



<https://github.com/PegaSysEng/eth2.0-dafny>

Data collected: 2020-06-17

Files	Folder	#LoC	Theorems	Implementations	Documentation	#Doc/#LoC (%)	Proved
BeaconChain.dfy	/src/dafny/beacon	12	0	0	64	533	0
ForkChoice.dfy	/src/dafny/beacon	188	3	12	106	56	15
StateTransition.dfy	/src/dafny/beacon	117	3	7	171	146	10
Validators.dfy	/src/dafny/beacon	9	0	0	47	522	0
Crypto.dfy	/src/dafny/beacon/helpers	5	0	1	3	60	1
Math.dfy	/src/dafny/beacon/helpers	89	6	1	22	25	0
MathHelper.dfy	/src/dafny/beacon/helpers/helper_lemmas	652	20	0	11	2	20
div.r.dfy	/src/dafny/libraries/real	21	3	0	0	0	3
mul.r.dfy	/src/dafny/libraries/real	9	1	0	0	0	1
Merkleise.dfy	/src/dafny/merkle	383	9	18	149	39	27
BitListSeDes.dfy	/src/dafny/ssz	250	7	3	63	25	10
BitVectorSeDes.dfy	/src/dafny/ssz	132	4	2	36	27	6
BoolSeDes.dfy	/src/dafny/ssz	18	0	2	3	17	2
BytesAndBits.dfy	/src/dafny/ssz	88	7	6	44	50	13
Constants.dfy	/src/dafny/ssz	86	0	0	23	27	0
IntSeDes.dfy	/src/dafny/ssz	128	2	2	20	16	4
Serialise.dfy	/src/dafny/ssz	268	3	5	31	12	8
DafTests.dfy	/src/dafny/utls	47	0	4	25	53	4
Eth2Types.dfy	/src/dafny/utls	162	4	4	71	44	8
Helpers.dfy	/src/dafny/utls	229	11	4	69	30	15
MathHelpers.dfy	/src/dafny/utls	185	10	3	31	17	13
NativeTypes.dfy	/src/dafny/utls	26	0	0	13	50	0
NonNativeTypes.dfy	/src/dafny/utls	6	0	0	6	100	0
SeqHelpers.dfy	/src/dafny/utls	38	6	0	12	32	6
Merkleise.test.dfy	/test/dafny/merkle	23	0	1	10	43	0
TestBitlistMerkleise.dfy	/test/dafny/merkle/third_party_implementations	66	0	7	16	24	7
TestBitvectorMerkleise.dfy	/test/dafny/merkle/third_party_implementations	59	0	7	18	31	7
TestBytesMerkleise.dfy	/test/dafny/merkle/third_party_implementations	52	0	6	17	33	6
TestListOfBytes32Merkleise.dfy	/test/dafny/merkle/third_party_implementations	97	2	8	36	37	10
TestListOfUint64Merkleise.dfy	/test/dafny/merkle/third_party_implementations	76	0	7	15	20	7
ThirdPartyMerkleisation.dfy	/test/dafny/merkle/third_party_implementations	16	0	5	0	0	5
BitListSeDes.tests.dfy	/test/dafny/ssz	14	0	1	7	50	1
UintSeDes.tests.dfy	/test/dafny/ssz	16	0	1	8	50	1
StringConversions.dfy	/test/dafny/test_utls	159	1	19	73	46	20
MathHelpers.tests.dfy	/test/dafny/utls	13	0	1	17	131	1
CommandLine.dfy	/test/lowlevel_modules	17	0	3	6	35	3
Rand.dfy	/test/lowlevel_modules	5	0	1	0	0	1
TOTAL		3761	102	141	1243	33	235

Folder	#Files	#LoC	Theorems	Implementations	Documentation	#Doc/#LoC (%)	Proved
/src/dafny/beam/helpers/helper_lemmas	7	1072	32	21	424	40	46
/src/dafny/beam/helpers/helper_lemmas	3	746	26	2	36	5	21
/src/dafny/beam/helpers/helper_lemmas	1	652	20	0	11	2	20
/src/dafny/libraries/reals	2	30	4	0	0	0	4
/src/dafny/merkle	1	383	9	18	149	39	27
/src/dafny/ssz	7	970	23	20	220	23	43
/src/dafny/utls	7	693	31	15	227	33	46
/test/dafny/merkle/third_party_implementations	7	389	2	41	112	29	42
/test/dafny/merkle/third_party_implementations	6	366	2	40	102	28	42
/test/dafny/ssz	2	30	0	2	15	50	2
/test/dafny/test_utls	1	159	1	19	73	46	20
/test/dafny/utls	1	13	0	1	17	131	1
/test/lowlevel_modules	2	22	0	4	6	27	4