

Overview in General

This file contains a general overview of the data in the graph including node labels and relationships types.

References

- [jqassistant](#)
- [Neo4j Python Driver](#)

Node Labels

Table 1a - Highest node count by label combination

Lists the 30 label combinations with the highest number of nodes. The labels with the lowest node count are listed in table 1b. The total list would sum up to the total number of labels (100%).

The whole table can be found in the CSV report `Node_label_combination_count`.

Total number of nodes: 90841

	nodeLabels	nodesWithThatLabels	nodesWithThatLabelsPercent
0	[Git, Change]	71686	78.913706
1	[Git, Commit]	9839	10.831012
2	[File, Git]	5048	5.556962
3	[Author, Git, Person]	1181	1.300074
4	[Git, Tag]	1047	1.152563
5	[Committer, Git, Person]	371	0.408406
6	[Type, TS, Primitive, ExternalType]	291	0.320340
7	[Type, TS, Declared, ExternalType]	286	0.314836
8	[TS, ExternalDeclaration]	211	0.232274
9	[Type, TS, Literal, ExternalType]	136	0.149712
10	[Type, TS, Union, ExternalType]	120	0.132099
11	[Type, TS, ObjectMember, ExternalType]	98	0.107881
12	[TS, Property]	65	0.071554
13	[TS, Function]	47	0.051739
14	[Type, TS, Object, ExternalType]	38	0.041831
15	[Type, TS, FunctionParameter, ExternalType]	38	0.041831
16	[TS, Parameter]	33	0.036327
17	[Type, TS, Function, ExternalType]	33	0.036327
18	[TS, ExternalModule]	25	0.027521
19	[TS, Variable]	24	0.026420
20	[Git, Branch]	24	0.026420
21	[TS, Literal, Value]	20	0.022016
22	[jqAssistant, Rule, Concept]	19	0.020916
23	[TS, Interface]	18	0.019815
24	[Type, TS, Intersection, ExternalType]	17	0.018714
25	[File, Local, Directory]	16	0.017613
26	[TS, TypeAlias]	14	0.015412
27	[TS, Declared, Value]	13	0.014311
28	[Type, TS, NotIdentified, ExternalType]	11	0.012109
29	[TS, EnumMember]	8	0.008807

Chart 1a - Highest node count by label combination

Values under 0.5% will be grouped into "others" to get a cleaner plot. The group "others" is then broken down in Chart 1b.

<Figure size 640x480 with 0 Axes>

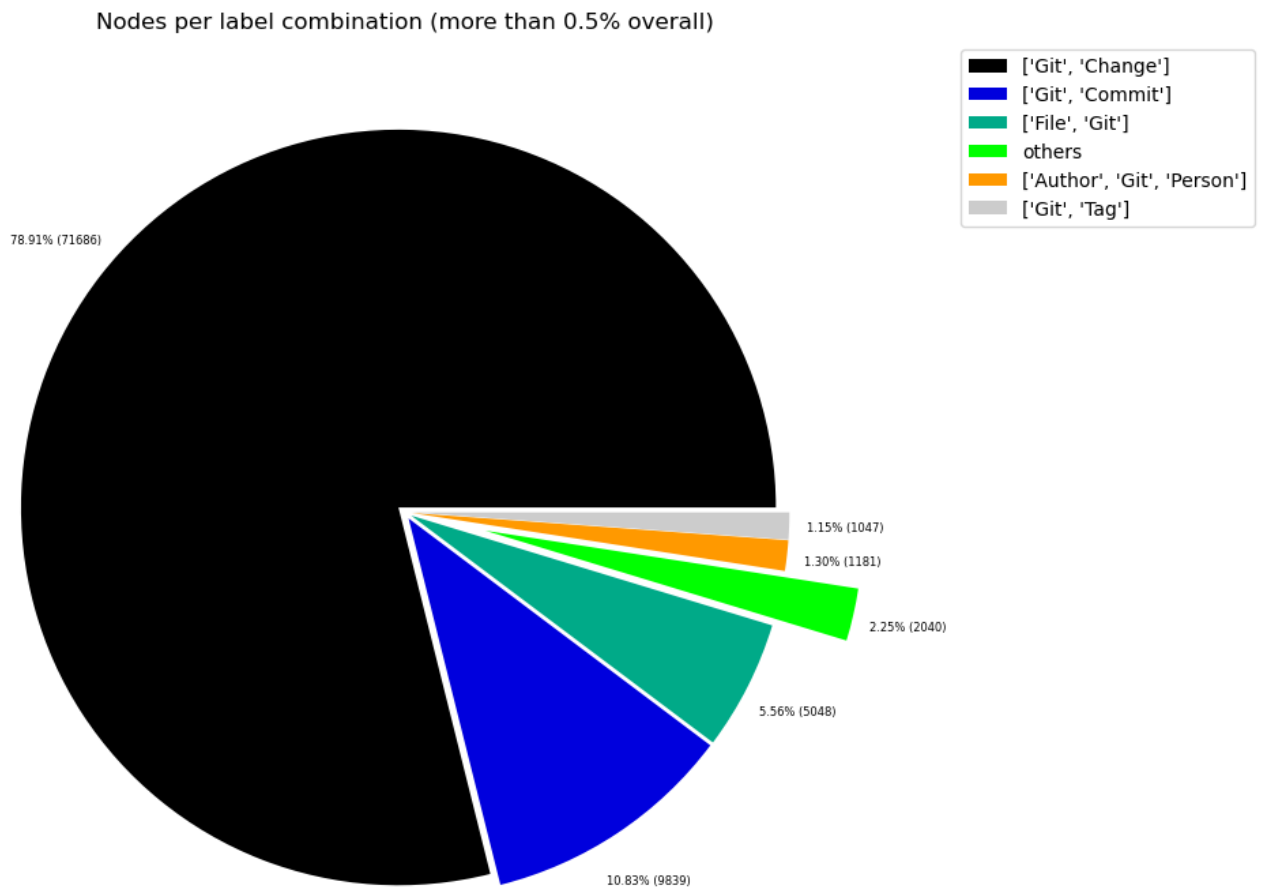


Table 1b - Lowest node count by label combination

Lists the 30 label combinations with the lowest number of nodes until they reach 0.5% of the total node count, which are shown above.

	nodeLabels	nodesWithThatLabels	nodesWithThatLabelsPercent
0	[Analyze, Task, jQAssistant]	1	0.001101
1	[File, TS, Scan]	1	0.001101
2	[TS, Class]	1	0.001101
3	[File, Directory]	1	0.001101
4	[TS, Method]	1	0.001101
5	[TS, ObjectMember, Value]	1	0.001101
6	[TS, Constructor]	1	0.001101
7	[TS, Enum]	2	0.002202
8	[TS, Object, Value]	3	0.003302
9	[Type, TS, Tuple, ExternalType]	3	0.003302
10	[TS, Function, Value]	4	0.004403
11	[TS, TypeParameter]	4	0.004403
12	[TS, Value, Complex]	5	0.005504
13	[Type, TS, TypeParameterReference, ExternalType]	6	0.006605
14	[File, TS, Local, Module]	6	0.006605
15	[File, Local]	6	0.006605
16	[Project, TS]	6	0.006605
17	[TS, Value, Member]	6	0.006605
18	[TS, Value, Call]	6	0.006605
19	[TS, EnumMember]	8	0.008807
20	[Type, TS, NotIdentified, ExternalType]	11	0.012109
21	[TS, Declared, Value]	13	0.014311
22	[TS, TypeAlias]	14	0.015412
23	[File, Local, Directory]	16	0.017613
24	[Type, TS, Intersection, ExternalType]	17	0.018714
25	[TS, Interface]	18	0.019815
26	[jQAssistant, Rule, Concept]	19	0.020916
27	[TS, Literal, Value]	20	0.022016
28	[Git, Branch]	24	0.026420
29	[TS, Variable]	24	0.026420

Chart 1b - Lowest node count by label combination

Shows the lowest (less than 0.5% overall) node count label combinations. Therefore, this plot breaks down the "others" slice of the pie chart above. Values under 0.01% will be grouped into "others" to get a cleaner plot.

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Nodes per label combination (less than 0.5% overall)

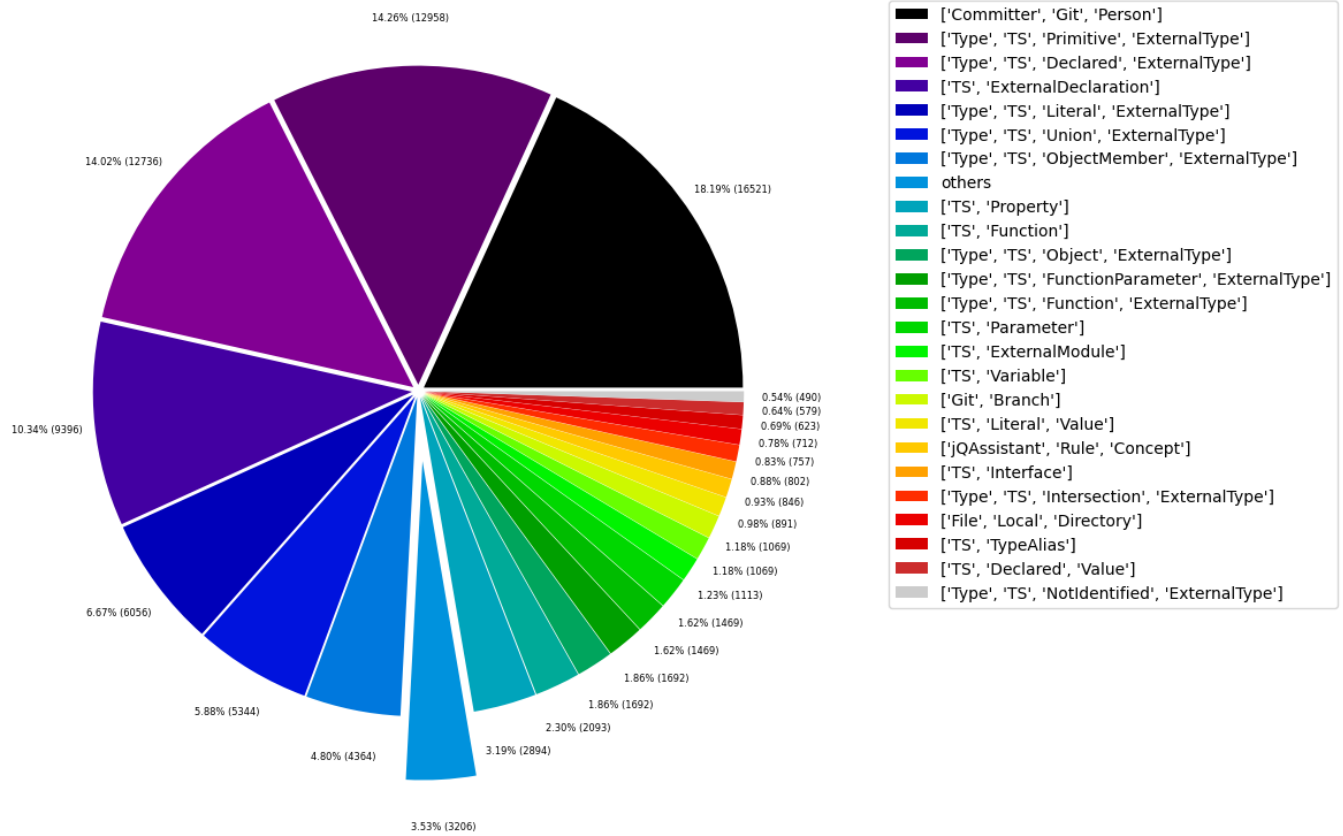


Table 1c - Highest node count by single label

Lists the 40 labels with the highest number of nodes. Doesn't sum up to the total number of nodes or 100% because one node can have multiple labels. Helps to identify commonly used labels.

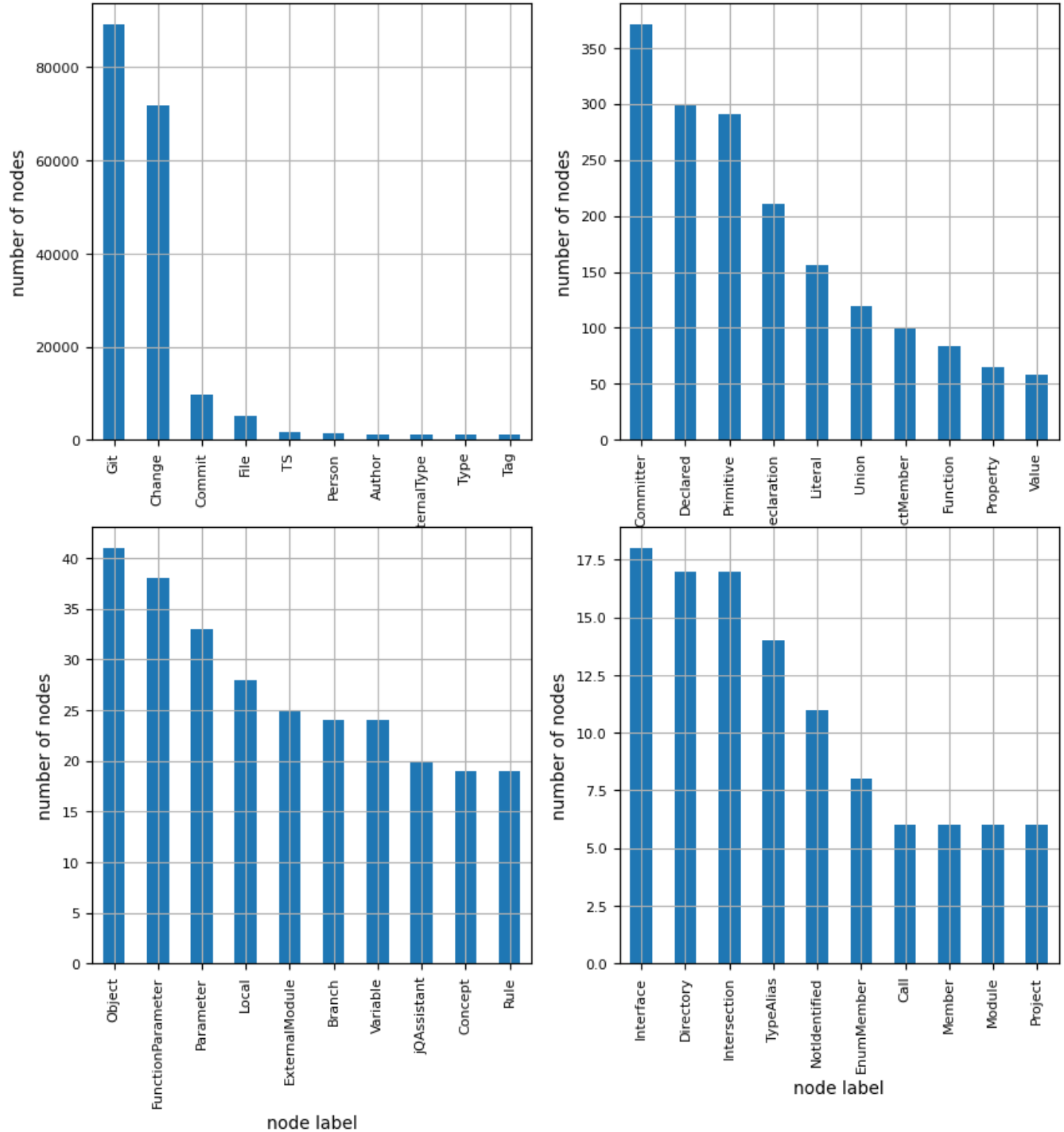
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	89196	98.189144
1	Change	71686	78.913706
2	Commit	9839	10.831012
3	File	5078	5.589987
4	TS	1602	1.763521
5	Person	1552	1.708480
6	Author	1181	1.300074
7	ExternalType	1077	1.185588
8	Type	1077	1.185588
9	Tag	1047	1.152563
10	Committer	371	0.408406
11	Declared	299	0.329147
12	Primitive	291	0.320340
13	ExternalDeclaration	211	0.232274
14	Literal	156	0.171729
15	Union	120	0.132099
16	ObjectMember	99	0.108982
17	Function	84	0.092469
18	Property	65	0.071554
19	Value	58	0.063848
20	Object	41	0.045134
21	FunctionParameter	38	0.041831
22	Parameter	33	0.036327
23	Local	28	0.030823
24	ExternalModule	25	0.027521
25	Branch	24	0.026420
26	Variable	24	0.026420
27	jqAssistant	20	0.022016
28	Concept	19	0.020916
29	Rule	19	0.020916
30	Interface	18	0.019815
31	Directory	17	0.018714
32	Intersection	17	0.018714
33	TypeAlias	14	0.015412
34	NotIdentified	11	0.012109
35	EnumMember	8	0.008807
36	Call	6	0.006605
37	Member	6	0.006605
38	Module	6	0.006605
39	Project	6	0.006605

Chart 1c - Highest node count by label

Shows the 40 labels with the highest number of nodes.

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Node count by label



Relationship Types

Table 2a - Highest relationship count by type

Lists the 30 relationship types with the highest number of occurrences. The whole table can be found in the CSV report `Relationship_type_count` .

Total number of relationships: 256591

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	71686	27.937847
1	MODIFIES	71686	27.937847
2	UPDATES	47839	18.644068
3	COMMITTED	19678	7.669014
4	CREATES	16663	6.493992
5	HAS_PARENT	10834	4.222284
6	DELETES	9889	3.853993
7	RENAMES	2705	1.054207
8	HAS_NEW_NAME	1543	0.601346
9	ON_COMMIT	1047	0.408042
10	DEPENDS_ON	953	0.371408
11	CONTAINS	465	0.181222
12	OF_TYPE	330	0.128609
13	EXPORTS	271	0.105616
14	REFERENCES	198	0.077166
15	DECLARES	185	0.072099
16	HAS_MEMBER	99	0.038583
17	HAS_TYPE_ARGUMENT	99	0.038583
18	RETURNS	81	0.031568
19	HAS_PARAMETER	71	0.027670
20	INITIALIZED_WITH	32	0.012471
21	COPIES	29	0.011302
22	REQUIRES_CONCEPT	28	0.010912
23	USES	25	0.009743
24	HAS_HEAD	24	0.009353
25	RESOLVES_TO	23	0.008964
26	COPY_OF	21	0.008184
27	INCLUDES_CONCEPT	19	0.007405
28	SIMILAR	10	0.003897
29	EXTENDS	7	0.002728

Chart 2a - Highest relationship count by type

Values under 0.5% will be grouped into "others" to get a cleaner plot. The group "others" is then broken down in the second chart.

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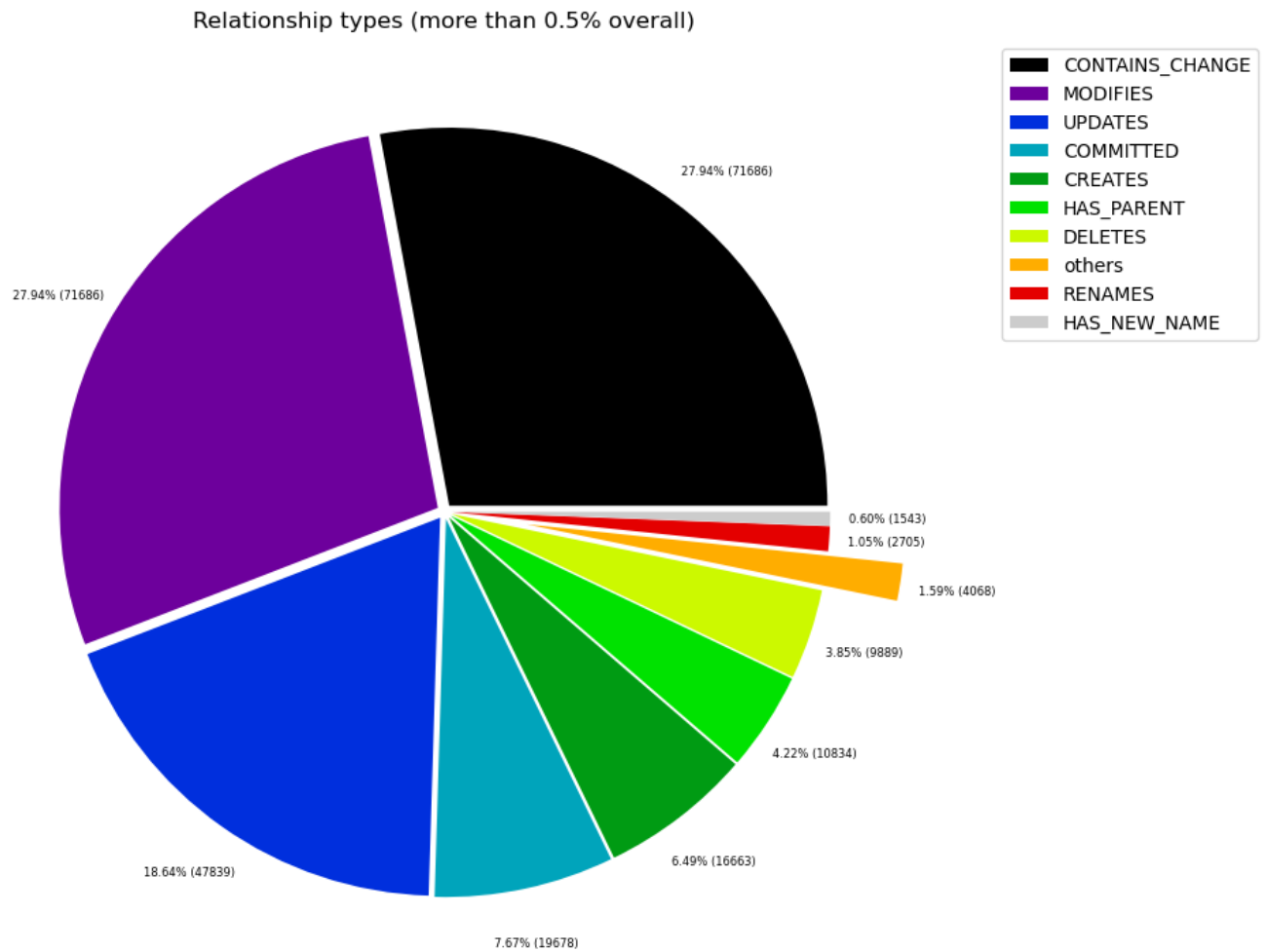


Table 2b - Lowest relationship count by type

Lists the 30 relationships type with the lowest number of occurrences up to 0.5% of the total node count. This is essentially breaking down the "others" slice from the chart above.

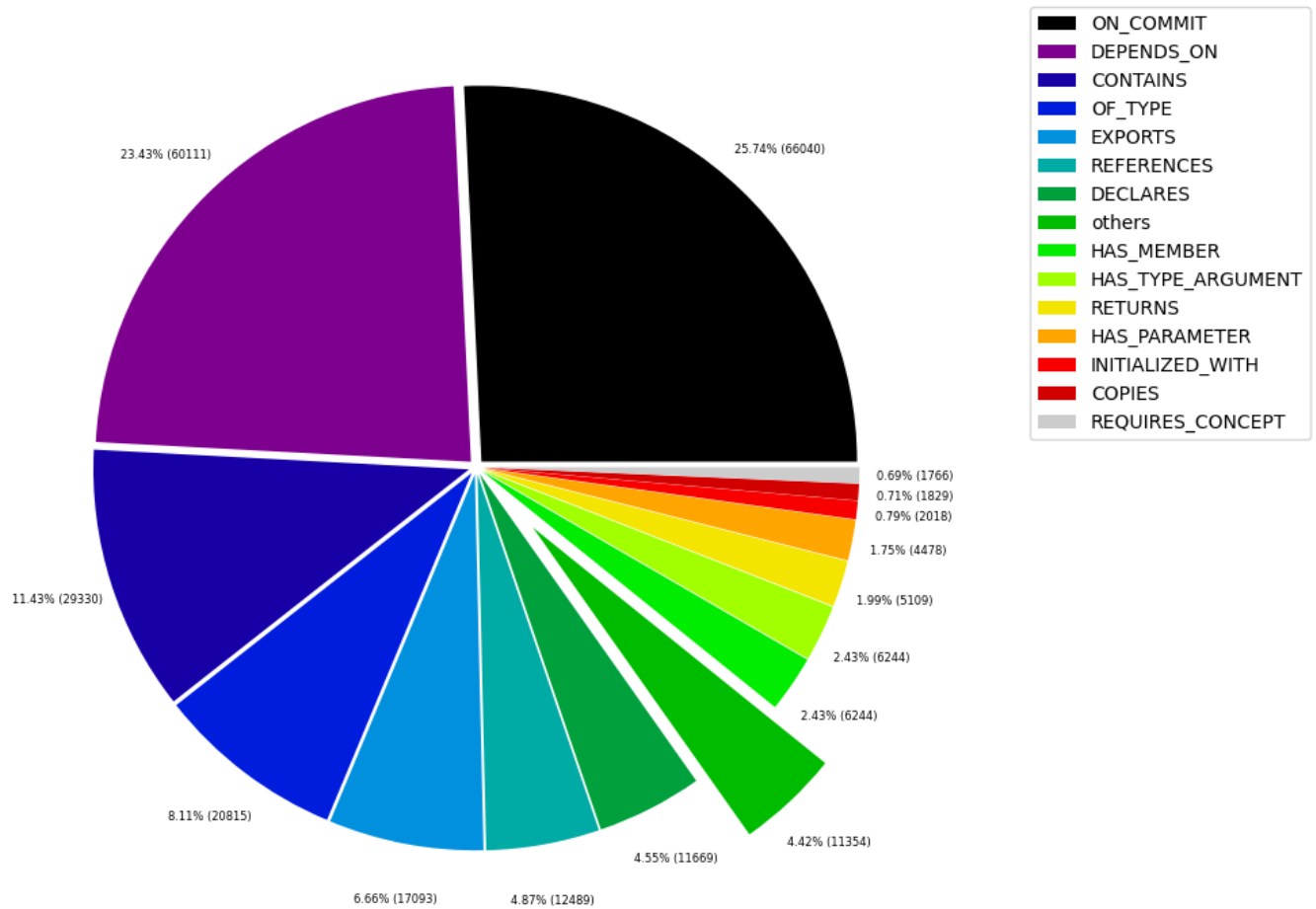
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONSTRAINED_BY	4	0.001559
1	REFERENCED_PROJECTS	5	0.001949
2	MEMBER	6	0.002338
3	HAS_ROOT	6	0.002338
4	HAS_CONFIG	6	0.002338
5	HAS_ARGUMENT	6	0.002338
6	CONTAINS_PROJECT	6	0.002338
7	CALLS	6	0.002338
8	PARENT	6	0.002338
9	EXTENDS	7	0.002728
10	SIMILAR	10	0.003897
11	INCLUDES_CONCEPT	19	0.007405
12	COPY_OF	21	0.008184
13	RESOLVES_TO	23	0.008964
14	HAS_HEAD	24	0.009353
15	USES	25	0.009743
16	REQUIRES_CONCEPT	28	0.010912
17	COPIES	29	0.011302
18	INITIALIZED_WITH	32	0.012471
19	HAS_PARAMETER	71	0.027670
20	RETURNS	81	0.031568
21	HAS_TYPE_ARGUMENT	99	0.038583
22	HAS_MEMBER	99	0.038583
23	DECLARES	185	0.072099
24	REFERENCES	198	0.077166
25	EXPORTS	271	0.105616
26	OF_TYPE	330	0.128609
27	CONTAINS	465	0.181222
28	DEPENDS_ON	953	0.371408
29	ON_COMMIT	1047	0.408042

Chart 2b - Lowest relationship count by type

Shows the lowest (less than 0.5% overall) relationship types. This plot breaks down the "others" slice of the pie chart above. Values under 0.01% will be grouped into "others" to get a cleaner plot.

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Relationship types (less than 0.5% overall)



Node labels with their relationships

Table 3a - Highest relationship count by node labels and relationship type

Lists the 30 node labels and their relationship types with the highest number of occurrences.

	sourceLabels	relationType	targetLabels	numberOfRelationships	numberOfNodesWithSameLabelsAsSource	numberOfNodesWithSam
0	[Git, Commit]	CONTAINS_CHANGE	[Git, Change]	71686	9839	
1	[Git, Change]	MODIFIES	[File, Git]	71686	71686	
2	[Git, Change]	UPDATES	[File, Git]	47839	71686	
3	[Git, Change]	CREATES	[File, Git]	16663	71686	
4	[Git, Commit]	HAS_PARENT	[Git, Commit]	10834	9839	
5	[Git, Change]	DELETES	[File, Git]	9889	71686	
6	[Author, Git, Person]	COMMITTED	[Git, Commit]	9839	1181	
7	[Committer, Git, Person]	COMMITTED	[Git, Commit]	9839	371	
8	[Git, Change]	RENAMES	[File, Git]	2705	71686	
9	[File, Git]	HAS_NEW_NAME	[File, Git]	1543	5048	
10	[Git, Tag]	ON_COMMIT	[Git, Commit]	1047	1047	
11	[TS, Function]	DEPENDS_ON	[TS, ExternalDeclaration]	280	47	
12	[TS, ExternalModule]	EXPORTS	[TS, ExternalDeclaration]	211	25	
13	[File, TS, Local, Module, Mark4ModuleWeaklyCon...	DEPENDS_ON	[TS, ExternalDeclaration]	188	3	
14	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Primitive, ExternalType]	149	120	
15	[Type, TS, Declared, ExternalType]	REFERENCES	[TS, ExternalDeclaration]	139	286	
16	[TS, Function]	DEPENDS_ON	[TS, ExternalModule]	129	47	
17	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Literal, ExternalType]	119	120	
18	[Type, TS, Object, ExternalType]	HAS_MEMBER	[Type, TS, ObjectMember, ExternalType]	98	38	
19	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Declared, ExternalType]	78	120	
20	[TS, Interface]	DECLARES	[TS, Property]	61	18	
21	[TS, Property]	OF_TYPE	[Type, TS, Union, ExternalType]	46	65	
22	[TS, Variable]	DEPENDS_ON	[TS, ExternalDeclaration]	44	24	
23	[Type, TS, Declared, ExternalType]	HAS_TYPE_ARGUMENT	[Type, TS, Declared, ExternalType]	43	286	
24	[Type, TS, Function, ExternalType]	HAS_PARAMETER	[Type, TS, FunctionParameter, ExternalType]	38	33	
25	[File, TS, Local, Module, Mark4ModuleWeaklyCon...	DECLARES	[TS, Function]	37	3	
26	[Type, TS, ObjectMember, ExternalType]	OF_TYPE	[Type, TS, Union, ExternalType]	35	98	
27	[TS, Function]	HAS_PARAMETER	[TS, Parameter]	33	47	
28	[Type, TS, ObjectMember, ExternalType]	OF_TYPE	[Type, TS, Primitive, ExternalType]	31	98	
29	[TS, Function]	DEPENDS_ON	[TS, Function]	30	47	

Graph Density

total_number_of_nodes (vertices): 90841

total_number_of_relationships (edges): 256591

-> total directed graph density: 3.1094414771705836e-05

-> total directed graph density in percent: 0.0031094414771705835