LabWindows/CVI, VXIpnp driver history for the R&S® Spectrum Analyzers
Driver Documentation

Products:

| R&S®FSP

| R&S®FSU

| R&S®FSQ

| R&S®FMU

| R&S®FSG

Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C/C++, VEE, etc.

ROHDE & SCHWARZ

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1 Preamble

The R&S attribute based Spectrum Analyzer instrument driver (rsspecan) gives great flexibility and ease of use by combining low level access to nearly every SCPI command via attribute and well balanced high level functions and VIs, combining several attributes. For those who do not want to learn new attribute concept, complete functionality of instrument is covered by high level commands. In other words, you may use attributes, but you do not have to. Of course it is possible to combine both low level attributes and high level functions together exactly according to needs of every specific application.

The rsspecan instrument driver version 2.x is not backward compatible to the following instruments:
- R&S®ESL
- R&S®FSH4/8
- R&S®FSC
- R&S®FSUP
- R&S®FSMR
- R&S®ZVH

These instruments have maintenance support in rsspecan instrument driver version 1.x.x. If you are using one of these instruments please do to not upgrade to rsspecan instrument driver version 2.x.x or later.

2 Supported Instruments

In the following tables, the supported R&S instruments and firmware versions are listed:

Which instruments are supported?		
Current revision of instrument driver supports these instruments and firmware versions:		
Instrument	**Supported Firmware**	**Remarks**
FSP	4.50	
FSU	4.71	
FSQ	4.75	SP3
FMU	4.78	
FSG	4.79	
FSL	2.0	

3 LabWindows/CVI and VXIplug&play

rsspecan Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note
2.8.3	07/2018	* Fixed - rsspecan_Calibrate, rsspecan_self_test - fixed clearing of the instrument status before sending the command
2.8.2	10/2017	* Updated - rsspecan_ConfigureMarkerPeakList - 'Peak List Size' and 'Automatic Peaks Search' are not used for FSP and FSL
2.8.1	08/2017	*SRE mask set to 0 * Added progressive delay to OPC polling loop * Added viClear to rsspecan_ClearStatus * Added missing function prototypes to rsspecan.h: - rsspecan_QueryOPC - rsspecan_IDQueryResponse - rsspecan_ProcessAllPreviousCommands - rsspecan_ClearStatus
2.8.0	03/2017	- New core - Several bugfixes - rsspecan_ConfigurePulseResultParameterTrendFrequency - rsspecan_ConfigurePulseResultParameterTrendPhase
2.7.2	12/2014	* Fixed waiting for OPC to take into account viReadSTB execution time
2.7.1	01/2014	* Fixed LIB file in installer
2.7.0	08/2013	* Support for FSW 1.80 added * Added - rsspecan_Parameter Spectrum - rsspecan_SelectRealtimeSpectrumMeasurement - rsspecan_FetchPhaseSpursDiscrete - rsspecan_FetchPhaseSpursRandom - rsspecan_FetchPhaseIntegratedPhaseNoise - rsspecan_FetchPhaseUserIntegratedPhaseNoise - rsspecan_ConfigureWlanBurst - rsspecan_ConfigureWlanIQCompensation - rsspecan_ConfigureWlanBurstUnit - rsspecan_FetchWlanBurstPayload - rsspecan_FetchWlanBurstPeak - rsspecan_FetchWlanBurstPreamble - rsspecan_FetchWlanBurstStart - rsspecan_QueryLTEDownlinkMeasurementEVMSDSFAverage

rsspecan Instrument Driver		
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Revision	Date	Note
		- rsspecan_QueryLTEDownlinkMeasurementRSSI
		- rsspecan_ConfigureLTEUplinkMIMO
		- rsspecan_ConfigureLTEUplinkTransientSlots
		* Updated
		- rsspecan_AddWindow
		- rsspecan_ReplaceWindow
		- rsspecan_QueryWindowType
		- rsspecan_ConfigureSpectrogramFFTWindow
		- rsspecan_GetSpectrogramTimeStamp
		- rsspecan_ReadSpectrogramTraceData
		- rsspecan_ReadPersistenceSpectrumTraceData
		- rsspecan_ReadMaxholdTraceData
		- rsspecan_GetSpectrogramXAxisScaling
		- rsspecan_ConfigureMultiCarrierGroupDelaySettings
		- rsspecan_ConfigureLTEUplinkTrigger
		- rsspecan_ConfigurePresetOperatingMode
		* Cosmetic changes in help
2.6.1	07/2013	Cosmetic changes in help
2.6.0	06/2013	* Support for FSW version 1.70 added
		* New Subsystems
		- Parameter Trend
		- CSI-RS
		* Added
		- rsspecan_FetchGSMK10MagnitudeCaptureResults
		- rsspecan_ConfigureNoiseUncertaintyCommonSource
		- rsspecan_ConfigureNoiseUncertaintySourceCalibrationCharacteristics
		- rsspecan_ConfigurePhaseDigitalPLL
		- rsspecan_ConfigurePhaseDecimation
		- rsspecan_ConfigureVSAOptimization
		- rsspecan_FetchWlanBurstLength
		- rsspecan_ConfigureLTEDownlinkMeasurement
		- rsspecan_ConfigureLTEDownlinkPDSCHStartOffset
		- rsspecan_ConfigureLTEUplinkSoundingReferenceSignalANSimultaneousTX
		* Modified
		- subsystem Parameter Trend - changed to attributes, redesigned functionality
		- rsspecan_AddWindow - Frequency drift, Sweep result list, Pulse Parameter Distribution
		- rsspecan_ReplaceWindow - Frequency drift, Sweep result list, Pulse Parameter Distribution
		- rsspecan_QueryWindowType - Frequency drift, Sweep result list, Pulse Parameter Distribution
		- rsspecan_ConfigurePhaseTraceSettings - median
		- rsspecan_ConfigureVSACaptureBuffer - Magnitude Overview Absolute

rsspecan Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note
2.5.0	04/2013	* Support for FSW version 1.61 added
		* Support for FSV version 2.00 added
		* Added
		- rsspecan_SelectProbeConnector
		- rsspecan_GetProbeType
		- rsspecan_QueryMSRAAllAnalysisInterval
		- rsspecan_ConfigureMSRADataEvaluation
		- rsspecan_ConfigureAnalogBasebandFullscaleLevel
		- rsspecan_ConfigureAnalogBasebandSwapIQ
		- rsspecan_ConfigurePulseResultAutomaticRangeScaling
		- rsspecan_QueryGSMK10TriggerToSyncNumberOfAcquisitions
		- rsspecan_ConfigureNoiseSingleFrequency
		- rsspecan_ConfigureWLANDemodulation802_11b_g_DSSS
		- rsspecan_ConfigureLTEDownlinkPHICHNgParameter
		- rsspecan_ConfigureLTEDownlinkPHICHEnhancedTestModels
		- rsspecan_ConfigureLTEUplinkPUSCHHopping
		- rsspecan_ConfigureLTEUplinkPRACHStructure
		- rsspecan_ConfigureLTEUplinkPRACHPreambleMapping
		- rsspecan_SelectTransducerSet
		- rsspecan_ConfigureTransducerSet
		- rsspecan_QueryTransducerSetCatalog
		- rsspecan_DeleteTransducerSet
		- rsspecan_QueryActiveTransducerSet
		- rsspecan_ConfigureLTEDownlinkPDSCHPowerRatio
		* Modified
		- rsspecan_ConfigureIFOutputSource
		- rsspecan_AddWindow
		- rsspecan_ReplaceWindow
		- rsspecan_QueryWindowType
		- rsspecan_ProbeMicroButtonAction
		- rsspecan_GetProbeInformation
		- rsspecan_ConfigureWlanResultSummaryDisplay
		- rsspecan_setStatusRegister
		- rsspecan_getStatusRegister
		- rsspecan_ConfigureWLANSignal
2.4.1	01/2013	Modifications:
		- RSSPECAN_ATTR_ATTENUATION - data type changed from INT to REAL, added write callback
2.4.0	11/2012	Modifications:
		* Support for FSW version 1.60 added

rsspecan Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note
		* New subsystems
		- TD-SCDMA class
		- IEEE 802-11 class
		- MSR ACLR Configuration class
		* Added
		- rsspecan_ConfigureErrorChecking
		- rsspecan_DuplicateMeasurementChannel
		- rsspecan_ConfigureMSRAAnalysisLine
		- rsspecan_ConfigureAnalogBasebandSignalCalibration
		- rsspecan_ConfigureADemodFilterManual
		- rsspecan_ErrorListSpecificType
		- rsspecan_ConfigureTraceExport
		- rsspecan_PulseSelectIQDataFile
		- rsspecan_PhaseCopyToUserLimitLine
		* Modified
		- Enabled driver range checking (in function rsspecan_DefaultInstrSetup)
		- RSSPECAN_ATTR_ATTENUATION - data type change from real64 to int32
		- rsspecan_HardcopyGetPrinterList
		- rsspecan_setStatusRegister - Extended, Extended Info added
		- rsspecan_getStatusRegister - Extended, Extended Info added
		- rsspecan_AddWindow - Window type - values 65 - 77
		- rsspecan_ReplaceWindow - Window type - values 65 - 77
		- rsspecan_QueryWindowType - Window type - values 65 - 77
		- rsspecan_ConfigureChannelPowerStandard - MSR added
		- rsspecan_ConfigurePulseInputSignalSource - FIQ
		* Functions moved to TD-SCDMA
		- rsspecan_SetTDSBSMode
		- rsspecan_SetTDSUEMode
		- rsspecan_ConfigureTDSBSAdaptToSignal
		- rsspecan_ConfigureTDSUESyncToSlotMode
		- rsspecan_GetTDSBSResult
		- rsspecan_GetTDSUEResult - New types:
		- Average RCDE of active channels
		- Channel Branch
		- Channel Slot Number
		- Average Power of the Inactive Codes
		- Modulation Type
		- Number of Pilot Bits
		- Total Power
		- Timing Offset

rsspecan Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note
		- rsspecan_FetchTDSBSTrace
		- rsspecan_FetchTDSUETrace
		- Channel Table - whole class moved from K76 - TD-SCDMA BTS Mode
		- affected functions:
		- rsspecan_TDSBSChannelTableOperations
		- rsspecan_ConfigureTDSBSChannelTableComment
		- rsspecan_ConfigureTDSBSChannelTableComment
		- rsspecan_ConfigureTDSBSChannelTableData
		- rsspecan_ConfigureTDSBSChannelTableOrder
		- rsspecan_ConfigureTDSBSChannelTableMidambleShift
		- rsspecan_ConfigureTDSBSChannelTableMaxModulation
		- rsspecan_GetTDSBSChannelTableCatalog
		* Functions moved to IEEE 802-11 from K90/91 - WLAN
		- rsspecan_WlanSetWlanMode
		- rsspecan_ConfigureWlanElectronicAtt
		- rsspecan_ConfigureWlanTracking
		- rsspecan_ConfigureWLANTrackingPilots
		- rsspecan_ConfigureWlanGainImbalanceUnit
		- Display class
		- rsspecan_ConfigureWlanLimit
		- rsspecan_ConfigureWLANAllLimits
		- rsspecan_GetWlanAllLimits
		- Trace class
		- rsspecan_FetchWlanBurstAll
		- rsspecan_FetchWlanBurstPower
		- rsspecan_FetchWlanBurstError
		- rsspecan_FetchWlanIQImp
		- rsspecan_FetchWlanEVM
		- rsspecan_GetWlanLimitCheckResult
		- rsspecan_GetWlanACPChannLimitCheckResult
		- rsspecan_GetWlanAllLimitCheckResults
		- rsspecan_GetWlanLimitCheck
2.3.1	10/2012	Modifications:
		- rsspecan_TraceIQSet - ranges removed
		- rsspecan_TraceIQSamplingRate - ranges removed
		- rsspecan_TraceIQRecordLength - ranges removed
		- rsspecan_TraceIQAveraging - ranges removed
		- rsspecan_ConfigureTraceIQGate - ranges removed
2.3.0	09/2012	Modifications:

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Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note
		* Support for FSV version 1.71SP3 added
		* Support for FSW version 1.51 added
		* Added
		- rsspecan_QueryFrontendTemperature
		- rsspecan_FrequencyMaskWindow
		- rsspecan_ConfigureFrequencyMaskState
		- rsspecan_ConfigureFrequencyMaskSpan
		- rsspecan_QueryWindowType
		- rsspecan_ConfigurePulseMeasurementPointAveragingWindow
		- rsspecan_SelectAnalogDemodTrace
		- rsspecan_ConfigureAnalogDemodPredefinedStandard
		- rsspecan_ConfigureNoiseENRCommonMode
		- rsspecan_ConfigureNoiseENRCalibrationSettings
		- rsspecan_SelectNoiseENRCalibrationTable
		- rsspecan_ConfigureNoiseUncertaintySourceCharacteristics
		- rsspecan_ConfigureNoiseUncertaintyDUTCharacteristics
		- rsspecan_ConfigureNoiseUncertaintyMeasurementValues
		- rsspecan_ConfigureNoiseUncertaintyAnalyzerCharacteristics
		- rsspecan_QueryNoiseUncertainty
		- rsspecan_QuerySpectrumAnalyzerUncertainty
		- rsspecan_ConfigurePhaseTrackingBW
		- rsspecan_ConfigureWlanResultSummaryDisplay
		* Modified
		- rsspecan_ConfigureSweepOptimization
		- rsspecan_AddWindow
		- rsspecan_ReplaceWindow
		- rsspecan_QueryNoiseMarkerAmplitude
		- rsspecan_ConfigureVSACompensation
		- rsspecan_GetVSAResult
		- Frequency Mask Triggering - whole class moved from K14 - Realtime Spectrum Analysis to Base system (Trigger) - now available for R&S FSV
		- affected functions:
		- rsspecan_ConfigureFrequencyMaskTriggerSource
		- rsspecan_ConfigureFrequencyMask
		- rsspecan_ConfigureFrequencyMaskDirectory
		- rsspecan_DeleteFrequencyMask
		- rsspecan_ConfigureFrequencyMaskCondition
		- rsspecan_ConfigureFrequencyMaskShape
		- rsspecan_ConfigureFrequencyMaskAuto
		- rsspecan_ConfigureFrequencyMaskShift

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Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note

2.2.0	08/2012	Modifications:
		
		  * Version 2.2.0
		  * Support for FSV version 1.71 added
		  * Support for FSW version 1.42 added
		  * Added support for R&S FSW K17 - Multi Carrier Group Delay
		  * Added
		  - rsspecan_ConfigureUserSettingsSoftkey
		  - rsspecan_ExportPulseResultTable
		  - rsspecan_ConfigurePhaseAMRejection
		  - rsspecan_FetchPhaseSpurs
		  - rsspecan_FetchPhaseFrequencyLevel
		  - rsspecan_ConfigureSEMMSRSettings
		  - rsspecan_ApplySEMMSRSettings
		  - rsspecan_ConfigureSEMRangeRelativeLimitsFunctions
		  - rsspecan_ConfigurePresetOperatingMode
		  - rsspecan_InitiateSequencer
		  - rsspecan_AbortSequencer
		  - rsspecan_RefreshSequencer
		  - rsspecan_ConfigureSequencerState
		  - rsspecan_ConfigureSequencerMode
		  - rsspecan_MSRAMode
		  - rsspecan_QueryMSRAAnalysisInterval
		  - rsspecan_MSRARefresh
		  - rsspecan_ConfigureMSRACaptureOffset
		  - rsspecan_ConfigureLTEUplinkTDDSpecialSubframe
		  - rsspecan_ConfigureLTEDownlinkTDDSpecialSubframe
		  - rsspecan_ConfigureLTEDownlinkYAxisScaling
		  - rsspecan_ConfigureLTEUplinkYAxisScaling
		  - rsspecan_LinkAllMarkers
		  - rsspecan_VSALoadUserModulation
		  * Modified
		  - RSSPECAN_ATTR_NOISE_INP_PRES_STAT - moved to base system, option and model limits removed
		  - RSSPECAN_ATTR_EMI_RESOLUTION_BANDWIDTH_FILTER_TYPE - command parameter changed from CISP to PULS
		  - rsspecan_AddWindow - added Spurs, Group Delay, Phase, Reference Magnitude, Referenece Phase
		  - rsspecan_ReplaceWindow - added Spurs, Group Delay, Phase, Reference Magnitude, Referenece Phase
		  - rsspecan_AddMeasurementChannel - added GSM, WLAN, LTE

rsspecan Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note
		- rsspecan_ReplaceMeasurementChannel - added GSM, WLAN, LTE
		- rsspecan_setStatusRegister
		- rsspecan_getStatusRegister
		- rsspecan_ConfigureLTEUplinkPUCCHStructure
		- rsspecan_ConfigureLTEDownlinkSubframeSelection - range modified
		- rsspecan_ConfigureLTEUplinkSubframeSelection - range modified
		- rsspecan_ConfigureVSAModulationSettings - added modulations for FSW
2.1.0	04/2012	Modifications:
		* Support for FSW version 1.30 added
		* Support for FSQ version 4.70 SP3 added
		* Modified
		- Control Window was changed in all control panels
		- Window range checking was removed in all functions
		- rsspecan_ConfigureIFOutputSource - FSW support
		- rsspecan_StoreTraceToFile - trace range for FSW changed
		- rsspecan_ConfigureIFPowerTriggerParameters - FSW support
		- rsspecan_ConfigureRFPowerTrigger - FSW support
		- rsspecan_CreateLimitLine - Help, Assign to Trace range 1 to 4
		- rsspecan_ConfigureDisplayMarkerTable - FSW support
		- rsspecan_ConfigureAutoAdjustHystersis - FSW support
		- rsspecan_ConfigureAutoAdjustTriggerState - FSW support
		- rsspecan_ConfigureChannelPowerNoiseCorrectionAuto - FSW support
		- rsspecan_DefineNoiseLimitLine - Result type is not for FSW
		- rsspecan_AssignMarkerToTrace - range for FSW changed
		- rsspecan_ConfigurePhaseCarrierFrequencyOffsetTable - IQ FFT added
		- rsspecan_ConfigurePhasePresetSettings - IQ FFT added
		- rsspecan_TraceIQSamplingRate - range for FSQ same as for FMU
		- rsspecan_QueryGSMK10StatisticCount - Supports all instruments
		- rsspecan_ConfigureGSMK10ModulationTransientSpectrumAdditional - Supports all instrument
		- rsspecan_ConfigureWlanStandard - values 6, 7 no longer only for FSV
		- rsspecan_ConfigureWLANNumberOfAntennas - for FSQ only 2 antennas
		- rsspecan_ConfigureWLANSimultaneousCaptureState - Supports all instruments
		- rsspecan_ConfigureWLANTrackingPilots - Supports all instruments
		- rsspecan_AddWindow - added Window Types for K30, K40
		- rsspecan_ReplaceWindow - added Window Types for K30, K40
		- rsspecan_ConfigureDisplayMultipleZoom - incorrect attribute used
		- rsspecan_ConfigureNoiseFrequencySettings - FSW checking added
		- rsspecan_ConfigureNoiseMeasurementMode - FSW checking added
		- rsspecan_ConfigureNoiseTraceSettings - repeated capability Window added

rsspecan Instrument Driver		
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Revision	Date	Note
		- rsspecan_ConfigureNoiseGainTraceSettings - repeated capability Window added
		- rsspecan_EnableNoiseLimitCheck - repeated capability Window modified
		- rsspecan_ClearNoiseLimitLineResults - repeated capability Window modified
		- rsspecan_GetNoiseLimitCheckResult - repeated capability Window modified
		- rsspecan_ConfigurePhaseSpotNoiseSettings
		- rsspecan_ReadPhaseTraceData
		* Added
		- K6 Pulse Measurement support
		- Channel Subsystem
		- rsspecan_SelectWindow
		- rsspecan_QueryNoiseResults
		- rsspecan_AssignNoiseLimitLineToTrace
		- rsspecan_ConfigureSweepOptimization
		RSSPECAN_ATTR_SWEEP_OPTIMIZATION
		- rsspecan_TraceIQMaximumBandwidthExtension
		RSSPECAN_ATTR_IQ_MAX_BANDWIDTH_EXTENSION
		- rsspecan_LinkMarkerToAnotherMarker
		RSSPECAN_ATTR_MARKER_LINK_TO_MARKER
		- rsspecan_LinkDeltaMarkerToAnotherMarker
		RSSPECAN_ATTR_DELTA_MARKER_LINK_TO_MARKER
		- rsspecan_ConfigureIQPowerTrigger
		RSSPECAN_ATTR_TRIGGER_IQP_LEVEL
		- rsspecan_ConfigureRFPowerTriggerHoldoff
		RSSPECAN_ATTR_TRIGGER_RFP_HOLDOFF
		- rsspecan_ConfigureDisplayMeasurementWindowState
		RSSPECAN_ATTR_DISP_MEAS_WINDOW_STATE
		- rsspecan_QueryActiveMeasurementWindow
		RSSPECAN_ATTR_QUERY_ACTIVE_MEASUREMENT_WINDOW
		- rsspecan_NoiseENRTableOperations
		RSSPECAN_ATTR_NOISE_CORR_ENR_TABLE_SELECT
		RSSPECAN_ATTR_NOISE_CORR_ENR_TABLE_DELETE
		- rsspecan_NoiseLossInputTableOperations
		RSSPECAN_ATTR_NOISE_CORR_LOSS_INPUT_TABLE_SELECT
		RSSPECAN_ATTR_NOISE_CORR_LOSS_INPUT_TABLE_DELETE
		- rsspecan_NoiseLossOutputTableOperations
		RSSPECAN_ATTR_NOISE_CORR_LOSS_OUTPUT_TABLE_SELECT
		RSSPECAN_ATTR_NOISE_CORR_LOSS_OUTPUT_TABLE_DELETE
		- rsspecan_ConfigureNoiseLimitLineType
		RSSPECAN_ATTR_NOISE_LIMIT_LINE_TYPE

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Revision	Date	Note
		- rsspecan_QueryNoiseMarkerAmplitude
		RSSPECAN_ATTR_NOISE_MARKER_AMPLITUDE
		- rsspecan_ConfigurePhaseDisplayYAxisSettings
		RSSPECAN_ATTR_PHASE_Y_AXIS_MANUAL_SCALING
		RSSPECAN_ATTR_PHASE_DISP_TRACE_Y_RLEV
		RSSPECAN_ATTR_PHASE_DISP_TRACE_Y_BOTTOM
		RSSPECAN_ATTR_PHASE_DISP_TRACE_Y
		RSSPECAN_ATTR_PHASE_DISP_TRACE_Y_AUTO
		- rsspecan_ConfigurePhaseDisplayXAxisSettings
		RSSPECAN_ATTR_PHASE_X_AXIS_SCOPE
		RSSPECAN_ATTR_PHASE_X_AXIS_START_FREQUENCY
		RSSPECAN_ATTR_PHASE_X_AXIS_STOP_FREQUENCY
		RSSPECAN_ATTR_PHASE_X_AXIS_HALF_DECADE
		- rsspecan_ConfigurePhaseTraceCustomRange
		RSSPECAN_ATTR_PHASE_USER_TRACE
		- rsspecan_ConfigurePhaseUserResidualCalculations
		RSSPECAN_ATTR_PHASE_USER_EVALUATE_FROM
		RSSPECAN_ATTR_PHASE_USER_EVALUATE_TO
		- rsspecan_ConfigurePhaseSpotNoiseCalculation
		RSSPECAN_ATTR_PHASE_SPOT_NOISE_CALCULATION
		- rsspecan_ConfigurePhaseSpurSettings
		RSSPECAN_ATTR_PHASE_SPUR_SUPPRESSION
		RSSPECAN_ATTR_PHASE_SPUR_THRESHOLD
		- rsspecan_ConfigurePhaseSignalVerificationFailed
		RSSPECAN_ATTR_PHASE_SIGNAL_VERIFICATION_FAILED
		- rsspecan_ConfigurePhaseGlobalIQWindowSettings
		RSSPECAN_ATTR_PHASE_IQ_WINDOW_FUNCTION_PARTICULAR_DECADE
		RSSPECAN_ATTR_PHASE_IQ_WINDOW_FUNCTION_ALL_DECADE
		- rsspecan_GetActivePhaseLimitLine
		RSSPECAN_ATTR_LIMIT_LINE_ACTIVE
		- rsspecan_ConfigurePhaseNoiseLimitSettings
		- rsspecan_GetPhaseNoiseLimitCheckState
		- rsspecan_FetchPhaseResidualUserResults
		- rsspecan_GetPhaseDecadeSpotNoiseResult
		- rsspecan_ConfigureC2KPowerDisplay
		RSSPECAN_ATTR_C2K_CDP_DISPLAY
		- rsspecan_ConfigureWLANMIMOPayloadLengthSource
		RSSPECAN_ATTR_WLAN_MIMO_PAYLOAD_LENGTH_SOURCE
2.0.1	04/2012	Modifications:
		- rsspecan_ConfigureWlanDemodulation - added MM20, GFM20, MM40, GFM40

rsspecan Instrument Driver		
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Revision	Date	Note
		RSSPECAN_ATTR_WLAN_BTYP
2.0.0	03/2012	Modifications:
		* Changed list of supported instruments - see chapter 2.0 "Supported Instruments"
		Support for FSV version 1.70 added
		Modified:
		rsspecan Configure Filter Type.vi - added CISP, MIL Std
		RSSPECAN_ATTR_RESOLUTION_BANDWIDTH_FILTER_TYPE
		rsspecan Configure Trigger Source.vi - added GP0 - GP5
		RSSPECAN_ATTR_TRIGGER_SOURCE
		rsspecan Configure Limit Line.vi - in code, DBPT for FSV added (upper range for FSV units increased)
		rsspecan Configure VSA Measurement Signal.vi - added I/Q Constellation (Rotated)
		rsspecan Configure WiMAX Trigger.vi - added in FP, attribute - Falling & Rising Edge
		RSSPECAN_ATTR_WIMAX_TRIG_MODE
		rsspecan Configure Wlan Standard.vi - added support for MIMO
		RSSPECAN_ATTR_WLAN_STAN
		rsspecan Configure LTE Downlink Signal Characteristics.vi
		RSSPECAN_ATTR_LTE_DOWNLINK_CHANNEL_BANDWIDTH - 2.5 MHz not supported by FSV
		rsspecan Configure LTE Uplink Signal Characteristics.vi
		RSSPECAN_ATTR_LTE_UPLINK_CHANNEL_BANDWIDTH - 2.5 MHz not supported by FSV
		rsspecan Configure LTE Uplink Trigger.vi - added IF Power for FSV (Differnt command string)
		RSSPECAN_ATTR_TRIGGER_MODE
		Added:
		rsspecan Configure Remote Logging State.vi
		RSSPECAN_ATTR_REMOTE_LOGGING_STATE
		rsspecan Probe Activation.vi
		RSSPECAN_ATTR_PROBE_ACTIVATION
		rsspecan Probe Micro Button Action.vi
		RSSPECAN_ATTR_PROBE_MICRO_BUTTON_ACTION
		rsspecan Get Probe Information.vi
		RSSPECAN_ATTR_PROBE_CONNECTION_STATE
		RSSPECAN_ATTR_PROBE_NAME
		RSSPECAN_ATTR_PROBE_NUMBER
		rsspecan Configure Auto Adjust Hystersis.vi
		RSSPECAN_ATTR_AUTO_ADJUST_HYSTERSIS
		rsspecan Configure Auto Adjust Trigger State.vi
		RSSPECAN_ATTR_AUTO_ADJUST_TRIGGER_STATE
		rsspecan Read Y Trace Previous.vi
		rsspecan Configure Channel Power Noise Correction Auto.vi

rsspecan Instrument Driver		
Driver history for LabWindows/CVI and VXIplug&play Instrument Driver for C#, C/C++, Visual Basic .NET, VEE, etc.		
Revision	Date	Note
		RSSPECAN_ATTR_MEAS_POW_NOISE_CORR_AUTO
		rsspecan Query GSM K10S tatistic Count.vi
		RSSPECAN_ATTR_GSM_K10_STATISTIC_COUNT
		rsspecan Configure GSM K10 Modulation Transient Spectrum Additional.vi
		RSSPECAN_ATTR_GSM_K10_MODULATION_TRANSIENT_SPECTRUM_FILTER_TYPE
		RSSPECAN_ATTR_GSM_K10_MODULATION_TRANSIENT_SPECTRUM_REF_POWER
		RSSPECAN_ATTR_GSM_K10_MODULATION_TRANSIENT_SPECTRUM_HIGH_DYNAMIC
		RSSPECAN_ATTR_GSM_K10_MODULATION_TRANSIENT_SPECTRUM_FREQUENCY_LIST
		rsspecan GSM K10 Refresh Captured Data.vi
		RSSPECAN_ATTR_GSM_K10_REFRESH_CAPTURED_DATA
		rsspecan EMI Final Measurement Delta Marker Peak Search.vi
		RSSPECAN_ATTR_EMI_FMEAS_DELTA_MARKER_PEAK_SEARCH
		rsspecan Configure VSA Fine Synchronization.vi
		RSSPECAN_ATTR_VSA_FINE_SYNC_AUTO
		RSSPECAN_ATTR_VSA_FINE_SYNC_MODE
		RSSPECAN_VAL_VSA_FINE_SYNC_KDAT
		rsspecan Query VSA Fine Synchronization Result.vi
		RSSPECAN_ATTR_VSA_FINE_SYNC_RESULT
		rsspecan Configure VSA Known Data.vi
		RSSPECAN_ATTR_VSA_KNOWN_DATA_STATE
		RSSPECAN_ATTR_VSA_KNOWN_DATA_FILE_NAME
		rsspecan Query VSA BER Results.vi
		RSSPECAN_ATTR_VSA_BER_BIT_ERROR_RATE
		RSSPECAN_ATTR_VSA_BER_NUMBER_OF_ERRORS
		RSSPECAN_ATTR_VSA_BER_NUMBER_OF_BITS
		rsspecan_ConfigureVSAModulationAccuracyAdditional
		RSSPECAN_ATTR_VSA_RESULT_FORMAT - added RSUM, BER
		rsspecan Configure WLAN Simultaneous Capture State.vi
		RSSPECAN_ATTR_WLAN_ANTENNA_SIMULTANEOUS_CAPTURE_STATE
		rsspecan Configure WLAN Tracking Pilots.vi
		RSSPECAN_ATTR_WLAN_TRAC_PILOTS
		rsspecan Configure LTE Uplink Code Bits Scrambling.vi
		RSSPECAN_ATTR_LTE_UPLINK_SCRAMBLING_OF_CODED_BITS
		rsspecan Configure LTE Uplink Sounding Reference Signal NRRC.vi
		RSSPECAN_ATTR_LTE_UPLINK_SOUNDING_REFERENCE_SIGNAL_N_RRC

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