

Protecting JavaScript Applications

SECURITY
LICENSING
PERFECTION IN PROTECTION



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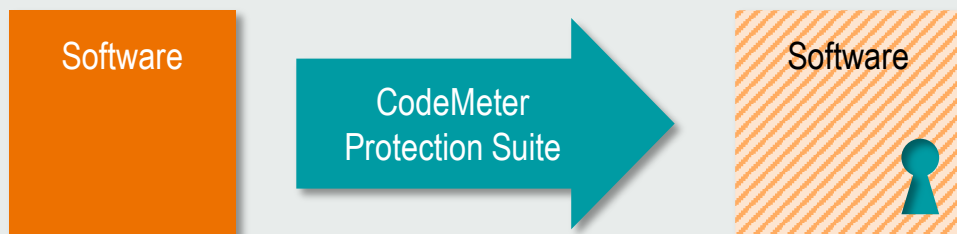
To access the on-demand reply of this masterclass, please visit

www.wibu.com/resources/webinars/2021/protecting-node-based-javascript-applications/access

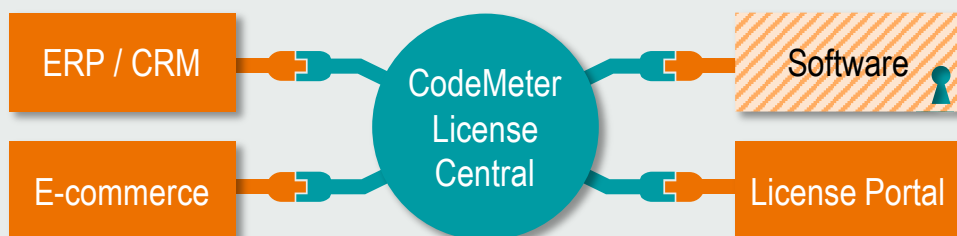
Integrate Once – Deliver Many...

Integrate Once

Integration into software

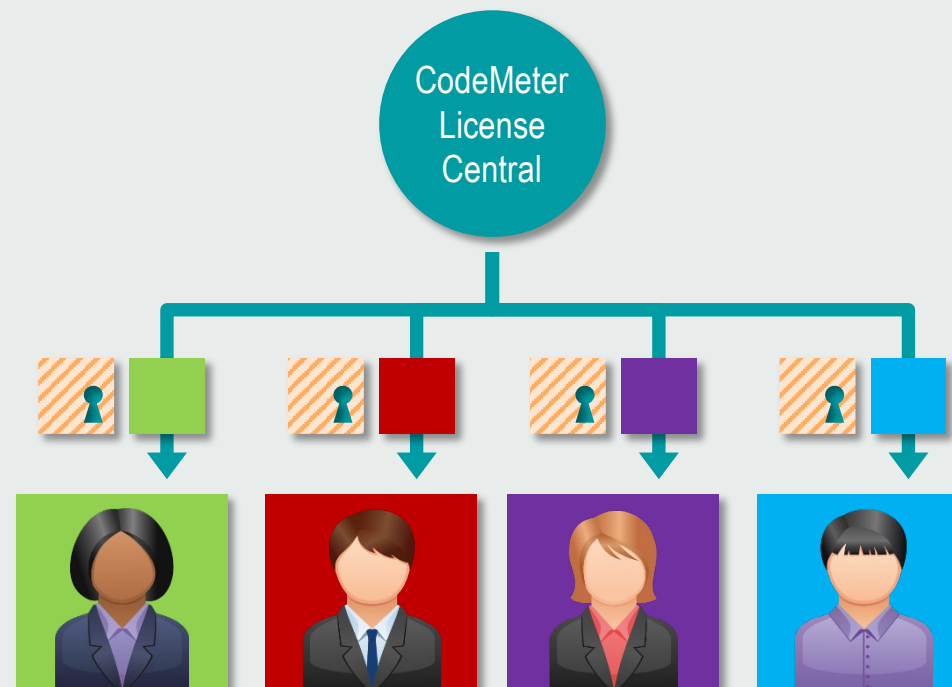


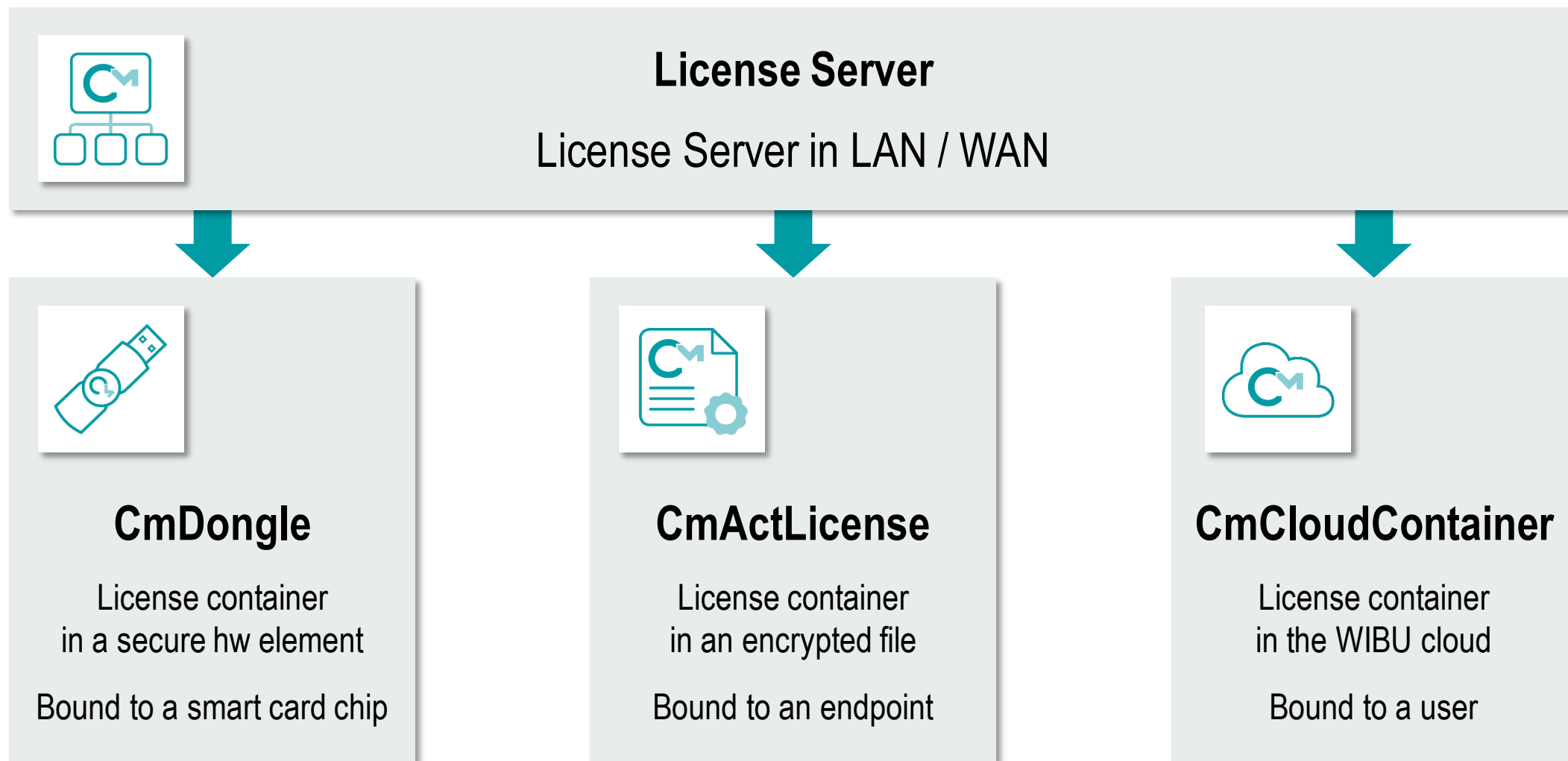
Integration into processes



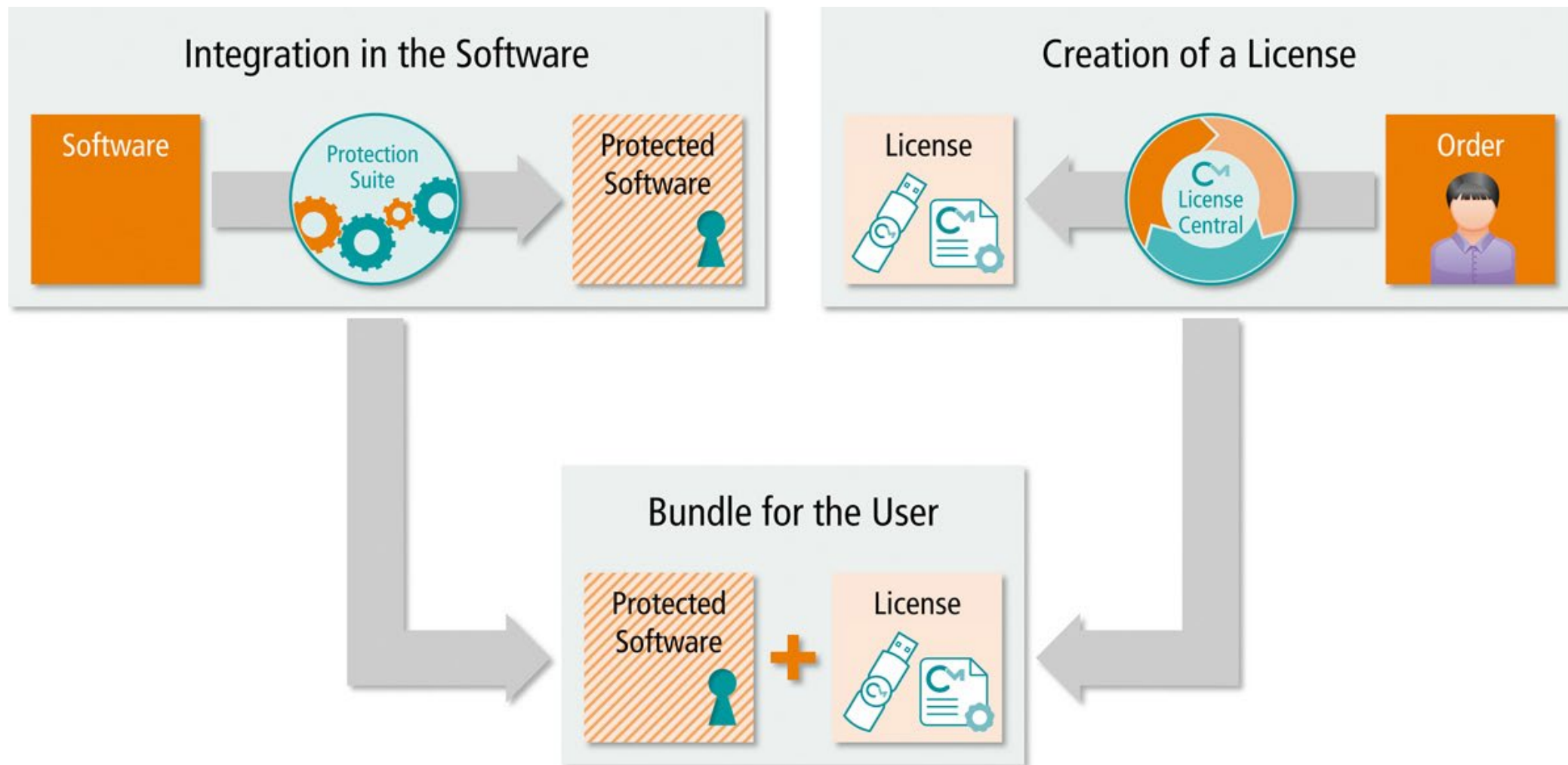
Deliver Many

Delivery to the user





Protection and Licensing – 2 Sides of one Medal



- Automatically realizing different license models with AxProtector
 - Single User Licenses
 - Floating Network Licenses
 - Subscription Licenses

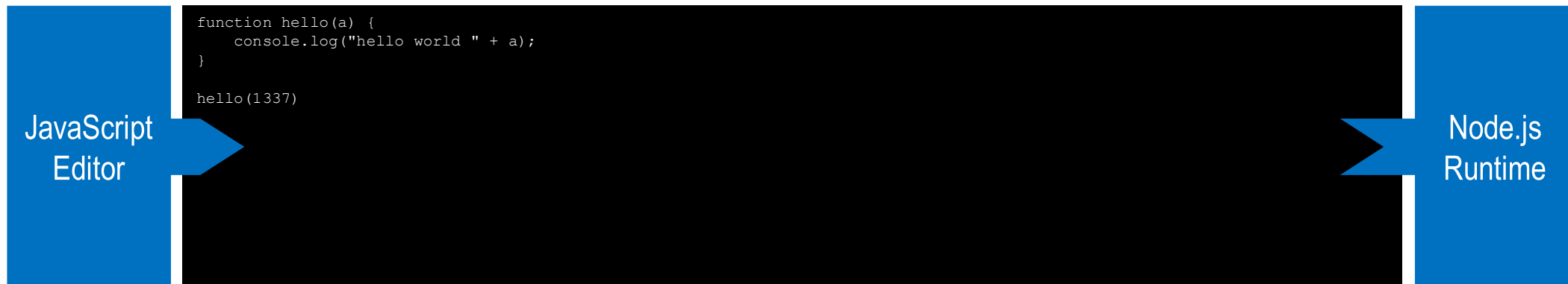
AxProtector JavaScript

- Electron is a popular framework for desktop apps
 - VSCode, WhatsApp, MS Teams, Twitch, ...
 - Code mainly written in JavaScript
- Application distributed as a native executable package
- Goal: protection and licensing of intellectual property
- Naïve approach using AxProtector Native

Demo

- Electron.exe is a generic runner
- Actual application source is located in subdirectories
 - Plain JS Code -> no protection
- Protected Electron.exe can be exchanged with an unprotected one
 - Removal of the licensing component

AxProtector JavaScript



- Delivery as JavaScript (text) file
- No copy protection, no IP protection
- Source code available to users, competitors, ...

JavaScript → AxProtector JavaScript



- Every function is encrypted separately
 - Highest Security
- Application is still platform independent
 - CodeMeter Runtime / Protection Suite Runtime needed (Windows, Linux, macOS)

Demo

- Encryption of a simple application
- How to protect global functions
 - Moving them into a new function
- Modular Licensing
- Error handling via exceptions
- IP Protection
- Requirements (License, CPSRT, ...)

Summary

AxProtector JavaScript

- The new AxProtector JavaScript offers highest security
 - Simplified integration for software developers
 - Easy and strong implementation of modular licenses
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- The principles AxProtector JavaScript relies on are similar to those of AxProtector Python

Supported Platforms (CPSRT)

AxProtector JavaScript	Target Platforms															
	Windows		macOS		Linux										Android	
	x86	x86_64	x86_64	arm64	x86		x86_64		armhf		AARCH64		arm	MIPS	armv7	arm64
					GLIBC	musl	GLIBC	musl	GLIBC	musl	GLIBC	musl				
DevKit available on Platform	✓	✓	✓		✓		✓	✗	✗	✗	✗	✗				
Automatic Protection	✓	✓	✓	(*)	✓		✓	(✓)	(✓)	(✓)	(✓)	(✓)				
CmCloudContainer	✓	✓	✓		✓		✓									
CmActLicense	✓	✓	✓		✓		✓									
CmDongle	✓	✓	✓		✓		✓									
Protection on function level	✓	✓	✓		✓		✓									
Integrity Protection	✓	✓	✓		✓		✓									
Anti-Debug Methods	✓	✓	✓		✓		✓									
Automatic License Checks	✓	✓	✓		✓		✓									
Modular Licensing	add-on	add-on	add-on		add-on		add-on	(✓)	(✓)	(✓)	(✓)	(✓)				
IP Protection Modus	add-on	add-on	add-on		add-on		add-on	(✓)	(✓)	(✓)	(✓)	(✓)				
Code Moving	add-on	add-on	add-on		add-on		add-on	(✓)	(✓)	(✓)	(✓)	(✓)				
File Encryption	add-on	add-on	add-on		add-on		add-on	(✓)	(✓)	(✓)	(✓)	(✓)				

(*) Under Development

(✓) Release 2021-12-11

CodeMeter Protection Suite

Native Code (PC, IPC)			Intermediate Code		Scripting Languages		
AxProtector Windows	AxProtector macOS	AxProtector Linux	AxProtector .NET / .NET Standard	AxProtector Java	AxProtector Python	AxProtector JavaScript / TypeScript	
Optional	Optional	Optional	Optional	Optional	Optional	Optional	Code Moving
Optional	Optional	Optional	Optional	Optional	Optional	Optional	IP Protection Modus
Included	Included	Included	Included	Included	Included	Included	CmCloudContainer
Included	Included	Included	Included	Included	Included	Included	CmActLicense
Included	Included	Included	Included	Included	Included	Included	CmDongle
Optional	Optional	Optional	Optional	Optional	Optional	Optional	IxProtector (Individual Checks)
Included	Included	Included	Included	Included	Included	Included	Protection on function level
Included	Included	Included	Included	Included	Included	Included	Integrity Protection
Included	Included	Included	Included	Included	Included	Included	Anti-Debug Methods
Included	Included	Included	Included	Included	Included	Included	Automatic License Checks
Included	Included	Included	Included	Included	Included	Included	Automatic Protection

Ordering AxProtector JavaScript

P/N	Name
1336-1800-Y	AxProtector JavaScript – 1 Year
1336-1801-Y	AxProtector JavaScript - Modular Licensing – 1 Year
1336-1802-Y	AxProtector JavaScript - IP Protection – 1 Year
1336-1803-Y	AxProtector JavaScript – CodeMoving – 1 Year
1336-1804-Y	AxProtector JavaScript – File Encryption – 1 Year
	Test Licences
1336-1800-T60	AxProtector JavaScript – 60-day Test Version
1336-1801-T60	AxProtector JavaScript - Modular Licensing – 60-day Test Version
1336-1802-T60	AxProtector JavaScript - IP Protection – 60-day Test Version

Outlook

AxProtector JavaScript

- Protection of JavaScript in Browsers
- JavaScript Core API

Thank you very much for your attention



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