

## Technical Information & Features

Currently, more than 90% of top games publishers and several major non-games publishers trust SecuROM™ copy control to protect their intellectual property. No other copy control solution offers SecuROM™'s combination of strong security and excellent compatibility. SecuROM has protected over 250 million discs to date.

### SecuROM™ – highest security with best compatibility

SecuROM™ is the only copy control solution that effectively combats all three major piracy threats: digital clones, emulation, and cracks.

- *Digital Clones* are discs that are copied onto CD-R, DVD-R or hard disk. Also known as 1:1, friend-to-friend, or casual copies, digital cloning is the most widely used piracy method. Therefore, it represents the biggest threat to your business. SecuROM™ ensures only legitimate users with an original disc can use your software. SecuROM™ protected applications can only be launched with an original disc.
- *Emulation* tools are programs designed to bypass copy control solutions. These tools attempt to emulate the keycode required to unlock an encrypted application. The SecuROM™ copy control mechanism employs several highly developed algorithms that detect emulation tools and prevent them from working, thereby safeguarding your intellectual property.
- *Cracks* are applications that have been modified to work without an original disc. To create cracks, hackers remove or modify the copy protection of an encrypted application, thereby allowing illegal users to start the application without the original disc. SecuROM™ uses various advanced encryption features to prevent cracks and protect your profits.

High security is pointless without high compatibility. Unlike other copy control solutions, SecuROM™ places as much emphasis on usability as on strong protection. This focus gives SecuROM™ the highest compatibility rate in the industry. Please ask your local sales representative for more detailed information.

### SecuROM™ – two strong components create one powerful solution

The SecuROM copy protection solution consists of two main components:

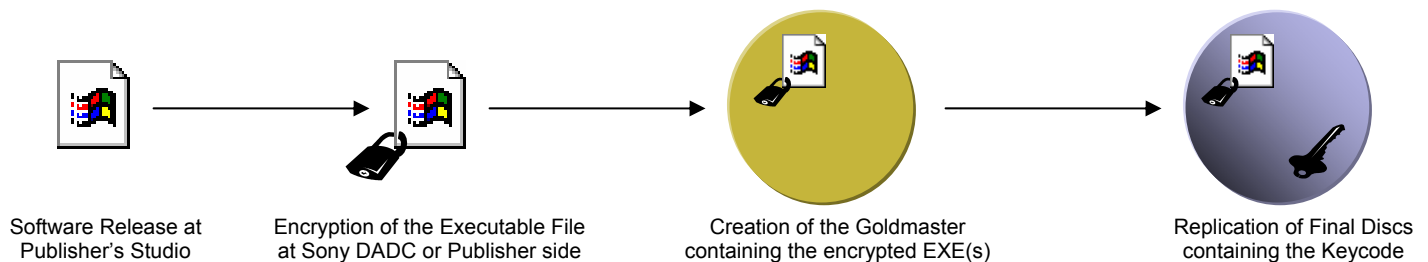
- A unique, uncopyable *electronic keycode* is added during the glass mastering process for CD-ROM and DVD-ROM replication. Unlike other copy control solutions on the market, the SecuROM keycode is fully within the CD/DVD-ROM specification, thereby ensuring the highest possible compatibility.
- An *authentication mechanism* verifies the unique SecuROM™ keycode and unlocks the encrypted software. The authentication mechanism is entirely keyless, meaning no serial numbers, stickers, or artwork modifications are required.



The SecuROM™ authentication process is completely transparent to original disc users. If SecuROM verifies the disc is an original, the encrypted application starts normally. If SecuROM™ determines that the disc is a copy, the application terminates and a customizable error message is displayed.

## SecuROM™ – hard on hackers, easy on you

SecuROM™ can be implemented in two different ways. Sony DADC ([www.sonydadc.com](http://www.sonydadc.com)), the worldwide leading manufacturer of optical storage media, and inventor of additional services such as SecuROM™, will be happy to encrypt your software. Simply send us your master disc and let us know which application (according to the specifications described in the SecuROM™ Software File Format Support section) you wish to protect. Sony DADC will take care of the encryption and replication of discs holding a valid, non-copyable SecuROM™ keycode.



With the *SecuROM Online Encryption Toolkit* (OETK), customers can encrypt and test their application themselves in minutes. The OETK is provided to high potential or regular customers free of charge and is available online 24/7. After encryption, the master can be sent to any of over 60 licensed SecuROM™ replication plants worldwide. Please ask your local sales representative for more detailed information.

## Different publishers have different security requirements – choose your encryption level

Publishers have different security requirements. SecuROM™ (version 7 or higher) therefore offers various encryption levels:

- *SecuROM™ Automatic Encryption*  
The Automatic Encryption level is implemented with a single mouse click. The encryption is completed within minutes without the need to involve your programmers. Easy to implement but extremely strong, the Automatic Encryption Level has achieved greater than two month crack-free windows on recent, high profile PC game titles. Please ask your local sales representative for details.
- *SecuROM™ Customized Encryption Level*  
GUI based encryption settings allow you to customize the protection.
- *SecuROM™ Advanced Encryption Level*  
Our new API links SecuROM™ to your game code for the strongest defense against sophisticated cracks and reverse engineering. Implementation only takes half a day, but requires programming knowledge and access to the software code (works with C or C++). Only available for publishers who have access to the SecuROM™ OETK.

## SecuROM™ Digital Rights Management (DRM) Support

Every market has special needs. For example, games developers are very security-oriented, educational publishers require a very simple workflow, and business software vendors need copy protection that works in a multi-user environment. SecuROM™ version 7 and above now offers several DRM features. This provides a protection that can be customized to suit each market's needs. The following DRM options are available.

- *Disc-Based DRM Features*  
Per default, SecuROM™ checks for an original disc during every startup of an application. Feel free to customize your protection by selecting either (1) the one-time-only disc check or (2) periodic disc checks (every certain number of launches or days).
- *Time-Based DRM Features*  
Define the start date and/or end date of your application's use. Depending on your product requirements, time-based DRM features can be checked either online (more secure) or offline (more convenient).
- *Usage-Based DRM Features*  
SecuROM™ allows you to define functionality. Simply define the number of launches or days after executing the protected application the first time.

## SecuROM™ Software File Format Support

### Executables Files

The following *Windows application formats* are supported by SecuROM™ (version 7 or higher) and can be encrypted at Sony DADC or by software publishers and/or developers directly by using the SecuROM™ Online Encryption Toolkit. During encryption, SecuROM™ will add approximately 3 Mega Bytes to your application.

- Standard PE 32-bit Windows applications
- MacroMedia Director applications (version 8.5.0, 8.5.1, and 9.0.0)
- MacroMedia Director MX applications (version 10.0.0, and 10.1.0)
- MacroMedia Authorware applications (version 7.0.2.0 without load library)
- Macromedia Shockwave applications (version 8.5.x)
- Macromedia Flash applications (version 5.0.30, 6.0.21\_CWS/FWS, 7.0.19.0)
- Installshield Installer applications (version 9.x, 10.x)
- NullSoft Installer applications (with disabled self-CRC check)
- Wise Installer applications (version 9)
- PowerBuilder applications (version 3.3.7.0)
- Tcl/Tk applications (version 8.3.2.2)



Beside Windows applications, the following *Macintosh application formats* are supported by SecuROM™ (version 7 or higher). Please be aware that encryption of Macintosh applications needs to be performed at Sony DADC and is currently not supported by the SecuROM™ Online Encryption Toolkit.

- Macromedia Director MX (OS 10.1 or higher)
- Carbon Applications (OS 10.1 or higher)
- Mach-O (OS 10.2 or higher)



If your development environment is not mentioned above, please send a sample to [support@securom.com](mailto:support@securom.com) for encryption evaluation.

### DLL (Dynamic Link Library) Files

In addition to executable files, SecuROM™ now also offers the protection of Win32 DLL (dynamic link library) files. To unlock encrypted DLL files, a SecuROM™ protected executable is essential. .Net DLL files are currently not supported.

### Data Files

SecuROM™ (version 7 or higher) also offers a security feature for data files. DFE (Data File Encryption) gives you the opportunity to wrap several data files into one DFE container. These files then can only be accessed if the encrypted executable file has been launched successfully.

### PDF Documents

Beside the support of .exe, .dll, and data files, SecuROM™ offers a copy control concept for PDF documents. Depending on the publisher requirement, one out of three security levels can be chosen.

- Level 1: PDF files can only be opened with original CD/DVD (all PDF functions are allowed)
- Level 2: PDF files can only be opened with original CD/DVD (limited PDF function, e.g. printing only)
- Level 3: PDF files can only be opened with original CD/DVD (no PDF function, viewing files only)



## SecuROM™ Optical Storage Media Support

- CD-Recordable (0.7 Giga Byte)
- CD-ROM (0.7 Giga Byte)
- DVD-ROM-5 (4.7 Giga Byte) and DVD-ROM-9 (8.5 Giga Byte)



If the gold master does not contain more than 150 MB of data for CD-ROM or 600 MB of data for DVD-ROM, please add dummy data to meet the above-mentioned minimums.

## SecuROM™ Operating System Support

### Microsoft Operating Systems

- Windows 98 2<sup>nd</sup> Edition (SE)
- Windows Millenium (ME)
- Windows 2000
- Windows XP Home
- Windows XP Professional
- Windows XP 64 Bit, Edition Version 2003
- Windows 95 (only supported by SecuROM™ version 5)
- Windows NT (only supported by SecuROM™ version 5)
- Windows 98 1<sup>st</sup> Edition (only supported by SecuROM™ version 5)



### Macintosh Operating Systems

- OSX (OS 10.1 or higher) If the protected application is started under OS Classics (OS 8.6 to 9.x) the copy protection is switched off.



### **Need more information?**

Please visit the official SecuROM™ website at [www.securom.com](http://www.securom.com) for more information. For any technical questions, please contact our SecuROM™ support team at [support@securom.com](mailto:support@securom.com). For customer references or sales related questions do not hesitate to contact your local SecuROM™ sales representative or [securom-sales@securom.com](mailto:securom-sales@securom.com).

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