Overlap-Save Method

In this method the input data sequence is split into blocks of length N samples defined as $N = L + R$. ~~Each block of length N consist of overlapping last R — 1 samples of the previous block followed by L new samples.~~ Then, the an N-point FFT is computed for each data block. Then, the multiplication of N-point FFT and the transfer function is performed, followed by IFFT operations to obtain the time-domain block signal. ~~Since the data block is of length N, the first R — 1 samples of the output are corrupt by the aliasing.~~ ~~Thus,~~ these initial samples are then discarded, and only the ~~error-free~~ $N - R$ samples are saved in the output record. It is important to emphasize that in the beginning of processing the first R samples are set to zero. In the figure below is illustrated an example of overlap-add method with $R = \frac{N}{2}$ and $L = R$.