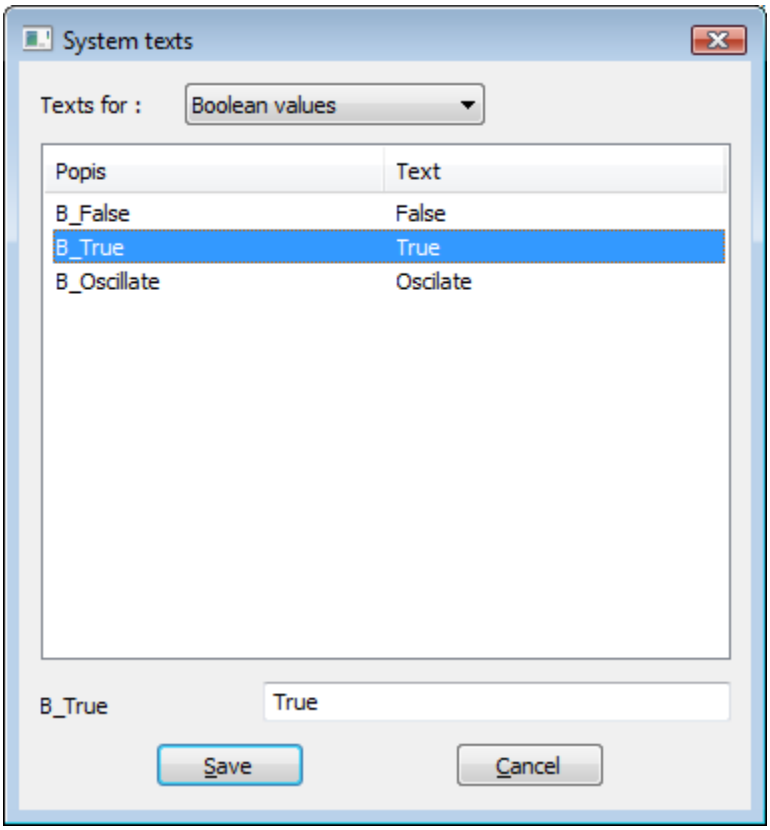
Configuration of System Texts (Value Representation Methods)

Configuration of system texts

Configuration of system texts is performed by means of the D2000 CNF process.



The system texts are divided into the following categories:

- Boolean values (for the object of Eval tag type, User variables, Time channels)
- Di, Do measured values (for the object of I/O tag type)
- Process object values (for the object of Process type)
- System alarm values (for the object of Alarm type)
- Station values (for the object of Station type)
- Qi measured values (for the object of I/O tag type)
- Process alarms
- Value limits
- Value states
- Operator commands
- Alarm commands

The objects, values of which do not contain system texts:

- I/O tags of AI, AO, CI, CO, TiA, ToA, TiR, ToR, TmRo, TxtI a TxtO types
- Evaluated tags
- User variables of Integer, Real, TmA, TmR, Txt types

* Displaying of values of *Integer*, *Real*, *Absolute time* and *Time interval* types might be controlled by *transformation palette*.

Boolean values

Label in the system	Predefined label	Cause

B_False	False	False value
B_True	True	True value
B_Oscillate	Oscillate	Oscillating value (TRUE <-> FALSE).

Di, Do measured values

Label in the system	Predefined label	Cause
D_False	OFF	False value
D_True	ON	True value
D_Oscillate	OSCILLATE	Oscillating value (TRUE <-> FALSE). The system sets the value as the oscillating one according to defined parameters of filtering - Oscillation limits.

Process object values

Label in the system	Predefined label	Cause>
P_Run	Run	The process is running.
P_Crash	Crash	The process is terminated by an error (incorrect termination). If it is possible, the D2000 Server will try to start the process again.
P_Stop	Stop	The process is correctly terminated.
P_WDErr	WDErr	Error when communicating with the D2000 Server - Watch Dog Error (interrupted flow of Watch Dog messages between the client process and the D2000 Server).

System alarm values

Label in the system	Predefined label	Cause
A_Norm	Normal	The condition to raise the alarm is not met.
A_Alarm	Alarm	The condition to raise the alarm is met.
A_Kvit	Kvit	The alarm is acknowledged by the operator.
A_Block	Block	The alarm is blocked by the operator, or at the alarm configuration is enabled **Blocked alarm** option.
A_UnBlock	UnBlock	The D2000 Alarm process is not running and the operator unblocks the given alarm in the Blocked state.
A_NoKvit	NoKvit	The condition to finish the acknowledge-required alarm is met before its acknowledgement.

Station values

Label in the system	Predefined label	Cause
St_On	ON	The station communicates

St_Off	OFF	The station does not communicate. The communication is disabled by the operator (via the control window in the D2000 HI process) or at the station configuration in the D2000 CNF process.
St_CommErr	COMERR	The occurrence of a "soft" error of the communication. Such error occurs after unsuccessful data transmission.
St_HardErr	HARDERR	The occurrence of "hard" errors in the communication. Such error occurs if the communication with the station is in StCOMERR state within the period given by the **Time filter** parameter. If the station value is StHARDERR, then all the I/O tags of the station will pass to an undefined state.
St_Simul	SIMUL	Communication with the station is simulated.
St_Wait	WAIT	The station is in AUTO mode. Communication is stopped. The control object value is TRUE. Requests for output are postponed and they will be executed when the control object value will be FALSE.

Qi measured values

Label in the system	Predefined label	Cause
SwTrans	TRANS	Change of quadrature value from TRUE into FALSE or vice-versa.
SwOff	OFF	False value
SwOn	ON	True value
SwErr	ERROR	Invalid (illegal) value.
SwOsc	OSCILLATE	Oscillating value (TRUE <-> FALSE). The system sets a value as the oscillating one according to defined parameters of filtering - Oscillation limits.

Process alarms

Label in the system	Predefined label	Cause
NoAlarm	NoAlarm	No process alarm is active
ToTrue	ToOn	Process alarm occurred - change into ON (TRUE) level.
ToFalse	ToOff	Process alarm occurred - change into OFF (FALSE) level.
True	On	Process alarm occurred - ON (TRUE) level.
False	Off	Process alarm occurred - OFF (FALSE) level.
Invalid	Err	Invalid (illegal) value.
Oscillate	Oscillate	Oscillating value.
HL	HL	Process alarm occurred - limit state of HL value.
VHL	VHL	Process alarm occurred - limit state of VHL value.
LL	LL	Process alarm occurred - limit state of LL value.
VLL	VLL	Process alarm occurred limit state of VLL value.
ToHL	ToHL	Process alarm occurred- value change into HL limit state.
ToVHL	ToVHL	Process alarm occurred- value change into VHL limit state.
ToLL	ToLL	Process alarm occurred - value change into LL limit state.
ToVLL	ToVLL	Process alarm occurred - value change into VLL limit state.
SwToTrans	SwToTrans	Process alarm occurred - change of quadrat value into Q_Trans value.
SwToOff	SwToOff	Process alarm occurred- change of quadrat value into Q_Off (FALSE) value.

SwToOn	SwToOn	Process alarm occurred- change quadrat value into Q_On (TRUE) value.
SwToError	SwToErr	Process alarm occurred - change of quadrat value into Q_Err value.
SwTrans	SwTrans	Process alarm occurred- quadrat value is Q_Trans.
SwOff	SwOff	Process alarm occurred - quadrat value is Q_Off.
SwOn	SwOn	Process alarm occurred - quadrat value is Q_On.
SwError	SwErr	Process alarm occurred - quadrat value is Q_Err.
ErrorWriteCmd	ErrWriteCmd	Error at the setting of output tags.
Sw_ErrorCmdOn	ErrCmdOn	Error during cm_SetSwitchOn command execution.
Sw_ErrorCmdOff	ErrCmdOff	Error during cm_SetSwitchOff command execution.
Sw_ErrorBkpCmdOff	ErrZalCmdOff	Error during cm_SetSwitchBkpOff command execution.
Change	Change	Process alarm occurred - change of integer or analog value.
SysPrAl	SysProcAlarm	The special type of process alarm is used just for two objects of System variable type - SystemError and SystemWarning.

Value limits

Label in the system	Predefined label	Cause
Is_InLimit	InLimit	The object value is at once greater or equal to LL and less or equal to HL **(LL<=values<=HL)**.
Is_VL_Limit	VL_Limit	The object value is less than VLL **(value<VLL)**.
Is_L_Limit	L_Limit	The object value is at once greater or equal to VLL and less than LL **(VLL<=value<LL)**.
Is_H_Limit	H_Limit	The object value is at once greater than HL and less than VHL **(HL<value<=VHL)**.
Is_VH_Limit	VH_Limit	The object value is greater than VHL **(VHL<value)**.
Is_LimitsProblem	LimitsProblem	In the case of dynamic limits, there is a validity mismatch of the conditions: **VLL<LL<HL<VHL**.

Value states

Label in the system	Predefined label	Cause
s_val_Invalid	Invalid	Invalid object value.
s_pa_Alarm	ProcAlarm	The state occurs in the case that the given object has an active process alarm.
s_pa_NoAck	NoAckPAlarm	The state occurs in the case that the process alarm is not acknowledged by the operator in the D2000 HI process.
s_pa_Blocked	PrAlSilent	The state occurs in the case that the given object has not any active process alarm, or the **Silent** option is enabled at the configuration of object process alarms in the D2000 CNF process.
s_val_Weak	Weak	A weak (suspicious) value is a value not valid in the system because all the conditions of its validity are not met.
s_val_NoAck	NoAckValue	The state occurs in the case that the last object value change is not acknowledged by the operator in the D2000 HI process.
s_val_Transient	Transient	A transient state of the value occurs, if the command that sets the object value was executed, but backward reading has not yet verified the value setting.
s_val_Default	Default	The default state of the object value occurs, if the I/O tag value gained by the process D2000 KOM is replaced by another value - the control object value, or is manually set by the operator in the D2000 HI process.
s_val_Manual	Manual	The object value is in a Manual state if it is manually set by the operator in the D2000 HI process.

s_pa_Critical	PrAlCrit	The status occurs in the case that the process alarm is defined as a critical one in the D2000 CNF process.
s_pa_Unknown	Unknown	

Operator commands

Label in the system	Predefined label	Cause
cm_SetDefautManual	SetDefMan	Manual setting of the object default value.
cm_SetDefautAuto	SetDefAuto	Activation of the automatic mode of the object default value control. The default value in this mode will be copied the control object value.
cm_SetManual	SetManual	Manual setting of output object value.
cm_SetAuto	SetAuto	Activation of the automatic mode of the output object value control. The object value in this mode copies the control object value.
cm_SetDefaultOff	SetDefOff	Cancel the validity of the object default value.
cm_SetSwitchBlockAOn	SetBlockAOn	Activation of blockade A of the switch.
cm_SetSwitchBlockAOff	SetBlockAOff	Deactivation of blockade A of the switch.
cm_SetSwitchOn	SetSwitchOn	Switch on the switch.
cm_SetSwitchOff	SetSwitchOff	Switch off the switch.
cm_SetSwitchBkpOff	SetSwitchBkpOff	Backup switch off the switch.
cm_SetSwitchBlockBOn	SetBlockBOn	Activation of blockade B of the switch.
cm_SetSwitchBlockBOff	SetBlockBOff	Deactivation of blockade B of the switch
cm_SetSwitchNormalOff	SetSwitchNormalOff	Set the switch to the normal state - OFF.
cm_SetSwitchNormalOn	SetSwitchNormalOn	Set the switch to the normal state - ON.
cm_SetSwitchNormalNone	SetSwitchNormalNone	Set the switch to the normal state - NONE.

Alarm commands

Label in the system	Predefined label	Cause
cm_AlarmKvit	Kvit	The alarm is acknowledged by the operator.
cm_AlarmBlock	Block	The alarm is blocked by the operator, or the **Blocked alarm** option is enabled at its configuration in the D2000 CNF process.
cm_AlarmUnblock	Unblock	The alarm is unblocked by the operator.

Related pages:

Value representation methods in D2000 System