

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]	84159	76.706223
1	[Git, Commit]	10850	9.889168
2	[File, Git]	5589	5.094061
3	[Git, Tag]	1457	1.327974
4	[Author, Git, Person]	1236	1.126545
5	[Type, TS, Primitive]	811	0.739181
6	[Json, Key]	668	0.608845
7	[Json, Value, Scalar]	603	0.549601
8	[Type, TS, Declared]	598	0.545044
9	[TS, ExternalDeclaration]	444	0.404681
10	[Committer, Git, Person]	371	0.338146
11	[NPM, Dependency]	338	0.308068
12	[Type, TS, ObjectMember]	318	0.289839
13	[Type, TS, Literal]	274	0.249736
14	[Type, TS, Union]	246	0.224215
15	[TS, Property]	137	0.124868
16	[Json, Value, Object]	133	0.121222
17	[Value, TS, Literal]	124	0.113019
18	[Type, Object, TS]	109	0.099347
19	[TS, Function]	109	0.099347
20	[NPM, Script]	91	0.082941
21	[Value, TS, ObjectMember]	88	0.080207
22	[Type, TS, FunctionParameter]	80	0.072916
23	[TS, Parameter]	76	0.069270
24	[Type, TS, Function]	70	0.063801
25	[File, Directory, Local]	64	0.058332
26	[TS, Variable]	59	0.053775
27	[File, TS, Local, Module]	46	0.041926
28	[Git, Branch]	46	0.041926
29	[TS, Interface]	37	0.033723

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)

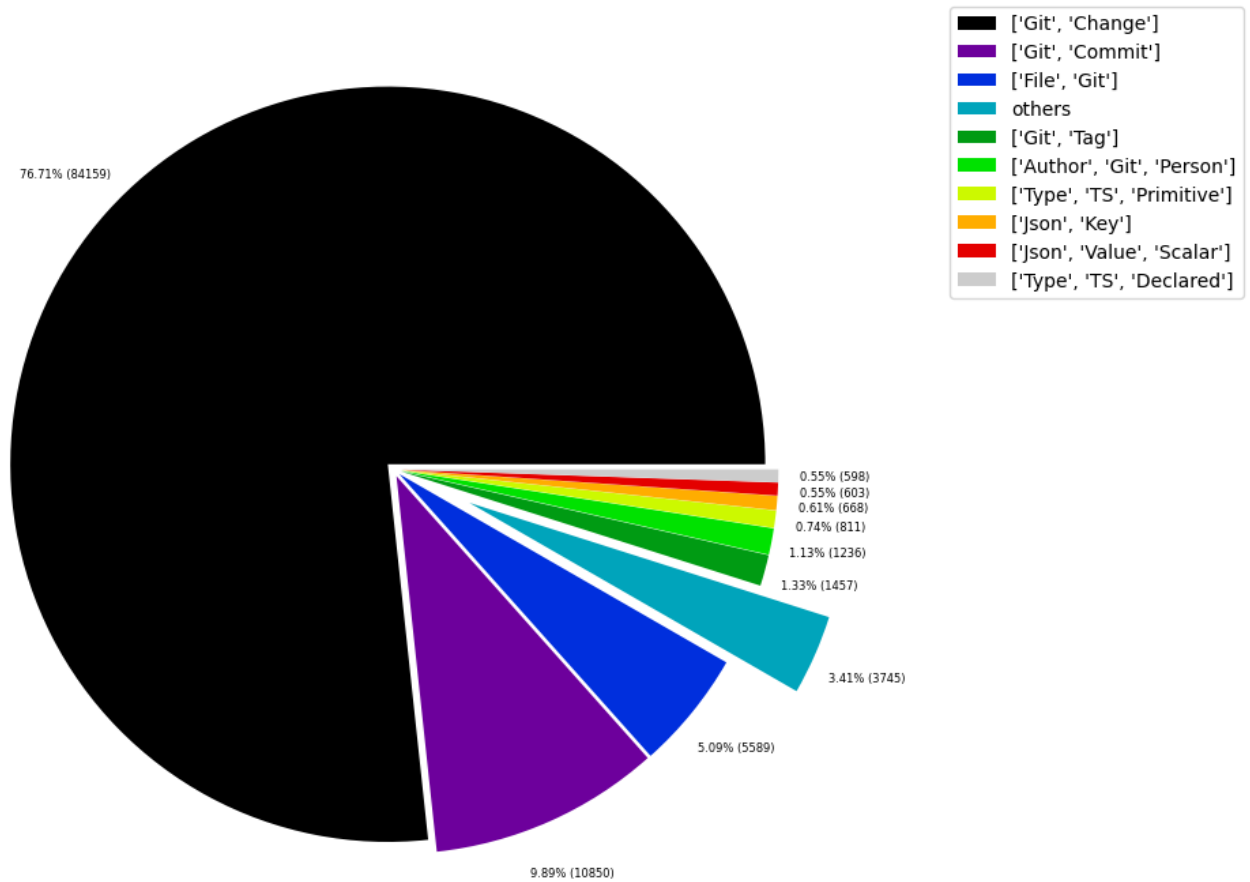


Table 1b - Lowest node count by label combination

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	0.000911
1	[Repository, File, Git]	1	0.000911
2	[Value, TS, Null]	1	0.000911
3	[TS, Constructor]	2	0.001823
4	[TS, Class]	2	0.001823
5	[TS, Enum]	4	0.003646
6	[TS, Method]	4	0.003646
7	[Value, Array, TS]	5	0.004557
8	[Type, TS, Tuple]	6	0.005469
9	[NPM, Engine]	6	0.005469
10	[TS, TypeParameter]	8	0.007292
11	[Value, TS, Complex]	11	0.010026
12	[Type, TS, TypeParameterReference]	12	0.010937
13	[Json, Value, Array]	12	0.010937
14	[Value, TS, Function]	13	0.011849
15	[Value, TS, Call]	14	0.012760
16	[Value, TS, Member]	14	0.012760
17	[TS, EnumMember]	16	0.014583
18	[JQAssistant, Rule, Concept]	19	0.017317
19	[Type, TS, NotIdentified]	23	0.020963
20	[Value, Object, TS]	28	0.025520
21	[File, Local]	28	0.025520
22	[File, TS, Scan]	29	0.026432
23	[Package, File, Json, NPM]	29	0.026432
24	[Value, TS, Declared]	30	0.027343
25	[TS, TypeAlias]	32	0.029166
26	[TS, ExternalModule]	33	0.030078
27	[Project, TS]	33	0.030078
28	[Type, TS, Intersection]	34	0.030989
29	[File, Directory]	35	0.031901

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)

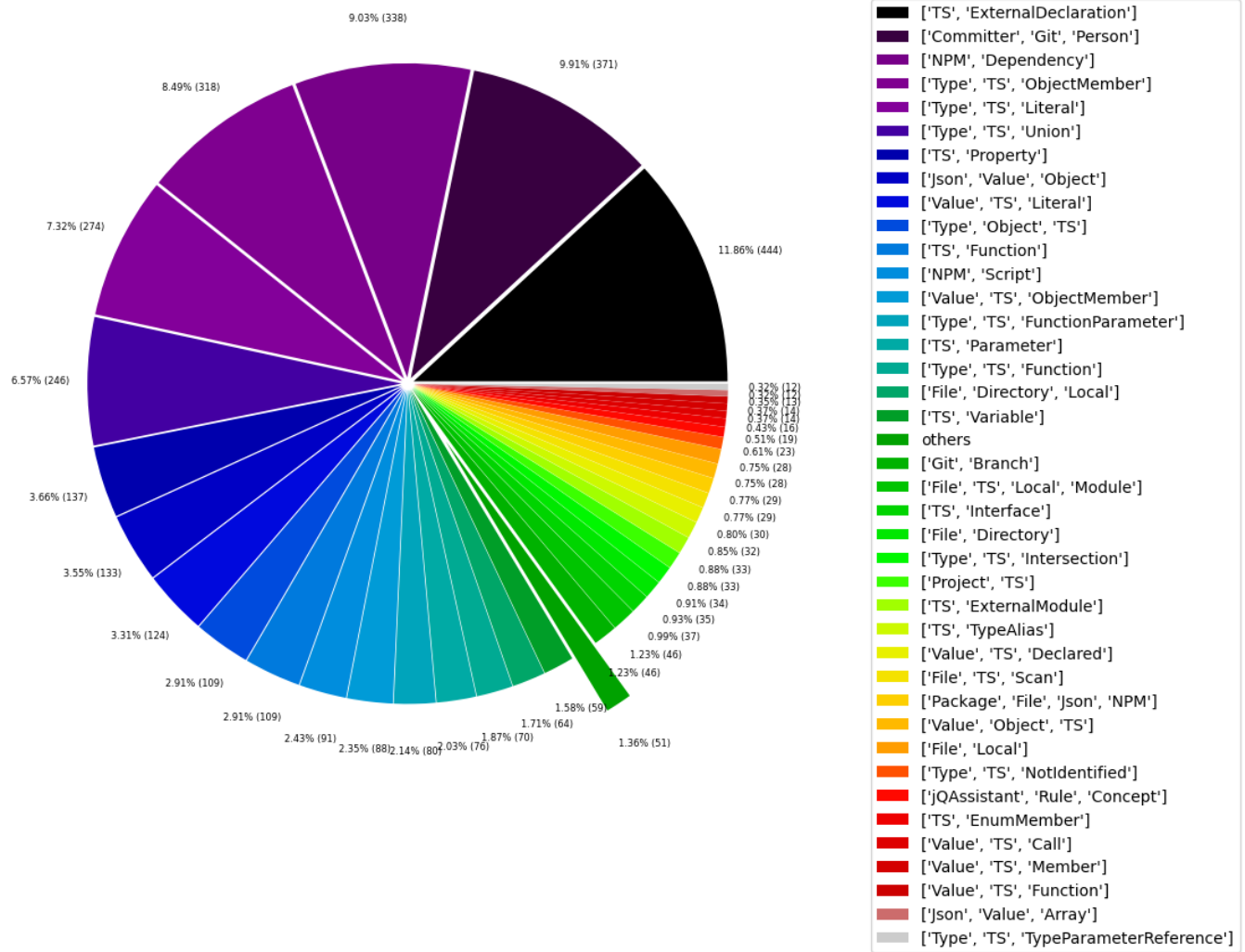


Table 1c - Highest node count by single label

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.

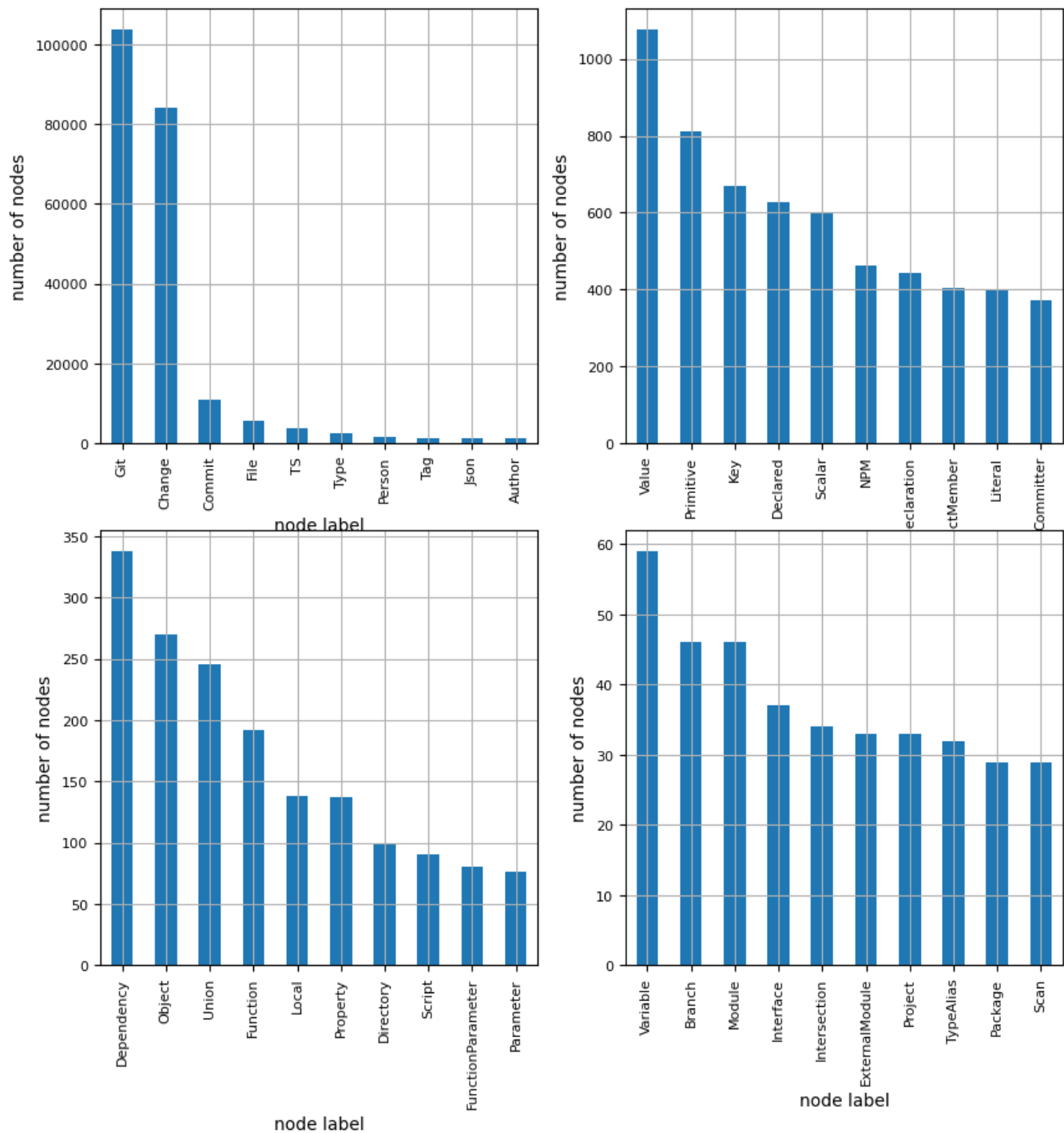
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	103709	94.524955
1	Change	84159	76.706223
2	Commit	10850	9.889168
3	File	5821	5.305516
4	TS	3980	3.627547
5	Type	2581	2.352437
6	Person	1607	1.464691
7	Tag	1457	1.327974
8	Json	1445	1.317037
9	Author	1236	1.126545
10	Value	1076	0.980714
11	Primitive	811	0.739181
12	Key	668	0.608845
13	Declared	628	0.572387
14	Scalar	603	0.549601
15	NPM	464	0.422910
16	ExternalDeclaration	444	0.404681
17	ObjectMember	406	0.370046
18	Literal	398	0.362755
19	Committer	371	0.338146
20	Dependency	338	0.308068
21	Object	270	0.246090
22	Union	246	0.224215
23	Function	192	0.174997
24	Local	138	0.125779
25	Property	137	0.124868
26	Directory	99	0.090233
27	Script	91	0.082941
28	FunctionParameter	80	0.072916
29	Parameter	76	0.069270
30	Variable	59	0.053775
31	Branch	46	0.041926
32	Module	46	0.041926
33	Interface	37	0.033723
34	Intersection	34	0.030989
35	ExternalModule	33	0.030078
36	Project	33	0.030078
37	TypeAlias	32	0.029166
38	Package	29	0.026432
39	Scan	29	0.026432

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: 324519

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	84159	25.933458
1	MODIFIES	84159	25.933458
2	UPDATES	55223	17.016877
3	COMMITTED	21700	6.686820
4	CREATES	20144	6.207341
5	DELETES	12089	3.725206
6	HAS_PARENT	11914	3.671280
7	HAS_COMMIT	10850	3.343410
8	HAS_FILE	5589	1.722241
9	RENAMES	3297	1.015965
10	DEPENDS_ON	1823	0.561754
11	HAS_NEW_NAME	1756	0.541109
12	HAS_TAG	1457	0.448972
13	ON_COMMIT	1457	0.448972
14	HAS_AUTHOR	1236	0.380871
15	CONTAINS	1199	0.369470
16	OF_TYPE	1030	0.317393
17	HAS_KEY	668	0.205843
18	HAS_VALUE	668	0.205843
19	EXPORTS	651	0.200605
20	REFERENCES	489	0.150685
21	DECLARES	410	0.126341
22	HAS_MEMBER	406	0.125108
23	HAS_COMMITTER	371	0.114323
24	HAS_TYPE_ARGUMENT	202	0.062246
25	RETURNS	183	0.056391
26	DECLARES_DEV_DEPENDENCY	169	0.052077
27	DECLARES_DEPENDENCY	161	0.049612
28	HAS_PARAMETER	155	0.047763
29	RESOLVES_TO	103	0.031739

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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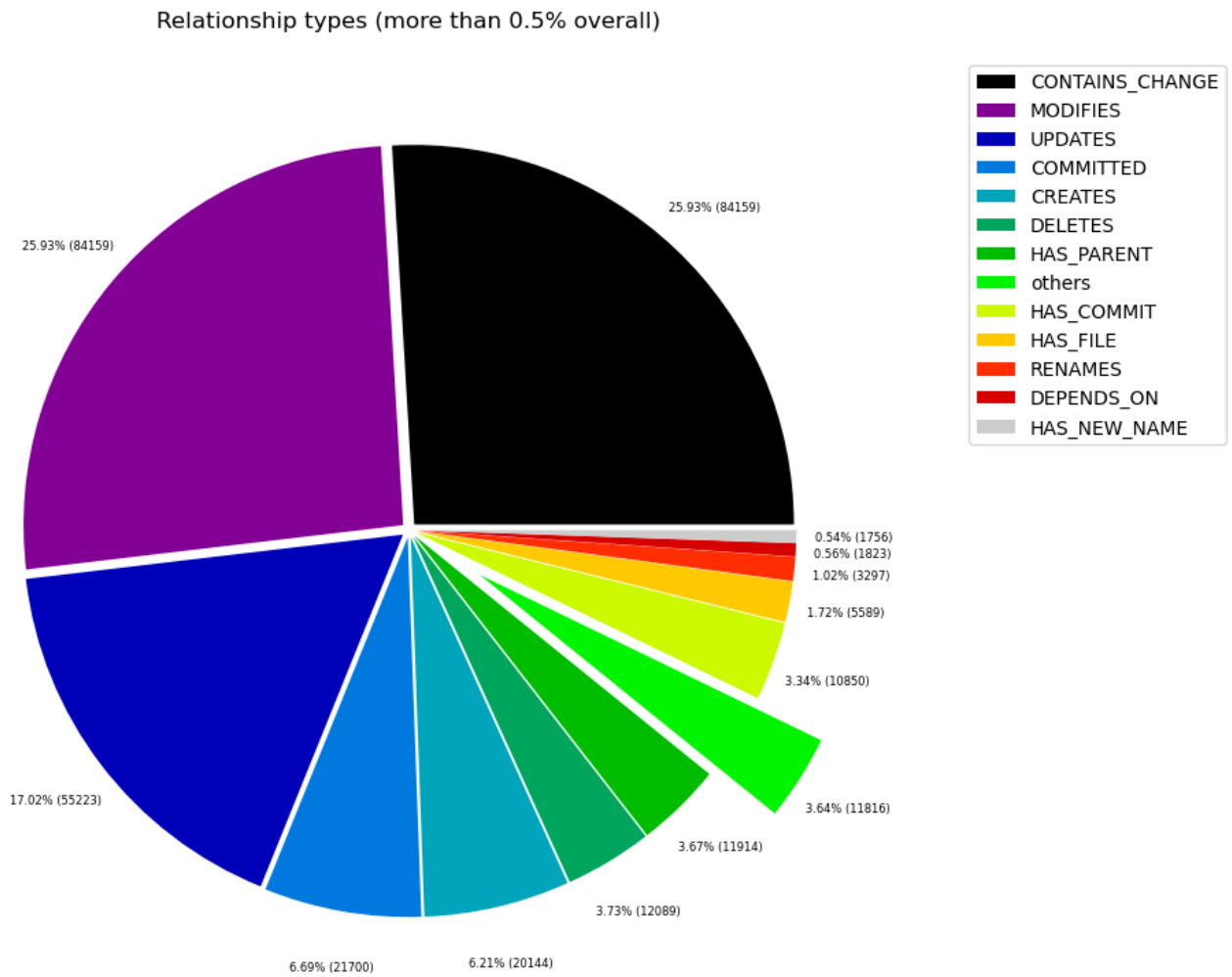


Table 2b - Lowest relationship count by type

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.

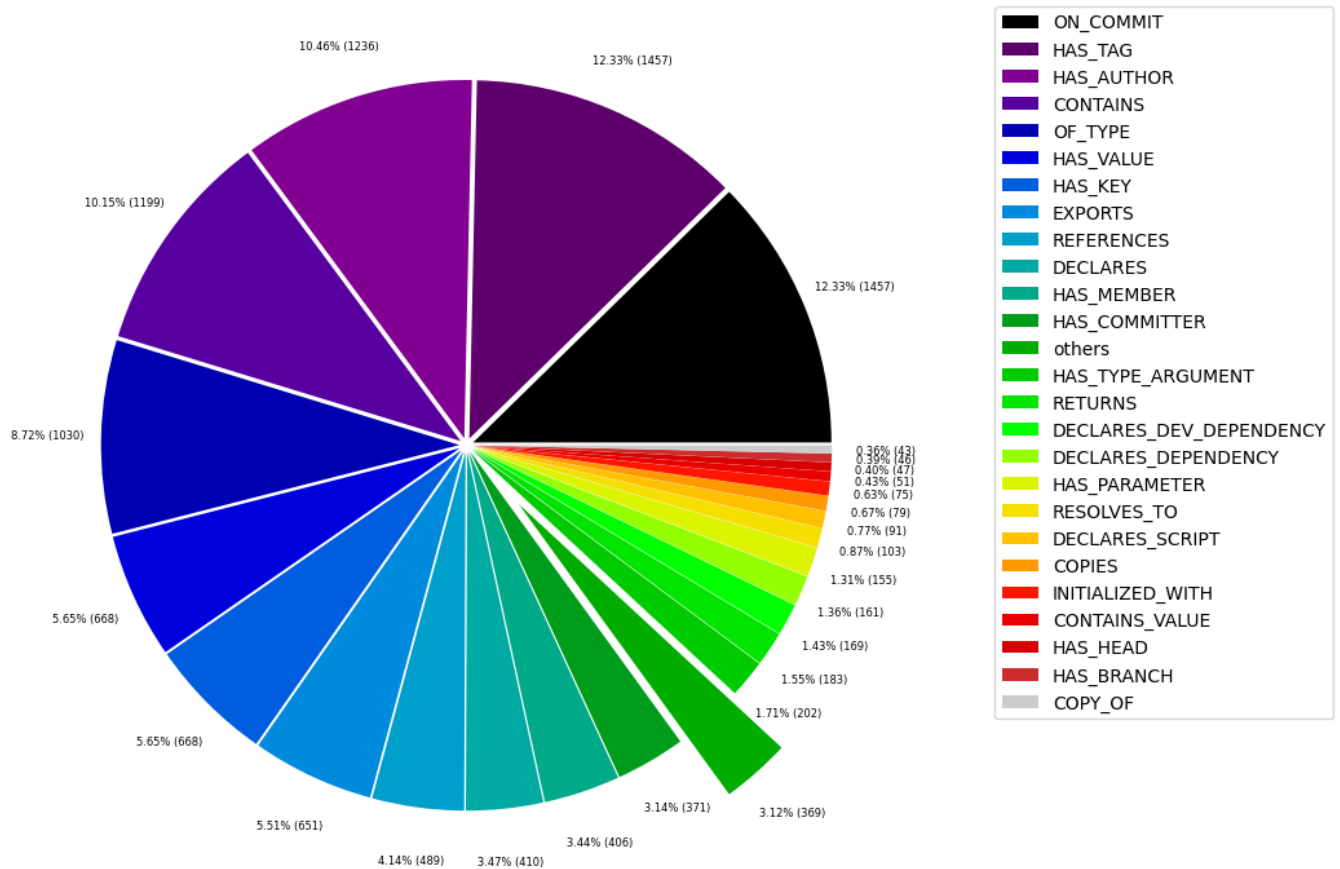
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	HAS	1	0.000308
1	REFERENCED_PROJECTS	5	0.001541
2	DECLARES_ENGINE	6	0.001849
3	SIMILAR	8	0.002465
4	DECLARES_PEER_DEPENDENCY	8	0.002465
5	CONSTRAINED_BY	8	0.002465
6	EXTENDS	12	0.003698
7	PARENT	14	0.004314
8	MEMBER	14	0.004314
9	HAS_ARGUMENT	14	0.004314
10	CALLS	14	0.004314
11	INCLUDES_CONCEPT	19	0.005855
12	PROVIDED_BY_NPM_DEPENDENCY	20	0.006163
13	REQUIRES_CONCEPT	28	0.008628
14	CONTAINS_PROJECT	33	0.010169
15	HAS_CONFIG	33	0.010169
16	IS_DESCRIBED_IN_NPM_PACKAGE	33	0.010169
17	HAS_ROOT	33	0.010169
18	HAS_NPM_PACKAGE	33	0.010169
19	USES	33	0.010169
20	COPY_OF	43	0.013250
21	HAS_BRANCH	46	0.014175
22	HAS_HEAD	47	0.014483
23	CONTAINS_VALUE	51	0.015716
24	INITIALIZED_WITH	75	0.023111
25	COPIES	79	0.024344
26	DECLARES_SCRIPT	91	0.028042
27	RESOLVES_TO	103	0.031739
28	HAS_PARAMETER	155	0.047763
29	DECLARES_DEPENDENCY	161	0.049612

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, Commit]	CONTAINS_CHANGE	[Git, Change]	84159		10850
1	[Git, Change]	MODIFIES	[File, Git]	84159		84159
2	[Git, Change]	UPDATES	[File, Git]	55223		84159
3	[Git, Change]	CREATES	[File, Git]	20144		84159
4	[Git, Change]	DELETES	[File, Git]	12089		84159
5	[Git, Commit]	HAS_PARENT	[Git, Commit]	11914		10850
6	[Repository, File, Git]	HAS_COMMIT	[Git, Commit]	10850		1
7	[Author, Git, Person]	COMMITTED	[Git, Commit]	10850		1236
8	[Committer, Git, Person]	COMMITTED	[Git, Commit]	10850		371
9	[Repository, File, Git]	HAS_FILE	[File, Git]	5589		1
10	[Git, Change]	RENAMES	[File, Git]	3297		84159
11	[File, Git]	HAS_NEW_NAME	[File, Git]	1756		5589
12	[Repository, File, Git]	HAS_TAG	[Git, Tag]	1457		1
13	[Git, Tag]	ON_COMMIT	[Git, Commit]	1457		1457
14	[Repository, File, Git]	HAS_AUTHOR	[Author, Git, Person]	1236		1
15	[Json, Value, Object]	HAS_KEY	[Json, Key]	668		133
16	[TS, Function]	DEPENDS_ON	[TS, ExternalDeclaration]	580		109
17	[Json, Key]	HAS_VALUE	[Json, Value, Scalar]	552		668
18	[TS, ExternalModule]	EXPORTS	[TS, ExternalDeclaration]	444		33
19	[Repository, File, Git]	HAS_COMMITTER	[Committer, Git, Person]	371		1
20	[Type, Object, TS]	HAS_MEMBER	[Type, TS, ObjectMember]	318		109
21	[File, TS, Local, Module, Mark4ModuleWeaklyCon...]	DEPENDS_ON	[TS, ExternalDeclaration]	308		1
22	[Type, TS, Union]	CONTAINS	[Type, TS, Primitive]	303		246
23	[Type, TS, Declared]	REFERENCES	[TS, ExternalDeclaration]	288		598
24	[Type, TS, Union]	CONTAINS	[Type, TS, Literal]	238		246
25	[Type, TS, ObjectMember]	OF_TYPE	[Type, TS, Primitive]	173		318
26	[Package, File, Json, NPM]	DECLARES_DEV_DEPENDENCY	[NPM, Dependency]	169		29
27	[Package, File, Json, NPM]	DECLARES_DEPENDENCY	[NPM, Dependency]	161		29
28	[TS, Function]	DEPENDS_ON	[TS, ExternalModule]	148		109
29	[Type, TS, Union]	CONTAINS	[Type, TS, Declared]	145		246

Graph Density

total_number_of_nodes (vertices): 109716

total_number_of_relationships (edges): 324519

-> total directed graph density: 2.6959023405919175e-05

-> total directed graph density in percent: 0.0026959023405919175