

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]	83670	78.283324
1	[Git, Commit]	10891	10.189837
2	[File, Git]	5600	5.239472
3	[Git, Tag]	1530	1.431499
4	[Author, Git, Person]	1240	1.160169
5	[Json, Key]	668	0.624994
6	[Json, Value, Scalar]	603	0.564179
7	[Committer, Git, Person]	370	0.346179
8	[NPM, Dependency]	338	0.316240
9	[Type, TS, Primitive]	291	0.272265
10	[Type, TS, Declared]	276	0.258231
11	[TS, ExternalDeclaration]	215	0.201158
12	[Type, TS, Literal]	136	0.127244
13	[Json, Value, Object]	133	0.124437
14	[Type, TS, Union]	119	0.111339
15	[Type, TS, ObjectMember]	101	0.094498
16	[NPM, Script]	91	0.085141
17	[TS, Property]	65	0.060815
18	[TS, Function]	47	0.043974
19	[Type, TS, FunctionParameter]	40	0.037425
20	[Type, Object, TS]	39	0.036489
21	[File, Directory]	34	0.031811
22	[Type, TS, Function]	34	0.031811
23	[Git, Branch]	34	0.031811
24	[TS, Parameter]	33	0.030875
25	[Package, File, Json, NPM]	29	0.027133
26	[TS, Variable]	24	0.022455
27	[Value, TS, Literal]	20	0.018712
28	[JQAssistant, Rule, Concept]	19	0.017777
29	[Type, TS, Intersection]	17	0.015906

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>

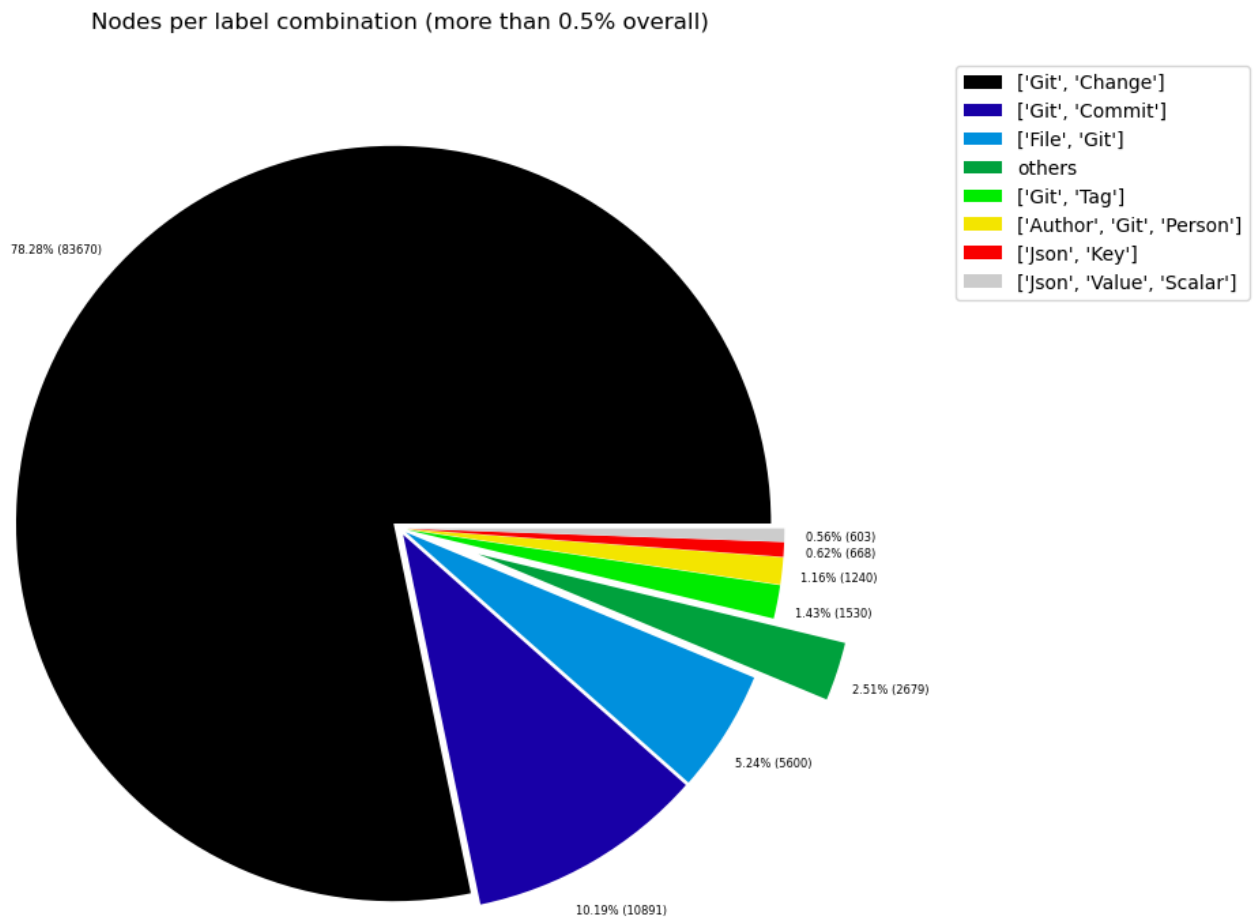


Table 1b - Lowest node count by label combination

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	0.000936
1	[File, TS, Scan]	1	0.000936
2	[TS, Method]	1	0.000936
3	[Repository, File, Git]	1	0.000936
4	[TS, Constructor]	1	0.000936
5	[Value, TS, ObjectMember]	1	0.000936
6	[TS, Class]	1	0.000936
7	[TS, Enum]	2	0.001871
8	[Value, Object, TS]	3	0.002807
9	[Type, TS, Tuple]	3	0.002807
10	[Value, TS, Function]	4	0.003742
11	[TS, TypeParameter]	4	0.003742
12	[Value, TS, Complex]	5	0.004678
13	[NPM, Engine]	6	0.005614
14	[Project, TS]	6	0.005614
15	[File, Local]	6	0.005614
16	[Value, TS, Call]	6	0.005614
17	[Value, TS, Member]	6	0.005614
18	[File, TS, Local, Module]	6	0.005614
19	[Type, TS, TypeParameterReference]	6	0.005614
20	[TS, EnumMember]	8	0.007485
21	[Type, TS, NotIdentified]	11	0.010292
22	[TS, ExternalModule]	11	0.010292
23	[Json, Value, Array]	12	0.011227
24	[Value, TS, Declared]	13	0.012163
25	[TS, TypeAlias]	16	0.014970
26	[File, Directory, Local]	16	0.014970
27	[Type, TS, Intersection]	17	0.015906
28	[TS, Interface]	17	0.015906
29	[JQAssistant, Rule, Concept]	19	0.017777

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)

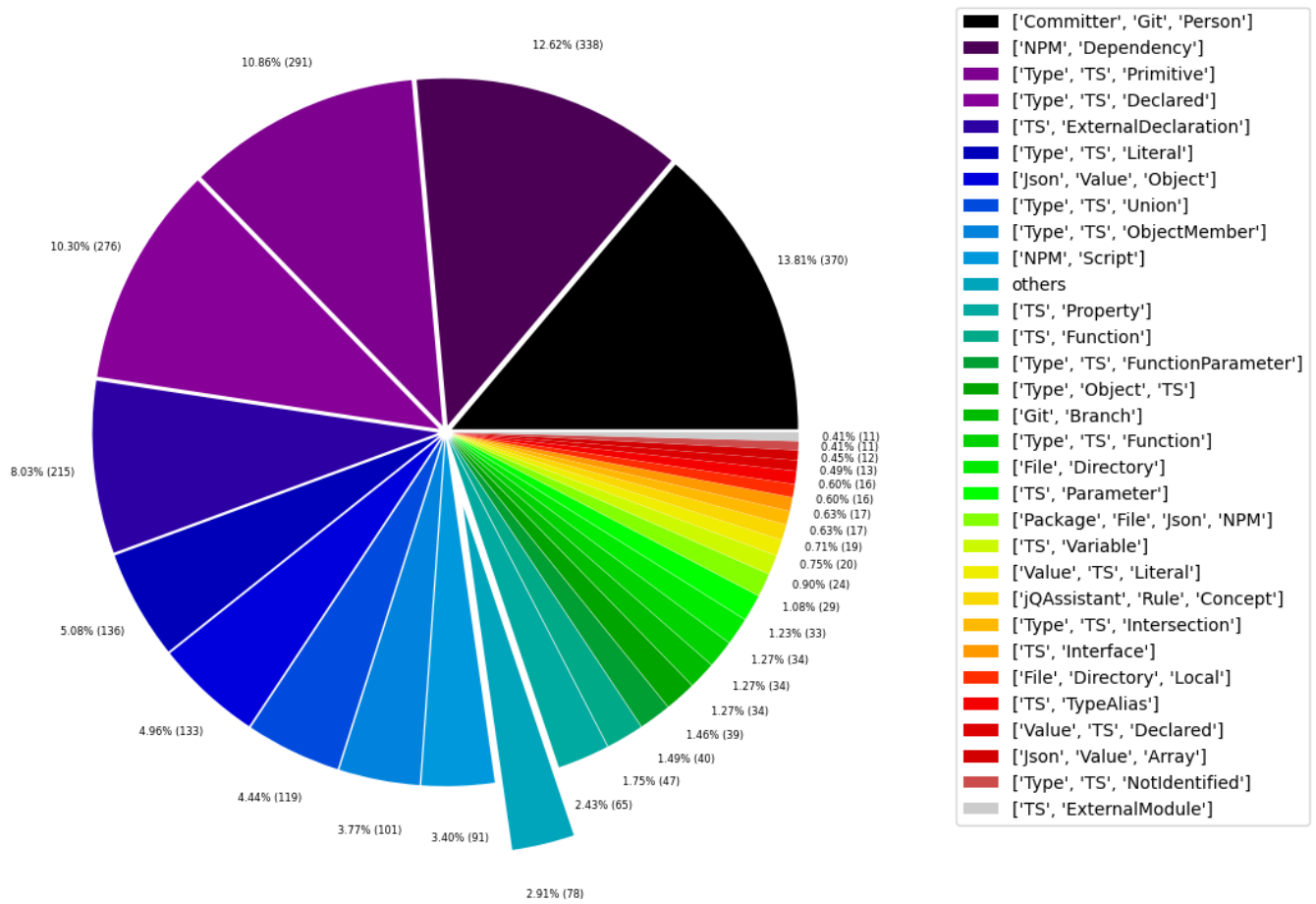


Table 1c - Highest node count by single label

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.

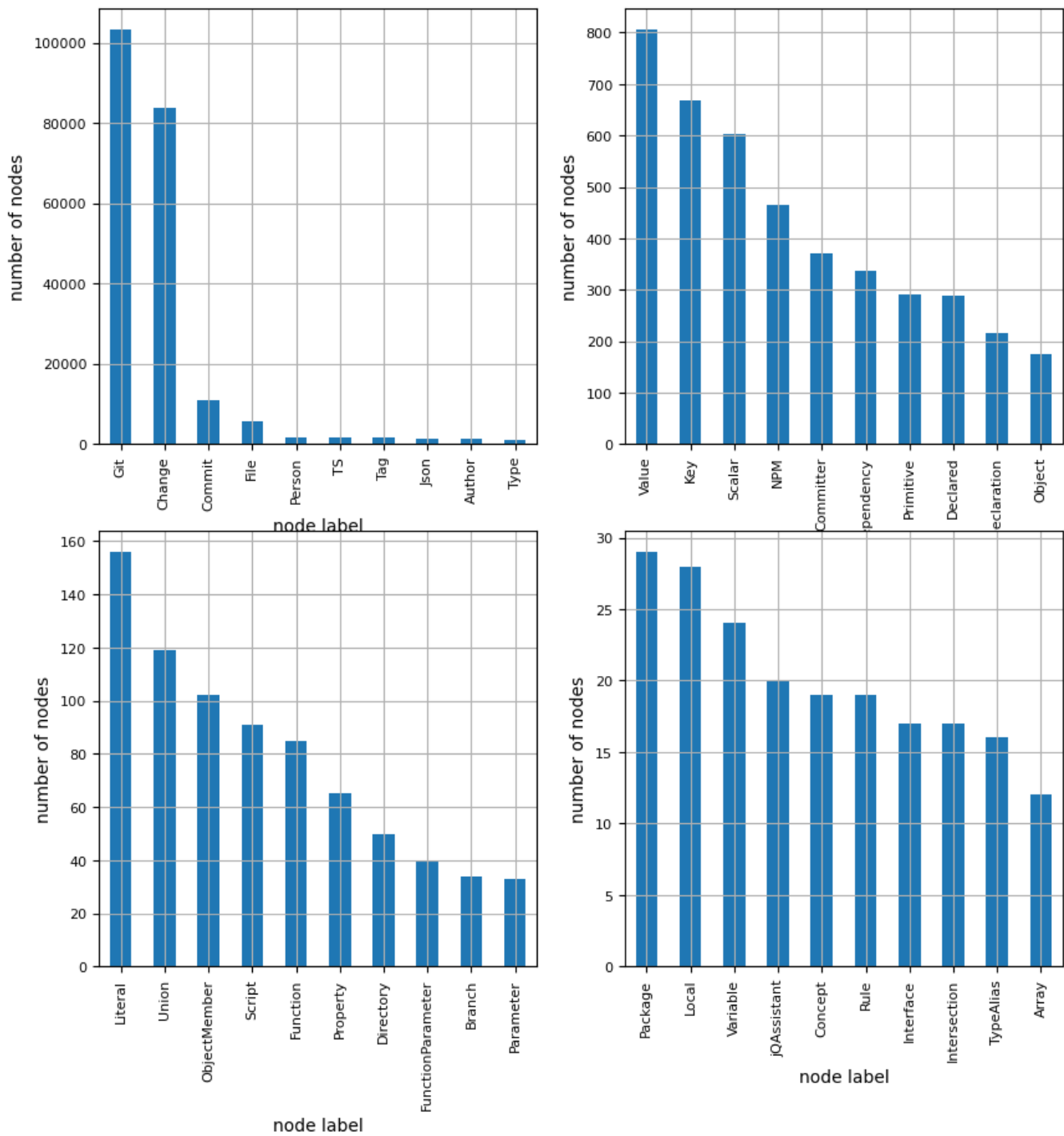
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	103336	96.683227
1	Change	83670	78.283324
2	Commit	10891	10.189837
3	File	5693	5.326485
4	Person	1610	1.506348
5	TS	1589	1.486700
6	Tag	1530	1.431499
7	Json	1445	1.351971
8	Author	1240	1.160169
9	Type	1073	1.003920
10	Value	806	0.754110
11	Key	668	0.624994
12	Scalar	603	0.564179
13	NPM	464	0.434128
14	Committer	370	0.346179
15	Dependency	338	0.316240
16	Primitive	291	0.272265
17	Declared	289	0.270394
18	ExternalDeclaration	215	0.201158
19	Object	175	0.163733
20	Literal	156	0.145957
21	Union	119	0.111339
22	ObjectMember	102	0.095433
23	Script	91	0.085141
24	Function	85	0.079528
25	Property	65	0.060815
26	Directory	50	0.046781
27	FunctionParameter	40	0.037425
28	Branch	34	0.031811
29	Parameter	33	0.030875
30	Package	29	0.027133
31	Local	28	0.026197
32	Variable	24	0.022455
33	jqAssistant	20	0.018712
34	Concept	19	0.017777
35	Rule	19	0.017777
36	Interface	17	0.015906
37	Intersection	17	0.015906
38	TypeAlias	16	0.014970
39	Array	12	0.011227

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: 319293

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	83670	26.204771
1	MODIFIES	83670	26.204771
2	UPDATES	55494	17.380275
3	COMMITTED	21782	6.821947
4	CREATES	19599	6.138249
5	HAS_PARENT	11954	3.743897
6	DELETES	11844	3.709446
7	HAS_COMMIT	10891	3.410974
8	HAS_FILE	5600	1.753875
9	RENAMES	3267	1.023198
10	HAS_NEW_NAME	1751	0.548399
11	HAS_TAG	1530	0.479184
12	ON_COMMIT	1530	0.479184
13	HAS_AUTHOR	1240	0.388358
14	DEPENDS_ON	887	0.277801
15	HAS_KEY	668	0.209212
16	HAS_VALUE	668	0.209212
17	CONTAINS	594	0.186036
18	HAS_COMMITTER	370	0.115881
19	OF_TYPE	337	0.105546
20	EXPORTS	309	0.096776
21	REFERENCES	197	0.061699
22	DECLARES	186	0.058254
23	DECLARES_DEV_DEPENDENCY	169	0.052929
24	DECLARES_DEPENDENCY	161	0.050424
25	HAS_MEMBER	102	0.031946
26	HAS_TYPE_ARGUMENT	94	0.029440
27	DECLARES_SCRIPT	91	0.028500
28	RETURNS	82	0.025682
29	COPIES	79	0.024742

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)

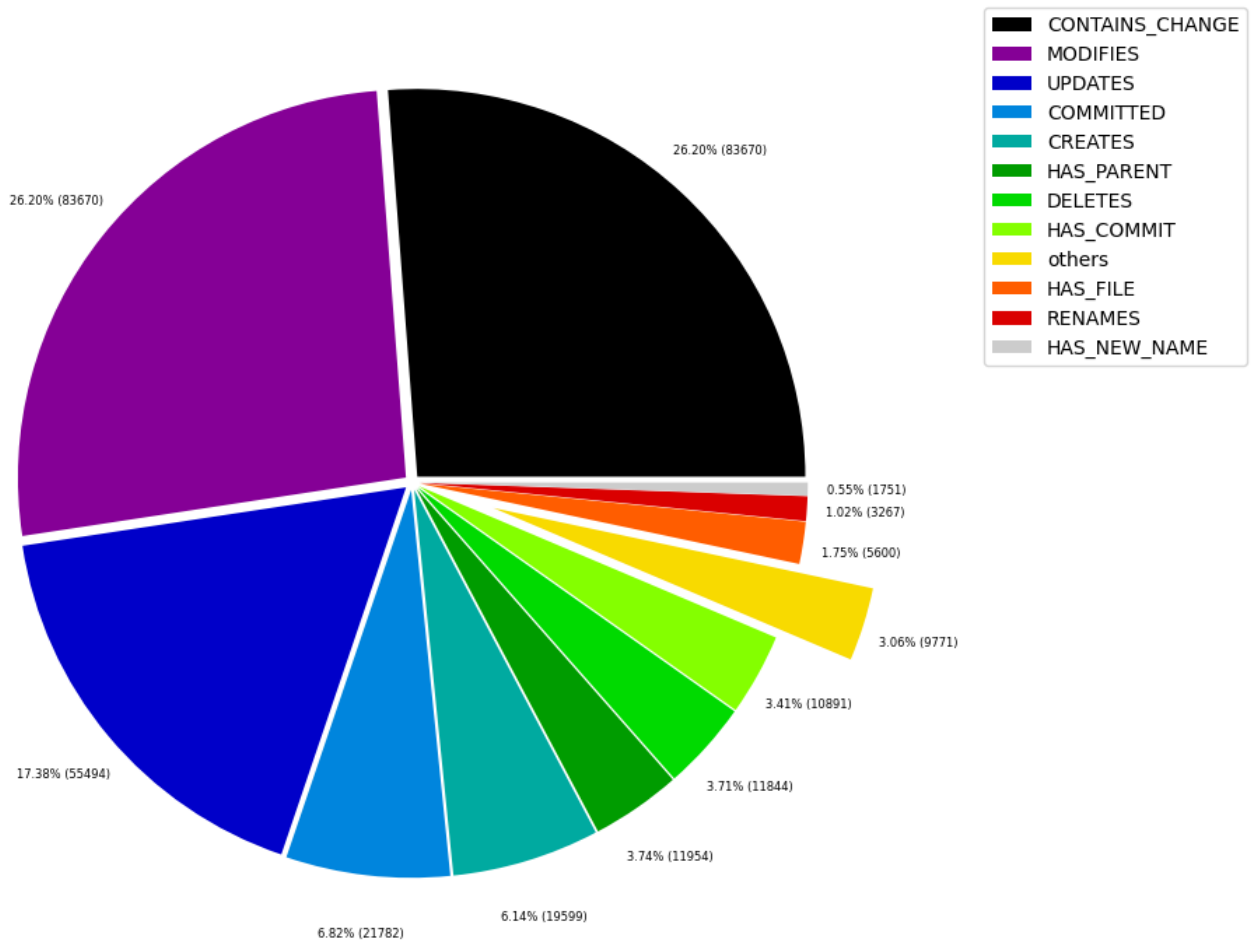


Table 2b - Lowest relationship count by type

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.

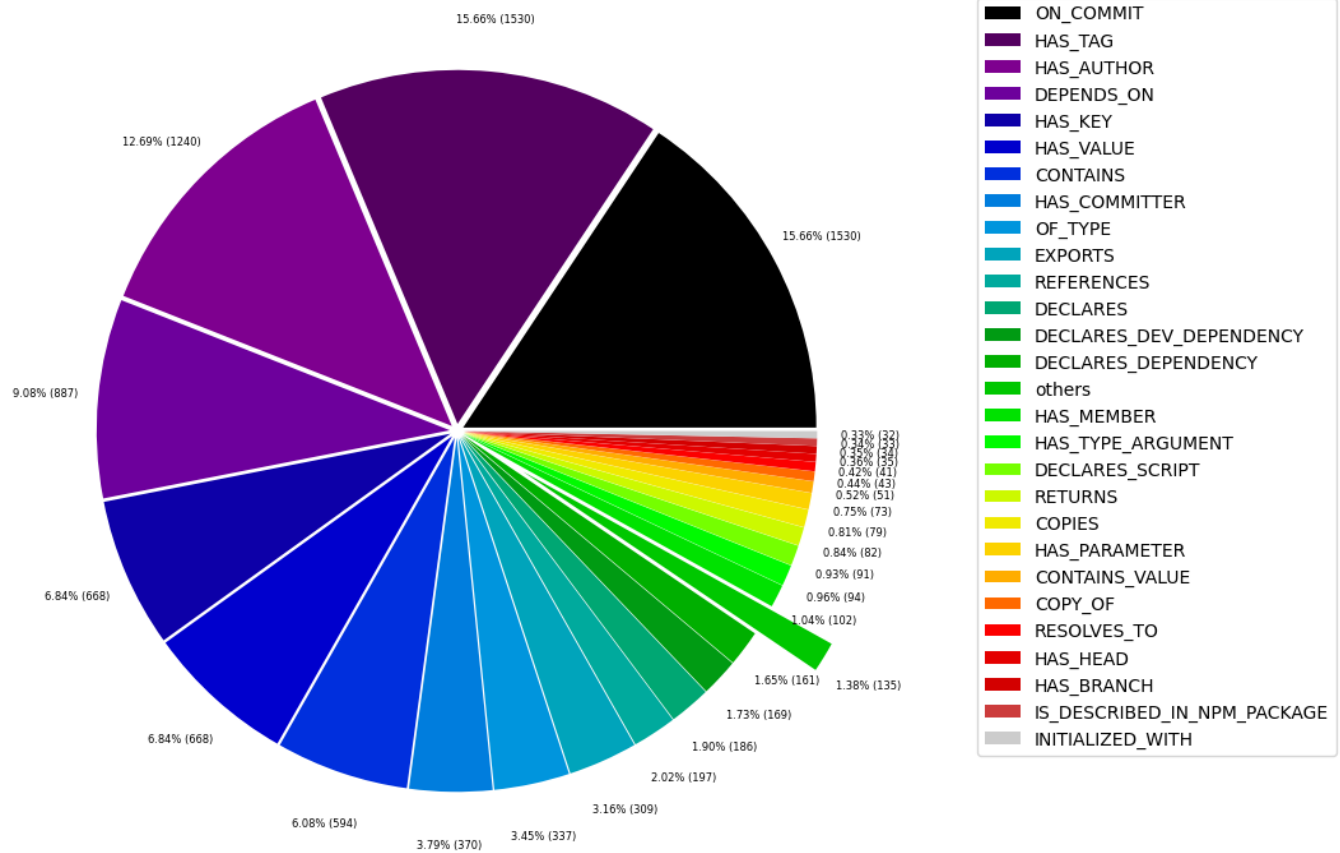
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONSTRAINED_BY	4	0.001253
1	REFERENCED_PROJECTS	5	0.001566
2	MEMBER	6	0.001879
3	HAS_ROOT	6	0.001879
4	HAS_NPM_PACKAGE	6	0.001879
5	HAS_CONFIG	6	0.001879
6	HAS_ARGUMENT	6	0.001879
7	EXTENDS	6	0.001879
8	DECLARES_ENGINE	6	0.001879
9	CONTAINS_PROJECT	6	0.001879
10	CALLS	6	0.001879
11	PARENT	6	0.001879
12	DECLARES_PEER_DEPENDENCY	8	0.002506
13	USES	11	0.003445
14	INCLUDES_CONCEPT	19	0.005951
15	REQUIRES_CONCEPT	28	0.008769
16	INITIALIZED_WITH	32	0.010022
17	IS_DESCRIBED_IN_NPM_PACKAGE	33	0.010335
18	HAS_BRANCH	34	0.010649
19	HAS_HEAD	35	0.010962
20	RESOLVES_TO	41	0.012841
21	COPY_OF	43	0.013467
22	CONTAINS_VALUE	51	0.015973
23	HAS_PARAMETER	73	0.022863
24	COPIES	79	0.024742
25	RETURNS	82	0.025682
26	DECLARES_SCRIPT	91	0.028500
27	HAS_TYPE_ARGUMENT	94	0.029440
28	HAS_MEMBER	102	0.031946
29	DECLARES_DEPENDENCY	161	0.050424

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	numberOfNodesWithSame
0	[Git, Change]	MODIFIES	[File, Git]	83670	83670	
1	[Git, Commit]	CONTAINS_CHANGE	[Git, Change]	83670	10891	
2	[Git, Change]	UPDATES	[File, Git]	55494	83670	
3	[Git, Change]	CREATES	[File, Git]	19599	83670	
4	[Git, Commit]	HAS_PARENT	[Git, Commit]	11954	10891	
5	[Git, Change]	DELETES	[File, Git]	11844	83670	
6	[Repository, File, Git]	HAS_COMMIT	[Git, Commit]	10891	1	
7	[Author, Git, Person]	COMMITTED	[Git, Commit]	10891	1240	
8	[Committer, Git, Person]	COMMITTED	[Git, Commit]	10891	370	
9	[Repository, File, Git]	HAS_FILE	[File, Git]	5600	1	
10	[Git, Change]	RENAMES	[File, Git]	3267	83670	
11	[File, Git]	HAS_NEW_NAME	[File, Git]	1751	5600	
12	[Repository, File, Git]	HAS_TAG	[Git, Tag]	1530	1	
13	[Git, Tag]	ON_COMMIT	[Git, Commit]	1530	1530	
14	[Repository, File, Git]	HAS_AUTHOR	[Author, Git, Person]	1240	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	83670	

Graph Density

total_number_of_nodes (vertices): 106881

total_number_of_relationships (edges): 319293

-> total directed graph density: 2.7950684226741175e-05

-> total directed graph density in percent: 0.0027950684226741174