _ _

```
begin
inpect new infile("n") do
  begin
    open(blanks(7));
    while not lastitem do
      outchar(inchar);
    close;
  end;
end
```

a b x y z v

```
begin
inpect new infile("n") do
  begin
    open(blanks(7));
    while more do
      outchar(inchar);
    close;
  end;
end
```

```
begin
inpect new infile("n") do
  begin
    open(blanks(7));
    inimage;
    while more do
      outchar(inchar);
    close;
  end;
end
```

a b _ _ _ _ _

Histogrammet til en fil

```
begin
  integer minste, storste;
  outtext("Angi minste og storste vekt: "); breakoutimage;
  minste := inint; storste := inint;
  begin
    integer array antall(minste:storste);
    integer vekt, stjerne;
    outtext("Skriv vektene (avslutt med -1):"); outimage;
    vekt := entier(inreal);
    inspect new outfile("Histogr.dta") do         ! skriver til filen Histogr.dta;
    begin
      open(blanks(7));
      outint(minste,3);outint(storste,4);outimage;    !skriver minste&storste;
      while vekt >= minste and vekt <= storste do
        begin
          outint(vekt,7); outimage;                   ! skriver heltallsvekt ;
          antall(vekt) := antall(vekt) + 1;
          vekt := entier(inreal);
        end;
      close;
    end;
    inspect new outfile("Histogr") do              ! skriver til filen Histogr;
    begin
      open(blanks(80));
      outtext(" Vekt  : Antall barn"); outimage;
      for vekt:=minste step 1 until storste do
        begin
          outint(vekt,5); outtext(" : ");
          for stjerne:=1 step 1 until antall(vekt) do outchar('*');
          outimage;
        end;
      close;
    end;
  end;
end
```

Programmet lager 2 filer

Si at brukeren har tastet følgende tall:
> 5 13
> 6 5 5 8 9 13 9 -1

Histogr.dta

1	2	3	4	5	6	7
		5			1	3
						6
						5
						5
						8
						9
					1	3
						9

Histogr

1	2	3	4	5	6	7	8	9	10	11	12	13	14		80
	V	e	k	t		:		A	n	t	a	l	l		
				5		:		*	*						
				6		:		*							
				7		:									
				8		:		*							
				9		:		*	*						
			1	0		:									
			1	1		:									
			1	2		:									
			1	3		:		*							

Data fra filen Histogr.dta

```
begin
   integer minste, storste;
   inspect new infile("Histogr.dta") do
   begin
      open(blanks(7));
      minste := inint; storste := inint;
      begin
        integer array antall(minste:storste);
        integer vekt, stjerne;

        while not lastitem do
           begin
              vekt := entier(inreal);
              antall(vekt) := antall(vekt) + 1;
           end;
        close;
      end;
      inspect new outfile("Histogr") do
      begin
         open(blanks(80));
         outtext(" Vekt  : Antall barn"); outimage;
         for vekt:=minste step 1 until storste do
           begin
              outint(vekt,5); outtext(" : ");
              for stjerne:=1 step 1 until antall(vekt) do outchar('*');
              outimage;
           end;
         close;
      end;
   end;
end
```


Histogrammet fra en fil

```
begin
   integer minste, storste;
   inspect new infile("Histogr.dta") do
   begin
      open(blanks(7));
      minste := inint; storste := inint;
      begin
        integer array antall(minste:storste);
        integer vekt, stjerne;

        while not lastitem do
           begin
              vekt := entier(inreal);
              antall(vekt) := antall(vekt) + 1;
           end;
        close;

        inspect new outfile("Histogr") do
         begin
           open(blanks(80));
           outtext(" Vekt  : Antall barn"); outimage;
           for vekt:=minste step 1 until storste do
              begin
                 outint(vekt,5); outtext(" : ");
                 for stjerne:=1 step 1 until antall(vekt) do outchar('*');
                 outimage;
              end;
           close;
         end;
      end;
   end;
end
```