

Size:

1. Tool stated LOC: 22539
2. Largest single code file (in main.java.memorand) is EventsManager with 329 LOC
3. It appears the tool only counted code/brackets, no white space or comment lines (Method 1)

Cohesion:

1. LCOM2 is the percentage of methods not accessing the average of the fields/attributes from the entire class.
2. EventsScheduler (as well as others) has a 0 cohesion which is the worst. Here it looks like the methods are using local variables to the method instead of the class variables.

Complexity:

1. 1.746 (mean value)
2. EventsManager has the worst, with 2.5 mean value (16 max)
3. EventsManager class, getDay method, reduced if statements to one using if (boolean || Boolean), also isNREventsForDate method, reduced/modified if statement. Complexity reduced to 2.469 mean value

Package-level coupling:

1. Afferent: the measure of responsibility of the package to classes outside that package
Efferent: the measure of a package dependency to classes outside that package
2. Worse package: main.java.memoranda.util with 57
3. Worse Package: main.java.memoranda.ui with 49

Worst quality:

HTMLEditor.java has the worst maximum cyclomatic complexity at 42, with a mean value of 3.562. This means that the conditional/loop statements are inefficient, perhaps causing it to be much slower than it needs to be.

Task 2

1.

Metric	Total	Mean	Std. Dev.	Maxim...	Resource causing Maximum
> McCabe Cyclomatic Complexity (avg/max per i		2.24	2.851	42	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Parameters (avg/max per method)		0.928	1.097	9	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Nested Block Depth (avg/max per method)		1.391	0.956	8	/SER316-Spring-2018/src/main/java/memoranda/No
> Afferent Coupling (avg/max per packageFragm		19.333	19.653	57	/SER316-Spring-2018/src/main/java/memoranda/uti
> Efferent Coupling (avg/max per packageFragm		11.444	15.276	49	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Instability (avg/max per packageFragment)		0.36	0.247	0.778	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Abstractness (avg/max per packageFragment)		0.111	0.137	0.333	/SER316-Spring-2018/src/main/java/memoranda/dat
> Normalized Distance (avg/max per packageFrag		0.529	0.237	1	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Depth of Inheritance Tree (avg/max per type)		2.652	1.934	6	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Weighted methods per Class (avg/max per type)	3253	14.143	25.533	242	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Children (avg/max per type)	60	0.261	1.405	16	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Overridden Methods (avg/max per t	59	0.257	0.691	4	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Lack of Cohesion of Methods (avg/max per typ		0.262	0.398	1.2	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Attributes (avg/max per type)	1326	5.765	14.118	101	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Static Attributes (avg/max per type)	136	0.591	1.793	12	/SER316-Spring-2018/src/main/java/memoranda/Tas
> Number of Methods (avg/max per type)	1269	5.517	6.833	42	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Static Methods (avg/max per type)	183	0.796	2.51	17	/SER316-Spring-2018/src/main/java/memoranda/Eve
> Specialization Index (avg/max per type)		0.15	0.487	5	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Classes (avg/max per packageFragm	230	25.556	29.833	92	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Interfaces (avg/max per packageFra	16	1.778	3.292	11	/SER316-Spring-2018/src/main/java/memoranda
> Number of Packages	9				
> Total Lines of Code	22537				
> Method Lines of Code (avg/max per method)	15635	10.768	28.22	346	/SER316-Spring-2018/src/main/java/memoranda/ui/

7.

Metric	Total	Mean	Std. Dev.	Maxim...	Resource causing Maximum
> McCabe Cyclomatic Complexity (avg/max per i		2.241	2.851	42	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Parameters (avg/max per method)		0.928	1.097	9	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Nested Block Depth (avg/max per method)		1.39	0.955	8	/SER316-Spring-2018/src/main/java/memoranda/No
> Afferent Coupling (avg/max per packageFragm		21.6	20.011	57	/SER316-Spring-2018/src/main/java/memoranda/uti
> Efferent Coupling (avg/max per packageFragm		10.6	14.263	49	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Instability (avg/max per packageFragment)		0.335	0.243	0.778	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Abstractness (avg/max per packageFragment)		0.172	0.301	1	/SER316-Spring-2018/src/main/java/memoranda/int
> Normalized Distance (avg/max per packageFrag		0.522	0.251	1	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Depth of Inheritance Tree (avg/max per type)		2.652	1.934	6	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Weighted methods per Class (avg/max per type)	3254	14.148	25.54	242	/SER316-Spring-2018/src/main/java/memoranda/ui/
> Number of Children (avg/max per type)	60	0.261	1.405	16	/SER316-Spring-2018/src/main/java/memoranda/ui/
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> Number of Interfaces (avg/max per packageFra	16	1.6	3.169	11	/SER316-Spring-2018/src/main/java/memoranda/int
> Number of Packages	10				
> Total Lines of Code	22586				
> Method Lines of Code (avg/max per method)	15637	10.769	28.219	346	/SER316-Spring-2018/src/main/java/memoranda/ui/

Afferent coupling went up from its previous value (mean value) this is for the worst since there is more dependencies on packages to outside classes.

Task 3.

Refactored main.java.memoranda.util/AgendaGenerator.java getPriorityString method, was using switch statements, changed to if/if else/else statements.

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There was a slight/insignificant reduction in the nested block depth, potentially better, but such a miniscule change is likely to be any help.