

ATS Global B.V.

# ATS Bus 1.5

# What's New?



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# ATS Bus 1.5





# New Features in ATS Bus 1.5

#### **New channel types**

ATS Bus has expanded its connectivity and now has the following channel types:

#### **Workcenter Bus Stop**

- **OPC Server**: Supports both OPC DA and OPC UA clients. It primarily supports OPC UA clients but it can be accessed by a Classic OPC Client using a COM Wrapper.
- MQTT: Supports IoT devices that use the ISO standard (ISO/IEC PRF 20922) protocol. MQTT is a light-weight telemetry protocol (publish/subscribe) on top of TCP.
- MTConnect: Supports communication with an MTConnect agent to obtain information from manufacturing equipment. The MTConnect channel periodically sends requests to the MTConnect agent and processes responses that contain changed data items.
- **Socket**: A bidirectional (client or server) TCP/IP communication channel. It can be used to process CSV, text or binary data. The socket type can be set to client or server.
- **Smart Tools**: Connects to torque controllers from various vendors that support the Open Protocol specification.
- **Extension**: Required when the standard Workcenter channels don't have the functionality required to communicate with a customer's software.

## **MES Bus Stop**

• **Extension**: Required when the standard MES channels don't have the functionality required to communicate with a customer's software.

#### **Bus Monitor**

The Bus Monitor application gives you access to a lot of information, including:

- Connection status
- Bus stop, channel and message details
- Message history
- Message errors
- Tag details

	L	Monitoing details		
Bus stop name	Current state	Bus stop name:	WorkcenterBusStop	
WBSSmartToolTest	Connecting	Created	13.06.2017 11:56:30	
ArchiveBusStop	Connecting	created.		
WBSAtributeTest	Connecting	Configuration updated	: 13.06.2017 11:56:30	
WBSExtensionTest	Connecting	Message history E	irrors	
<ul> <li>WorkcenterBusStop</li> </ul>	Connected	Time st A Messar		
<ul> <li>XmlChannelShopfloorC</li> </ul>	Connected	12:02:17 Mossag	- a "ShanfloorCommandMission Up" from the channel 'cry. ShatefloorCommandMission ShanfloorCommandMission Up' has been sent to the bus- a "ShanfloorCommandMission" (cry. ShatefloorCommandMission ShanfloorCommandMission).	
ShopfloorComman	Connected	12:02:17 Messag	E Snophorocommandmissing op nom die Clamer Gysnophorocommandmissing.shophorocommandmissing op nas been sent to die bus.	
<ul> <li>csv_ShotpfloorComma</li> </ul>	Connected	12:02:17 Action	Forward [OF.]	
ShopfloorComman	Connected	12:02:17 Action -	rouwalu [ur.] • "ShanfloorCommandMissing Up" from the channel 'scu ShatefloorCommandMissing ShanfloorCommandMissing Up" has been sent to the hur	
ShopfloorComman	Connected	12:02:10 Wessay	e anophoticommanumissing_op nom the cramer csv_anophoticommandwissing_anophoticommandwissing_op has been sent to the bas.	
WBSExtensionCompas	Connecting	12:02:20 Action	Forward [07:]	
MesBusStop	Connecting	12:05:17 Massag	rouwdd (Ur.) a "Shaflaasfaamaad dissiaa Un' fean the shannel 'su' Shataflaasfammaad Nissiaa Shanflaasfammaad Nissiaa Un' has haan sant ta the hus	
WBS_Forward_XML_To_We	Connecting	12:00:17 Wessay	<ul> <li>StophoreCommandatissing_op from the channel Gv_shotphoreCommandatissing_ShotphoreCommandatissing_op has been sent to the bus.</li> </ul>	
WorkcenterOperationPerfo	Connecting	12:06:17 Action	Forward [OP.]	
WBS_DownloadToChannel	Connecting	12:00:17 Action -	Forward (OK)	

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# Work Order Manager

The Work Order Manager is an application that allows you to view, reset and close the work orders that are present in the Workcenter bus stop.

Created 💌	Operation	CompositeKey	Order id	<ul> <li>Serial number</li> </ul>	State
8-6-2016 15:30:43	OP10	OP10.TEST3.0011946127.TEMP10763.MH_TEST_WINDER	TEST3	TEMP10763	Created
8-6-2016 15:30:43	OP10	OP10.TEST3.0011946127.TEMP10762.MH_TEST_WINDER	TEST3	TEMP10762	Created
8-6-2016 15:30:43	OP10	OP10.TEST3.0011946127.TEMP10761.MH_TEST_WINDER	TEST3	TEMP10761	Created
8-6-2016 15:30:43	OP10	OP10.TEST3.0011946127.TEMP10760.MH_TEST_WINDER	TEST3	TEMP10760	Created
8-6-2016 15:30:43	OP10	OP10.Order1.0011946127.TEMP10763.MH_TEST_WINDER	Order1	TEMP10763	Created
8-6-2016 15:30:43	OP10	OP10.Order1.0011946127.TEMP10762.MH_TEST_WINDER	Order1	TEMP10762	Created
8-6-2016 15:30:43	OP10	OP10.Order1.0011946127.TEMP10761.MH_TEST_WINDER	Order1	TEMP10761	Created
8-6-2016 15:30:43	OP10	OP10.Order1.0011946127.TEMP10760.MH_TEST_WINDER	Order1	TEMP10760	Created
8-6-2016 15:30:43	OP10	OP10.32	32		Created
24-11-2015 12:38:50	TQC	TQC.WorkOrder001.Serial111	WorkOrder001	Serial111	Created

# **Transfer Files Across Bus**

Files of any type can now be securely transferred across ATS Bus.

# **Subscribe to Non-Operation Based Messages**

In contrast to queues, in which each message is processed by a single consumer, topics and subscriptions provide a one-to-many form of communication, in a publish/subscribe pattern. They are useful for scaling to a very large numbers of recipients as each published message is made available to each subscription registered with the topic.

Messages are sent to a topic and delivered to one or more associated subscriptions, depending on filter rules that can be set on a per-subscription basis. The subscriptions can use additional filters to restrict the messages that they want to receive. Messages are sent to a topic in the same way they are sent to a queue, but messages are not received from the topic directly. Instead, they are received from subscriptions. A topic subscription resembles a virtual queue that receives copies of the messages that are sent to the topic. Messages are received from a subscription identically to the way they are received from a queue.

# **Transmit Operation Capability Information**

ATS Bus can transmit operations capability information. This is information about production resources. It's made up of capability information about equipment, material, personnel, and process segments. It describes the names, terms, status, and quantities of which the manufacturing control system has knowledge. Operations capability also defines the available capability, committed capability, and unattainable capability of each resource.

## **Property Attributes Improve Contextualisation**

Property attributes allow additional information to be added to a property besides the value.

For example if a property is temperature then it could have attributes of the upper control limit and lower control limit.

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# **Mandatory Tags**

Mandatory tags prevent messages that are missing essential information from being processed.

If the required tags are set to Mandatory then, when a channel message is sent that doesn't contain all the mandatory tags, an error message is generated and the message won't be processed.

# **Asynchronous Communication**

ATS Bus now uses NServiceBus 6. This gives it many improvements in performance as well as allowing asynchronous communication which improves scalability.

#### Create index from channel message field

This allows ATS Bus to parse more complex files and handle more complex interfaces where, for example, the name of a property isn't fixed but is instead in another field of the message.

#### **Configure NServiceBus parameters in Cockpit**

NServiceBus parameters can now be modified from within Cockpit. This gives use greater control over your settings without having to leave the ATS Bus environment.