MEASUREMENT OF DIGITAL SCOPE USING VISUAL BASIC

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"May Allah bless and reward them for their generosity"

ABSTRACT

This paper suggests a measurement through a software programming in order to enhance the application of laboratory display equipment like oscilloscope. Laptop or PC which apply with this system could act as an output where it has a capability to display a signal produce by function generator in form of sine wave, square wave and triangle wave. There have a serial communication occurs between the laptop and input device which is oscilloscope and function generator. Graphical user interface was created to ease the user to achieve high perform provided by the system. Beside user-friendly concept were necessary and a priority between user and device. Controlling, coordinating and acquiring data from device is a common laboratory task. Processing measurements and graphically displaying results are also well within the reach the Visual Basic. Every single item provided in this system more or less enhance the quality of data measurement, continue with produce better output result and be able to come out with good yields of data management.

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

1.0   OVERVIEW AND PROBLEM DESCRIPTION

For the past decade, Microsoft Visual Basic has been the programming language of choice for windows applications developers. Microsoft Visual Basic has lead on revolutionizing science and engineering laboratories. Moreover the applications of computer simulation model have increasingly growth lately.

Throughout the experience during laboratories activities, there was a limitation for user in order to perform an efficient and effective process. It was a crucial matter in laboratory activities especially in data management to obtain an accurate data measurement, analyze signal properly and come out with a good result.

A problem was identified in laboratory, where there is no direct connection between a measurement device in example oscilloscope and a PC. Every result obtain through the experiment cannot be save directly to PC, thus it will consume much time. Besides, the efficiency for analyze and measurement data should be enhance.

Then it was intend to countermeasure a problem by producing an interactive graphical user interface concept. The graphical user interface called digital scope. The user can make use all the application provided in system such save and open in drive list, measure amplitude and frequency of the signal display in digital scope and do a proper scale and coordination on the signal display in digital scope to produce an accurate result.

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