

#### **Delta list: Willtek's Family of Test Automation Products**

#### Revision history 6.01 → 6.10 (August 2009)

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Troubleshoot button which collects log files for support questions	✓	✓	✓
Option dialog shows missing options when running a test script	✓	✓	✓
2201 ProLock can be shut down when Lector is shut down	✓	✓	✓
Messages can be displayed during update of Lector to provide important information	✓	✓	✓

Product	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Maximum number of log files and size increased	✓	✓	✓
Status of an expired license is now displayed correctly	✓	✓	✓
TETRA auto-coupling checks if instrument is connected	✓	✓	✓
Fields in CPL wizard do not disappear anymore when Enter is pressed	✓	✓	✓
Files which are marked as read only can be overwritten during updates	✓	✓	✓
Overall test result and timing information is printed out on result file even when test has been stopped	✓	✓	✓

#### Revision history $6.00 \rightarrow 6.01$ ; (July 2009)

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
WCDMA changes for 4400 with old PC	✓	✓	✓
Ensuring backwards compatibility with older firmware versions of 4400	✓	✓	✓



## Revision history $5.02 \rightarrow 6.00$ (June 2009)

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Support of 2303 Stabilock for automatic TETRA handset testing		✓	✓
Support of 3110 Mobile Service Tester	✓	✓	✓
EDGE support for 2201 ProLock	✓	✓	✓
4914 Antenna Coupler supported (frequency range: 350 – 495 MHz)	✓	✓	✓
Calibration date can be checked and displayed with Lector		✓	✓
Individual channel settings per test setup can be kept during synchronization		✓	✓
Manufacturer and model name are listed in report summary	✓	✓	✓
Call by MS for WCDMA supported. Together with RMC handover, test time can be reduced	✓	✓	✓
New combined position and phone type pop up for all standards with possibility to display additional comments and multiple pictures	✓	✓	✓
Pop-up menu with CDMA phone information disappears either after confirmation by user or through software control	✓	✓	✓
During a file server outage, result files usually stored there are stored locally, and copied to the file server when it has recovered	✓	✓	✓
Values deviating extremely during coupling loss measurements with average calculation are indicated in the coupling factor wizard		✓	✓
Test results can be stored in dedicated folders depending on the script	✓	✓	✓
File name of test results can be defined according to input after test	✓	✓	✓
Username, company name and comments can be defined for txt result files	✓	✓	✓
Coupler position of tested phone is displayed immediately after IMEI scan for TAC2TEST and TECH2TEST	✓	✓	✓

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Alerting message for expiring 7360 Coupling Factor Update License can be switched off	✓	✓	✓
After synchronization, the configuration menu is updated	✓	✓	✓
Connection settings from older version are adopted when new Lector release is installed	✓	✓	✓
After import of script packages the Limits Editor is refreshed	✓	✓	✓
When synchronization with "Read Manually (Overwrite All)" is performed a separate confirmation is requested	✓	✓	✓
Authentication requests are handled automatically	✓	✓	<b>√</b>



## Revision history 5.01 $\rightarrow$ 5.02; (January 2009)

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Result files are stored locally when network is not available	✓	✓	✓
Increased failure tolerance of position finding for WCDMA		✓	✓
Storage of result files in date subfolders corrected	✓		
Supported phones list is not overwritten with Lector installation anymore	✓	✓	✓
CDMA with old PC in 4400 is working	✓		
Mobile settings for CDMA are not deleted anymore			✓
Direct Bluetooth connection without connected instrument is supported		✓	✓
CDMA auto-coupling handling has been modified			✓
4200 is set to local mode when test is finished	✓	✓	<b>√</b>
Frequency error limits can be defined for dedicated WCDMA bands	✓	✓	✓

#### Revision history 5.00 $\rightarrow$ 5.01; (October 2008)

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Configuration blocking fixed	✓	✓	✓
GPRS Go/NoGo handling for 4200 changed	✓	✓	✓
Changes in SRW output file	✓	✓	✓



## Revision history $4.20 \rightarrow 5.00$ ; (October 2008)

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
2201 ProLock support	✓	✓	✓
Update of coupling database inside of 2201 ProLock via USB stick		✓	✓
Supports up to 4 timeslots in GPRS and EDGE	✓	✓	✓
Phase Error Peak and RMS on EDGE can be measured	✓	✓	✓
New HSDPA measurements supported - Adjacent Channel Leakage Power Ratio (ACLR) - Error Vector Magnitude RMS and Peak (EVM) - Occupied Bandwidth (OBW) - Maximum Power - Block Error Ratio (BLER) - Throughput measurement	<b>√</b>	<b>√</b>	<b>√</b>
Sensitivity test for WCDMA available: WCDMA_SENSITIVITY	✓	✓	✓
Test result files can be sorted by manufacturer into specific folders		✓	✓
Supports direct Bluetooth connection for Go/NoGo tests for 4100 and 4200 series (additional 7361 Bluetooth Connectivity Test License required)		<b>√</b>	✓
Offset in attenuation values in GSM and WCDMA	✓	✓	✓

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
New WTG design implemented	✓	✓	✓
Error message during offline update does not appear anymore	✓	✓	✓
The "#" sign can be used for messages etc., but not for comments in test scripts anymore	✓	✓	✓
Changes in internal sequence of audio test	✓	✓	✓
TECH2TEST improvements/bug fixes	✓	✓	✓
When pcf files are updated, the screen is automatically refreshed	✓	✓	✓
Waiting time after stopping a running test has been reduced for WCDMA	✓	✓	✓



## Revision history 4.10 → 4.20; (August 2008)

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Averaging of coupling loss measurements for GSM, WCDMA and CDMA2000		✓	✓
Script packages (*.pcf) can be updated over the Internet	✓	✓	✓
BLER in EDGE and WCDMA supported	✓	✓	✓
Script files can be encrypted			✓
Instrument selection for Script Editor available			✓
Picture of phones in user database can be exchanged		✓	✓
Automatic stop after 1 <sup>st</sup> Fail		✓	✓
Test script can be stored after "user break"	✓	✓	✓
Support of AWS band for CDMA2000	✓	✓	✓
New output format for database applications		✓	✓
User information can be received via online update mechanism	✓	✓	✓
New read synchronization mode overwrites files without date/time comparison	✓	<b>√</b>	✓

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Search sequence for User Database + Willtek Database setting corrected	✓	✓	✓
Position finding for WCDMA corrected	✓	✓	✓
Read protection dialog implemented for synchronization during write mode	✓	✓	✓
COM port is closed when test aborts	✓	✓	✓
Lector recognizes early when connection is interrupted during coupling factor measurements	✓	✓	✓
More user queries and input commands can be copied to the result file.	✓	✓	✓



# Revision history 4.00 $\rightarrow$ 4.10; (May 2008)

Product	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Channel scan for GSM available		✓	✓
Position finding for CDMA2000 (standard and XY shuttle)			✓
New assign TAC dialog	<b>√</b>	✓	✓
Script command for user queries supported	✓	✓	✓
SWAP process for IMEI comparison available	✓	✓	✓
Adjustment of BS power level for high attenuation values (4100 and 4200)		<b>√</b>	<b>√</b>

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Problem with defining the interface is solved for 4300		✓	✓
Script command CDMA_CALL_BY_MS corrected	✓	✓	✓
Position is not displayed every time by using 4100 or 4200		✓	✓
MAX Power Limits are not missing in result file for a WCDMA + HSDPA test		✓	✓
Corrected coupling loss settings for WCDMA band 5	✓	✓	✓
Configuration files are merged during installation of a new version	<b>✓</b>	✓	✓
Display of query box when read sync is done and Lector is in write mode	✓	✓	✓



## Revision history 3.00 → 4.00; (March 2008)

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
4300 support		✓	✓
HSDPA (phase1) for 4400 and 3100 supported	✓	✓	✓
Network dongle supported	✓	✓	✓
Position finding for XY Shuttle for GSM and WCDMA			✓
Sending AT commands via test script through separate RS-232 connection	✓	✓	✓
TECH2TEST supported	✓	✓	✓
For TAC2TEST the scanned IMEI can be checked for validity	✓	✓	✓
Changeable RMC data rates for WCDMA Data Call	✓	✓	✓
Linking of coupling loss values according the name of Group and Subgroup	✓	✓	✓
Content of dedicated pop-up messages can be modified by user	✓	✓	✓
Test channels, coupling database source and limit files are displayed	✓	✓	✓
Naming for multiple result files for the same IMEI can be changed by user	✓	✓	✓
Automatic actualization of coupling factor database when dongle is changed		✓	✓
Sending of SCPI commands within test script	✓	✓	<b>√</b>

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
4100/4200: High coupling loss values do not cause an error in GSM1900	✓	✓	✓
Scanned IMEI is not clipped in result file	✓	✓	✓
CDMA_CALL_BY_MS is working now	✓	✓	✓
MS Open Loop Power produces proper printout in result file	✓	✓	✓
Calling number (MS call) is displayed correctly in result file	✓	✓	✓
PHASE_MAX produces correct printout	✓	✓	✓
Printer settings are permanently stored	✓	✓	✓
RSCP limits are printed out correctly	✓	✓	✓
Lector does not crash anymore when A-CPL is done without a connected unit	✓	✓	✓
TERM_BY_NB is working also for speech call	✓	✓	✓
Test time is also recorded when TAC2TESt is used	✓	✓	✓
Phone recognition does not pop up twice for tri- and quad band test	✓	✓	✓
Coupling Loss values of new Samsung phones are found in database now	✓	✓	✓



## Revision history $2.32 \rightarrow 3.00$ ; (December 2007)

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Windows Vista Support	✓	✓	✓
Support of the 4100 Mobile Fault Finder Series		✓	✓
Support of the 4200 Mobile Service Tester Series		✓	✓
Support of the new 4916 X-Y-Shuttle	✓	✓	✓
Failure Reason Codes for test data analysis		✓	✓
File synchronization for administration of numerous Lector stations			✓
File synchronization for reading from a central network folder		✓	✓
HTML printout with changeable logo, font size and header and footer text	✓	✓	✓
Channel files can be created and linked to script files			✓
Groups, Subgroups etc. can be exported to PCF files			✓
X2Test Editor for generating database files for barcode reader support			✓
Script check for finding logical error in the script sequence (GSM/WCDMA)			✓
Copy, cut, paste and multiple selection in Script Editor supported			✓
Switch for enabling and disabling the compress view		✓	✓
Measurements can be selected for script commands with multiple output			✓
Report Summary can be stored automatically		✓	✓
Coupler Position in CPL database can be changed	✓	✓	✓

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
CPL offset values for CDMA can now be entered with fragmental digits	✓	✓	✓
Mobile and Carrier settings cannot disappear anymore			✓
Connection settings are working when the first connection type is not used	✓	✓	✓
Switching between standard view and compressed view does not lose images		<b>✓</b>	<b>√</b>
CPL Wizard is now correctly initialized	✓	✓	✓



#### **Revision history 2.31 → 2.32; (July 2007)**

The revision 2.32 is not tested with Microsoft Windows Vista. The release 2.40 will be adapted to the Microsoft Windows Vista requirements.

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
New menu item for checking the status of the dongle license		<b>✓</b>	✓
Configuration can be changed without crashing Lector Basic	✓		

## Revision history 2.30 $\rightarrow$ 2.31; (July 2007)

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Different Power Classes for all WCDMA bands can be handled for all mobiles	✓	✓	✓
Database files for CDMA mobile and carrier settings are now not deleted during installation	✓	✓	✓
Coupling values are displayed correctly for all WCDMA bands in the result files	✓	✓	✓
Behavior of IMEI comparison changed for TAC2TEST	✓	✓	✓
COUPLING_AUTO is now also used for CDMA2000 and EV-DO	✓	✓	✓
Faster coupling loss measurement for CDMA2000			✓
Compressed windows for multiple installations		✓	✓
Model Editor shows all groups instead of only the active ones			✓
Manual and delta list can be opened with in the Help menu item	<b>√</b>	✓	✓
Handover between different WCDMA bands is possible	<b>✓</b>	<b>√</b>	<b>√</b>



#### **Revision history 2.21 → 2.30; (May 2007)**

The revision 2.30 is not tested with Microsoft Windows Vista. The release 2.40 will be adapted to the Microsoft Windows Vista requirements.

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Import and activation of phone configuration packages	✓	✓	✓
Possibility to identify up to 4 Lector installations on one PC by color and ID		✓	✓
Download of actual CPL values possible		✓	✓
Download of product updates via online and offline update	✓	✓	✓
Additional WCDMA bands supported (band 1-10)	✓	✓	✓
XML output format available	✓	✓	✓
New input boxes for all supported standards with short descriptions			✓
New formats for result filenames	✓	✓	✓
Changeable sequence of CPL databases	✓	✓	✓
Run Bluetooth test without pop-up messages	✓	✓	✓
IMEI comparison can be switched on and off in configuration area	✓	✓	✓
CPL tab can be password protected	✓	✓	✓
Phone recognition can be changed	✓	✓	✓
Comments for result summary can be added manually	✓	✓	✓
Multiple TAC2Test files can be linked to group entries with model editor	✓	✓	✓
TAC2Test is also possible for CDMA 2000	✓	✓	✓
Manual entering of coupling factors for CDMA2000			✓
Some pop-Up windows can be disabled in the configuration area	✓	✓	✓

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
New dialog for deleting groups and subgroups			✓
Option checking has been adapted to the new option concept of 4400	✓	✓	✓
IMEI comparison corrected	✓	✓	✓
Corrected the EV-DO limits	✓	✓	✓
Changed some default values for CDMA2000	✓	✓	✓
During a test is running other tabs are blocked	✓	✓	✓
Possibility to run several Lector installations simultaneously on one PC	<b>✓</b>	✓	<b>√</b>
Pop-up boxes for Script Commands are now correctly initialized			<b>√</b>



#### Revision history 2.20 → 2.21 (February 2007)

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Bigger PASS/FAIL indication	✓	✓	✓
Script filenames are now linked correctly to Subgroup entries	✓	✓	✓
Model Editor: Invalid argument message fixed			✓
Picture adjustment corrected for quadratic pictures	✓	✓	✓
CDMA default limits for FER measurements corrected	✓	✓	✓

#### Revision history 2.10 → 2.20; (January 2007)

Product	7311 Lector		7315 Scriptor
Feature	Basic	Enhanced	
CDMA2000, EV-DO, AMPS, MEID support Supported bands: US800, USPCS, KPCS, NMT450	✓	✓	✓
Coupling Factor Calculation Wizard for GSM, WCDMA,	✓	✓	✓
Coupling Factor Calculation Wizard for CDMA2000			✓
Optimal antenna coupler position finding for GSM			✓
Sequence of test scripts can be changed with the Mobile Editor			✓
CDMA2000 carrier management			✓
Additional phone information can be entered with Mobile Editor			✓
Coupling Factor Editor for GSM and WCDMA	✓	<b>√</b>	<b>√</b>
Coupling Factor Editor for CDMA2000			✓

Changes	Product	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
New dialog for deleting groups and subgroups				✓



#### Revision history 2.00 → 2.10; (November 2006)

Product Feature	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
By clicking on entry in Result Summary the dedicated test report is displayed	✓ V	√ v	<b>√</b>
Additional GPRS and EDGE test in standard configuration	✓	✓	✓
New coupling type: "User Connection"	✓	✓	✓
Failed measurements are now indicated by an asterisk *	✓	✓	✓
When checking the connection to the instrument, the serial number and type of instrument are displayed now	✓	✓	✓
Enable/Disable button for test steps in Script Editor			✓
Comment can be added in test script			✓
New labeling for limit file entries			✓
Usage of Willtek's coupling factor database can now be disabled	✓	✓	✓
Support for encrypted files (to prevent unauthorized changes by users)	✓	✓	✓
Now also supports MS test via cable connection	✓	✓	✓

Product Changes	7311 Lector Basic	7312 Lector Enhanced	7315 Scriptor
Start/Stop button with correct functionality after performing an automatic coupling calculation	✓	✓	✓
System is switched off after a stopped test	✓	✓	✓
Various improvements in the test scripts	✓	✓	✓