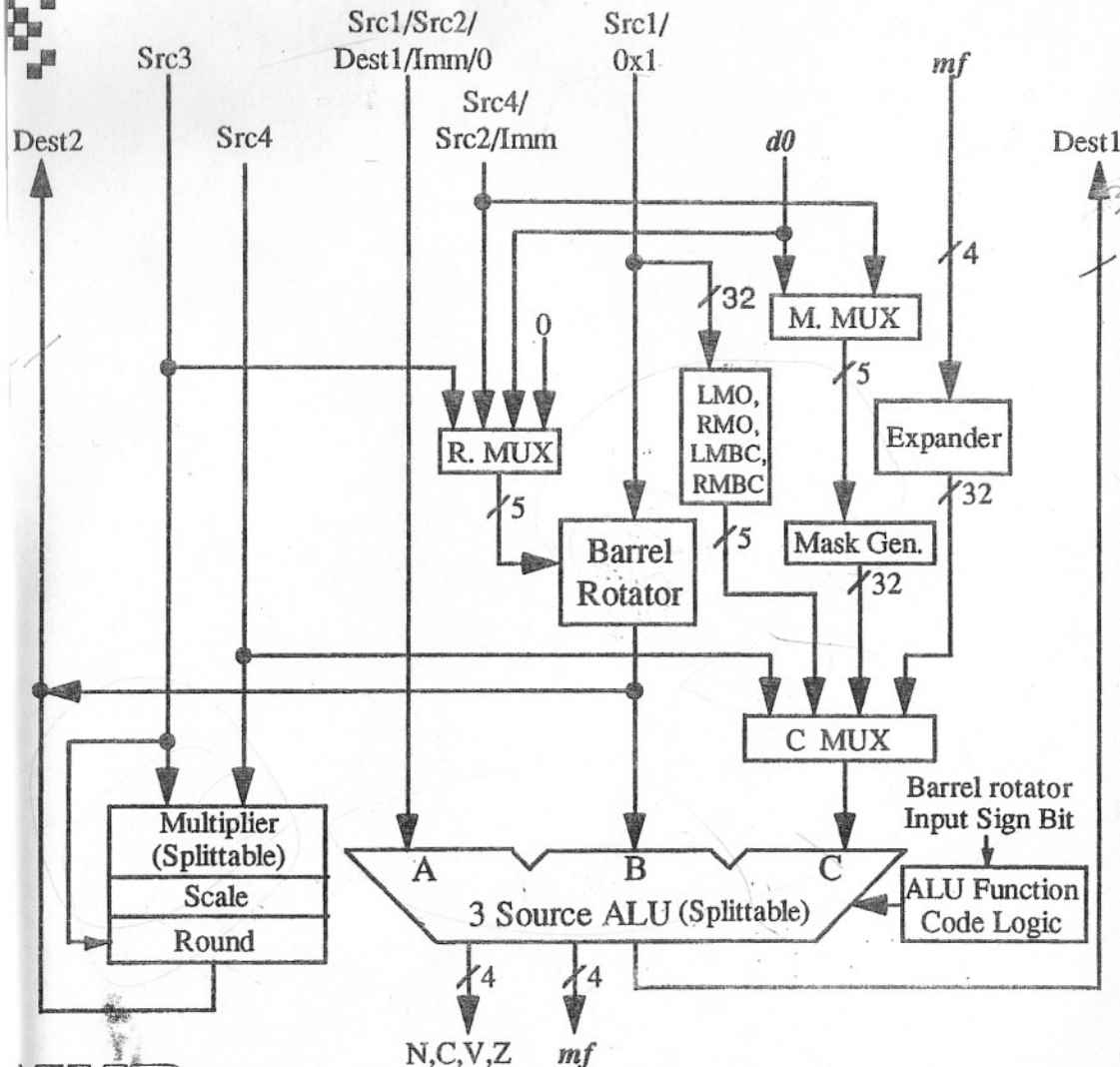


# ADSP Data Unit



## 3-Input ALU (512 operations)

Mixed arithmetic and Boolean in 1 cycle  
(mask and add/sub in 1 pass)  
Mask/merge and field processing  
Splittable for multi-byte operations

## 16x16->32 Multiplier

Rounding for DCT accuracy  
Splittable into two 8x8->16 multiplies

## Flexible Data Path

Barrel Rotator  
Mask Generator  
N-to-1 & 1-to-N translations via *mf*  
Left/Right-Most One & Bit-Change

## 44 User Visible Registers

Any reg. can be an operand of the ALU

## 8 10-ported "D" registers

## Conditional Operations

Conditional choice of register pair source  
Conditional save of result