JCrypTool

The cryptography e-learning platform

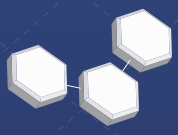
Core Team

- Bernhard Esslinger
- Dominik Schadow
- Matthias Walthart
- Simon Leischnig

… and many plug-in developers …

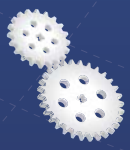
Features

- E-learning
- Modern user interface
- Open source
- Platform independent
- Extendable through plug-ins
- Java
- Eclipse
- Rich Client Platform RCP
- JCA/JCE



Crypto Algorithms

- Classic and modern symmetric encryption
- Hash, MAC, signature
- PRNG
- Asymmetric encryption
- Cryptanalysis
- Visualizations
  (extended Euclidian, Kleptography, multipartite key exchange, CRT, ...)



Crypto Provider

BouncyCastle
- Cryptographic algorithms

FlexiProvider
- Cryptographic algorithms
- Keystore

Project History

- ***1998*** CrypTool project started
- ***2000*** Available as freeware
- ***2003*** Available as open source
- ***2007*** JCrypTool project started
- ***2010*** JCrypTool 1.0

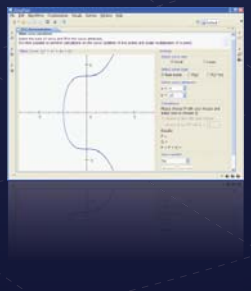
PostQuantum

- Niederreiter
- McEliece
- McElieceFujisaki
- McElieceKobaraImai
- McEliecePointcheval
- NiederreiterCFS
- MerkleOTS
- CMSS
- GMSS

Samples of built-in visualizations

ECC Demonstration

- Choose points
- Addition
- Scalar multiplication

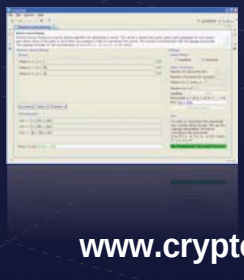


Games

- Number Shark

Shamir's Secret Sharing

- Numerical and graphical mode
- Arbitrary number of shares



www.cryptool.org

PQCrypto 2010

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CASED

FlexiProvider
[Harnessing the power of the Java Cryptography Architecture]