FTSE SERVICE MANAGEMENT

FTSE Distribution Interface
Conformance Testing
for Russell Indices

FTSE

1. Introduction

This document describes the Conformance test cases which direct clients are required to perform prior to gaining full access to the GDS (Global Distribution Service) real time Production environments.

GDS real time access is achieved via the FTSE Distribution Interface (FDI) API.

The API client is provided by FTSE to direct clients and is available in either a JAVA or Microsoft .NET release.

2. FTSE Distribution Interface Summary

The FTSE Distribution Interface offers a direct connection to the FTSE index calculation and distribution framework.

2.1. License
Under agreed license arrangements data may be distributed to third parties and/or used for internal purposes.

2.2. Bandwidth
Bandwidth requirements will vary depending on the index services to which clients subscribe. FTSE can provide details on the appropriate bandwidth requirements on request.

2.3. Distribution Servers
The FTSE system is supported through dual distribution servers for resilience.

There are no distinctions between the Primary and Secondary servers in terms of availability or data content and either may be used as a Production class data source.

2.4. Index Distribution Services
There are two types of service through which Russell Index data is distributed; Real Time (Pulse) and Close Only.

Real Time (Pulse) index updates are distributed at regular intervals whereas Close Only index updates are distributed once a day.

2.5. Index Prices
The index price values provided through the distribution system are sourced from a calculation system which is seamlessly aligned between the two distribution servers for resilience and consistency.

2.6. Index Tick Counts
The index tick count values provided through the distribution system are essentially the unique message number on intra-day message number on a per index basis.

For Real Time Indices each index tick count value is incremented from a start number of one (1) each new trade date under normal operational conditions though it should be noted however that it is possible for the tick count to commence at value in excess of one (1) in the rare event of an unscheduled late opening index.

For Close Only Indices each index tick count value is incremented from a start number of one (1) at the baseline date but then subsequently only reset annually.

2.7. Derived Data

Index high and low daily index values are not currently available directly from FTSE and clients should derive this data themselves from the intra-day index values.

3. FTSE Contacts

Clients should direct all queries regarding FDI testing to the following group:

FTSE Service Management: ServiceManagement@ftse.com

On engagement a member of Service Management will then liaise with the client and subsequently provide a constant resource for the remainder of the development and test phases.

4. Conformance Overview

Conformance testing is seen as a natural extension of the development lifecycle and predominantly one which gives both parties confidence prior to the transition to a full Production service.

Prior to scheduling an official Conformance test slot completion of the following would be expected:

FTSE	FDI client accounts are created and distributed
FTSE/Client	Network access to FTSE test platform(s) established
Client	FDI test tools are utilised to perform access tests
Client	FDI test tools are utilised to perform subscription tests
Client	Application utilised to perform access tests
Client	Application utilised to perform subscription tests
Client	Application baseline confirmed

Access to both the Conformance and Production systems is only granted to known network addresses. The following information is required from the client at the earliest opportunity before connectivity is attempted:

- Client Primary Contact Name & Details
- Client Networking Contact Name & Address
- Client Source IP Address(es)

The following will be provided by FTSE to the client in order to facilitate testing:

- FDI Conformance Site IP Address & Port Number(s)
- FDI username(s) and password(s)
- FDI Products Availability & Permissions
- FDI Conformance Access Window(s)

5. Mandatory Test Cases

5.1. Connection to FTSE Server

It is a mandatory requirement of the Conformance testing that the client initiates and maintains a connection to at least one FTSE Distribution Server.

5.1.1 Primary Server Connection

Client application initiates and maintains a connection to the Primary Server.

Test Case	Pass/Fail	Notes
Primary Connection		

5.1.2 Secondary Server Connection

Client application initiates and maintains a connection to the Secondary Server.

Test Case	Pass/Fail	Notes
Secondary Connection		

5.2. Product Subscription

It is a mandatory requirement of the Conformance testing that the client performs a successful subscription to an Index and/or PDG.

5.2.1 Real Time Index Subscription*

Client application initiates a subscription to a Real Time Index for which they are permissioned.

Test Case	Pass/Fail	Notes
Real Time Index Subscription		

5.2.2 Close Only Index Subscription*

Client application initiates a subscription to a Streaming Index for which they are permissioned.

Test Case	Pass/Fail	Notes
Close Only Index Subscription		

5.2.3 Product Data Group Subscription*

Client application initiates a subscription to a Product Data Group for which they are permissioned.

Test Case	Pass/Fail	Notes
PDG Subscription		

* where applicable

5.3. Index Replay

Where a client intends to utilise the Replay functionality for Real Time (Pulse) Indices it is a mandatory requirement of the Conformance testing that the client performs a successful Replay request as a result of a simulated service outage scenario.

Test Case	Pass/Fail	Notes
Replay Request		

5.4. Full Trade Day

It is a mandatory requirement of the Conformance testing that the client maintains a stable session for a period of not less than 24 hours, i.e. a full trade day.

This period may include disconnection and reconnection if that is the connection profile which the client intends to implement in Production.

Test Case	Pass/Fail	Notes
Full Trade Day		

6. Optional Test Cases

6.1. Distribution Server Failover

It is an optional requirement of the Conformance testing that the client performs failover testing between the two FTSE Distribution Servers.

6.1.1 Primary Server Failover

Client application fails over from the Primary Server to the Secondary Server as a result of a simulated Primary Server outage.

Test Case	Pass/Fail	Notes
Failover Primary to Secondary		

6.1.2 Secondary Server Failover

Client application fails over from the Secondary Server to the Primary Server as a result of a simulated Secondary Server outage.

Test Case	Pass/Fail	Notes
Failover Secondary to Primary		

6.1.3 Auto Reconnect

Client application retries connection attempts in the event of a continued dual Server simulated outage.

Test Case	Pass/Fail	Notes
Auto Reconnect		

6.2. Product List

It is an optional requirement of the Conformance testing that the client performs testing of the List functions available on the system.

6.2.1 List PDGs

Client application requests a List of the available PDGs for which they are permissioned.

Test Case	Pass/Fail	Notes
List PDG		

6.2.2 List Indices

Client application requests a List of the Indices within an available PDGs for which they are permissioned.

Test Case	Pass/Fail	Notes
List Indices		

7. Test Results Summary

Stakeholder	Company	Contact Details
Nathan Denison	FTSE	Nathan.Denison@ftse.com +44 (0)20 7866 1890

Test Case	Pass/Fail	Notes
Primary Connection		
Secondary Connection		
Pulse Index Subscription		
Streaming Index Subscription		
PDG Subscription		
Replay Request		
Full Trade Day		
Failover Primary to Secondary		
Failover Secondary to Primary		
Auto Reconnect		
List PDGs		
List Indices		