

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]	77035	77.982487
1	[Git, Commit]	10248	10.374045
2	[File, Git]	5207	5.271043
3	[Author, Git, Person]	1190	1.204636
4	[Git, Tag]	1152	1.166169
5	[Json, Key]	668	0.676216
6	[Json, Value, Scalar]	603	0.610417
7	[Committer, Git, Person]	371	0.375563
8	[NPM, Dependency]	330	0.334059
9	[Type, TS, Primitive, ExternalType]	291	0.294579
10	[Type, TS, Declared, ExternalType]	276	0.279395
11	[TS, ExternalDeclaration]	215	0.217644
12	[Type, TS, Literal, ExternalType]	136	0.137673
13	[Json, Value, Object]	133	0.134636
14	[Type, TS, Union, ExternalType]	119	0.120464
15	[Type, TS, ObjectMember, ExternalType]	101	0.102242
16	[NPM, Script]	91	0.092119
17	[TS, Property]	65	0.065799
18	[TS, Function]	47	0.047578
19	[Type, TS, FunctionParameter, ExternalType]	40	0.040492
20	[Type, Object, TS, ExternalType]	39	0.039480
21	[File, Directory]	34	0.034418
22	[Type, TS, Function, ExternalType]	34	0.034418
23	[TS, Parameter]	33	0.033406
24	[Git, Branch]	31	0.031381
25	[Package, File, Json, NPM]	29	0.029357
26	[TS, ExternalModule]	25	0.025307
27	[TS, Variable]	24	0.024295
28	[Value, TS, Literal]	20	0.020246
29	[jQAssistant, Rule, Concept]	19	0.019234

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>

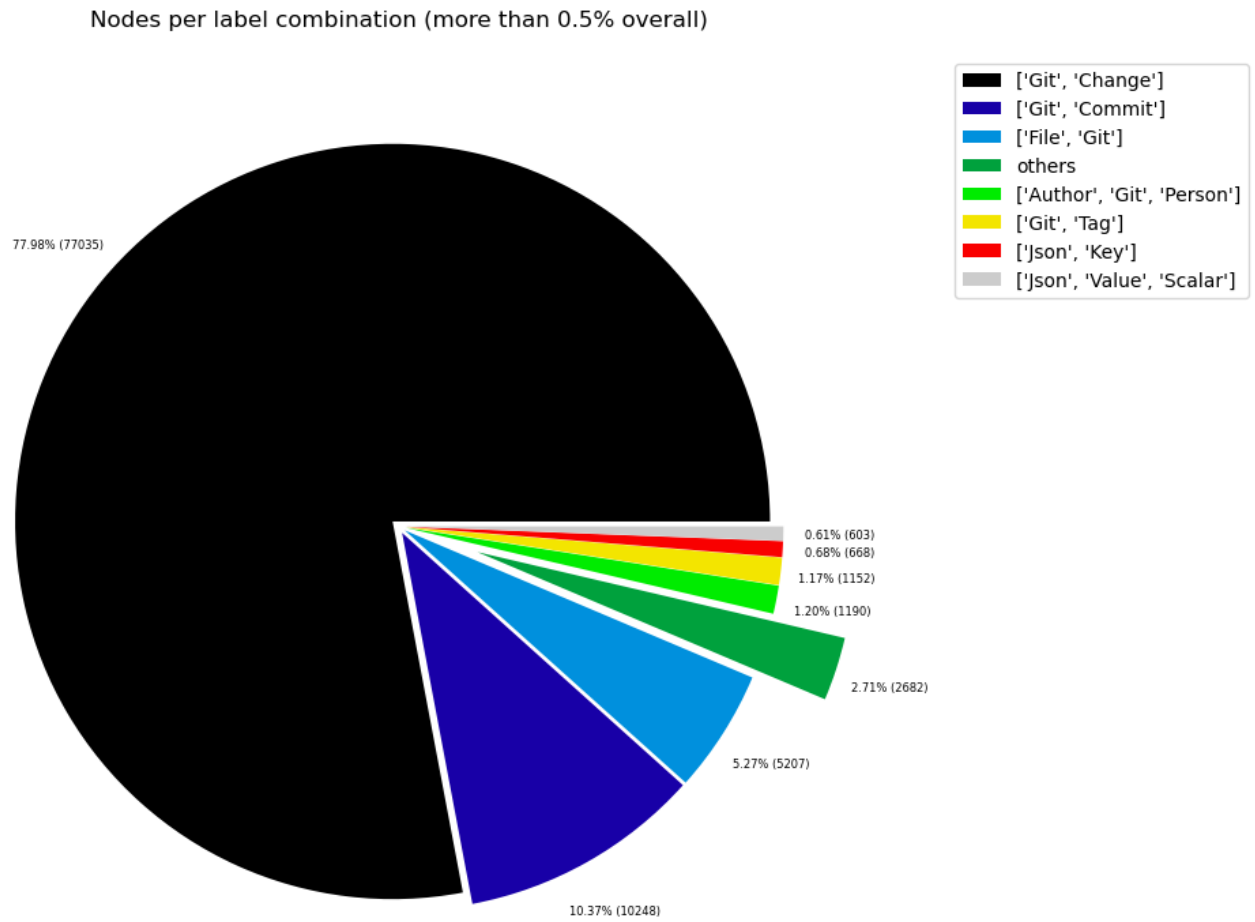


Table 1b - Lowest node count by label combination

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	0.001012
1	[File, TS, Scan]	1	0.001012
2	[TS, Method]	1	0.001012
3	[Value, TS, ObjectMember]	1	0.001012
4	[TS, Constructor]	1	0.001012
5	[TS, Class]	1	0.001012
6	[TS, Enum]	2	0.002025
7	[Value, Object, TS]	3	0.003037
8	[Type, TS, Tuple, ExternalType]	3	0.003037
9	[Value, TS, Function]	4	0.004049
10	[TS, TypeParameter]	4	0.004049
11	[Value, TS, Complex]	5	0.005061
12	[NPM, Engine]	6	0.006074
13	[Project, TS]	6	0.006074
14	[File, Local]	6	0.006074
15	[Value, TS, Call]	6	0.006074
16	[Value, TS, Member]	6	0.006074
17	[File, TS, Local, Module]	6	0.006074
18	[Type, TS, TypeParameterReference, ExternalType]	6	0.006074
19	[TS, EnumMember]	8	0.008098
20	[Type, TS, NotIdentified, ExternalType]	11	0.011135
21	[Json, Value, Array]	12	0.012148
22	[Value, TS, Declared]	13	0.013160
23	[TS, TypeAlias]	16	0.016197
24	[File, Directory, Local]	16	0.016197
25	[TS, Interface]	17	0.017209
26	[Type, TS, Intersection, ExternalType]	17	0.017209
27	[jQAssistant, Rule, Concept]	19	0.019234
28	[Value, TS, Literal]	20	0.020246
29	[TS, Variable]	24	0.024295

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.

<Figure size 640x480 with 0 Axes>

Nodes per label combination (less than 0.5% overall)

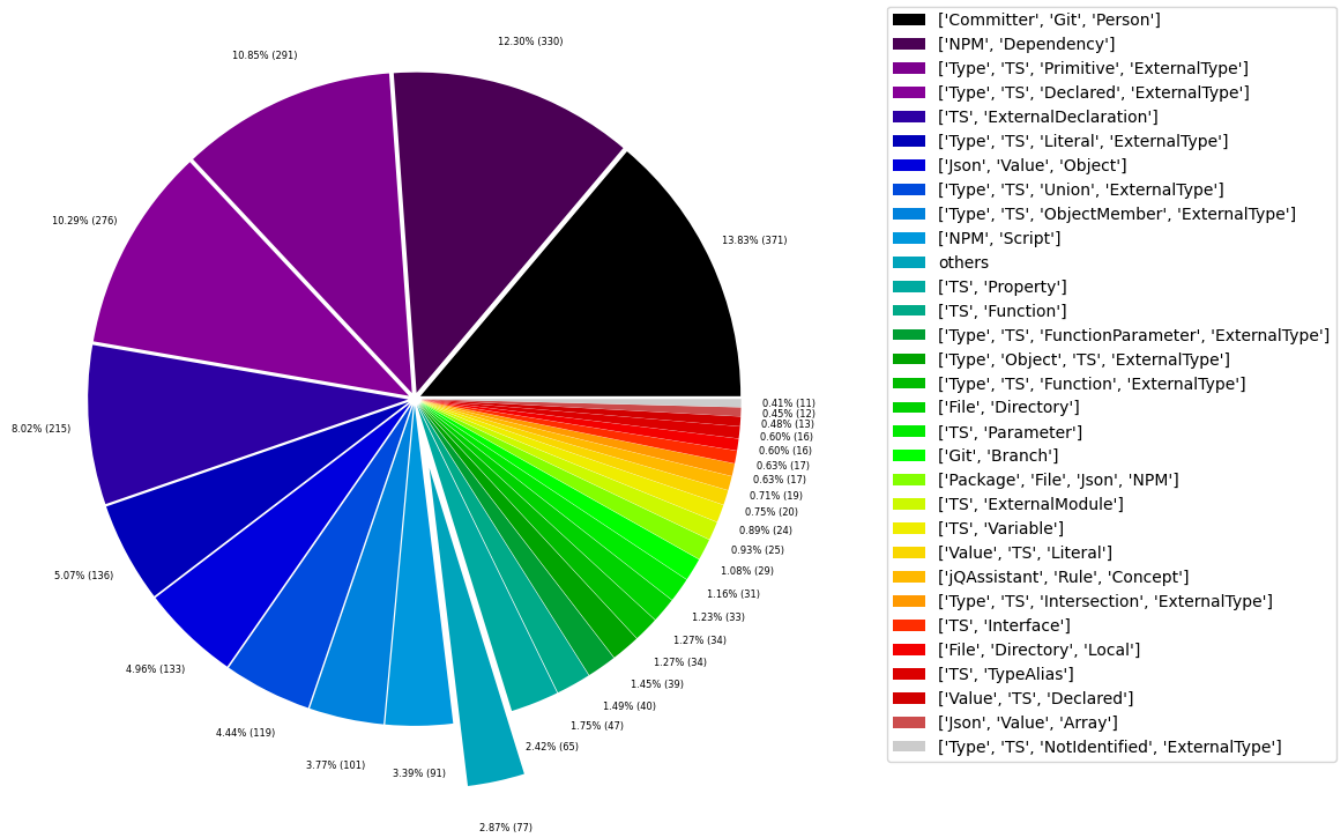


Table 1c - Highest node count by single label

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.

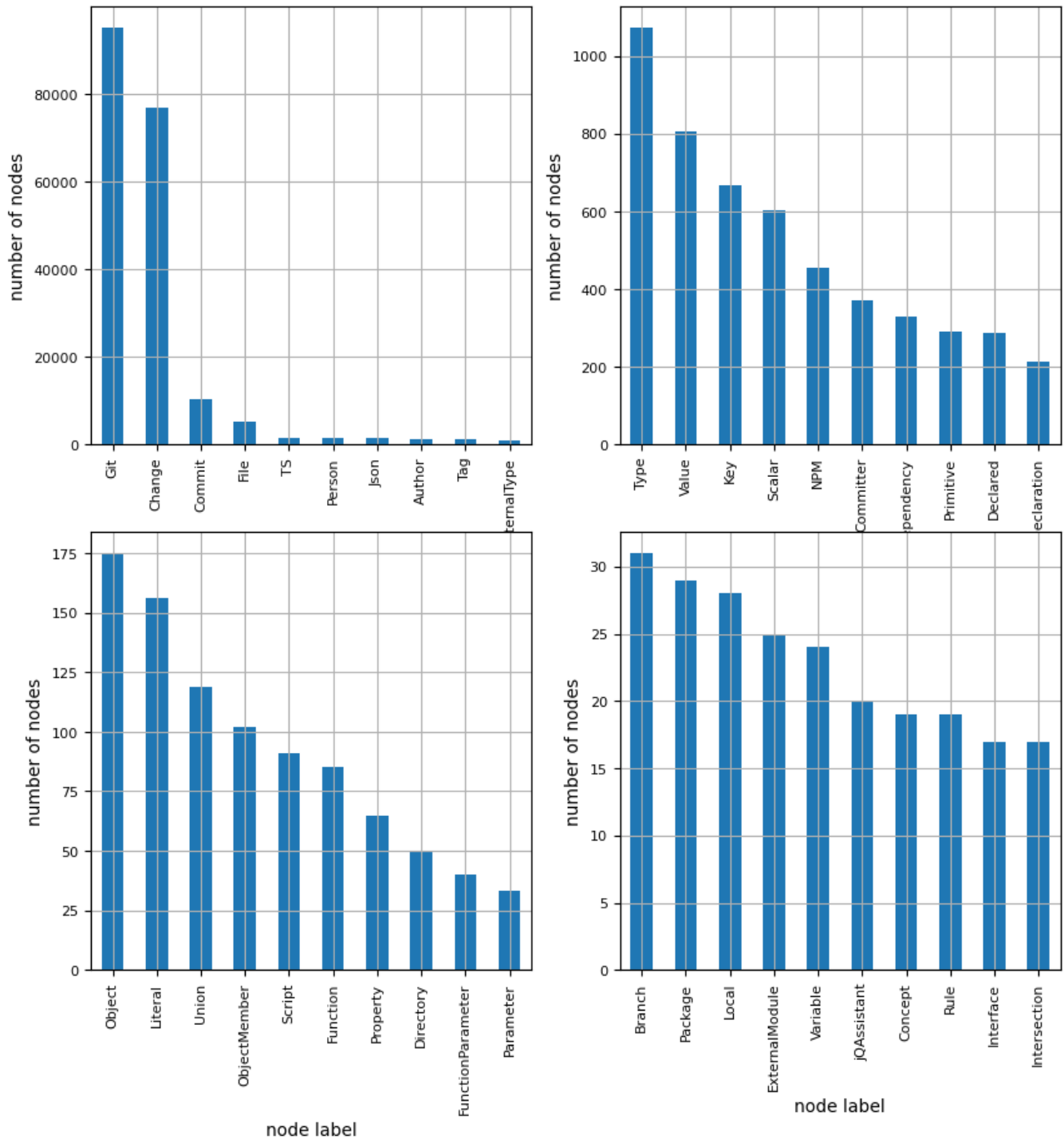
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	95234	96.405325
1	Change	77035	77.982487
2	Commit	10248	10.374045
3	File	5299	5.364175
4	TS	1603	1.622716
5	Person	1561	1.580199
6	Json	1445	1.462773
7	Author	1190	1.204636
8	Tag	1152	1.166169
9	ExternalType	1073	1.086197
10	Type	1073	1.086197
11	Value	806	0.815913
12	Key	668	0.676216
13	Scalar	603	0.610417
14	NPM	456	0.461609
15	Committer	371	0.375563
16	Dependency	330	0.334059
17	Primitive	291	0.294579
18	Declared	289	0.292555
19	ExternalDeclaration	215	0.217644
20	Object	175	0.177152
21	Literal	156	0.157919
22	Union	119	0.120464
23	ObjectMember	102	0.103255
24	Script	91	0.092119
25	Function	85	0.086045
26	Property	65	0.065799
27	Directory	50	0.050615
28	FunctionParameter	40	0.040492
29	Parameter	33	0.033406
30	Branch	31	0.031381
31	Package	29	0.029357
32	Local	28	0.028344
33	ExternalModule	25	0.025307
34	Variable	24	0.024295
35	jqAssistant	20	0.020246
36	Concept	19	0.019234
37	Rule	19	0.019234
38	Interface	17	0.017209
39	Intersection	17	0.017209

Chart 1c - Highest node count by label

Shows the 40 labels with the highest number of nodes.

<Figure size 640x480 with 0 Axes>

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: 276246

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	77035	27.886377
1	MODIFIES	77035	27.886377
2	UPDATES	50967	18.449860
3	COMMITTED	20496	7.419474
4	CREATES	18227	6.598105
5	HAS_PARENT	11277	4.082231
6	DELETES	10624	3.845848
7	RENAMES	2783	1.007435
8	HAS_NEW_NAME	1573	0.569420
9	ON_COMMIT	1152	0.417020
10	DEPENDS_ON	962	0.348240
11	HAS_KEY	668	0.241813
12	HAS_VALUE	668	0.241813
13	CONTAINS	593	0.214664
14	OF_TYPE	337	0.121993
15	EXPORTS	276	0.099911
16	REFERENCES	197	0.071313
17	DECLARES	186	0.067331
18	DECLARES_DEV_DEPENDENCY	169	0.061177
19	DECLARES_DEPENDENCY	161	0.058281
20	HAS_MEMBER	102	0.036924
21	HAS_TYPE_ARGUMENT	94	0.034028
22	DECLARES_SCRIPT	91	0.032942
23	RETURNS	82	0.029684
24	RESOLVES_TO	81	0.029322
25	HAS_PARAMETER	73	0.026426
26	CONTAINS_VALUE	51	0.018462
27	COPIES	43	0.015566
28	INITIALIZED_WITH	32	0.011584
29	HAS_HEAD	31	0.011222

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.

<Figure size 640x480 with 0 Axes>

Relationship types (more than 0.5% overall)

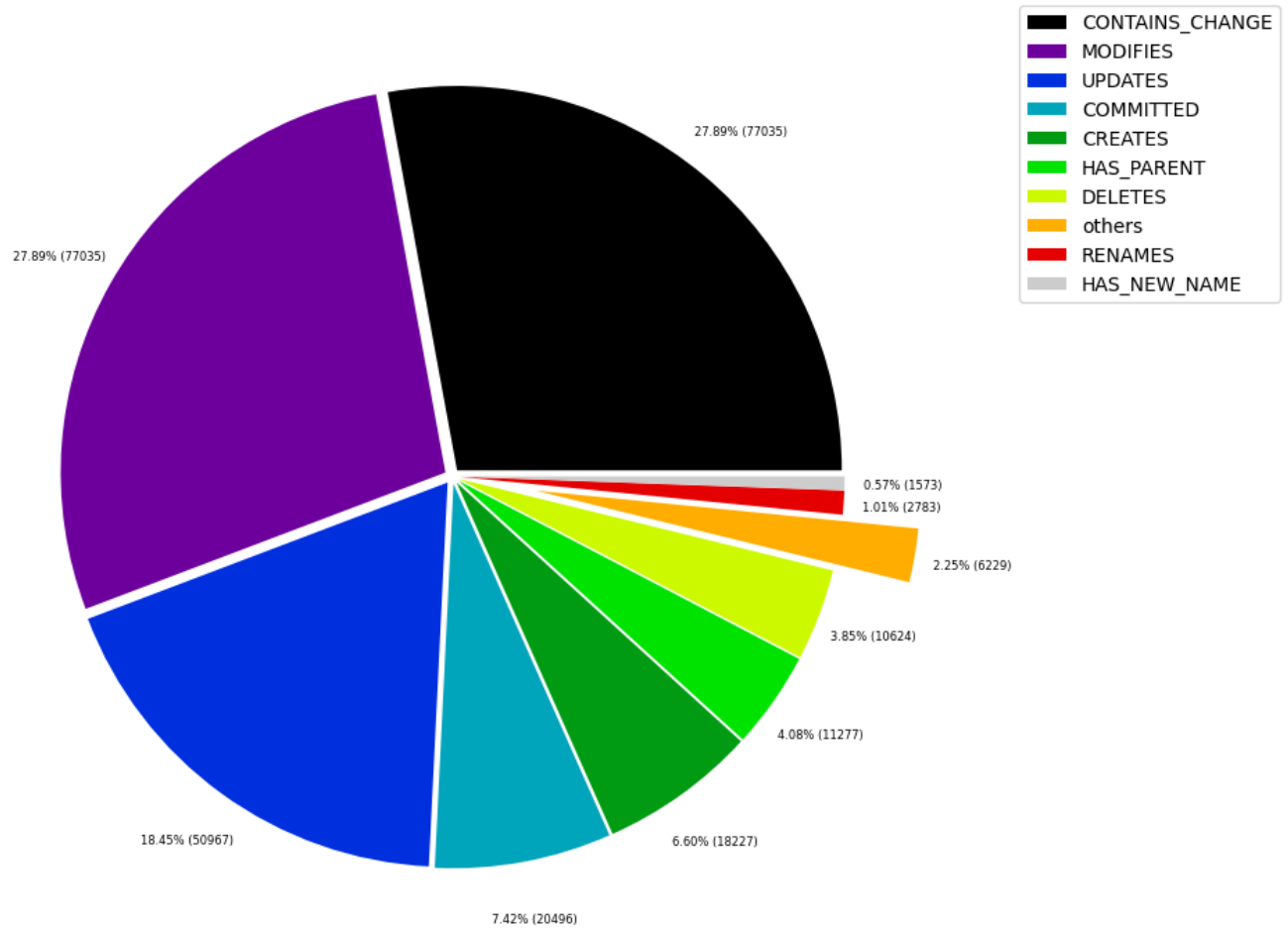


Table 2b - Lowest relationship count by type

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.

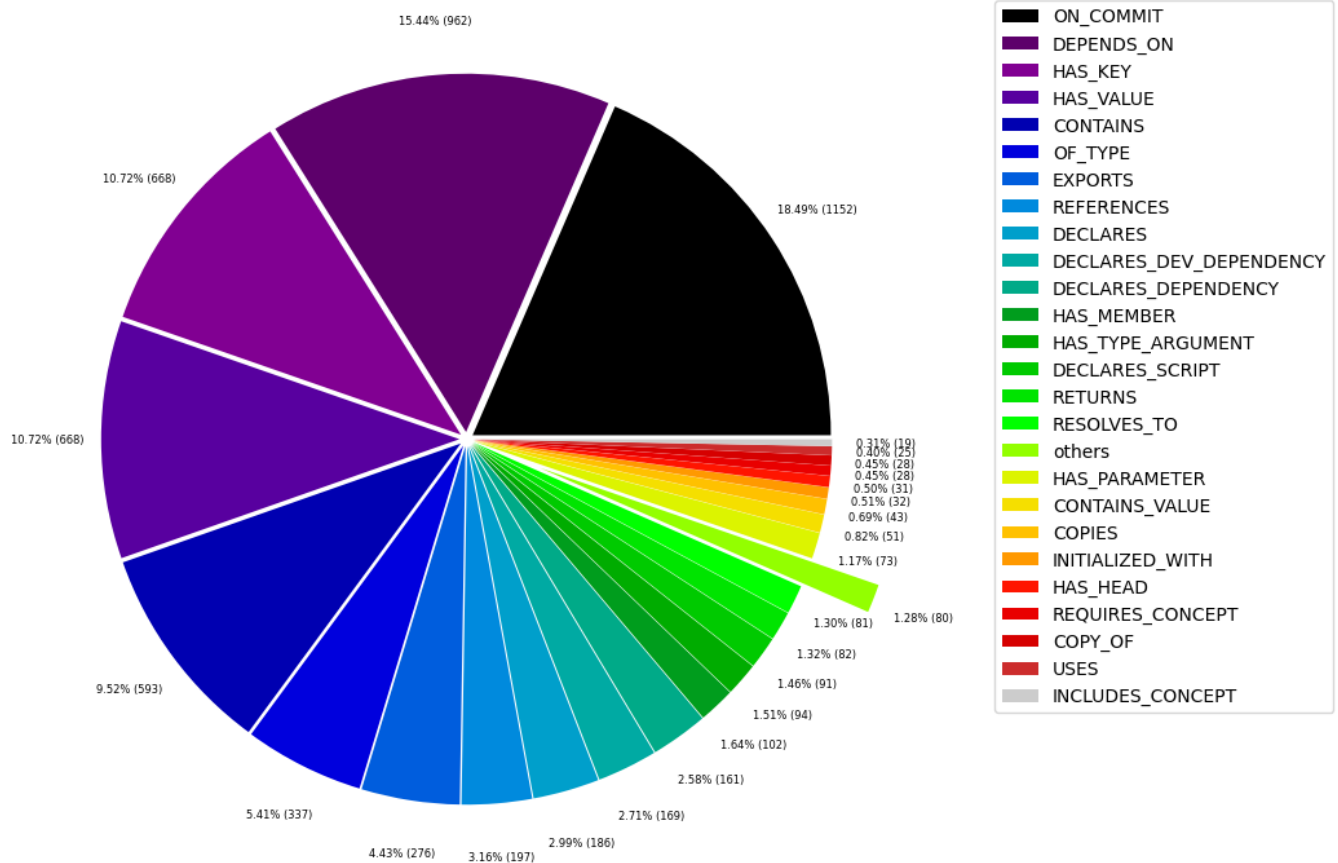
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	PROVIDED_BY_NPM_DEPENDENCY	1	0.000362
1	CONSTRAINED_BY	4	0.001448
2	REFERENCED_PROJECTS	5	0.001810
3	PARENT	6	0.002172
4	CONTAINS_PROJECT	6	0.002172
5	DECLARES_ENGINE	6	0.002172
6	EXTENDS	6	0.002172
7	CALLS	6	0.002172
8	HAS_CONFIG	6	0.002172
9	HAS_NPM_PACKAGE	6	0.002172
10	HAS_ROOT	6	0.002172
11	MEMBER	6	0.002172
12	HAS_ARGUMENT	6	0.002172
13	SIMILAR	10	0.003620
14	INCLUDES_CONCEPT	19	0.006878
15	USES	25	0.009050
16	REQUIRES_CONCEPT	28	0.010136
17	COPY_OF	28	0.010136
18	HAS_HEAD	31	0.011222
19	INITIALIZED_WITH	32	0.011584
20	COPIES	43	0.015566
21	CONTAINS_VALUE	51	0.018462
22	HAS_PARAMETER	73	0.026426
23	RESOLVES_TO	81	0.029322
24	RETURNS	82	0.029684
25	DECLARES_SCRIPT	91	0.032942
26	HAS_TYPE_ARGUMENT	94	0.034028
27	HAS_MEMBER	102	0.036924
28	DECLARES_DEPENDENCY	161	0.058281
29	DECLARES_DEV_DEPENDENCY	169	0.061177

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.

<Figure size 640x480 with 0 Axes>

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	numberOfNodes'
0	[Git, Commit]	CONTAINS_CHANGE	[Git, Change]	77035		10248
1	[Git, Change]	MODIFIES	[File, Git]	77035		77035
2	[Git, Change]	UPDATES	[File, Git]	50967		77035
3	[Git, Change]	CREATES	[File, Git]	18227		77035
4	[Git, Commit]	HAS_PARENT	[Git, Commit]	11277		10248
5	[Git, Change]	DELETES	[File, Git]	10624		77035
6	[Author, Git, Person]	COMMITTED	[Git, Commit]	10248		1190
7	[Committer, Git, Person]	COMMITTED	[Git, Commit]	10248		371
8	[Git, Change]	RENAMES	[File, Git]	2783		77035
9	[File, Git]	HAS_NEW_NAME	[File, Git]	1573		5207
10	[Git, Tag]	ON_COMMIT	[Git, Commit]	1152		1152
11	[Json, Value, Object]	HAS_KEY	[Json, Key]	668		133
12	[Json, Key]	HAS_VALUE	[Json, Value, Scalar]	552		668
13	[TS, Function]	DEPENDS_ON	[TS, ExternalDeclaration]	285		47
14	[TS, ExternalModule]	EXPORTS	[TS, ExternalDeclaration]	215		25
15	[Package, File, Json, NPM]	DECLARES_DEV_DEPENDENCY	[NPM, Dependency]	169		29
16	[Package, File, Json, NPM]	DECLARES_DEPENDENCY	[NPM, Dependency]	161		29
17	[File, TS, Local, Module, Mark4ModuleWeaklyCon...	DEPENDS_ON	[TS, ExternalDeclaration]	152		2
18	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Primitive, ExternalType]	147		119
19	[Type, TS, Declared, ExternalType]	REFERENCES	[TS, ExternalDeclaration]	142		276
20	[TS, Function]	DEPENDS_ON	[TS, ExternalModule]	131		47
21	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Literal, ExternalType]	119		119
22	[Json, Key]	HAS_VALUE	[Json, Value, Object]	104		668
23	[Type, Object, TS, ExternalType]	HAS_MEMBER	[Type, TS, ObjectMember, ExternalType]	101		39
24	[Package, File, Json, NPM]	DECLARES_SCRIPT	[NPM, Script]	91		29
25	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Declared, ExternalType]	70		119
26	[File, Directory]	CONTAINS	[File, Directory]	63		34
27	[TS, Interface]	DECLARES	[TS, Property]	61		17
28	[File, Directory]	CONTAINS	[Package, File, Json, NPM]	58		34
29	[File, Git]	RESOLVES_TO	[Package, File, Json, NPM]	57		5207

Graph Density

total_number_of_nodes (vertices): 98785

total_number_of_relationships (edges): 276246

-> total directed graph density: 2.83085996312928e-05

-> total directed graph density in percent: 0.00283085996312928