TME\_03 Testing Document.

**Testing normal conditions**

**java GreenhouseControls -f examples1.txt**

Restarting system

Thermostat on night setting

Light is on

Light is off

Greenhouse water is on

Greenhouse water is off

Bing!

Thermostat on day setting

Terminating

**java GreenhouseControls -f examples2.txt**

Restarting system

Thermostat on night setting

Light is on

Light is off

Greenhouse water is on

Fan is on

Fan is off

Bing!

Greenhouse water is off

Bing!

Thermostat on day setting

Bing!

Bing!

Bing!

Terminating

**Program output from “example3.txt” after and before serialization.**

**java GreenhouseControls -f examples3.txt**

Restarting system

Thermostat on night setting

Light is on

Light is off

Greenhouse water is on

Fan is on

Fan is off

Bing!

Greenhouse water is off

Bing!

Thermostat on day setting

Bing!

Bing!

Window Malfunction

ControllerException errorMessage = Window Malfunction

Emergency Shutdown !!

Reason is- Window Malfunction

Time: 2020-04-21 21:37:31

Error Message: Window Malfunction Error Code: 1

System is exiting

**java GreenhouseControls -d dump.out**

Time: 2020-04-21 21:38:12

Fixed Message: Window Malfunction No Error Code

Bing!

Terminating

**Program output from “example3.txt” after and before serialization.**

**java GreenhouseControls -f examples4.txt**

Restarting system

Thermostat on night setting

Light is on

Light is off

Greenhouse water is on

Fan is on

Fan is off

Bing!

Greenhouse water is off

Power Out

ControllerException errorMessage = Power Out

Emergency Shutdown !!

Reason is- Power Out

Time: 2020-04-21 21:39:04

Error Message: Power Out Error Code: 2

System is exiting

**java GreenhouseControls -d dump.out**

Time: 2020-04-21 21:39:34

Fixed Message: Power Out No Error Code

Bing!

Thermostat on day setting

Bing!

Bing!

Bing!

Terminating

**Log Files sample**

**Error.log**

Time: 2020-04-22 18:25:40

Error Message: Window Malfunction Error Code: 1

Time: 2020-04-22 18:27:09

Error Message: Power Out Error Code: 2

**Fix.log**

Time: 2020-04-22 18:25:50

Fixed Message: Window Malfunction No Error Code

Time: 2020-04-22 18:27:19

Fixed Message: Power Out No Error Code

Error.log and Fix.log are the result of two examples3.txt, examples4.txt output.

**Testing error conditions in arguments**

**java GreenhouseControls -s examples2.txt**

Invalid option

Correct format:

java GreenhouseControls -f <filename>, or

java GreenhouseControls -d dump.out

**java GreenhouseControls -f exampl**

Restarting system

java.io.FileNotFoundException: exampl (No such file or directory)

at java.base/java.io.FileInputStream.open0(Native Method)

at java.base/java.io.FileInputStream.open(FileInputStream.java:213)

at java.base/java.io.FileInputStream.<init>(FileInputStream.java:155)

at java.base/java.util.Scanner.<init>(Scanner.java:639)

at ReadingFile.<init>(ReadingFile.java:120)

at GreenhouseControls$Restart.action(GreenhouseControls.java:506)

at tme3.Controller.run(Controller.java:39)

at GreenhouseControls.main(GreenhouseControls.java:654)

**java GreenhouseControls -d examples1.txt**

java.io.StreamCorruptedException: invalid stream header: 4576656E

at java.base/java.io.ObjectInputStream.readStreamHeader(ObjectInputStream.java:877)

at java.base/java.io.ObjectInputStream.<init>(ObjectInputStream.java:350)

at GreenhouseControls$Restore.<init>(GreenhouseControls.java:421)

at GreenhouseControls.main(GreenhouseControls.java:658)

**Event=ThermostatN,time=0**

Event=LightOn,time=2000

Event=WaterOff,time=8000

Event=ThermostatDay,time=10000

Event=Bell,time=9000

Event=WaterOn,time=6000

Event=LightOff,time=4000

Event=Terminate,time=12000

**java GreenhouseControls -f examples1.txt**

Restarting system

Light is on

Light is off

Greenhouse water is on

Greenhouse water is off

Bing!

Thermostat on day setting

Terminating

* One of the main focus of this program is to run the classes from txt file, no error standard file checking.
* If class names are corrupted, it will skip the class name instead of trying to retrieve.
* As it has some user input when starting the program, it has chances of misspelling the file name or code in arguments, so it has to be written perfectly.
* It does not create dump.out for every dump file. It rewrites it, only track of dump file is error and fix log.

After Considering you email about test plan

**Step 2**

Changing the fan’s variable

Arbitrary number of times to run the bell

Reading Events file from console

Restarting system

Thermostat on night setting

Light is on

Light is off

Greenhouse water is on

Fan is on

**Fan current state : true**

Fan is off

**Fan current state : false**

**Bing!**

Greenhouse water is off

**Bing!**

Thermostat on day setting

**Bing!**

**Bing!**

**Bing!**

Terminating

**Step 3**

poweron Boolean, Controller exception, Error code, Writing in file, Serialize the object, Exit

Restarting system

Thermostat on night setting

Light is on

Light is off

Greenhouse water is on

Fan is on

Fan current state : true

Fan is off

Fan current state : false

Bing!

Greenhouse water is off

Bing!

Thermostat on day setting

Bing!

Window Malfunction

**Window current state: false**

**ControllerException errorMessage = Window Malfunction**

Emergency Shutdown !!

Reason is- Window Malfunction

**Time: 2020-05-11 18:55:56**

**Error Message: Window Malfunction Error Code: 1**

System is exiting

Restarting system

Thermostat on night setting

Light is on

Light is off

Greenhouse water is on

Fan is on

Fan current state : true

Fan is off

Fan current state : false

Bing!

Greenhouse water is off

Power Out

**Power current state: false**

**ControllerException errorMessage = Power Out**

Emergency Shutdown !!

Reason is- Power Out

**Time: 2020-05-11 18:57:13**

**Error Message: Power Out Error Code: 2**

System is exiting

**Step 4**

Fix power, fix by using fixable interface, log the file, retrieve the demp.out

**Power current state: true**

**Time: 2020-05-11 19:00:03**

**Fixed Message: Power Out No Error Code**

Bing!

Thermostat on day setting

Bing!

Bing!

Bing!

Terminating

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**Window current state: true**

**Time: 2020-05-11 19:02:44**

**Fixed Message: Window Malfunction No Error Code**

Bing!

Bing!

Terminating