

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: 96322

	nodeLabels	nodesWithThatLabels	nodesWithThatLabelsPercent
0	[Git, Change]	74971	77.833724
1	[Git, Commit]	10020	10.402608
2	[File, Git]	5135	5.331077
3	[Author, Git, Person]	1183	1.228172
4	[Git, Tag]	1084	1.125392
5	[Json, Key]	668	0.693507
6	[Json, Value, Scalar]	603	0.626025
7	[Committer, Git, Person]	371	0.385166
8	[NPM, Dependency]	330	0.342601
9	[Type, TS, Primitive, ExternalType]	285	0.295883
10	[Type, TS, Declared, ExternalType]	272	0.282386
11	[TS, ExternalDeclaration]	215	0.223210
12	[Type, TS, Literal, ExternalType]	136	0.141193
13	[Json, Value, Object]	133	0.138079
14	[Type, TS, Union, ExternalType]	117	0.121468
15	[Type, TS, ObjectMember, ExternalType]	98	0.101742
16	[NPM, Script]	91	0.094475
17	[TS, Property]	65	0.067482
18	[TS, Function]	47	0.048795
19	[Type, Object, TS, ExternalType]	38	0.039451
20	[Type, TS, FunctionParameter, ExternalType]	37	0.038413
21	[File, Directory]	34	0.035298
22	[TS, Parameter]	33	0.034260
23	[Type, TS, Function, ExternalType]	32	0.033222
24	[Package, File, Json, NPM]	29	0.030107
25	[Git, Branch]	29	0.030107
26	[TS, ExternalModule]	25	0.025955
27	[TS, Variable]	24	0.024916
28	[Value, TS, Literal]	20	0.020764
29	[jqAssistant, Rule, Concept]	19	0.019726

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>

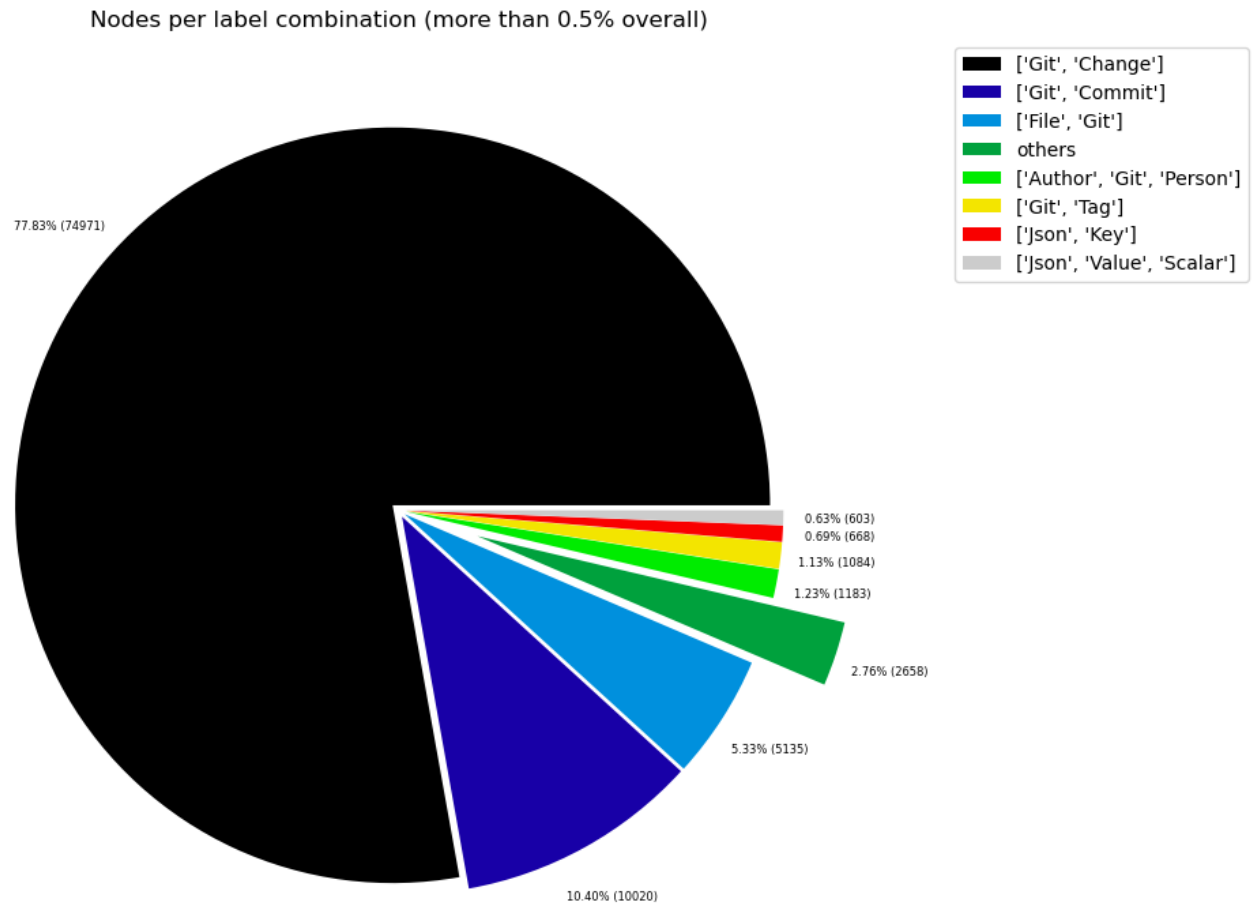


Table 1b - Lowest node count by label combination

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	0.001038
1	[File, TS, Scan]	1	0.001038
2	[TS, Method]	1	0.001038
3	[Value, TS, ObjectMember]	1	0.001038
4	[TS, Constructor]	1	0.001038
5	[TS, Class]	1	0.001038
6	[TS, Enum]	2	0.002076
7	[Value, Object, TS]	3	0.003115
8	[Type, TS, Tuple, ExternalType]	3	0.003115
9	[Value, TS, Function]	4	0.004153
10	[TS, TypeParameter]	4	0.004153
11	[Value, TS, Complex]	5	0.005191
12	[NPM, Engine]	6	0.006229
13	[Project, TS]	6	0.006229
14	[File, Local]	6	0.006229
15	[Value, TS, Call]	6	0.006229
16	[Value, TS, Member]	6	0.006229
17	[File, TS, Local, Module]	6	0.006229
18	[Type, TS, TypeParameterReference, ExternalType]	6	0.006229
19	[TS, EnumMember]	8	0.008305
20	[Type, TS, NotIdentified, ExternalType]	11	0.011420
21	[Json, Value, Array]	12	0.012458
22	[Value, TS, Declared]	13	0.013496
23	[TS, TypeAlias]	14	0.014535
24	[File, Directory, Local]	16	0.016611
25	[Type, TS, Intersection, ExternalType]	17	0.017649
26	[TS, Interface]	18	0.018687
27	[jQAssistant, Rule, Concept]	19	0.019726
28	[Value, TS, Literal]	20	0.020764
29	[TS, Variable]	24	0.024916

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)

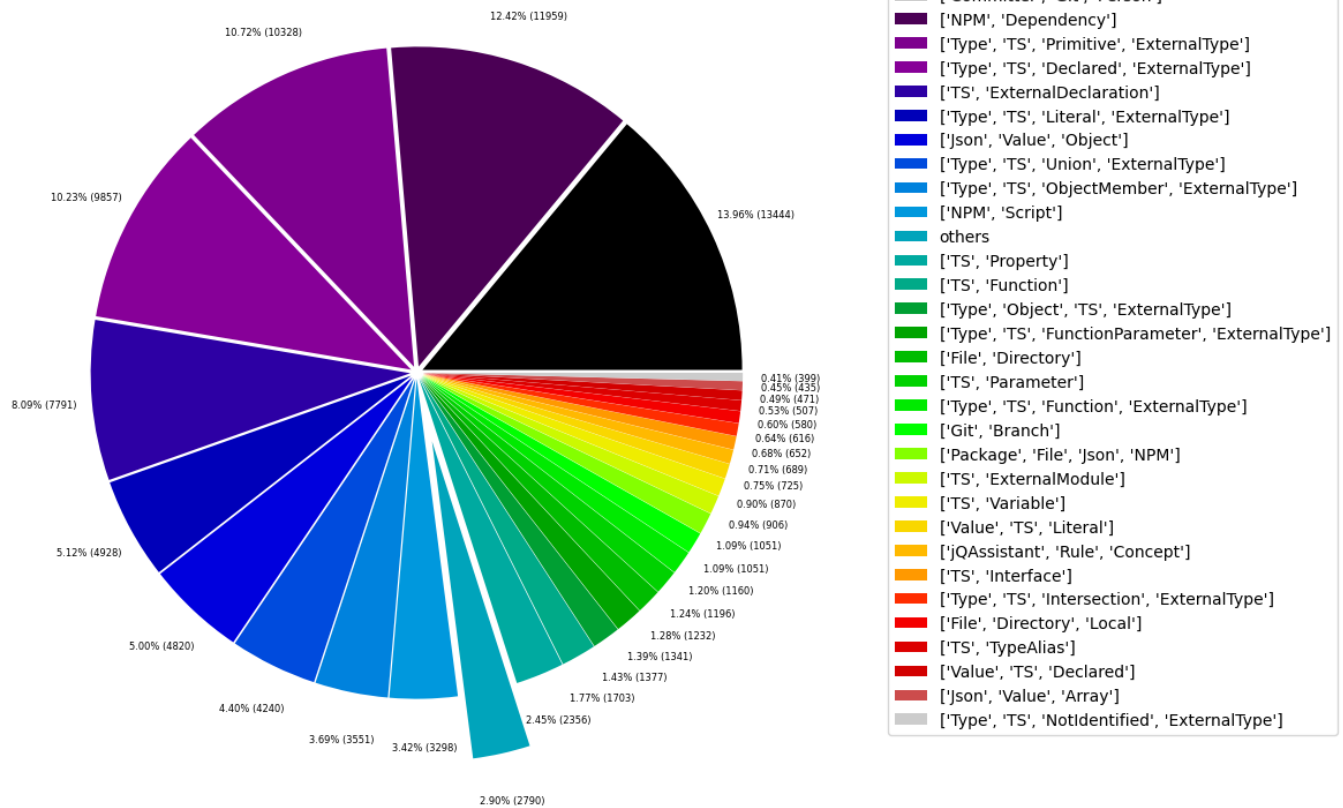


Table 1c - Highest node count by single label

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.

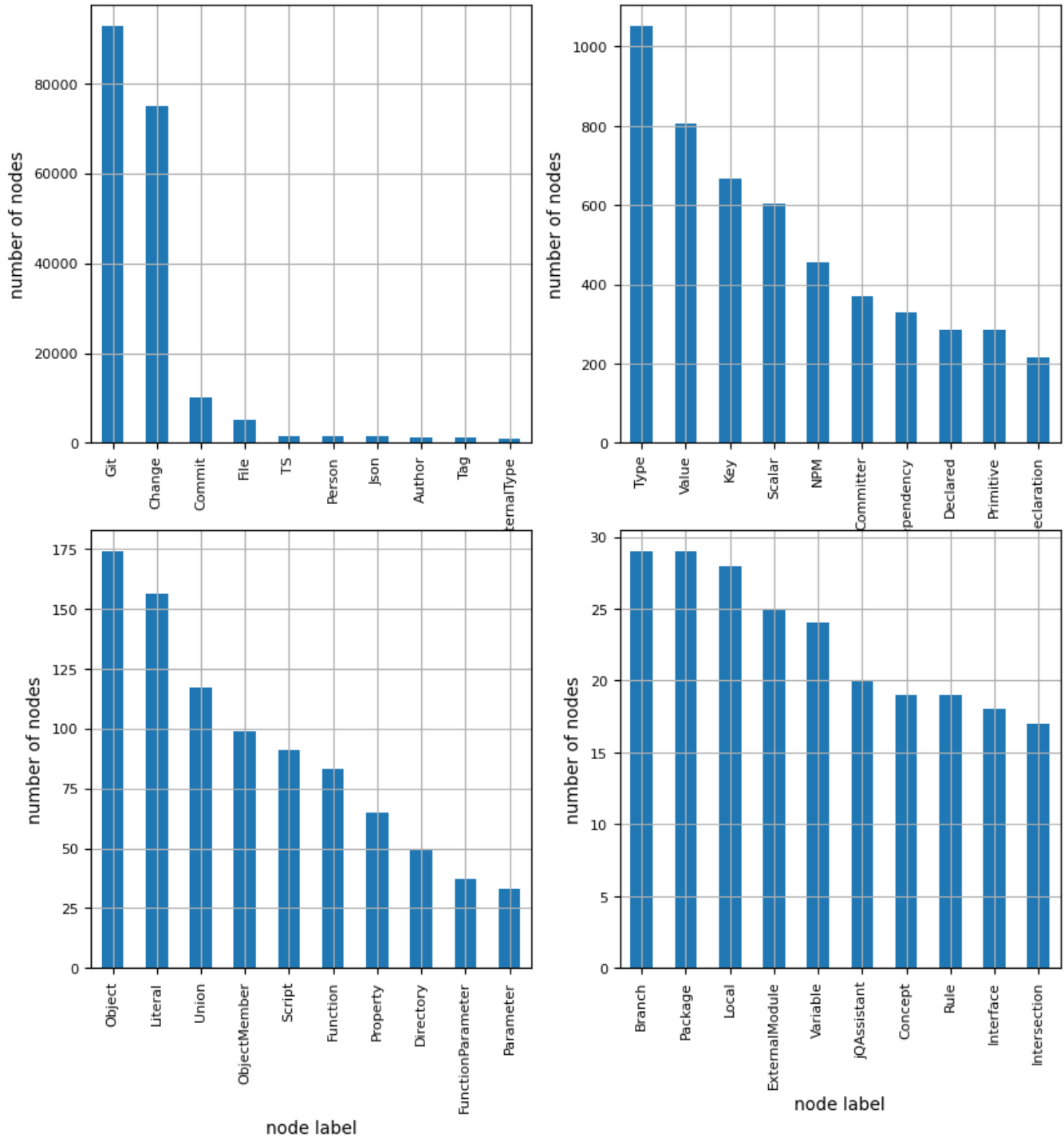
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	92793	96.336247
1	Change	74971	77.833724
2	Commit	10020	10.402608
3	File	5227	5.426590
4	TS	1581	1.641370
5	Person	1554	1.613339
6	Json	1445	1.500176
7	Author	1183	1.228172
8	Tag	1084	1.125392
9	ExternalType	1052	1.092170
10	Type	1052	1.092170
11	Value	806	0.836777
12	Key	668	0.693507
13	Scalar	603	0.626025
14	NPM	456	0.473412
15	Committer	371	0.385166
16	Dependency	330	0.342601
17	Declared	285	0.295883
18	Primitive	285	0.295883
19	ExternalDeclaration	215	0.223210
20	Object	174	0.180644
21	Literal	156	0.161957
22	Union	117	0.121468
23	ObjectMember	99	0.102780
24	Script	91	0.094475
25	Function	83	0.086169
26	Property	65	0.067482
27	Directory	50	0.051909
28	FunctionParameter	37	0.038413
29	Parameter	33	0.034260
30	Branch	29	0.030107
31	Package	29	0.030107
32	Local	28	0.029069
33	ExternalModule	25	0.025955
34	Variable	24	0.024916
35	jqAssistant	20	0.020764
36	Concept	19	0.019726
37	Rule	19	0.019726
38	Interface	18	0.018687
39	Intersection	17	0.017649

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: 269217

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	74971	27.847796
1	MODIFIES	74971	27.847796
2	UPDATES	49306	18.314594
3	COMMITTED	20040	7.443809
4	CREATES	17948	6.666741
5	HAS_PARENT	11033	4.098181
6	DELETES	10481	3.893142
7	RENAMES	2764	1.026681
8	HAS_NEW_NAME	1570	0.583173
9	ON_COMMIT	1084	0.402649
10	DEPENDS_ON	962	0.357333
11	HAS_KEY	668	0.248127
12	HAS_VALUE	668	0.248127
13	CONTAINS	589	0.218783
14	OF_TYPE	329	0.122206
15	EXPORTS	275	0.102148
16	REFERENCES	196	0.072804
17	DECLARES	185	0.068718
18	DECLARES_DEV_DEPENDENCY	169	0.062775
19	DECLARES_DEPENDENCY	161	0.059803
20	HAS_MEMBER	99	0.036773
21	HAS_TYPE_ARGUMENT	92	0.034173
22	DECLARES_SCRIPT	91	0.033802
23	RESOLVES_TO	80	0.029716
24	RETURNS	80	0.029716
25	HAS_PARAMETER	70	0.026001
26	CONTAINS_VALUE	51	0.018944
27	COPIES	43	0.015972
28	INITIALIZED_WITH	32	0.011886
29	HAS_HEAD	29	0.010772

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>

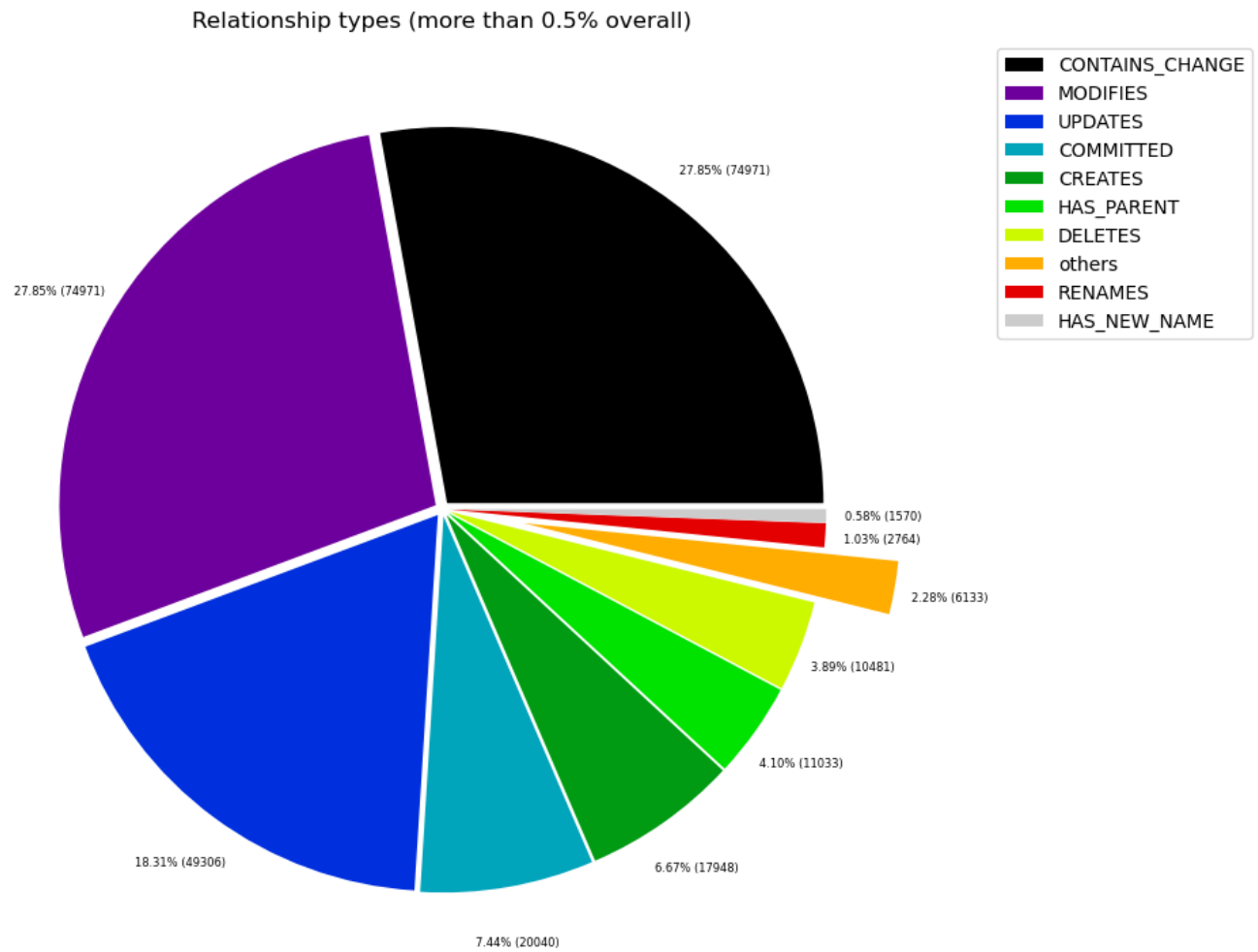


Table 2b - Lowest relationship count by type

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.

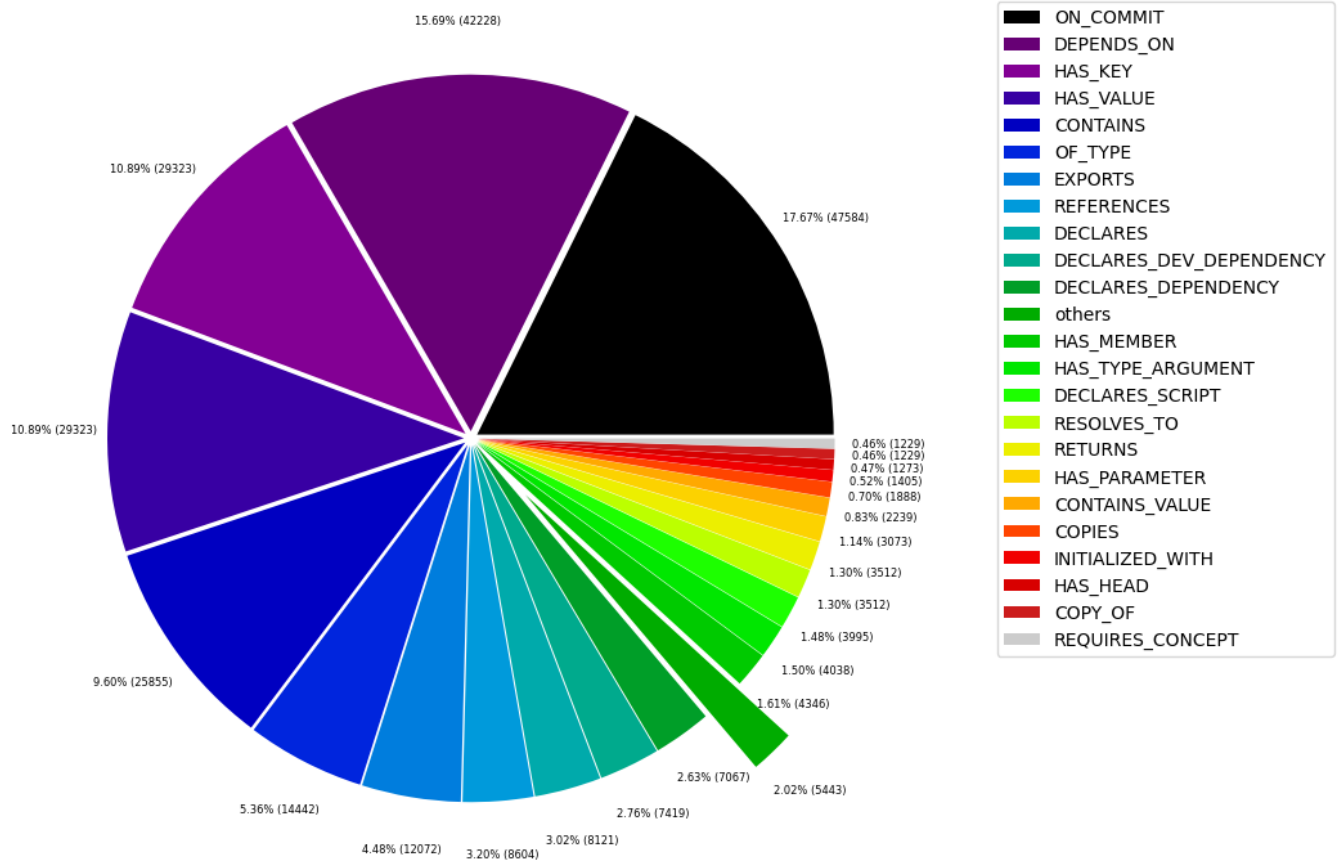
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONSTRAINED_BY	4	0.001486
1	REFERENCED_PROJECTS	5	0.001857
2	MEMBER	6	0.002229
3	HAS_ROOT	6	0.002229
4	HAS_NPM_PACKAGE	6	0.002229
5	HAS_CONFIG	6	0.002229
6	HAS_ARGUMENT	6	0.002229
7	DECLARES_ENGINE	6	0.002229
8	CONTAINS_PROJECT	6	0.002229
9	CALLS	6	0.002229
10	PARENT	6	0.002229
11	EXTENDS	7	0.002600
12	SIMILAR	10	0.003714
13	INCLUDES_CONCEPT	19	0.007058
14	USES	25	0.009286
15	REQUIRES_CONCEPT	28	0.010401
16	COPY_OF	28	0.010401
17	HAS_HEAD	29	0.010772
18	INITIALIZED_WITH	32	0.011886
19	COPIES	43	0.015972
20	CONTAINS_VALUE	51	0.018944
21	HAS_PARAMETER	70	0.026001
22	RETURNS	80	0.029716
23	RESOLVES_TO	80	0.029716
24	DECLARES_SCRIPT	91	0.033802
25	HAS_TYPE_ARGUMENT	92	0.034173
26	HAS_MEMBER	99	0.036773
27	DECLARES_DEPENDENCY	161	0.059803
28	DECLARES_DEV_DEPENDENCY	169	0.062775
29	DECLARES	185	0.068718

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]	74971		10020
1	[Git, Change]	MODIFIES	[File, Git]	74971		74971
2	[Git, Change]	UPDATES	[File, Git]	49306		74971
3	[Git, Change]	CREATES	[File, Git]	17948		74971
4	[Git, Commit]	HAS_PARENT	[Git, Commit]	11033		10020
5	[Git, Change]	DELETES	[File, Git]	10481		74971
6	[Author, Git, Person]	COMMITTED	[Git, Commit]	10020		1183
7	[Committer, Git, Person]	COMMITTED	[Git, Commit]	10020		371
8	[Git, Change]	RENAMES	[File, Git]	2764		74971
9	[File, Git]	HAS_NEW_NAME	[File, Git]	1570		5135
10	[Git, Tag]	ON_COMMIT	[Git, Commit]	1084		1084
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]	144		117
19	[Type, TS, Declared, ExternalType]	REFERENCES	[TS, ExternalDeclaration]	141		272
20	[TS, Function]	DEPENDS_ON	[TS, ExternalModule]	131		47
21	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Literal, ExternalType]	119		117
22	[Json, Key]	HAS_VALUE	[Json, Value, Object]	104		668
23	[Type, Object, TS, ExternalType]	HAS_MEMBER	[Type, TS, ObjectMember, ExternalType]	98		38
24	[Package, File, Json, NPM]	DECLARES_SCRIPT	[NPM, Script]	91		29
25	[Type, TS, Union, ExternalType]	CONTAINS	[Type, TS, Declared, ExternalType]	69		117
26	[File, Directory]	CONTAINS	[File, Directory]	63		34
27	[TS, Interface]	DECLARES	[TS, Property]	61		18
28	[File, Directory]	CONTAINS	[Package, File, Json, NPM]	58		34
29	[File, Git]	RESOLVES_TO	[Package, File, Json, NPM]	57		5135

Graph Density

total_number_of_nodes (vertices): 96322

total_number_of_relationships (edges): 269217

-> total directed graph density: 2.9017233607268922e-05

-> total directed graph density in percent: 0.002901723360726892