

Ubiquitous Language of WMB (Workcell Microservices Builder) - 1.2				
Ubiquitous Language	Abbreviation	Localized Text (zh-CN)	Description	Alias
Automatic Service Builder	ASB	自动服务构建器	The microservice which is used to generate OT Workcell Microservices	
Behavior Tree	BT	行为树	It's one of low-code paradigms that can represent complete logics.	
Blackboard		黑板	A visualized graphic panel to display and edit details of Materials .	
CIM Aggregation		CIM聚合	An aggregation of CIM instances. It's a data cloud based on all metadata of CIMs .	Data Ecosystem
Common Information Model	CIM	通用信息模型	Defined by XML Schema (XSD). A general data model to describe all data of a system.	
Common Information Model Instance	CIMI	通用信息模型实例	Instantiated by XML. It could be converted to JSON for RESTful and frontend. Instantiation of CIM .	
Common Runtime-Engineering Exchange Model	CREEM	通用工程端运行时交换模型	Specification of a CIM of IOT domain for WMB and SPIDR	
Compositor		编排器	FBTD / Behavior Tree element	
Condition		条件器	FBTD / Behavior Tree element	
CREEM OEM Native		CREEM OEM原生	CREEM FBs that implemented by 3rd Party OEM Vendors	
CREEM Specification		CREEM规约	A standardized documentation (accessed via a website) to describe CREEM Schemas	
CREEM Vest		CREEM马甲	CREEM FBs pre-installed in RA.	
Cyclic Time		节拍	Average executing time of a Function Block . An important input for 3D Visualization	
Data Block	DB	数据块	A HMI block to display monitoring data of an executing Workflow sourced from Data Layer. It can be strings, numbers, pictures or videos.	
Data Layer	DL	数据中台	Core of IT/OT Polymerization strategy. The middleware will manage monitoring data and Microservice for WMB	
Data Port		数据端口	Data Port of a Function Block .	
Data Table	DT	全局数据表	Global data tables with Namespaces of a Workflow. Blackboard table of a Behavior Tree.	
Decorator		装饰器	FBTD / Behavior Tree element	
Device Description	DevDesc	设备描述	Descriptions of a device (hardware) that includes all its physical parameters and configurations.	DD
Domain Model		领域模型	The model captures the constraints of the single Bounded Context in DDD (Domain-Driven Design) architecture	
Event Port		事件端口	Event Port of a Function Block .	
Function Block	FB	功能块	Minimal unit of a executing node in a Workflow	
Function Block Set	FBS	功能块集合	Recommended output of Knowledge Graph for WMB	
Function Block Typed Diagram	FBTD	功能块图	It's one of low-code paradigms that sourced from IEC61499 and expanded for complete logics. It's compatible with Behavior Tree.	
Hardware Abstract Layer	HAL	硬件抽象层	Device SDK inside of RA. A Software Development Kit to provide uniform abstract interfaces for device drivers.	SDK
Incoming Quality Control	IQC	来料质量控制	Incoming Quality Control of a Production Line	
Industrial Personal Computer	IPC	工控机	SPIDR deployed target device.	
Internationalization	I18N	国际化	A frontend technology to support multiple languages switching	
Internet of Things	IoT	物联网	Internet of Things	
IT/OT Polymerization	IOT	IT/OT融合	Polymerization of Information Technology and Operation Technology	
Knowledge Graph	KG	知识图谱	Knowledge Graph	
Knowledge Graph Service	KGS	知识图谱服务	A common description of a Knowledge Graph micro-service.	
Language of Choice		多编程语言支持	A Runtime technology that the FB logics can be described as multiple different programming languages	
Logic Function Block		逻辑功能块	Logic function blocks to control the Workflow in WMB. E.g. While, If.	
Logical Node	LN	逻辑节点	Logical behaviors of a target Physical Device	
Low-Code Paradigm	LCP	低代码范式	Function Block Typed Diagram (FBTD) and Behavior Tree (BT). Bi-direction conversion is supported.	
Material		物料	A general description of every workpiece inside a BOM or BOP.	
Material Flow	MF	物料流	Name of the material data flow engineering tool of CCT AR Module C.	
Metadata		元数据	A traceable data to describe data. Core of a CIM . Every CIM is unique based on metadata like schema URI and UUID.	
Node-Link Assembly	NLA	节点链接汇编	Intermediate assembly graph that SPIDR can execute. It's parsed from CREEM Workflow.	
Object		对象	General description of any item in a world model. It could only be connected to Data Port of a Task . It contains Workpieces and Platforms .	
OPC Data Access	OPC DA	OPC DA	OPC (Open Platform Communications) Data Access	
OPC Unified Architecture	OPC UA	OPC UA	OPC (Open Platform Communications) Unified Architecture	
Operator		运算符	FBTD element	
Orchestrator		调度器	Orchestrator for Workflows. Core of Runtime.	Execution Engine
Parameter		参数	A variable of general types. It can be input of reference of a Data Port or direct value. It follows UNECE standard.	
Physical Node		物理节点	A abstraction of physical devices.	
Process		工艺	It describes a single production process. One Process is corresponding to one Workstation .	
Process Image		过程镜像	A Process Image is a memory area where IO data of IO modules can be copied to/from.	
Project		项目	Project file of WMB. It contains one System Configuration and one or multiple Workflows .	
Robotic Operation System	ROS	机器人操作系统	Robotic Operation System	
ROS Industrial Driver	ROS I-Driver	ROS驱动	ROS device drivers for Robotics	
Runtime		运行时	Description of an edge device or an industrial PC that runs an orchestrator and corresponding middleware like message broker.	
Runtime Adapter	RA	运行时适配器	A container that include HAL and other built-in features. It supports multiple OS.	
Semantic Model		语义模型	A data model of ontology modeling in semantic graph like OWL or RDF triple-stores.	
Siemens Python-Interpreter Driven Runtime	SPIDR	Python解释器驱动运行时	Runtime driven by Python Interpreter and CREEM workflow orchestrator	
Single Board Computer	SBC	单板机	SPIDR deployed target device.	
State Machine		状态机	A state machine is a behavior model. It consists of a finite number of states.	Finite-State Machine (FSM)
Status Code		状态码	Standard for status codes. CREEM Base Part. Part of OPC UA.	
SubWorkflow		子工作流	It describes a sub-workflow that contains an aggregation of Function Blocks . It supports recursion.	Composite Function Block (CFB)
System Configuration		系统配置	System Configuration feature of WMB	
Task		任务	A autonomy type of CREEM FB . It can be implemented by SubWorkflow . E.g. Pick and Place or Screw Fastening.	
Task Engineering		任务驱动工程	A specific type of Workflow Engineering . It only contains Tasks , Objects and Logics .	
Text-based Artifacts		文本描述介质	An engineering concept that all elements should be described as text-based format files.	
Transportation		运输介质	Transportation between two Workstations . It contains Conveyers and AGVs.	
Type Inheritance System		类型继承系统	A type tree that can be compatible with varies of languages and standards	
Ubiquitous Language	UL	统一语言	Part of DDD. An agreement for standardized wording in the project. Basic of Bounded Context.	
UI Source Package		UI源码包	A source code package for customized UI. It contains HTML, CSS and JavaScript (or TypeScript).	
United Nations Economic Commission for Europe	UNECE	欧洲经济委员会标准	Standard for IoT parameter units. CREEM Base Part. Part of OPC UA.	
User Skill		用户技能	It's a package that contains FBs or Tasks and a released SubWorkflow. In addition, it has billing information and related data for App Store.	User Capability
Visualization 3D		3D可视化	Web-based 3D visualization for demo purpose based on ThreeJS	
Windows Subsystem for Linux	WSL	WSL	Virtualized Linux Subsystem on Windows which is used to deploy RA.	
Work Instruction		工艺指导书	Work instruction. The automation engineer will input this to Material Flow manually or using an editor based on KG reasoning.	
Work Instruction Tag		工艺指导书标签	The index tag that generated automatically in WMB Workflow. It's used to generate Work Instruction.	
Workcell		工作单元	Group of Device Description and reference of their supporting Tasks and FBs . It's sourced from Workstation .	Work Cell
Workcell Microservices		工作单元微服务	OT Microservices generated by ASB and used by IT solutions. It's used to trigger idle workflows deployed in SPIDR	
Workcell Microservices Builder	WMB	工作单元微服务构建器	IOT Engineering Low-code Paradigm Tool + ASB + CREEM + SPIDR + RA	
Workflow		工作流	A CREEM description about abstraction of a low code function block graph which will be executed by orchestrator (execution engine).	
Workpiece		工件	An Object can be operated by a controller. It's corresponding to a Material .	
Workstation		工站	A Workstation of single responsibility. One Workstation is corresponding to one Process .	
World Model		世界模型	A semantic model to describe all 3D world elements in an environment of a 3D simulation system	