

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`.

	nodeLabels	nodesWithThatLabels	nodesWithThatLabelsPercent
0	[Git, Change]	84437	78.302036
1	[Git, Commit]	10981	10.183150
2	[File, Git]	5640	5.230213
3	[Git, Tag]	1579	1.464274
4	[Author, Git, Person]	1246	1.155469
5	[Json, Key]	668	0.619465
6	[Json, Value, Scalar]	603	0.559188
7	[Committer, Git, Person]	370	0.343117
8	[NPM, Dependency]	338	0.313442
9	[Type, TS, Primitive]	291	0.269857
10	[Type, TS, Declared]	276	0.255947
11	[TS, ExternalDeclaration]	215	0.199379
12	[Type, TS, Literal]	136	0.126119
13	[Json, Value, Object]	133	0.123337
14	[Type, TS, Union]	119	0.110354
15	[Type, TS, ObjectMember]	101	0.093662
16	[NPM, Script]	91	0.084388
17	[TS, Property]	65	0.060277
18	[TS, Function]	47	0.043585
19	[Type, TS, FunctionParameter]	40	0.037094
20	[Type, Object, TS]	39	0.036166
21	[Git, Branch]	36	0.033384
22	[File, Directory]	34	0.031530
23	[Type, TS, Function]	34	0.031530
24	[TS, Parameter]	33	0.030602
25	[Package, File, Json, NPM]	29	0.026893
26	[TS, Variable]	24	0.022256
27	[Value, TS, Literal]	20	0.018547
28	[jqAssistant, Rule, Concept]	19	0.017620
29	[Type, TS, Intersection]	17	0.015765

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>

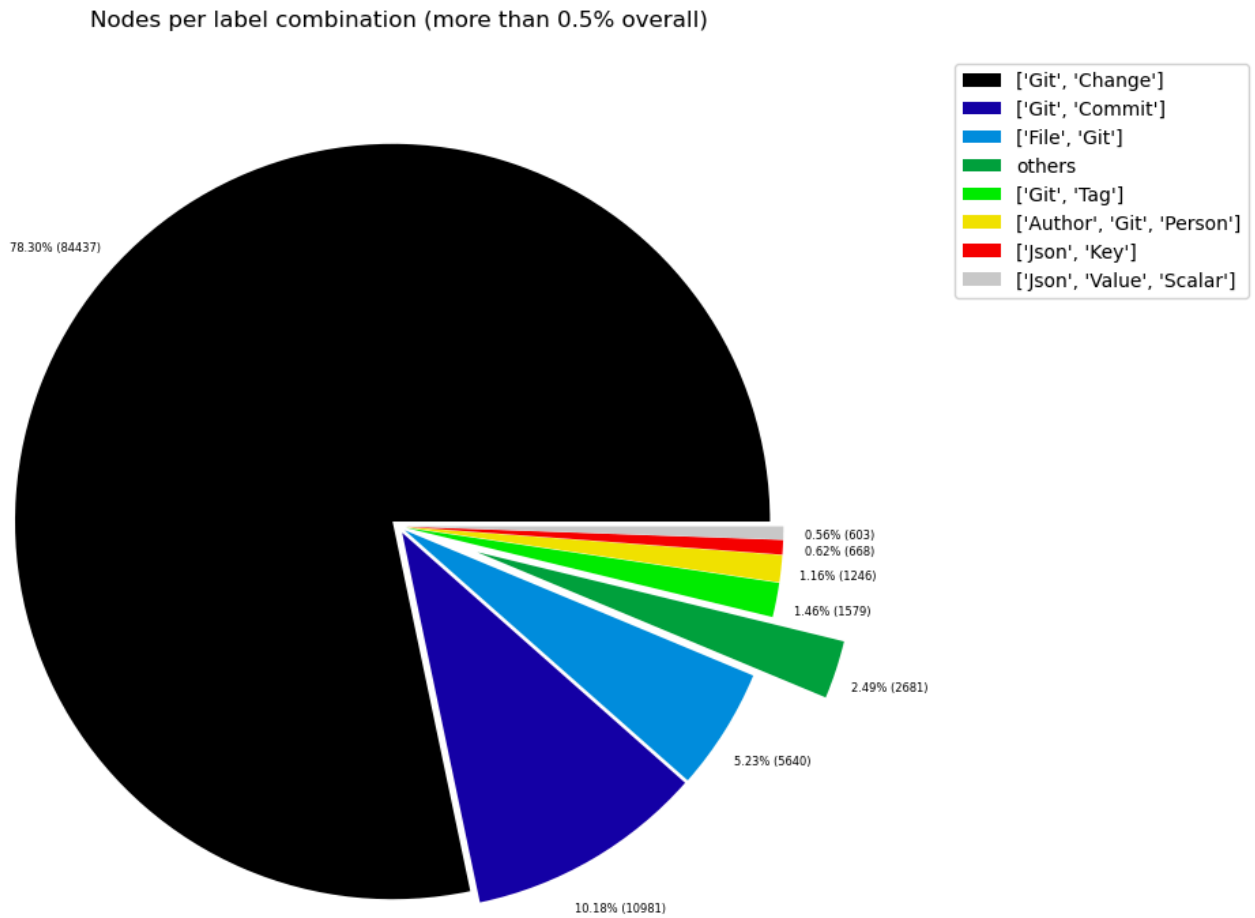


Table 1b - Lowest node count by label combination

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	0.000927
1	[File, TS, Scan]	1	0.000927
2	[TS, Method]	1	0.000927
3	[Repository, File, Git]	1	0.000927
4	[TS, Constructor]	1	0.000927
5	[Value, TS, ObjectMember]	1	0.000927
6	[TS, Class]	1	0.000927
7	[TS, Enum]	2	0.001855
8	[Value, Object, TS]	3	0.002782
9	[Type, TS, Tuple]	3	0.002782
10	[Value, TS, Function]	4	0.003709
11	[TS, TypeParameter]	4	0.003709
12	[Value, TS, Complex]	5	0.004637
13	[NPM, Engine]	6	0.005564
14	[Project, TS]	6	0.005564
15	[File, Local]	6	0.005564
16	[Value, TS, Call]	6	0.005564
17	[Value, TS, Member]	6	0.005564
18	[File, TS, Local, Module]	6	0.005564
19	[Type, TS, TypeParameterReference]	6	0.005564
20	[TS, EnumMember]	8	0.007419
21	[Type, TS, NotIdentified]	11	0.010201
22	[TS, ExternalModule]	11	0.010201
23	[Json, Value, Array]	12	0.011128
24	[Value, TS, Declared]	13	0.012055
25	[TS, TypeAlias]	16	0.014837
26	[File, Directory, Local]	16	0.014837
27	[Type, TS, Intersection]	17	0.015765
28	[TS, Interface]	17	0.015765
29	[JQAssistant, Rule, Concept]	19	0.017620

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)

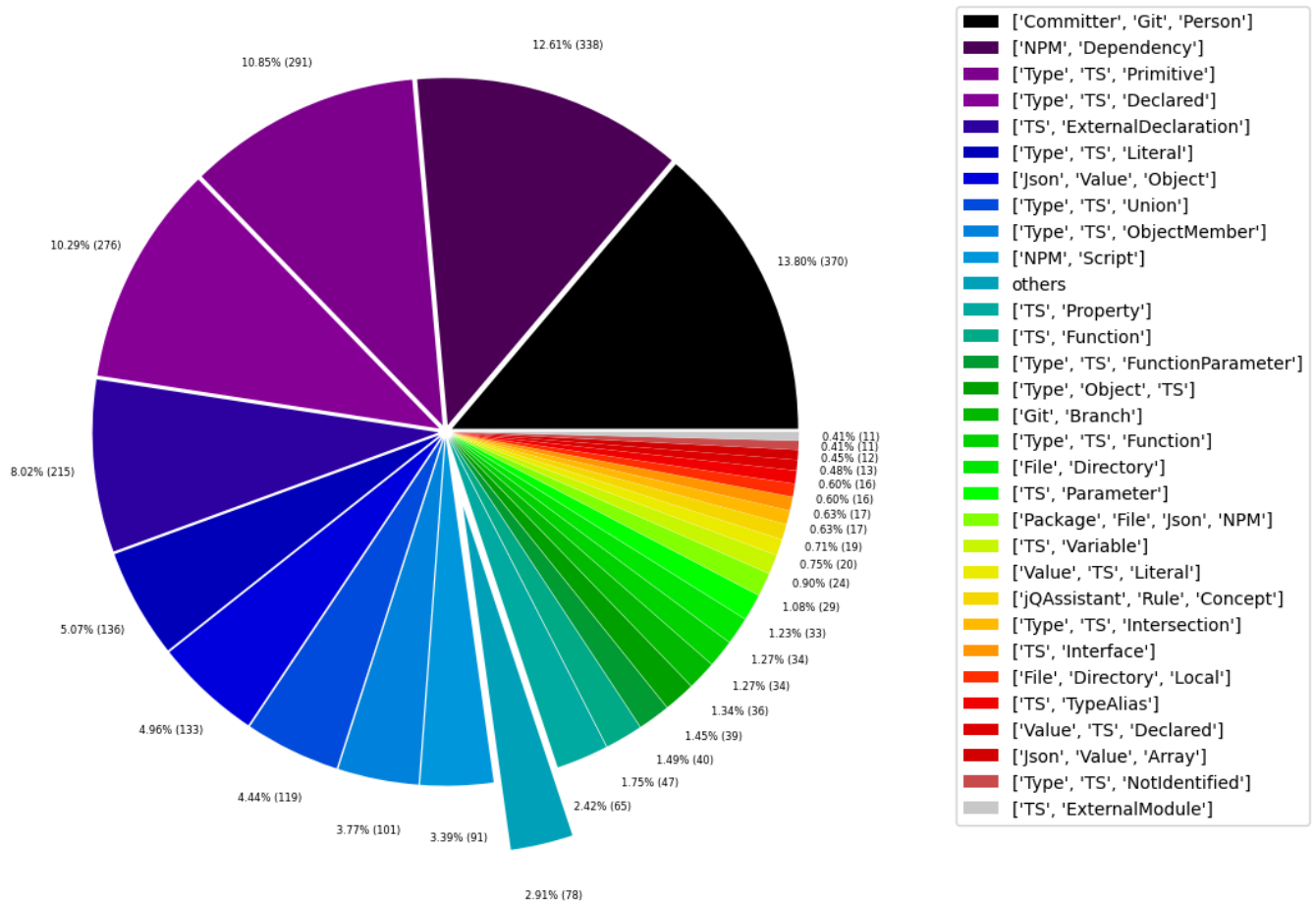


Table 1c - Highest node count by single label

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.

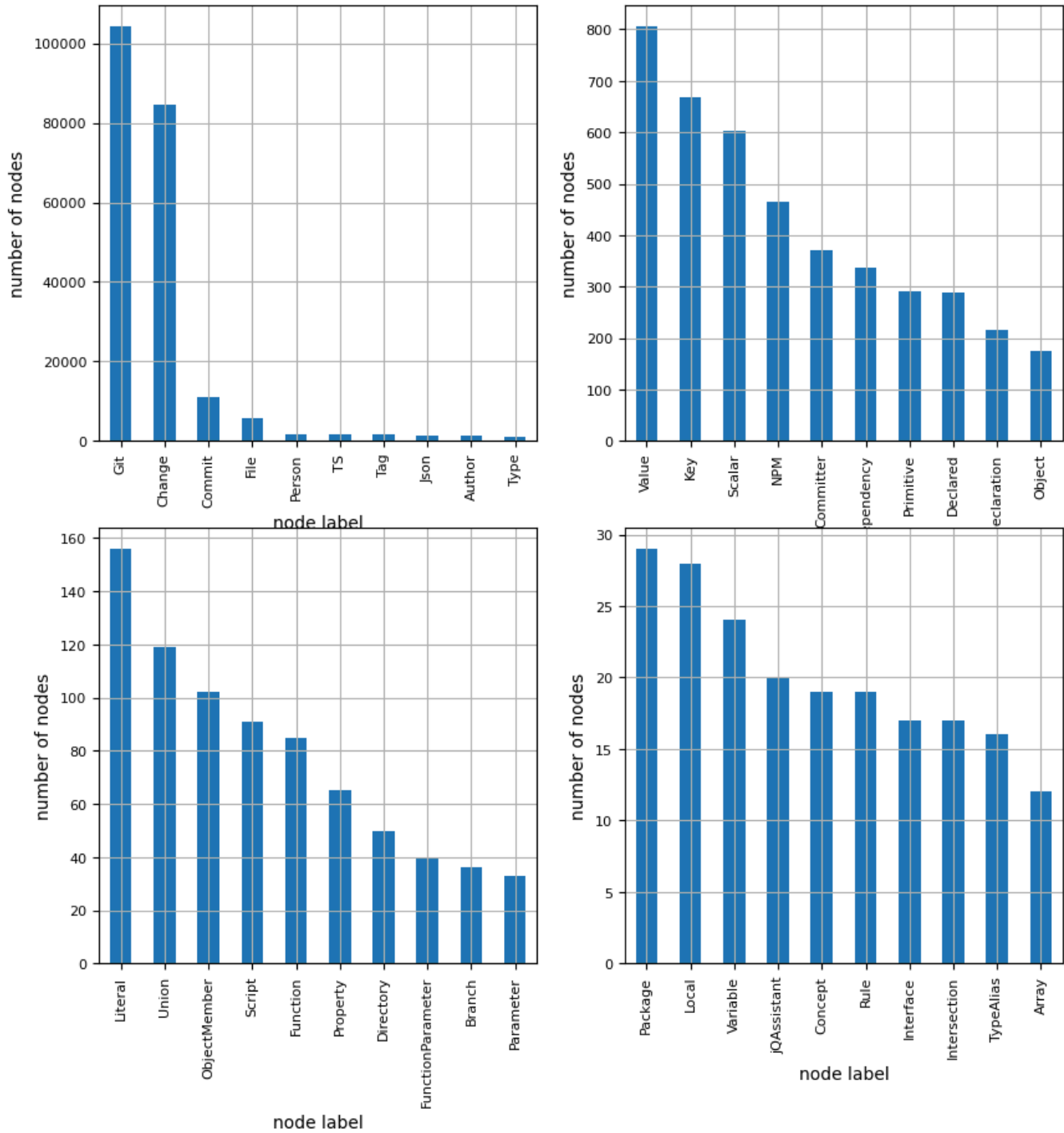
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	104290	96.712570
1	Change	84437	78.302036
2	Commit	10981	10.183150
3	File	5733	5.316456
4	Person	1616	1.498586
5	TS	1589	1.473548
6	Tag	1579	1.464274
7	Json	1445	1.340010
8	Author	1246	1.155469
9	Type	1073	0.995039
10	Value	806	0.747438
11	Key	668	0.619465
12	Scalar	603	0.559188
13	NPM	464	0.430287
14	Committer	370	0.343117
15	Dependency	338	0.313442
16	Primitive	291	0.269857
17	Declared	289	0.268002
18	ExternalDeclaration	215	0.199379
19	Object	175	0.162285
20	Literal	156	0.144665
21	Union	119	0.110354
22	ObjectMember	102	0.094589
23	Script	91	0.084388
24	Function	85	0.078824
25	Property	65	0.060277
26	Directory	50	0.046367
27	FunctionParameter	40	0.037094
28	Branch	36	0.033384
29	Parameter	33	0.030602
30	Package	29	0.026893
31	Local	28	0.025966
32	Variable	24	0.022256
33	jQAssistant	20	0.018547
34	Concept	19	0.017620
35	Rule	19	0.017620
36	Interface	17	0.015765
37	Intersection	17	0.015765
38	TypeAlias	16	0.014837
39	Array	12	0.011128

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: 322104

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	84437	26.214204
1	MODIFIES	84437	26.214204
2	UPDATES	56095	17.415183
3	COMMITTED	21962	6.818295
4	CREATES	19756	6.133423
5	HAS_PARENT	12046	3.739786
6	DELETES	11853	3.679867
7	HAS_COMMIT	10981	3.409147
8	HAS_FILE	5640	1.750987
9	RENAMES	3267	1.014269
10	HAS_NEW_NAME	1751	0.543613
11	HAS_TAG	1579	0.490214
12	ON_COMMIT	1579	0.490214
13	HAS_AUTHOR	1246	0.386832
14	DEPENDS_ON	887	0.275377
15	HAS_KEY	668	0.207386
16	HAS_VALUE	668	0.207386
17	CONTAINS	594	0.184412
18	HAS_COMMITTER	370	0.114870
19	OF_TYPE	337	0.104625
20	EXPORTS	309	0.095932
21	REFERENCES	197	0.061160
22	DECLARES	186	0.057745
23	DECLARES_DEV_DEPENDENCY	169	0.052468
24	DECLARES_DEPENDENCY	161	0.049984
25	HAS_MEMBER	102	0.031667
26	HAS_TYPE_ARGUMENT	94	0.029183
27	DECLARES_SCRIPT	91	0.028252
28	RETURNS	82	0.025458
29	COPIES	79	0.024526

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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Relationship types (more than 0.5% overall)

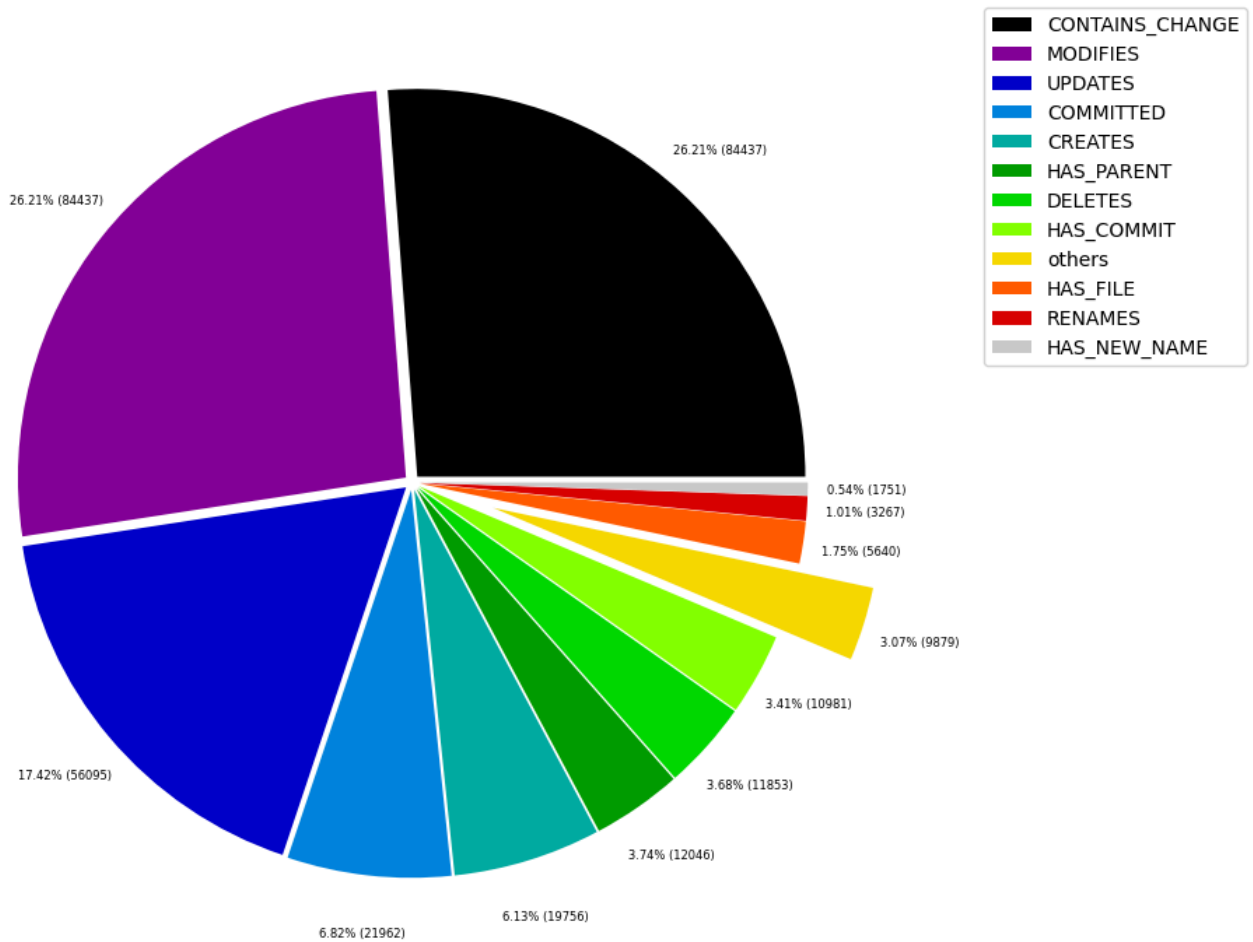


Table 2b - Lowest relationship count by type

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.

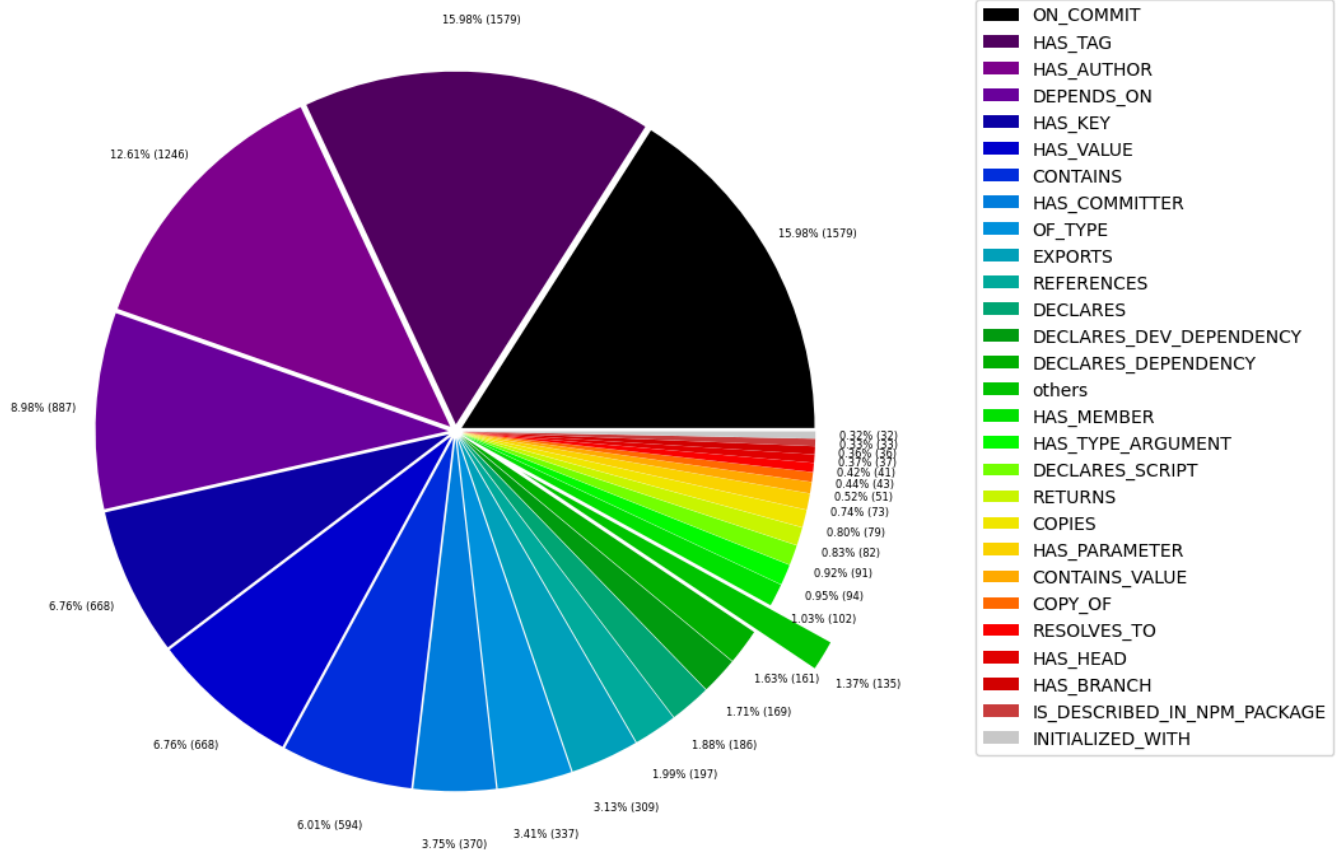
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONSTRAINED_BY	4	0.001242
1	REFERENCED_PROJECTS	5	0.001552
2	MEMBER	6	0.001863
3	HAS_ROOT	6	0.001863
4	HAS_NPM_PACKAGE	6	0.001863
5	HAS_CONFIG	6	0.001863
6	HAS_ARGUMENT	6	0.001863
7	EXTENDS	6	0.001863
8	DECLARES_ENGINE	6	0.001863
9	CONTAINS_PROJECT	6	0.001863
10	CALLS	6	0.001863
11	PARENT	6	0.001863
12	DECLARES_PEER_DEPENDENCY	8	0.002484
13	USES	11	0.003415
14	INCLUDES_CONCEPT	19	0.005899
15	REQUIRES_CONCEPT	28	0.008693
16	INITIALIZED_WITH	32	0.009935
17	IS_DESCRIBED_IN_NPM_PACKAGE	33	0.010245
18	HAS_BRANCH	36	0.011177
19	HAS_HEAD	37	0.011487
20	RESOLVES_TO	41	0.012729
21	COPY_OF	43	0.013350
22	CONTAINS_VALUE	51	0.015833
23	HAS_PARAMETER	73	0.022663
24	COPIES	79	0.024526
25	RETURNS	82	0.025458
26	DECLARES_SCRIPT	91	0.028252
27	HAS_TYPE_ARGUMENT	94	0.029183
28	HAS_MEMBER	102	0.031667
29	DECLARES_DEPENDENCY	161	0.049984

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	numberOf
0	[Git, Change]	MODIFIES	[File, Git]	84437	84437	
1	[Git, Commit]	CONTAINS_CHANGE	[Git, Change]	84437	10981	
2	[Git, Change]	UPDATES	[File, Git]	56095	84437	
3	[Git, Change]	CREATES	[File, Git]	19756	84437	
4	[Git, Commit]	HAS_PARENT	[Git, Commit]	12046	10981	
5	[Git, Change]	DELETES	[File, Git]	11853	84437	
6	[Repository, File, Git]	HAS_COMMIT	[Git, Commit]	10981	1	
7	[Author, Git, Person]	COMMITTED	[Git, Commit]	10981	1246	
8	[Committer, Git, Person]	COMMITTED	[Git, Commit]	10981	370	
9	[Repository, File, Git]	HAS_FILE	[File, Git]	5640	1	
10	[Git, Change]	RENAMES	[File, Git]	3267	84437	
11	[File, Git]	HAS_NEW_NAME	[File, Git]	1751	5640	
12	[Repository, File, Git]	HAS_TAG	[Git, Tag]	1579	1	
13	[Git, Tag]	ON_COMMIT	[Git, Commit]	1579	1579	
14	[Repository, File, Git]	HAS_AUTHOR	[Author, Git, Person]	1246	1	
15	[Json, Value, Object]	HAS_KEY	[Json, Key]	668	133	
16	[Json, Key]	HAS_VALUE	[Json, Value, Scalar]	552	668	
17	[Repository, File, Git]	HAS_COMMITTER	[Committer, Git, Person]	370	1	
18	[TS, Function]	DEPENDS_ON	[TS, ExternalDeclaration]	293	47	
19	[File, TS, Local, Module]	DEPENDS_ON	[TS, ExternalDeclaration]	236	6	
20	[TS, ExternalModule]	EXPORTS	[TS, ExternalDeclaration]	215	11	
21	[Package, File, Json, NPM]	DECLARES_DEV_DEPENDENCY	[NPM, Dependency]	169	29	
22	[Package, File, Json, NPM]	DECLARES_DEPENDENCY	[NPM, Dependency]	161	29	
23	[Type, TS, Union]	CONTAINS	[Type, TS, Primitive]	147	119	
24	[Type, TS, Declared]	REFERENCES	[TS, ExternalDeclaration]	143	276	
25	[Type, TS, Union]	CONTAINS	[Type, TS, Literal]	119	119	
26	[Json, Key]	HAS_VALUE	[Json, Value, Object]	104	668	
27	[Type, Object, TS]	HAS_MEMBER	[Type, TS, ObjectMember]	101	39	
28	[Package, File, Json, NPM]	DECLARES_SCRIPT	[NPM, Script]	91	29	
29	[Git, Change]	COPIES	[File, Git]	79	84437	

Graph Density

total_number_of_nodes (vertices): 107835

total_number_of_relationships (edges): 322104

-> total directed graph density: 2.7700056835321706e-05

-> total directed graph density in percent: 0.0027700056835321704