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VEE: How Can I Compute Recursive Equations?

KEYSIGHT TECHNOLOGIES

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Contents

The solution is as follows:

Refer to the Example Solutions.

This program works as follows:

There are three Real Constants driving the program: an initial value for X, the constant B, and the constant array U.

The output array X is produced dynamically by a collector that obtains the results of each iteration of the computation.

The number of iterations is given by the size of the array B (through the Totsize() function); this is the same as the size of the output array X. The size is loaded into a For Count object, which drives the computation through its iterations and then fires its Sequence Out pin when done.

A Formula box performs the actual computation, X + B*U[N]. The input pin X is fed through a Junction that connects to the Init constant (for the initial value in the first iteration) and to the output of the Formula itself (for all other iterations).

The outputs of the Formula box are also put into an array by a Collector and then output when the For Count object reaches the end of its count.

Note that if you are using feedback loops in versions of VEE before 4.0, you will need to put a Start button on the Init object ... it was one of the eccentricities of VEE that it insisted on having one for feedback loops.

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