

OCF “Fargo” – Proposal to add tables for supported enums depending on device types to OCF Device Spec Annex B.2.3 & B.2.4 – Core Technology WG CR 2983

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B.2.3 Standardized list of supported values for mode resource type (oic.r.mode)

Table B.2 lists the supported enumeration values that can apply to both of the Property “supportedModes” and “modes” of mode resource type per devices.

Table B.2 – List of supported values per Device Type (“rt”) for mode resource type

Device Name (informative)	Device Type (rt) (Normative)	Supported enumeration value	Description
Air Conditioner	oic.r.airconditioner	airClean	This removes contaminants from the indoor air.
		airDry	This removes moisture from the inside of the device to prevent mold after cooling air.
		aroma	This adds a deodorizing scent to make the air fresher.
		auto	This automatically selects and operates cooling and/or heating based on the current temperature condition.
		cool	This cools the indoor air.
		energySaving	This saves energy (electricity) by restricting some functions.
		fan	This circulates the inside air without cool and inflow of outside air.
Air Purifier	oic.d.airpurifier	auto	This is continuously checking the air quality and operating as needed to maintain good air quality.
		babyCare	This removes contaminants from indoor air and discharges clean air in a downward flow for babies and children.
		circulating	This circulates the inside air by using the fan inside the device.
		cleaning	This removes contaminants from the indoor air. In the case where the device consists of lower and upper sections, this function is operated only in the lower section.
		dual	This removes contaminants from the indoor air. In the case where the device consists of lower and upper sections, this function operates in both of sections.
		humidity	This increases moisture in the indoor air.
		silent	This reduces noise during the operation.
		sleep	This is a low power mode for the device to lower electrical consumption on standby.
Dishwasher	oic.d.dishwasher	auto	This senses the soiled amount and soiled toughness and is optimized to achieve the best cleaning.
		cleaning	This means cleaning the inside of the device when there are no dishes.
		delicate	This is to clean delicate items (e.g., fine china, small plates, long cutlery, cups, glasses, and so on).

		energySaving	This saves energy by reducing the wash and rinsing temperature.
		express	This cleans lightly soiled dishes faster than "quick" mode.
		fast	This focuses on cleaning soiled dishes quickly.
		heavy	This cleans heavily soiled dishes with the strongest spray intensity.
		normal	This cleans soiled dishes for everyday use based on basic setting from manufacturers.
		quick	This quickly cleans the lightly soiled dishes used that were used recently.
		refresh	This is to freshen up and warm dishes that have been unused for a long time.
		rinse	This rinses dishes with water.
		spray	This provides selectable options for spray intensity. (For example, the options could be soft, medium, and strong)
		steam	This adds steam at the beginning of the cycle to improve the wash performance.
		turbo	This cleans heavily soiled dishes by using slightly more energy and water.
		update	This downloads a dedicated cycle via Wi-Fi, NFC, and so on.
Oven	oic.d.oven	baking	This cooks by dry heat in an oven
		convBake	This is a baking mode of a convection oven
		convRoast	This is a roasting mode of a convection oven
Robot Cleaner	oic.d.robotcleaner	edge	This is cleaning the outside perimeter of the area.
		macro	This is cleaning specific areas manually selected by a client.
		sectored	This is cleaning complex areas by dividing the cleaning area into sections.
		select	This is cleaning areas selected by a client among divided sections of the indoor.
		spot	This is cleaning a small area within the radius of the manufacturer's default set.
		zigzag	This is cleaning each spot of indoor by moving zigzag.
Security Panel	oic.d.securityPanel	active	
		armedAway	
		armedInstant	
		armedMaximum	
		armedNightStay	
		armedStay	

The modes can be viewed upon as mode changes of the device. However this document does not impose any relationship between the different modes of a Device. Hence all mode changes are expected to occur from a Client point of view.

Figure B.1 provides an illustrative example of a possible set of modes and the transitions between them for a Dryer Device Type (oic.d.dryer).

An example mode transition diagram of a Dryer, not all mode transitions are listed.

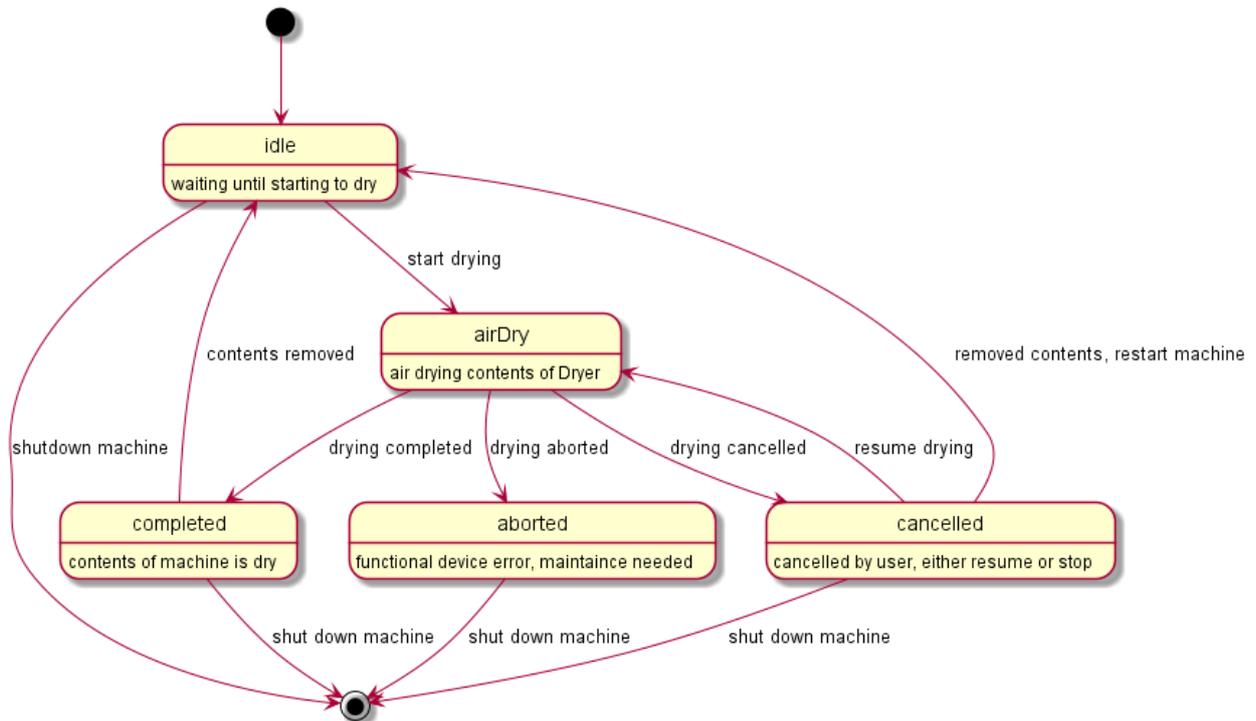


Figure B.1 – Example of mode transitions of a dryer

B.2.4 Standardized list of supported values for operational state resource type (oic.r.operational.state)

Table B.3 lists the supported enumeration values per device for Property “machineStates” of operational state resource type and Table B.4 lists the supported enumeration values per device for Property “jobStates” of operational state resource type.

Table B.3 – List of supported values per Device Type (“rt”) for machineStates of operational state resource type

Device Name (informative)	Device Type (rt) (Normative)	Supported enumeration value machineStates
Dishwasher	oic.d.dishwasher	start
		stop
Dryer	oic.d.dryer	start
		stop

Oven	oic.d.oven	completed
		preHeat
		start
Printer	oic.d.printer	idle
		processing
		stopped
Printer Multi-Function	oic.d.multifunctionPrinter	See Printer
		See Scanner
Robot Cleaner	oic.d.robotcleaner	homing
		pause
		restart
		start
		wakeUp
Scanner	oic.d.scanner	down
		idle
		processing
		stopped
		testing
Steam Closet	oic.d.steamcloset	start
		stop
		wakeUp
Washer	oic.d.washer	start
		stop
		wakeUp

Table B.4 – List of supported values per Device Type (“rt”) for jobStates of operational state resource type

Device Name (informative)	Device Type (rt) (Normative)	Supported enumeration value jobStates	Description
Dishwasher	oic.d.dishwasher	aborted	This is an internal device, communication, or security error. (e.g. power_fail)
		airDry	This dries wet materials by using forced air (no heat).
		cancelled	This state is cancelled by (remote) user.
		completed	This state is a job completed without any error.
		down	This state is unavailable to operate a job due to some issues. (e.g. power_off)
		nightDry	This runs the ventilation fan periodically to vent the steam from the tub. Because the

			dishes are often left in the dishwasher overnight after the cycle ends, this can result in the steam inside the tub condensing on the dishes, leaving them wet. To prevent the above state, the device can provide this state.
		pause	This state is paused by user.
		pending	This state is waiting that the device prepares to initiate a job.
		reserve	This state means that a client has finished setting the system for future use.
		rinse	This is to rinse the dishes with water
		wash	This is to clean the soiled dishes
Dryer	oic.d.dryer	aborted	This is an internal device, communication, or security error.
		airDry	This dries the materials by using forced air (no heat).
		completed	This state is a job completed without any error.
		coolDown	This state is for the temperature cool down to reduce clothes temperature' by spinning the interior drum without heat.
		diagnosis	When an error occurs, the device enters this state to identify causes and find solutions.
		down	This state is device unavailable to operate a job due issues. (e.g. power_off)
		pause	This state is paused by user.
		pending	This state is waiting that the device prepares to initiate a job.
		processing	This is working on a job executed by a client.
		reserve	This state means that a client has finished setting the system for future use.
		wrinklePrevent	This state runs the dryer periodically to help prevent wrinkles from forming.
Oven	oic.d.oven	cleaning	This is cleaning to remove the soiled inside and outside of the device.
		completed	This state is job completed without any error.
		cool	This is cooling the temperature inside and outside of the device after finishing cooking.
		down	This state is unavailable to operate a job due to issues. (e.g. power_off)
		idle	This means that new jobs can start processing without waiting. (e.g., preheating is done)
		pause	This state is paused by user.
		pending	This state is waiting that the engine prepares to initiate a job.
		preHeat	This is pre-heating the inside of the device prior to cooking.
processing	This is working on a job executed by a user.		

		setOption	This is in status while being set for the device's options.
Printer	oic.d.printer	aborted	This is in internal device, communication, or security error.
		cancelled	This state is cancelled by (remote) user.
		completed	This state is job completed without any error.
		pending	This state is waiting that the device prepares to initiate a job.
		pendingHeld	This state halts pending from processing for any number of reasons. This will return to pending state if the issues are resolved.
		processing	This is working on a job executed by a client.
Printer Multi-Function	oic.d.multifunction Printer	See printer	Refer to the supported enumeration values of a Printer (oic.d.printer).
		See scanner	Refer to the supported enumeration values of a Scanner (oic.d.scanner).
Robot Cleaner	oic.d.robotcleaner	charging	This means that the device is charging. In the case of robot cleaner, it can be charged by connecting with its home station.
		cleaning	This is cleaning indoor floor with selected mode by a client.
		diagnosis	When an error occurs, a device enters this state to identify causes and find solutions.
		homing	This state means that the device is moving to its home station after finishing work or to charging its battery
		idle	This means that new jobs can start processing without waiting.
		initializing	This is resetting device to initial values set by manufacturer.
		macro	This is controlled and cleaned by the client based on a remote controller.
		mapping	At first use of the device, it scans the indoor area by moving to make a map.
		monitoring	This is a security functions detecting strange movements in an empty place by using mounted cameras.
		monitoringInitializing	This is resetting device to initial values set by the manufacturer.
		monitoringMoving	This is moving to follow a specific target that a user selects while the device is in monitoring mode.
		monitoringPreparation	This is in a state where a device is getting ready for its monitoring operation.
		moving	This is moving to go to a different place.
		pause	This state is paused by user.
		preparation	This means that the device is getting ready for its operation.
reserving	This state means that a client is setting systems for future use.		

		setOption	This is the status while being set for the device's options.
Scanner	oic.d.scanner	aborted	This is in internal device, communication, or security error.
		cancelled	This state is cancelled by (remote) user.
		completed	This state is completely finished the job without any error.
		pending	This state is waiting that the device prepares to initiate a job.
		processing	This is working on a job executed by a client.
Steam Closet	oic.d.steamcloset	aborted	This is an internal device, communication, or security error.
		airDry	This is in drying the materials by using wind.
		completed	This state is job completed without any error.
		diagnosis	When an error occurs, a device enters this state to identify causes and find solutions.
		down	This state is unavailable to operate a job due to issues (e.g. power_off)
		idle	This means that new jobs can start processing without waiting (e.g. washing is done).
		initializing	This is resetting device to initial values set by manufacturer.
		nightDry	This is a special sanitary care during the night, which runs heavy sanitary care and then dries periodically every hour for an additional eight hours.
		pause	This state is paused by user.
		pending	This state is waiting that the device prepares to initiate a job.
		preHeat	This is preheating the inside of the device.
		preSteam	This is steaming the inside of the device to remove residual material at the beginning of the cleaning sequence.
		processing	This is working on a job executed by a client.
		reserve	This state means that a client has finished setting the system for future use.
		shake	This is to quickly shake the hanger inside of the device to remove drops of water on clothes after a steam cycle.
		sleep	This is in low power state for the device to lower electrical consumption on standby.
		steam	This sprays steam on the washable items to remove odors and wrinkles after preheat the inside of the device.
sterilize	This removes germs on items through high temperature and steam.		
update	This downloads a dedicated cycle via Wi-Fi, NFC, and so on.		

Washer	oic.d.washer	aborted	This is an internal device, communication, or security error.
		changeCondition	After the washer checked the turbidity, the device could change condition progressing state. For example, the washer can rinse the clothes one more time or finish washing it.
		checkingTurbidity	The device automatically checks turbidity during rinsing the clothes to check if the detergent remains.
		completed	This state is completely finished the job without any error.
		coolDown	This state is temperature cool down to reduce clothes temperature' by spinning the interior drum without heat only in case the washer supports a dry function.
		diagnosis	When an error occurs, a device enters this state to identify causes and find solutions.
		down	This state is unavailable to operate a job due to issues. (e.g. power_off)
		dry	This is to dry the washed clothes with heat.
		freezePrevent	To prevent developing ice inside of the device and pipe, the device takes special care of the device condition in the winter.
		freezePreventPause	This is paused state in freeze prevent mode.
		freezePreventPending	This is pending state in freeze prevent mode.
		grinding	This is to grind debris to prevent drain pipes being clogged.
		idle	This means that new jobs can start processing without waiting. (e.g. rinsing clothes is done)
		pause	This state is paused by user.
		pending	This state is waiting that the device prepares to initiate a job.
		preparation	This means that the device is getting ready for its operation This state includes checking the amount of detergent, softener, water and so on.
		preWash	This is to wash heavily soiled clothes in advance before starting the washing process.
		processing	This is working on a job executed by a client.
		refresh	This removes wrinkles from slightly wrinkled clothes by using steam for if the washer supports steam function
		reserve	This state means that a client has finished setting the system for future use.
rinse	This is to rinse the dishes with water.		
shoesDry	This is a special cycle for drying shoes.		
sleep	This is in low power state for the device to lower electrical consumption on standby.		

		soaking	This makes clothes thoroughly wet by immersing them in liquid so dust and stains can easily be removed.
		spin	This is spinning fast to remove the water after completely rinsing the clothes.
		steam	This sprays steam on clothes to remove odors and wrinkles.
		steamSoftening	This softens the fabric using 100% pure water and no chemicals with steam instead of chemical fabric softeners.
		testing	This checks the amount of clothes inside the washer and displays the results.
		update	This downloads a dedicated cycle via Wi-Fi, NFC, and so on.
		wash	This is washing the clothes with selected cycle set by a client
		waterproofing	This washes (sports) clothes with a dedicated liquid for waterproofing.
		wrinklePrevent	This state can help prevent wrinkles from forming.

The operational state can be viewed as state changes of the device that includes separate handling of jobs within the overall machine state. However, this document does not impose any relationship between the different machine or job states of a device. Hence all "machineStates" and or "jobStates" changes are expected to occur from a Client point of view.

Figure B.2 provides an illustrative example of a possible set of job states and the transitions between them for a Printer Device Type ("oic.d.printer").

An example machine and job states of a Printer, not all state transitions are listed.

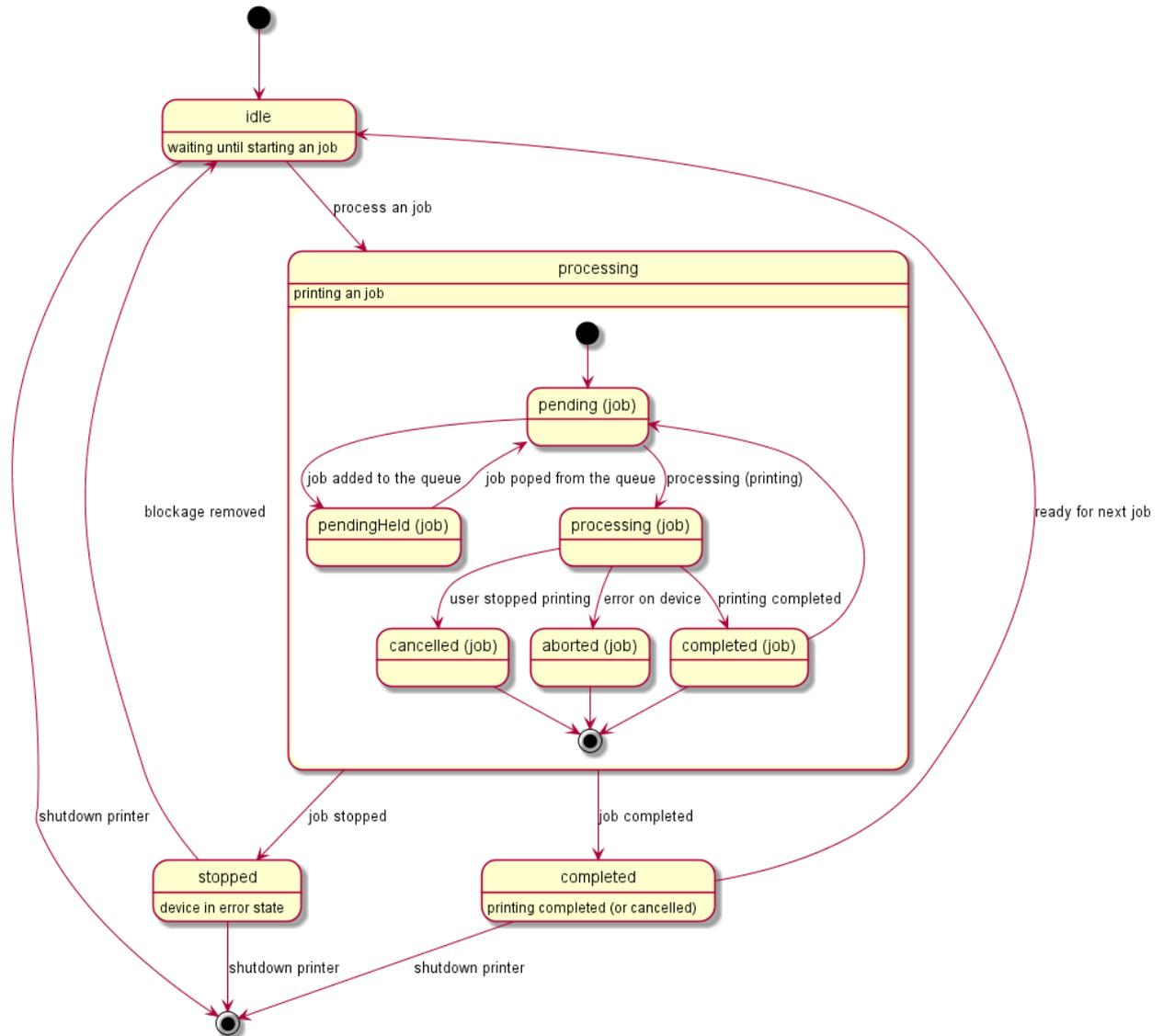


Figure B.2 – Example of job state transitions of a printer