

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

Data collected: 2020-09-17

Files	Folder	#LoC	Theorems	Implementations	Documentation	#Doc/#LoC (%)	Proved	
BeaconChain.dfy	/src/dafny/beacon	13	0	0	67	515	0	
ForkChoice.dfy	/src/dafny/beacon	194	3	12	127	65	15	
Helpers.dfy	/src/dafny/beacon	9	1	0	2	22	1	
StateTransition.dfy	/src/dafny/beacon	181	6	10	234	129	16	
Validators.dfy	/src/dafny/beacon	9	0	0	57	633	0	
Crypto.dfy	/src/dafny/beacon/helpers	5	0	1	3	60	1	
Math.dfy	/src/dafny/beacon/helpers	93	6	1	22	24	7	
MathHelper.dfy	/src/dafny/beacon/helpers/helper_lemmas	652	20	0	11	2	20	
div.r.dfy	/src/dafny/libraries/reals	21	3	0	0	0	3	
mul.r.dfy	/src/dafny/libraries/reals	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	20	0	2	3	15	2	
BytesAndBits.dfy	/src/dafny/ssz	88	7	6	44	50	13	
Constants.dfy	/src/dafny/ssz	87	0	0	23	26	0	
IntSeDes.dfy	/src/dafny/ssz	128	2	2	20	16	4	
Serialise.dfy	/src/dafny/ssz	252	3	5	36	14	8	
DafTests.dfy	/src/dafny/utils	47	0	4	25	53	4	
Eth2Types.dfy	/src/dafny/utils	155	4	3	81	52	7	
Helpers.dfy	/src/dafny/utils	229	11	4	69	30	15	
MathHelpers.dfy	/src/dafny/utils	185	10	3	31	17	13	
NativeTypes.dfy	/src/dafny/utils	26	0	0	13	50	0	
NonNativeTypes.dfy	/src/dafny/utils	6	0	0	6	100	0	
SeqHelpers.dfy	/src/dafny/utils	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	
TestVectorOfUInt64Merkleise.dfy	/test/dafny/merkle/third_party_implementations	69	0	7	13	19	7	
ThirdPartyMerkleisation.dfy	/test/dafny/merkle/third_party_implementations	19	0	6	0	0	6	
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_utils	159	1	19	73	46	20	
MathHelpers.tests.dfy	/test/dafny/utils	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	2	3897	106	151	1370	35	256

Folder	#Files	#LoC	Theorems	Implementations	Documentation	#Doc/#LoC (%)	Proved
/src/dafny/beacon/helpers/helper_lemmas	8	1156	36	24	523	45	60
/src/dafny/beacon/helpers/helper_lemmas	3	750	26	2	36	5	28
/src/dafny/beacon/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	957	23	20	225	24	43
/src/dafny/utils	7	686	31	14	237	35	45
/test/dafny/merkle/third_party_implementations	8	461	2	49	125	27	50
/test/dafny/merkle/third_party_implementations	7	438	2	48	115	26	50
/test/dafny/ssz	2	30	0	2	15	50	2
/test/dafny/test_utils	1	159	1	19	73	46	20
/test/dafny/utils	1	13	0	1	17	131	1
/test/lowlevel_modules	2	22	0	4	6	27	4