

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]	81441	78.315431
1	[Git, Commit]	10577	10.171072
2	[File, Git]	5483	5.272572
3	[Git, Tag]	1312	1.261648
4	[Author, Git, Person]	1213	1.166447
5	[Json, Key]	668	0.642363
6	[Json, Value, Scalar]	603	0.579858
7	[Committer, Git, Person]	371	0.356762
8	[NPM, Dependency]	338	0.325028
9	[Type, TS, Primitive]	291	0.279832
10	[Type, TS, Declared]	276	0.265408
11	[TS, ExternalDeclaration]	216	0.207710
12	[Type, TS, Literal]	136	0.130781
13	[Json, Value, Object]	133	0.127896
14	[Type, TS, Union]	119	0.114433
15	[Type, TS, ObjectMember]	101	0.097124
16	[NPM, Script]	91	0.087508
17	[TS, Property]	65	0.062505
18	[TS, Function]	47	0.045196
19	[Type, TS, FunctionParameter]	40	0.038465
20	[Type, Object, TS]	39	0.037503
21	[File, Directory]	34	0.032695
22	[Type, TS, Function]	34	0.032695
23	[TS, Parameter]	33	0.031734
24	[Git, Branch]	33	0.031734
25	[Package, File, Json, NPM]	29	0.027887
26	[TS, ExternalModule]	25	0.024041
27	[TS, Variable]	24	0.023079
28	[Value, TS, Literal]	20	0.019232
29	[JQAssistant, Rule, Concept]	19	0.018271

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>

Nodes per label combination (more than 0.5% overall)

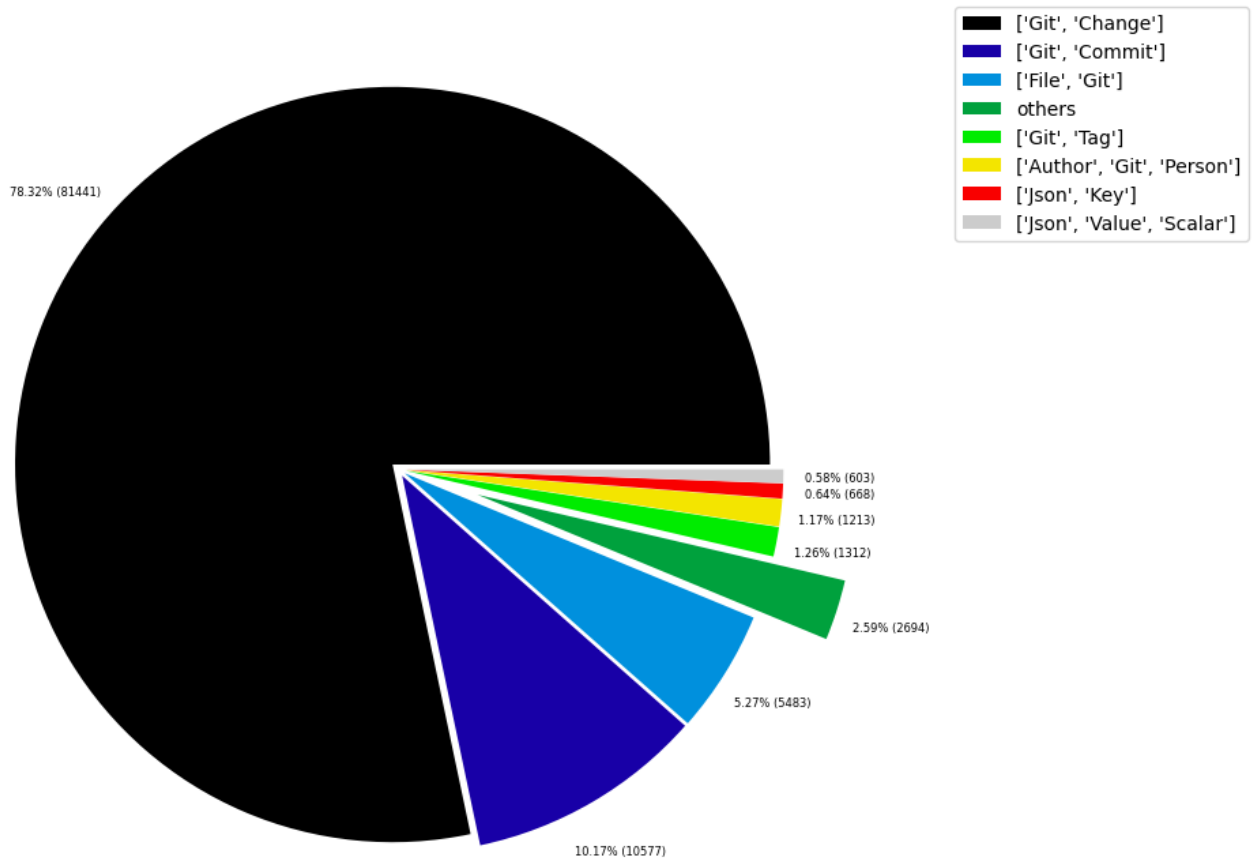


Table 1b - Lowest node count by label combination

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	0.000962
1	[File, TS, Scan]	1	0.000962
2	[TS, Method]	1	0.000962
3	[Repository, File, Git]	1	0.000962
4	[TS, Constructor]	1	0.000962
5	[Value, TS, ObjectMember]	1	0.000962
6	[TS, Class]	1	0.000962
7	[TS, Enum]	2	0.001923
8	[Value, Object, TS]	3	0.002885
9	[Type, TS, Tuple]	3	0.002885
10	[Value, TS, Function]	4	0.003846
11	[TS, TypeParameter]	4	0.003846
12	[Value, TS, Complex]	5	0.004808
13	[NPM, Engine]	6	0.005770
14	[Project, TS]	6	0.005770
15	[File, Local]	6	0.005770
16	[Value, TS, Call]	6	0.005770
17	[Value, TS, Member]	6	0.005770
18	[File, TS, Local, Module]	6	0.005770
19	[Type, TS, TypeParameterReference]	6	0.005770
20	[TS, EnumMember]	8	0.007693
21	[Type, TS, NotIdentified]	11	0.010578
22	[Json, Value, Array]	12	0.011539
23	[Value, TS, Declared]	13	0.012501
24	[TS, TypeAlias]	16	0.015386
25	[File, Directory, Local]	16	0.015386
26	[TS, Interface]	17	0.016348
27	[Type, TS, Intersection]	17	0.016348
28	[JQAssistant, Rule, Concept]	19	0.018271
29	[Value, TS, Literal]	20	0.019232

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)

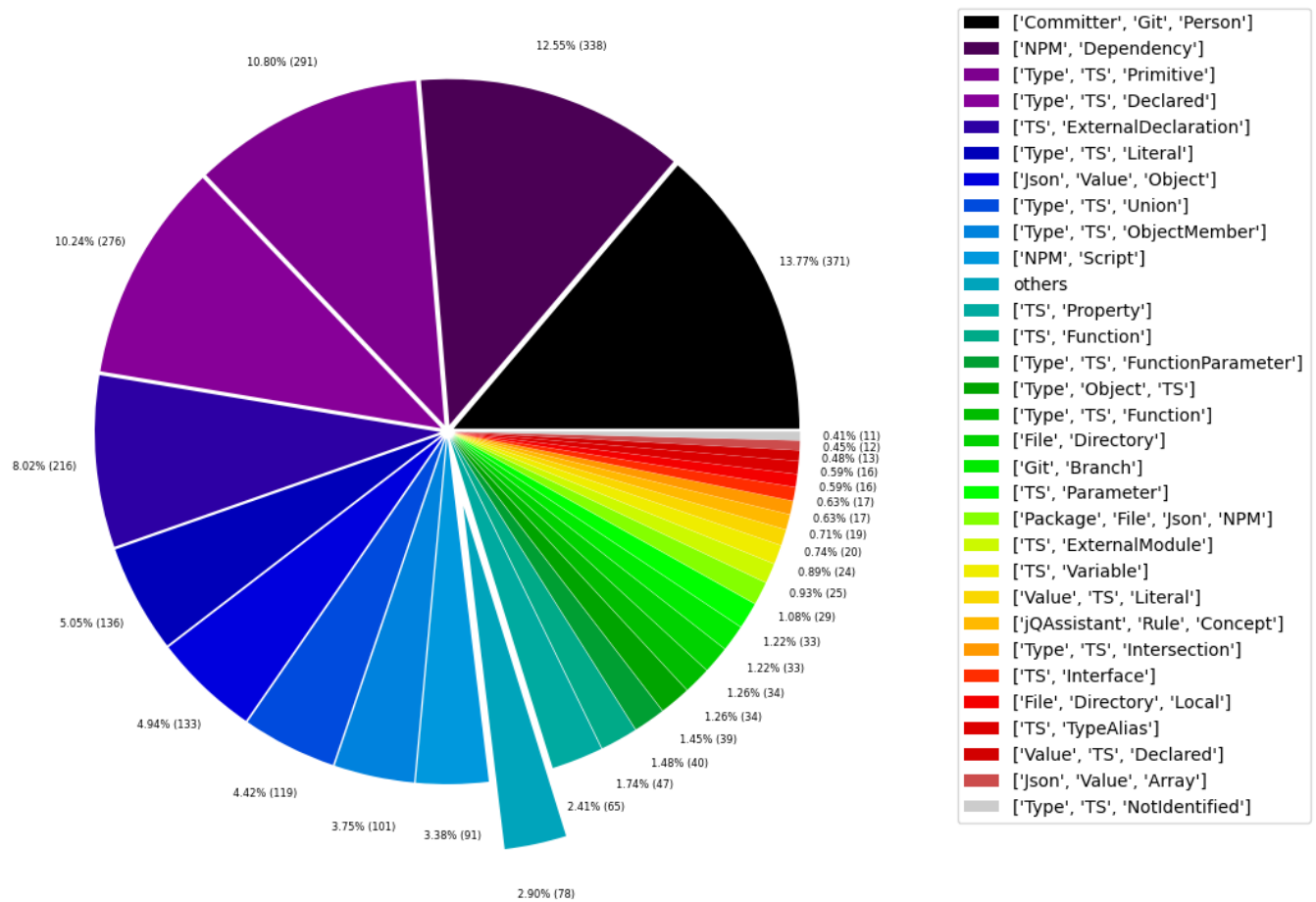


Table 1c - Highest node count by single label

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.

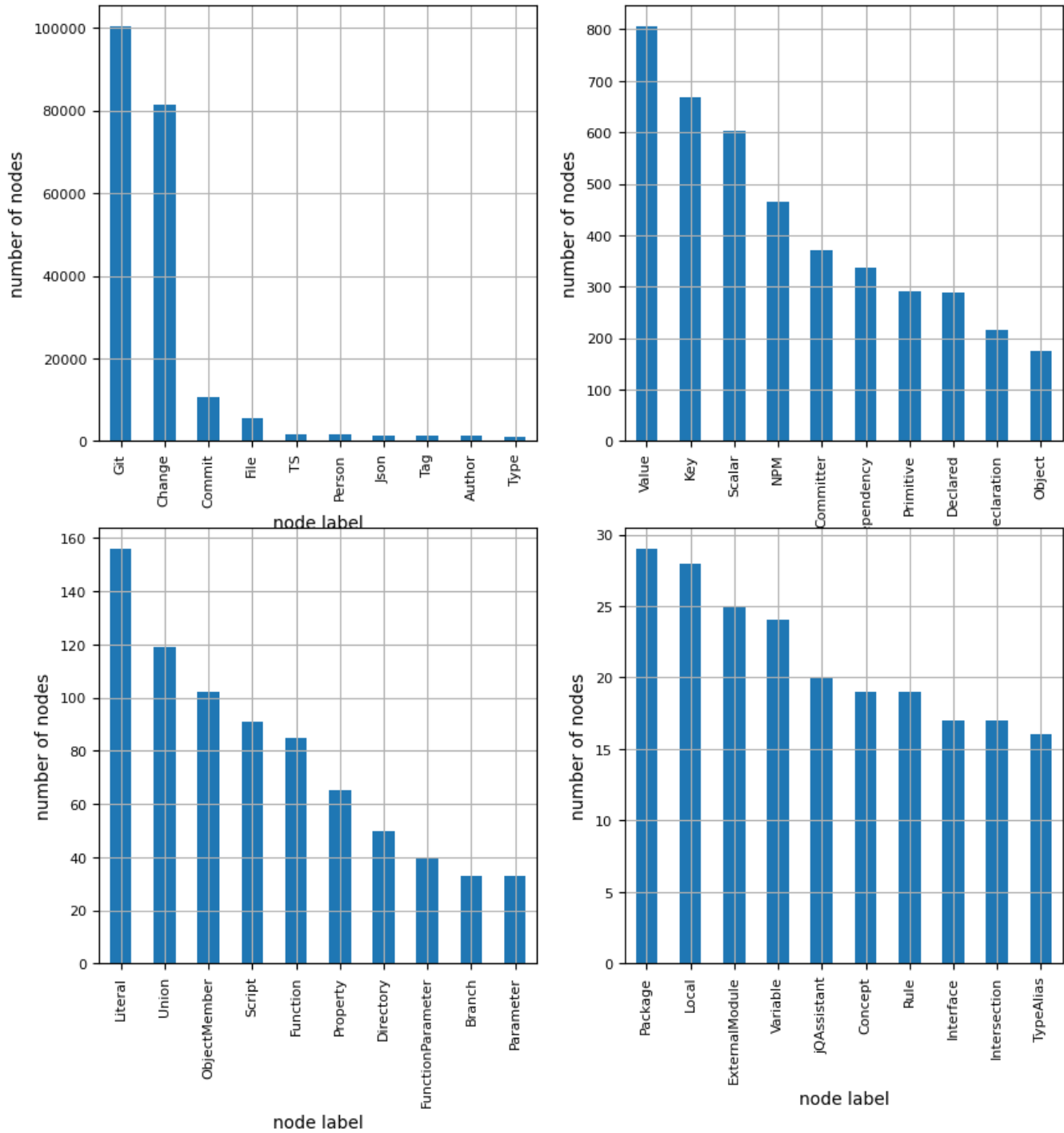
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	100431	96.576627
1	Change	81441	78.315431
2	Commit	10577	10.171072
3	File	5576	5.362002
4	TS	1604	1.542441
5	Person	1584	1.523209
6	Json	1445	1.389543
7	Tag	1312	1.261648
8	Author	1213	1.166447
9	Type	1073	1.031820
10	Value	806	0.775067
11	Key	668	0.642363
12	Scalar	603	0.579858
13	NPM	464	0.446192
14	Committer	371	0.356762
15	Dependency	338	0.325028
16	Primitive	291	0.279832
17	Declared	289	0.277909
18	ExternalDeclaration	216	0.207710
19	Object	175	0.168284
20	Literal	156	0.150013
21	Union	119	0.114433
22	ObjectMember	102	0.098085
23	Script	91	0.087508
24	Function	85	0.081738
25	Property	65	0.062505
26	Directory	50	0.048081
27	FunctionParameter	40	0.038465
28	Branch	33	0.031734
29	Parameter	33	0.031734
30	Package	29	0.027887
31	Local	28	0.026925
32	ExternalModule	25	0.024041
33	Variable	24	0.023079
34	jqAssistant	20	0.019232
35	Concept	19	0.018271
36	Rule	19	0.018271
37	Interface	17	0.016348
38	Intersection	17	0.016348
39	TypeAlias	16	0.015386

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: 310643

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	81441	26.216911
1	MODIFIES	81441	26.216911
2	UPDATES	53271	17.148624
3	COMMITTED	21154	6.809746
4	CREATES	19650	6.325589
5	DELETES	11717	3.771854
6	HAS_PARENT	11623	3.741594
7	HAS_COMMIT	10577	3.404873
8	HAS_FILE	5483	1.765049
9	RENAMES	3197	1.029156
10	HAS_NEW_NAME	1726	0.555622
11	HAS_TAG	1312	0.422350
12	ON_COMMIT	1312	0.422350
13	HAS_AUTHOR	1213	0.390480
14	DEPENDS_ON	971	0.312577
15	HAS_KEY	668	0.215038
16	HAS_VALUE	668	0.215038
17	CONTAINS	594	0.191216
18	HAS_COMMITTER	371	0.119430
19	OF_TYPE	337	0.108485
20	EXPORTS	277	0.089170
21	REFERENCES	197	0.063417
22	DECLARES	186	0.059876
23	DECLARES_DEV_DEPENDENCY	169	0.054403
24	DECLARES_DEPENDENCY	161	0.051828
25	HAS_MEMBER	102	0.032835
26	HAS_TYPE_ARGUMENT	94	0.030260
27	DECLARES_SCRIPT	91	0.029294
28	RETURNS	82	0.026397
29	HAS_PARAMETER	73	0.023500

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)

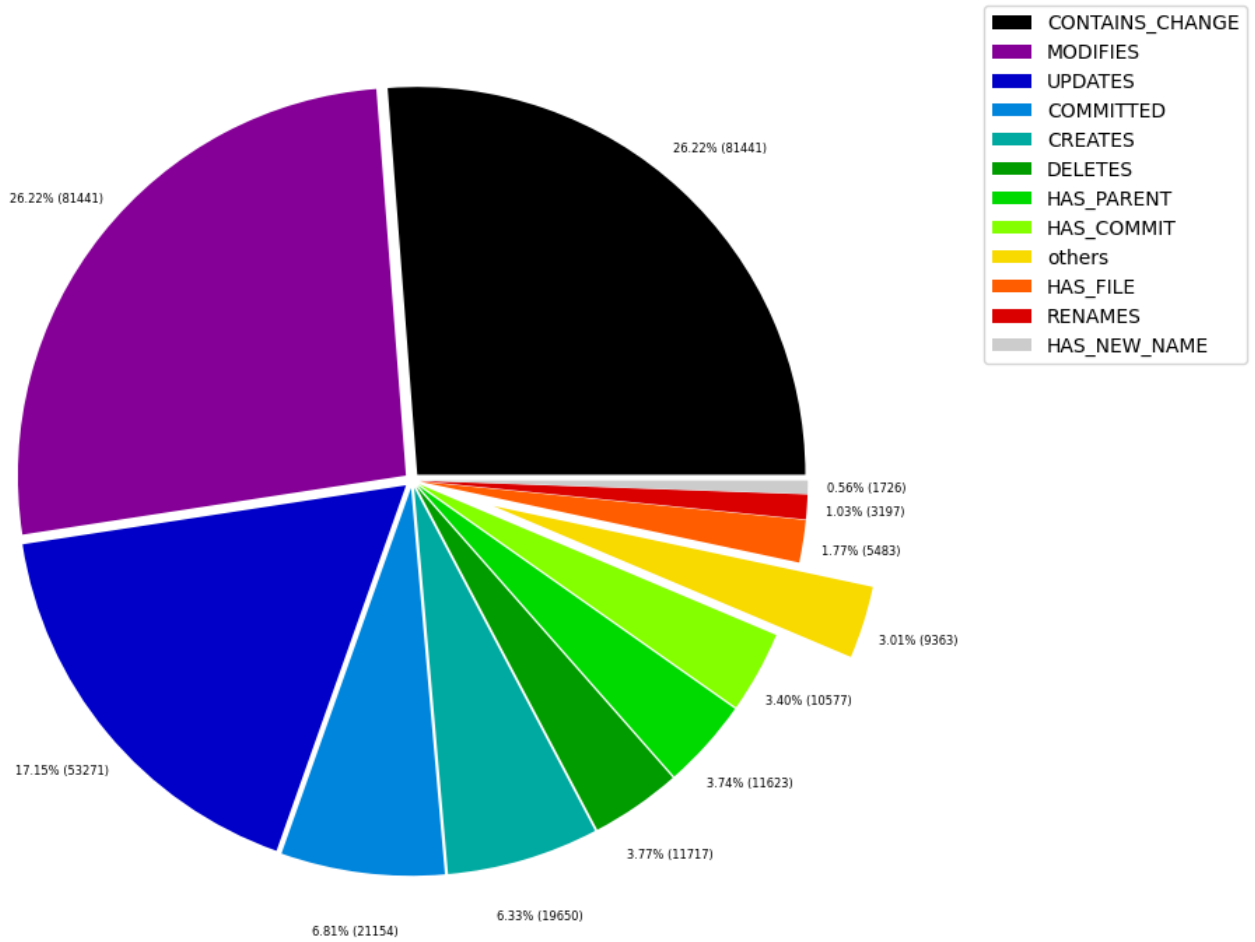


Table 2b - Lowest relationship count by type

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.

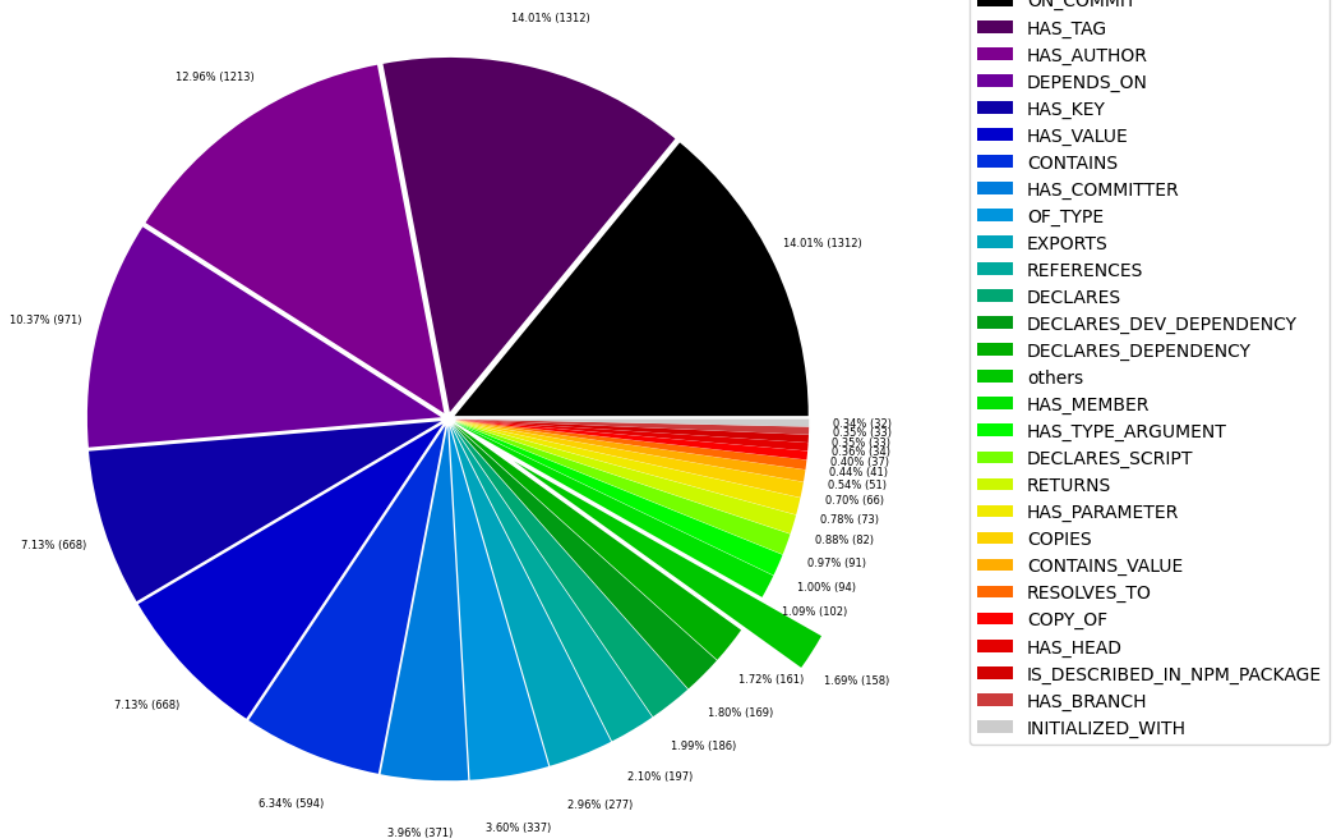
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	PROVIDED_BY_NPM_DEPENDENCY	1	0.000322
1	IS_IMPLEMENTED_IN	2	0.000644
2	CONSTRAINED_BY	4	0.001288
3	REFERENCED_PROJECTS	5	0.001610
4	CONTAINS_PROJECT	6	0.001931
5	DECLARES_ENGINE	6	0.001931
6	EXTENDS	6	0.001931
7	HAS_ARGUMENT	6	0.001931
8	CALLS	6	0.001931
9	HAS_NPM_PACKAGE	6	0.001931
10	HAS_ROOT	6	0.001931
11	MEMBER	6	0.001931
12	PARENT	6	0.001931
13	HAS_CONFIG	6	0.001931
14	SIMILAR	6	0.001931
15	DECLARES_PEER_DEPENDENCY	8	0.002575
16	INCLUDES_CONCEPT	19	0.006116
17	USES	25	0.008048
18	REQUIRES_CONCEPT	28	0.009014
19	INITIALIZED_WITH	32	0.010301
20	IS_DESCRIBED_IN_NPM_PACKAGE	33	0.010623
21	HAS_BRANCH	33	0.010623
22	HAS_HEAD	34	0.010945
23	COPY_OF	37	0.011911
24	RESOLVES_TO	41	0.013198
25	CONTAINS_VALUE	51	0.016418
26	COPIES	66	0.021246
27	HAS_PARAMETER	73	0.023500
28	RETURNS	82	0.026397
29	DECLARES_SCRIPT	91	0.029294

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	numberOfNodes'
0	[Git, Change]	MODIFIES	[File, Git]	81441	81441	
1	[Git, Commit]	CONTAINS_CHANGE	[Git, Change]	81441	10577	
2	[Git, Change]	UPDATES	[File, Git]	53271	81441	
3	[Git, Change]	CREATES	[File, Git]	19650	81441	
4	[Git, Change]	DELETES	[File, Git]	11717	81441	
5	[Git, Commit]	HAS_PARENT	[Git, Commit]	11623	10577	
6	[Repository, File, Git]	HAS_COMMIT	[Git, Commit]	10577	1	
7	[Author, Git, Person]	COMMITTED	[Git, Commit]	10577	1213	
8	[Committer, Git, Person]	COMMITTED	[Git, Commit]	10577	371	
9	[Repository, File, Git]	HAS_FILE	[File, Git]	5483	1	
10	[Git, Change]	RENAMES	[File, Git]	3197	81441	
11	[File, Git]	HAS_NEW_NAME	[File, Git]	1726	5483	
12	[Repository, File, Git]	HAS_TAG	[Git, Tag]	1312	1	
13	[Git, Tag]	ON_COMMIT	[Git, Commit]	1312	1312	
14	[Repository, File, Git]	HAS_AUTHOR	[Author, Git, Person]	1213	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]	371	1	
18	[TS, Function]	DEPENDS_ON	[TS, ExternalDeclaration]	292	47	
19	[TS, ExternalModule]	EXPORTS	[TS, ExternalDeclaration]	216	25	
20	[File, TS, Local, Module, Mark4ModuleWeaklyCon...]	DEPENDS_ON	[TS, ExternalDeclaration]	193	2	
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]	142	276	
25	[TS, Function]	DEPENDS_ON	[TS, ExternalModule]	135	47	
26	[Type, TS, Union]	CONTAINS	[Type, TS, Literal]	119	119	
27	[Json, Key]	HAS_VALUE	[Json, Value, Object]	104	668	
28	[Type, Object, TS]	HAS_MEMBER	[Type, TS, ObjectMember]	101	39	
29	[Package, File, Json, NPM]	DECLARES_SCRIPT	[NPM, Script]	91	29	

Graph Density

total_number_of_nodes (vertices): 103991

total_number_of_relationships (edges): 310643

-> total directed graph density: 2.8725939337166763e-05

-> total directed graph density in percent: 0.002872593933716676