

Title Interface Description	Confidentiality Confidential	Document no KS003M0084b01	Revision V11
Project Testnet API Webservice	Issued by Veronica Olsson		Date 2009-10-26

Interface Description

TestnetAPI_WS

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1 DOCUMENT INFORMATION

1.1 Summary

Interface description for Testnet API. TestnetAPI_WS will be a web service implemented in VB.NET.

1.2 Terminology

DUT Device Under Test

Optional A parameter that is optional in the methods can be left blank when calling the web service.

1.3 References

N/A

1.4 Revision history

Revision	Comment	Changed by /date	Approved by / date
P1	First draft	VEOL/2009-10-19	
V1	First version	VEOL/2009-11-06	
V2	Approved version	VEOL/2009-11-10	
V3	Function GetMeasurementValuesForMP changed for parameter stationed	VEOL/2009-11-11	
V4	Changed type for parameter	VEOL/2009-11-11	
V5	Added new parameter stationtype for function GetMeasurementValuesForMP	VEOL/2009-12-01	
V6	Changed testtype data type to string	VEOL/2010-02-01	
V7	Added site parameter to all functions. Changed GetTotalNumberOfTests to return sum of max(test_cnt). Renamed GetMeasurementValuesForMP to GetNumericMeasurementValuesForMP. Added new functions GetBooleanMeasurementValuesForMP and GetTextMeasurementValuesForMP.	VEOL/2010-02-18	
V8	Added site as return value to many of the functions	VEOL/2010-02-18	
V9	Function TNetPERFORMED shall only return latest test for each test type.	VEOL/2010-04-19	
V10	Added functions: GetFaultMPList GetCPKInfo GetMaxMinValues	KRWI/2011-09-20	
V11	Change parameters in function GetCPKInfo	KRWI/2012-01-10	

2 FUNCTION OVERVIEW

The main functions in the Testnet API are:

Function	Description	Affected database table
GetLatestTestResult	Get the test status of the DUT (Passed or failed).	TEST_RECORD_HEADER, RESULT_TRANSLATION
GetTotalNumberOfTests	Get the total number of times the DUT	TEST_RECORD_HEADER

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	has been tested.	
GetLatestTestTime	Get the time stamp of when the DUT was last tested.	TEST_RECORD_HEADER
GetLatestTestResultForMP	Get the latest result of a specific measurement point.	TEST_RECORD_HEADER, MEASUREMENT_VALUES, MEASX, TEXT_MEASUREMENT_VALUES, TMEASX, CURVE_MEASUREMENT_VALUES, CMEASX
GetNumericMeasurementValuesForMP	Get numeric measurement values for specific measurement point.	TESTTYPE, TEST_RECORD_HEADER, MEASUREMENT_VALUES, MEASX
GetBooleanMeasurementValuesForMP	Get boolean measurement values for specific measurement point.	TESTTYPE, TEST_RECORD_HEADER, MEASUREMENT_VALUES, MEASX
GetTextMeasurementValuesForMP	Get text measurement values for specific measurement point.	TESTTYPE, TEST_RECORD_HEADER, TEXT_MEASUREMENT_VALUES, TMEASX
GetBlobInfo	Get information on blobs for the test.	TEST_BLOB
GetBlob	Get the actual blob.	TEST_BLOB
GetFaultMPlist	Gets all previously reported erroneous measurepoints	TEST_RECORD_HEADER, MEASUREMENT_VALUES, MEASX
GetCPKInfo	Gets an calculated CPK value for a product	TESTTYPE, TEST_RECORD_HEADER, MEASUREMENT_VALUES, MEASX, TESTCR_M
GetMaxMinValues	Gets a list of Mean, Minimum and Maximum values for measurepoints within a Product and RState	TEST_RECORD_HEADER, MEASUREMENT_VALUES, MEASX

The additional functions in the Testnet API are:

Function	Description	Affected database table
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TNetGetCriterias	Get the combinations of test criteria document number, revision and date.	TESTCR
TNetGetLayouts	Get the combinations of layout document number, revision and date.	LAYOUT
TNetPARAMS	Get the parameter settings from database.	PARAM, SYS_SETTINGS
TNetPERFORMED	Get latest test information for the individual.	TEST_RECORD_HEADER, TESTTYPE, RESULT_TRANSLATION
TNetQSyncRequest	Get information for QSync.	TEST_RECORD_HEADER, TESTTYPE
TNetTestTypeTests	Get tests for individual and test type	TEST_RECORD_HEADER, RESULT_TRANSLATION

3 MAIN FUNCTIONS

All main functions available in the API are described in this section.

3.1 GetLatestTestResult

For a given serial number get the result of the latest test.

3.1.1 Parameters

Parameter	Optional	Data Type	Max Length
idno	No	string	20
site	Yes	string	20

3.1.2 Return Value

Parameter	Data Type	Max Length
result	string	20

3.2 GetTotalNumberOfTests

For a given serial number get the sum of max test count for all test types for the individual.

3.2.1 Parameters

Parameter	Optional	Data Type	Max Length
idno	No	string	20
site	Yes	string	20

3.2.2 Return Value

Parameter	Data Type	Max Length
number of tests	integer	N/A

3.3 GetLatestTestTime

For a given serial number this function gets the start time of test for latest test of the individual.

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3.3.1 Parameters

Parameter	Optional	Data Type	Max Length
idno	No	string	20
site	Yes	string	20

3.3.2 Return Value

Parameter	Data Type	Max Length
start time	string	19 (YYYY-MM-DD HH:MM:SS)

3.4 GetLatestTestResultForMP

For a given serial number, criteria document number, criteria R-state and measurement point this function gets the result flag of the latest test of the individual and measurement point.

For repetitive measurement points the returned result will be PASS only if all results for the measurement point are PASS. If any result for the measurement point is FAIL the method will return FAIL.

3.4.1 Parameters

Parameter	Optional	Data Type	Max Length
idno	No	string	20
criteria_doc	Yes	string	28
criteria_rev	Yes	string	7
mp	No	string	16
site	Yes	string	20

3.4.2 Return Value

Parameter	Data Type	Max Length
result of measurement point	string	20

3.5 GetNumericMeasurementValuesForMP

The function shall get all or only passed numeric measurement point values for unique serial numbers.

The r-state can be given as R1*, R1/*, R* and *. It can also be left empty.

Only the latest measurement value will be returned for repetitive measurement points.

You have to supply a parameter telling whether you want all measurement values or only the ones with PASS result.

Only measurement point values with integer and float values will be returned by this function.

Stationtype(=Pamela testtype) corresponds to first value in <TYPE>-tag in Pamela protocol. For example in "<TYPE> FINAL,97" the stationtype is "FINAL".

3.5.1 Parameters

Parameter	Optional	Data Type	Max Length
productno	No	string	25
rstate	Yes	string	15
criteria_doc	Yes	string	28
criteria_rev	Yes	string	7
mp	No	string	16
only_passed_mp	No	boolean	N/A

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max_no_mp	No	integer	N/A
mp_from_date	Yes	string	10 (YYYY-MM-DD)
mp_to_date	Yes	string	10 (YYYY-MM-DD)
stationid	Yes	string	4
stationtype	Yes	string	16
site	Yes	string	20

3.5.2 Return Value

Parameter	Data Type	Max Length
idno	string	20
rstate	string	15
criteria document number	string	28
criteria revision	string	7
stationid	string	4
stationtype	string	16
testcount	integer	N/A
test result	string	20
mp result	string	20
cardmark	string	1
start time	string	19 (YYYY-MM-DD HH:MM:SS)
value of measurement point	string	N/A
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.

3.6 GetBooleanMeasurementValuesForMP

The function shall get all or only passed boolean measurement point values for unique serial numbers.

The r-state can be given as R1*, R1/*, R* and *. It can also be left empty.

Only the latest measurement value will be returned for repetitive measurement points.

You have to supply a parameter telling whether you want all measurement values or only the ones with PASS result.

Only measurement point values with boolean values will be returned by this function.

Stationtype(=Pamela testtype) corresponds to first value in <TYPE>-tag in Pamela protocol. For example in "<TYPE> FINAL,97" the stationtype is "FINAL".

3.6.1 Parameters

Parameter	Optional	Data Type	Max Length
productno	No	string	25
rstate	Yes	string	15
criteria_doc	Yes	string	28
criteria_rev	Yes	string	7
mp	No	string	16
only_passed_mp	No	boolean	N/A
max_no_mp	No	integer	N/A
mp_from_date	Yes	string	10 (YYYY-MM-DD)
mp_to_date	Yes	string	10 (YYYY-MM-DD)
stationid	Yes	string	4
stationtype	Yes	string	16
site	Yes	string	20

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3.6.2 Return Value

Parameter	Data Type	Max Length
idno	string	20
rstate	string	15
criteria document number	string	28
criteria revision	string	7
stationid	string	4
stationtype	string	16
testcount	integer	N/A
test result	string	20
mp result	string	20
cardmark	string	1
start time	string	19 (YYYY-MM-DD HH:MM:SS)
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.

3.7 GetTextMeasurementValuesForMP

The function shall get all or only passed text measurement point values for unique serial numbers.

The r-state can be given as R1*, R1/*, R* and *. It can also be left empty.

Only the latest measurement value will be returned for repetitive measurement points.

You have to supply a parameter telling whether you want all measurement values or only the ones with PASS result.

Only measurement point values with text values will be returned by this function.

Stationtype(=Pamela testtype) corresponds to first value in <TYPE>-tag in Pamela protocol. For example in "<TYPE> FINAL,97" the stationtype is "FINAL".

3.7.1 Parameters

Parameter	Optional	Data Type	Max Length
productno	No	string	25
rstate	Yes	string	15
criteria_doc	Yes	string	28
criteria_rev	Yes	string	7
mp	No	string	16
only_passed_mp	No	boolean	N/A
max_no_mp	No	integer	N/A
mp_from_date	Yes	string	10 (YYYY-MM-DD)
mp_to_date	Yes	string	10 (YYYY-MM-DD)
stationid	Yes	string	4
stationtype	Yes	string	16
site	Yes	string	20

3.7.2 Return Value

Parameter	Data Type	Max Length
idno	string	20
rstate	string	15
criteria document number	string	28
criteria revision	string	7
stationid	string	4
stationtype	string	16
testcount	integer	N/A

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test result	string	20
mp result	string	20
cardmark	string	1
start time	string	19 (YYYY-MM-DD HH:MM:SS)
value of measurement point	string	128
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.

3.8 GetBlobInfo

This function returns information on the blob information for this individual. For example use the function TNetPERFORMED to get all tests for individual and use it to get blob information.

3.8.1 Parameters

Parameter	Optional	Data Type	Max Length
testtype	No	string	10
idno	No	string	20
testcount	No	integer	N/A
site	Yes	string	20

3.8.2 Return Value

Parameter	Data Type	Max Length
blob count	integer	N/A
blob id	string	32
blob description	string	128
blob filename	string	128
expiry date	string	10 (YYYY-MM-DD)

Each row in the returned string consists of the returned values separated by <TAB>.

3.9 GetBlob

Get specific blob from database.

3.9.1 Parameters

Parameter	Optional	Data Type	Max Length
testtype	No	string	10
idno	No	string	20
testcount	No	integer	N/A
blob_cnt	No	integer	N/A
site	Yes	string	20

3.9.2 Return Value

Parameter	Data Type	Max Length
blob	byte array	N/A

3.10 GetFaultMPList

This function returns all previously reported erroneous measurement points.

3.10.1 Parameters

Parameter	Optional	Data Type	Max Length
site	Yes	string	20
idno	No	string	20

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stationtype	No	string	16
MaxCount	No	integer	N/A

3.10.2 Return Value

Parameter	Data Type	Max Length
List of MP	string	N/A

3.11 GetCPKInfo

This function returns a calculated CPK value for a product and R-state.

3.11.1 Parameters

Parameter	Optional	Data Type	Max Length
site	No	string	20
teststation	No	string	20
idno	No	string	20
productno	No	string	25
rstate	No	string	15
criteria document number	No	string	28
criteria revision	No	string	7
stationtype	No	string	16
List of MP	No	string	N/A
forceNewCalc	No	Boolean	N/A

3.11.2 Return Value

Parameter	Data Type	Max Length
Mp	string	16
Cp	float	N/A
Cpk	float	N/A
SampleRate	float	N/A
SampleSkip	float	N/A
PrevMpOk	String	4
ErrorStatus	integer	N/A
ErrorDesc	String	N/A
CalculateTime	String	19 (YYYY-MM-DD HH:MI:SS)

Each row in the returned string consists of the returned values separated by <TAB>.

3.12 GetMaxMinValues

This function returns a list of Mean, Minimum and Maximum values for measure points within a Product and R-state.

3.12.1 Parameters

Parameter	Optional	Data Type	Max Length
site	No	string	10
productno	No	string	25
Mp	No	string	16
OnlyFirst	No	Boolean	N/A
StartDateTime	No	string	10 (YYYY-MM-DD)
StopDateTime	No	string	10 (YYYY-MM-DD)

3.12.2 Return Value

Parameter	Data Type	Max Length
Mp	string	16
Mean value	float	N/A

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Minimum value	float	N/A
Maximum value	float	N/A
Amount	integer	N/A

Each row in the returned string consists of the returned values separated by <TAB>.

4 ADDITIONAL FUNCTIONS

All additional functions available in the API are described in this section.

4.1 TNetGetCriteria

For given criteria document number and optional revision get a list with criteria combinations.

This function can be used to check if the combination of criteria document number and revision already exists in Testnet, to avoid creating criteria with same revision with different date that will be rejected by Testnet.

4.1.1 Parameters

Parameter	Optional	Data Type	Max Length
doc	No	string	28
rev	Yes	string	7
site	Yes	string	20

4.1.2 Return Value

Parameter	Data Type	Max Length
criteria document number	string	28
criteria revision	string	7
criteria date	string	10 (YYYY-MM-DD)
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.

4.2 TNetGetLayouts

For given layout document number and optional revision get a list with layout combinations.

This function can be used to check if the combination of layout document number and revision already exists in Testnet, to avoid creating layout with same revision with different date that will be rejected by Testnet.

4.2.1 Parameters

Parameter	Optional	Data Type	Max Length
doc	No	string	28
rev	Yes	string	7
site	Yes	string	20

4.2.2 Return Value

Parameter	Data Type	Max Length
layout document number	string	28
layout revision	string	7
layout date	string	10 (YYYY-MM-DD)
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.

4.3 TNetPARAMS

Get entire contents from PARAM and SYS_SETTINGS tables + web service info.

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4.3.1 Parameters

Parameter	Optional	Data Type	Max Length
site	Yes	string	20

4.3.2 Return Value

Parameter	Data Type	Max Length
object	string	30-64
data	string	30-255

Each row in the returned string consists of the returned values separated by <TAB>.

4.4 TNetPERFORMED

Get information of latest test for each test type performed for individual.

4.4.1 Parameters

Parameter	Optional	Data Type	Max Length
idno	No	string	20
productno	Yes	string	25
rstate	Yes	string	15
site	Yes	string	20

4.4.2 Return Value

Parameter	Data Type	Max Length
idno	string	20
productno	string	25
rstate	string	15
software id	string	22
test desc	string	30
start time	string	19 (YYYY-MM-DD HH:MM:SS)
result	string	20
test count	integer	N/A
test type	string	10
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.

4.5 TNetQSyncRequest

Get tests performed for individual. Used to get software id and test count to use in Fetch application when recreating protocols. This function is obsolete since there is a query file format that uses idno and start time.

4.5.1 Parameters

Parameter	Optional	Data Type	Max Length
idno	No	string	20
start_time	No	string	19 (YYYY-MM-DD HH:MM:SS)
site	Yes	string	20

4.5.2 Return Value

Parameter	Data Type	Max Length
software id	string	22

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test count	integer	N/A
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.

4.6 TNetTestTypeTests

Get tests performed for individual and test type. Get additional information for tests fetched by TNetPERFORMED function.

4.6.1 Parameters

Parameter	Optional	Data Type	Max Length
idno	No	string	20
testtype	No	string	10
site	Yes	string	20

4.6.2 Return Value

Parameter	Data Type	Max Length
test count	integer	N/A
result	string	20
program revision	string	7
employee number	string	8
start time	string	19 (YYYY-MM-DD HH:MM:SS)
node number	integer	N/A
cardmark	string	1
comment	string	80
site	string	20

Each row in the returned string consists of the returned values separated by <TAB>.