

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]	83694	76.614092
1	[Git, Commit]	10842	9.924845
2	[File, Git]	5584	5.111634
3	[Git, Tag]	1459	1.335579
4	[Author, Git, Person]	1237	1.132359
5	[Type, TS, Primitive]	811	0.742395
6	[Json, Key]	668	0.611492
7	[Json, Value, Scalar]	603	0.551991
8	[Type, TS, Declared]	598	0.547414
9	[TS, ExternalDeclaration]	450	0.411933
10	[Committer, Git, Person]	370	0.338701
11	[NPM, Dependency]	338	0.309408
12	[Type, TS, ObjectMember]	318	0.291099
13	[Type, TS, Literal]	274	0.250822
14	[Type, TS, Union]	246	0.225190
15	[TS, Property]	137	0.125411
16	[Json, Value, Object]	133	0.121749
17	[Value, TS, Literal]	124	0.113510
18	[Type, Object, TS]	109	0.099779
19	[TS, Function]	109	0.099779
20	[NPM, Script]	91	0.083302
21	[Value, TS, ObjectMember]	88	0.080556
22	[Type, TS, FunctionParameter]	80	0.073233
23	[TS, Parameter]	76	0.069571
24	[Type, TS, Function]	70	0.064079
25	[File, Directory, Local]	64	0.058586
26	[TS, Variable]	59	0.054009
27	[File, TS, Local, Module]	46	0.042109
28	[Git, Branch]	41	0.037532
29	[TS, Interface]	37	0.033870

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.

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Nodes per label combination (more than 0.5% overall)

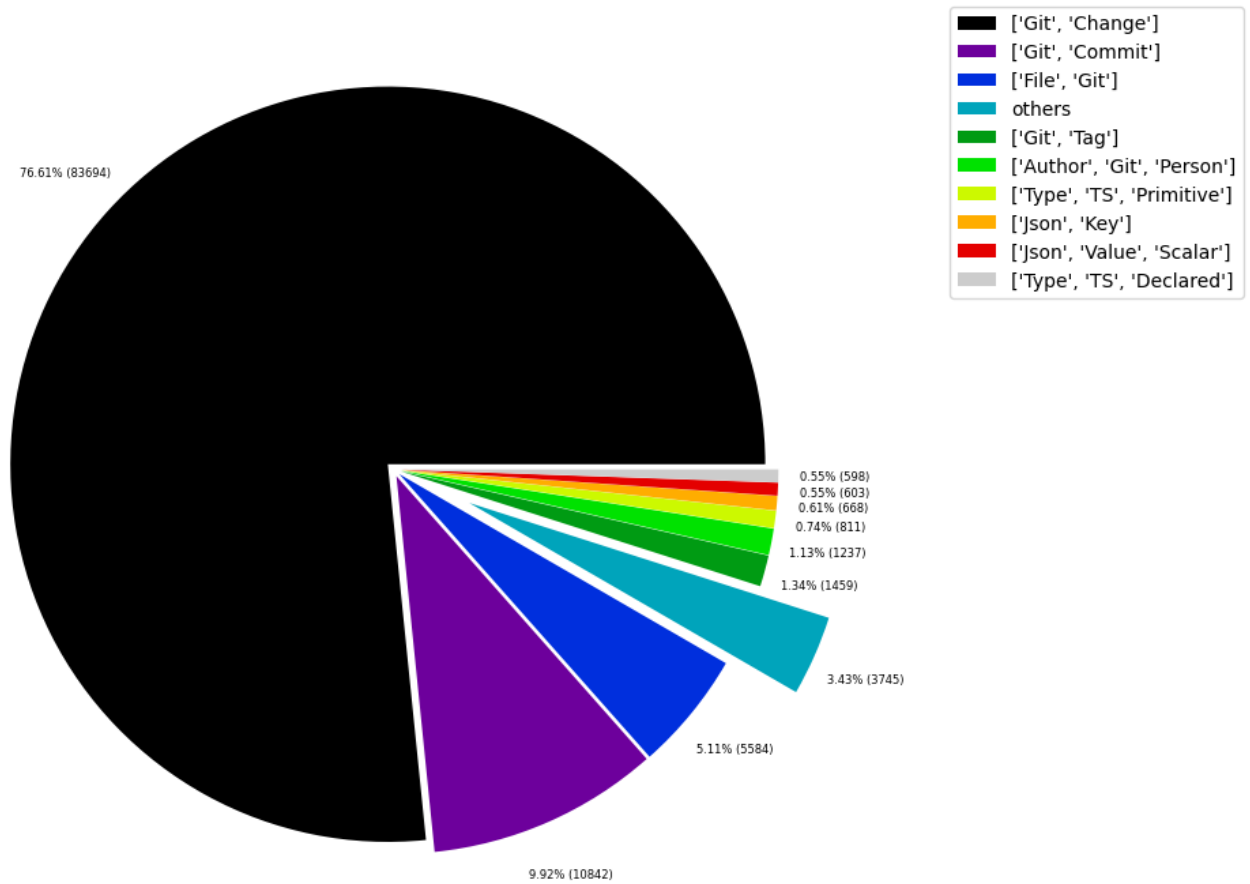


Table 1b - Lowest node count by label combination

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	0.000915
1	[Repository, File, Git]	1	0.000915
2	[Value, TS, Null]	1	0.000915
3	[TS, Constructor]	2	0.001831
4	[TS, Class]	2	0.001831
5	[TS, Enum]	4	0.003662
6	[TS, Method]	4	0.003662
7	[Value, Array, TS]	5	0.004577
8	[Type, TS, Tuple]	6	0.005492
9	[NPM, Engine]	6	0.005492
10	[TS, TypeParameter]	8	0.007323
11	[Value, TS, Complex]	11	0.010069
12	[Type, TS, TypeParameterReference]	12	0.010985
13	[Json, Value, Array]	12	0.010985
14	[Value, TS, Function]	13	0.011900
15	[Value, TS, Call]	14	0.012816
16	[Value, TS, Member]	14	0.012816
17	[TS, EnumMember]	16	0.014647
18	[JQAssistant, Rule, Concept]	19	0.017393
19	[Type, TS, NotIdentified]	23	0.021054
20	[Value, Object, TS]	28	0.025631
21	[File, Local]	28	0.025631
22	[File, TS, Scan]	29	0.026547
23	[Package, File, Json, NPM]	29	0.026547
24	[Value, TS, Declared]	30	0.027462
25	[TS, TypeAlias]	32	0.029293
26	[TS, ExternalModule]	33	0.030208
27	[Project, TS]	33	0.030208
28	[Type, TS, Intersection]	34	0.031124
29	[File, Directory]	35	0.032039

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)

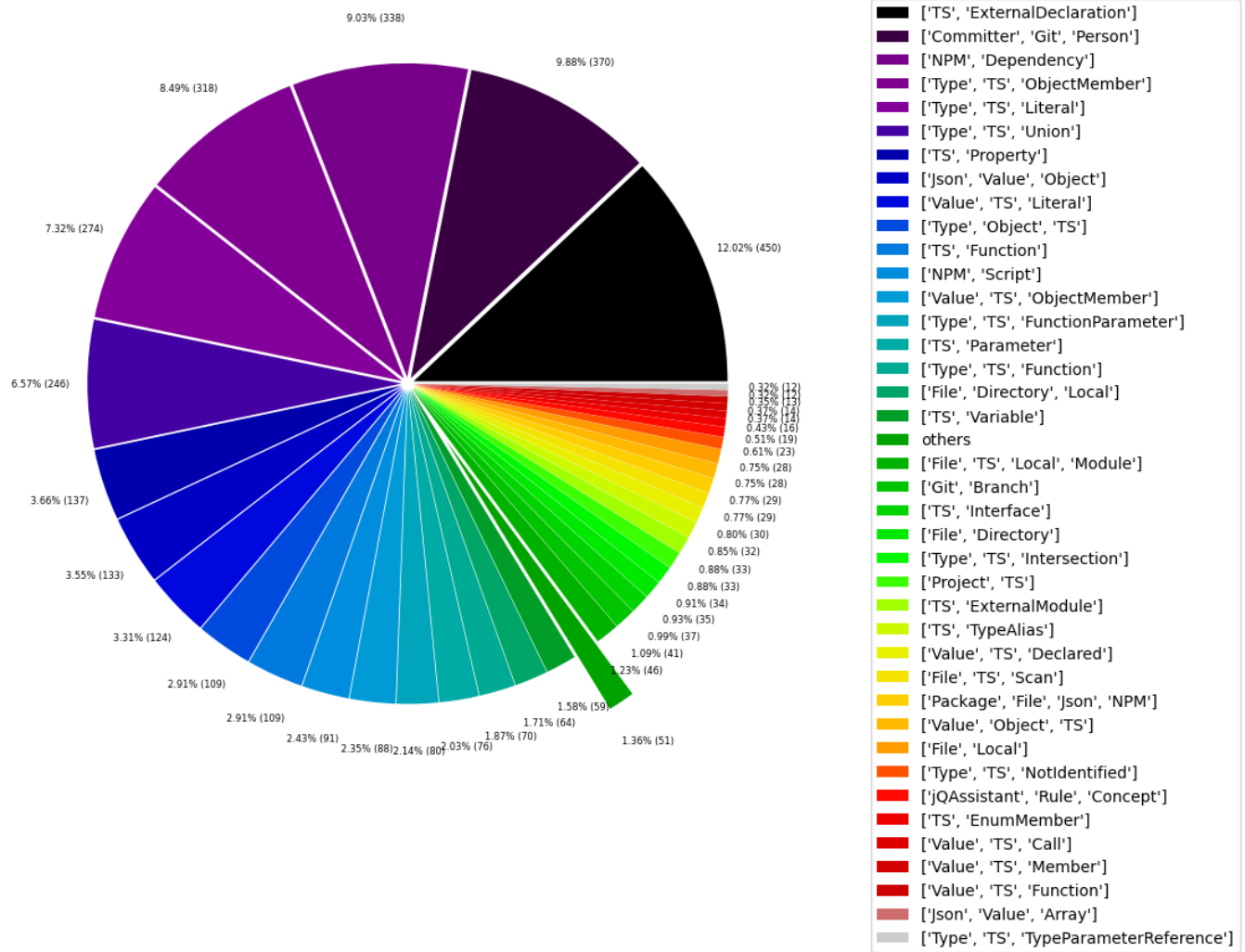


Table 1c - Highest node count by single label

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.

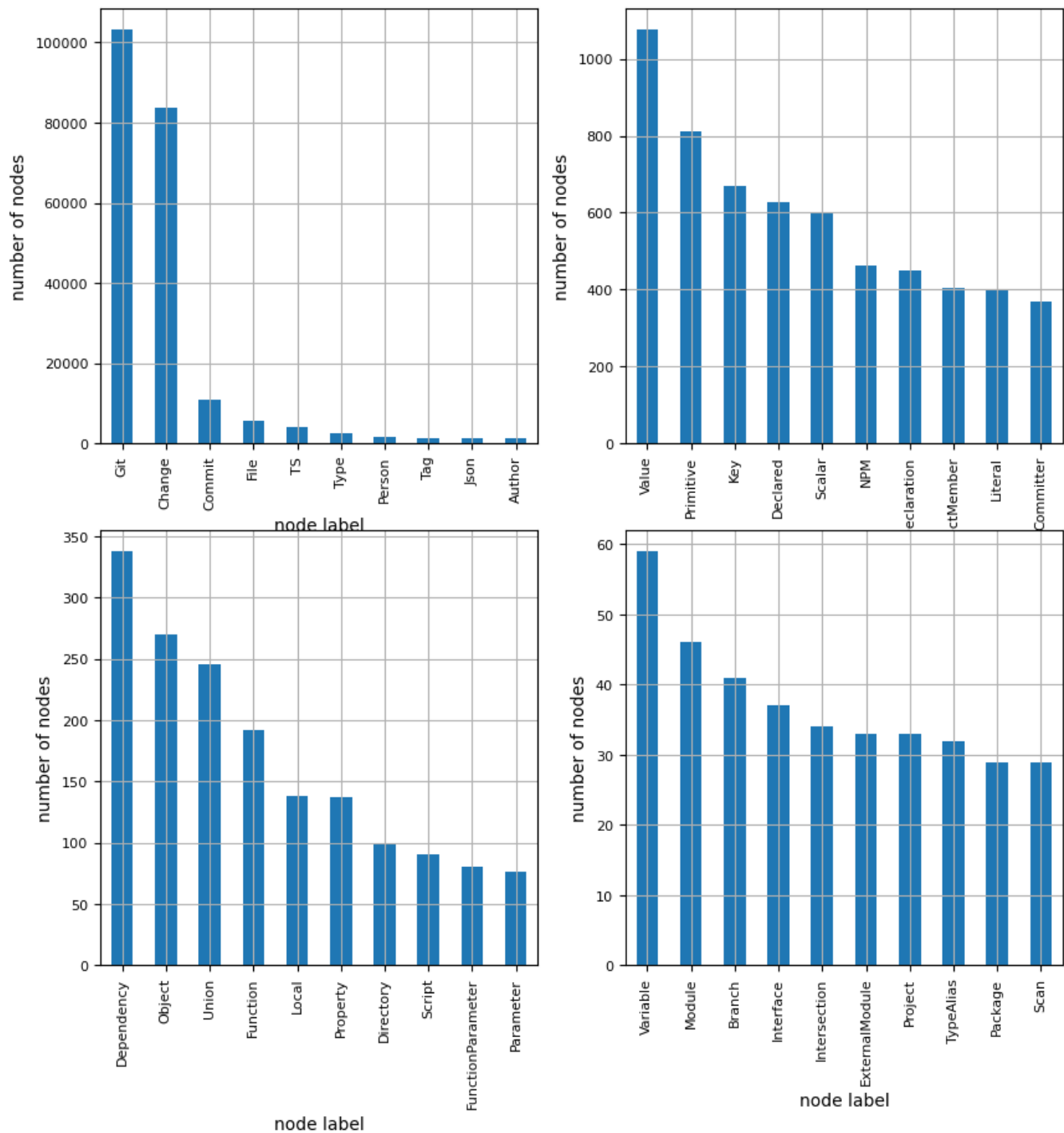
	nodeLabel	nodesWithThatLabel	nodesWithThatLabelPercent
0	Git	103228	94.495656
1	Change	83694	76.614092
2	Commit	10842	9.924845
3	File	5816	5.324008
4	TS	3986	3.648813
5	Type	2581	2.362666
6	Person	1607	1.471059
7	Tag	1459	1.335579
8	Json	1445	1.322763
9	Author	1237	1.132359
10	Value	1076	0.984978
11	Primitive	811	0.742395
12	Key	668	0.611492
13	Declared	628	0.574876
14	Scalar	603	0.551991
15	NPM	464	0.424749
16	ExternalDeclaration	450	0.411933
17	ObjectMember	406	0.371655
18	Literal	398	0.364332
19	Committer	370	0.338701
20	Dependency	338	0.309408
21	Object	270	0.247160
22	Union	246	0.225190
23	Function	192	0.175758
24	Local	138	0.126326
25	Property	137	0.125411
26	Directory	99	0.090625
27	Script	91	0.083302
28	FunctionParameter	80	0.073233
29	Parameter	76	0.069571
30	Variable	59	0.054009
31	Module	46	0.042109
32	Branch	41	0.037532
33	Interface	37	0.033870
34	Intersection	34	0.031124
35	ExternalModule	33	0.030208
36	Project	33	0.030208
37	TypeAlias	32	0.029293
38	Package	29	0.026547
39	Scan	29	0.026547

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: 323046

	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	CONTAINS_CHANGE	83694	25.907765
1	MODIFIES	83694	25.907765
2	UPDATES	54955	17.011509
3	COMMITTED	21684	6.712357
4	CREATES	19967	6.180854
5	DELETES	12042	3.727643
6	HAS_PARENT	11900	3.683686
7	HAS_COMMIT	10842	3.356178
8	HAS_FILE	5584	1.728546
9	RENAMES	3270	1.012240
10	DEPENDS_ON	1845	0.571126
11	HAS_NEW_NAME	1751	0.542028
12	HAS_TAG	1459	0.451638
13	ON_COMMIT	1459	0.451638
14	HAS_AUTHOR	1237	0.382918
15	CONTAINS	1199	0.371155
16	OF_TYPE	1030	0.318840
17	HAS_KEY	668	0.206782
18	HAS_VALUE	668	0.206782
19	EXPORTS	659	0.203996
20	REFERENCES	489	0.151372
21	DECLARES	410	0.126917
22	HAS_MEMBER	406	0.125679
23	HAS_COMMITTER	370	0.114535
24	HAS_TYPE_ARGUMENT	202	0.062530
25	RETURNS	183	0.056648
26	DECLARES_DEV_DEPENDENCY	169	0.052315
27	DECLARES_DEPENDENCY	161	0.049838
28	HAS_PARAMETER	155	0.047981
29	RESOLVES_TO	103	0.031884

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)

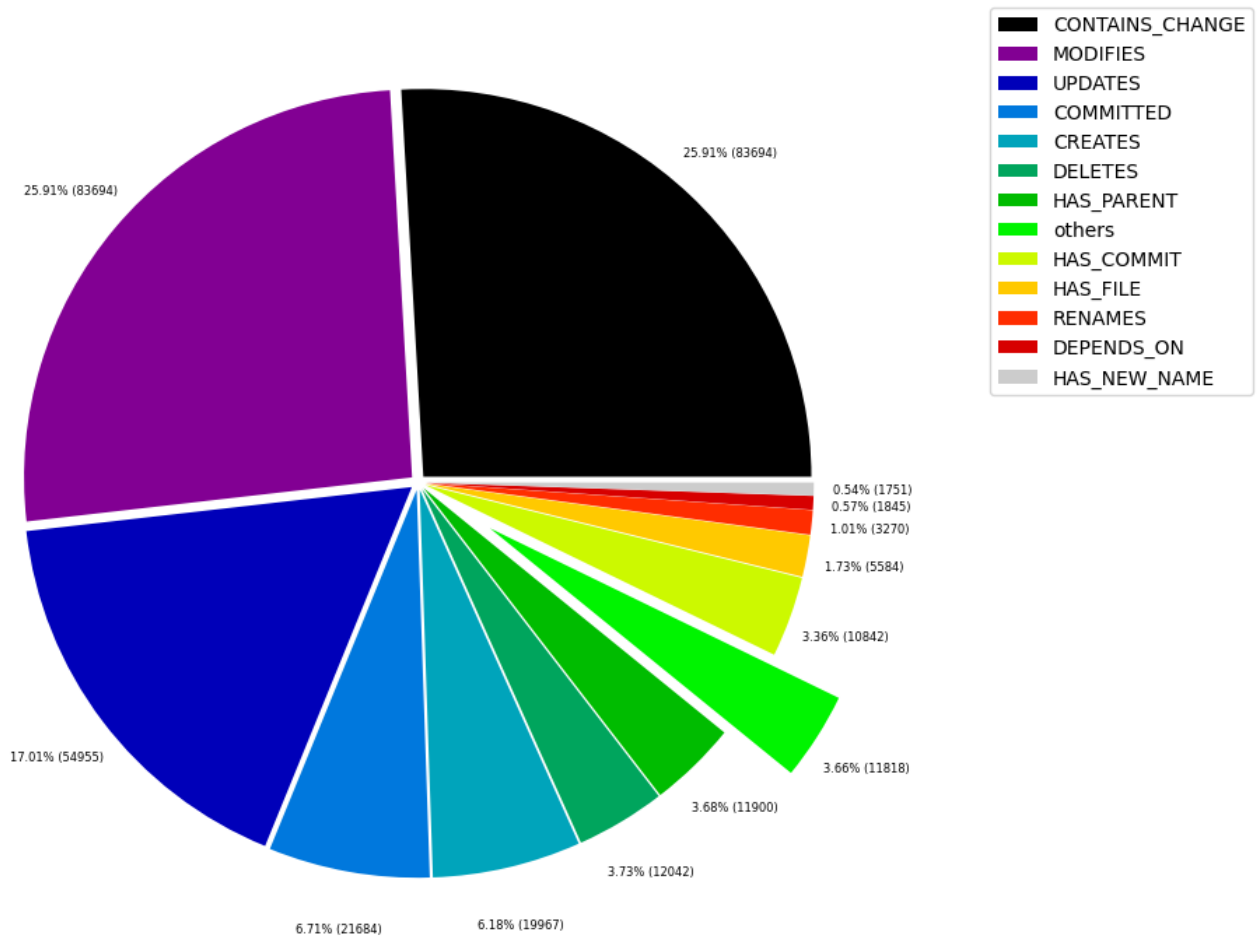


Table 2b - Lowest relationship count by type

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.

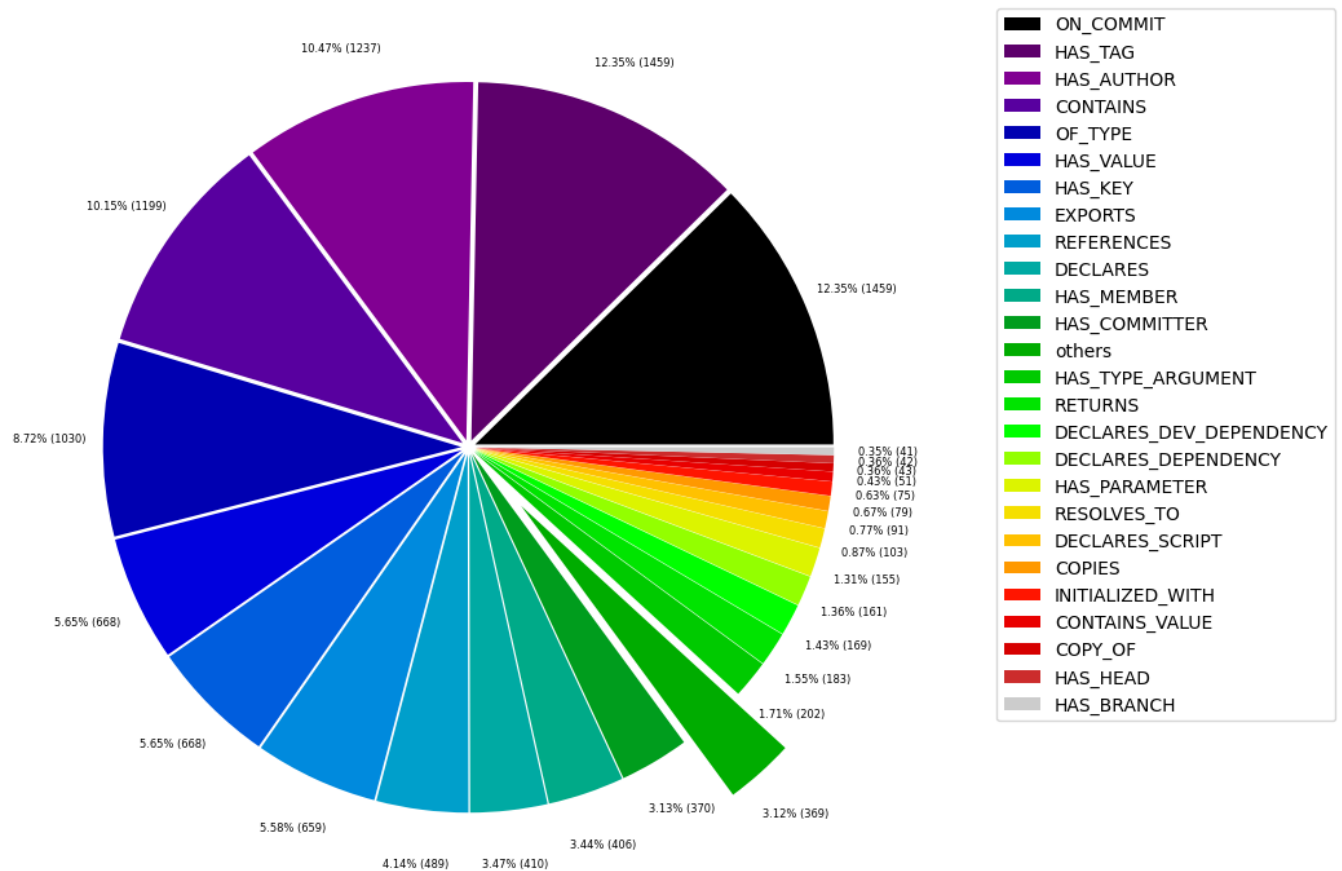
	relationshipType	nodesWithThatRelationshipType	nodesWithThatRelationshipTypePercent
0	HAS	1	0.000310
1	REFERENCED_PROJECTS	5	0.001548
2	DECLARES_ENGINE	6	0.001857
3	SIMILAR	8	0.002476
4	DECLARES_PEER_DEPENDENCY	8	0.002476
5	CONSTRAINED_BY	8	0.002476
6	EXTENDS	12	0.003715
7	PARENT	14	0.004334
8	MEMBER	14	0.004334
9	HAS_ARGUMENT	14	0.004334
10	CALLS	14	0.004334
11	INCLUDES_CONCEPT	19	0.005882
12	PROVIDED_BY_NPM_DEPENDENCY	20	0.006191
13	REQUIRES_CONCEPT	28	0.008667
14	CONTAINS_PROJECT	33	0.010215
15	HAS_CONFIG	33	0.010215
16	IS_DESCRIBED_IN_NPM_PACKAGE	33	0.010215
17	HAS_ROOT	33	0.010215
18	HAS_NPM_PACKAGE	33	0.010215
19	USES	33	0.010215
20	HAS_BRANCH	41	0.012692
21	HAS_HEAD	42	0.013001
22	COPY_OF	43	0.013311
23	CONTAINS_VALUE	51	0.015787
24	INITIALIZED_WITH	75	0.023217
25	COPIES	79	0.024455
26	DECLARES_SCRIPT	91	0.028169
27	RESOLVES_TO	103	0.031884
28	HAS_PARAMETER	155	0.047981
29	DECLARES_DEPENDENCY	161	0.049838

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]	83694	10842	
1	[Git, Change]	MODIFIES	[File, Git]	83694	83694	
2	[Git, Change]	UPDATES	[File, Git]	54955	83694	
3	[Git, Change]	CREATES	[File, Git]	19967	83694	
4	[Git, Change]	DELETES	[File, Git]	12042	83694	
5	[Git, Commit]	HAS_PARENT	[Git, Commit]	11900	10842	
6	[Repository, File, Git]	HAS_COMMIT	[Git, Commit]	10842	1	
7	[Author, Git, Person]	COMMITTED	[Git, Commit]	10842	1237	
8	[Committer, Git, Person]	COMMITTED	[Git, Commit]	10842	370	
9	[Repository, File, Git]	HAS_FILE	[File, Git]	5584	1	
10	[Git, Change]	RENAMES	[File, Git]	3270	83694	
11	[File, Git]	HAS_NEW_NAME	[File, Git]	1751	5584	
12	[Repository, File, Git]	HAS_TAG	[Git, Tag]	1459	1	
13	[Git, Tag]	ON_COMMIT	[Git, Commit]	1459	1459	
14	[Repository, File, Git]	HAS_AUTHOR	[Author, Git, Person]	1237	1	
15	[Json, Value, Object]	HAS_KEY	[Json, Key]	668	133	
16	[TS, Function]	DEPENDS_ON	[TS, ExternalDeclaration]	588	109	
17	[Json, Key]	HAS_VALUE	[Json, Value, Scalar]	552	668	
18	[TS, ExternalModule]	EXPORTS	[TS, ExternalDeclaration]	450	33	
19	[Repository, File, Git]	HAS_COMMITTER	[Committer, Git, Person]	370	1	
20	[Type, Object, TS]	HAS_MEMBER	[Type, TS, ObjectMember]	318	109	
21	[File, TS, Local, Module, Mark4ModuleWeaklyCon...	DEPENDS_ON	[TS, ExternalDeclaration]	312	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): 109241

total_number_of_relationships (edges): 323046

-> total directed graph density: 2.7070545627718645e-05

-> total directed graph density in percent: 0.0027070545627718647