

# JCTVC-H0067

## Combining SAO of HM5.0 and H0067

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# Summary

- Frame-based SAO mode:
  - HM5.0-SAO
  - Syntax elements in APS
- LCU-based SAO mode:
  - JCTVC-H0067
  - 3 additional syntax elements at LCU level
  - SAO reconstruction from HM5.0 with restricted input parameters
    - No band offset
    - Limited range of edge offsets

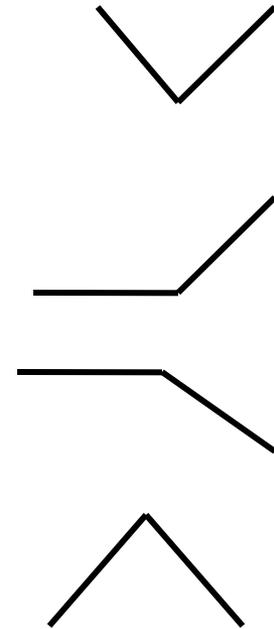
# H0067 syntax

```
sao_enabled_flag           // SAO on/off for LCU
if (sao_enabled_flag)
{
    sao_chroma_enabled_flag // SAO on/off for chroma
    sao_type_idx           // Indicate EO type 1-4
}
```

# HM5.0 reconstruction

```
if (X < X1 && X < X2)
    edgeldx = 0
else if ((X == X1 && X < X2) || (X < X1 && X == X2) )
    edgeldx = 1
else if ((X == X1 && X > X2) || (X > X1 && X == X2) )
    edgeldx = 3
else if (X > X1 && X > X2)
    edgeldx = 4
else
    edgeldx = 2
```

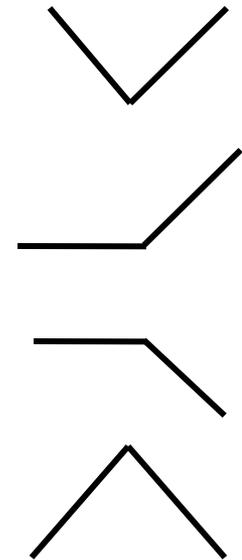
```
X = X + saoTable[edgeldx]
```



# H0067 reconstruction

```
if (X < X1 && X < X2)
    edgeldx = 0
else if ((X == X1 && X < X2-1) || (X < X1-1 && X == X2) )
    edgeldx = 1
else if ((X == X1 && X > X2+1) || (X > X1+1 && X == X2) )
    edgeldx = 3
else if (X > X1 && X > X2)
    edgeldx = 4
else
    edgeldx = 2
```

$X = X - \text{Sign}(\text{edgeldx}-2)$



# H0067 reconstruction

