

# Lost Licenses



## The Fine Balance of Trust

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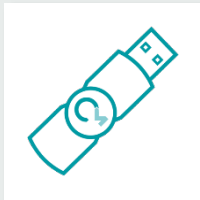
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# Introduction



## License Server

License Server in LAN / WAN



### CmDongle

License container  
in a secure HW element

Bound to a smart card chip



### CmActLicense

License container  
in an encrypted file

Bound to an endpoint



### CmCloudContainer

License container  
in the WIBU cloud

Bound to a user

- CmDongles can be lost
  - “My Dog has eaten the CmDongle”
  - “The CmDongle was burned in the fires down in Australia”
  - “The WibuKey was burned with the whole production facility”
- CmDongles can be stolen
  - “It looks like a memory stick”
- CmDongles can get broken
  - MTBF > 3.000.000 hours (this happens very rarely)
- A dishonest customer can complain the dongle was stolen, lost or broken

- CmActLicenses can become **broken**
  - Very unlikely with SmartBind®, because of the tolerance level
- CmActLicenses can become **invalid**
  - The user or other processes wipe out the license file
  - Also very unlikely, because of
    - Redundant storage of hidden information
    - Windows-conform storage of license files in “Program Data”
- The computer with the associated CmActLicense was stolen

- The computer where the CmActLicense was located
  - breaks up (and is repaired)
    - Hard drive crash ...
  - was replaced with a new machine
    - The user / admin didn't uninstall/deactivate the software before replacing the PC
  - was reset
    - Using computers for training purposes
    - Personal computer that had become too slow or after a malware infection
- A dishonest customer can complain the license was stolen, lost, broken, become invalid, or ...

- The credential file was deleted from the computer
  - Deleted by accident or removed on purpose
- The user wants to use a different computer with the same license
  - Standard use case, not really a lost/broken scenario
- The user thinks that somebody else got hold of his credential file and uses their license now
  - CmCloudServer doesn't allow an over usage of licenses. The legitimate user will find out that their license is already in use and they cannot use it anymore.
- A dishonest customer can complain the license was stolen or lost.

# Reactivation on the Same Device



# Demo

- Possible for CmActLicenses
- Use cases:
  - Training computers
  - Resetting a computer
  - Repairing a computer
  - Invalid licenses
- The ISV defines the rules
  - How often, how often per time, manual approval

# Reactivating a License

# Demo

- Possible for all CmContainer types
- The ISV defines the rules
  - How often, how often per time, manual approval
- The user can be independent
  - License Portal / WebDepot
  - Software Activation Wizard and Gateway
- Automatic blacklisting
  - The old license is withdrawn or the complete CmContainer is blacklisted

# Using Blacklists

# Demo

- Possible for all CmContainer types
- Automatic blacklisting when
  - A license is reactivated (global settings)
  - A CmContainer is restored
- The CmContainer is locked during the next activation
- A “Honey Pot” license is created automatically (global settings)
  - Activated like an automatic container update



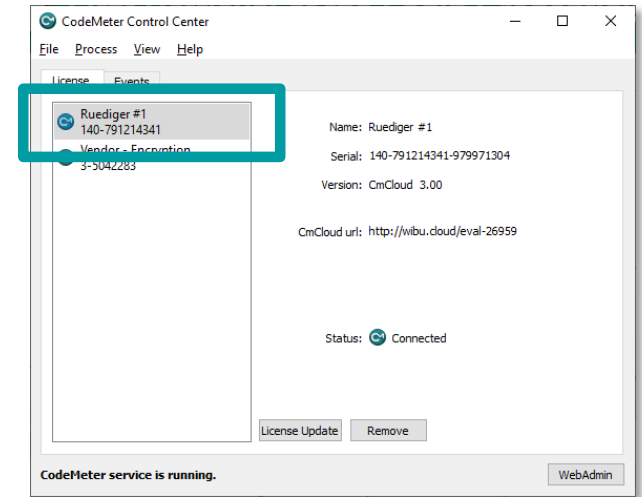
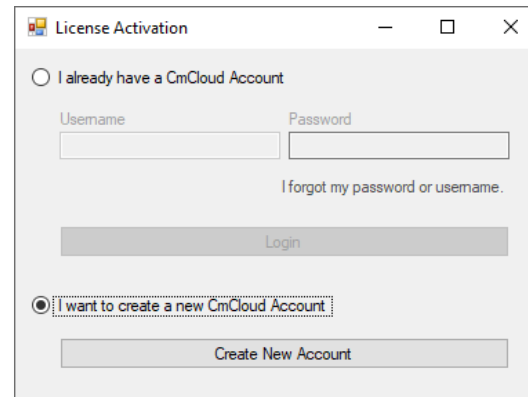
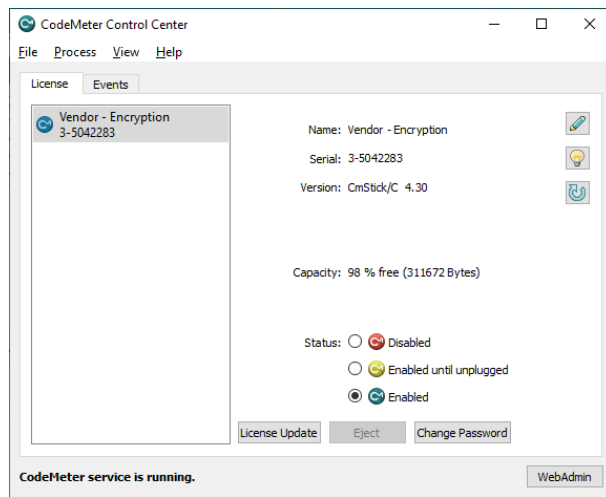
# Checkpoint Licenses

# Demo

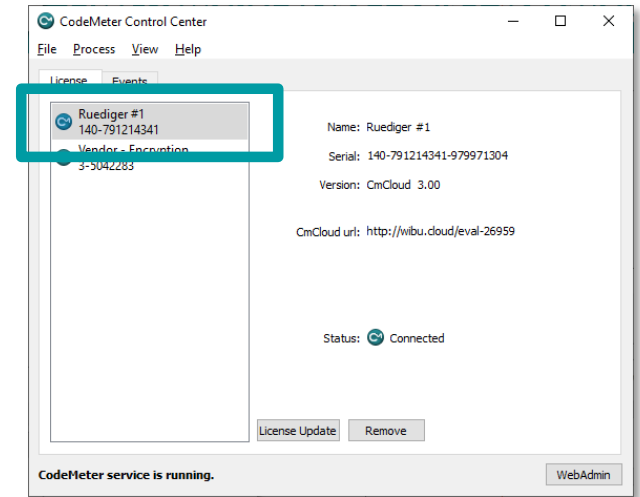
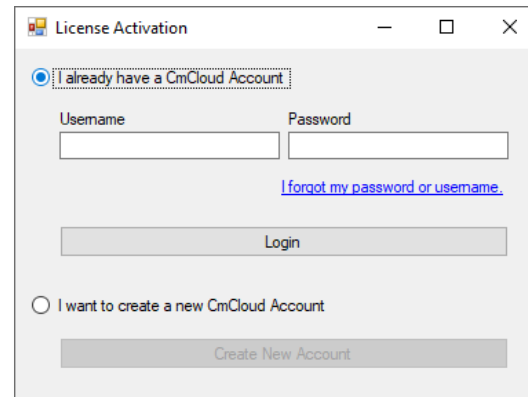
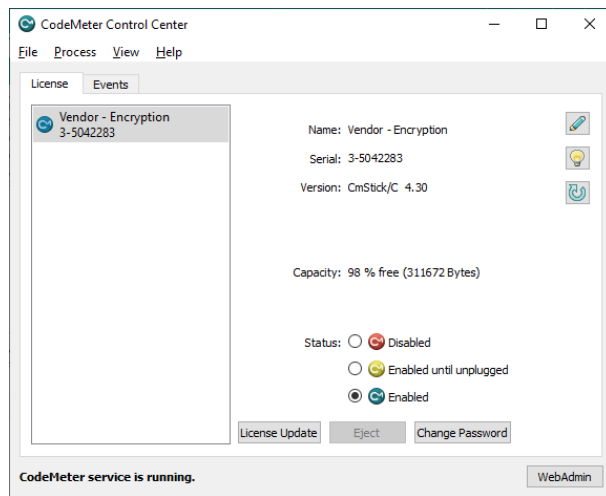
- Possible for all CmContainer types
- Business view: The license is perpetual
- Technical view: The license has an Expiration Time
- The license is renewed automatically in the background
  - With Software Activation Wizard (an Internet connection is needed temporarily)
- Configuring each item
  - Validity: days from activation
  - Threshold: remaining days before the next renewal starts
- Licenses can be used offline

# Recovering Login Credentials

# First Retrieval of the Login Credentials

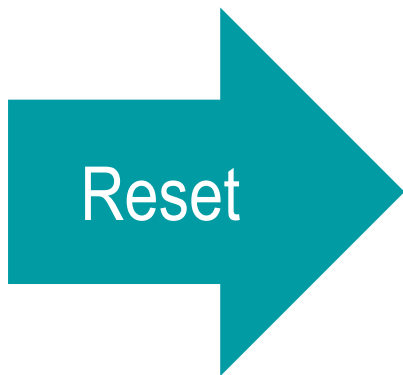
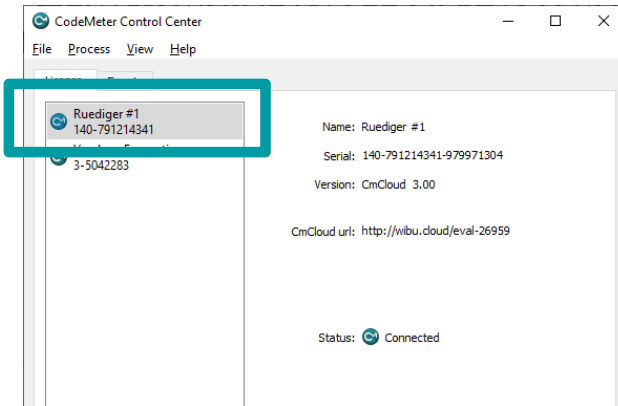


# Recovering the Login Credentials

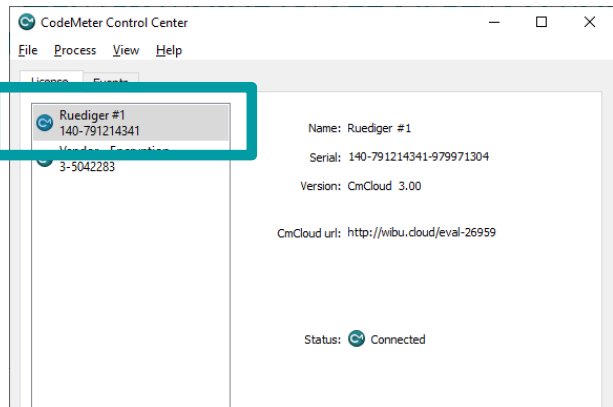
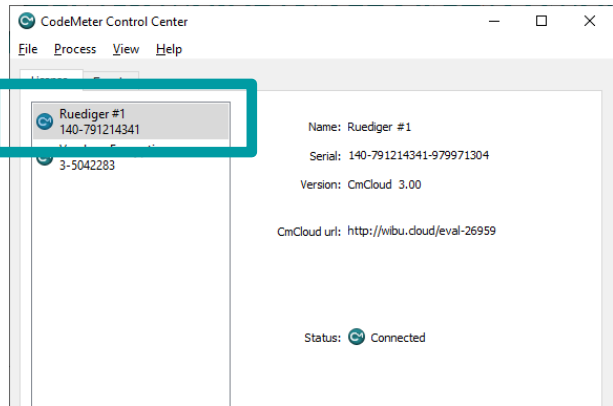
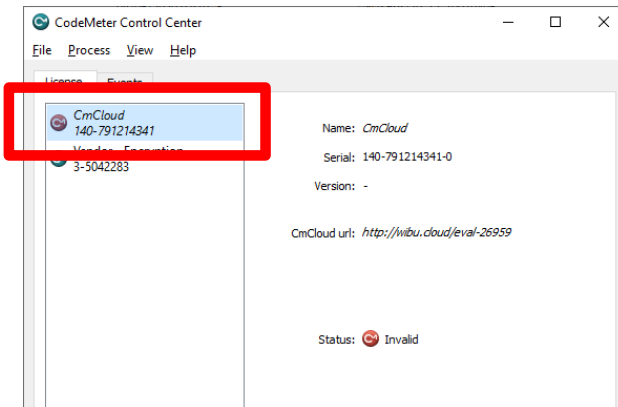


# Resetting the Login Credentials

Authorized user



Users with stolen login credentials



- Lost login credentials
  - Login to License Portal
  - Retrieval of the original credential file
  - All other installations with the same credential file stay valid
- Stolen login credentials
  - User: Login to License Portal or ISV: Login to Cloud Dashboard
  - Retrieval of new credential file for the same CmContainer
  - Licenses in the CmContainer are still valid
  - All other installations with the old credential file become invalid



# Summary

- CodeMeter offers highly sophisticated options for recovering licenses
- The ISV can configure rules for self service recovery
  - Increasing user satisfaction
  - Decreasing support efforts
- Transparent methods to detect/revoke licenses that are used fraudulently
  - Blacklisting “lost” CmContainers when the user is back online
  - Time-bombed Checkpoint Licenses expire automatically offline
  - Automatic lock or renewal via Software Activation Wizard
- CmCloudContainers cannot get lost at all, they are safe in the cloud

Thank you very much for your attention



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