

OVERLAP ADD AND OVERLAP SAVE METHOD

Overlap-Add Method:

The input signal is divided into smaller, non-overlapping blocks. Each block is convolved with the system's impulse response. The convolved blocks are then added together, with overlapping regions combined to form the final output. This method is useful for efficient convolution of long signals by using FFT for fast computation.

Overlap-Save Method:

The input signal is divided into overlapping blocks, with each block larger than the impulse response. After convolving, the overlapping parts at the start of each block are discarded, and the valid output is kept. This method also uses FFT for efficient computation and avoids edge artifacts in block-based convolution. Both methods are efficient ways to perform long convolutions by processing smaller blocks using FFT