

Dubocalc code metrics

V 1.0, 16 feb 2022

Context

RWS has published a request for proposal for the maintenance of the application Dubocalc. The scope of the proposal includes the four versions that are in active use:

- V5.1
- V5.1
- V6.0
- V6.1

In response to questions, RWS has conducted an automated source code volume measurement on the source code of each version. The measurement is done on the entire source code folder: it includes the actual source code of the system, some supporting files (e.g. XML or build scripts), supporting libraries and some open source components. The count has been done using the open source tool CLOC (<https://github.com/AlDanial/cloc/releases/tag/v1.92>).

Summary of results

The result of the code count is as follows:

- Dubocalc v6.1 has C# as main technology, and has 160.000 lines of code in 1135 files. Javascript, CSS, SCSS as supporting technologies.
- Dubocalc v6.0 has C# as main technology, and has 156.000 lines of code in 1118 files. Javascript, CSS, SCSS as supporting technologies.
- Dubocalc v5.1 has C# as main technology, and has 199.000 lines of code in 1213 files. Javascript, CSS, SCSS as supporting technologies.
- Dubocalc v5.0 has C# as main technology, and has 193.000 lines of code in 1186 files. Javascript, CSS, SCSS as supporting technologies.

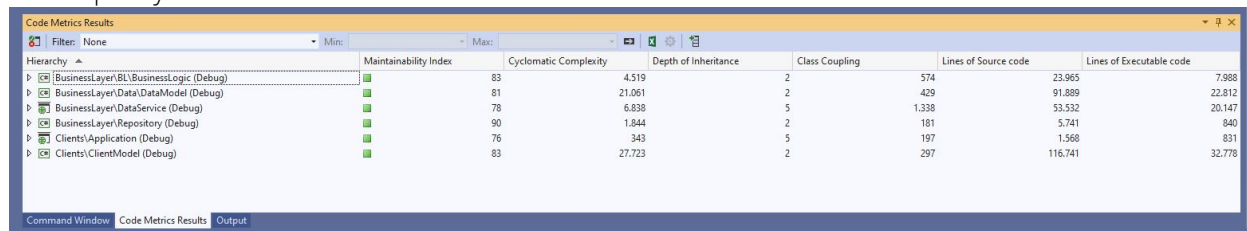
Detailed results V5.0

Source code volume:

github.com/AlDanial/cloc v 1.92 T=52.85 s (68.6 files/s, 20281.3 lines/s)

Language	files	blank	comment	code
JavaScript	1176	58118	92574	329654
C#	1186	34796	24312	192832
CSS	73	8816	2301	74840
XML	137	1646	1150	54778
SVG	107	0	59	53749
C# Generated	245	4695	2544	43189
SCSS	201	4651	4834	27218
ASP.NET	155	1598	1135	12587
HTML	82	1210	282	10367
MSBuild script	7	0	47	5918
Razor	67	580	1390	4836
XSLT	8	367	241	3691
Markdown	27	895	0	3478
SQL	128	326	22	2968
XSD	1	5	4	1295
XAML	4	0	0	728
Visual Studio Solution	5	5	5	336
YAML	3	46	20	278
Python	2	56	36	144
JSON	5	0	0	121
PHP	2	7	14	54
Bourne Shell	1	5	2	22
C# Designer	2	6	18	12
Ruby	1	6	12	7
SUM:	3625	117834	131002	823102

Code quality details from Visual Studio:



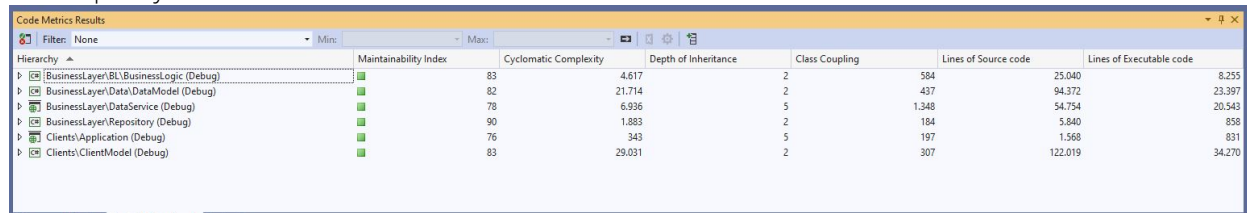
Hierarchy	Maintainability Index	Cyclomatic Complexity	Depth of Inheritance	Class Coupling	Lines of Source code	Lines of Executable code
BusinessLayer(BL)BusinessLogic (Debug)	83	4.519	2	2	574	23.965
BusinessLayer(Data)DataModel (Debug)	81	21.061	2	2	429	91.889
BusinessLayer(Data)DataService (Debug)	78	6.838	5	5	1,338	53.532
BusinessLayer(Data)Repository (Debug)	90	1.844	2	2	181	5.741
Clients\Application (Debug)	76	343	5	5	197	1.568
Clients\ClientModel (Debug)	83	27.723	2	2	297	116.741

Detailed results V5.1

github.com/AlDanial/cloc v 1.92 T=51.36 s (71.6 files/s, 21380.5 lines/s)

Language	files	blank	comment	code
JavaScript	1181	61711	95796	342163
C#	1213	35629	24686	199375
CSS	74	8870	2303	75127
SVG	107	0	59	53749
XML	142	1604	1160	50099
C# Generated	253	4925	2626	45357
SCSS	201	4652	4833	27220
ASP.NET	155	1605	1150	12703
HTML	83	1232	337	10549
MSBuild script	7	0	47	6003
Razor	67	593	1469	4954
XSLT	8	367	241	3691
Markdown	27	895	0	3478
SQL	132	363	31	3115
XSD	1	5	4	1295
XAML	4	0	0	728
Visual Studio Solution	5	5	5	336
YAML	3	46	20	278
Python	2	56	36	144
JSON	5	0	0	121
PHP	2	7	14	54
Bourne Shell	1	5	2	22
C# Designer	2	6	18	12
Ruby	1	6	12	7
SUM:	3676	122582	134849	840580

Code quality details from Visual Studio:



Hierarchy	Maintainability Index	Cyclomatic Complexity	Depth of Inheritance	Class Coupling	Lines of Source code	Lines of Executable code
BusinessLayer\BL\BusinessLogic (Debug)	83	4.617	2	584	25,040	8,255
BusinessLayer\Data\DataModel (Debug)	82	21.714	2	437	94,372	23,397
BusinessLayer\Data\Service (Debug)	78	6.936	5	1,348	54,754	20,543
BusinessLayer\Repository (Debug)	90	1.883	2	184	5,840	858
Clients\Application (Debug)	76	343	5	197	1,568	831
Clients\ClientModel (Debug)	83	29.031	2	307	122,019	34,270

Detailed results V6.0

github.com/AlDanial/cloc v 1.92 T=40.84 s (78.1 files/s, 17717.4 lines/s)

Language	files	blank	comment	code
JavaScript	1281	34118	55115	237133
C#	1118	28225	37759	156374
CSS	70	6498	1248	49502
XML	50	578	483	40490
SCSS	59	4350	875	22698
HTML	136	959	2077	10472
SVG	85	1	73	7249
C# Generated	157	798	1309	6708
MSBuild script	9	0	61	5045
SQL	156	537	192	4937
XSLT	8	367	241	3691
XAML	4	0	0	728
JSON	5	0	0	585
Razor	26	40	9	442
Visual Studio Solution	6	6	6	427
Markdown	9	146	0	424
ASP.NET	5	0	0	152
Python	2	56	36	144
C# Designer	4	16	49	64
DOS Batch	1	0	0	1
SUM:	3191	76695	99533	547266

Code quality details from Visual Studio:

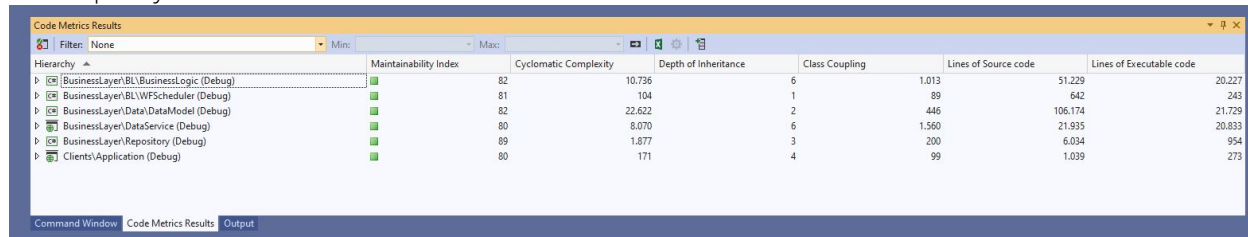
Hierarchy	Maintainability Index	Cyclomatic Complexity	Depth of Inheritance	Class Coupling	Lines of Source code	Lines of Executable code
BusinessLayer\BL\BusinessLogic (Debug)	82	10.366	6	993	49.432	19.461
BusinessLayer\BL\WFScheduler (Debug)	81	104	1	89	642	243
BusinessLayer\Data\DataModel (Debug)	82	22.050	2	444	104.277	21.275
BusinessLayer\Data\Service (Debug)	80	8.016	6	1.558	21.926	20.661
BusinessLayer\Repository (Debug)	89	1.864	3	199	6.001	948
Clients\Application (Debug)	80	171	4	99	1.039	273

Detailed results V6.1

github.com/AlDanial/cloc v 1.92 T=96.27 s (38.0 files/s, 28127.6 lines/s)

Language	files	blank	comment	code
XML	424	2265	596	1995893
JavaScript	1274	34955	57566	240648
C#	1135	28961	38233	161514
CSS	70	6498	1249	49505
SCSS	59	4350	875	22698
HTML	136	959	2086	10480
SVG	85	1	73	7249
JSON	24	52	0	7107
C# Generated	160	818	1337	6865
MSBuild script	9	0	61	5045
SQL	157	538	182	4903
XSLT	8	367	241	3691
Puppet	47	335	2	2866
PowerShell	13	449	1504	1413
XAML	6	0	0	982
Razor	26	37	9	441
Visual Studio Solution	6	6	6	427
Markdown	9	146	0	424
XSD	1	51	3	265
ASP.NET	5	0	0	152
Python	2	56	36	144
C# Designer	4	16	49	64
Pascal	1	15	69	29
DOS Batch	1	0	0	1
SUM:	3662	80875	104177	2522806

Code quality details from Visual Studio:



Hierarchy	Maintainability Index	Cyclomatic Complexity	Depth of Inheritance	Class Coupling	Lines of Source code	Lines of Executable code
BusinessLayer\BL\BusinessLogic (Debug)	82	10.736	6	1,013	51,229	20,227
BusinessLayer\BL\WFScheduler (Debug)	81	104	1	89	642	243
BusinessLayer\BL\WFScheduler (Debug)	82	22,622	2	446	106,174	21,729
BusinessLayer\Data\DataModel (Debug)	80	8,070	6	1,560	21,935	20,833
BusinessLayer\DataService (Debug)	89	1,877	3	200	6,034	954
BusinessLayer\Repository (Debug)	80	171	4	99	1,039	273
Clients\Application (Debug)						