set 32,r2
% insert data and distributed it in vn order
in vn
l1
set 0,r6
set 1,r7
l2
swap
set 648,r1
set 16,r2
set 2,r3
set 1,r4
set 8,r5
% radix 4 in all rows
n_radx4 (nlst,2)  Radix 4 not last
swap
shiftr r3,2,r3  n
shiftr r4,2,r4  n
shiftr r5,2,r5  n
shifl r1,2,r1  n
% radix 2 in all rows
radx2 (lst,2)  Radix 4 not last
swap
% disable writing imaginary part
% write real part only
dis_img write
set 162,r1
set 16,r2
set 2,r3
set 64,r4
set 8,r5
% multiply data by coefficients
% read data in order and write result using addresses in memory
vmulti_coef0 (order, memory)
% enable writing imaginary part
en_img write
addimm r6,1,r6  % counter += 1
Compare counter,End
comp r6,r7
% Branch if less than
bl l2
nop  % no operation after loop
set 6,r0
set 0,r1
% out processed data and enter new one
io (mem, vn)
% repeat again
jumb l1
nop