

**BM&FBOVESPA**

*The New Exchange*



# MyCTC

## User Guide

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## Contact

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## Revision History

Date	Version	Description	Author
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May 2013	1.1	First Revision	CTC
November 2013	1.2	Update	CTC
November 2013	1.3	Update	CTC
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## Contents

<b>1. MYCTC</b> .....	<b>5</b>
<b>2. AVAILABLE CERTIFICATION SCRIPTS</b> .....	<b>6</b>
<b>3. AUTOMATED CERTIFICATION PROCESS</b> .....	<b>6</b>
3.1. ACCESSING THE TOOL .....	6
3.1.1. <i>Tool Access Prerequisites</i> .....	6
3.1.2. <i>Tool Access Request</i> .....	7
3.1.3. <i>Access Confirmation</i> .....	9
3.1.4. <i>Browser Compatibility</i> .....	10
3.1.5. <i>Tool Access</i> .....	10
3.2. PASSWORD CONFIGURATION .....	10
3.2.1. <i>Change Password</i> .....	10
3.2.2. <i>Password Reset</i> .....	11
3.3. RESPONSE TO THE INITIAL QUESTIONNAIRE .....	13
3.4. CERTIFICATION RUN .....	14
3.4.1. <i>Test Messages Details</i> .....	15
3.4.2. <i>Analyzing failures in the execution of scenarios</i> .....	15
3.4.3. <i>Passing a Certification Test</i> .....	16
3.5. COMPLETING THE CERTIFICATION.....	17
3.6. RECERTIFICATION.....	18
3.7. SANDBOX MODE .....	19

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## 1. MyCTC

MyCTC is the certification process automation tool for the EntryPoint and UMDf 2.0 interfaces for the PUMA Trading System.

Through MyCTC, market participants and Independent Software Vendors (ISVs) will be able to test and certify their Order Entry and Market Data applications.

MyCTC has a series of advantages when compared to the current process, such as:

- Independence for the company which is undergoing the certification process to run the certification scripts according to its own agenda, with no need to pre-schedule a session with CTC;
- Automated log retrieve by MyCTC – it is no longer needed to send log files after the certification process;
- Certification process time reduction;
- Test simulator available 24x7 for running preliminary tests before certification;
- Displays error tag on the screen for EntryPoint occurrences.

## 2. Available Certification Scripts

PUMA Trading System BM&FBOVESPA (Bovespa and BM&F Segments)

- EntryPoint (Bovespa and BM&F Segments)
- UMDF 1.6 (BM&F Segment)
- UMDF 2.0 (Bovespa Segment)

## 3. Automated Certification Process

MyCTC aims to automate the FIX certification for the Order Entry and Market Data interfaces of the BM&FBOVESPA's trading system. The certification process comprises completing test suites, which are made up of individual test cases, for various services.

Certification Progress				
Service	Next Step	Progress	Last Activity	Additional Actions
Kevin Test	Continue Certifying	71%	Testing350 failed by amber at 29-Mar-13 04:14 PM	Sandbox Mode Save Report
CrapiTest	Continue Certifying	29%	Testing321 failed by kevin at 10-Oct-12 04:42 PM	Sandbox Mode Save Report
GuickService	Re-certify	100%	AlEopass1 passed by amber at 29-Mar-13 04:16 PM	Sandbox Mode Save Report
Test	Begin Certifying	0%	(No activity)	Sandbox Mode Save Report

### 3.1. Accessing the Tool

#### 3.1.1. Tool Access Prerequisites

- Create a VPN - MyCTC is only available using a VPN with BM&FBovespa, then, prior to accessing the tool, the participant needs to send an e-mail to [bvmfsolution@bvmf.com.br](mailto:bvmfsolution@bvmf.com.br) and request the forms below:
  1. Certification environment access request form.
  2. Agreement form.
  3. VPN request form, if needed.
  4. Session request form.
  5. VPN form printout.

After the participant sends the items aforementioned, BM&BOVESPA does the following:

1. Validates the connection request form.
2. Creates the VPN access.
3. Creates access sessions to the certification environment.
4. BVMF sends an e-mail to the participant with technical information to configure both the VPN and the sessions.

### Notes

- The deadline for setting up participant's environment does not lie with BM&FBOVESPA.
- If the participant already have a VPN and sessions, this step is not necessary
- Enabling access in the internal network – It's required for the participant to open the following access in your internal network:

#### BM&F

**IPs: 200.19.60.159, 200.19.60.160, 200.19.60.161**

**Ports: 443, 8080, 60000 to 60010**

URL: <https://myctc.cert.bvmfnet.com.br>

#### BOVESPA


**IPs: 200.19.60.129, 200.19.60.130, 200.19.60.131**

**Ports: 443, 8080, 60000 to 60010**

URL: <https://myctc.nr.bvmfnet.com.br>

### 3.1.2. Tool Access Request

Once the prior phase is completed, the participant should download the MyCTC Connection Request Form on BM&FBOVESPA's website. The form is described below:

 <b>Formulário de solicitação de conectividade ao MyCTC</b> <b>MyCTC connectivity request form</b>	
CERTIFICAÇÃO AUTOMATIZADA BM&F BOVESPA / BM&F BOVESPA AUTOMATED CERTIFICATION	
Solicitação / Requesting	
<b>1. Tipo de Solicitação / Request Type:</b>	
<input type="checkbox"/> a. Criação de conta de usuário / User account creation	
<input type="checkbox"/> b. Cancelamento de conta de usuário / User account cancelation	
<b>2. Segmento de Mercado / Market Segment</b>	
<input type="checkbox"/> Ações - Bovespa / Equities - Bovespa	<input type="checkbox"/> Derivativos - BM&F / Derivatives - BM&F
<b>3. Ambiente / Environment</b>	
<input type="checkbox"/> Certificação / Certification	<input type="checkbox"/> New Release / New Release
<b>4. Interfaces de Negociação / Trading Interfaces</b>	
<input type="checkbox"/> UMDf 2.0	<input type="checkbox"/> EntryPoint

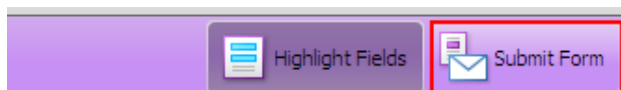
1. The participant chooses between creating a user account for beginning a certification or closing a user account, once the certification is finished.
2. The market segment is defined.
3. It defines which environment the participant wants to get connected to, either Certification or New Release. The Certification environment has the same settings and routines than the Production environment, whereas the New Release environment comprises future changes in the Production environment, which makes it ideal for adaptation tests for future updates to be implemented by BM&FBOVESPA.
4. The Trading Interfaces to be used are defined.

<b>5. Indique as sessões de EntryPoint / Please indicate the EntryPoint sessions:</b>	
Tradicional - DMA 1 / Traditional - DMA 1	Provedor - DMA 2 / Provider - DMA 2
Conexão Direta - DMA 3 / Direct Connection - DMA 3	Co-Location - DMA 4 / Co-Location - DMA 4
Repassador / Order Conveyer	Operador de Mesa / Desk Trader
Message Replay	Supervisor de Mesa / Desk Supervisor
<b>6. Indique as sessões de UMDf / Please indicate the UMDf sessions:</b>	
TCP Recovery	TCP Historical Recovery

5. In the items 5 and 6 the participant should describe the owned sessions expected to be available in MyCTC. It is important to stress that the tests should only be carried out in MyCTC with the sessions declared above. If there is any session change, a new form must be sent.

Dados Básicos do Participante / Participant's Contact Information	
Empresa / Company	
Categoria / Category	<input type="checkbox"/> Corretora / Brokerage House <input type="checkbox"/> Investidor / Investor <input type="checkbox"/> ISV - Independent Software Vendor*
Endereço / Address	
Cidade / City	
País / Country	
Indique o Investidor ou ISV / Please indicate the Investor or ISV:	
Dados do Usuário Privilegiado / Privileged User information	
Nome / Name	
Telefone / Phone Number	
E-mail / E-mail address	
Observações / Remarks	
Favor encaminhar o formulário preenchido para <a href="mailto:ctc@bvmf.com.br">ctc@bvmf.com.br</a> / Please email the filled form to <a href="mailto:ctc@bvmf.com.br">ctc@bvmf.com.br</a>	

The participant should fill with their basic information as seen in the image above, and also with the privileged user's information. After filling the form draw your attention to the **Submit Form** button on the top right hand corner, as seen below:



By clicking on **Submit Form**, the screen for sending the form will be displayed. Then, the participant should inform their contact e-mail and full name, click on **Send** and send the MyCTC Connection Request Form to MyCTC.



**Send Form**

**To:** ctc@bvmf.com.br

**Subject:** Submitting Completed Form

**Attachment:** MyCTC\_distribuido.pdf

**From:**

**Email Address:**

**Full Name:**


Remember me

To save your email address and name in Acrobat's Identity preferences, check Remember me. Do not check this box if you are using a public computer.

Send Cancel

### 3.1.3. Access Confirmation

Once the steps described previously are finished, the user will be registered in MyCTC and will receive a similar e-mail to the one below:

 **MyCTC Account Activation**

Activate your account (msilvestre) here:  
[Here](#)


When you activate your account, you will be registered for the following services:

- EntryPoint DMA 2
- EntryPoint DMA 3
- EntryPoint Order Conveyor
- EntryPoint DMA 1
- EntryPoint DMA 4
- EntryPoint Desk Trader

You can also bookmark the login page: [Here](#)

Once you've logged in, you can:

- View your current certification services
- Establish sessions with the available services
- Edit your profile details

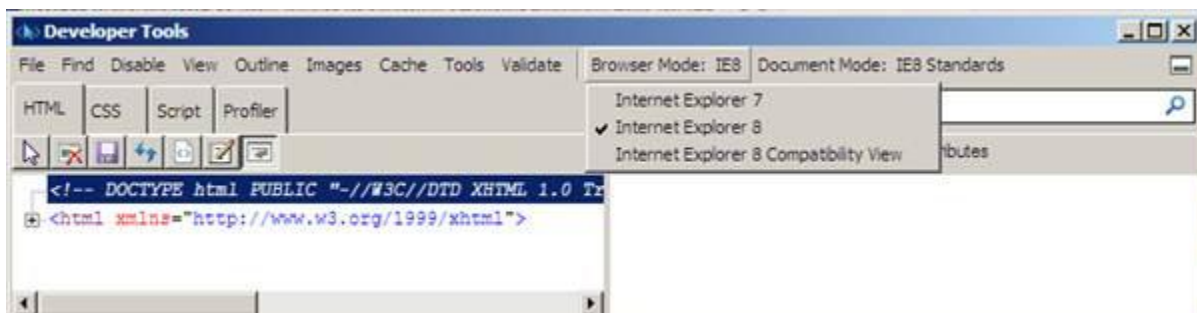
This message was sent by 

Sent from MyCTC - Apr 24, 2013 3:03:38 PM

The e-mail contains a link to activate the user’s account, the description of services available for the user, a link to add the MyCTC login page to your browser’s favorites and the tasks they will be able to perform.

### 3.1.4. Browser Compatibility

In Internet Explorer 8, confirm in the “Developer tools” option if the “Browser Mode” version is set for IE8 mode. To find that information, press <F12> key in the Internet Explorer 8, the screen below will be displayed:



If that setting is not executed, the screens of MyCTC might display alignment and field positioning unconformities in the fields and scroll bars during the navigation.

### 3.1.5. Tool Access

To access the application use the following URLs:

<b>BM&amp;F Segment</b>	<a href="https://myctc.cert.bvmfnet.com.br">https://myctc.cert.bvmfnet.com.br</a>
<b>Bovespa Segment</b>	<a href="https://myctc.nr.bvmfnet.com.br">https://myctc.nr.bvmfnet.com.br</a>

## 3.2. Password Configuration

### 3.2.1. Change Password

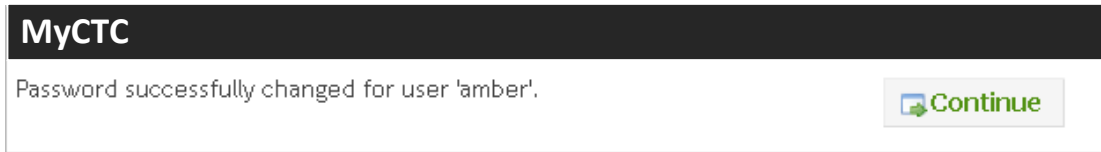
For changing a password:

1. On the client dashboard, under *Profile and Questionnaire Progress* tab, click on *Edit User Profile*.

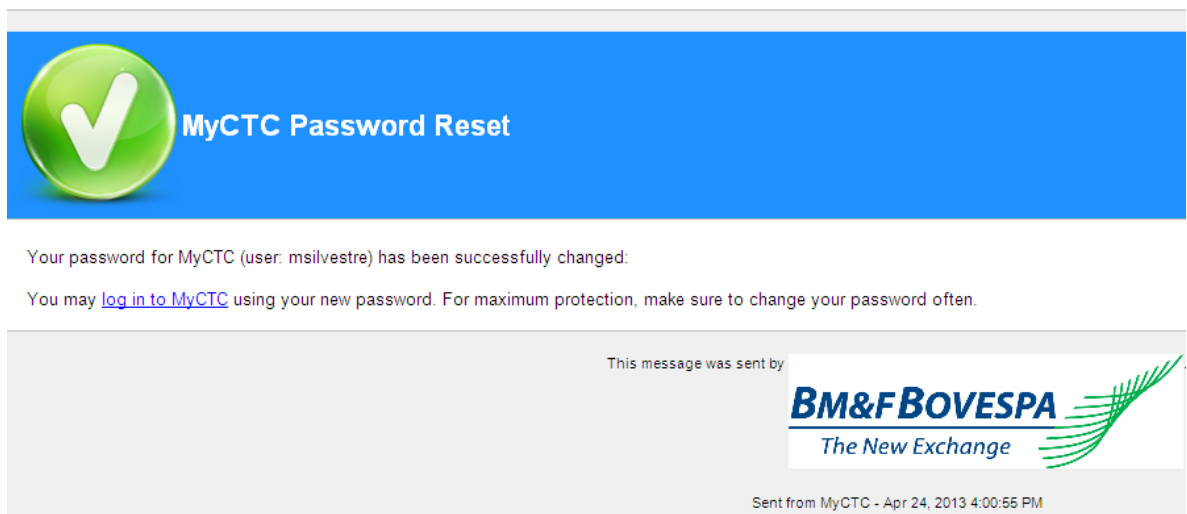
Profile and Questionnaire Progress			
Information	Details	Progress	Additional Actions
Questionnaire	My Questionnaire	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	<a href="#">View Progress</a> <a href="#">Reset Progress</a>
User Profile	amber	<div style="width: 90%;"><div style="width: 90%;"></div></div> 90%	<a href="#">Edit User Profile</a>
Client Profile	Lasalle Technology Group	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	<a href="#">Edit Client Profile</a>

2. Scroll the screen till the end and click *Change Password*.
3. Add the old password, the new one and confirm it.
4. Click on *Change Password* to save the new password.

5. A success message will be displayed. To return to the client dashboard, click on *Continue*.



6. A notification message will be sent to the e-mail registered in the user's account informing about the change.



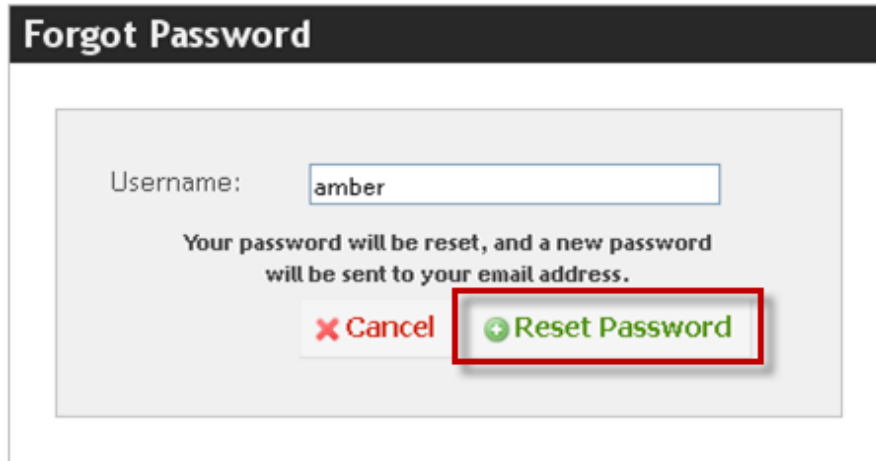
### 3.2.2. Password Reset

If a password is forgotten, it can be reset and a new one can be sent to the e-mail registered to the user's account. To reset the password, follow the steps below:

1. On the login screen, click on *Forgot Password*



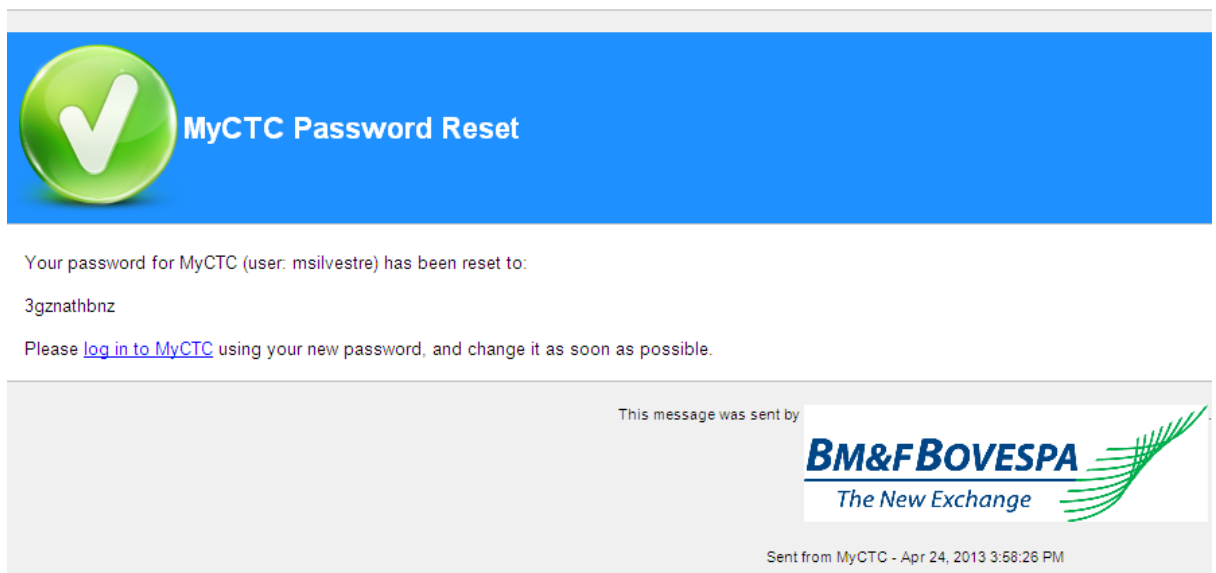
2. Enter the user's name and click on *Reset Password*



3. A confirmation message will be displayed. Click on *Continue* to return to the user dashboard.



4. A message containing the new password will be sent to the e-mail registered to the user's account.



### 3.3. Response to the Initial Questionnaire

Firstly, a questionnaire must be filled in by the client prior to the beginning of the certification. That will allow the managers to quickly find the information. When any client's user logs in, the questionnaire will be displayed until it is filled in and sent by that client. The questionnaire should only be filled once, by any client's user.

The questionnaire may contain multiple choice questions, as well as questions with gaps to be filled in. In the image below, the Application Name and the Application's Version are needed to identify which application is certified. Without that information, the participant may start two different certifications and the result for each application will be unknown.



ctcuser1 [logout](#)



## Questionnaire - Connectivity Sessions

Please indicate the connectivity sessions:

- DMA
- Order Conveyor Session
- Trading Desk Session

[Previous](#) [Submit](#)



ctcuser1 [logout](#)



## Questionnaire - DMA Model

Please select the DMA model:

- Traditional - Model 1
- Provider - Model 2
- Direct Connection - Model 3
- Co-Location - Model 4

[Previous](#) [Submit](#)



ctcuser1 [logout](#)



## Questionnaire - Application Information

Please enter the details of the Application you are certifying:

Application Name:   
Application Version:

[Previous](#) [Submit](#)

Once the questionnaire is completed, the user will be prompted to quit or continue on the client dashboard.

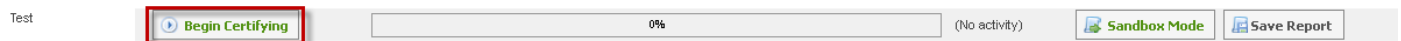
If by any reason the questionnaire does not need to be loaded again, the user may click on the Reset Progress button right under the tab Profile and Questionnaire Progress. That will erase all the answers, reset and prompt the user to answer the questionnaire

Profile and Questionnaire Progress			
Information	Details	Progress	Additional Actions
Questionnaire	BV&F Bovespa Client Questionnaire	<div style="width: 100%;"><div style="width: 100%;"></div></div> 100%	<a href="#">View Progress</a> <a href="#">Reset Progress</a>
User Profile	ctouser1	<div style="width: 70%;"><div style="width: 70%;"></div></div> 70%	<a href="#">Edit User Profile</a>
Client Profile	CTC	<div style="width: 30%;"><div style="width: 30%;"></div></div> 30%	<a href="#">Edit Client Profile</a>

### 3.4. Certification Run

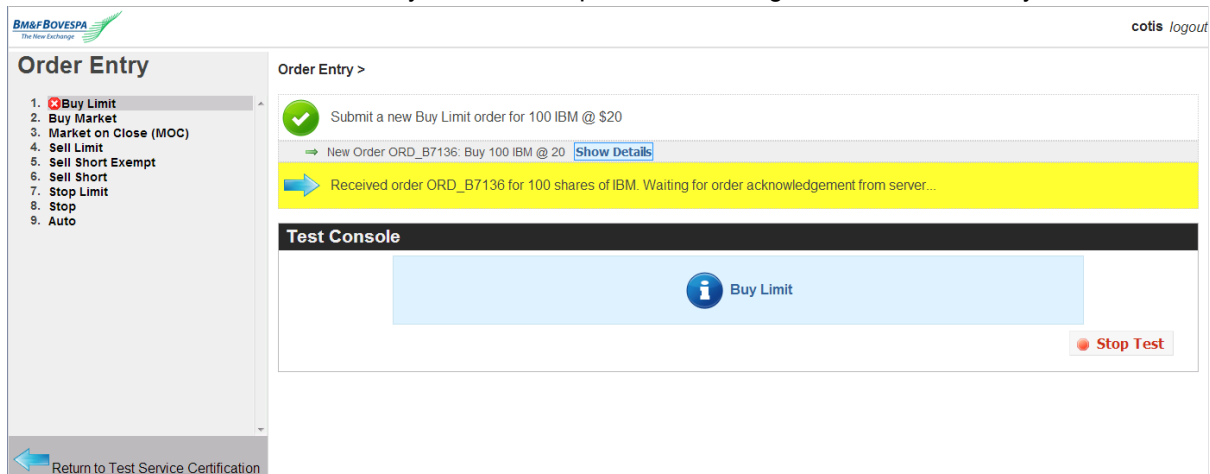
To start the certification:

1. On the client dashboard click the Begin Certifying button next to a service.



2. Click the Run Test button next to a test case.
3. Click Start Test. After the test completes, the test console will display whether the test passed or failed.

4. While the test runs, MyCTC will be updated according to the client's activity:



### 3.4.1. Test Messages Details

The button Show Details related to each message can be activated at any time to display the details of a specific message – disregarding its success, fail or if it is under execution.



Once the details are no longer needed to be shown, click on *Hide Details* to remove the details from the screen.



### 3.4.2. Analyzing failures in the execution of scenarios

If a great mistake occurs during the test, the error that caused the test to fail will be displayed to the client. That frequently means an error on the client's side and MyCTC does the best to make up a proper and useful message. MyCTC will also, in case of an invalid/unexpected FIX message to display expected values in the sequence it has been received.

Order Entry >

Submit a new Buy Limit order for 100 IBM @ \$20

New Order ORD\_B7137: Sell 100 IBM @ 20 [Hide Details](#)

**Test Console**

Expectation Side = \$side failed. The expectation evaluated to 2 - Sell = 1 - Buy

[Start Test](#)

**Message Expectations**

Field	Expected	Value
BeginString (8)		FIX.4.4
BodyLength (9)		133
MsgType (35)		D - NewOrderSingle
SenderCompID (49)		BROKER1
TargetCompID (56)		EXCHANGE
MsgSeqNum (34)		14
SendingTime (52)		20130411-20:12:17.189
ClOrdID (11)		ORD_B7137
Account (1)		LAS
Symbol (55)	IBM	IBM
Side (54)	1 - Buy	2 - Sell
TransactTime (60)	20130411-20:12:17.189	20130411-20:12:17.189
OrderQty (38)	100	100
OrdType (40)		2 - Limit
Price (44)		20
Checksum (10)		003

Show All Message Fields

[Return to Test Service Certification](#)

### 3.4.3. Passing a Certification Test

After completing the test, the test console will inform whether the test has succeeded or failed. Note that the message TEST PASSED may be highlighted for a short time. By that moment **MyCTC will be saving the certification report's data in the database. If that process is broken it may result the test to be marked as a failure.** When the test succeeds completely, the message *Test Passed* will be displayed in green:

Order Entry >

Submit a new Buy Limit order for 100 IBM @ \$20

New Order ORD\_B7138: Buy 100 IBM @ 20 [Show Details](#)

TEST PASSED

**Test Console**

The test passed

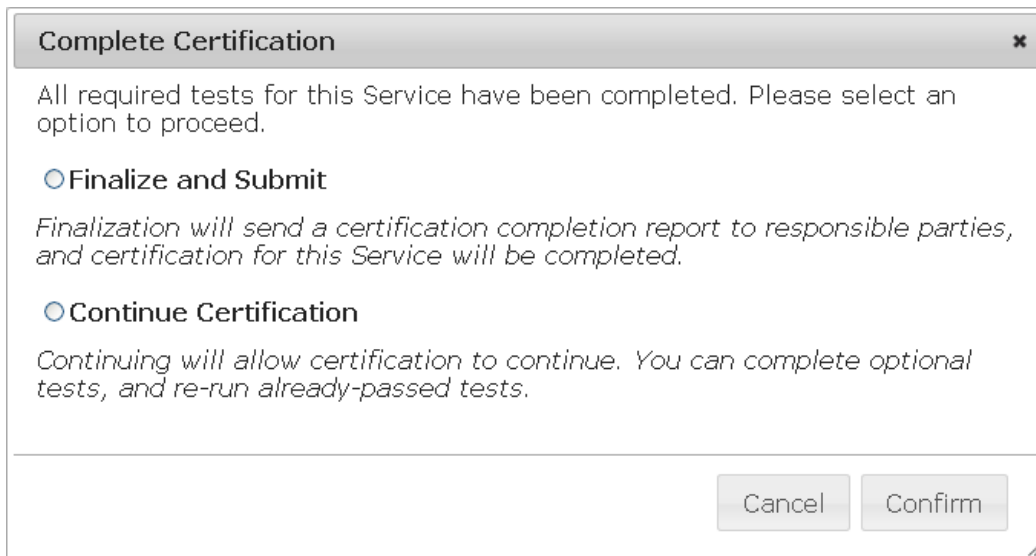
[Continue](#)

[Return to Test Service Certification](#)



### 3.5. Completing the Certification

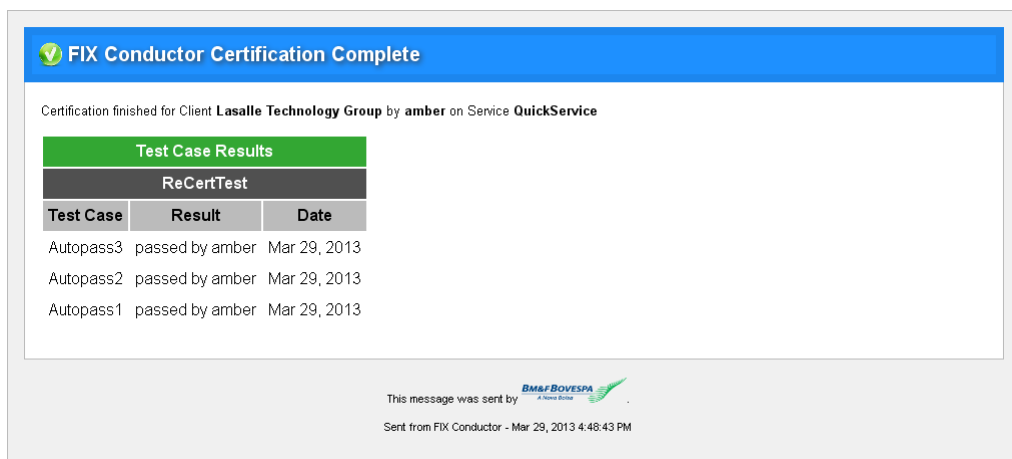
After completing the certification, the user has two options:



#### 1. Finish and send

- The client will no longer be able to run tests; their certification will be blocked.
- A message is sent by e-mail to the administrator and the client, reporting that the client has completed the certification successfully.

#### MyCTC Certification Complete



#### 2. Continue certification

- Certification will continue
- The user will be able to complete the optional tests and re-run the ones already passed

### 3.6. Recertification

If a client wants to work with optional tests after their completion, sending and certification, they will need to undergo certification to run those tests. The same procedure should be executed to certify a new application.

**\*Note:** by recertifying, the progress of all the tests will be reset to 0%, **including the required ones.**

On the client dashboard, after completing the certification, a completed service will display the recertification option. The progress of existing certifications will be deleted allowing the user to start certifying from the beginning.



When certifying, the user has two options:

**Recertification** ✕

Re-certification will **irreversibly** delete your existing certification progress, allowing you to start again from the beginning.

**Default Certification Version:"2"**

**Custom Certification Version:**

#### 1. Default Certification

- Each new certification round has a new version to it, depending on how many times the client has recertified. In the image above, the default version is 2. If the client is recertifying, the next default version will be 3. The version entry is the name given to the new certification attempt.

#### 2. Customized Certification

- If the client is recertifying, you must know exactly why they are certifying, and a customized name can be given to the certification, such as: "Running Optional Tests for Auction" or "Recertifying with a new FIX Dictionary"

### 3.7. Sandbox Mode

Any certification test can be run in “Sandbox Mode” starting from the user’s page. By running certification tests in this mode, neither failed nor successful tests are registered. Sandbox mode allows the clients to run the tests without changing their existing certification progresses. That is helpful for situations where the client has finished the routines or systems which are expected to be tested but whose versions are not ready for production yet. (Thus, they ought not to be treated like real progress in the certification process.)

