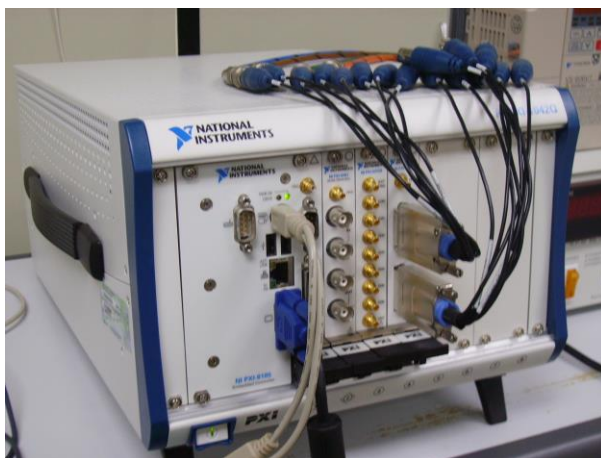




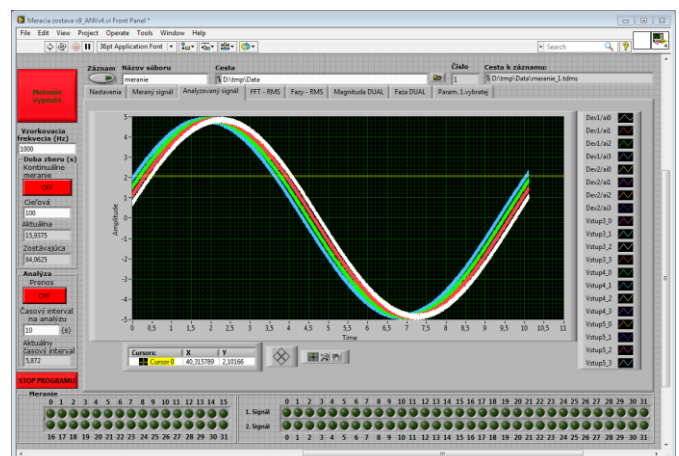
MONITORING VIBRO ACOUSTIC OSCILLATIONS OF BRIDGES AND TUNNELS

Construction of complex architectural structures, such as bridges and tunnels requires careful study structural strength. During operation, the external influence, such as seismic activity, the impact forces of wind and water can lead to unpredictable results. Monitor the status structures helps to explore the possible causes of destruction, and in some cases to prevent negative consequences. One of the methods for the study is the analysis of the amplitude-frequency characteristics of building elements, which takes place during operation using the integrated sensor systems.

Hardware and software system consists of a sensor system, module, data collection and analysis, and transmission system monitoring results. The system can operate in remote, inaccessible locations, such as in the mountains, and transmit data over wireless networks. Software that controls the operation of the complex has a wide range of settings, such as continuous monitoring, analysis, scheduling, and a trigger signal emergencies.



Hardware for monitoring vibration acoustic oscillations



Interface software for process control monitoring