

## CodeMeter Core API

Total Control over your protection  
and licensing process

**SECURITY  
LICENSING**  
PERFECTION IN **PROTECTION**

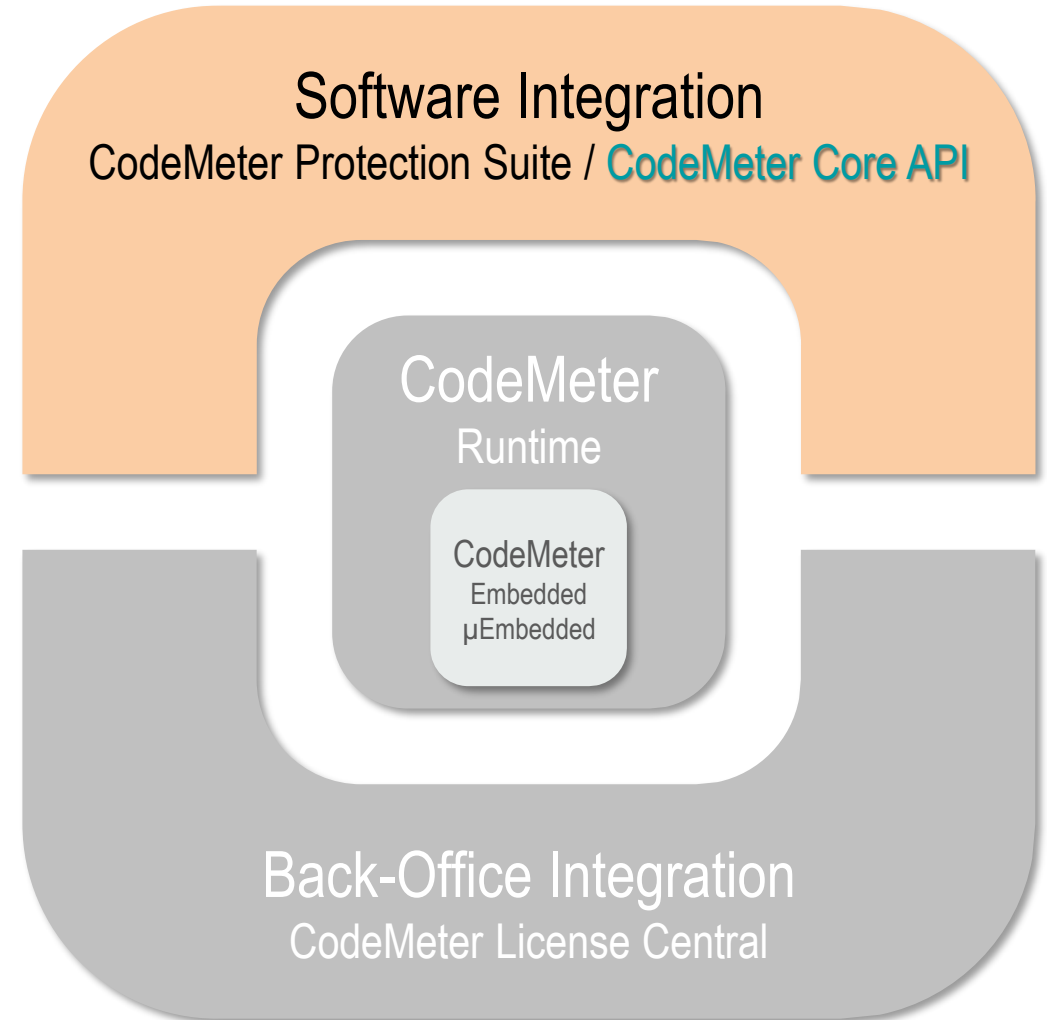


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# CodeMeter Overview

- CodeMeter
  - License Models
  - CodeMeter Variants
- Software Integration
  - Automatic Encryption
  - **API Calls**
- Back-Office Integration
  - ERP / e-commerce / MES / CRM
  - Software Activation



# Software Integration

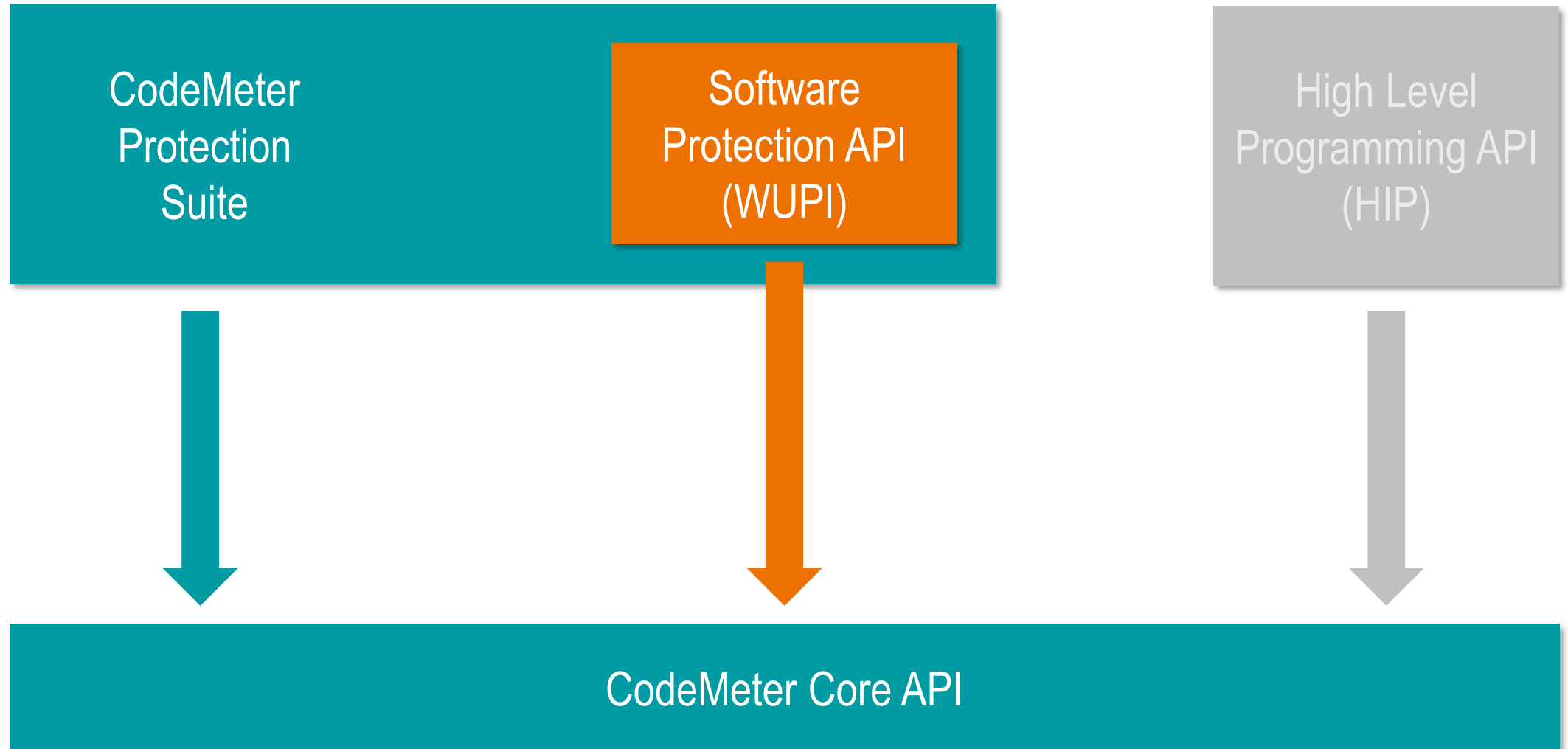
## ■ Symmetric Encryption

- 128-bit / 256-bit AES (Advanced Encryption Standard)
- Used for software and data protection

## ■ Asymmetric Encryption

- 224-bit ECC (Elliptic Curve Cryptography)
- 1024-bit / 2048-bit / 4096-bit RSA (Rivest Shamir Adleman)
- Used for signatures, authentication, and Software as a Service (SaaS)

- **CodeMeter Protection Suite (Automatic Encryption)**
  - AxProtector, AxProtector .NET, AxProtector Java
  - Windows 32-bit / 64-bit, macOS, Linux, .NET Assemblies, Java J2SE and J2EE
- **Software Protection API (WUPI)**
  - Included in CodeMeter Protection Suite
  - IxProtector, AxProtector .NET, AxProtector Java
  - Encryption of code parts, Automatic implementation of cryptography
- **CodeMeter Core API**
  - Basic API; all other APIs and tools are based on it



# Software Protection API (WUPI)

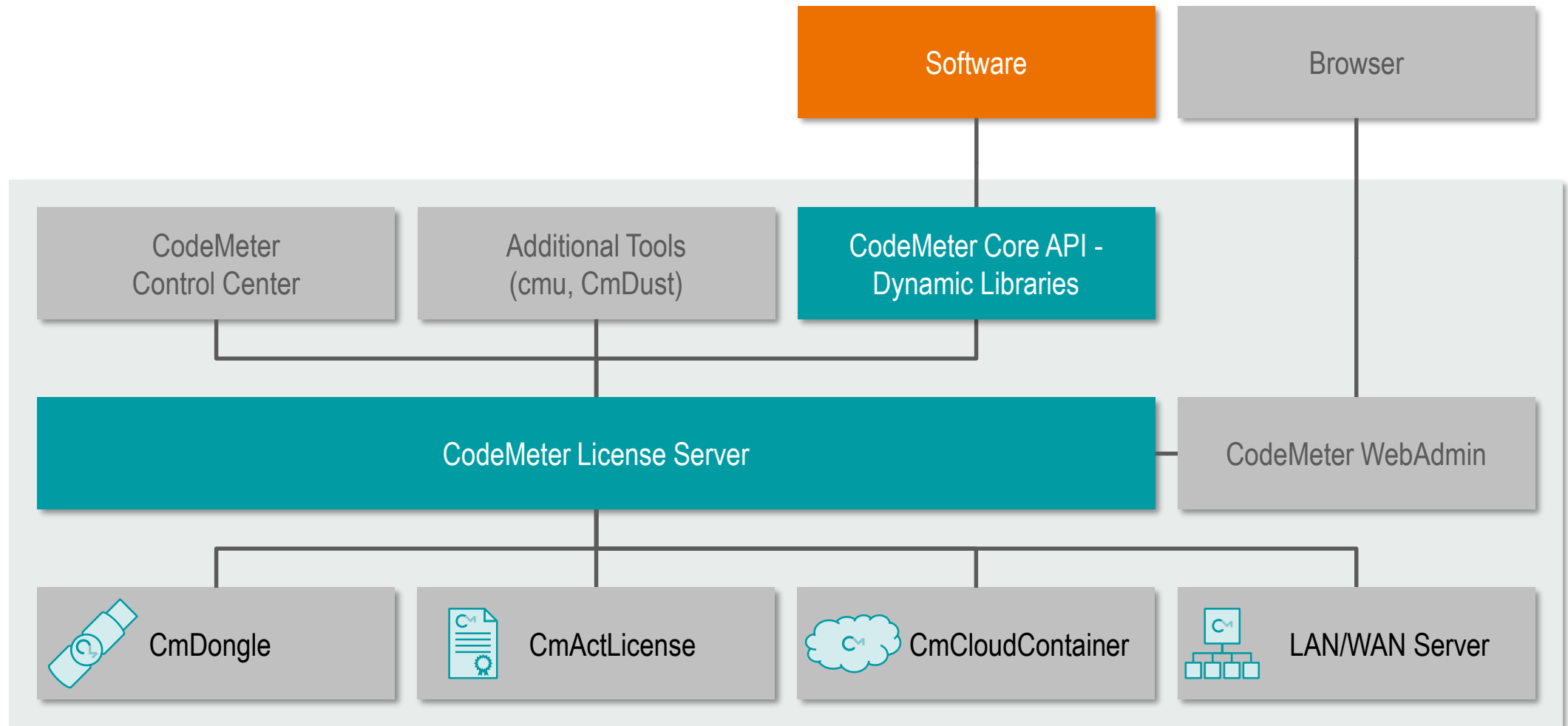


```
// function uses LicenseList with ID 1
[Licensing(LicenseList = 1)]
private void ChangeFont()
{
    FontDialog dlgFont = new FontDialog();
    ...
}
```

```
// check if the license for module 1 (font) is available
if (Wupi.CheckLicense(1))
{
    ChangeFont();
}
else
{
    MessageBox.Show("This module has not been activated!",
        "License Error",
        MessageBoxButtons.OK, MessageBoxIcon.Error);
}
```

- Automatic encryption of a .NET application
  - Simple, quick, and **secure**
  - Encryption of individual methods, classes, namespaces with different Product Codes
- WUPI Calls
  - WUPI for **interaction / user guidance**

# CodeMeter Core API



```
// Access license
```

```
CmAccess2 (...)
```

```
// Use license
```

```
CmCrypt2 (...)
```

```
// Read license properties
```

```
CmGetInfo (...)
```

```
// Release license
```

```
CmRelease (...)
```

```
// Error handling
```

```
CmGetLastErrorCode (...)
```

```
// Create license request
```

```
CmGetRemoteContextBuffer (...)
```

```
// Import license update
```

```
CmExecuteRemoteUpdate (...)
```

# Demo 1

- Integration of Library (WibuCmNet.dll)
- Basic calls
  - CmAccess2
  - CmGetLastErrorCode2
  - CmRelease
- Results
  - Easy license check
  - No advanced security



# Demo 2

- Additional call
  - CmCrypt2
  - CmGetInfo
- Results
  - Cryptographic checks
    - Check of **Expiration Time** in CmContainer
    - Start of **Usage Period**
  - Decrease of **Unit Counter**
  - Locking of Firm Item with FAC decrement

# Management Functions

- Listing all CmContainers
  - CmGetBoxes
- Retrieving license information
  - CmGetInfo with handle to Firm Item
  - CmGetInfo with handle Product Item
- Borrowing Licenses
  - LT Transfer functions
- CodeMeter License Central
  - Creating context files and importing update files

# Summary

- CodeMeter offers 3 options for software integration
  - CodeMeter Protection Suite
  - Software Protection API (WUPI) in combination with CodeMeter Protection Suite
  - CodeMeter Core API
- All 3 options can be combined with each other
- CodeMeter Protection Suite and WUPI are using CodeMeter Core API themselves

# Thank you for your attention

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