SDK

|REVISION HISTORY

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SDK Revision History

SDK version Oct2013	
Versions	DTAPI: v5.3.0.35 Drivers: Dta v4.6.0.92, DtaNw v3.4.1.18, Dtu v4.4.2.40 DtapiService: v2.2.7.30
Changes	New features: • DTU-351 official release • DTA-2154 initial support Bug fixes: • GetTsRateBps() was incorrect for RxMode STRAW • SetRxMode did not return an error when DTAPI_TXMODE_SDI_16B was not supported • Application restart could fail after application exception situation • Data playout could fail after unclean stop and restart of application • Multicast list was not updated correctly when configuring multiple VLAN's • SDI reception of Huffman compressed active video was not working • SDI DtOutpChannel:Write() could fail for specific frame-alignment • Matrix API audio samples alignment issue for fractional video standards • DTU-236: QAM tuner initialization was not completely correct • DTU-236: limit of tuning frequency is 885MHz not 865MHz • DTA-2131: PCR jitter for ISDB-T demodulation could be out of spec • DTA-2131: ISDB-T emergency flag was not set correctly for IIP and dummy byte • DTA-2131: Transport Error Indicator (TEI) flag was not set (not supported for T2/C2 HEM mode) • DTA-2152: Reading 8-bit SDI data was not done correctly Linux only bug fixes: • DtapiService did not start automatically after unclean stop of DtapiService

SDK version Aug2013	
Versions	DTAPI: v5.2.4.31 Drivers: Dta v4.5.2.46, DtaNw v3.4.0.17, Dtu v4.4.0.38 DtapiService: v2.2.6.29
Changes	New features: • VLAN support using manually installation of protocol driver DtaNwAp • DTU-351 USB-3 HD-SDI input initial support • Support for ISDB-Tmm modulation using DtMplpOutpChannel::SetModControl(DtIsdbTmmPars&) • DTA-2162 does now have port id included in device description strings • DVB-T demodulation statistic DTAPI_STAT_TPS_INFO including DVB-T Cell-ID information • The number of DtDevice/DtChannel instances is no longer limited to 256 Bug fixes: • DtDevice::GeTGenlockState was missing since DTAPI v4.0 release • Added private copy constructors to DTAPI classes to make sure that a copy will result in compile errors • DtInpChannel::GetIpStat documentation updated; values are not reset after read • DtInpChannel::GetTunerFrequency returned DTAPI_E_NOT_SUPPORTED • DtaNw Promiscuous mode was not working • DtIsdbtPars::RetrievesParsFromTs did not support 1- and 3-segments audio streams • Certain T2-MI streams did not playout • DTA-124: Crash could occur on 64 bit OS • DTA-2111/DTU-215: MER was lower for DVB-C when Channel Simulator was disabled • DTA-2137: DVB-S2 L3 input selection caused a long delay • DTA-2137: DVB-S2 Multi Input Streams did not always lock (due to invalid ModType) • DTA-2142: Calling DtOutpChannel::SetTstRateRatio was failing • DTA-2152: Unsupported mode DTAP_RXMODE_SDI_ACTVID could be configured • DTA-2152: Reading 8-bit SDI data could cause the DtInpChannel::ReadFrame to hang

• DTA-2160: DTAPI_E_OUT_OF_RESOURCES did sometimes occur after a lot of application restarts

Linux only bug fixes:
• Dta driver did not compile on 64-bit CentOS 5

SDK version June2013	
Versions	DTAPI: v5.2.3.29 Drivers: Dta v4.5.1.44, DtaNw v3.3.0.15, Dtu v4.3.1.37 DtapiService: v2.2.5.27
Changes	New features: • Windows SDK is now distributed using an installer containing all drivers, libraries and include files Bug fixes: • DTE board could be reported twice when using multiple network cards and retrieving the available ports • DTE board was not reported when retrieving the available ports and user has no administrator rights • DTAPI documentation was incomplete for SetIoConfig, DtStatitics and DVB-C QAM-128 limitation for DTA-2136 and DTA-2139 • DTAPI_E_DRIVER_INCOMP was not returned on Attach when an incompatible driver was installed • DTAPI_E_NOLINK was not returned when no network connection was available • Visual Studio Express was not able to link DTAPI caused by an ATL dependency • Division by zero exception was thrown when using Huffman compression • DTA-2131: For ISDB-T demodulation a relock was not automatically re-acquired • DTA-2131: Retrieving the RF level statistic resulted in an error • DTA-2135: Demodulation of bad signals could fail caused by a FIFO overflow • DTA-2139: MER/SNR statistics were incorrectly calculated Linux only bug fixes: • Dta driver could crash when aborting the application

SDK version May2013	
Versions	DTAPI: v5.2.2.26 Drivers: Dta v4.5.0.43, DtaNw v3.3.0.15, Dtu v4.3.0.36 DtapiService: v2.2.4.26
Changes	New features: • Support for DTA-2162 • Support for L3 input for DVB-S2 modulation • Support for DAB+/ T-DMB software demodulation • Support for ISDB-T software demodulation of all layers using TMCC • Support for extra Error statistics for DVB-T and ISDB-T software demodulation • Support for new DTA-2137 statistics: Link Margin, Es/N0, Eb/N0, Pre-LDBC BER, Occupied bandwidth and Roll-off factor • DTU-236A: Support for individually tuning of both tuners Non-backwards compatible API change (a code change might be required!) • Statistics like SNR, MER and RF LVL that did support double and integer values now only support integer values Bug fixes: • DtaNw driver installation was not executed when network port was active • Dta driver could hang during shutdown or disable • Unicast IP receive address in March release did only accept 0.0.0.0 and did not accept IP address of adapter • DtInpChannel:ReadFrame blocked on SDI frame when no valid input signal was attached • AdvDemod constellation points data stopped in case of a unlock-lock scenario

- Driver did not check if firmware reboot was allowed
- Visual Studio 2005 projects could fail building because of missing ATL reference
- DTE license file programming failed since SDK version Mar2013
- DTA-2136 and DTA-2139: Sometimes a value of -1 was returned for SNR
- DTA-2136: MER/SNR statistics were incorrectly calculated
- DTA-2137: 32-APSK performance was decreased since SDK version Aug2012
- DTA-2152: Video standard capabilities were not set for port 3 (GENLOCK reference port)

Linux only bug fixes:
- DtapiService installation did not work for CentOS 6.3/6.4
- DTA-2160: CentOS 5.9 possible crash on IP port
- DTA-2160: Ethtool didn't work

SDK version Mar2013	
Versions	DTAPI: v5.2.1.24 Drivers: Dta v4.4.0.37, DtaNw v3.2.1.14, Dtu v4.2.3.35 DtapiService: v2.2.2.25
Changes	New features: • Support for DtTsIpPars *Differentiated Services* field (formerly *Type Of Service*) in the IP v4 header or *Traffic Class* field in the IP v6 header • Support for DTE-3120 polarity control • Support for DTE-3100 transmit on timestamp mode Bug fixes: • Some DVB-T2 modulation settings did not run on a Core Duo anymore (CPU load to high) • DTE attach speed was slow • IP packets were in some cases discarded because the packets were incorrectly recognized as VLAN packets • DVB-T2 modulator was not ignoring the IN_BAND_B_FLAG for DVB-T2 version V.1.1.1 • SetTxControl was failing when using QAM-B and channel modeling • FrmBufInpChannel:SetRxControl call could have resulted in deadlock • Source Specific Multicast was limited to the IANA's SSM range for DTA-(2)160 • Added missing DtInpChannel ISDB-T and T2MI functions in DTAPI core documentation • Uncorrected blocks was not reset between calls to GetStatistics() using DTAPI_STAT_BADPCKCN for DTA-2136 and DTA-2139 • DTU-234: For some firmware versions a signal lock problem did occur • DTU-234: Added missing statistics DTAPI_STAT_BER_PREVIT, DTAPI_STAT_BER_POSTVIT, DTAPI_STAT_BER_PRERS • DTA-2131: Support for missing Rx modes: DTAPI_RXMODE_STMP2, DTAPI_RXMODE_STRAW, DTAPI_RXMODE_STTRP, DTAPI_RXMODE_TIMESTAMP32 • DTA-2131: DTAPI_FULL_RESET resulted in no data received anymore • DTA-2131: ISDB-T SetDemodControl failed in some cases • DTA-2131: DVB-T bandwidth 5MHz was not supported • DTA-2137: Transport Error Indicator (TEI) bit was not set on packets with uncorrectable errors • DTA-2138: DtInpChannel:Tune() returned timeout error when there was no input signal • DTE-3114: Device was not found on DtapiDeviceScan Linux only bug fixes: • DtaNw driver is now installed and loaded automatically • DTU-236: RF level readings were unstable

SDK version Feb2013	
Versions	DTAPI: v5.2.0.21 Drivers: Dta v4.3.0.35, DtaNw v3.2.0.13, Dtu v4.2.2.34 DtapiService: v2.2.1.22

Changes	New features:
	• Advanced Demodulator API: support for DVB-T,-T2,-C2 and ISDB-T including measurements Please refer to *DTAPI Manual* and *DTAPI Reference – Advanced Demodulator API documentation* • Changed Modulation capabilities and new Receiver capabilities and licenses: RXA (Advanced De-modulator), IQ, T2MI and GOLD RX Please refer to *DTAPI 5.2 Releases Notes* explaining how to adapt your application for these changes. • Support for ATSC-MH modulation • SDK support for Visual Studio 2012 (VC11) • DtDvbT2Pars::RetrieveT2miRateFromTs calculates required TS rate for a given buffer with T2MI data • New Statistics BER_PREBCH and BER_PRELDPC, renamed BER_BCH and BER_LDPC to BER_POSTBCH and BER_POSTLDPC • DTA-160/2160: support for IPv6 • Support for DAB modulation Bug fixes: • IP header identification field value was not incremented for IP outputs • DVB-C2 modulator inserted invalid ISSY in case of HEM and NPD=1 • Invalid DVB-C2 signal when using ACM + plp_header_counter=1 + odd number of XFEC-frames • DVB-T2-MI FEF sub-part not correctly encoded • Possible error when calling DtOutpChannel::GetFlags before DtOutpChannel:SetTxControl • SetIoConfig was not thread safe • GetFifoLoad returned wrong value for DVB-S2 when symbol rate was changed • DtapiDeviceScan returned DTE device's that were not in DTAPI mode • DtapiService crash when using incompatible driver • DTAPINET DtapiDtDeviceDesc2String() returned incorrect string • DTAPINET added missing functions: DtapiModPars2Bandwidth(), DtapiModPars2SymRate() and Dtap-iModPars2TsRate() • DtInpChannel::GetTsRateBps() doesn't normalize rate to 188byte packets • Reading data from USB device failed after warm reboot • DTA-107 produced incorrect SNR level for DVB-S2 • DTU-215: boot time was slow • DTU-236: RF level was always returning around 396 • DTU-245: port 2 could not be set in loop-through mode • DTA-2137: MER statistic for 16APSK and 32APSK was incorrect • DTA-2137: Not all BER statistics were correct • DTA-2137: FEC lock statistic was incorrect • DTA-2138: DVB-C, interleaving parameter was not ignored by SetDemodControl • DTA-2152: field length error on 525i59.94 signal • DTE-3120: Cannot attach to the DTE in DTAPI mode Linux only bug fixes: • Compile warnings for DTA/DTU drivers • Dtu0 symlink was not created for some Linux distributions • Dtu driver failed on udev version before v98 • Possible system freeze when using IP port on CentOS 5.8 • On 64-bit linux not all license were recognized • DtapiService installer didn't work when /tmp was not executable • IP multicast receive only worked for 1 multicast address(-range) • Driver hangs on unloading driver (Red hat 5.4) • DTA-2131: AttachToPort was failing

SDK version Dec2012	
Versions	DTAPI: v5.1.0.19 Drivers: Dta v4.2.0.33, DtaNw v3.1.0.12, Dtu v4.2.0.30 DtapiService: v2.2.0.18
Changes	New features: • DTU-236: Support for enabling/disabling equalizer • DTA-2137: removed FrameId from L3 header (firmware V7) • Added support for subtype field in DtDeviceDesc

Bug fixes:
- DTAPI_TX_CPU_UFL reported but should be DTAPI_TX_DMA_UFL
- IPAT was very large for RTP stream including FEC and lost packets
- Local NIC: the data was corrupted every time the RTP sequence number wraps
- Linker warnings regarding missing .pdb files when linking to DTAPI debug version
- DVB-C2 modulation: stopped when type 1 and type 2 data slices are mixed
- DVB-C2 modulation: crashed when header_counter=1 and modulation <= 64qam
- DVB-C2 modulation: the order of the ISSY fields generated for the first frame was not correct
- DtFrameBuffer::AncAddPacket returns DTAPI_OK but AncCommit did not add the packet to the output
- DtFrameBuffer::AncGetPackets never returns DTAPI_E_BUF_TOO_SMALL
- DtInpChannel::GetStatus incorrectly reported -1 for AsiLock parameter
- DtInpChannel::RegisterDemodCallback: possible fail on tuner event-register
- DtInpChannel::SetDemodControl did not accept -1 for ParXtra1 for QAM-B
- DtOutputChannel:Write(buf,0) caused a DTAPI crash
- DTA-115: on certain PC's DMA performance caused OFDM modulation to stop working
- DTU-215: device was not started on a "warm" reboot
- DTA-2137: tuning to some DVB-S modulated streams was failing
- DTA-2144: double-buffered output was not supported anymore
- DTA-2152: bottom of frame showed a green line
- DTA-2152: BSOD after enabling GENREF mode for one of the ports

Linux only bug fixes:
- Multi-threading DTAPI usage could result in a crash
- Dtu0 symlink was not created for some Linux distributions

SDK version Oct2012	
Versions	DTAPI: v5.0.11.17 Drivers: Dta v4.1.1.30, DtaNw v3.1.0.12, Dtu v4.1.2.26 DtapiService: v2.1.2.17
Changes	New features: • Support for DTA-2138 • Optimized performance of Matrix-API audio and ancillary data embedding and de-embedding code • Added support for add/removal event for USB devices Bug fixes: • DVB-T2/C2 modulation did not work • Failure to read licenses from DTE devices • DtapiHwFuncScan did not return a DTAPI_E_DRIVER_INCOMPATIBLE when an old driver is used • DtDeviceAttachToSerial did not return a DTAPI_E_DRIVER_INCOMPATIBLE when an old driver is used • DTA-160/2160: exception in Dta driver on system with 64GB ofRAM • DTU-236: DTAPI crash when DTU-236 is disconnected from USB bus • DTU-236a: DtInpChannel::SetTunerFrequency failed when try to tune to frequencies above 862 MHz • DTA-2107: spectrum of DVB-S output was inverted • DTA-2107: actual SNR level did not match applied level • DTA-2139: first call to AttachToPort was very slow • DTA-2152: error in audio embedding when embedding less than 4 channels in an audio group Linux only bug fixes: • Stack corruption when reading data from a DTU device • SDK could still not be built on Red Hat Enterprise Linux 5 with kernel version 2.6.18

SDK version Sep2012	
Versions	DTAPI: v5.0.10.16 Drivers: Dta v4.1.0.29, DtaNw v3.1.0.12, Dtu v4.1.0.24 DtapiService: v2.1.0.15
Changes	New features: • Support for DTU-236a (1GHz version)

- DTU-236: support for reading BER, SNR, MER and constellation points
- Genlock support for DTA-145/2144/2145
- Support for controlling DTA-plus (VHF/UHF Booster/Attenuator for DTA-115)

Bug fixes:
- DTA-2107: DVB-S spectrum was inverted
- DTA-2136/2139: return sensible value for SNRs which are outside of the range that can be measured by demod chip
- DTA-2152: failure to set IO-standard to 720p50
- DTA-2152: VANC data was not committed in DtFrameBuffer::AncCommit
- TS-rate returned for TS-over-IP streams received via a local-NIC was always ~10% to high
- Non-exclusive attach of DtInpChannel object to a demodulator causes re-initialization of the port it is attached too

Linux only bug fixes:
- DTA-2111: setting the output level had no effect
- SDK could not be built on Red Hat Enterprise Linux 5 with kernel version 2.6.18
- Potential DMA data corruption, on 64-bit Linux, for cards that do not natively support 64-bit DMAs
- 32-bit DTAPI could not connect with 64-bit driver.
  NOTE: the fix for this issue breaks backwards compatibility between the DTAPI and previous versions of the Dta, Dtu and DtaNw drivers (on 32-bit Linux configurations only)

SDK version Aug2012	
Versions	DTAPI: v5.0.9.15 Drivers: Dta v4.0.14.27, DtaNw v3.0.7.11, Dtu v4.0.8.23 DtapiService: v2.0.9.12
Changes	New features: • Support for DTA-2139 • DTA-102: implementation for DtOutpChannel::SetPower • DTA-2137: support for firmware version V6 • DTA-2137: support for C-version (with STV0900AAC) • DTA-2137: support for getting the spectral-inversion status • DtapiCheckDeviceDriverVersion now also detects the presence of pre V4 drivers • Added new EULA for Linux SDK Bug fixes: • DtInpChannel::GetRxMode always returned 0 for IP ports • DtInpChannel::GetRxControl always returned DTAPI_RXCTRL_IDLE for IP ports • CPU overload when DtapiService was stopped while used • Crash in SetDemocControl if invalid ISDB-T parameters were passed to this function Linux only bug fixes: • Unknown symbols when loading Dta, Dtu and DtaNw driver • DtapiService.bin installer only contained 64-bit version of DtapiService • DTA-2145: Kernel panic in ISR when Dta driver is loaded during system boot-up • "DMA: Out of SW-IOMMU space" in Dta driver

SDK version Jul2012	
Versions	DTAPI: v5.0.8.12 Drivers: Dta v4.0.13.25, DtaNw v3.0.7.11, Dtu v4.0.8.23 DtapiService: v2.0.8.10
Changes	New features: • Support for DTA-2131 Bug fixes: • DTA-2152: fixed timeout error for WaitFrame • DTA-2136: added missing loop-through capability • DTA-2137: added missing support for DTAPI_STAT_CNR • DTA-2135/2137: added missing support for DTAPI_STAT_BER_PRERS & DTAPI_STAT_CNR • DTA-2152: DtInpChannel::ReadFrame always retuned 10-bit frames, regardless of rx-mode settings • DTA-2152: error in audio embedding when embedding less than 4 channels in an audio group • DtapiHwFuncScan never returns DTAPI_E_BUF_TOO_SMALL when supplied buffer really is too small • DTA-235: added missing support for DTAPI_STAT_BER_PRERS & DTAPI_STAT_CNR • DTU-236: added missing support for DTAPI_STAT_CNR • GetIoConfig for DTAPI_IOCONFIG_LOOPTHR returned incorrect buddy port value • Probe attach to DTE always failed

SDK version Jun2012	
Versions	DTAPI: v5.0.7.10 Drivers: Dta v4.0.12.23, DtaNw v3.0.7.11, Dtu v4.0.8.23 DtapiService: v2.0.7.8
Changes	Bug fixes: • AttachToPort, with the probe flag set, failed for DTEs • Could not set DTAPI_RXMODE_TIMESTAMP32 for DTE devices • Deadlock in DtFrameBuffer::WriteSdiLines • DtInpChannel::SetLnbVoltage always returned DTAPI_E_INVALID_ARG • DtIsdbtPars::RetrieveParsFromTs always sets m_Guard to 1/8 • DVB-S2 capability was missing for DTA-2137 • Exception in DTAPI which occurred when an application using the DTAPI was closed • Link errors due to missing symbols in VC9 version of the DTAPI • Memory leak in modulation code • Using SetIoConfig to set a fractional IOSTD failed for the input of a DTA-2152 • Updated FIFO load algorithm for a DTA-2152 in 'DtOutpChannel-mode'

SDK version May2012	
Versions	DTAPI: v5.0.5.8 Drivers: Dta v4.0.11.20, DtaNw v3.0.7.11, Dtu v4.0.7.22 DtapiService: v2.0.6.7
Changes	Major new release of the entire SDK. Please refer to *DTAPI 5.0 Release Notes* in the SDK documentation for an overview of changes.