**AFT**

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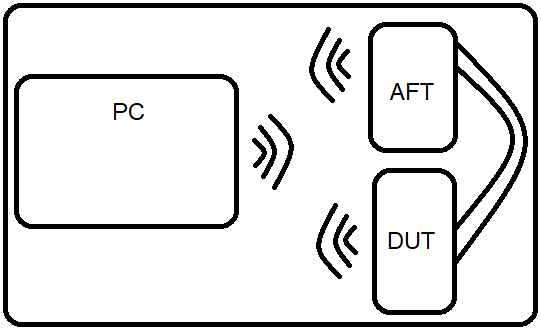
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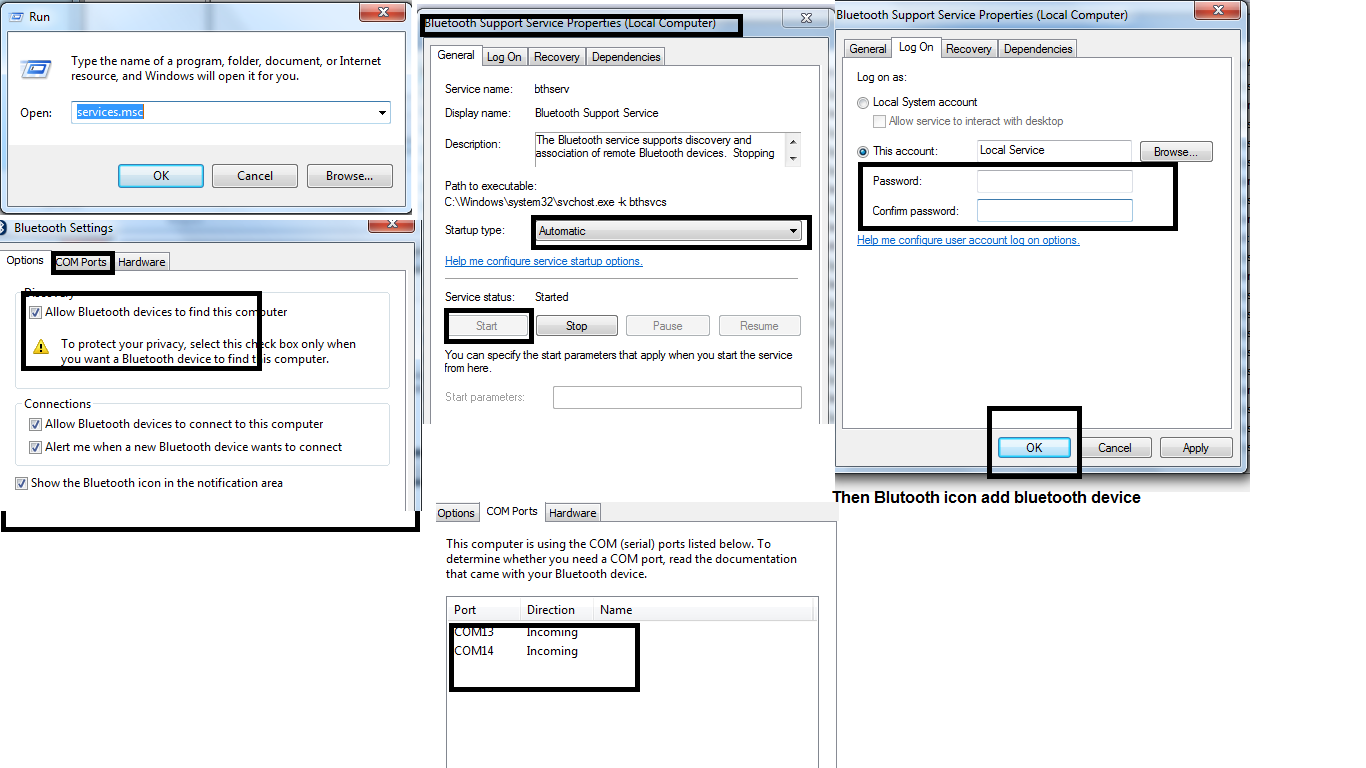
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# Overview:

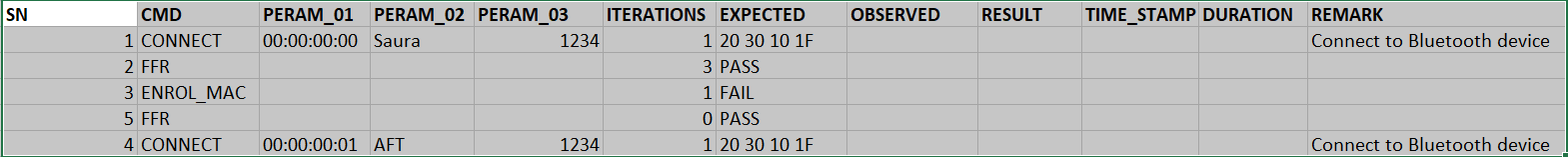
Automatic function teste is combination of Script , AFT Hardware and test sequence to

* Automate BLE device user Interaction functionality.
* To simulate external event to test device (DUT) like Switch press , UART communication frames
* To read response from device UART, Read LED or Diooutput , Read internal system variable (configurations)
* To populate test template with test output and interpret the test result as PASS OR FAIL.
* Example with Bluetooth on PC controlling AFT and Device under test (DUT)





# **Test Templet Generic Headers**:



SN: Test Case Number , Not used in script.

CMD : its command which is to be executed and should be included in the script.

If command is not found in the script test case is marked fail.

PERM\_01 to PERM\_03 : are parameter expected by command

ITERATIONS: Number of times Command need to be executed , value 0 means that command is skipped

1 means command is executed for 1 time

EXPECTED: is expended result from command , it can have generic PASS or FAIL or other data type return by specific command

OBSERVED:Output from Command is populated hear.

RESULT:If EXPECTED and OBSERVED matches PASS is populated else Fail is populated.

If ITERATIONS value is > 1 and at least one is failed, then Failed is populated with faild count.

I.e. FAIL\_2 means out of N cycle test failed for 2 times

TIME\_STAMP:Basically time at which test is started

DURATION:duration for which test is run

REMARK:Basic info about command , Not used in script.

# **Basic Windows Commands**:

WIN\_DELAY:Provide delay between test sequence

**PERM\_01**: Delay value in seconds

i.e: 0.01 is 10ms delay

1 is 1 second delay

WIN\_TEST\_CONFIG**:**This is basically test environment configuration tag.

**PERM\_01 :**

FALSE/NULL : Run all test cases

TRUE : stop test is any test fails

WIN\_CONNECT:

Connects to respective BLE device , disconnects previous device if already connected

WIN\_SEND\_BLE:

Send raw data in arg1 to BLE device which is connected

Raw data can be sent in below format

Sending hex bytes : b'\x11\x00\x00\x00\x00'

# **User defined DUT command:**

These commands are configurable by user. This commands use , AFT and Windows commands together to accomplish system test functionality.

And can be added in script.

DUT\_FDR :

DUT\_ENROLL\_MAC:

DUT\_FLASH:

DUT\_CRED:

# **User defined AFT command:**

This Commands are AFT specific below are for AFT Ver 1 (which have 4 basic I/O peripherals)

AFT\_RELAY:

Operate Relay

AFT\_ADC:

Read ADC data

AFT\_SWITCH:

Read ADC switch

AFT\_DIO:

Read write DIO

AFT\_FLASH:

Flash AFT devices

# **Test templet Considerations**:

* Tag names are Fixed and should not be modified.
* Tags can be moved to any positions.
* New tags can be added with script update.

# **Script Consideration:**

AFT.py is the script which processes user command as per the test templet

Custom test specific test templet to be provided by user.

User need to update new command functionality inAFT.py