Team 19 Phase 2 of Inspection

Laboratory # 8: Inspection

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Work Product
Documentation of Phase 2 of Inspection of Group 20's source code

Document Revision Information
April 22, 2013 – Document created, Phase 2 inspection documented

Approval Sheet

All group members whose names are listed below approve of the document and contributed fairly.

Member Names

Morgan, Laura
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Pledge

On my honor, as a student, I have neither given nor received unauthorized aid on this assignment.

Names

Morgan, Laura
Miaw, Jireh
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Contents

94 **Inspection Schedule**
95 Phase 2 – Coding practices
96 Sunday April 21, 2:00-4:00 p.m.
97 Inspector – Laura

98 **Checklists Used**

99 **Phase 2**
100 Coding practices (single inspector).
101
102 • Switch statements
103   o Switch statements used rather than if-else-if blocks
104   o Every switch statement has a break in each case statement
105 • Variables
106   o All variables initialized prior to use
107   o All variables declared at top of function
108   o All loop variables initialized just before loop
109   o No variables initialized that are not used
110 • Classes
111   o All classes have complete set of get() and set() methods
112 • Bounds
113   o All arithmetic checked for ranges within bounds
114   o All loop bounds are correct
115 • Methods
116   o All method arguments are used in method
117   o All functions named after what they return
118   o All procedures named after what they do
119 • Conditionals
120   o Complexity of conditionals should be avoided
121   o All relational operators correct (> vs >=)
122   o Executable statements not included in conditionals
123 • Miscellaneous
124   o No public data
125   o Every file is included in given file uses
126   o All file open commands checked for failure
127   o Type conversion done explicitly

128 **Results of Inspection**
129
130 • Switch statements
131   o Switch statements used rather than if-else-if blocks

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132		▪ *BaseStation lines 72-92: If-else-if block should be switch-case*
133		*block*
134		▪ *GUI lines 468-700: if-else-if blocks should be switch-case blocks*
135	• Variables	
136	○ All variables initialized prior to use	
137		▪ *GUI lines 246 & 247: txtConnectionButtonOn and*
138		*txtConnectionButtonOff background set before textFields*
139		*initialized (lines 257 and 265)*
140		▪ *GUI lines 525, 543, 560, 577: wIsPressed, aIsPressed, sIsPressed,*
141		*dIsPressed used in conditionals before initialized – consider*
142		*initializing them all to false in initialize()*
143		▪ *GUI line 652: Boolean isSent never initialized*
144		▪ *GUI line 470: int speed used before initialized on line 475*
145	○ All variables declared at top of function	
146		▪ *BaseStation line 71: String message declared in middle of*
147		*function*
148		▪ *BaseStation line 216: byte[] checksum should be declared at top*
149		*of function*
150		▪ *GUI line 643: Boolean valueHolder declared twice (also declared*
151		*on line 25)*
152	○ All loop variables initialized just before loop	
153		▪ *BaseStation line 30: Initialize readFlag on line 62 (just before*
154		*loop) rather than at declaration*
155	○ No variables initialized that are not used	
156		▪ *GUI line 28: private static GUI window never used*

157 **Observations**
158 Phase 2 of the inspection has been completed. Defects sent to Team 20 on
159 4/22/2013.
160
161 Note: Auto-generated GUI code was not inspected as thoroughly, as directed by
162 Instructor.
163
164