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WIRELESS AUDIO DEBUGGER USING BLUETOOTH

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ABSTRACT
Audio debugger was introduced with the wired property till now, which had minor disadvantage. This above statement will be overcome by using wireless protocol with Bluetooth connectivity. Which will work with more efficiency concentrating on time, storage basis. Since now audio Bluetooth system has been debugged manually-causes system parts damage. So the new proposal includes software to overcome this major issue, with Bluetooth mechanism. First the service admin logins the application and uploads the file which has the audio Bluetooth system information. Which will check each recognized parts, with the valid button query-will be processed and return the states condition. If any button command does not give the desired result, it is marked as error and the particular part is debugged. This will be tracked in the button terminal. The processed debugging results is recorded by the admin to keep history of total number of services done.

KEYWORDS: Bluetooth, Audio system, Debugging.

INTRODUCTION
The system which was previously designed with wired configuration to access all the automobile components. The connectivity's which had complex issues with mixed wires with communicating ports. Altering all the screwed parts are done. Wired property which occupies space and increases workload. Right communication is required while connections happen with wiring, where necessary synchronization does slowly. Hardware property gets damaged with frequent use of that particular component.

The current system which has designed with wireless property. Communication happens with automobile hardware using Bluetooth connectivity. With the bandwidth range of 9600ms .EOL commands are used with the particular file in browsing window. Wireless system occupies minimum space. With Bluetooth connectivity increases speed and time efficiency. This proposed system Reduces the audio system parts damage. It is also Cost efficient.

Hardware Components:
- Laptop with Bluetooth connectivity.
- Aurdino Microcontroller kit.
- Ultrasonic sensors.
- Servo motor.
- Breadboard with connection wires

Software Components:
- Windows 8.1/windows 10
- Visual studio 2012
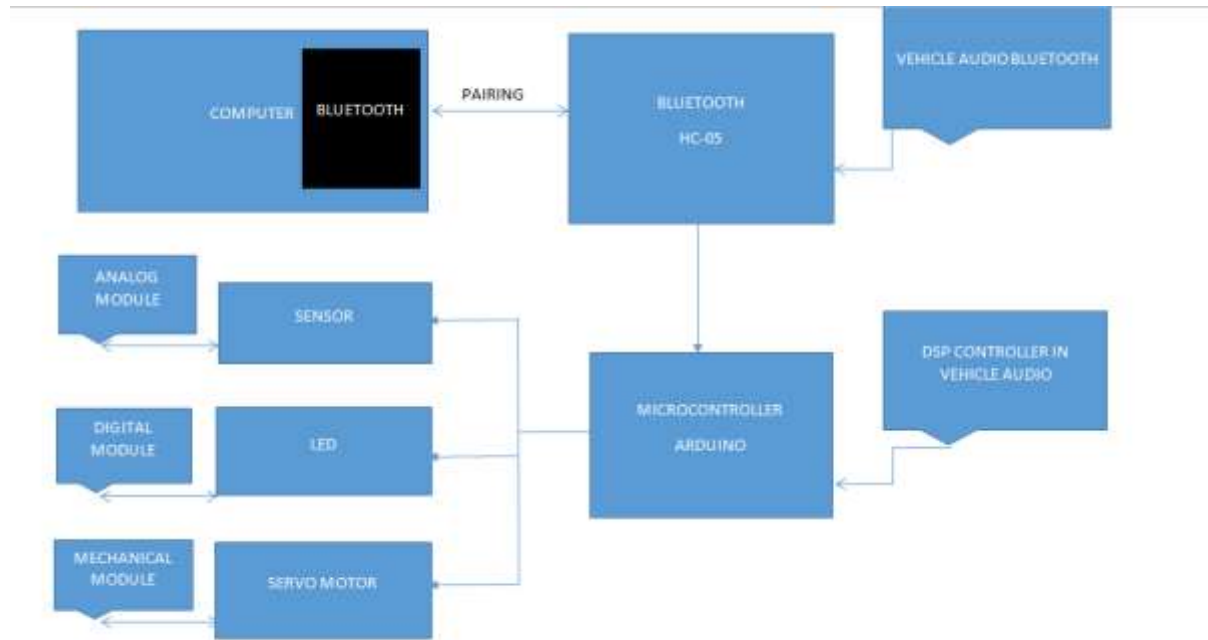
Architecture Diagram:

Fig 1

Computer Bluetooth:
Computer Bluetooth is known as the computer device Bluetooth i.e. Laptop Bletooth that's paired with the external Bluetooth..
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Bluetooth HC05:
It is the Bluetooth sensor which is connected with the AURDINO microcontroller Kit works as a audio system Bluetooth gets paired with the computer Bluetooth.

Aurdino Microcontroller Kit:
It is the major working part of the audio system where the operations of the system is carried over through this kit joins all the components together for the connectivity purposes.

Admin login page:
In this module, the service admin enters into the audio Bluetooth debugger application and logs in the application as an authenticated person. The application validates the login fields and if it is authenticated, the admin is entered into the application. If the values are wrong the user gets alert message to give valid credentials.
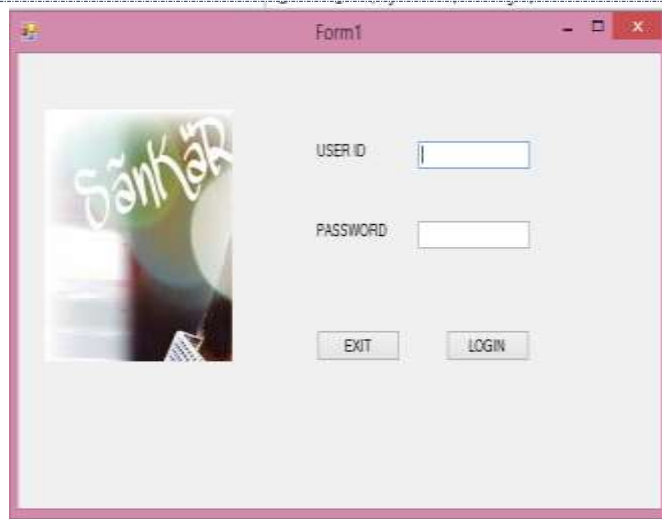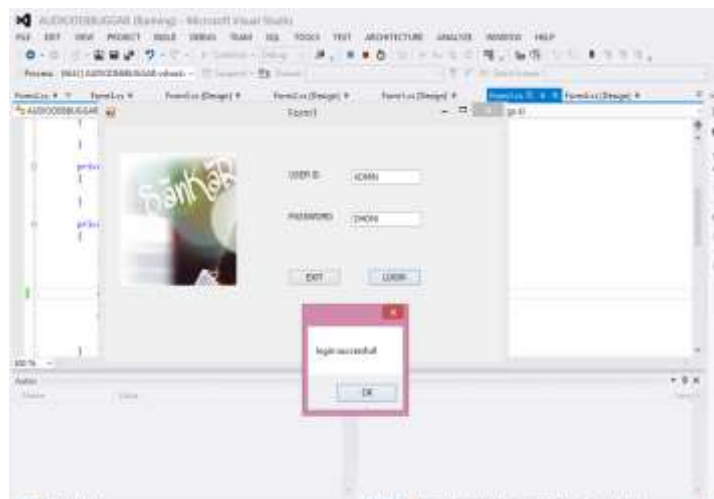
Fig 2

Fig3

Command line file upload:

The browsing of Hex file is done in this module. The Hex file which has the combination of Hexdata's,which is determined alphabetically in the specified Hex text file. The Hex file is a predefined file, which will be uploaded at that instance and file path is also been copied. If the path is valid the hex file gets browsed.
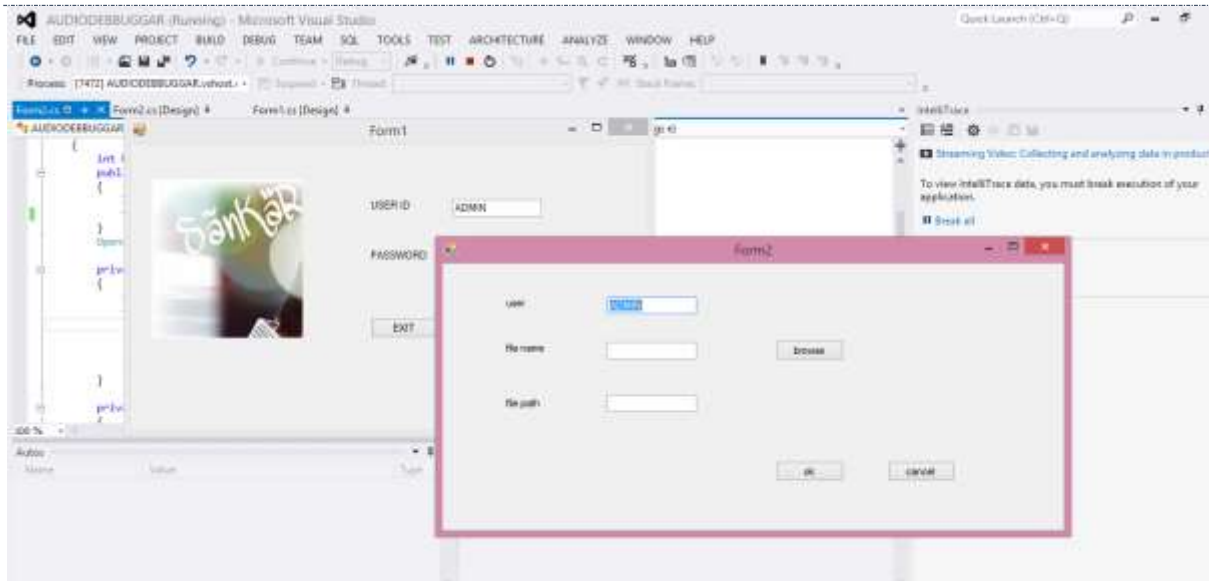
Fig 4

Bluetooth connectivity:

Now the comport values is analyzed from device manager in the pins and ports section. Then the designated port gets selected. The baud rate, i.e. the range of data to be transferred is fixed as 9600ms for Bluetooth-wireless connectivity.
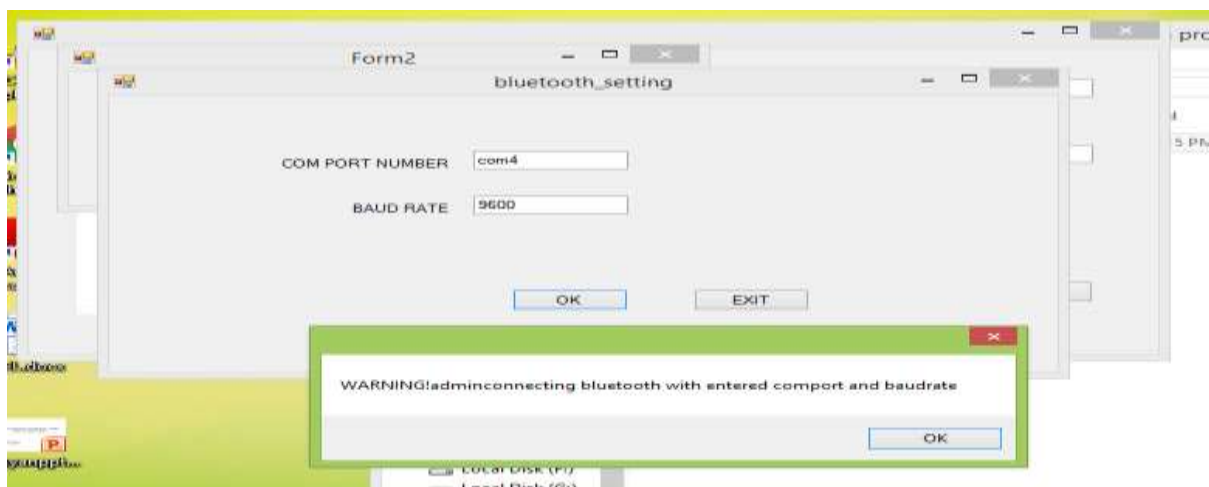

Fig 5

Control Buttons and tracking terminal:

This is the final form where all the specified actions are done in wireless nature. The mechanical support, analog and digital support are been tested here through microcontroller. The buttons which is been involved is to connect with the hardware part ,then the desired Hex data gets opened –to pass the values. Then each buttons are evaluated simultaneously. The processed information gets tracked in terminal.
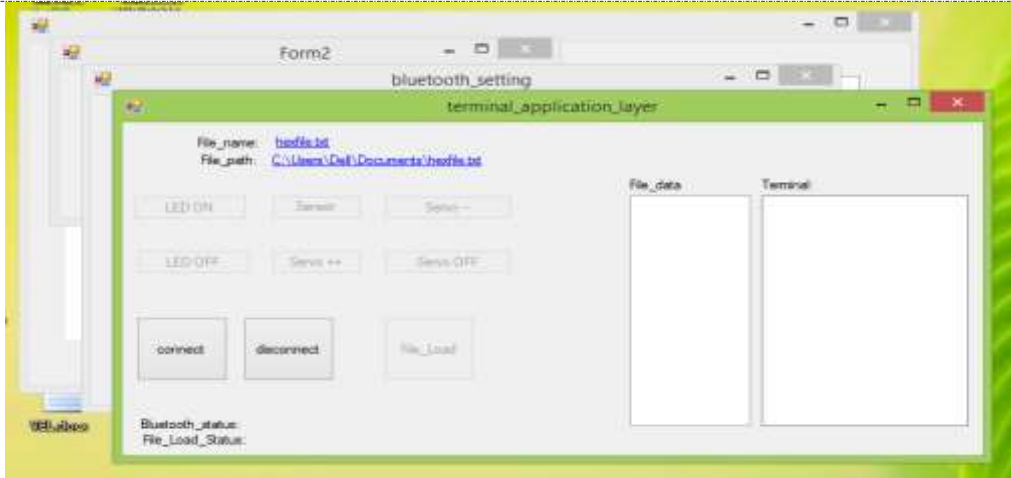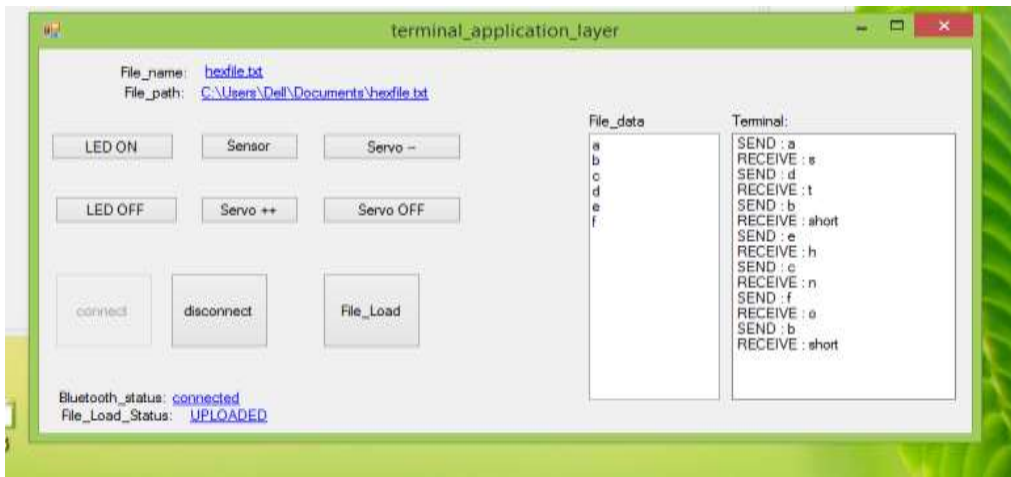
Fig 6

Fig 7

CONCLUSION

The specified audio Bluetooth debugger gets evaluated using wireless property, which reduces the man power-where intelligence is used with microcontroller inside that automobile part. Then the part which is definitely not working is been identified and sent to debugging side. This whole system which consist following support-mechanical, analog, digital., which is been covered only for some parts in the automobile section. In upcoming future the update is fully handled with wireless medium for whole automobile parts.

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