



China Software: Product Tracker in August: Integration on the rise: automotive + cybersecurity; EDA tools platform; CAD + BIM



August product tracker shows growing integration activities: (1) **automotive + cybersecurity:** Thundersoft partners with C2A Security (private) to develop a full suite of tools for local car OEMs to identify and respond to cyber attacks and protect connected vehicles from vulnerabilities. C2A Security offers an automotive Cybersecurity Management System (CSMS) for threat analysis and control. (2) **EDA tools platform:** Primarius launched NanoDesigner ([report link](#)), supporting memory and analog/mixed-signal designs, including design tools such as schematic entry, layout editing, in-design physical verification, and simulations. (3) **CAD + BIM:** In August 2022, ZWSOFT announced plans to partner with BIM consulting firm JYHT (private) to develop a collaboration solution for the company's CAD platform to further improve designers and other users' efficiency. The growing integration activities show an enlarging ecosystem in China, which we believe is positive to China software suppliers.

Buy: Automotive software: Thundersoft, Desay SV, Arcsoft, Navinfo; Design software (CAD/BIM): ZWSOFT; Cybersecurity software: Venustech (on CL), Sangfor; IT services: Chinasoft Int'l; Cloud software: Weimob, Kingdee, Yonyou.

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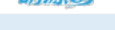


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Exhibit 1: Software Product Tracker snapshots

Key new products and partnerships in our product tracker reports since late 2021

Company name	Oct-21	Nov-21	Dec-21	Jan/Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Rest 2022
	4Q21			1Q22		2Q22		2H22		
Automotive software										
	Smart parking Smart cockpit 5.0		Partnership with Huaqin on cockpit			TurboX smart module Version upgrade	Partnership with NVIDIA on vision		Smart traffic solution Roadeye	Smart cockpit 6.0
	IPU-04 announced	Smart solution 1.1	Partnership with Maxieye on L4	Partnership with Qualcomm on cockpit			Central computing platform (CCU)		ChangAn partnership	IPU-04 mass production
	VisDrive 7.0 Function upgrade		Visdrive on FAW Bengteng						Visdrive on SAIC MG Mulan	
	Harmony OS ISV partnership	Fusion SOA platform upgrade		Partnership with NVIDIA on vision				Partnership with NXP		
CAD/BIM										
			ZW3D Linux version	CAE 2022 Version upgrade	BIM JV with CAPOL	ZW3D 2023 Version upgrade			CAD ecosystem expansion	
	BIM design v4.0 Version upgrade	Bridge design software launched				Green design software	BIM design v4.3 Version upgrade		BIM design v5.0 Beta version	BIM design v5.0 Version upgrade
	Design software Beta version				BIMMAKE 2022 Version upgrade					BIM design software PaaS platform
	CrownCAD 3D cloud CAD				SINOVAATION Version upgrade			Sview Player mobile App		
Cybersecurity										
	MCSP & CWPP Cloud-based	Application delivery v7.0	Partnership with Mediway on HOS			SASE 3.0 Firewall new version	SaaS XDR solution			
			Partnership with Hainan on data			Partnership with UOS on Xinchuang	XDR solution	China Mobile Capital investment	China Mobile Intl. partnership	
		Data security mgmt. platform	EDR solution Function upgrade	Partnership with Westone on Xinchuang		Partnership with UOS on Xinchuang	Situational awareness upgrade		Cloud solution version upgrade	
IT Services										
		Multi-cloud scheduling platform	AI motion analysis platform	Partnership with Cogobuy & Yonyou	Partnership with Kingdee	SZ Kai Hong first OS			China Mobile IoT Co. partnership	
ERP software										
	Low-code platform ISV partnership		NC Cloud Version upgrade			YonBIP platform Version upgrade	YonBIP treasurer Version upgrade	U9 Cloud 2022 Version upgrade	YonSuite Version upgrade	YonBIP3 Major version
		EBC strategy announced	Partnership with CEC on Xinchuang		Cloud database mgmt. solution	Cosmic Cloud v8.0	HR SaaS on Constellation	Galaxy Cloud Flagship version	EAS Cloud v8.8 upgrade	
			ERP SaaS version		Skyline PaaS platform v4.0					
AI										
		Feiyu AI sound effect system		AI education tender bidding	Automotive voice interaction system			Xingzhou digital collections platform	New smart education solution	
		Water monitoring AI solution		Partnership with Terminus on AI energy		Algorithm platform VM4.2			EZVIZ smart lock solution	

Yellow: new products launch; Grey: software version upgrade; Orange: new partnership announcement

Source: Company data, Goldman Sachs Global Investment Research, Gao Hua Securities Research

Automotive software on smart driving and automotive security

Thundersoft automotive software + cybersecurity: The company announced plans to sign an agreement to partner with C2A Security (private) to develop automotive security solution for car OEM and Tier-1 suppliers in August 2022. C2A Security is a provider of a Cybersecurity solution and offers an AutoSec platform through its automotive Cybersecurity Management System (CSMS) for threat analysis and control. The collaboration between C2A and Thundersoft aims to provide a full suite of tools for local customers to identify and respond to automotive cyberattacks and protect connected vehicles from vulnerabilities.

Exhibit 2: Thundersoft partners with a Cybersecurity vendor, C2A security, to offer an automotive security solution for OEMs and Tier-1 suppliers



Source: Company data

Desay SV's partnership with ChangAn on DCU: Desay SV announced plans to sign a strategic cooperation agreement with ChangAn in August 2022 to accelerate R&D and mass production of domain controllers for smart driving. The company has provided cockpit DCU, dashboard etc. for ChangAn since 2018, and will now offer a smart driving and SDA (Software-defined architecture) platform. Desay SV's recent progress includes: 1) low / high-speed ADAS in mass production soon, 2) L4 DCU entered mass production; and 3) gen-4 cockpit DCU under development.

Zongmu's Drop'nGo parking platform: Zongmu ([report link](#)) launched L2 APA (Auto Parking Assistant) Drop'nGo Lite and L4 AVP (Auto Valet Parking) Drop'nGo based on its cloud platform and in-house algorithm in July 2022. The platform offers remote monitoring services to ensure parking safety, and ZATLAS function to build a HD map with real-time update. The company also launched the Amphiman Series that integrates parking and L2+ ADAS functions including TJA (Traffic Jam Assistant, NGP (Navigation Guided Pilot) etc, supporting Qualcomm's Ride and local chipset platform. Zongmu targets to launch an upgraded platform for L2.9 autonomous driving scenarios by Q4 2024.

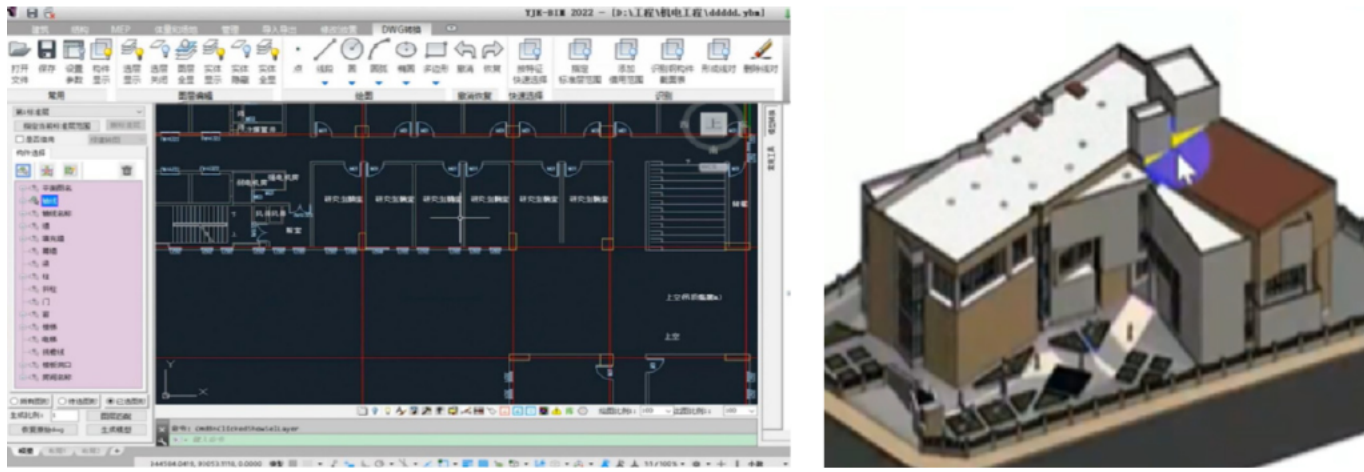
CAD/BIM: CAD ecosystem, BIM design upgrade

ZWSOFT expanding CAD ecosystem: The company signed a strategic partnership agreement with customers and third-party application vendors to develop and improve CAD products for multiple industries. In August 2022, ZWSOFT announced plans to partner with BIM consulting firm JYHT (private) to develop a collaboration solution for the company's CAD platform to further improve designers and other users' efficiency. The company also cooperated with China Communication Construction in June to develop standards and interface with other software companies for the construction industry.

YJK's design software v5.0 beta version: YJK offered BIM design software v4.0 / v4.3

in Oct 2021 / June 2022, and targets to launch a new major version v5.0 in 2H22. In August, the company launched the beta version of v5.0 software for customers' verification, charging customers at around 10-15% of structure software ASP. The new version includes upgrades: 1) new modules for construction sites covering safety calculation tools, and protection tools of foundation pit (YJK-JKZH); 2) comfort analysis function for designers; 3) improving modeling efficiency; and 4) upgraded green architecture design software for new customers of natural ventilation and industrial buildings.

Exhibit 3: YJK v5.0 BIM design software includes new modules for construction sites, upgraded modeling functions and regulation

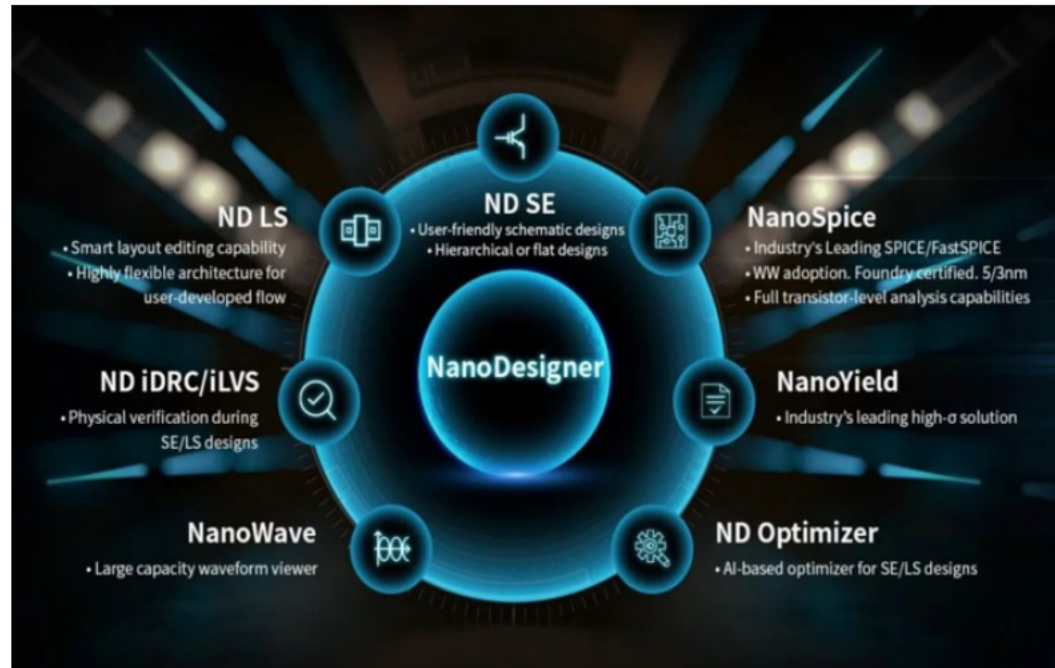


Source: Company data

EDA towards tool platform, integrating multiple point tools

Primarius's EDA tool platform NanoDesigner: The company released its EDA (Electronic Design Automation) tool platform NanoDesigner in July 2022 ([report link](#)). NanoDesigner is an EDA tool suite that will integrate a series of EDA tools for IC design firms. The platform will support memory and analog/mixed-signal designs, including design tools such as schematic entry, layout editing, in-design physical verification, and simulations. Currently for design EDAs, Primarius mainly offers a point tool - NanoSpice for SPICE simulation, and its key customers are global memory IDMs.

Exhibit 4: NanoDesigner is a full flow tool platform, covering design tools including schematic entry, layout editing, in-design physical verification, and simulations



Source: Company data

Metaverse: Online stores for VR content

HTC launched Cloud VR PORT: In August 2022, HTC announced plans to partner with MIGU (private, local live streaming vendor) to launch an online store VR PORT based on China Mobile's cloud platform. VR PORT provides XR standard for users to develop software and content, and ensures new content can be quickly adapted to multiple VR/AR hardware to improve development efficiency. The joint store targets to cooperate with IP vendors and offer content and applications across VR exhibitions, entertainment, video, concert, live streaming etc. for users.

Cybersecurity: Situational awareness, data security, and new partnership

Venustech's partnership with China Mobile: Venustech signed a cooperation agreement with China Mobile International in August 2022 to develop customized Cybersecurity and risk assessment solutions based on China Mobiles' rich data and specific requirements. The company has been working closely with China Mobile ([report link](#)), receiving more projects: 1) offering cybersecurity for a city's Xueliang projects, with project size at Rmb80m, 2) offering WAF (web application firewall) for China Mobile in 2022-24, with 27% allocation, worth over Rmb10m, 3) offering cybersecurity for hospitals, governments, SOEs, IoT, etc. in Western China.

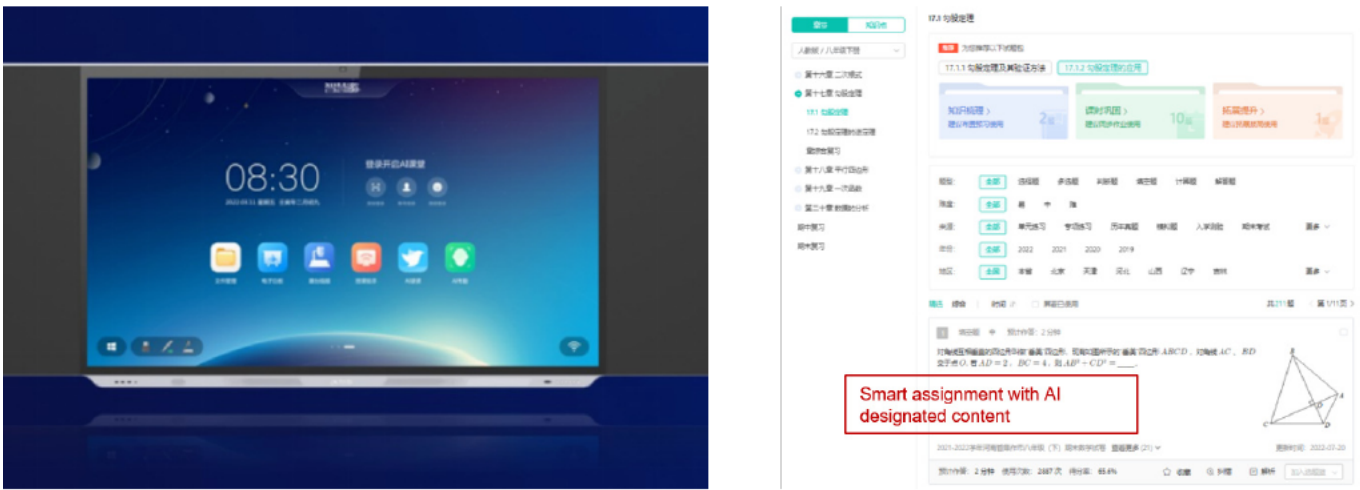
QiAnXin new situational awareness and data security solution: The company launched an upgraded situational awareness system that is able to study and assess breaches with higher risk from large volume of warnings for customers in July 2022. The platform has assessed over 5,000 IP addresses with higher accuracy and efficiency than traditional SA platforms and identified 50 high-risk cyberattacks. QiAnXin also announced plans to offer a new data security product, Data Cross-boarder Guardian, for customers

who are able to manage data transmission and meet requirements of data security and personal information protection law. The product aims to help enterprises to monitor sensitive or personal data and prevent remote attacks.

AI: Smart education solution with new features

iFlytek’s new smart education solution: In August 2022, the company launched new products in the smart education segment and recently also released a new version of its AI learning tablet ([report link](#)). These new product launches mainly focus on features and content upgrades rather than launch of brand-new product categories. For example, in smart education solutions, the upgrade in the personal study brochure product focuses on integrating the changes in the format of the College Entrance Exam, and iFlytek also rolled out programs for physical training and mental health.

Exhibit 5: iFlytek focuses on content upgrade of smart education solutions, covering smart blackboard for classroom teaching and assignment with AI designated content



Source: Company data

ERP: YonSuite new modules to improve enterprise efficiency

YonSuite upgrade with 7 new modules: Yonyou launched an upgraded version of YonSuite for enterprises in August 2022 with new modules covering factory mgmt., quality mgmt., asset mgmt. etc. For medium-sized enterprises, the company has launched a cloud-native platform YonSuite, as well as other products including U9 cloud and U8 cloud for manufacturing-oriented companies. The new YonSuite is designed for customers’ growing digitalization demand, for example, the factory mgmt. module is designed to monitor manufacturing processes in real-time, and the financial mgmt. module is targeted to help high growth enterprises to allocate funds more efficiently to lower overall cost.

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