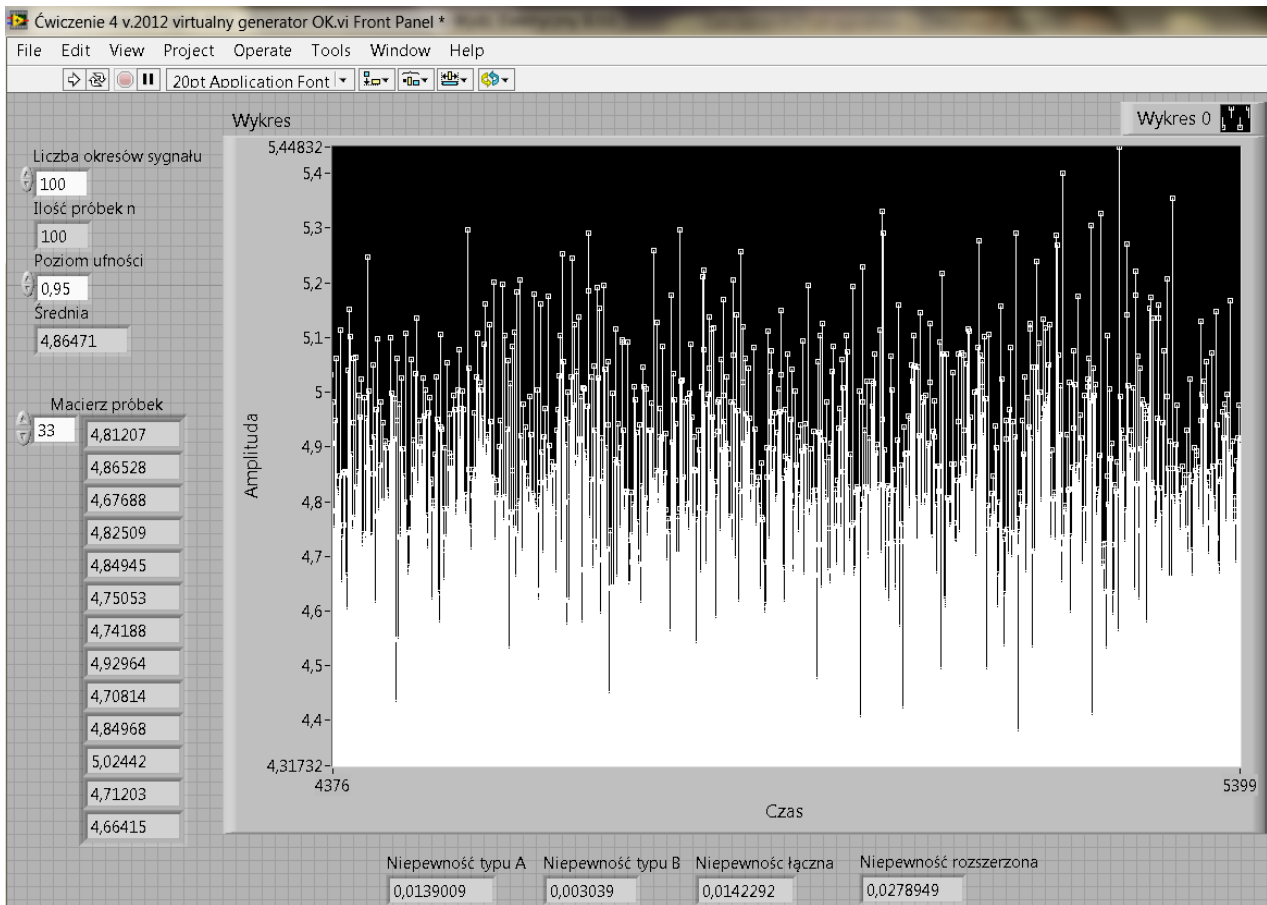
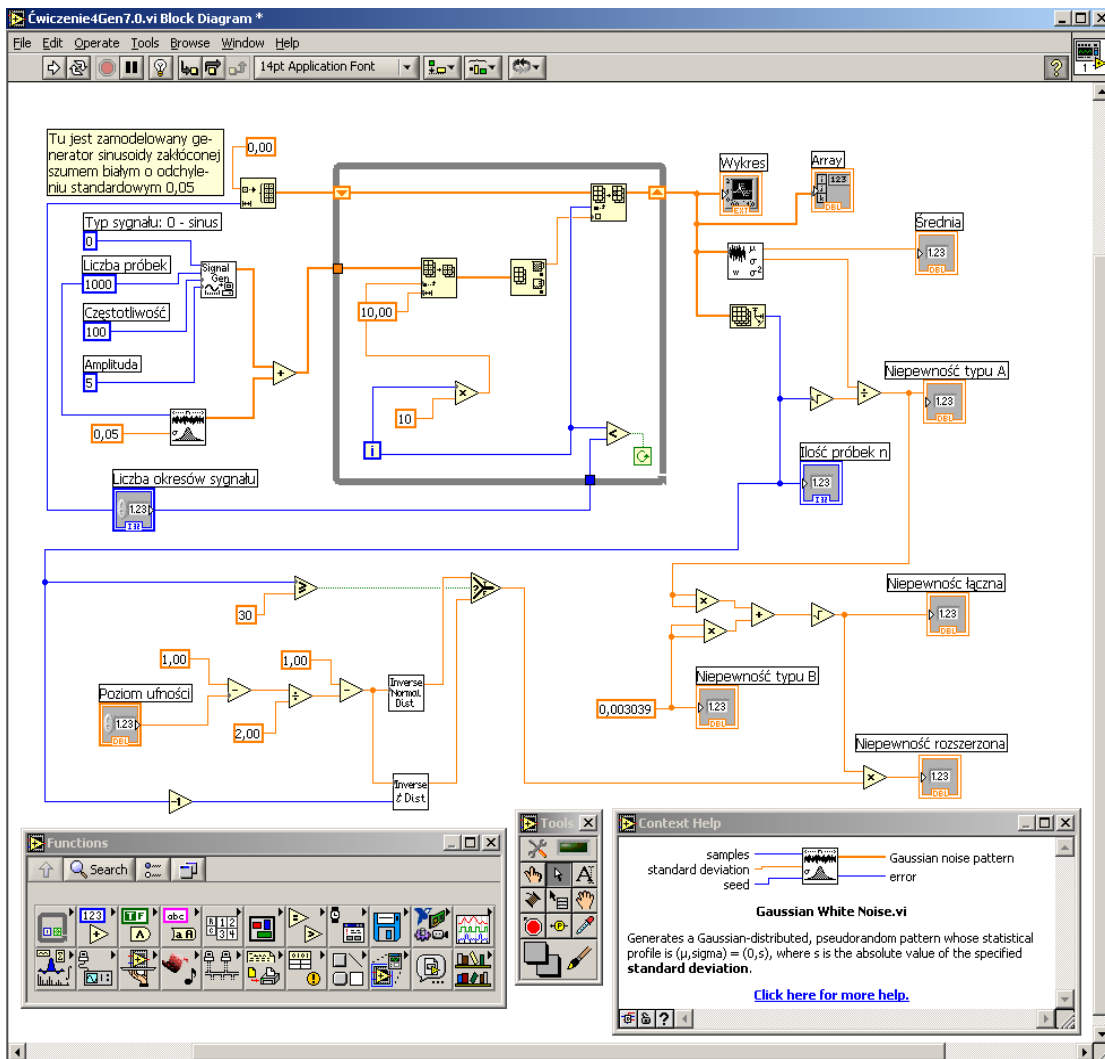


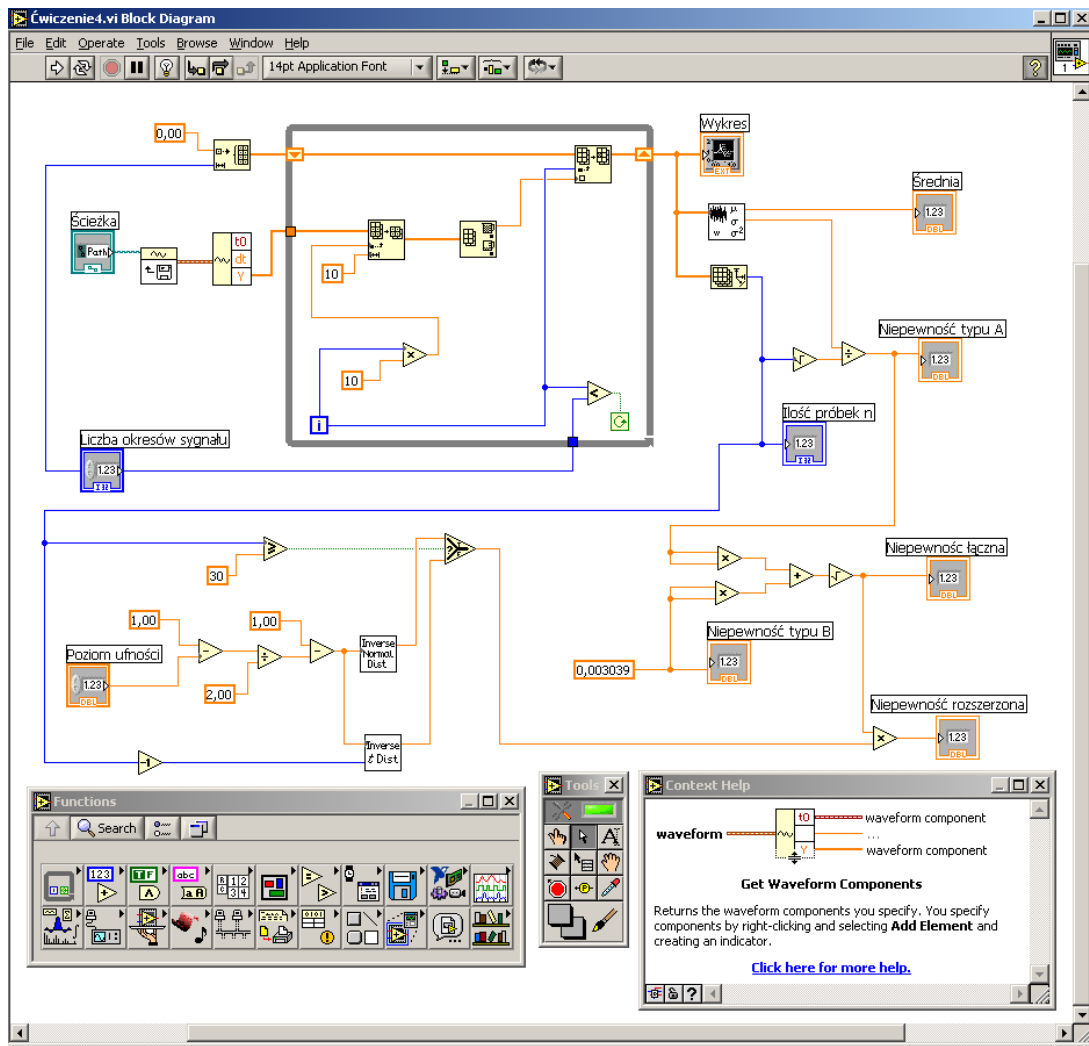
# Ćwiczenie 4 – Analiza statystyczna wyników pomiaru



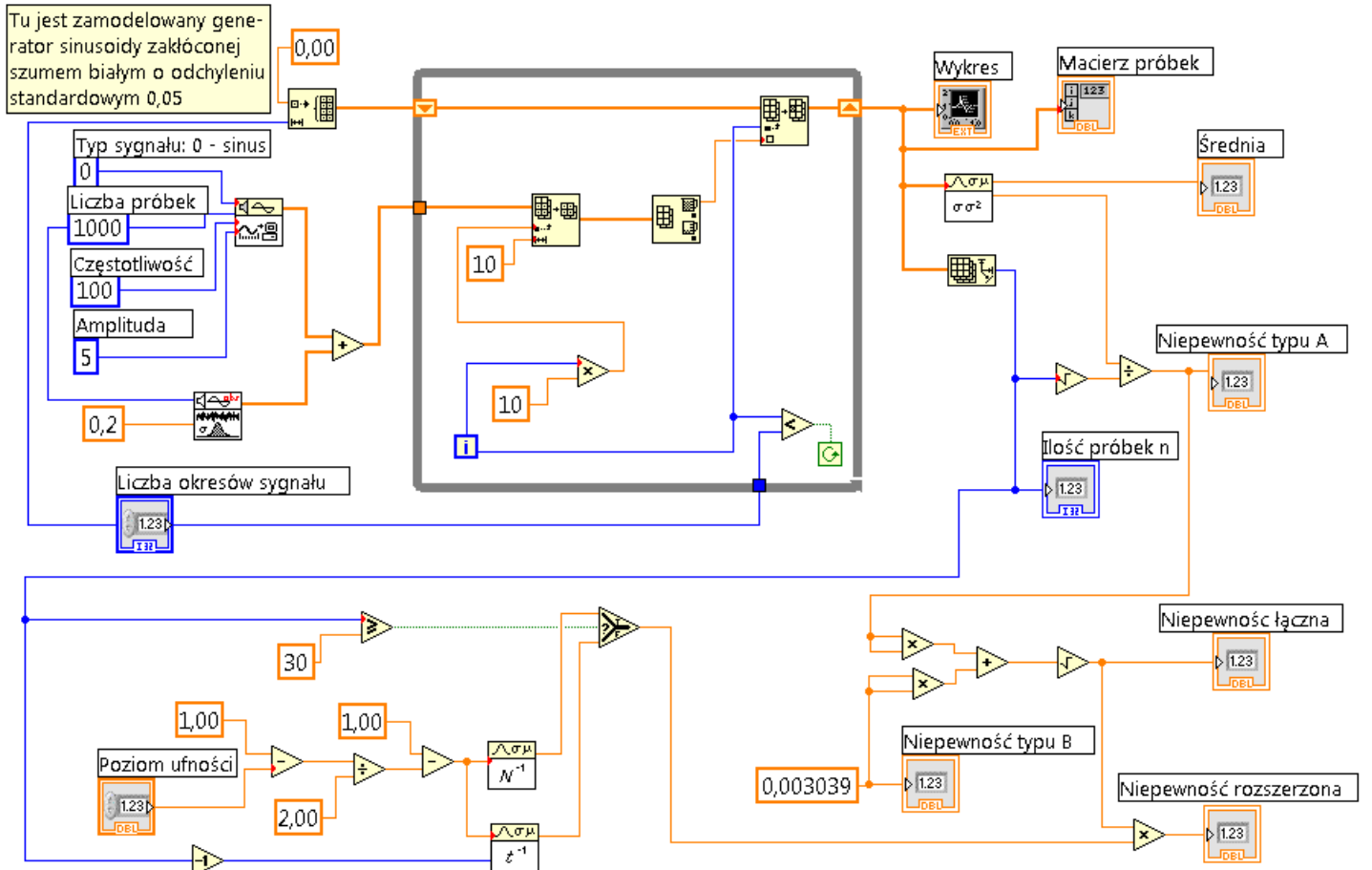
Widok okna diagramu programu w środowisku LabVIEW 7.1 – częściowo zgodnie ze skrypcem



Wygląd okna diagramu programu *Niepewność* przy wykorzystaniu sygnału z karty pomiarowej



Widok okna diagramu programu w środowisku LabVIEW 8.5, LabVIEW 2012 oraz LabVIEW 2016



Context Help

**NI\_AALBase.lvlib:Gaussian White Noise (obs 90).vi**

samples — Gaussian noise pattern  
 standard deviation — error  
 seed

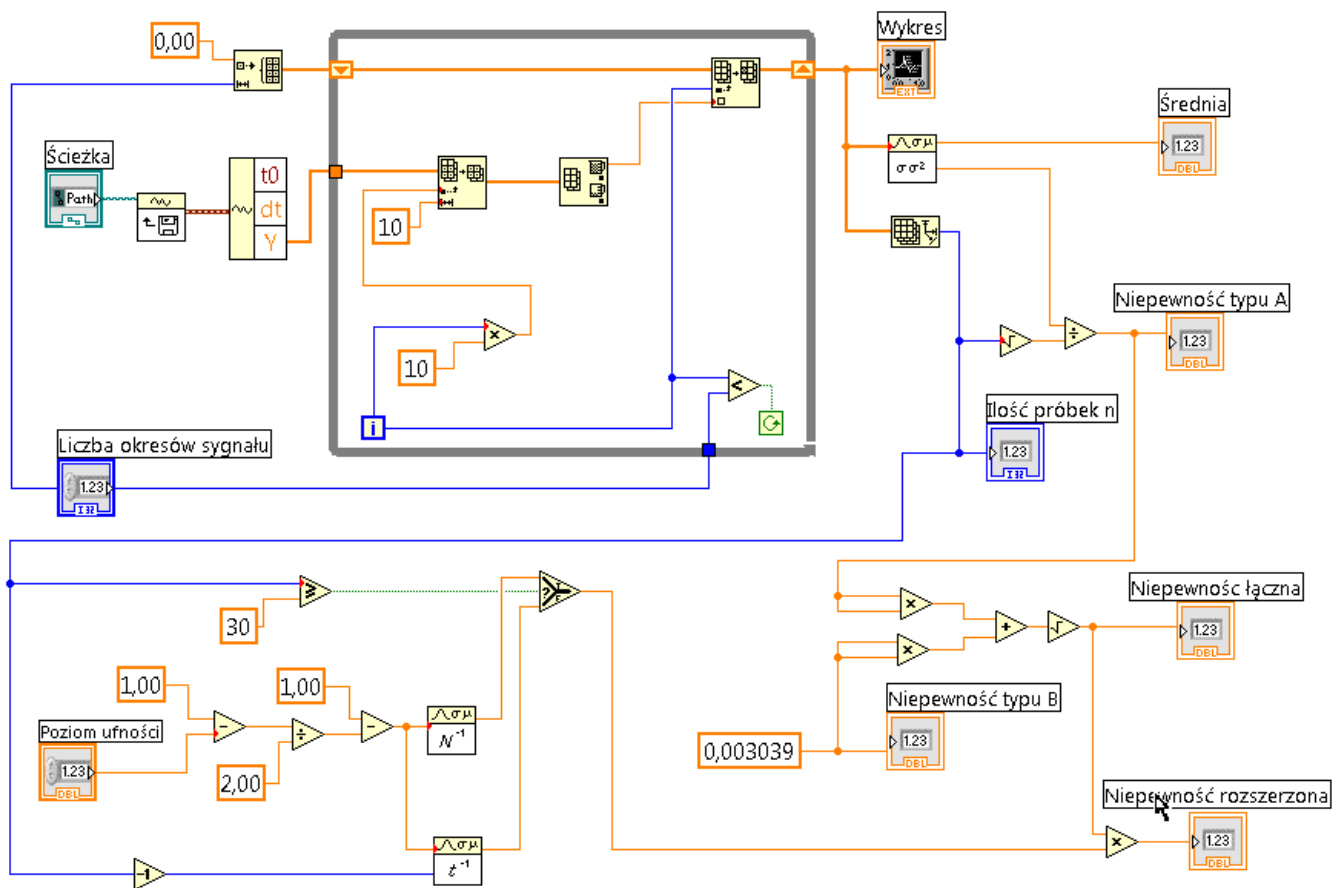
The Gaussian White Noise VI was rewritten in LabVIEW 2009. Replace this VI with a Gaussian White Noise VI from the **Functions** palette to use the new functionality.

Generates a Gaussian-distributed, pseudorandom pattern whose statistical profile is  $(\mu, \sigma) = (0, s)$ , where  $s$  is **standard deviation**.

The Gaussian White Noise VI generates the Gaussian-distributed pseudorandom sequence using a modified version of the Box-Muller method to transform uniformly distributed random numbers into Gaussian-distributed random numbers. LabVIEW uses a triple-seeded very-long-cycle linear congruential generator (LCG) algorithm to generate the uniform pseudorandom numbers.

**Terminal Data Type**  
 standard deviation (double [64-bit real (~15 digit precision)])

Wygląd okna diagramu programu *Niepewność* przy wykorzystaniu sygnału z karty pomiarowej



Context Help

**NI\_AALPro.lvlib:Inv Normal Distribution.vi**

probability —  $N^{-1}$  —  $x$   
 error

LabVIEW no longer supports this VI. Use the Continuous Inverse CDF VI (Normal instance) instead. Computes the value of  $x$  given the **probability** value,  $p$ , of a Normally distributed random variable,  $X$ . The Inv Normal Distribution VI computes the value of  $x$  such that the following condition is satisfied:  $p = \text{Prob}\{X \leq x\}$ , where  $X$  is standard Normally distributed,  $p$  is the **probability**, and  $x$  is the value.

Context Help

**NI\_AALPro.lvlib:Inv T Distribution.vi**

probability —  $t^{-1}$  —  $x$   
 degrees of freedom — error

LabVIEW no longer supports this VI. Use the Continuous Inverse CDF VI (T instance) instead. Computes the one-tailed t value of  $x$ . The Inv T Distribution VI computes the one-tailed t value of  $x$  such that the following condition is satisfied:  $p = \text{Prob}\{T[n] \leq x\}$  given the **probability** value,  $(1 - p)$ , of a t-distributed random variable,  $T$ , with  $n$  **degrees of freedom**.

**Literatura:**

Gołębiowski J. (red.): „Laboratorium komputerowych systemów pomiarowych” – skrypt, Wydawnictwo Politechniki Łódzkiej, Łódź 2004, ISBN 83-7283-101-7.

Częstochowa, luty 2018 r.

Opracował

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