



XPS-RLD & XPS-D

**Universal High-Performance
Motion Controllers/Drivers**



**Stages Database
History**

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Universal High-Performance Motion Controllers/Drivers XPS-RLD & XPS-D

Versions 4.3.x

XPS Stages Database Version: V4.3.17

Version history: September 19th 2023 (ECO 5770)

- Modifications on ONE-XY@ONE-XY60-X and ONE-XY@ONE-XY60-Y for XPS-DRV02 & XPS-DRV11 configurations :
 - DriverMotorResistance was 4.35 and is set to 4.3
 - DriverMotorInductance was 0.0009 and is set to 0.0006
 - DriverThermistanceThreshold was 1300 and is set to 2500
- Modifications of ONE-XY@ONE-XY100-X and ONE-XY@ONE-XY100-Y for XPS-DRV02 & XPS-DRV11 configurations :
 - DriverMotorResistance was 4.35 and is set to 4.3
 - DriverMotorInductance was 0.0009 and is set to 0.0006
 - DriverThermistanceThreshold was 1300 and is set to 2500
- Modifications of ONE-XY@ONE-XY200-X and ONE-XY@ONE-XY200-Y for XPS-DRV02 & XPS-DRV11 configurations :
 - DriverMotorResistance was 8.7 and is set to 7.15
 - DriverMotorInductance was 0.0018 and is set to 0.0011
 - DriverThermistanceThreshold was 1300 and is set to 2500
- Modifications of ONE-XY@ONE-XY300-X and ONE-XY@ONE-XY300-Y for XPS-DRV02 & XPS-DRV11 configurations :
 - DriverMotorResistance was 12.45 and is set to 9.77
 - DriverMotorInductance was 0.0015 and is set to 0.001
 - DriverThermistanceThreshold was 1300 and is set to 2500

XPS Stages Database Version: V4.3.16**Version history: April, 17th 2023 (ECO 5699)**

- Deletion of configuration LTA@LTAHLPPV6@XPS-DRV11

XPS Stages Database Version: V4.3.14**Version history: September, 13th 2022 (ECO 5608)**

- Correction of bugs on ZVR-PP-Z@XPS-DRV11 configuration

XPS Stages Database Version: V4.3.13**Version history: July, 1st 2022 (ECO 5590)**

- Modifications on MLT@MLT50-X@XPS-DRV11 configuration :
 - HomeSearchMaximumVelocity was 15 and is set to 10
 - NotchFrequency2 was 750 and is set to 650
 - NotchBandwidth2 was 100 and is set to 200
- Modifications on MLT@MLT50-Y@XPS-DRV11 configuration :
 - HomeSearchMaximumVelocity was 15 and is set to 10
 - DerivativeFilterCutOffFrequency was 500 and is set to 300
 - NotchFrequency1 was 135 and is set to 200
 - NotchBandwidth1 was 100 and is set to 150
 - NotchFrequency2 was 183 and is set to 800
 - NotchBandwidth2 was 150 and is set to 300
- Modifications on MLT@MLT50-Z@XPS-DRV11 configuration :
 - HomeSearchMaximumVelocity was 15 and is set to 10

XPS Stages Database Version: V4.3.12**Version history: June, 16th 2022 (ECO 5574)**

- Modifications on MLT@MLT25-X@XPS-DRV11 configuration :
 - MotorDriverInterface was LMI (Large Initialization Motion) and is set to SMI (Small Initialization Motion)
 - InitializationAccelerationLevel was 5 and is set to 2
 - InitializationFrequency was 50 and is set to 20
 - MinimumJerkTime was 0.02 and is set to 0.2
 - MaximumJerkTime was 0.02 and is set to 0.2
 - JogJerkTime was 0.02 and is set to 0.2
- Modifications on MLT@MLT25-Y@XPS-DRV11 configuration :
 - MotorDriverInterface was LMI (Large Initialization Motion) and is set to SMI (Small Initialization Motion)

- InitializationAccelerationLevel was 5 and is set to 1
- InitializationFrequency was 50 and is set to 20
- MinimumJerkTime was 0.02 and is set to 0.2
- MaximumJerkTime was 0.02 and is set to 0.2
- JogJerkTime was 0.02 and is set to 0.2

XPS Stages Database Version: **V4.3.10**

Version history: January, 17th 2022 (ECO 5510)

- Limitation of « DriverBemfCompensationGain » parameter to 1.5 for Stepper configurations below with XPS-DRV11 :

- BGM@BGMxxxBPE@XPS-DRV11
- BGM@BGMxxxBPP@XPS-DRV11
- BGM@BGMxxxPEBV6@XPS-DRV11
- BGS@BGS80PP@XPS-DRV11
- FMS@FMSxxxPP@XPS-DRV11
- FMS@FMSxxxPPHA@XPS-DRV11
- ILS@ILSBPP@xxxXPS-DRV11
- IMS@IMSxxxBPP@XPS-DRV11
- MTN@MTNxxxPP@XPS-DRV11
- MTN@MTNxxxPPV6@XPS-DRV11
- RV@RVxxxBPE-F@XPS-DRV11
- RV@RVxxxBPE@XPS-DRV11
- RV@RVxxxBPEV6-F@XPS-DRV11
- RV@RVxxxBPEV6@XPS-DRV11
- RV@RVxxxBPP-F@XPS-DRV11
- RV@RVxxxBPP@XPS-DRV11
- RV@RVxxxPE-FBV6@XPS-DRV11
- RV@RVxxxPEBV6@XPS-DRV11
- RVS@RVS80PP@XPS-DRV11
- URS@URSxxxBPP@XPS-DRV11
- URS@URS50CPP@XPS-DRV11
- URS@URS75BPPV6@XPS-DRV11
- UTS@UTSxxxPP@XPS-DRV11
- UTS@UTSxxxPPV6@XPS-DRV11
- UZM@UZM160BPE.05@XPS-DRV11
- UZM@UZM160BPP.05@XPS-DRV11
- UZM@UZM160PE.05BV6@XPS-DRV11
- UZS@UZS80PP@XPS-DRV11
- ZVR@ZVR-PP-T@XPS-DRV11

XPS Stages Database Version: **V4.3.9**

Version history: October, 5th 2021 (ECO 5466)

- Add new stages on MLT family - Standard configurations with XPS-DRV11 for :
MLT25-X, MLT25-Y, MLT25-Z
MLT50-X, MLT50-Y, MLT50-Z
- Increase of « HomeSearchTimeOut » parameter for some IDL configurations :
 - IDL225@IDL225-1000LM@XPS-EDBL/XPS-EDBL-LMI
 - IDL225@IDL225-1200LM@XPS-EDBL/XPS-EDBL-LMI
 - IDL225@IDL225-1400LM@XPS-EDBL/XPS-EDBL-LMI
 - IDL225@IDL225-500LM@XPS-EDBL/XPS-EDBL-LMI

- IDL280@IDL280-1000LM@XPS-EDBL/XPS-EDBL-LMI
- IDL280@IDL280-1200LM@XPS-EDBL/XPS-EDBL-LMI
- IDL280@IDL280-400LM@XPS-EDBL/XPS-EDBL-LMI
- IDL280@IDL280-500LM@XPS-EDBL/XPS-EDBL-LMI
- IDL280@IDL280-700LM@XPS-EDBL/XPS-EDBL-LMI
- IDL560@IDL560-1000LM@ XPS-EDBL/XPS-EDBL-LMI
- IDL560@IDL560-1200LM@XPS-EDBL/XPS-EDBL-LMI
- IDL560@IDL560-750LM@XPS-EDBL/XPS-EDBL-LMI

XPS Stages Database Version: V4.3.8**Version history: May, 7th 2021 (ECO 5413)**

- Add MLT family :
 - Standard configurations with XPS-DRV11 for :
MLT25, MLT50, MLT100, MLT200, MLT250
 - LMI configurations with XPS-DRV11 for:
MLT50, MLT100, MLT200, MLT250 (No LMI configuration for the smallest travel MLT25)
- Add RGA150 family :
 - RGA@RGA150@XPS-DRV11 : Standard initialization
 - RGA@RGA150@XPS-DRV11-LMI : LMI initialization
 - RGA@RGA150@XPS-DRV11-Spindle : Standard initialization with Spindle mode
 - RGA@RGA150@XPS-DRV11-LMI-Spindle : LMI initialization with Spindle mode

XPS Stages Database Version: V4.3.7**Version history: October, 1st 2020 (ECO 5308)**

- Correction of bugs on RGV@RGV160BL@XPS-EDBL configurations :
- Add parameter : JogJerkTime = 0; Seconds'
- Modifications on ZVR@ZVR-PP-Z@XPS-DRV01 configuration :
- StandbyPeakCurrentPerPhase was Amp and is set to 0.35
- Modifications on all configurations using 'EncoderType=AnalogInterpolated' :
- EncoderQuadratureAndFOCErrorCheck is set to Disabled
- EncoderSinCosRadiusCheck was Enabled and is set to Disabled

XPS Stages Database Version: V4.3.6**Version history: November, 19th 2019 (ECO 5226)**

- Modifications on GTS@GTS70VCC@XPS-DRV11 and XPS-DRV01 configurations :
- MinimumTargetPosition was '-4 mm' and is set to '0 mm'
- MaximumTargetPosition was '66 mm' and is set to '70 mm'

XPS Stages Database Version: [V4.3.4](#)**Version history: August, 30th 2019 (ECO 5196)**

- Change 'EncoderQuadratureAndFOCErrorCheck' from 'Enabled' to 'Disabled' and 'EncoderSinCosRadiusCheck' from 'Enabled' to 'Disabled' for :
 - IMSxxxLM family for all XPS drivers.
 - VP-25XL@XPS-DRV03
- Add new stages on GTS family :
 - GTS70V configurations for XPS-DRV01 and XPS-DRV11
 - GTS70VCC configurations for XPS-DRV01 and XPS-DRV11

[V4.3.1 to V4.3.3 were not released](#)

XPS Stages Database Version: V4.3.0**Version history: September, 25th 2018 (ECO5067).**

- Add parameter JogJerkTime
- Adjust value of parameter CurrentLimit on some DRV11 configurations to avoid unnecessary fault generation :
 - BGMxxxCC, BGSxxxCC
 - FMSxxxCC
 - GTSxxxCC
 - IDL280-Z20
 - ILSxxxHA
 - IMSxxxV
 - IMSxxxCC
 - LTA-Hx
 - MFA-CC
 - MTNxxxCC
 - PR50CC, SR50CC
 - RVxxxCC, RVxxxCCHL, RVxxxHAHL, RVS80CC
 - URSxxxCC, URBxxxCC
 - UTSxxxCC
 - UZM160CC, UZS80CC
 - VP-25AA, VP-25XA, VP-5ZA
 - ZVR-PC-T
- Add new stages on IDL family :
 - IDL165-100LM, IDL165-300LM
 - IDL225-200LM, IDL225-500LM, IDL225-1000LM, IDL225-1400LM
 - IDL280-500LM, IDL280-700LM, IDL280-1000LM
 - IDL560-750LM, IDL560-1000LM, IDL560-1200LM
- Reintroduce configurations TRAx@XPS-DRV11
- Add new stages on RV family :
 - RV120 BPEV6 configurations for XPS-DRV01 and XPSDRV11
 - RV120 BPEV6-F configurations for XPS-DRV01 and XPSDRV11

Versions 4.2.x

XPS Stages Database Version: V4.2.1

Version history: September, 07th 2018 (ECO5054).

- Add parameter ControllerCompatibility to support ESP302
- Reintroduce configuration SR@SR50CC@XPS-DRV11
- Adjust PID settings on some DRV11 configurations to reduce current ripple induced by derivative gain :
 - SR@SR50CC@XPS-DRV11
 - KP was 1098.64 and is set to 800
 - KI was 3662.13 and is set to 2500
 - KD was 1.46 and is set to 3
 - DerivativeFilterCutOffFrequency was 4000 and is set to 20
 - RV@RV120CCHL@XPS-DRV11 and RV@RV120CCHL-F@XPS-DRV11
 - DerivativeFilterCutOffFrequency was 4000 and is set to 400
 - UZS@UZS80CC@XPS-DRV11
 - DerivativeFilterCutOffFrequency was 4000 and is set to 200
- Remove spindle configurations where one revolution is not an integer number of encoder counts:
 - URS@URS50BCC@XPS-DRV01-Spindle
 - URS@URS50BCC@XPS-DRV11-Spindle
 - SR@SR50CC@XPS-DRV01-Spindle

Versions 4.1.x

XPS Stages Database Version: **V4.1.5**

Version history: june, 27th 2018 (ECO5026).

- Change DriverHallPhaseAngle from 0 to 210 deg for :
 - MTN@MTN100BLHS@XPS-DRV11BL
 - MTN@MTN200BLHS@XPS-DRV11BL
 - MTN@MTN300BLHS@XPS-DRV11BL
- Change HomeSearch type from MechanicalZeroAndIndexHomeSearch to IndexHomeSearch for :
 - RGV@RGV160BL@XPS-EDBL-Spindle
 - RGV@RGV160BL@XPS-EDBL-Spindle-LMI

XPS Stages Database Version: **V4.1.4**

Version history: june, 19th 2018 –No ECO

- Add new stages on MTN family :
 - Configuration for MTN@MTN100BLHS@XPS-DRV11BL
 - Configuration for MTN@MTN200BLHS@XPS-DRV11BL
 - Configuration for MTN@MTN300BLHS@XPS-DRV11BL

XPS Stages Database Version: **V4.1.3**

Version history: April 12th, 2018 (ECO4994).

- Modifications on MTN@MTNxxCC@XPS-DRV11 configurations :

DriverMaximumRMSCurrent was 1.5 and is set to 3.0
KD was 0.825 and is set to 0.2
- Modifications on MTN@MTNxxCC@XPS-DRV03 configurations :

DriverMaximumRMSCurrent was 1.5 and is set to 3.0
- Add new stages on BGM family :
 - BGM120 / 160 / 200 BPE configurations for XPS-DRV01 and XPSDRV11
 - BGM160 / 200 BPP configurations for XPS-DRV01 and XPSDRV11
- Add new stages on ILS family :
 - ILS50 / 100 /150 / 200 / 250 BPP configurations for XPS-DRV01 and XPSDRV11

- Add new stages on IMS family :
 - IMS300 / 400 / 500 / 600 BPP configurations for XPS-DRV01 and XPSDRV11
- Add new stages on RV family :
 - RV120 / 160 / 240 / 350 BPP configurations for XPS-DRV01 and XPSDRV11
 - RV120 / 160 / 240 / 350 BPP-F configurations for XPS-DRV01 and XPSDRV11
 - RV120 / 160 / 240 / 350 BPE configurations for XPS-DRV01 and XPSDRV11
 - RV120 / 160 / 240 / 350 BPE-F configurations for XPS-DRV01 and XPSDRV11
 - RV160 / 240 BPEV6
- Add a new stage on URS family :
 - URS50CPP configurations for XPS-DRV01 and XPSDRV11
- Add new stages on UZM family :
 - UZM160BPP & UZM160BPE configurations for XPS-DRV01 and XPSDRV11

XPS Stages Database Version: V4.1.2

Version history: march, 1st 2018 (ECO4971).

- Delete XPS-DRV11 configurations :
 - ILS100-LM, ILS200LM, ILS300LM
 - SR50CC and SR50CC-Spindle
- Modifications on BGS@BGS80CC@XPS-DRV11 configuration :

KP was 3.41E+02 and is set to 217
 KI was 1.95E+04 and is set to 8500
 KD was 1.34E+00 and is set to 0.835
 DerivativeFilterCutOffFrequency was 4000 and is set to 1000
- Modifications on MTN@MTNxxPP@XPS-DRV11 configurations :

DriverCutOffFrequency was 5000 and is set to 3000
- Modifications on ZVR@ZVR-PC-Z@XPS-DRV11 and ZVR@ZVR-PP-Z@XPS-DRV11 configurations :

DriverMotorResistance was 2.4 and is set to 4.8
 DriverMotorInductance was 0.0023 and is set to 0.0092
 DriverCutOffFrequency was 5000 and is set to 2000
 DriverBemfCompensationGain was 2 and is set to 1

XPS Stages Database Version: [V4.1.1](#)**Version history: february, 09th 2018 (ECO4965).**

- Delete XPS-DRV11 configurations :
 - TRA Family
 - TRB Famil
 - VP25-XL

XPS Stages Database Version: [V4.1.0](#)**Version history: february, 09th 2018 (ECO4960).**

- Add a new parameter for PCI AnalogInterpolated encoders :
EncoderQuadratureAndFOCErrorCheck = Enabled or Disabled

Versions 4.0.x

XPS Stages Database Version: **V4.0.2**

Version history: january, 19th 2018 (ECO4886).

- Add a new stage on IDL family :
 - Standard configuration with XPS-DRV01 for IDL280-Z20
 - Standard configuration with XPS-DRV11 for IDL280-Z20

XPS Stages Database Version: **V4.0.1**

⇒ Not released

XPS Stages Database Version: **V4.0.0**

Version history: Novembre, 13th 2017 (ECO 4859).

- Database is now compatible with the XPS-RL and XPS-D controller.
- Add XPS-DRV11-DIGITAL configurations
- Delete obsolete configurations
- Modifications on TRAxCC family for XPS-DRV01 & DRV03 configurations :
DerivativeFilterCutOffFrequency was 4000 and is set to 400
- Modifications on RGV100HL configurations for XPS-EDBL : Add parameter
DriverSupplyVoltage = 96 ; Volt

Versions 3.0.x

XPS Stages Database Version: V3.0.8

Version history: May, 29th 2017 (ECO 4756).

- Modification on MTN200PP configuration :
 - MinimumTargetPosition was -50 and is set to -100
 - MaximumTargetPosition was 50 and is set to 100.
- Modification on RGV100BL configurations for XPS-DRV02 :
 - HomeSearchMaximumVelocity was 360 and is set to 180.
- Modification on RGV100HL configurations for XPS-DRV02 :
 - HomeSearchMaximumVelocity was 50 and is set to 180.

XPS Stages Database Version: V3.0.7

Version history: April, 21st 2017 (ECO 4581).

- Add a new stage on BGM family :
 - Standard configuration with XPS-DRV01 for BGM120BPP
- Modification on RGV160BL configuration for XPS-EDBL-Spindle :
 - MotorDriverInterface.AnalogSin120AccelerationLMI is replaced by MotorDriverInterface.AnalogSin120Acceleration.

XPS Stages Database Version: V3.0.6

Version history: September, 19th 2016 (ECO 4552).

- Add new stages on IDL family :
 - Standard configurations with XPS-EDBL for:
 - IDL225-400LM, IDL225-1200LM, IDL280-400LM, IDL280-1200LM, IDL560-450LM
 - LMI configurations with XPS-EDBL for:
 - IDL225-400LM, IDL225-1200LM, IDL280-400LM, IDL280-1200LM, IDL560-450LM
- Modification on RGV160BL configurations for XPS-EDBL :
 - No SmartStageName

XPS Stages Database Version: V3.0.5

Version history: December, 11th 2015 (ECO 4490).

- Add new parameters so the Database is now compatible with the XPS-RL controller.
- Remove obsolete sections (PreFeedForward filter et PostFeedForward filter).
- Add a checksum to verify the integrity of the 'XPS-StageDataBase' file.
- Add a new configuration : DUMMY@DUMMY_STAGE@NO_DRIVER

- Modification of ONE-XY family :
 - HomeSearch.MechanicalZeroAndIndexHomeSearch is replaced by HomeSearch.MinusEndOfRunAndIndexHomeSearch
 - HomeSearchMaximumAcceleration was 100 and is set to 250
 - DriverCutOffFrequency was 300 and is set to 200
 - **ONE-XY@ONE-XY300-X :**
 - ScalingAcceleration was 1605 and is set to 1497
 - AccelerationLimit was 1494 and is set to 1393
 - **ONE-XY@ONE-XY300-Y :**
 - ScalingAcceleration was 3351 and is set to 3125
 - AccelerationLimit was 3118 and is set to 2908

Versions 2.8.x

XPS Stages Database Version: V2.8.12

Version history: December, 11th 2015 (ECO4429).

- Modification of MTN@MTN200PP@XPS-DRV01: SmartStageName was MTN100PP and is set to MTN200PP (Wrong SmartStageName)

XPS Stages Database Version: V2.8.11

Version history: November, 2nd 2015 (ECO4379).

- Add ONE-XY family: ONE-XY60, ONE-XY100, ONE-XY200, ONE-XY300 configurations with DRV02and DRV02-LMI.

XPS Stages Database Version: V2.8.10

Version history: October, 15th 2015 (ECO4370).

- Modification on configurations XPS-DRV03 for MTN100CC, MTN200CC, MTN300CC:
 - ScalingCurrent was 3 and is set to 5
 - CurrentLimit was 3 and is set to 4.9.
- Add IDL family:
 - Standard configurations with XPS-EDBL for:
 - IDL165-200LM, IDL225-300LM IDL225-600LM, IDL280-300LM, IDL280-600LM, IDL560-600LM
 - LMI configurations with XPS-EDBL for:
 - IDL165-200LM, IDL225-300LM IDL225-600LM, IDL280-300LM, IDL280-600LM, IDL560-600LM
 - Standard configuration with XPS-DRV02 for IDL165-200LM@XPS-DRV02
 - LMI configuration with XPS-DRV02 for IDL165-200LM@XPS-DRV02

XPS Stages Database Version: V2.8.9

Version history: June, 25th 2015 (ECO4329).

- Modification on configurations XPS-DRV01 for MTN100CC, MTN200CC, MTN300CC:
 - CurrentLimit was 3.0A and is set to 2.9A.
- Modification on configurations XPS-DRV01 for MTN100PPV6, MTN200PPV6 and MTN300PPV6:
 - PeakCurrentPerPhase was 1.25A and is set to 1.8A.

XPS Stages Database Version: V2.8.8

Version history: April, 23th 2015 (ECO4306).

- Add MTN100PPV6, MTN200PPV6 and MTN300PPV6 configurations for XPS-DRV01

XPS Stages Database Version: V2.8.7**Version history: February,24th 2015 (ECO4268).**

Modifications

- Modification on configurations XPS-DRV01 and XPS-DRV03 for MTN100CC, MTN200CC, MTN300CC:
VoltageLimit was 38.4V and is set to 45V.

XPS Stages Database Version: V2.8.6**Version history: January,12th 2015 (ECO3478 and ECO4266).**

Modifications

- Add configurations: RV@RV120HAHL@XPS-DRV03, RV@RV120HAHL-F@XPS-DRV03

XPS Stages Database Version: V2.8.5**Version history: January 2015 (ECO4237).**

Modifications

- Modification on RVS80CC, UTS50CC, UTS100CC, UTS150CC, FMS100CC, FMS200CC, FMS300CC configurations:
DerivativeFilterCutOffFrequency was 4000 and is set to 1000 Hz and Kd becomes 0.8.
- Add configurations on 'Piezo' Family: NPA25-D, NPA50-D, NPA100-D, NPM140-D, NP0140-D, NPO250-D, NPXY100-D-X, NPXY100-D-Y, NPXY100-D-Z, NPXY200-D-X, NPXY200-D-Y, NPXYZ100-D-X, NPXYZ100-D-Y, NPXYZ100-D-Z

XPS Stages Database Version: V2.8.4**Version history: August 2014 (ECO4187).**

Modifications

- Modification on NPX200-D / NPX400-D / PSM2-D-X / PSM2-D-Y / PSM2-D-Z configurations:
DriverLowpassFilter was 0 and is set to 2000
- Replace configurations remove on the V2.8.2

XPS Stages Database Version: V2.8.3**Version history: August 2014 (ECO4174).**

Modifications

- Add IMSxx-LM and IMSxx-LM-SA configurations for XPS-EDBL
- Add RGV100HL configurations for XPS-EDBL
- Add RGV160BL configurations for XPS-EDBL

XPS Stages Database Version: V2.8.2**Version history: July 2014 (ECO4171).**

Modifications

- Modification on RGV100HL configurations: DerivativeFilterCutOffFrequency was 4000 and is set to 500
- Add MTN100CC, MTN200CC and MTN300CC configurations for XPS-DRV01
- Add MTN100CC, MTN200CC and MTN300CC configurations for XPS-DRV03
- Add MTN100PP, MTN200PP and MTN300PP configurations for XPS-DRV01

XPS Stages Database Version: V2.8.1**Version history: Septembre 2013 (ECO4061).**

Modifications

- Delete TRB6PPD and TRB12PPD configurations
- Add TRB6PP, TRB12PP, TRB25PP configurations

XPS Stages Database Version: V2.8.0**Version history: Septembre 2013 (ECO4056).**

Modifications

- Update section's names.
- Remove obsolete configurations.
- Rename "StandardEOREncoderPlug" by "StandardLimitAndHomeEncoderPlug".

Versions 2.7.x**XPS Stages Database Version: V2.7.7****Version history: July 2013 (ECO4043).**

Modifications

- Modification on URB100CC configurations (DRV01, DRV01-Spindle, DRV03 and DRV03-Spindle):
Maximum allowed motor voltage 14.56V to 20V
- Modification on URS50BCC and URS50BPP for spindle configuration:
'ServitudesType' become 'Spindle'

XPS Stages Database Version: V2.7.6**Version history: May 2013 (ECO 4015).**

All stages

- Add NPM140-SG driven by DRVP1.

- Add TRB family: TRB6CC, TRB6PPD, TRB12CC, TRB12PPD, TRB25CC, TRB25PPD

Modifications

- Modification on 'EncoderZMPlug = Driver' for RGV100HL configurations.
- Modification on 'EncoderIndexOffset =0' for FMSxxxPPHA configurations.
- Modification of 'Initialization acceleration level' = 25% on ILSxxLM configuration

XPS Stages Database Version: V2.7.5

Version history: April 2013 (ECO 3999).

Not released.

XPS Stages Database Version: V2.7.4

Version history: July 2012 (ECO 3848).

All stages

- Add RGV100HL configurations driven by DRV02.
- Add FMS100PPHA, FMS200PPHA, FMS300PPHA configurations driven by DRV01.

Modifications

- Modification of « DerivativeFilterCutOffFrequency » value for all configurations superior at 4000 and became equal to 4000.

XPS Stages Database Version: V2.7.3

Version history: May, 2012 (ECO 3811).

All stages

- Add NPA50SG-D, NPXY100SG-D-X, NPXY100SG-D-Y, NPXY200SG-D-X, NPXY200SG-D-Y configurations with DRV01.

XPS Stages Database Version: V2.7.2

Version history: March, 2012 (ECO 3783).

All stages

- Add NPX200-D with DRV01.

Modifications

- Modification of PSM2-D-X, PSM2-D-Y, and PSM2-D-Z configurations with DRV01.

XPS Stages Database Version: V2.7.1

Version history: January, 2012 (ECO 3756).

All stages

- Add NPA25SG-D AND NPX400SG-D with DRV01.
- Add URB100CC configuration for DRV01 and DRV01-Spindle

Modifications

- Modification of the IntegrationTime for all RVxxHAHLT, RVxxHAHLT-F, RVxxHAT and RVxxHAT-F configurations driven by DRV01, DRV03 and DRVM3: new value equal to 3s
- Modification of the DeadBandThreshold for all RVxxHAHLT, RVxxHAHLT-F, RVxxHAT and RVxxHAT-F configurations driven by DRV01, DRV03 and DRVM3: new value equal to 0.

XPS Stages Database Version: V2.7.0**Version history: December, 2011 (ECO 3739).**

All stages

- Add PSM2-D-XYZ with DRVP1

Modifications for QNX firm

- **EncoderIndexOffset:** This new option is used for Interpolated and AquadB Encoders
- **EncoderHardInterpolatorErrorCheck:** This new option is used for Interpolated Encoder
- **HomingSensorOffset:** This new option is used for every types of Home search processes, unless CurrentPositionAsHome

Versions 2.6.x**XPS Stages Database Version: V2.6.9****Version history: November 8, 2011 (ECO 3716).**

All stages

- Add ZVR-PP-T, ZVR-PP-Z, ZVR-PC-T, ZVR-PC-Z

XPS Stages Database Version: V2.6.8**Version history: October 20, 2011 (ECO 3704).**

All stages

- Add IMS800LM-SA, IMS1000LM-SA, IMS1200LM-SA, and IMS800LM, IMS1000LM, IMS1200LM with DRV02 and DRV02-LMI
- Add NPX200SG-D with DRVP1

Modifications

- Modifications on TRA25CC with DRV01: Maximum allowed motor current 1.5A to 0.15 A

XPS Stages Database Version: V2.6.7**Version history: June17, 2011 (ECO 3618).**

All stages

- Add URS50BPPV6 with DRV01
- Add LTAHLPPV6 & LTAHSPPV6

Modifications

- Modifications on FMS100PP, FMS200PP, FMS300PP: No encoder and No servo loop with position output
- Modifications on URB100CC: End of Run = +/- 165°

XPS Stages Database Version: **V2.6.6**

Version history: March 29, 2011.

All stages

- Add FMS100CC, FMS200CC, FMS300CC and FMS100PP, FMS200PP, FMS300PP with DRV01

Modifications

- Modifications on GTS70 et GTS150:
 - Maximum allowed motor voltage 25V to 36V
 - Maximum allowed motor current 2A to 1.6A

XPS Stages Database Version: **V2.6.5**

Version history: January 24, 2011.

Modifications

- Modify the following error of NPXYZ100SG-D-X, NPXYZ100SG-D-Y, NPXYZ100SG-D-Z
- Add NPA100SG-D, NPO250SG-D, NPX400-D

XPS Stages Database Version: **V2.6.4**

Version history: December 17, 2010.

Modifications

- Add NPXYZ100SG-D-X, NPXYZ100SG-D-Y, NPXYZ100SG-D-Z

XPS Stages Database Version: **V2.6.3**

Version history: November 25, 2010.

Modifications

- ILS50HA, ILS100HA, ILS150HA, ILS200HA, ILS250HA with DRV03 in closed loop
- RV350CC-F with DRV03 in closed loop
- RV350CC with DRV03 in closed loop
- RV350HAHLT with DRVM3 in closed loop

XPS Stages Database Version: V2.6.2**Version history: November 23, 2010.**

All stages

- Add ILS50HA, ILS100HA, ILS150HA, ILS200HA, ILS250HA with DRV01 and DRV03

Modifications

- Change ILS-LM with ILSLM

Deleted configurations

XPS Stages Database Version: V2.6.1**Version history: September 1, 2010.**

All stages

- Add ILS100-LM, ILS200-LM, ILS300-LM
- Add RV120PE-FBV6 RV120PEBV6 (and spindle mode)

Modifications

- Modify the velocity servo loop cut off frequency of RV350HAHLT/RV350HAHLT-F driven by DRV03
old value 100 Hz to new value 10 Hz
- Modify PID parameters of RV350CC/RV350CC-F driven by DRV03
KP = 100, KI = 2000, KD=1, Fc=1000

Deleted configurations

XPS Stages Database Version: V2.6.0**Version history: August 19, 2010.**

Change of name because of V2.6 firmware release.

No change of the contents.

Versions 2.5.x**XPS Stages Database Version: V2.5.4****Version history: June 25, 2010.**

All stages

- Add URS50BCC and URS50BPP (DRV01 and DRV01@Spindle configurations)

Modifications

Deleted configurations

XPS Stages Database Version: V2.5.3**Version history: February 25, 2010.**

All stages

- Add DRV03 configuration for TRA12CC
- Add configuration DRV01 for NSA12
- Add configuration DRV03 for LTA-HXP100
- Add configurations DRV03 for URB100CC (Spindle and with EoR)

Modifications

- ILS-CCHA: Modifications of PID parameters (KP = 100, KI = 5000, KD = 0.1) and DerivativeFilterCutOffFrequency = 500
- VP-25AA, VP-25XA, VP-25XL, VP-5ZA: Modifications of ScalingVelocity and VelocityLimit equal to Vmax + 50% for DRV03 configurations

Deleted configurations

XPS Stages Database Version: V2.5.1 & V2.5.2

Not applicable

XPS Stages Database Version: V2.5.0**Version history: June 29, 2009.**

Change of name because of V2.5 firmware release.

No change of the contents.

Versions 2.4.x**XPS Stages Database Version: V2.4.3****Version history: ECO released 04, 2009**

All stages

- Add DRV03 configurations missing in V2.4.2

Modifications

- TRA6CC and TRA25CC DRV03: ClosedLoopStatus = Closed

Deleted configurations

- RV120HAT Spindle
- TRA12CC DRV01

XPS Stages Database Version: V2.4.2**Version history:**

All stages

- PR50CC: HomeSearchTimeOut from 400003 s to 40s

- In “PID with acceleration output” configuration: new parameter “KFeedForwardJerk=0”
- DRV03 Configuration for RV120HAHLT and RV120HAHLT-F
- Modifications of PID parameters ($K_p=500$, $K_i=50$) and Servo loop dead band threshold = $2 * \text{resolution}$ for:
 - RV120/160/240/350/HAT
 - RV120/160/240/350/HAT-F
 - RV160/240/350/HAHLT
 - RV160/240/350/HAHLT-F

New stages

- TRA6PPV6, TRA12PPV6 and TRA25PPV6
- Stages with new UE41PPV6 motor (Half becomes full, and Current / 2)
 - MTM100/150/200/250/PE1BV6
 - MTM100/150/200/250/PE.1BV6
 - BGM120/160/PEBV6
 - UZM160PE.05BV6

XPS Stages Database Version: [V2.4.1](#)

Version history: Web released 11, 2008

All stages

- TRA6CC and TRA25CC following error changed from 1 to 0.01 mm
- PR50CC and SR50CC encoder resolution changed in spindle mode to be a submultiple of 360°
- PR50PP and SR50PP displacement per full step changed in spindle mode to be a submultiple of 360°

New stages

- None

XPS Stages Database Version: [V2.4.0](#)

Version history: ECO released 07, 2008

All stages

- MFA-CC and MFA-CCV6
 - travel range changed to 0 – 25 mm
 - PID parameters optimized

New stages

- MFA-PPD with XPS-DRV01 driver board added
- TRA6CC and TR25CC with XPS-DRV01 and XPS-DRV03 driver boards added
- TRA6PPD and TRA25PPD with XPS-DRV01 driver board added
- TRA6PPV6 and TRA25PPV6 with XPS-DRV01 driver board added

Versions 2.3.x

XPS Stages Database Version: V2.3.0

Version history: ECO released 05, 2008

All stages

- Missing closed loop status parameter for IMSxxV stages corrected

New stages

- None

Versions 2.2.x

XPS Stages Database Version: V2.2.0

Version history: ECO released March, 2008

All stages

- Minus limit changed for CMAxx from 0 to -0.0001 according to the new constraint of the V2.2.0 firmware
- Minus limit changed for LTAxx from 0 to -0.0001 according to the new constraint of the V2.2.0 firmware
- Minus limit changed for UTMxx/-1 from 0 to -0.0001 according to the new constraint of the V2.2.0 firmware

New stages

- None

Versions 2.1.x

XPS Stages Database Version: V2.1.3

Version history: Web released March, 2008

All stages

- Missing closed loop status parameter for RV stages with XPS-DRV03 driver board corrected
- KP and GKP parameters changed for IMSxx-V from 1000 to 800 and from 6 to 7.5
- XMSxx and XMLxx home search timeout increased
- Current servo loop bandwidth of RVxxT stages with XPS-DRV03 driver board changed from 750 to 500 Hz
- Velocity servo loop bandwidth of RVxxT stages with XPS-DRV03 driver board changed from 150 to 100 Hz

New stages

- None

XPS Stages Database Version: V2.1.2**Version history: ECO released November, 2007**

All stages

- Default value of KForm parameter changed to 0
- XMS and XML home search velocity changed to 100 mm/s and time out updated
- BGS80PP limits corrected
- UTSxxCC minimum jerk time and maximum jerk time changed from 0.001 and 0.01 to 0.005 and 0.05
- LTA and BGS backlash changed to 0 unit
- ScalingCurrent corrected to 5 A for XPS-DRV03 driver board configuration
- CurrentLimit corrected for XPS-DRVMx driver board configuration

New stages

- UZS80CC and UZS80PP with XPS-DRV01 and XPS-DRV03 (CC only) driver boards added
- URSxxBCC, URSxxBPP and URS75BPPV6 with XPS-DRV01 and XPS-DRV03 (CC only) driver boards added

XPS Stages Database Version: V2.1.1**Version history: ECO released July, 2007**

All stages

- VP-5ZA travel changed to +/- 2.4 mm
- RV120CCHL, RV160CCHL, RV240CCHL, RV350CCHL servo loop gains corrected
- RV120CC, RV160CC, RV240CC, RV350CC with XPS-DRV03 driver board servo loop gains corrected
- BGS50CC encoder resolution rounding corrected
- BGS50PP displacement per full step rounding corrected
- UTSCC maximum allowed voltage corrected
- RGV100BL with XPS-DRV02 driver board configuration name corrected
- RGV100 current cut-off frequency changed to 500 Hz

New stages

- RV350HAT and RV350HAT-F with XPS-DRV03 driver board added

XPS Stages Database Version: V2.1.0**Version history: ECO released February, 2007**

All stages

- LTAPPV6 home search timeout increased to 400 s
- PR50CC encoder resolution corrected
- XMS, XML and IMS-LM with AnalogSin120AccelerationLMI interface added
- InitializationAcceleration parameters replaced by InitializationAccelerationLevel in %: need a manual update by the user for current stages.ini configurations
- MappingFileName parameter removed for NoEncoder configuration

New stages

- UTS50CC, UTS100CC, UTS150CC, UTS50PP, UTS100PP, UTS150PP, UTS50PPV6, UTS100PPV6 et UTS150PPV6 with XPS-DRV01 and XPS-DRV03 (CC only) driver boards added
- RVS80CC et RVS80PP with XPS-DRV01 and XPS-DRV03 (CC only) driver boards added
- GTS30V with XPS-DRV01 and XPS-DRV03 driver boards added
- RGV100BL with XPS-DRV02 driver board added
- BGS50CC, BGS50PP, BGS80CC, BGS80PP with XPS-DRV01 and XPS-DRV03 (CC only) driver boards added
- URS75PPV6 with XPS-DRV01 driver board added

Versions 2.0.x

XPS Stages Database Version: **V2.0.0**

Version history: Released November, 2006

All stages

- GTS missing parameters added
- M- configurations removed to reduce stage data base size
- XPS-DRV03 configuration added for all ILSCCHA stages

Versions 1.6.x

XPS Stages Database Version: **V1.6.3**

Version history: Released October, 2006

All stages

- DriverCurrentCutOffFrequency parameter name change to DriverCutOffFrequency for XPS-DRV02 driver board
- PositionerMappingLineNumber and PositionerMaxPositionError parameters added in case of mapping use but empty

XPS Stages Database Version: **V1.6.2**

Version history: Released October, 2006

All stages

- (M-)UTM stepper /1 and /-1 configurations corrected
- CMA-25CCCL and CMA-12CCCL pulse width frequency changed to 200 kHz
- GTS70 and GTS150 parameters corrected
- XPS-DRVM5 and XPS-DRV03 configurations added to (M-)VP-25AA, (M-)VP-25XA, (M-)VP-5ZA
- Travel limits corrected for LTA actuators
- first release with the stage database tool manager

New stages

- LTAPPV6 added

XPS Stages Database Version: **V1.6.1**

Version history: Released July, 2006

All stages

- Modify Kd for CMA12CCCL

XPS Stages Database Version: **V1.6.0**

Version history: Released June, 2006

All stages

- Add XPS-DRV03 configurations in parallel to XPS-DRVMx configurations
- Add "spindle" configurations for all stages in rotation not for BGM and RV-HA
- modification PID paramètres of CMA12CCCL and CMA25CCCL
- correction PID parameter units of RGV

New stages

- GTS75 and GTS150 stages

Versions 1.5.x

XPS Stages Database Version: V1.5.0

Version history: Released January, 2006

All stages

- Modifications of LTA
- Modifications of RV240 and RV350

Versions 1.4.x

XPS Stages Database Version: V1.4.3

Version history: Released November, 2005

All stages

- Correction of a bug concerning the travel of all DRVM driven stages

XPS Stages Database Version: V1.4.2

Version history: Released November, 2005

All stages

- Modification of DriverErrorAmplifierGain from 9 to 5 on all MTM???CC?? stages

New stages

- RV stages with -F extension
- M-IMS100V and M-IMS300V

XPS Stages Database Version: V1.4.1

Version history: Version July, 2005

All stages

- Usage of variable PID
- Short integration time: 1sec in place of 1e+99sec
- jerktime = 0.5sec in place of 0.05
- HomeSearchMaximumAcceleration = MaximumAcceleration/4 in place of MaximumAcceleration/2

New stages

- IMS100V
- IMS300V

XPS Stages Database Version: **V1.4.0**

Version history: Released May, 2005

All stages

- None

New stages

- M-MTM100PE.1 encoder resolution corrected
- IMS LM added
- XML and XMS added



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