Randomize an Array Using LabVIEW

By: LaRisa_M 03-13-2009 04:58 PM Last Edited By: Example_Scrubber_Ofir 09-17-2017 04:02 AM

Products and Environment

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Software
LabVIEW

Code and Documents

Attachment

- Randomize_Array_8_6.vi 9 KB
- Randomize_Array.vi 12 KB
- Randomize Array LV2012 NI Verified.vi 13 KB

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Overview
This VI will randomize the order of Input Array elements

Description
This VI is effectively the reverse of the Sort 1D Array VI. it will take the Input Array and randomize the order of its elements. First, the VI initializes an empty array and gets the size of the array input. At every iteration, it will generate a random number and multiply by the array's size, representing an index in the array. If this value is not in the array, insert it. The loop is stopped when the placeholder array has the same number of elements as the input array. Finally, the input array is indexed with the Randomized Array. This is only one possible method to randomize an array's elements.

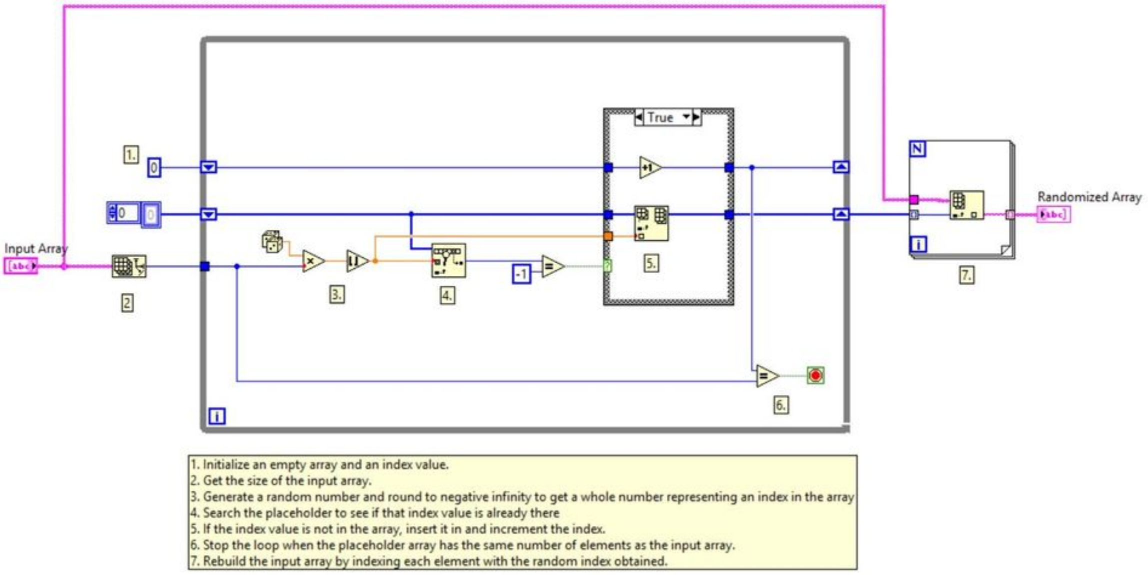
Requirements

- LabVIEW 2012 (or compatible)

Steps to Implement or Execute Code
1. Manually Initialize the Input Array
2. Run the VI

Additional Information or References

VI Block Diagram



1. Initialize an empty array and an index value.
2. Get the size of the input array.
3. Generate a random number and round to negative infinity to get a whole number representing an index in the array
4. Search the placeholder to see if that index value is already there
5. If the index value is not in the array, insert it in and increment the index.
6. Stop the loop when the placeholder array has the same number of elements as the input array.
7. Rebuild the input array by indexing each element with the random index obtained.

This document has been updated to meet the current required format for the NI Code Exchange.

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COMMENTS

JLSx MEMBER on 03-13-2009 05:22 PM

03-13-2009 05:22 PM

That's very nice! Haven't played yet as the VI is still queing (virus scanning) but I can already see several nice use cases for this when testing and wanting to create data sets etc.

Thanks for posting!

★ 0 KUDOS

altenbach KNIGHT OF NI on 06-24-2010 01:57 PM

06-24-2010 01:57 PM

For a better solution, see my comments at the bottom of the page here.

★ 0 KUDOS