

TCS BaNCS Overview

August 2010



1 Preface

This document provides users of the TCS BaNCS system an overview of basic functionality and screen layout.

Further detailed system user guides are also available to participants which describe screen based functionality to a higher level of detail.

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2 Introduction

The TCS BaNCS system supplied by Tata Consultancy Services Limited (TCS) is the core clearing and settlement system operated by New Zealand Clearing and Depository Corporation Ltd ("NZ Clearing Corp" or "NZCC").

The TCS BaNCS system is an integrated clearing house, depository and registry system. The core modules utilised by NZCC and its subsidiaries are:

- Core Services: including users and group management, instruments and accounts
- Clearing: novation and netting of trades
- Risk Management: collateral and margin for all open positions
- Settlement: settlement of positions and transactions
- Depository: including custody, corporate actions, OTC transactions and stock lending

In addition, the system has been further enhanced for NZ specific functionality, covering:

- Registry Gateway: enabling the legal title transfer of securities on register
- Common Shareholder Number (CSN) infrastructure
- CSD Interoperability.

Many participants will interact with the BaNCS system through the ISO 15022 message interface, but the complete suite of functionality is also provided through a web based user interface.

The purpose of this document is to provide an overview of the user interface.

3 Getting Started

Web Browser

The BaNCS system is accessed through a web browser. NZCC recommends use of Microsoft Explorer Version 7 and above or Firefox Version 3 and above. A URL will direct a user to the login page.

Login

Upon creation of a participant in the system, a Business Partner ID (BP ID), power user login name and password will be provided. This can be used for initial login, after which a participant power user can set up additional users with access rights that reflect their particular requirements.

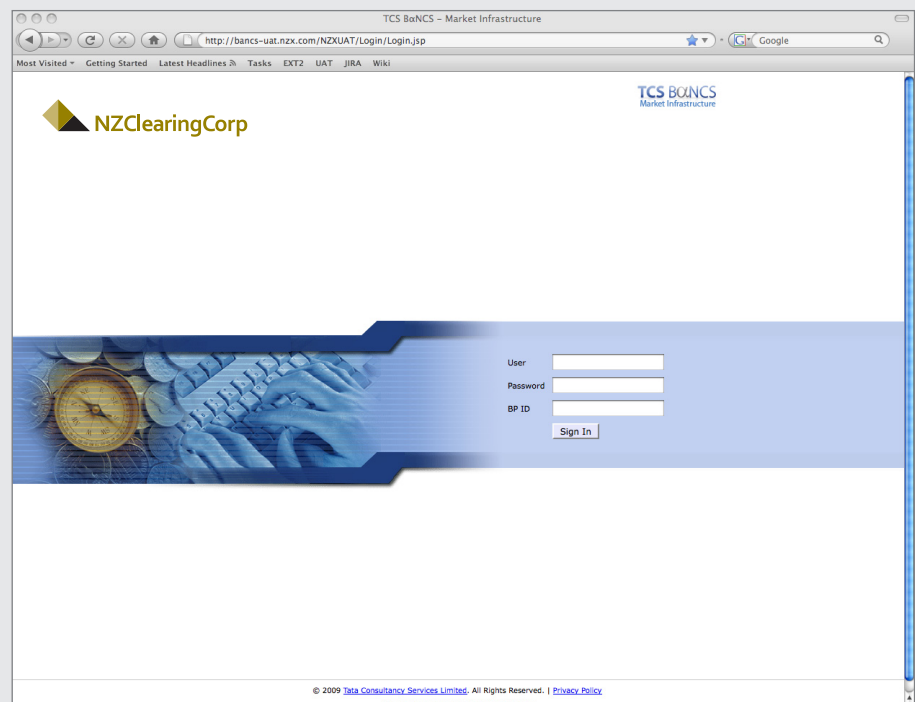
Roles

Each participant will be assigned specific roles within the system, which reflect their participant status and desired functionality. The roles attached to a particular participant determine the access to specific functionality.

Participant roles include:

- Borrower
- Lender
- Depository Participant
- Clearing Participant
- Broker / Dealer (Trading Participant only)
- Client
- Registry

Figure 1. TCS BaNCS
Login page



System Navigation

Once login details have been confirmed, a home page is opened. There are three layers through which a user can navigate:

- Function tabs
- Menu bar and
- Sub-navigation bar.

Function Tabs

Each core function is displayed in a separate tab and is assigned to a participant user depending on the participant role and user access rights. Tabs include:

- Reports
- Business relations
- Instruments
- User administration
- Accounts
- Clearing
- Risk management
- Corporate actions
- Securities lending and borrowing and
- Depository.

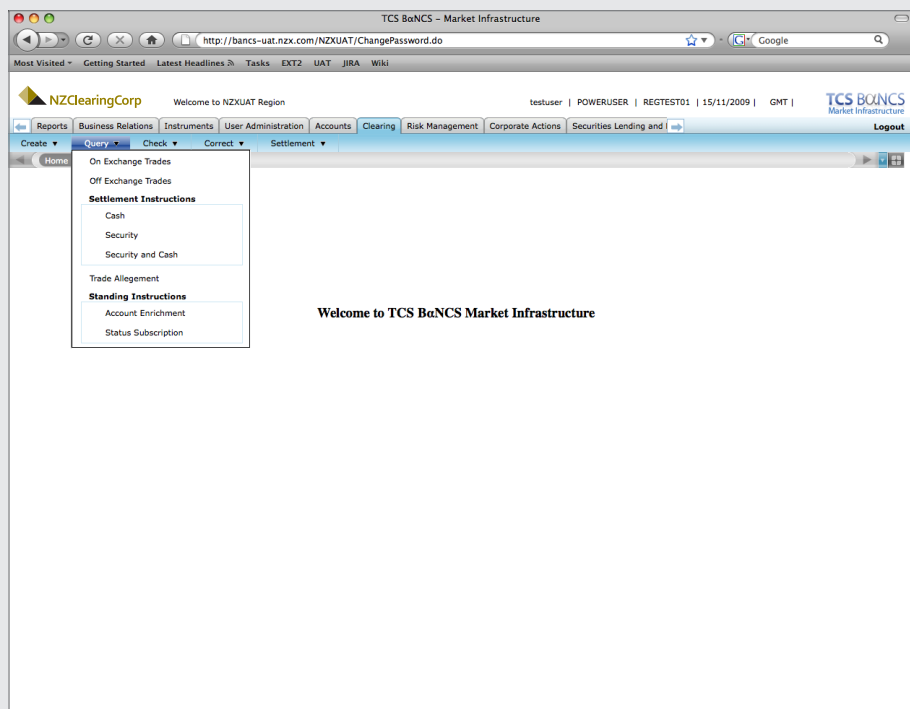
Menu Bar

The menu bar relates to menu options for the specific functional tab. Generally the menu options fall within the categories of Create, Query, Check and Correct.

Sub-navigation Bar

Multiple screens can be opened. The Screen Bar details which screens are currently open and can be used to navigate between open screens.

Figure 2. TCS BaNCS
Navigation Bars



4 Function Overview

Reports

Under this tab, participants can query and view reports generated for that participant. Reports are prepared as a batch process at the end of day.

Business Relations

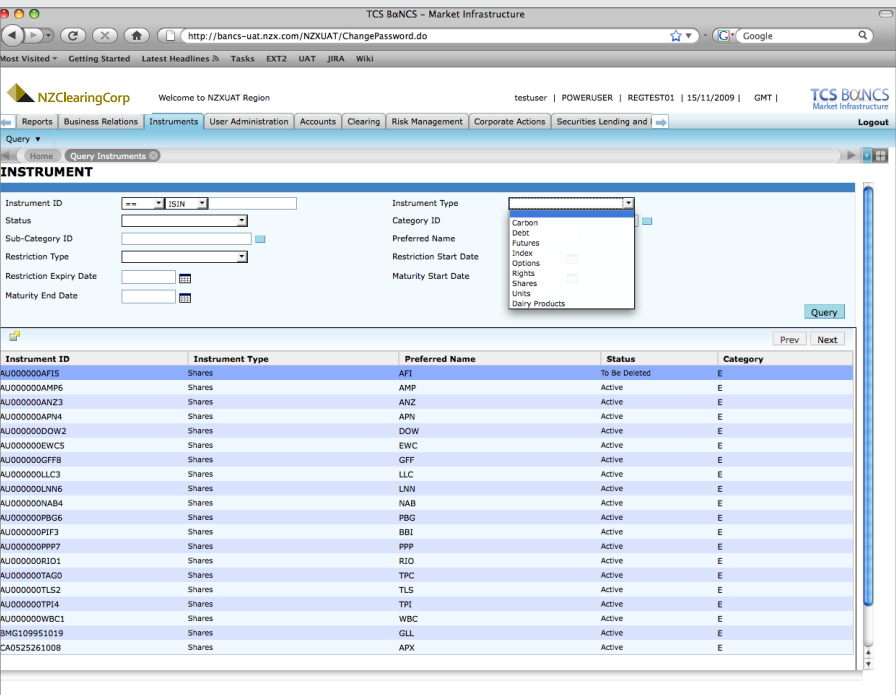
Through this tab, participants can create, maintain and link CSNs. The query functions enable a participant to query the details of a CSN and view their own static data set-up.

Instruments

Under this tab, participants can view instrument details. This instrument master covers all products, including equities, debt and derivatives. Note that dairy commodities are set up under the instrument type “Dairy Products”.

Instrument details can be viewed through the sub-query options, for example primary details displays the core underlying information for the instrument.

Figure 3. TCS BaNCS Instrument Query



User Admin

Each participant will initially be provided with a single user login with access to functionality relevant to their participant category and then can set up user logins as required, with access rights that match the participant's business requirements.

Functionality and authority levels for each user depend on the access group to which they are assigned. Multiple users can be assigned to a user group.

Accounts

BaNCS facilitates the creation and maintenance of accounts with money and/or product balances, this includes settlement accounts. Settlement obligations, derivatives positions and margin requirements are attached to a settlement account.

The Accounts module allows participant users to query all accounts and their status and also provides for querying balances and transactions for each account. This module also provides for querying registry balances.

Figure 4. TCS BaNCS
Accounts Query

Figure 4 shows the TCS BaNCS Accounts Query interface. The page displays a search form for querying accounts and a table of results.

Account Details Search Form:

- Trader ID:
- Broker ID:
- BP ID:
- A/c Type:
- A/c No.:
- Status:

Query Results Table:

BP ID	BP Name	A/c No.	A/c Type	Status	Servicing Owner	Technical A/c Purpose	Omnibus A/c Owner ID	Omnibus A/c No.
REGTEST01	End To End 1	1	Settlement / Free	Active				
REGTEST01	End To End 1	2	Settlement / Free	Active				
REGTEST01	End To End 1	3	Settlement / Free	Active				
REGTEST01	End To End 1	4	Settlement / Free	Active				

Clearing

The Clearing module covers three main functions:

Creation of Off Exchange (OTC) Trades

Participants can create OTC trade instructions either DvP or DfP that settle on a gross basis once matched by the counterparty. This function is associated with the Depository.

Query Trades

Participants can query their trades, either on or off-exchange.

Query Settlement Instructions

A participant can use these screens to query settlement instructions which can be either cash, security or cash and security. The queries indicate the status of the instruction and the amount that has been settled.

Figure 5. TCS BaNCS
Clearing Settlement
Instructions

Clearing Member	A/c No.	Settlement Date	Instrument ID	Settlement Quantity	Settled Quantity	Currency	Settlement Amount	Settled Amount	Count
REGTEST01	1	13/11/2009	NZKXCE0001S2	-200	-33	NZD	-1,600	-1,600	*****
REGTEST01	2	13/11/2009	NZKXBE0001S4	50	50	NZD	0	0	*****
REGTEST01	3	13/11/2009	NZKXID0002S9	300	0	NZD	-75	0	*****
REGTEST01	2	13/11/2009	NZKXID0001S1	1,000	0	NZD	-280	0	*****
REGTEST01	4	13/11/2009	NZKXID0001S1	-650	0	NZD	175	0	*****
REGTEST01	4	13/11/2009	NZKXAE0002S4	-1,000	0	NZD	1,200	0	*****
REGTEST01	3	13/11/2009	NZKXAE0001S6	-400	0	NZD	600	0	*****
REGTEST01	1	13/11/2009	NZKXAE0001S6	1,000	227	NZD	-2,000	-454	*****
REGTEST01	1	10/11/2009	NZKXCE0001S2	41	0	NZD	0	0	*****
REGTEST01	3	10/11/2009	NZKXCE0001S2	-126	0	NZD	0	0	*****
REGTEST01	1	09/11/2009	NZKXCE0001S2	41	0	NZD	0	0	*****
REGTEST01	3	09/11/2009	NZKXCE0001S2	-126	0	NZD	0	0	*****
REGTEST01	1	09/11/2009	NZKXBE0001S4	-50	0	NZD	80	0	*****
REGTEST01	3	09/11/2009	NZKXAE0001S6	-80	0	NZD	184	0	*****
REGTEST01	1	08/11/2009	NZKXCE0001S2	41	0	NZD	0	0	*****
REGTEST01	3	08/11/2009	NZKXCE0001S2	-126	0	NZD	0	0	*****
REGTEST01	4	08/11/2009	NZKXCE0001S2	114	93	NZD	-353.4	-288.3	*****
REGTEST01	4	08/11/2009	NZKXID0001S1	150	0	NZD	-43.5	0	*****
REGTEST01	2	08/11/2009	NZKXID0001S1	-150	0	NZD	43.5	0	*****
REGTEST01	1	08/11/2009	NZKXAE0001S6	-220	0	NZD	374	0	*****

Risk Management

The risk management module is used by Clearing Participants to query margin requirements, manage collateral and view margin percentage levels for securities. This also covers derivatives mark-to-market.

The margin call screen indicates the initial total margin, collateral available and required collateral for each day. There are separate lines that demonstrate the total collateral requirement and the minimum cash component.

Through the collateral query screens a participant can see what their collateral position is and whether they are in a surplus or deficit position.

Figure 6. TCS BaNCS
Risk Management
Margin Call

The screenshot displays the 'MARGIN CALLS' screen in the TCS BaNCS system. The interface includes a search form with the following fields:

- BP ID: NZX*
- Margin Date from: 09/11/2009
- Margin Date to: 15/11/2009
- Margin Call Type: BOD Started
- Instrument Type: Equity and Debt

Below the search form is a table titled 'MARGIN CALLS' with the following columns:

Transaction Reference	BP ID	A/c No.	Margin Date	Total Margin	Collateral Available	Required Collateral	Status	Pay By Date	Paid Date	Margin Ty
RSK1111090000007	REGTEST01 4	11/11/2009	295.24	0	88.57	Unpaid	12/11/2009			BOD Started
RSK1111090000006	REGTEST01 4	11/11/2009	295.24	1,300	0					BOD Started
RSK1111090000005	REGTEST01 3	11/11/2009	178.8	0	178.8	Unpaid	12/11/2009			BOD Started
RSK1111090000004	REGTEST01 2	11/11/2009	19.05	0	5.72	Unpaid	12/11/2009			BOD Started
RSK1111090000003	REGTEST01 2	11/11/2009	19.05	907.2	0					BOD Started
RSK1111090000002	REGTEST01 1	11/11/2009	4,140	7,000	0	Unpaid	12/11/2009			BOD Started
RSK1111090000001	REGTEST01 1	11/11/2009	4,140	7,000	0					BOD Started

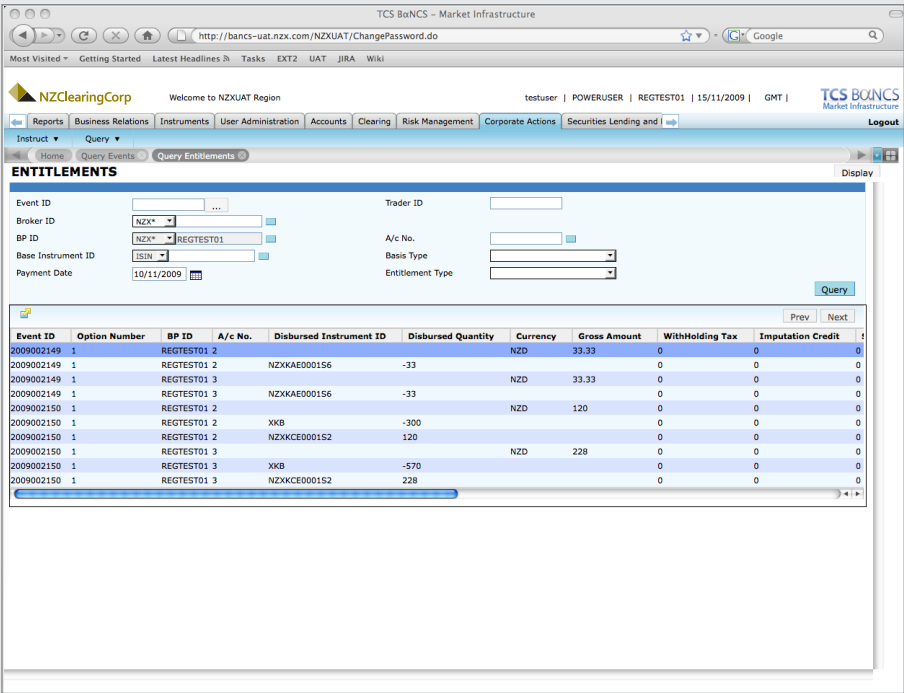
Corporate Actions

The corporate action function allows participants to query upcoming corporate action events, view their entitlements in respect of specific corporate actions and make option selections for voluntary corporate actions with event options.

Securities Lending and Borrowing

The Securities Lending and Borrowing module allows participants to either place securities into the lending pool as lender or to submit a borrowing request. Lenders and borrowers can also manage their loan positions through withdrawing securities from the pool, recalling loans (lender) or repaying outstanding loans (borrower).

Figure 7. TCS BaNCS Corporate Action Entitlements



Depository

This tab contains the core depository functionality of creating and querying account transfers.

The tab also caters for NZ specific modifications for registry transfers and depository lodge/uplift.

Registry Transfers

This includes client inward and outward transfer, owned inward and outward transfer, participant-to-participant transfer and reservations. These replicate functions available in legacy systems.

Depository Lodge/Uplift

This allows a participant to transfer securities between an on-register account to a depository account. This also caters for transfers between the NZD depository and the RBNZ CSD.

Figure 8. TCS BaNCS
Depository Account
Transfers

The screenshot displays the 'ACCOUNT TRANSFER' form within the TCS BaNCS Market Infrastructure application. The interface includes a navigation bar with tabs for Reports, Business Relations, Instruments, User Administration, Accounts, Clearing, Risk Management, Corporate Actions, Securities Lending and Borrowing, and Depository. The 'Depository' tab is active. The form is divided into three main sections: Source Details, Target Details, and Transfer Details. Source Details includes fields for Trader ID, Broker ID (with an NZX* dropdown), BP ID (with an NZX* dropdown), and A/c No. Target Details includes fields for Trader ID, Broker ID (with an NZX* dropdown), BP ID (with an NZX* dropdown), and A/c No. Transfer Details includes fields for Source Position Type* (Normal), Instrument ID* (ISIN), Voucher No., Order Time, Trade Related, Remarks, Target Position Type* (Normal), Quantity*, Transaction Date* (26/11/2009), External Reference, and CBO. The form also features a 'Release' button and a 'Clear' button.

