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1.10 assertj-core 2.6.0

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1.12 Batik AWT utilities 1.7

1.13 Batik CSS engine 1.7

1.14 Batik DOM implementation 1.7

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1.17 Batik utility library 1.7

1.18 Batik XML utility library 1.7

1.19 bcpkix-jdk15on 1.56

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1.20 Bean Validation API 1.1.0.Final

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1.21 Bouncy Castle 1.60

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The following organisations and people have contributed to the Bouncy Castle Cryptography Package.

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<p>

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Karsten Ohme <widerstand@t-online.de> - initial check against for out of range data on non byte aligned RSA keys. Addition of equals/hashCode on ECCurve.Fp. Additional curve type support for Fp, contributions to F2m compression. F2m decoding for ECPointUtil. Infinity fix and prime192v2 fix for Fp. Extra validation for RSA key creation. Fix to name typos for some OpenSSL key generators. RFC-1779 table, improved RFC 2253 compliance for X509Name. Additional constructor validation for X.509/ESS ASN.1 classes. Validation for Printable, IA5, and Numeric Strings. Support for surrogate pairs in DERUTF8String, DER UTF8 test. Additional X.509 name attributes for ISIS-MTT, RFC 3039, addition of indirect CRL support, initial X509 LDAP CertStore implementation, CertificatePair class, and X509CertificatePair class. Contributions to X509Store/Parser infrastructure and design. CertPath support for implicit DSA parameters and a range of NameConstraints. Addition of support for V1 attribute certificates and attribute certificate path validation. Initial classes for ASN.1 ISIS-MTT support. Enhancements for improving compliance with the NIST CertPath tests.

Carlos Lozano Ruiz <carlos@tradise.com> - patch for <ctrl><m> only handling in CRLFOutputStream.

John Alfred Prufrock <j.a.prufrock@gmail.com> - mods to GOST-3411 and MD2 to support ExtendedDigest.

Stefan Neusatz Guilhen <sneusatz@gmail.com> - initial version of RoleSyntax, improvements to AttributeCertificateHolder and AttributeCertificateIssuer.

Marzio Lo Giudice <marzio.logiudice@gmail.com> - fix to endianness in KDF2BytesGenerator, additional KDF2 tests.

Georg Lippold <georg.lippold@gmx.de> - initial implementation of NaccacheStern cipher.

Chris Viles <chris_viles@yahoo.com> - fix to SignatureSubpacket critical bit setting.

Pasi Eronen <Pasi.Eronen@nokia.com> - extra toString() support for ASN.1 library. Initial patch for large OID components.

Lijun Liao <https://github.com/xipki> performance enhancements for SHA family of digests. Bug report and patch for blank line handling in ArmoredInputStream. Addition of getSignatureAlgorithmID to BasicOCSPResp. Reset fix for SM2 signatures, performance improvements for SHA-3. Clean up of CMP EncryptedValueBuilder, additional functionality on PollReqContent.

Maria Ivanova <maria.ivanova@gmail.com> - support for tags > 30 in ASN.1 parsing.

Armin Häberling <arminha@student.ethz.ch> - first cut of internationalisation, initial PKIX validation classes.

Marius Schilder <mschilder@google.com> - main set of test vectors for Bleichenbacher's forgery attack.

Xavier Le Vouch <xavier@brittanysoftware.com> - general code clean ups.

Erik Tews <e_tews@cdc.informatik.tu-darmstadt.de> - initial threaded random seed generator, constant-time PKCS#1.5 decoding

Thomas Dixon <reikomusha@gmail.com> - initial implementations of TEA/XTEA, Salsa20, ISAAC, and Noekeon. XTEA enhancements.

Frank Cornelis <info@frankcornelis.be>- addition of crlAccessMethod in X509ObjectIdentifiers.

Rui Joaquim <rjoaquim@cc.isel.ipl.pt> - initial implementation of RSA blinding for signatures.

David Stacey <DStacey@allantgroup.com> - addition of trust packet checking on revocation signatures in PGPSecretKeyRing.

Martijn Brinkers <list@mitm.nl> - better exception handling in CMS enveloping, "just in time" modifications for CRL and Sequence evaluation.

Julius Davies <juliusdavies@gmail.com> - additional modes and algorithm support in PEMReader

- Matthias <g@rtner.de> - GnuPG compatibility changes for PBEFileProcessor.
- Olga Küthler <olga.kaethler@hjp-consulting.com> - initial implementation of TeleTrusT EC curves, additional ISO 9797 MACs, contributions to EAC OIDs, addition of EAC algorithms to CMS Signing.
- Germano Rizzo <germano.rizzo@gmail.com> - initial implementation of CMac, EAX, HC-128, and HC-256, optimisations for Salsa20.
- Núria Maríate; <numaa@hotmail.com> - patch for alternate data type recognition in CMSSignedDataParser.
- Janis Schuller <js@tzi.de> - addition of NotationData packets for OpenPGP.
- Michael Samblanet <mike@samblanet.com> - patches towards improved Sun/default provider support in CMS.
- Mike StJohns <mstjohns@comcast.net> - patches for supporting empty subject in X.509 certificate generation, noneWithECDSA, updates to KeyPurposeId.
- Ramon Keller <ramon.keller@gm.ch> - patch to deal with null revocations return from other CRL in X509V2CRLGenerator.
- Mark Nelson <mark@nbr.com> - correction to excluded DN in name constraints processing for PKIX processing.
- Eugene Golushkov <eugene_gff@ukr.net> - mask fix to single byte read in TlsInputStream.
- Julien Pasquier <julienpasquier@free.fr> - additional classes for supporting signature policy and signer certificates in the ASN.1 esf and ess libraries.
- Peter Knopp <pknopp@mtg.de> - fix for named curve recognition in ECGOST key generation.
- Jakub Gwozdz <gwozdz@rpg.pl> - addition of getTsa() to TimeStampTokenInfo.
- Bartosz Malkowski <balkow@tigase.org> - initial implementation of VMPC cipher, VMPCRandomGenerator, VMPCMac.
- Tal Yacobi <tal.yacobi@octavian-tech.com> - fix for issue in OpenPGP examples [#BJA-55].
- Massimiliano Ziccardi <massimiliano.ziccardi@gmail.com> - support for counter signature reading in CMS API, update for multiple counter signature attributes.
- Andrey Pavlenko <andrey.a.pavlenko@gmail.com> - security manager patch for PKCS1Encoding property check.
- J Ross Nicoll <jrn@jrn.me.uk> - improved exception handling for getInstance() in ASN.1 library.
- Matthew Stevenson <mavricknz@yahoo.com> - patch to construtor for CRMF CertSequence.
- Gabriele Contini <gcontini@hotpop.com> - identified a bug in ASN.1 library with handling of unterminated NDEF's.
- Roelof Naude <roelof.naude@epiuse.com> - patch for TLS client to send empty client certs in response to HP_CERTIFICATE_REQUEST.
- Patrick Peck <peck@signaturen.at> - identified problem with DERApplicationSpecific and high tag numbers in ASN.1 library.
- Michael LeMay <lemaymd@lemaymd.com> - identified problem with EAX [#BJA-93].
- Alex Dupre <ale@FreeBSD.org> - fix to use of Signature rather than SignatureSpi in provider [#BJA-90]. Addition of null provider use to SignedPublicKeyAndChallenge and PKCS10CertificationRequest [#BJA-102]
- Michael Schoene <michael@sigrid-und-michael.de> - fix of improper handling of null in ExtendedPKIXParameters.setTrustedACIssuers(), check for V2 signingCertificate attribute in TimeStampResponse.validate().
- Ion Larrañaga <ilarra@s21sec.com> fix to default partial packet generation in BCPGOutputStream.
- Bob Kerns <bob.kerns@positscience.com> fix to hashCode for X509CertificateObject.
- Stefan Meyer <stefan.meyer@ewe.de> backport for PKIXCertPathValidotor and SMIMESignedMailReviewer.
- Robert J. Moore <Robert.J.Moore@allanbank.com> speedups for OpenPGPCFB mode, clean room JCE

patches.

- Rui Hodai <ruirui@ntts.co.jp> speed ups for Camellia implementation, CamelliaLightEngine.
- Emir Bucalovic <emir.bucalovic@gmail.com> initial implementation of Grain-v1 and Grain-128.
- Torbjorn Svensson <tobbe79@gmail.com> initial implementation of Grain-v1 and Grain-128.
- Paul FitzPatrick <bouncycastle_pfitz@fitzpatrick.cc> error message fix to X509LDAPCertStoreSpi, comparison fix to BCStrictStyle.
- Henrik Andersson <k.henrik.andersson@gmail.com> addition of UniqueIssuerID to certificate generation.
- Cagdas Cirit <cagdascirit@gmail.com> subjectAlternativeName fix for x509CertStoreSelector.
- Harakiri <harakiri_23@yahoo.com> datahandler patch for attached parts in SMIME signatures.
- Pedro Henriques <pmahenriques@gmail.com> explicit bounds checking for DESKeyGenerator, code simplification for OAEP encoding.
- Lothar Kimmeringer <job@kimmeringer.de> verbose mode for ASN1Dump, support for DERExternal.
- Richard Farr <rfarr.se@gmail.com> initial SRP-6a implementation.
- Thomas Castiglione <castiglione@au.ibm.com> patch to encoding for CRMF OptionalValidity.
- Elisabetta Romani <eromani@soegi.it> patch for recognising multiple counter signatures.
- Robin Lundgren <r737lundgren@gmail.com> CMPCertificate constructor from X509CertificateStructure fix.
- Petr Kadlec <mormegil@centrum.cz> fix to sign extension key and IV problem in HC-128, HC-256.
- Andreas Antener <antener_a@gmx.ch> fix to buffer reset in AsymmetricBufferedBlockCipher.
- Harendra Rawat <hsrawat@yahoo.com> fix for BERConstructedOctetString.
- Rolf Lindemann <lindemann@trustcenter.de> patch for PKCS12 key store to support more flexible attribute specifications [#BMA-42].
- Alex Artamonov <alexart.home@gmail.com> name look up patch for GOST-2001 parameters.
- Mike Lyons <mlyons@layer7tech.com> work arounds for EC JDK bug 6738532 and JSSE EC naming conventions.
- Chris Cole <chris_h_cole@yahoo.com> identified a problem handling null passwords when loading a BKS keystore.
- Tomas Krivanek <tom@atack.cz> added checking of Sender header to SignedMailValidator.
- Michael <emfau@t-online.de> correction of field error in getResponse method in CertRepMessage.
- Trevor Perrin <trevor@cryptography.com> addition of constant time equals to avoid possible timing attacks.
- Markus Kilvinger <markus@primekey.se> several enhancements to TimeStampResponseGenerator.
- Dario Novakovic <darionis@yahoo.com> fix for NPE when checking revocation reason on CRL without extensions.
- Michael Smith <msmith@cbnco.com> bug fixes and enhancements to the CMP and CRMF classes, initial Master List classes.
- Andrea Zilio <andrea.zilio@gmail.com> fix for PEM password encryption of private keys.
- Alex Birkett <alex@birkett.co.uk> added support for EC cipher suites in TLS client (RFC 4492) [#BJA-291].
- Wayne Grant <waynedgrant@gmail.com> additional OIDs for PKCS10 and certificate generation support.
- Frank Cornelis <info@frankcornelis.be> additional support classes for CADES, enhancements to OCSP classes.
- Jan Dittberner <jan@dittberner.info> addHeader patch for SMIME generator.
- Bob McGowan <boab.mcgoo@btinternet.com> patch to support different object and mgf digests in PSS signing.

- Ivo Matheis <i.matheis@seeburger.de> fix to padding verification in ISO-9796-1.
- Marco Sandrini <nessche@gmail.com> patch to add IV to ISO9797Alg3Mac.
- Alf Malf <alfmalf@hotmail.com> removal of unnecessary limit in CMSContentInfoParser.
- Alfonso Massa <alfonso.massa@insiel.it> contributions to CMS time stamp classes.
- Giacomo Boccardo <gboccardo@unimaticspa.it> initial work on CMSTimeStampedDataParser.
- Arnis Tartu <arnis@ut.ee> patches for dealing with OIDs with specific key sizes associated in CMS.
- Janusz Sikocinski <J.Sikocinski@gdzie.pl> addition of Features subpacket support to OpenPGP API.
- Juri Hudolejev <jhudolejev@gmail.com> JavaDoc fix to CMSSignedDataParser.
- Liane Velten <liane.velten@hjp-consulting.com> fine tuning of code for DHParameters validation.
- Shawn Willden <swillden@google.com> additional functionality to PGPKKeyRing.
- Atanas Krachev <akrachev@gmail.com> added support for revocation signatures in OpenPGP.
- Mickael Laiking <mickael.laiking@keynectis.com> initial cut of EAC classes.
- Tim Buktu <tbuktu@hotmail.com> Initial implementation of NTRU signing and encryption.
- Bernd <rbernd@gmail.com> Fix for open of PGP literal data stream with UTF-8 naming.
- Steing Inge Morisbak <stein.inge.morisbak@BEKK.no> Test code for lower case Hex data in PEM headers.
- Andreas Schmid <andreas.schmid@tngtech.com> Additional expiry time check in PGPPublicKeys.
- Phil Steitz <phil.steitz@gmail.com> Final patch eliminating JCE dependencies in the OpenPGP BC classes.
- Ignat Korchagin <ignat.korchagin@gmail.com> Initial implementation of DSTU-4145-2002, long hash fix for DSTU-4145-2002.
- Petar Petrov <p.petrov@bers-soft.com> Testing and debugging of UTF-8 OpenPGP passwords.
- Daniel Fitzpatrick <daniel.f.nwr@gmail.com> Initial implementation of ephemeral key support for IES, initial implementations of RSA-KEM and ECIES-KEM, initial implementation of homogeneous projective coordinates for EC.
- Andy Neilson <Andy.Neilson@quest.com>a further patches to deal with multiple providers and PEMReader.
- Ted Shaw <xiao.xj@gmail.com> patch to MiscPEMGenerator for handling new PKCS10CertificationRequests.
- Eleriseth <Eleriseth@WPECGLtYbVi8Rl6Y7VzLvd2EUVW99v3yNV3IWROG8.fms> speed up for SIC/CTR mode. Provider compatibility generalisations for EC operations.
- Kenny Root <kenny@the-b.org> patch for issuerAltName, subjectAltName support in X509CertificateObject, BaseBlockCipher.getIV() patch for AEAD.
- Maarten Bodewes <maarten.bodewes@gmail.com> initial implementation of HKDF and NIST SP 800-108 MAC based KDF functions.
- Philip Clay <pilf_b@yahoo.com> Initial implementation of J-PAKE.
- Brian Carlstrom <bdc@carlstrom.com> compliance patches for some JCA/JCE keystore and cipher classes, miscellaneous code quality improvements, initial provider PBKDF2WithHmacSHA1 SecretKeyFactory.
- Samuel Lidén Borell <samuel@primekey.se> patch to add DSTU-4145 to DefaultSignatureAlgorithmFinder
- Sergio Demian Lerner <sergiolerner@certimix.com> pointing out isInfinity issue in ECDSASigner signature verification.
- Tim Whittington <Tim.Whittington@orionhealth.com> patch to remove extra init call in CMac, additional of Memoable interface for Digest classes, initial implementation of GMAC, further correctness tests for IV and reset processing in OCB, CCM, and block cipher reset. Initial implementation of Skein, XSalsa20, ChaCha, reduced round Salsa20, Threefish, and the Poly1305 MAC. Documentation updates. Added OCB support to Noekeon and CAST6 in the provider, exception testing for CTS, optimisations for CCM, provider support for AAD cipher methods, safe CipherInput/OutputStream implementations for use with AAD and subsequent bug fixes, cleanup

after IDEA patent expiry, work on JCE SipHash support, optimisations for AESFastEngine, further work on EncodableDigest for SHA-2 digests, contributions to BCrypt/OpenBSDBCrypt, PGP API documentation and code quality work.

- Marcus Lundblad <marcus.lundblad@primekey.se> patch for working around JDK jarsigner TSP bug, optional setting of IssuerSerial in TimeStampTokenGenerator, additional extensions enhancement for time stamp token generation.
- Andrey Zhozhin <zhozhin@xrm.ru> patch for override of TSP SignerInfo attributes.
- Sergey Tiunov <t5555d@gmail.com> initial cut of DVCS classes.
- Damian Kolasa <fatfredyy@gmail.com> ASN1Sequence patch for class cast issue in X9Curve.
- Ash Hughes <ashley.hughes@blueyonder.co.uk> patches for supporting PGPSecretKeyRing/PGPSecretKeys encodings with empty private keys, initial code for PGPSignatureSubpacketVector.getEmbeddedSignatures().
- Daniel Hirscher <dev@daniel-hirscher.de> patch to support parsing of explicit EC parameters in PEM files.
- Daniele Ricci <daniele.athome@gmail.com> initial implementation of EC keys for OpenPGP and RFC6637 support.
- Matti Aarnio <matti.aarnio@methics.fi> tweaks to any build to remove dependence on shell scripts. Initial SM3 digest implementation, some EC related code cleanups, JavaDoc improvements for ASN.1 classes.
- Babak Najafi <bnajafi@akamai.com> fixes to OpenPGP NotationData to prevent truncation problems.
- Eric Mueller <eric.mueller@sage.de> additional standard algorithm name lookups in JcaPEMKeyConverter.
- Mathias Herberts <Mathias.Herberts@gmail.com> fix to inOff usage in RFC3394WrapEngine.
- Daniil Ivanov <daniil.ivanov@gmail.com> addition of provider support for GOST HMAC SecretKeyFactory.
- Daniele Grasso <daniele.grasso86@gmail.com> contributions to final Key calculation code for SRP6.
- Andrey Utkin <cindrhc@gmail.com> patch to reconstruction of ECGOST keys from PrivateKeyInfo objects in provider classes.
- Arnis Tartu <arnis@ut.ee> checker for generated key vs OID in JceCMSContentEncryptorBuilder.
- Axel VDB <axel-vdb@riseup.net> initial implementation of Shacal2.
- Roberto Tyley <> further work on completing gradle build.
- Waldemar Dick <wdick@devmue.de> code improvement in x500 ASN.1 package.
- Sid Steward <sid.steward@pdfllabs.com> code improvements to ASN1Boolean.
- Alex Klyubin <klyubin@google.com> AlgorithmParameters check for EC key agreement.
- Jonathan Gillett <gsoc.student@gmail.com> Initial support for block cipher IVs in IESEngine, IES MAC length check bug fix.
- Andreas Reiter <andreas.reiter@iaik.tugraz.at> Reported incomplete status of CertificateVerify processing in (D)TLS server, and provided fix.
- Kieran Miller <kieran.miller@gmail.com> initial implementation for RFC 5649 key wrap with padding.
- Oliver Ehli <ehli@arago.de> Additional support for BSI plain ECDSA in the provider.
- Daniel Heldt <Daniel.Heldt@cryptovision.com> Initial support for encodable state message digests
- Robert Bushman <bouncycastle@traxel.com> Clean up of DirectKeySignature example.
- Maurice Aarts <aarts@riscure.com> updated to KDF generator to follow NIST SP 800-108.
- Franziskus Kiefer <https://github.com/franziskuskiefer> initial implementation of Cramer-Shoup.
- KB Sriram <mail_kb@yahoo.com> testing for odd encodings for PGP User Attribute Subpackets.
- Marco Schulze <marco@nightlabs.de> Reported verification bug in GenericSigner.
- Martin Schaefer <https://github.com/martinschaefer> contributed a code-cleanup patch.
- dstutz <https://github.com/dstutz> added iteration count setters to PKCS#12 PBE mac/key generator

builders.

Tobias Wich<tobias.wich@ecsec.de> Provided patch for TLS to work around servers sending Supported Elliptic Curves extension unexpectedly.

Hauke Mehrrens<hauke@hauke-m.de> TLS patch to add ECDHE_ECDSA CCM ciphersuites from RFC 7251.

Daniel Zimmerman<dmz@galois.com> Further key quality improvements to RSAKeyPairGenerator.

Jens Kapitza<j.kapitza@schwarze-allianz.de> Iterable support in OpenPGP API, code cleanup in OpenPGP API.

Johan Eklund<johan@primekey.se> update to RFC 6960 for OCSPObjectIdentifiers.

nikosn<https://github.com/nikosn> Fix to encoding of EC private keys to ensure encoding matches order length.

Axel von dem Bruch <axel-vdb@riseup.net> Contributions to BCrypt/OpenBSDBCrypt, original version of Blake2bDigest.

Derek Atkins <derek@ihtfp.com> Documentation fixes to X9ObjectIdentifiers.

Peter Jr Halicky <peto@halicky.sk> Correction to notification/error message handling in SignedMailValidator.

IartiguePierre<https://github.com/IartiguePierre> Fix for counter signature SID in CMSSignedData.

Thomas Belot<thomas.belot+BC@gmail.com> initial CertPathLoopTest for demonstrating stack overflow issue.

Rich DiCroce<https://github.com/rdicroce> Initial implementation of server-side TLS-SRP support. TLS API extension to support non-blocking usage.

Björn Kautler<https://github.com/Vampire> Refinements to cert path validation (authority key addition, certificate order preservation).

Dominik Schürmann<https://github.com/dschuermann> method for returning signatures/verifications without user IDs on PGPPublicKey, method for exposing S2K in PGPSecretKey, constants for GNU protection modes in S2K classes, optional version header for armored output.

Michael <MSKnete@web.de> initial fix for bitStrength issue for OpenPGP EC keys.

Tobias Wagner <tobias.wagner@n-design.de> Fix SecureRandom handling in BcAsymmetricKeyWrapper [#BJA-536].

Sergio Giro <sgiro@google.com> Fixed adding of additional stores from CRL distribution point [#BJA-537]. Fixed missing null check for CRL certificate issuer [#BJA-538], removal of risky zeroisation code in PBE.java, check for salt in PBEKeys that require it.

bschuette<https://github.com/bschuette> Fixed typo in DefaultSignatureAlgorithmIdentifierFinder, additional methods on CMSSignedDataParser.

Leonard Dallot<https://github.com/dallotTazTag> Fix to S2K usage of none on changing passwords on keys without passwords originally.

Jan Willem Janssen <j.w.janssen@bouncycastle.org> Support for DSAParameters in lightweight SubjectPublicKeyInfoFactory, initial object signer verifier for BC lightweight EC.

Sebastian Oerding <sebastian.oerding@robotron.de> Fixes to toString() in x509.CertificatePolicies.

Kai Kramer <kai.kramer@gmail.com> Code to deal with orphaned chain certificates in the PKCS#12 KeyStore.

Benoit Charles <benoit.charles@opentrust.com> Fix for IES data length check on decryption.

Niko <nfink95@gmail.com> fix to cast issue in getOutputSize() for ECIES.

akwizgran<https://github.com/akwizgran> Fixed clone of key in Blake2bDigest copy constructor, blake2b reset issue for variant keys.

Matthias Edelhoff <Matthias.Edelhoff@cryptovision.com> BasicConstraintsValidation pathlen fix in PKIX certpath classes.

Lukasz Deputat <lukasz.deputat@gmail.com> Fixed bugs in TlsUtils read methods [#BJA-592].

Justin Ludwig <<https://github.com/justinludwig>> Iterator fix for PGPObjFactory to handle stream packets at start of iterated data.

Andr e Berenguel <<https://github.com/aberenguel>> Fix to include ECNamedCurveSpec in EC AlgorithmParameterSpi

Slawomir Jaranowski<<https://github.com/slawekjaranowski>> Patch to make cipher/hash/signature name methods in PGP internal API public.

Andrey Vasilyev<<https://github.com/andrey-vasilyev>> Initial implementation of GOST R 34.11-2012.

William Glanton <wglanton77@gmail.com> Fixed bug in Poly1305 [#BJA-620].

jdvorak001<<https://github.com/jdvorak001>> Speed improvements for ASN.1 ObjectIdentifier cache.

Joseph Naegele <jnaegele@gmail.com> Patch for handling multiple certificates in a DANE SMIMEA entry.

Andrew Bonventre<<https://github.com/andybons>> NullPointer patch for WNAFUtil.

The Google Security Team (Project Wycheproof) <<https://github.com/google/wycheproof>> defect analysis and additional test cases for the provider.

Gorka Irazoqui <girazoki@wpi.edu> from Intel Security Center of Excellence <<https://security-center.intel.com/>> detection of the issue with AESFastEngine (CVE-2016-1000339), additional suggestions for improvement to hardening of AESEngine and finding cache sensitivities in EC key generation/signing.

Joerg Senekowitsch <joerg.senekowitsch@veridos.com> patch to deal with hard coded boolean in EAC ECDSAPublicKey.

Alexandr Krivoshta <wipe@ya.ru> N4 calculation fix to GOFB mode.

Artem Storozhuk <storojs72@gmail.com> N4 calculation fix to GOFB mode.

Na Yu <na.yu@samsung.com> Constructor patches to CMC PKIData.

Evangelos Karatsiolis <ekaratsiolis@mtg.de> Corrected use of explicit tagging in X.509 PolicyConstraints class.

VivleSoren <<https://github.com/VivleSoren>> additional constructor for McElieceCCA2PrivateKeyParameters.

mtausig <<https://github.com/mtausig>> JavaDoc fix for MCSEncryptedDataGenerator.

Anders Schack-Mulligen <<https://github.com/aschackmull>> code cleanups for CMSSignedDataParser, BrokenKDF2BytesGenerator.

Sebastian Wolfgang Roland <sebastianwolfgang.roland@stud.tu-darmstadt.de> Initial XMSS/XMSS-MT implementation.

didisoft <<https://github.com/didisoft>> test code for PGP signature removal involving user ids.

Mike Safonov<<https://github.com/MikeSafonov>> initial implementation of GOST3410-2012 for light weight provider and JCA, parameters patches for ECGOST keys, initial implementation of GOST3412-2015.

Artem Storozhuk <storojs72@gmail.com> initial implementation of DSTU7564 (digest) and DSTU7624 (cipher) and their associated modes.

Andreas Glaser <andreas.glaser@gi-de.com> patch to recognise ANSSI curves for PKCS#10 requests.

codeborne <<https://github.com/cbcp>> patch to correct OIDs used in public key digest parameters for ECGOST-2012.

FauxFaux <<https://github.com/FauxFaux>> patch for JDK 1.9 update to DRBG.java.

4garbage <<https://github.com/4garbage>> patch to allow GOST3410-94 private keys encoded as integers.

ekszz <<https://github.com/ekszz>> corrections to SM2 signer to include default identity value.

jminer <<https://github.com/jminer>> fix to Blake2b for hashes in range of 2**64-127 to 2**64.

str4d <<https://github.com/str4d>> initial implementation of Blake2s

Scott Woodward <scott@bit3consulting.com> performance fixes for CTRSP800DRBG.

David Strawn <<https://github.com/isomarcte>> fix for off by one error in SCRYPT bounds checking.

chris mccown <0xchrismccown@gmail.com> identification of serialisation issue with XMSS/XMSSMT private keys (see also CVE-2018-1000613).

- ZZMarquis <<https://github.com/ZZMarquis>> offset patch for SM2 decrypt.
- Andreas Kretschmer <<https://github.com/Akretsch>> NPE fix for CertTemplate.getVersion().
- Armin Lunkeit, Michael Tautenhahn <> identification of M-R test issue on higher certainty values in RSA key pair generation.
- Vincent Breitmoser <<https://github.com/Valodim>> fix to ignore unnecessary checksum calculator on PGP secret key encryption.
- Adam Vartanian <<https://github.com/flooy>> use of ShortBuffer exception and buffer size pre-check in Cipher.doFinal().
- Bernd <<https://github.com/ecki>> Fix to make PGPUtil.pipeFileContents use buffer and not leak file handle.
- Shartung <<https://github.com/shartung>> Additional EC Key Agreement algorithms in support of German BSI TR-03111.
- Paul Schaub <<https://github.com/vanitasvitae>> bringing PGPSecretKey.getUserIds() into line with PGPPublicKey.getUserIds(). Exception message fix in BcPublicKeyDataDecryptorFactory. Additional tests on PGP key ring generation.
- Nick of Nexxar <<https://github.com/nros>> update to OpenPGP package to handle a broader range of EC curves.
- catbref <<https://github.com/catbref>> sample implementation of RFC 7748/Ed25519 (incorporated work from github users Valodim and str4d as well).
- gerlion <<https://github.com/gerlion>> detection of concurrency issue with pre-1.60 EC math library.
- fgrieu <fgrieu@gmail.com> identification and suggested fixes for possible timing vulnerability in OAEP encoding and RSACoreEngine.
- MTG <<https://github.com/mtgag>> patch for decoding issues in PKIPublicationInfo and CertifiedKeyPair.

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1.22 Bouncy Castle PKIX, CMS, EAC, TSP, PKCS, OCSP, CMP, And CRMF APIs 1.60

1.23 Bouncy Castle Provider 1.60

1.24 classmate 1.3.3

1.24.1 Available under license :

Java ClassMate library was originally written by Tatu Saloranta (tatu.saloranta@iki.fi)

Other developers who have contributed code are:

* Brian Langel

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1.25 cloning 1.9.0

1.25.1 Available under license :

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1.32 consul-api 1.2.2

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1.33 core-image 1.3.6

1.34 core-tool 1.3.6

1.35 dom4j 1.6.1

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1.36 faces 1.3.6

1.37 FaceTracker 1.3.6

1.38 findbugs-annotations 3.0.1

1.39 freemarker 2.3.28

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1.40 geronimo-stax-api_1.0_spec 1.0

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1.41 grizzly-http 2.3.25

1.41.1 Available under license :

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1.42 gson 2.8.2

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1.44 HdrHistogram 2.1.9

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```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1">
<meta name="description" content="Home page of The Apache Software Foundation">

<link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
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<link rel="manifest" href="/favicons/manifest.json">
<link rel="shortcut icon" href="/favicons/favicon.ico">
<meta name="msapplication-TileColor" content="#603cba">
<meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
<meta name="msapplication-config" content="/favicons/browserconfig.xml">
<meta name="theme-color" content="#303284">

<title>Apache License, Version 2.0</title>
<link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
rel='stylesheet' type='text/css'>
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```
</head>

<body>
<!-- Navigation -->
<header>
<nav class="navbar navbar-default navbar-fixed-top">
  <div class="container">
    <div class="navbar-header">
      <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
        <span class="sr-only">Toggle navigation</span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
    </div>
    <div class="collapse navbar-collapse" id="mainnav-collapse">
      <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo;&nbsp;&lt;a
href="/licenses/">Licenses</a></div>
      <ul class="nav navbar-nav navbar-right">
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="/foundation">Overview</a></li>
            <li><a href="/foundation/members.html">Members</a></li>
            <li><a href="/foundation/how-it-works.html">Process</a></li>
            <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
            <li><a href="/foundation/glossary.html">Glossary</a></li>
            <li><a href="/foundation/preFAQ.html">FAQ</a></li>
            <li><a href="/foundation/contact.html ">Contact</a></li>
          </ul>
        </li>
        <li><a href="/index.html#projects-list">Projects</a></li>
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="http://people.apache.org/">Overview</a></li>
            <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
            <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
            <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
            <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
        </li>
      </ul>
    </div>
  </div>
</nav>
</header>
</body>
</html>
```

```

</li>
<li class="dropdown">
  <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
class="caret"></span></a>
  <ul class="dropdown-menu" role="menu">
    <li><a href="/foundation/getinvolved.html">Overview</a></li>
    <li><a href="http://community.apache.org/">Community Development</a></li>
    <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
    <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
  </ul>
</li>
<li><a href="/dyn/closer.cgi">Download</a></li>
<li class="dropdown">
  <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
  <ul class="dropdown-menu" role="menu">
    <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
    <li><a href="/foundation/contributing.html">Donations</a></li>
    <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
    <li><a href="/foundation/thanks.html">Thanks</a></li>
  </ul>
</li>
</ul>
</div>
</nav>
</header>
<!-- / Navigation -->
<div class="container">
<div class="row">
  <div class="col-md-6 col-sm-5 col-xs-12">
    
  </div>
  <div class="col-md-3 col-sm-3 col-xs-6">
    <a href="http://apache.org/foundation/contributing.html" title="Support Apache">
      
    </a>
  </div>
  <div class="col-md-3 col-sm-4 col-xs-6">
    <div class="input-group" style="margin-bottom: 5px;">
      <script>
(function() {
var cx = '005703438322411770421:5mgshgrgx2u';
var gcse = document.createElement('script');
gcse.type = 'text/javascript';
gcse.async = true;
gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +

```

```

    //cse.google.com/cse.js?cx=' + cx;
    var s = document.getElementsByTagName('script')[0];
    s.parentNode.insertBefore(gcse, s);
  })();
</script>
  <gcse:searchbox-only></gcse:searchbox-only>
</div>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
  <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
</div>
</div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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```
</pre></div></div>
```

```
<!-- Footer -->
```

```
<footer class="bg-primary">
<div class="container">
  <div class="row">
    <br />
    <div class="col-sm-1">

    </div>
    <div class="col-sm-2">
      <h5 class="white">Community</h5>
      <ul class="list-unstyled white" role="menu">
        <li><a href="http://community.apache.org/">Overview</a></li>
        <li><a href="/foundation/conferences.html">Conferences</a></li>
        <li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
        <li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
        <li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
        <li><a href="/travel/">Travel Assistance</a></li>
        <li><a href="/foundation/getinvolved.html">Get Involved</a></li>
        <li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
        <li><a href="/memorials/">Memorials</a></li>
      </ul>
    </div>

    <div class="col-sm-2">
      <h5 class="white">Innovation</h5>
      <ul class="list-unstyled white" role="menu">
        <li><a href="http://incubator.apache.org/">Incubator</a></li>
        <li><a href="http://labs.apache.org/">Labs</a></li>
        <li><a href="/licenses/">Licensing</a></li>
        <li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
        <li><a href="/foundation/marks/">Trademark Policy</a></li>
        <li><a href="/foundation/contact.html">Contacts</a></li>
      </ul>
    </div>
```



```
<div class="col-sm-2">
  <h5 class="white">Tech Operations</h5>
  <ul class="list-unstyled white" role="menu">
    <li><a href="/dev/">Developer Information</a></li>
    <li><a href="/dev/infrastructure.html">Infrastructure</a></li>
    <li><a href="/security/">Security</a></li>
    <li><a href="http://status.apache.org">Status</a></li>
    <li><a href="/foundation/contact.html">Contacts</a></li>
  </ul>
</div>
```

```
<div class="col-sm-2">
  <h5 class="white">Press</h5>
  <ul class="list-unstyled white" role="menu">
    <li><a href="/press/">Overview</a></li>
    <li><a href="https://blogs.apache.org/">ASF News</a></li>
    <li><a href="https://blogs.apache.org/foundation/">Announcements</a></li>
    <li><a href="https://twitter.com/TheASF">Twitter Feed</a></li>
    <li><a href="/press/#contact">Contacts</a></li>
  </ul>
</div>
```

```
<div class="col-sm-2">
  <h5 class="white">Legal</h5>
  <ul class="list-unstyled white" role="menu">
    <li><a href="/legal/">Legal Affairs</a></li>
    <li><a href="/licenses/">Licenses</a></li>
    <li><a href="/foundation/marks/">Trademark Policy</a></li>
    <li><a href="/foundation/records/">Public Records</a></li>
    <li><a href="/foundation/policies/privacy.html">Privacy Policy</a></li>
    <li><a href="/licenses/exports/">Export Information</a></li>
    <li><a href="/foundation/license-faq.html">License/Distribution FAQ</a></li>
    <li><a href="/foundation/contact.html">Contacts</a></li>
  </ul>
</div>
```

```
<div class="col-sm-1">
</div>
```

```
</div>
```

```
<hr class="col-lg-12 hr-white" />
```

```
<div class="row">
```

```
<div class="col-lg-12">
```

```
<p class="text-center">Copyright &#169; 2017 The Apache Software Foundation, Licensed under the <a
class="white" href="http://www.apache.org/licenses/LICENSE-2.0">Apache License, Version 2.0</a>.</p>
```

```
<p class="text-center">Apache and the Apache feather logo are trademarks of The Apache Software
Foundation.</p>
```

```
</div>
```

```
</div>
</div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

1.45 HikariCP 2.7.0

1.46 httpcore 4.4.6

1.46.1 Available under license :

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1.47 httpcore-nio 4.4.6

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1.51 image-processing 1.3.6

1.52 influxdb-java 2.9

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1.62 javax.ws.rs-api 2.1

1.63 jblas 1.2.4

1.64 jboss-logging 3.3.2.Final

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1.65 JCL 1.1.1 implemented over SLF4J 1.7.7

1.66 JCommon 1.0.16

1.66.1 Available under license :

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1.67 jedis 2.9.0

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1.68 Jetty Utilities 6.1.22

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1.69 joda-time 2.9.9

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1.70 JUL to SLF4J bridge 1.7.7

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```
cat jul-to-slf4j-1.7.7-sources/org/slf4j/bridge/SLF4JBridgeHandler.java
/**
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 */
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1.72 klt-tracker 1.3.6

1.73 kotlin-stdlib 1.2.40

1.74 kotlin-stdlib-jdk8 1.2.40

1.75 libtensorflow 1.8.0

1.76 libtensorflow_jni 1.8.0

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path: "tensorflow.errors.PermissionDeniedError"

tf_class {

is_instance: "<class \'tensorflow.python.framework.errors_impl.PermissionDeniedError\'>"

is_instance: "<class \'tensorflow.python.framework.errors_impl.OpError\'>"

is_instance: "<type \'exceptions.Exception\'>"

member {

name: "args"

mtype: "<type \'getset_descriptor\'>"

}

member {

name: "error_code"

```

    mtype: "<type \'property\'>"
  }
  member {
    name: "message"
    mtype: "<type \'property\'>"
  }
  member {
    name: "node_def"
    mtype: "<type \'property\'>"
  }
  member {
    name: "op"
    mtype: "<type \'property\'>"
  }
  member_method {
    name: "__init__"
    argspec: "args=[\'self\', \'node_def\', \'op\', \'message\'], varargs=None, keywords=None, defaults=None"
  }
}

```

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For example, with most compilers, you could add this to your project

```
CXXFLAGS: -DEIGEN_MPL2_ONLY
```

This will cause a compilation error to be generated if you #include any code that is LGPL licensed.

Following applies to:

- ./test/mapstaticmethods.cpp
- ./test/schur_real.cpp
- ./test/prec_inverse_4x4.cpp
- ./test/smallvectors.cpp
- ./test/redux.cpp
- ./test/special_numbers.cpp
- ./test/adjoint.cpp
- ./test/resize.cpp
- ./test/mixingtypes.cpp
- ./test/product_trmv.cpp
- ./test/sparse_solvers.cpp
- ./test/cholesky.cpp
- ./test/geo_quaternion.cpp
- ./test/miscmatrices.cpp
- ./test/stddeque.cpp
- ./test/integer_types.cpp
- ./test/product_large.cpp
- ./test/eigensolver_generic.cpp
- ./test/householder.cpp
- ./test/geo_orthomethods.cpp
- ./test/array_for_matrix.cpp
- ./test/sparseLM.cpp
- ./test/upperbidiagonalization.cpp
- ./test/nomalloc.cpp
- ./test/packetmath.cpp
- ./test/jacobisvd.cpp
- ./test/geo_transformations.cpp
- ./test/swap.cpp
- ./test/eigensolver_selfadjoint.cpp
- ./test/inverse.cpp
- ./test/product_selfadjoint.cpp
- ./test/product_trsolve.cpp
- ./test/product_extra.cpp
- ./test/sparse_solver.h
- ./test/mapstride.cpp
- ./test/mapped_matrix.cpp
- ./test/geo_eulerangles.cpp

./test/eigen2support.cpp
./test/denseLM.cpp
./test/stdvector.cpp
./test/nesting_ops.cpp
./test/sparse_permutations.cpp
./test/zerosized.cpp
./test/exceptions.cpp
./test/vectorwiseop.cpp
./test/cwiseop.cpp
./test/basicstuff.cpp
./test/product_trmm.cpp
./test/linearstructure.cpp
./test/sparse_product.cpp
./test/stdvector_overload.cpp
./test/stable_norm.cpp
./test/umeyama.cpp
./test/unalignedcount.cpp
./test/triangular.cpp
./test/product_mmtr.cpp
./test/sparse_basic.cpp
./test/sparse_vector.cpp
./test/meta.cpp
./test/real_qz.cpp
./test/ref.cpp
./test/eigensolver_complex.cpp
./test/cholmod_support.cpp
./test/conjugate_gradient.cpp
./test/sparse.h
./test/simplicial_cholesky.cpp
./test/bicgstab.cpp
./test/dynalloc.cpp
./test/product_notemporary.cpp
./test/geo_hyperplane.cpp
./test/lu.cpp
./test/qr.cpp
./test/hessenberg.cpp
./test/sizeof.cpp
./test/main.h
./test/selfadjoint.cpp
./test/permutationmatrices.cpp
./test/superlu_support.cpp
./test/qtvector.cpp
./test/geo_homogeneous.cpp
./test/determinant.cpp
./test/array_reverse.cpp
./test/unalignedassert.cpp
./test/stdlist.cpp
./test/product_symm.cpp

./test/corners.cpp
./test/dontalign.cpp
./test/visitor.cpp
./test/geo_alignedbox.cpp
./test/diagonalmatrices.cpp
./test/product_small.cpp
./test/eigensolver_generalized_real.cpp
./test/umfpack_support.cpp
./test/first_aligned.cpp
./test/qr_fullpivoting.cpp
./test/array_replicate.cpp
./test/geo_parametrizedline.cpp
./test/eigen2/eigen2_unalignedassert.cpp
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./test/eigen2/eigen2_geometry_with_eigen2_prefix.cpp
./test/eigen2/eigen2_smallvectors.cpp
./test/eigen2/eigen2_commainitializer.cpp
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./test/eigen2/eigen2_inverse.cpp
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./Eigen/src/StlSupport/StdVector.h
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`./Eigen/src/plugins/MatrixCwiseUnaryOps.h`
`./Eigen/src/plugins/MatrixCwiseBinaryOps.h`
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`./test/sparselu.cpp`
`./unsupported/test/mpreal/mpreal.h`
`./unsupported/Eigen/src/IterativeSolvers/IterationController.h`
`./unsupported/Eigen/src/IterativeSolvers/ConstrainedConjGrad.h`
`./unsupported/Eigen/src/Eigenvalues/ArpackSelfAdjointEigenSolver.h`
`./Eigen/src/OrderingMethods/Amd.h`
`./Eigen/src/SparseCholesky/SimplicialCholesky_impl.h`

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Version 3, 29 June 2007

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`./unsupported/Eigen/src/LevenbergMarquardt/LMonestep.h`

./unsupported/Eigen/src/LevenbergMarquardt/LMpar.h
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- */

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in src/main/native/src/org/apache/hadoop/util:

```
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```

For src/main/native/src/org/apache/hadoop/io/compress/lz4/lz4.c:

```
/*
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* Author:
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 * the properties of the two independent implementations.
 *

* The primary goals of this implementation are portability and ease of use.
 * It is meant to be fast, but not as fast as possible. Some known
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- */

For portions of the native implementation of slicing-by-8 CRC calculation
in src/main/native/src/org/apache/hadoop/util:

```
/**
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 */
```

For src/main/native/src/org/apache/hadoop/io/compress/lz4/lz4.c:

```
/*
LZ4 - Fast LZ compression algorithm
Copyright (C) 2011, Yann Collet.
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```

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```
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```

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Following applies to:

`./test/mapstaticmethods.cpp`

`./test/schur_real.cpp`

./test/prec_inverse_4x4.cpp
./test/smallvectors.cpp
./test/redux.cpp
./test/special_numbers.cpp
./test/adjoint.cpp
./test/resize.cpp
./test/mixingtypes.cpp
./test/product_trmv.cpp
./test/sparse_solvers.cpp
./test/cholesky.cpp
./test/geo_quaternion.cpp
./test/miscmatrices.cpp
./test/stddeque.cpp
./test/integer_types.cpp
./test/product_large.cpp
./test/eigensolver_generic.cpp
./test/householder.cpp
./test/geo_orthomethods.cpp
./test/array_for_matrix.cpp
./test/sparseLM.cpp
./test/upperbidiagonalization.cpp
./test/nomalloc.cpp
./test/packetmath.cpp
./test/jacobisvd.cpp
./test/geo_transformations.cpp
./test/swap.cpp
./test/eigensolver_selfadjoint.cpp
./test/inverse.cpp
./test/product_selfadjoint.cpp
./test/product_trsolve.cpp
./test/product_extra.cpp
./test/sparse_solver.h
./test/mapstride.cpp
./test/mapped_matrix.cpp
./test/geo_eulerangles.cpp
./test/eigen2support.cpp
./test/denseLM.cpp
./test/stdvector.cpp
./test/nesting_ops.cpp
./test/sparse_permutations.cpp
./test/zerosized.cpp
./test/exceptions.cpp
./test/vectorwiseop.cpp
./test/cwiseop.cpp
./test/basicstuff.cpp
./test/product_trmm.cpp
./test/linearstructure.cpp
./test/sparse_product.cpp

./test/stdvector_overload.cpp
./test/stable_norm.cpp
./test/umeyama.cpp
./test/unalignedcount.cpp
./test/triangular.cpp
./test/product_mmtr.cpp
./test/sparse_basic.cpp
./test/sparse_vector.cpp
./test/meta.cpp
./test/real_qz.cpp
./test/ref.cpp
./test/eigensolver_complex.cpp
./test/cholmod_support.cpp
./test/conjugate_gradient.cpp
./test/sparse.h
./test/simplicial_cholesky.cpp
./test/bicgstab.cpp
./test/dynalloc.cpp
./test/product_notemporary.cpp
./test/geo_hyperplane.cpp
./test/lu.cpp
./test/qr.cpp
./test/hessenberg.cpp
./test/sizeof.cpp
./test/main.h
./test/selfadjoint.cpp
./test/permutationmatrices.cpp
./test/superlu_support.cpp
./test/qtvector.cpp
./test/geo_homogeneous.cpp
./test/determinant.cpp
./test/array_reverse.cpp
./test/unalignedassert.cpp
./test/stdlist.cpp
./test/product_symm.cpp
./test/corners.cpp
./test/dontalign.cpp
./test/visitor.cpp
./test/geo_alignedbox.cpp
./test/diagonalmatrices.cpp
./test/product_small.cpp
./test/eigensolver_generalized_real.cpp
./test/umfpack_support.cpp
./test/first_aligned.cpp
./test/qr_fullpivoting.cpp
./test/array_replicate.cpp
./test/geo_parametrizedline.cpp
./test/eigen2/eigen2_unalignedassert.cpp

./test/eigen2/eigen2_prec_inverse_4x4.cpp
./test/eigen2/eigen2_alignedbox.cpp
./test/eigen2/eigen2_sparse_product.cpp
./test/eigen2/eigen2_meta.cpp
./test/eigen2/eigen2_nomalloc.cpp
./test/eigen2/eigen2_visitor.cpp
./test/eigen2/eigen2_packetmath.cpp
./test/eigen2/eigen2_svd.cpp
./test/eigen2/eigen2_mixingtypes.cpp
./test/eigen2/eigen2_qr.cpp
./test/eigen2/eigen2_cwiseop.cpp
./test/eigen2/eigen2_geometry_with_eigen2_prefix.cpp
./test/eigen2/eigen2_smallvectors.cpp
./test/eigen2/eigen2_commainitializer.cpp
./test/eigen2/eigen2_sparse_solvers.cpp
./test/eigen2/eigen2_hyperplane.cpp
./test/eigen2/eigen2_eigensolver.cpp
./test/eigen2/eigen2_linearstructure.cpp
./test/eigen2/eigen2_sizeof.cpp
./test/eigen2/eigen2_parametrizedline.cpp
./test/eigen2/eigen2_lu.cpp
./test/eigen2/eigen2_adjoint.cpp
./test/eigen2/eigen2_geometry.cpp
./test/eigen2/eigen2_stdvector.cpp
./test/eigen2/eigen2_newstdvector.cpp
./test/eigen2/eigen2_submatrices.cpp
./test/eigen2/sparse.h
./test/eigen2/eigen2_swap.cpp
./test/eigen2/eigen2_triangular.cpp
./test/eigen2/eigen2_basicstuff.cpp
./test/eigen2/gsl_helper.h
./test/eigen2/eigen2_dynalloc.cpp
./test/eigen2/eigen2_array.cpp
./test/eigen2/eigen2_map.cpp
./test/eigen2/main.h
./test/eigen2/eigen2_misctrices.cpp
./test/eigen2/eigen2_product_large.cpp
./test/eigen2/eigen2_first_aligned.cpp
./test/eigen2/eigen2_cholesky.cpp
./test/eigen2/eigen2_determinant.cpp
./test/eigen2/eigen2_sum.cpp
./test/eigen2/eigen2_inverse.cpp
./test/eigen2/eigen2_regression.cpp
./test/eigen2/eigen2_product_small.cpp
./test/eigen2/eigen2_qtvector.cpp
./test/eigen2/eigen2_sparse_vector.cpp
./test/eigen2/product.h
./test/eigen2/eigen2_sparse_basic.cpp

./test/eigen2/eigen2_bug_132.cpp
./test/array.cpp
./test/product_syrk.cpp
./test/commainitializer.cpp
./test/conservative_resize.cpp
./test/qr_colpivoting.cpp
./test/nullary.cpp
./test/bandmatrix.cpp
./test/pastix_support.cpp
./test/product.h
./test/block.cpp
./test/vectorization_logic.cpp
./test/jacobi.cpp
./test/diagonal.cpp
./test/schur_complex.cpp
./test/sizeoverflow.cpp
./bench/BenchTimer.h
./bench/benchFFT.cpp
./bench/eig33.cpp
./bench/spbench/spbenchsolver.h
./bench/spbench/spbenchstyle.h
./lapack/complex_double.cpp
./lapack/cholesky.cpp
./lapack/lapack_common.h
./lapack/eigenvalues.cpp
./lapack/single.cpp
./lapack/lu.cpp
./lapack/complex_single.cpp
./lapack/double.cpp
./demos/mix_eigen_and_c/binary_library.cpp
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./debug/gdb/printers.py
./unsupported/test/minres.cpp
./unsupported/test/openglsupport.cpp
./unsupported/test/jacobisvd.cpp

./unsupported/test/dgmres.cpp
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./unsupported/Eigen/src/IterativeSolvers/GMRES.h
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./Eigen/src/SparseCore/SparseProduct.h
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./Eigen/src/SparseCore/SparseBlock.h
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./Eigen/src/SparseCore/SparseFuzzy.h
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./Eigen/src/SparseCore/SparseRedux.h
./Eigen/src/SparseCore/SparsePermutation.h
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./Eigen/src/Eigenvalues/GeneralizedEigenSolver.h
./Eigen/src/Eigenvalues/ComplexSchur.h
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./Eigen/src/Eigenvalues/HessenbergDecomposition.h
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```
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./unsupported/Eigen/src/IterativeSolvers/ConstrainedConjGrad.h
./unsupported/Eigen/src/Eigenvalues/ArpackSelfAdjointEigenSolver.h
./Eigen/src/OrderingMethods/Amd.h
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Version 3, 29 June 2007

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```
path: "tensorflow.errors.PermissionDeniedError"
```

```
tf_class {
```

```
  is_instance: "<class \'tensorflow.python.framework.errors_impl.PermissionDeniedError\'>"
```

```
  is_instance: "<class \'tensorflow.python.framework.errors_impl.OpError\'>"
```

```
  is_instance: "<type \'exceptions.Exception\'>"
```

```
  member {
```

```
    name: "args"
```

```
    mtype: "<type \'getset_descriptor\'>"
```

```
  }
```

```
  member {
```

```
    name: "error_code"
```

```
    mtype: "<type \'property\'>"
```

```
  }
```

```
  member {
```

```
    name: "message"
```

```
    mtype: "<type \'property\'>"
```

```
  }
```

```
  member {
```

```
    name: "node_def"
```

```
    mtype: "<type \'property\'>"
```

```
  }
```

```
  member {
```

```
    name: "op"
```

```
    mtype: "<type \'property\'>"
```

```
  }
```

```
  member_method {
```

```
    name: "__init__"
```

```
    argspec: "args=[\'self\', \'node_def\', \'op\', \'message\'], varargs=None, keywords=None, defaults=None"
```

```
  }
```

```
}
```

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1.94 postgresql 9.4.1212.jre7

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1.95 QDox 1.12.1

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1.96 ReflectASM 1.07

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1.97 reflections 0.9.11

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1.98 rxjava 1.1.10

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1.99 slf4j-api 1.7.7

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 */
package org.slf4j;

import org.slf4j.helpers.BasicMarkerFactory;
import org.slf4j.helpers.Util;
import org.slf4j.impl.StaticMarkerBinder;

/**
 * MarkerFactory is a utility class producing { @link Marker } instances as
 * appropriate for the logging system currently in use.
 *
 * <p>
 * This class is essentially implemented as a wrapper around an
 * { @link IMarkerFactory } instance bound at compile time.
```



```

*
* <p>
* Please note that all methods in this class are static.
*
* @author Ceki G&uuml;lc&uuml;l;
*/
public class MarkerFactory {
    static IMarkerFactory markerFactory;

    private MarkerFactory() {
    }

    static {
        try {
            markerFactory = StaticMarkerBinder.SINGLETON.getMarkerFactory();
        } catch (NoClassDefFoundError e) {
            markerFactory = new BasicMarkerFactory();

        } catch (Exception e) {
            // we should never get here
            Util.report("Unexpected failure while binding MarkerFactory", e);
        }
    }

    /**
     * Return a Marker instance as specified by the name parameter using the
     * previously bound { @link IMarkerFactory }instance.
     *
     * @param name
     *     The name of the { @link Marker } object to return.
     * @return marker
     */
    public static Marker getMarker(String name) {
        return markerFactory.getMarker(name);
    }

    /**
     * Create a marker which is detached (even at birth) from the MarkerFactory.
     *
     * @param name the name of the marker
     * @return a dangling marker
     * @since 1.5.1
     */
    public static Marker getDetachedMarker(String name) {
        return markerFactory.getDetachedMarker(name);
    }

    /**

```

```
* Return the {@link IMarkerFactory}instance in use.  
*  
* <p>The IMarkerFactory instance is usually bound with this class at  
* compile time.  
*  
* @return the IMarkerFactory instance in use  
*/  
public static IMarkerFactory getIMarkerFactory() {  
    return markerFactory;  
}  
}
```

1.100 spring-aop 4.3.16.RELEASE

1.101 spring-boot 1.4.3.RELEASE

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1.102 spring-boot-configuration-processor 1.5.12.RELEASE

1.103 spring-boot-configuration-processor 1.4.7.RELEASE

1.104 spring-boot-starter-jdbc 1.5.12.RELEASE

1.105 spring-boot-starter-logging

1.4.3.RELEASE

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1.106 spring-boot-starter-test

1.5.12.RELEASE

1.107 spring-cloud-commons 1.2.2.RELEASE

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1.108 spring-cloud-consul-config

1.2.1.RELEASE

1.108.1 Available under license :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta name="description" content="Home page of The Apache Software Foundation">

  <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
  <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
  <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
  <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
  <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
  <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
  <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
  <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
  <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
  <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
  <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
  <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
  <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
  <link rel="manifest" href="/favicons/manifest.json">
  <link rel="shortcut icon" href="/favicons/favicon.ico">
  <meta name="msapplication-TileColor" content="#603cba">
  <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
  <meta name="msapplication-config" content="/favicons/browserconfig.xml">
  <meta name="theme-color" content="#303284">

  <title>Apache License, Version 2.0</title>
  <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
rel='stylesheet' type='text/css'>
  <link href="/css/min.bootstrap.css" rel="stylesheet">
  <link href="/css/styles.css" rel="stylesheet">

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See the License for the specific language governing permissions and limitations under the License. -->

</head>
```

```

<body>
<!-- Navigation -->
<header>
<nav class="navbar navbar-default navbar-fixed-top">
  <div class="container">
    <div class="navbar-header">
      <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
        <span class="sr-only">Toggle navigation</span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
    </div>
    <div class="collapse navbar-collapse" id="mainnav-collapse">
      <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo;&nbsp;&lt;a href="/licenses/">Licenses</a></div>
      <ul class="nav navbar-nav navbar-right">
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="/foundation">Overview</a></li>
            <li><a href="/foundation/members.html">Members</a></li>
            <li><a href="/foundation/how-it-works.html">Process</a></li>
            <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
            <li><a href="/foundation/glossary.html">Glossary</a></li>
            <li><a href="/foundation/preFAQ.html">FAQ</a></li>
            <li><a href="/foundation/contact.html">Contact</a></li>
          </ul>
        </li>
        <li><a href="/index.html#projects-list">Projects</a></li>
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="http://people.apache.org/">Overview</a></li>
            <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
            <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
            <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
            <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
        </li>
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="/foundation/getinvolved.html">Overview</a></li>
            <li><a href="http://community.apache.org/">Community Development</a></li>
            <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
          </ul>
        </li>
      </ul>
    </div>
  </div>
</nav>

```

```

    <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
  </ul>
</li>
  <li><a href="/dyn/closer.cgi">Download</a></li>
  <li class="dropdown">
    <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
    <ul class="dropdown-menu" role="menu">
      <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
      <li><a href="/foundation/contributing.html">Donations</a></li>
      <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
      <li><a href="/foundation/thanks.html">Thanks</a></li>
    </ul>
  </li>
</ul>
</div>
</div>
</nav>
</header>
<!-- / Navigation -->
<div class="container">
  <div class="row">
    <div class="col-md-6 col-sm-5 col-xs-12">
      
    </div>
    <div class="col-md-3 col-sm-3 col-xs-6">
      <a href="http://apache.org/foundation/contributing.html" title="Support Apache">
        
      </a>
    </div>
    <div class="col-md-3 col-sm-4 col-xs-6">
      <div class="input-group" style="margin-bottom: 5px;">
        <script>
(function() {
var cx = '005703438322411770421:5mgshgrgx2u';
var gcse = document.createElement('script');
gcse.type = 'text/javascript';
gcse.async = true;
gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
  '//cse.google.com/cse.js?cx=' + cx;
var s = document.getElementsByTagName('script')[0];
s.parentNode.insertBefore(gcse, s);
})();
</script>
      <gcse:searchbox-only></gcse:searchbox-only>
    </div>
    <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>

```

```

    <a role="button" class="btn btn-block btn-default btn-xs"
href="https://community.apache.org/contributors/">Contribute</a>
    <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
  </div>
</div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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```
</pre></div></div>
```

```
<!-- Footer -->
```

```
<footer class="bg-primary">
```

```
<div class="container">
```

```
<div class="row">
```

```
<br />
```

```
<div class="col-sm-1">
```

```
</div>
```

```
<div class="col-sm-2">
```

```
<h5 class="white">Community</h5>
```

```
<ul class="list-unstyled white" role="menu">
```

```
<li><a href="http://community.apache.org/">Overview</a></li>
```

```
<li><a href="/foundation/conferences.html">Conferences</a></li>
```

```
<li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
```

```
<li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
```

```
<li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
```

```
<li><a href="/travel/">Travel Assistance</a></li>
```

```
<li><a href="/foundation/getinvolved.html">Get Involved</a></li>
```

```
<li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
```

```
<li><a href="/memorials/">Memorials</a></li>
```

```
</ul>
```

```
</div>
```

```
<div class="col-sm-2">
```

```
<h5 class="white">Innovation</h5>
```

```
<ul class="list-unstyled white" role="menu">
```

```
<li><a href="http://incubator.apache.org/">Incubator</a></li>
```

```
<li><a href="http://labs.apache.org/">Labs</a></li>
```

```
<li><a href="/licenses/">Licensing</a></li>
```

```
<li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
```

```
<li><a href="/foundation/marks/">Trademark Policy</a></li>
```

```
<li><a href="/foundation/contact.html">Contacts</a></li>
```

```
</ul>
```

```
</div>
```

```
<div class="col-sm-2">
```

```
<h5 class="white">Tech Operations</h5>
```

```
<ul class="list-unstyled white" role="menu">
```

```
<li><a href="/dev/">Developer Information</a></li>
```

```
<li><a href="/dev/infrastructure.html">Infrastructure</a></li>
```

```
<li><a href="/security/">Security</a></li>
```

```
<li><a href="http://status.apache.org">Status</a></li>
```

```
<li><a href="/foundation/contact.html">Contacts</a></li>
```


</div>

<div class="col-sm-2">

<h5 class="white">Press</h5>

<ul class="list-unstyled white" role="menu">

Overview

ASF News

Announcements

Twitter Feed

Contacts

</div>

<div class="col-sm-2">

<h5 class="white">Legal</h5>

<ul class="list-unstyled white" role="menu">

Legal Affairs

Licenses

Trademark Policy

Public Records

Privacy Policy

Export Information

License/Distribution FAQ

Contacts

</div>

<div class="col-sm-1">

</div>

</div>

<hr class="col-lg-12 hr-white" />

<div class="row">

<div class="col-lg-12">

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</div>

</div>

</div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>

```
<script src="/js/bootstrap.js"></script>
</body>
</html>
```

1.109 spring-cloud-consul-core

1.2.1.RELEASE

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1.110 spring-cloud-context 1.2.2.RELEASE

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1.111 spring-cloud-starter-consul

1.2.1.RELEASE

1.111.1 Available under license :

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <meta name="description" content="Home page of The Apache Software Foundation">

  <link rel="apple-touch-icon" sizes="57x57" href="/favicons/apple-touch-icon-57x57.png">
  <link rel="apple-touch-icon" sizes="60x60" href="/favicons/apple-touch-icon-60x60.png">
  <link rel="apple-touch-icon" sizes="72x72" href="/favicons/apple-touch-icon-72x72.png">
  <link rel="apple-touch-icon" sizes="76x76" href="/favicons/apple-touch-icon-76x76.png">
  <link rel="apple-touch-icon" sizes="114x114" href="/favicons/apple-touch-icon-114x114.png">
  <link rel="apple-touch-icon" sizes="120x120" href="/favicons/apple-touch-icon-120x120.png">
  <link rel="apple-touch-icon" sizes="144x144" href="/favicons/apple-touch-icon-144x144.png">
  <link rel="apple-touch-icon" sizes="152x152" href="/favicons/apple-touch-icon-152x152.png">
  <link rel="apple-touch-icon" sizes="180x180" href="/favicons/apple-touch-icon-180x180.png">
  <link rel="icon" type="image/png" href="/favicons/favicon-32x32.png" sizes="32x32">
  <link rel="icon" type="image/png" href="/favicons/favicon-194x194.png" sizes="194x194">
  <link rel="icon" type="image/png" href="/favicons/favicon-96x96.png" sizes="96x96">
  <link rel="icon" type="image/png" href="/favicons/android-chrome-192x192.png" sizes="192x192">
  <link rel="icon" type="image/png" href="/favicons/favicon-16x16.png" sizes="16x16">
  <link rel="manifest" href="/favicons/manifest.json">
  <link rel="shortcut icon" href="/favicons/favicon.ico">
  <meta name="msapplication-TileColor" content="#603cba">
  <meta name="msapplication-TileImage" content="/favicons/mstile-144x144.png">
  <meta name="msapplication-config" content="/favicons/browserconfig.xml">
  <meta name="theme-color" content="#303284">

  <title>Apache License, Version 2.0</title>
  <link href='https://fonts.googleapis.com/css?family=Source+Sans+Pro:400,700%7cDroid+Serif:400,700'
rel='stylesheet' type='text/css'>
  <link href="/css/min.bootstrap.css" rel="stylesheet">
  <link href="/css/styles.css" rel="stylesheet">
```

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```
</head>

<body>
<!-- Navigation -->
<header>
<nav class="navbar navbar-default navbar-fixed-top">
  <div class="container">
    <div class="navbar-header">
      <button class="navbar-toggle" type="button" data-toggle="collapse" data-target="#mainnav-collapse">
        <span class="sr-only">Toggle navigation</span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
      </button>
      <a href="#" class="navbar-brand"><span class="glyphicon glyphicon-home"></span></a>
    </div>
    <div class="collapse navbar-collapse" id="mainnav-collapse">
      <div style="line-height:20px; padding-top:5px; float:left"><a href="/">Home</a>&nbsp;&raquo;&nbsp;&nbsp;<a href="/licenses/">Licenses</a></div>
      <ul class="nav navbar-nav navbar-right">
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">About <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="/foundation">Overview</a></li>
            <li><a href="/foundation/members.html">Members</a></li>
            <li><a href="/foundation/how-it-works.html">Process</a></li>
            <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
            <li><a href="/foundation/glossary.html">Glossary</a></li>
            <li><a href="/foundation/preFAQ.html">FAQ</a></li>
            <li><a href="/foundation/contact.html">Contact</a></li>
          </ul>
        </li>
        <li><a href="/index.html#projects-list">Projects</a></li>
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">People <span class="caret"></span></a>
          <ul class="dropdown-menu" role="menu">
            <li><a href="http://people.apache.org/">Overview</a></li>
            <li><a href="http://people.apache.org/committer-index.html">Committers</a></li>
            <li><a href="/foundation/how-it-works.html#meritocracy">Meritocracy</a></li>
            <li><a href="/foundation/how-it-works.html#roles">Roles</a></li>
            <li><a href="http://planet.apache.org/">Planet Apache</a></li>
          </ul>
        </li>
        <li class="dropdown">
          <a href="#" class="dropdown-toggle" data-toggle="dropdown">Get Involved <span
```

```

class="caret"></span></a>
  <ul class="dropdown-menu" role="menu">
    <li><a href="/foundation/getinvolved.html">Overview</a></li>
    <li><a href="http://community.apache.org/">Community Development</a></li>
      <li><a href="http://helpwanted.apache.org/">Help Wanted</a></li>
    <li><a href="http://www.apachecon.com/">ApacheCon</a></li>
  </ul>
</li>
<li><a href="/dyn/closer.cgi">Download</a></li>
<li class="dropdown">
  <a href="#" class="dropdown-toggle" data-toggle="dropdown">Support Apache <span
class="caret"></span></a>
  <ul class="dropdown-menu" role="menu">
    <li><a href="/foundation/sponsorship.html">Sponsorship</a></li>
    <li><a href="/foundation/contributing.html">Donations</a></li>
    <li><a href="/foundation/buy_stuff.html">Buy Stuff</a></li>
    <li><a href="/foundation/thanks.html">Thanks</a></li>
  </ul>
</li>
</ul>
</div>
</div>
</nav>
</header>
<!-- / Navigation -->
<div class="container">
<div class="row">
  <div class="col-md-9 col-sm-8 col-xs-12">
    
  </div>
  <div class="col-md-3 col-sm-4 col-xs-12">
    <div class="input-group" style="margin-bottom: 5px;">
      <script>
(function() {
var cx = '005703438322411770421:5mgshgrgx2u';
var gcse = document.createElement('script');
gcse.type = 'text/javascript';
gcse.async = true;
gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:') +
  '//cse.google.com/cse.js?cx=' + cx;
var s = document.getElementsByTagName('script')[0];
s.parentNode.insertBefore(gcse, s);
})();
</script>
<gcse:searchbox-only></gcse:searchbox-only>
</div>
<a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/governance/">The Apache Way</a>
<a role="button" class="btn btn-block btn-default btn-xs"

```

```

href="https://community.apache.org/contributors/">Contribute</a>
  <a role="button" class="btn btn-block btn-default btn-xs" href="/foundation/thanks.html">ASF Sponsors</a>
</div>
</div>
</div>
<div class="container"><style type="text/css">
/* The following code is added by mdx_elementid.py
  It was originally lifted from http://subversion.apache.org/style/site.css */
/*
* Hide class="elementid-permalink", except when an enclosing heading
* has the :hover property.
*/
.headerlink, .elementid-permalink {
  visibility: hidden;
}
h2:hover > .headerlink, h3:hover > .headerlink, h1:hover > .headerlink, h6:hover > .headerlink, h4:hover >
.headerlink, h5:hover > .headerlink, dt:hover > .elementid-permalink { visibility: visible }</style>
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```
</pre></div></div>
```

```
<!-- Footer -->
```

```
<footer class="bg-primary">
```

```
<div class="container">
```

```
<div class="row">
```

```
<br />
```

```
<div class="col-sm-1">
```

```
</div>
```

```
<div class="col-sm-2">
```

```
<h5 class="white">Community</h5>
```

```
<ul class="list-unstyled white" role="menu">
```

```
<li><a href="http://community.apache.org/">Overview</a></li>
```

```
<li><a href="/foundation/conferences.html">Conferences</a></li>
```

```
<li><a href="http://community.apache.org/gsoc.html">Summer of Code</a></li>
```

```
<li><a href="http://community.apache.org/newcomers/">Getting Started</a></li>
```

```
<li><a href="/foundation/how-it-works.html">The Apache Way</a></li>
```

```
<li><a href="/travel/">Travel Assistance</a></li>
```

```
<li><a href="/foundation/getinvolved.html">Get Involved</a></li>
```

```
<li><a href="http://community.apache.org/newbiefaq.html">Community FAQ</a></li>
```

```
<li><a href="/memorials/">Memorials</a></li>
```

```
</ul>
```

```
</div>
```

```
<div class="col-sm-2">
```

```
<h5 class="white">Innovation</h5>
```

```
<ul class="list-unstyled white" role="menu">
```

```
<li><a href="http://incubator.apache.org/">Incubator</a></li>
```

```
<li><a href="http://labs.apache.org/">Labs</a></li>
```

```
<li><a href="/licenses/">Licensing</a></li>
```

```
<li><a href="/foundation/license-faq.html">Licensing FAQ</a></li>
```

```
<li><a href="/foundation/marks/">Trademark Policy</a></li>
```

```
<li><a href="/foundation/contact.html">Contacts</a></li>
```

```
</ul>
```

```
</div>
```

```
<div class="col-sm-2">
```

```
<h5 class="white">Tech Operations</h5>
```

```
<ul class="list-unstyled white" role="menu">
```

```
<li><a href="/dev/">Developer Information</a></li>
```

```
<li><a href="/dev/infrastructure.html">Infrastructure</a></li>
```

```
<li><a href="/security/">Security</a></li>
```

```
<li><a href="http://status.apache.org">Status</a></li>
```

```
<li><a href="/foundation/contact.html">Contacts</a></li>
```

```
</ul>
```

</div>

<div class="col-sm-2">

<h5 class="white">Press</h5>

<ul class="list-unstyled white" role="menu">

Overview

ASF News

Announcements

Twitter Feed

Contacts

</div>

<div class="col-sm-2">

<h5 class="white">Legal</h5>

<ul class="list-unstyled white" role="menu">

Legal Affairs

Licenses

Trademark Policy

Public Records

Privacy Policy

Export Information

License/Distribution FAQ

Contacts

</div>

<div class="col-sm-1">

</div>

</div>

<hr class="col-lg-12 hr-white" />

<div class="row">

<div class="col-lg-12">

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</div>

</div>

</div>

</footer>

<!-- / Footer -->

<script src="/js/jquery-2.1.1.min.js"></script>

<script src="/js/bootstrap.js"></script>

</body>

</html>

1.112 spring-expression 4.3.16.RELEASE

1.113 spring-security-crypto 4.2.5.RELEASE

1.114 spring-tx 4.3.9.RELEASE

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1.115 spring-web 4.3.5.RELEASE

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1.116 StAX API 1.0.1

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1.117 tensorflow 1.8.0

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path: "tensorflow.errors.PermissionDeniedError"

tf_class {

is_instance: "<class \'tensorflow.python.framework.errors_impl.PermissionDeniedError\'>"

is_instance: "<class \'tensorflow.python.framework.errors_impl.OpError\'>"

is_instance: "<type \'exceptions.Exception\'>"

member {

name: "args"

mtype: "<type \'getset_descriptor\'>"

}

member {

name: "error_code"

mtype: "<type \'property\'>"

}

member {

name: "message"

mtype: "<type \'property\'>"

}

member {

name: "node_def"

mtype: "<type \'property\'>"

}

member {

name: "op"

mtype: "<type \'property\'>"

}

member_method {

name: "__init__"

argspec: "args=[\'self\', \\'node_def\', \\'op\', \\'message\'], varargs=None, keywords=None, defaults=None"

}

}

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```
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```

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Following applies to:

`./test/mapstaticmethods.cpp`

`./test/schur_real.cpp`

`./test/prec_inverse_4x4.cpp`

`./test/smallvectors.cpp`

`./test/redux.cpp`

`./test/special_numbers.cpp`

`./test/adjoint.cpp`

`./test/resize.cpp`

./test/mixingtypes.cpp
./test/product_trmv.cpp
./test/sparse_solvers.cpp
./test/cholesky.cpp
./test/geo_quaternion.cpp
./test/miscmatrices.cpp
./test/stddeque.cpp
./test/integer_types.cpp
./test/product_large.cpp
./test/eigensolver_generic.cpp
./test/householder.cpp
./test/geo_orthomethods.cpp
./test/array_for_matrix.cpp
./test/sparseLM.cpp
./test/upperbidiagonalization.cpp
./test/nomalloc.cpp
./test/packetmath.cpp
./test/jacobisvd.cpp
./test/geo_transformations.cpp
./test/swap.cpp
./test/eigensolver_selfadjoint.cpp
./test/inverse.cpp
./test/product_selfadjoint.cpp
./test/product_trsolve.cpp
./test/product_extra.cpp
./test/sparse_solver.h
./test/mapstride.cpp
./test/mapped_matrix.cpp
./test/geo_eulerangles.cpp
./test/eigen2support.cpp
./test/denseLM.cpp
./test/stdvector.cpp
./test/nesting_ops.cpp
./test/sparse_permutations.cpp
./test/zerosized.cpp
./test/exceptions.cpp
./test/vectorwiseop.cpp
./test/cwiseop.cpp
./test/basicstuff.cpp
./test/product_trmm.cpp
./test/linearstructure.cpp
./test/sparse_product.cpp
./test/stdvector_overload.cpp
./test/stable_norm.cpp
./test/umeyama.cpp
./test/unalignedcount.cpp
./test/triangular.cpp
./test/product_mmtr.cpp

./test/sparse_basic.cpp
./test/sparse_vector.cpp
./test/meta.cpp
./test/real_qz.cpp
./test/ref.cpp
./test/eigensolver_complex.cpp
./test/cholmod_support.cpp
./test/conjugate_gradient.cpp
./test/sparse.h
./test/simplicial_cholesky.cpp
./test/bicgstab.cpp
./test/dynalloc.cpp
./test/product_notemporary.cpp
./test/geo_hyperplane.cpp
./test/lu.cpp
./test/qr.cpp
./test/hessenberg.cpp
./test/sizeof.cpp
./test/main.h
./test/selfadjoint.cpp
./test/permutationmatrices.cpp
./test/superlu_support.cpp
./test/qtvector.cpp
./test/geo_homogeneous.cpp
./test/determinant.cpp
./test/array_reverse.cpp
./test/unalignedassert.cpp
./test/stdlist.cpp
./test/product_symm.cpp
./test/corners.cpp
./test/dontalign.cpp
./test/visitor.cpp
./test/geo_alignedbox.cpp
./test/diagonalmatrices.cpp
./test/product_small.cpp
./test/eigensolver_generalized_real.cpp
./test/umfpack_support.cpp
./test/first_aligned.cpp
./test/qr_fullpivoting.cpp
./test/array_replicate.cpp
./test/geo_parametrizedline.cpp
./test/eigen2/eigen2_unalignedassert.cpp
./test/eigen2/eigen2_prec_inverse_4x4.cpp
./test/eigen2/eigen2_alignedbox.cpp
./test/eigen2/eigen2_sparse_product.cpp
./test/eigen2/eigen2_meta.cpp
./test/eigen2/eigen2_nomalloc.cpp
./test/eigen2/eigen2_visitor.cpp

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./test/eigen2/eigen2_mixingtypes.cpp
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./test/eigen2/eigen2_geometry_with_eigen2_prefix.cpp
./test/eigen2/eigen2_smallvectors.cpp
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./test/eigen2/product.h
./test/eigen2/eigen2_sparse_basic.cpp
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./test/array.cpp
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./test/conservative_resize.cpp
./test/qr_colpivoting.cpp

./test/nullary.cpp
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./bench/spbench/spbenchstyle.h
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```
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./test/sparselu.cpp  
./unsupported/test/mpreal/mpreal.h  
./unsupported/Eigen/src/IterativeSolvers/IterationController.h  
./unsupported/Eigen/src/IterativeSolvers/ConstrainedConjGrad.h  
./unsupported/Eigen/src/Eigenvalues/ArpackSelfAdjointEigenSolver.h  
./Eigen/src/OrderingMethods/Amd.h  
./Eigen/src/SparseCholesky/SimplicialCholesky_impl.h
```

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Version 3, 29 June 2007

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`./unsupported/Eigen/src/LevenbergMarquardt/LMonestep.h`
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*/

For portions of the native implementation of slicing-by-8 CRC calculation
in src/main/native/src/org/apache/hadoop/util:

```
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 */
```

For src/main/native/src/org/apache/hadoop/io/compress/lz4/lz4.c:

```
/*  
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```

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*
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