Intellect™ One Treasury

PRODUCT ADOPTION DOCUMENT

<Money Market>

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1.0 Introduction

This document describes in detail about Intellect™ One Treasury Money Market Module covering its functionalities and business process flow.

1.1 Purpose

This document is intended to provide the specification for Intellect™ One Treasury Money Market Module. The intended audience for this document is

1. Business Users
2. Testers
3. Technical Architects & Developers

1.2 Acronyms/Glossary of Terms

S.No.	Term	Explanation
1.	PAD	Product Adoption Document™
2.	RTM	Risk, Treasury & Markets
3.	FLOW	Flow is to define the deal type either Buy or Sell
4.	EOD	End of Day

5.	CCY	CCY denotes the currency used for the transaction.
6.	Portfolio	Logical grouping of security holding under virtual warehouses as applicable. These codes are part of static data maintenance
7.	MM	Money Market
8.	FO	Front Office
9.	BO	Back Office
10.	P&L	Profit & Loss
11.	SWIFT	Society for Worldwide Interbank Financial Telecommunication
12.	BLOTTERS	A Blotter refers to an excel-like window to see details of trades with various other required attributes as per given selection criteria
13.	EOM	End of Month
14.	QTY	Quantity
15.	Acc.	Accounting
16.	RCN	
17.	YTM	Yield To Maturity
18.		

1.3 List of Hot Keys/Shortcuts Used

S.No.	Hot Keys	Function of Hot Key
1	SHIFT + INSERT	To paste a deal number on a Deal capture screen and retrieve the deal details on pressing <ENTER>
2	CTRL+INSERT	To copy and Insert a deal

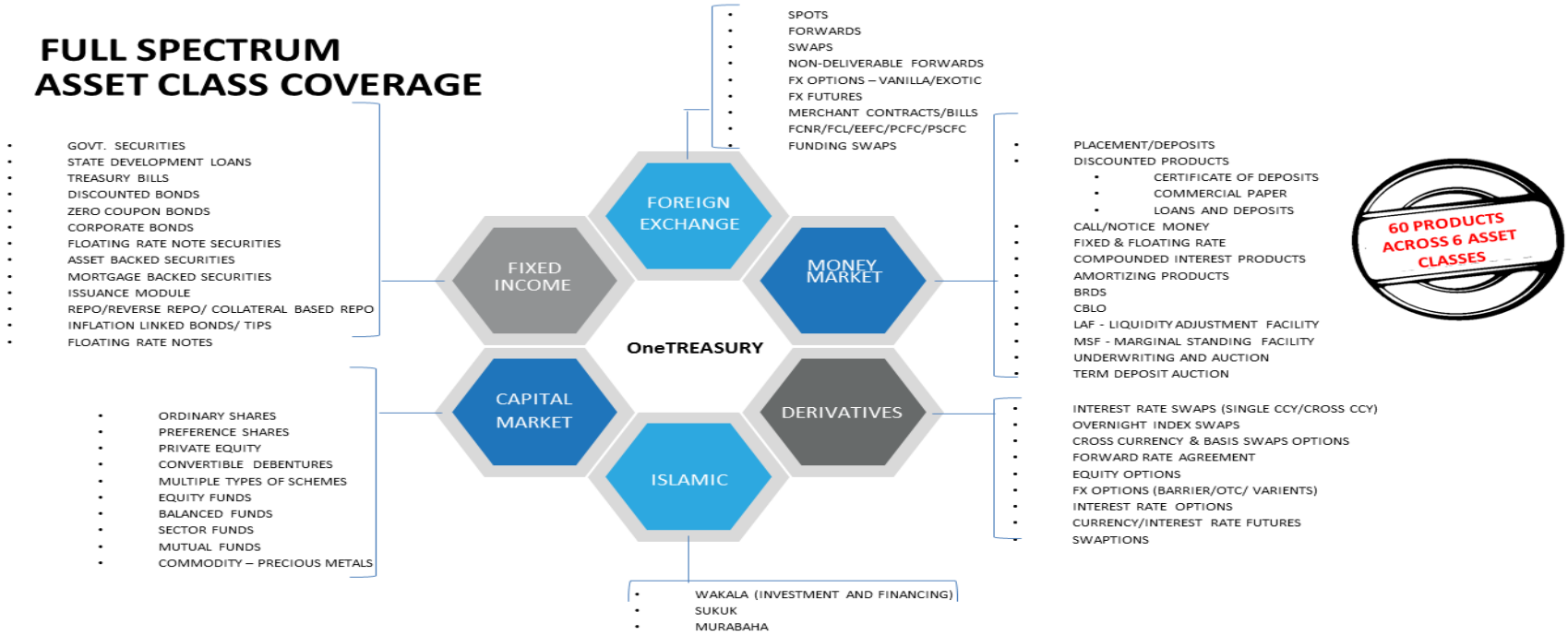
1.4 References

This section should provide references for any specifics on Regulatory requirements, Compliance, Market research that this PRODUCT offers
Example –

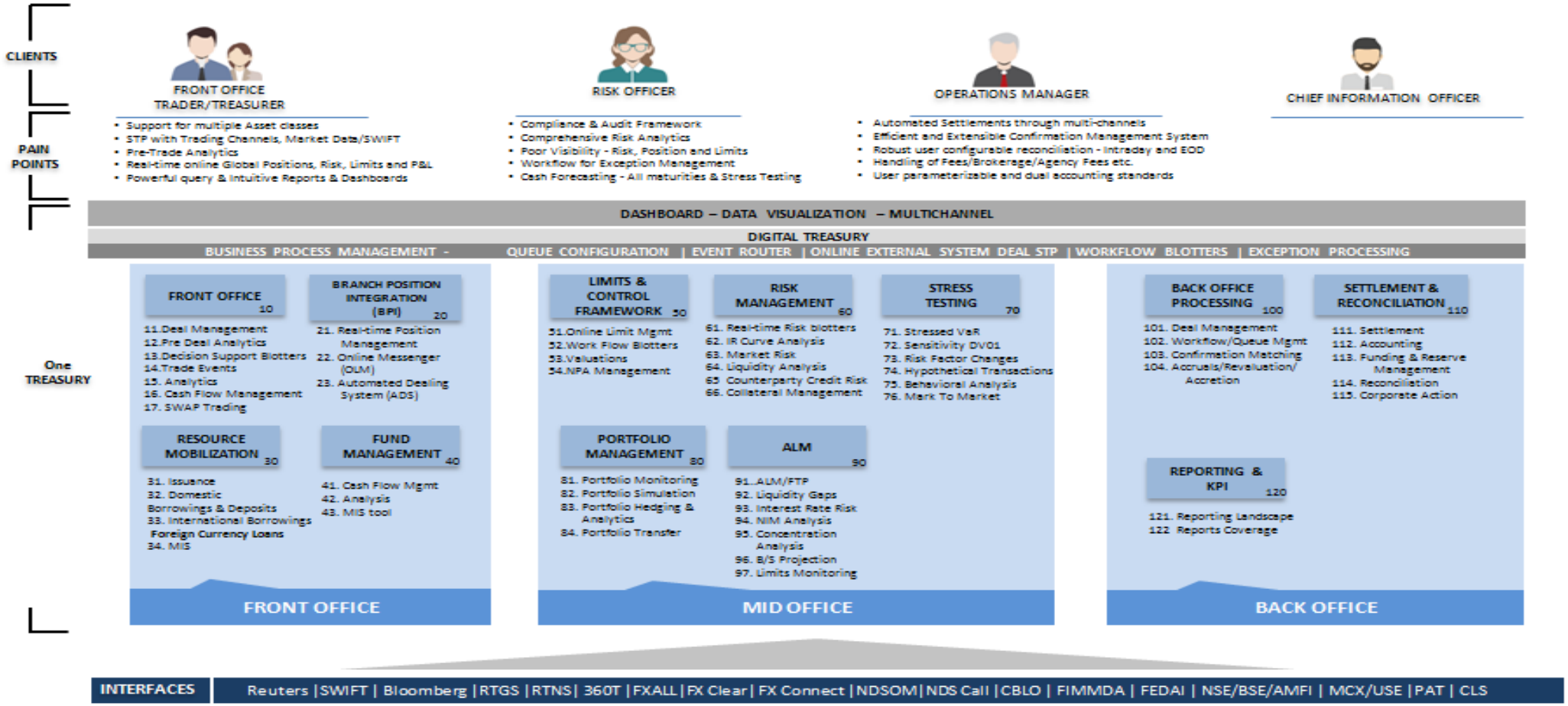
S No.	Category	Reference

2.0 Overview of the Intellect One Treasury

Intellect™ One Treasury Product provides a single platform for integrated risk & treasury management. One Treasury Solution provides Real Time Cash flows and Position Managements. It helps in identifying market and liquidity risk on a real time basis along with limits and control frameworks. Intellect™ One Treasury supports 60 Products across 6 asset classes on a single platform.



2.1 L0 Architecture


CLIENTS
FRONT OFFICE TRADER/TREASURER
RISK OFFICER
OPERATIONS MANAGER
CHIEF INFORMATION OFFICER
PAIN POINTS
• Support for multiple Asset classes
• STP with Trading Channels, Market Data/SWIFT
• Pre-Trade Analytics
• Real-time online Global Positions, Risk, Limits and P&L
• Powerful query & Intuitive Reports & Dashboards
• Compliance & Audit Framework
• Comprehensive Risk Analytics
• Poor Visibility - Risk, Position and Limits
• Workflow for Exception Management
• Cash Forecasting - All maturities & Stress Testing
• Automated Settlements through multi-channels
• Efficient and Extensible Confirmation Management System
• Robust user configurable reconciliation - Intraday and EOD
• Handling of Fees/Brokerage/Agency Fees etc.
• User parameterizable and dual accounting standards
DASHBOARD – DATA VISUALIZATION – MULTICHANNEL
DIGITAL TREASURY
BUSINESS PROCESS MANAGEMENT - QUEUE CONFIGURATION | EVENT ROUTER | ONLINE EXTERNAL SYSTEM DEAL STP | WORKFLOW BLOTTERS | EXCEPTION PROCESSING
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102. Workflow/Queue Mgmt
103. Confirmation Matching
104. Accruals/Revaluation/ Accretion
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111. Settlement
112. Accounting
113. Funding & Reserve Management
114. Reconciliation
115. Corporate Action
REPORTING & KPI 120
121. Reporting Landscape
122 Reports Coverage
BACK OFFICE
INTERFACES
Reuters | SWIFT | Bloomberg | RTGS | RTNS | 360T | FXALL | FX Clear | FX Connect | NDSOM | NDS Call | CBLO | FIMMDA | FEDAI | NSE/BSE/AMFI | MCX/USE | PAT | CLS

2.2 MM Module Overview

Intellect™ One Treasury Money Market module is a rich application covering wide features. System does capture trades done on trading platforms or through STP automatically. One Treasury integrates with Reuters, Bloomberg, NDS or any similar integration touch points seamlessly through the standard integration GATEWAY. It also supports manual trade booking through Deal Capture screen for trade. System provides real time limit checking and `What-IF' analysis to support decision making.

One Treasury also supports Back office operations such as enrichment, authorization of the deals generating accounting entries followed by settlement of the deals. Intellect™ One Treasury also generates swift text messages which can be integrated with SWIFT terminals for transmitting the messages.

Intellect™ One Treasury Money Market covers full functionality from Front to Back office. So, the flow of MM Module is defined as:

S. No.	Module Name/Description	Module ID
1.	Static Data Setup(Maintenances/Master)	Setup
2.	Front Office Deal Management	MMFO
3.	Middle Office Deal Management	MMMO
4.	Back Office Deal Management	MMBO
5.	Reports	Reports
6.	Interfaces	Interfaces
7.	Common Utilities	

3.0 Static Data Setup

Intellect ™ One Treasury supports maintenances and configuration of static data's in the application through setup screens. Setup screens are categorised based upon usage and functionality. One Treasury Supports 2 levels of Check for any request creation and its approval. This check is applicable for all setup screens.

Based upon request raised, a user has option for

a.i.a. Creating a new Parameters

a.i.b. Modify/Delete the existing values

a.i.c. Searching for existing values

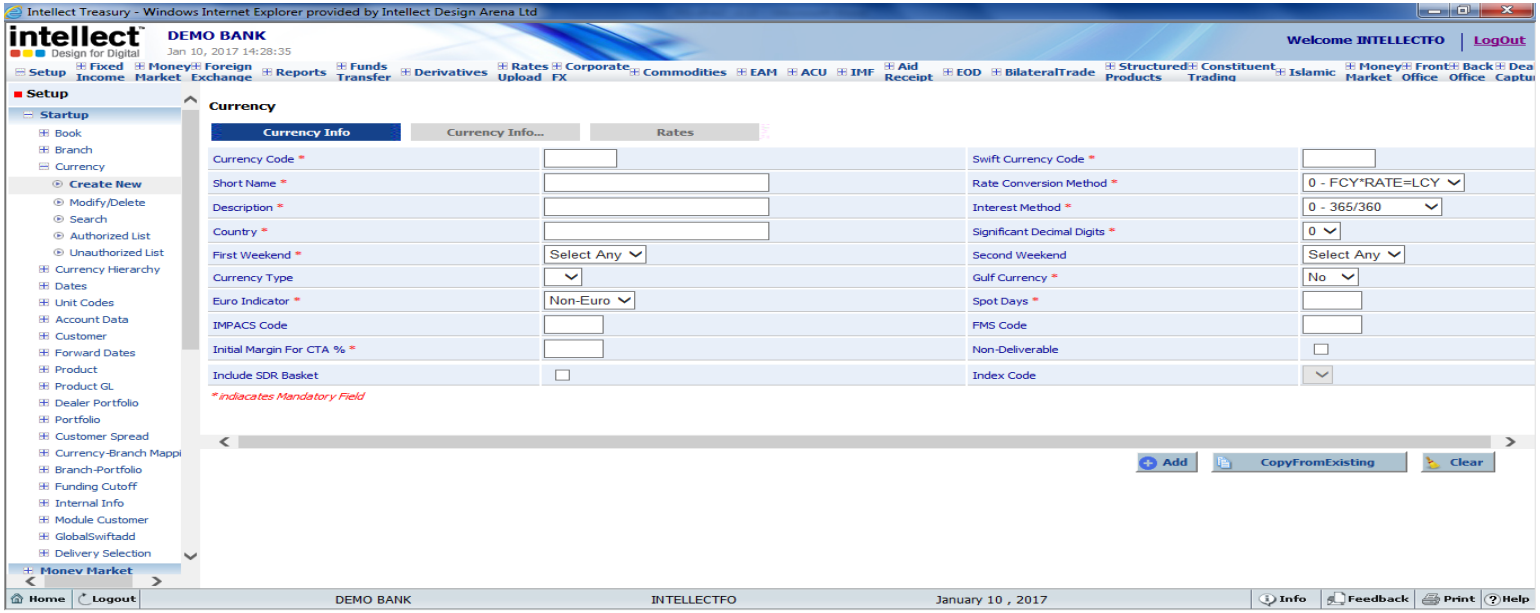
a.i.d. Viewing Authorized and Unauthorized lists.

3.1 Currency Setup

Currency Setup is the first master for setting up and used as base for creating other setups also.

3.1.1 Screen Path & Layout

Navigation Path: Intellect One Treasury >> Setup >> Start Up>> Currency Master



3.1.2 Description

- **Prerequisites**
  - Unit codes Setup

Currency Setup screen consist of 3 tabs which accommodates the details such as swift currency code, Rate Conversion method, significant decimal digit, spot days(Based upon currency selected default spot days is auto populated) , and minimum and maximum rates, Interest rates along with other information.

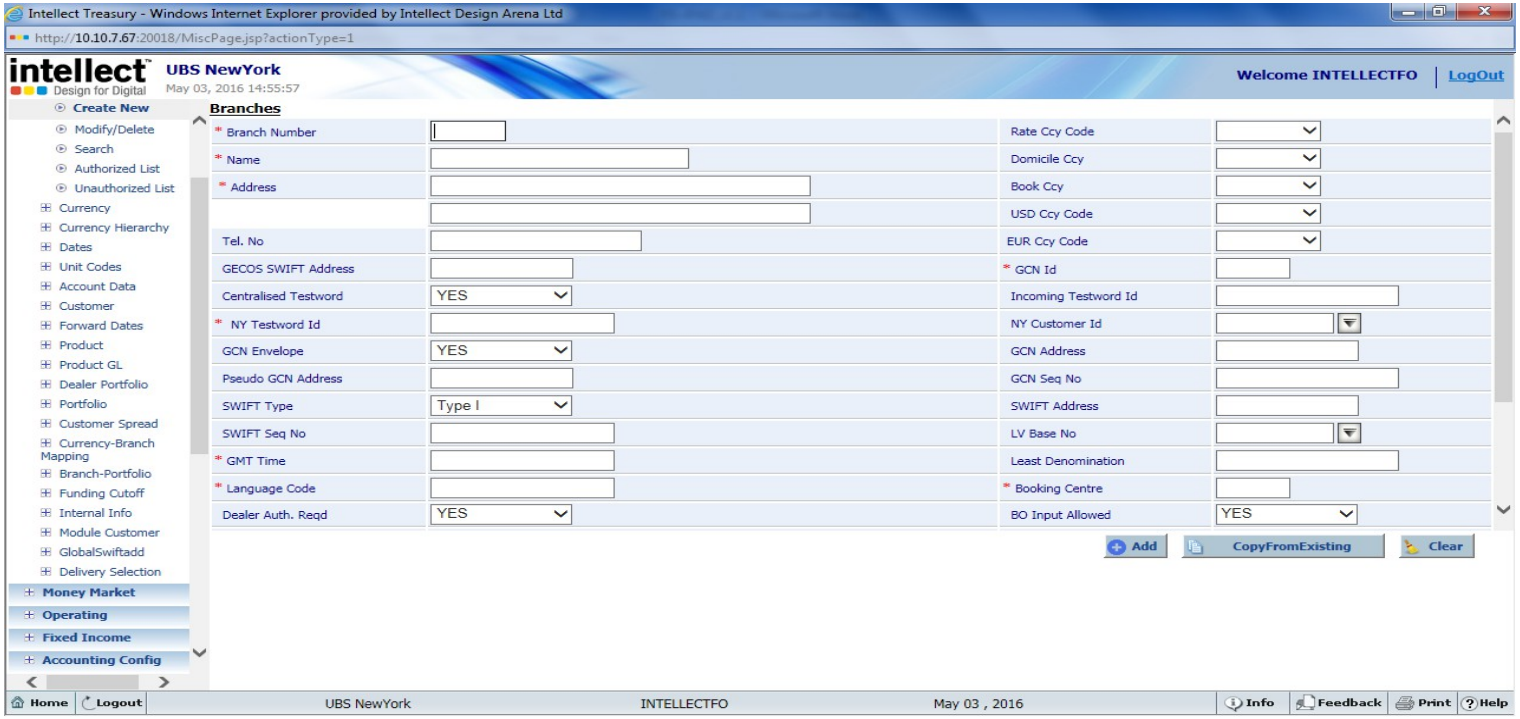
The weekends are to be selected as per the respective countries. Once the 3.11 Account Data is maintained, the currency can be mapped to the respective account.

3.2 Branch Setup

This maintenance is used for setting up branch in the application.

3.2.1 Screen Path & Layout

Navigation Path: Intellect One Treasury >> Setup >> Start Up>> Branch



3.2.2 Description

- Prerequisites
  - Currency

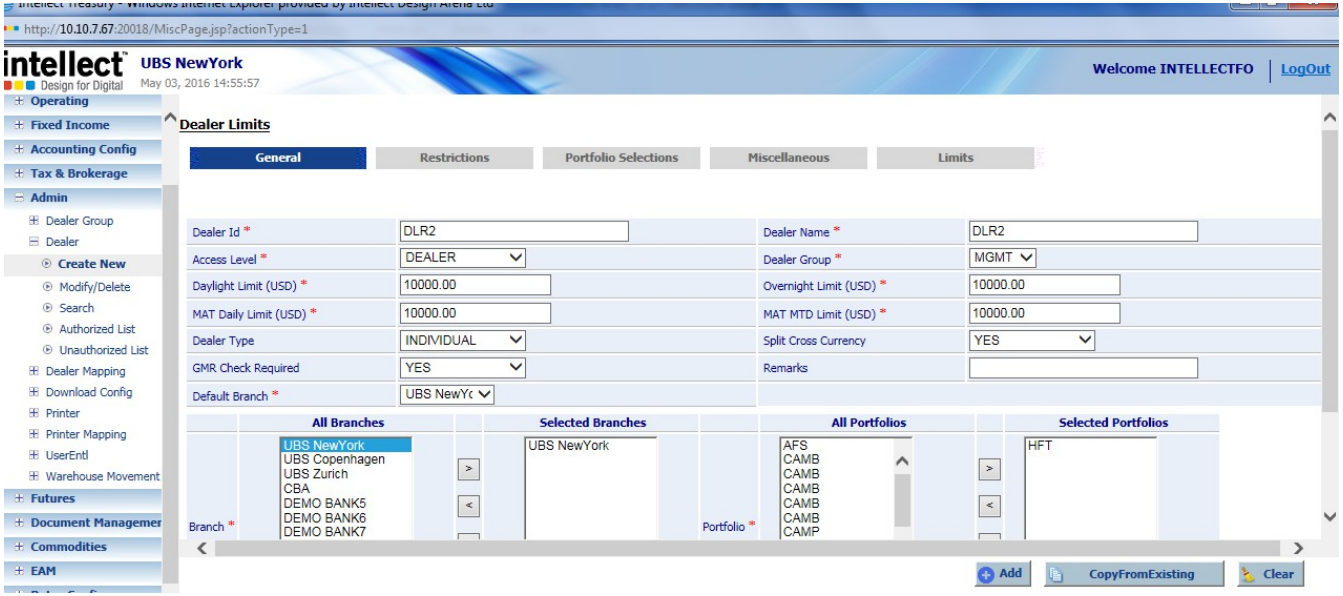
Creation of branch is one time activity. Intellect™ One Treasury supports multi branching functionality. Important fields which are asterisk marked should be filled in order to create a treasury branch.

3.3 Dealer Setup

In Treasury department, dealers perform and manage trading and deal booking activities. So this maintenance is used for configuring dealers in the system.

3.3.1 Screen Path & Layout

Navigation Path: Intellect ™ One Treasury >> Setup >> Admin >> Dealer



3.3.2 Description

- **Pre-requisites**
  - Branch
  - Portfolio
  - Dealer Group

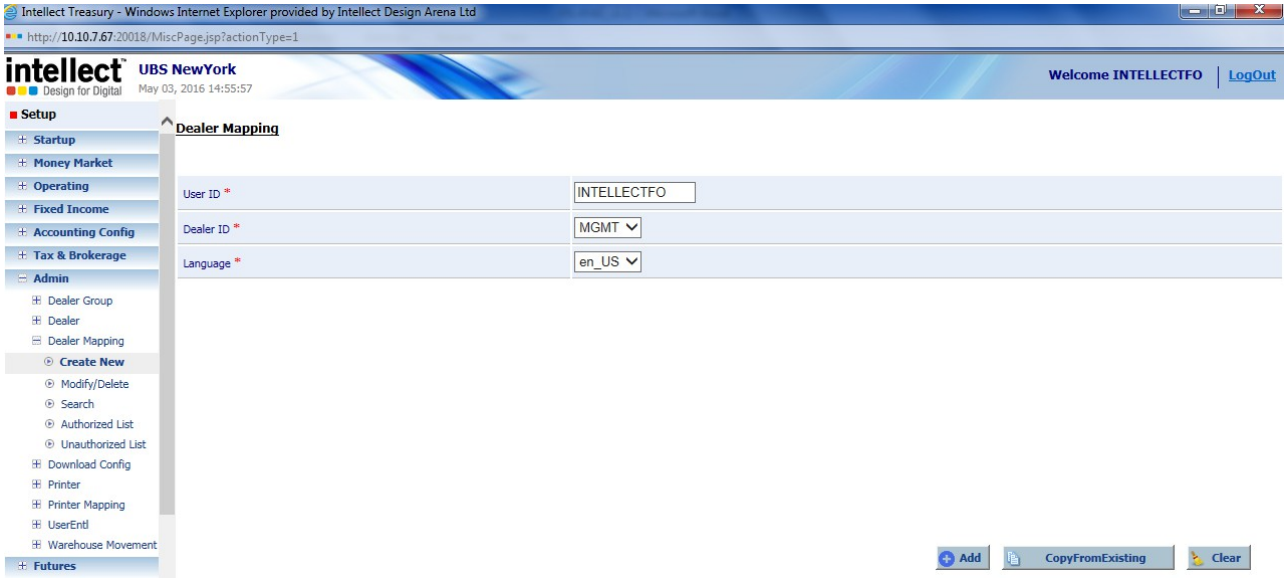
Dealer Master consists of multiple tabs to maintain values for dealer size limits (Trading limits), restrictions for portfolio, products and currencies.

3.4 User Setup

This master is used for mapping user id with treasury department dealers.

3.4.1 Screen Path and Layout

Navigation Path: Intellect ™ One Treasury >> Setup >> Admin >> Dealer Mapping



3.4.2 Description

- **Prerequisites**
  - Dealer

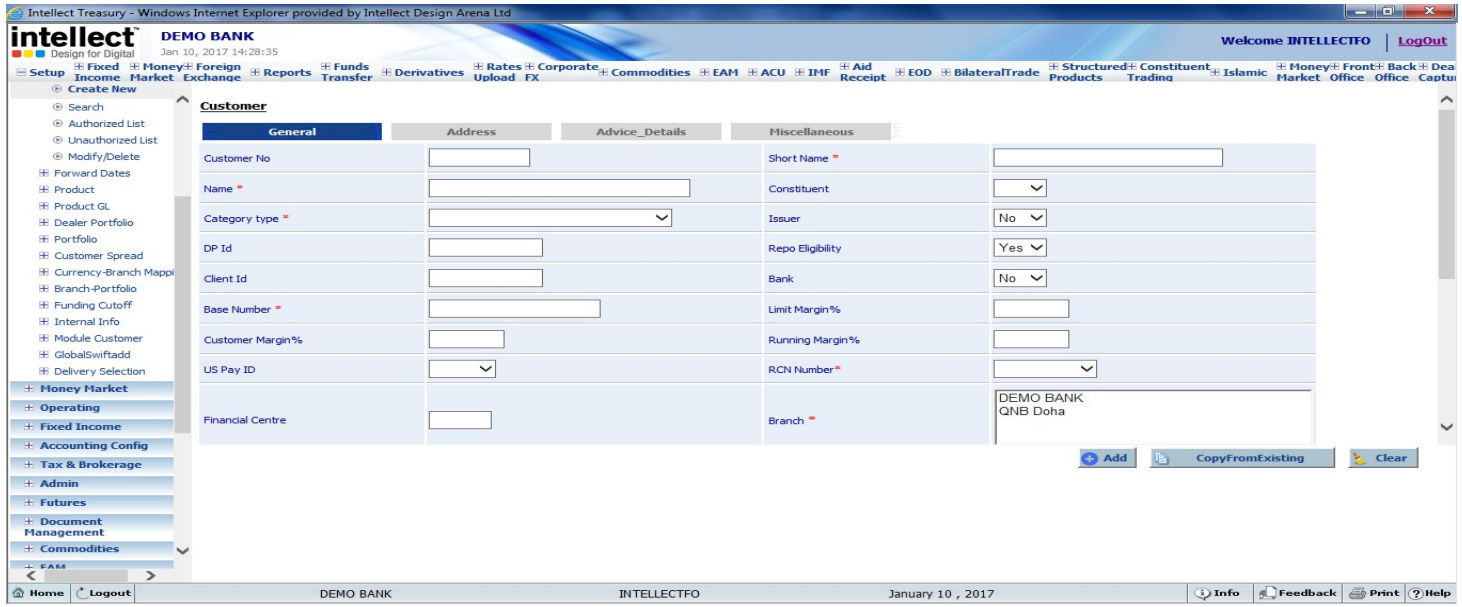
Intellect ™ One Treasury is an entitlement based system and for dealers to access the application, user id should be assigned which is mapped to a specific dealers through dealer mapping master.

3.5 Counterparty Setup

Customer maintenance is used for creating/setup of treasury customers in the application.

3.5.1 Screen Path and Layout

Navigation Path: Intellect™ One Treasury >> Setup >> Start Up>> Customer Master



3.5.2 Description

- **Prerequisites**
  - Unit Code Master where customer category type and other values such as country are maintained in the system.
  - Branch Master

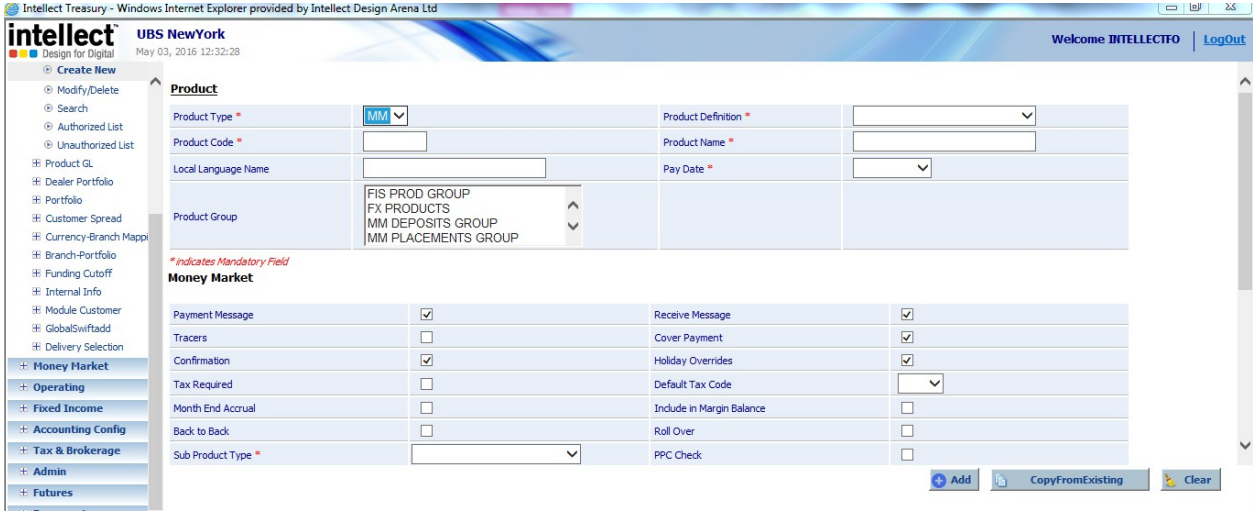
Configuration of customer details, mapping to specific branch, module is done in this master.

3.6 Product Setup

Product Maintenance screen is used for configuring various types of Treasury product in the system. Intellect™ One Treasury supports creation of sub products under each product with its own underlying parameters.

3.6.1 Screen Path and Layout

Navigation Path: Intellect™ One Treasury >> Setup >> Start Up>> Product Master



3.6.2 Description

- **Prerequisites**
  - Unit Codes Maintenances
  - Product level configuration such as
    - To generate specific Message Types(Such as Payment, Cover, Receive, Delivery Messages)

- Reval Curve selection
- Sub product type such as Islamic Product, Discounted Deposit, Interest Rates Swap, Infrastructure Loans, etc.
- Discount Method such as Front-end discount and Rear-end discount
- Hard(Overrides), Soft(Errors) and Deal Verification Checks

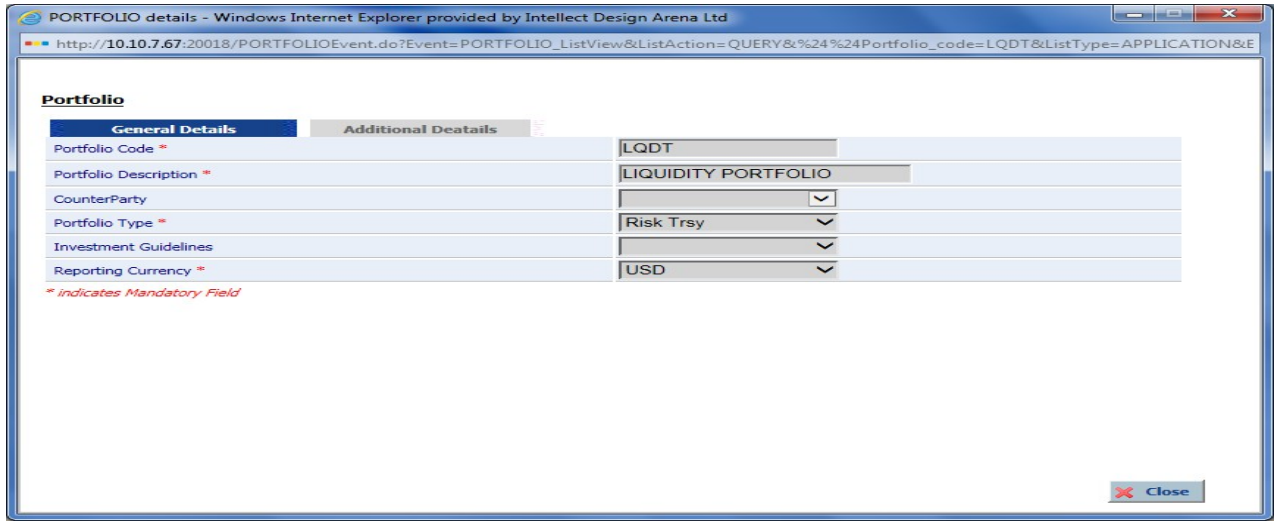
In current application 1XX Product series belongs to Deposit and 2XX series products belongs to Placement (Loans).

3.8 Portfolio

Portfolio maintenance is used for creating Portfolio's in the application.

3.8.1 Screen Path and Layout

Navigation Path: Intellect™ One Treasury >> Setup >> Start Up >> Portfolio Master



3.8.2 Description

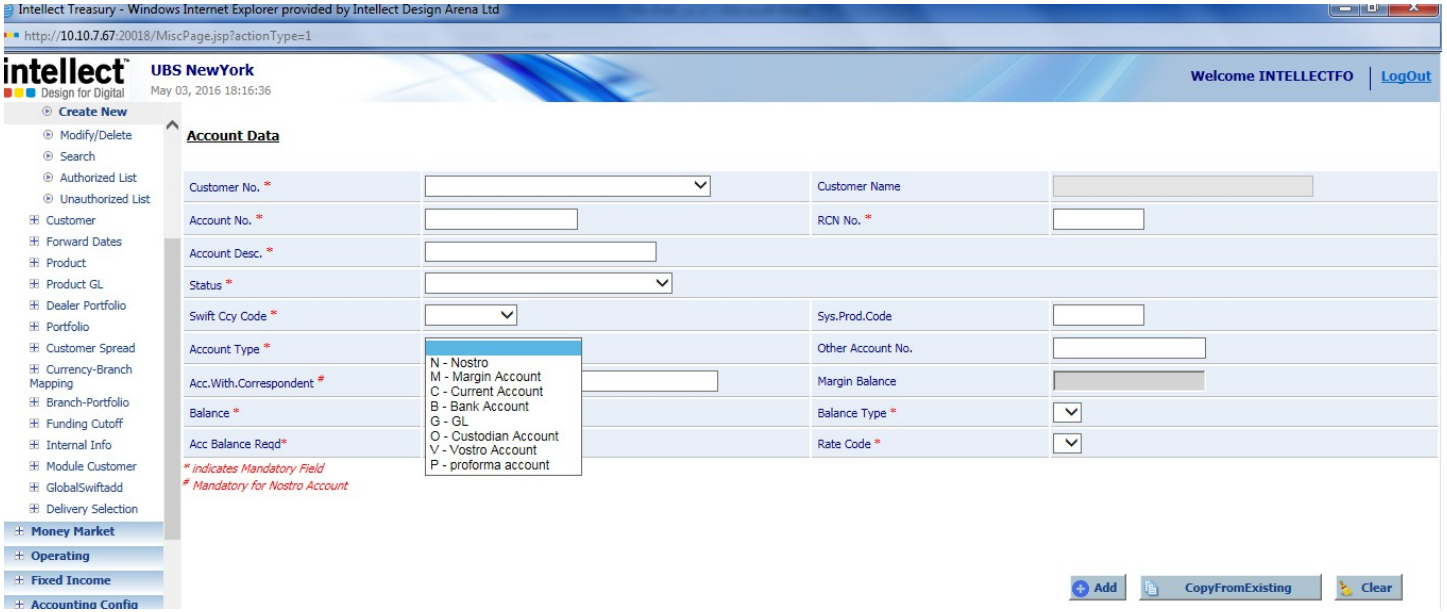
- **Prerequisites**
  - Unit codes
  - Currencies

Intellect™ One Treasury tracks investments portfolio wise. This Master is also used for restricting/configuring portfolios to specific modules and currencies under additional details tab.

3.11 Account Data

3.11.1 Screen Path and Layout

Navigation Path: Intellect One Treasury >> Setup >> Start up >> Account Data



3.11.2 Description

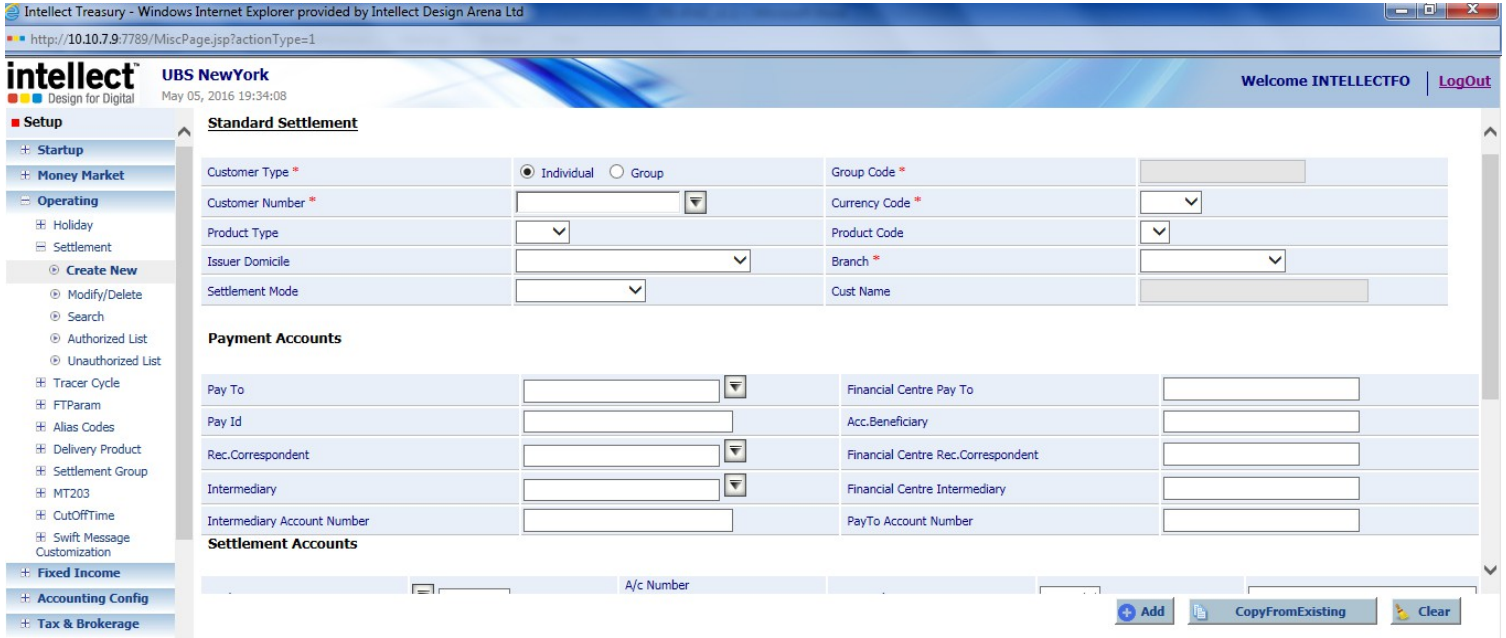
- Prerequisites
  - Customer
  - Unit Codes
  - Currency
- This maintenance is used for maintaining accounts for customers. Account type field consists of different accounts that can be maintained with the respective currency. Each currency defined in the system can be configured to the respective account type. List of accounts is maintained in the tb_accountdata table as attached below.

3.12 Standard Settlement (SSI)

This master is used for maintaining settlement instructions for payment and settlements for the transactions done in the system.

3.12.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Setup >> Operating >> Settlement



3.12.2 Description

- **Prerequisites**
  - Customer
  - Product

- Currency
- Account Data
- Branch

Settlement Master is used for mapping customers with their respective account numbers (Currency wise). This screen is used for defining payment and settlement accounts for the customers.

3.13 Accounting Setup

Intellect™ One Treasury supports maintenance and configuration of accounting entries using Accounting Config Master.

3.13.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Accounting Config.

3.13.2 Description

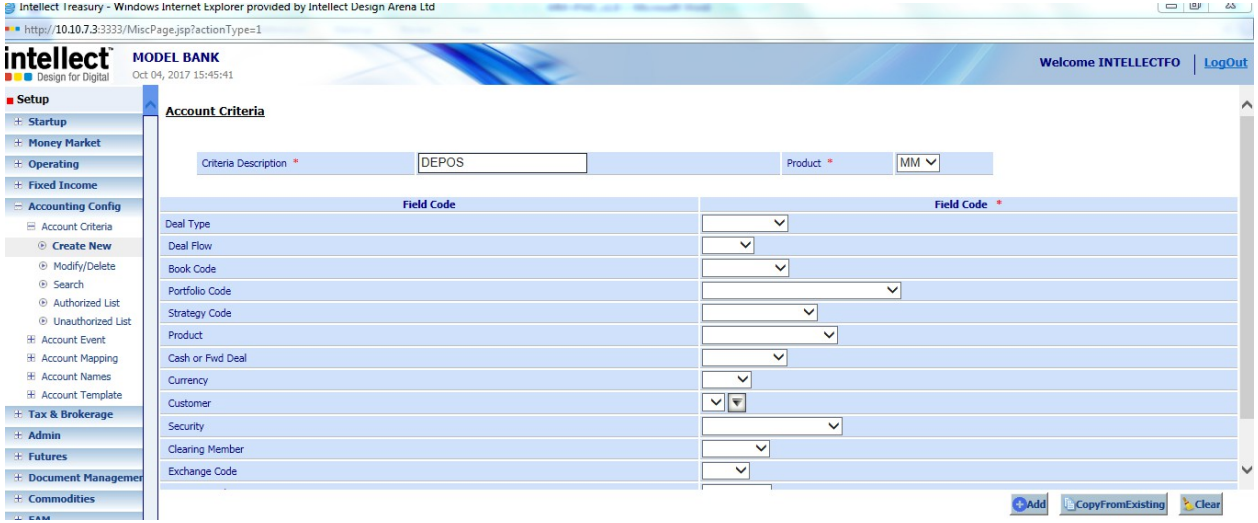
- Prerequisites
  - Product
  - Currency
  - Customer
  - Unit codes

Accounting setup includes creation of events, criteria's and templates for configuring accounting entries. Whenever the event occurs, the corresponding entries are passed based on the criterion that matches the current data.

3.13.2.1 Account Criteria

3.13.2.1.1 Screen Path and Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Accounting Config >> Account Criteria



3.13.2.1.2 Description

- **Prerequisites**
  - Unit codes
  - Customer
  - Currency

- Branch
- Product

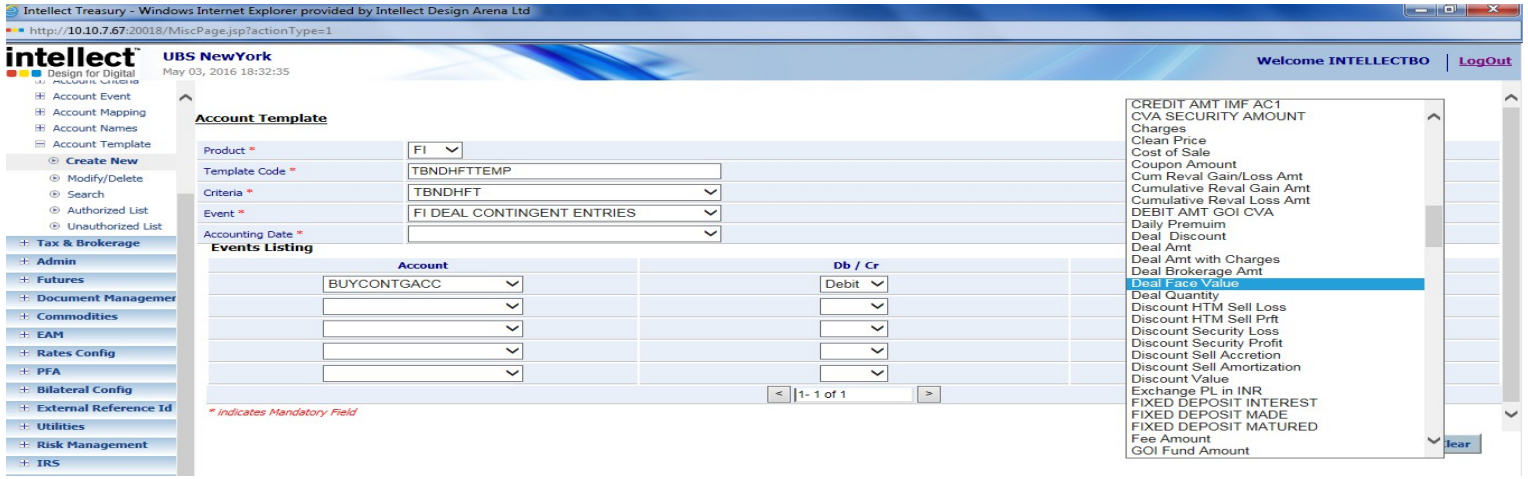
In Money market module, to setup the accounting entries, first step is to define the criteria for the entries which have to be generated. Criteria's which can be defined are

S. No	Criteria	Description
1.	DEPOS	Interbank Deposit
2.	PLACMNT	Interbank Placement
3.	DISC DEPOS	Discounted Deposit
4.	DISLOANS	Discounted Loans

P.S: Intellect™ One Treasury supports Account Criteria configuration as per the requirement of the User. Criteria's can be defined for a specific event or a generic event.

3.13.2.2 Account Template

Account Template is used to configure the accounts for the specific Account Criteria, Event and the Accounting Date. Based upon account criteria created, appropriate account template is created. Values for events are trigger for generating accounting entries for a specific events such deal authorization, deal settlement etc. List of events mentioned in table. Accounting Date signifies on which date accounting entries should be passed.



3.13.2.2.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Accounting Config >> Account Template

3.13.2.2.2 Description

- Prerequisites
  - Account Criteria
  - Accounting Event
  - Accounting Date

- User can select the Account, Dr/Cr and Account Field as per the requirement. See Sample template.

Account Template

Template Code *	BUYDEALPOLICY
Criteria *	CBUYDEAL
Event *	FI DEAL AUTH
Accounting date *	Transaction Date

Events Listing

Account	Db / Cr	Field
Security Investment	Debit	Allocation Amount
Security Investment	Credit	Allocated Deal Discount
Security Investment	Debit	Allocated Deal Premium
Interest Accrued But not	Debit	AllocatedAccruedInterest
Brokerage Acc	Debit	Deal Brokerage Amt

< 1-5 of 9 >

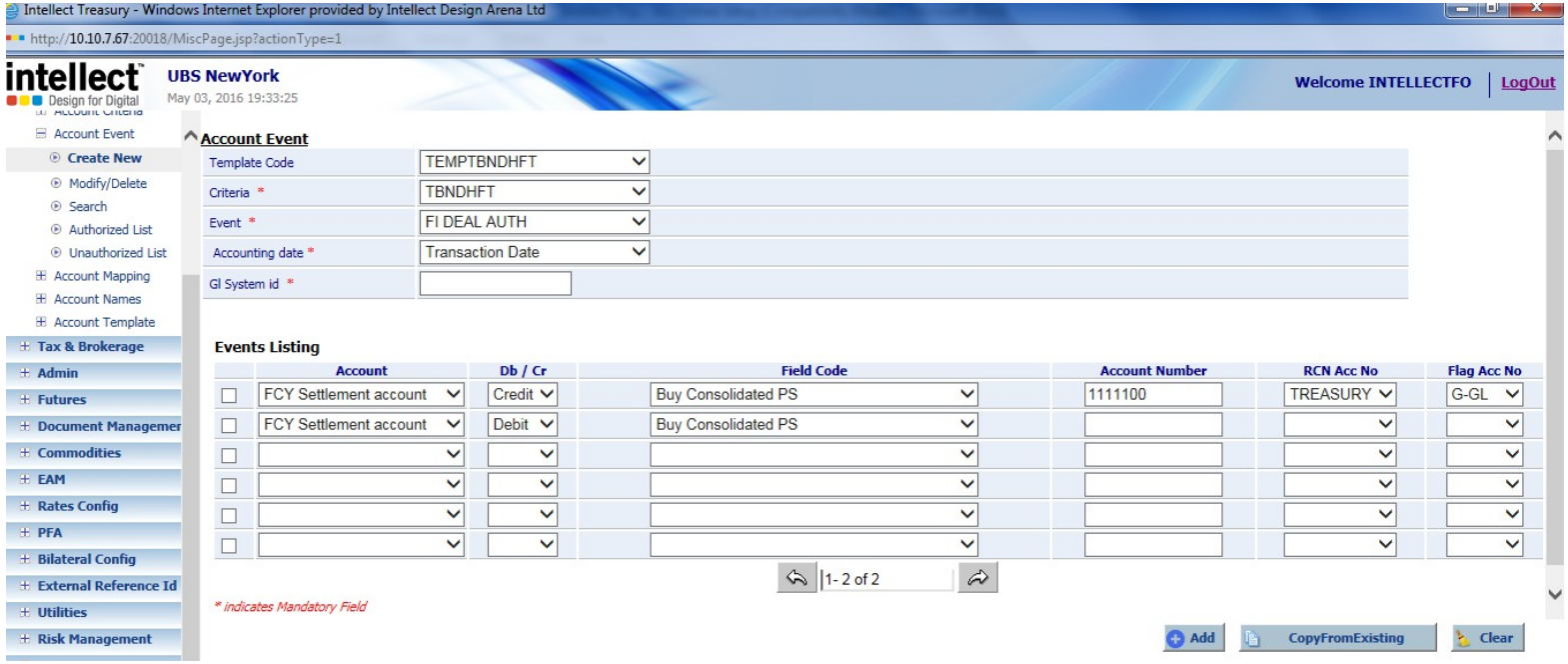
** indicates Mandatory Field*

3.13.2.3 Account Event

Account event is where the GL or Customer account numbers will be mapped to accounts already maintained in Account Template.

3.13.2.3.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Accounting Config >> Account Event



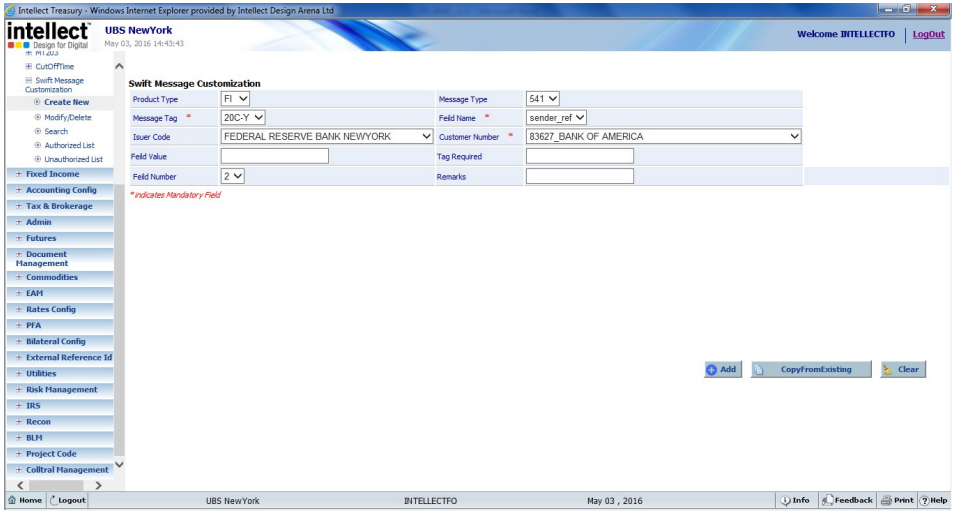
3.13.2.3.2 Description

- Prerequisites
  - Template Code(From Account Template)
  - Criteria Code (From Account Criteria)
  - Deal Events
- Based upon selected template code, corresponding values will be populated. Account Number, RCN Account Number and Flag Account number (G-GL and C- Customer Accounts) are entered for mapping. List of the accounting events maintained

3.14 Swift Messages Configuration

3.14.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Operating >> Swift Message Configuration



3.14.2 Description

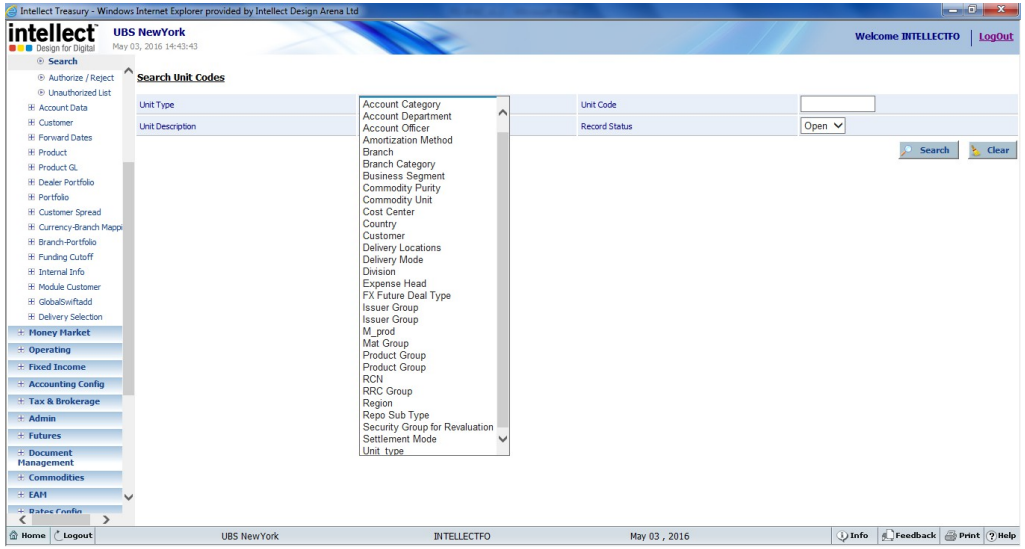
- Prerequisites
  - Product
  - Customer
  - Unit Codes

Intellect™ One Treasury supports configuration and customization of Swift Messages as per requirement. For any particular product type and counterparty, System shows list of all the tags along with field values for to specific message type which is selected.

3.15 Unit Codes

3.15.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Start Up >> Unit Codes



3.15.2 Description

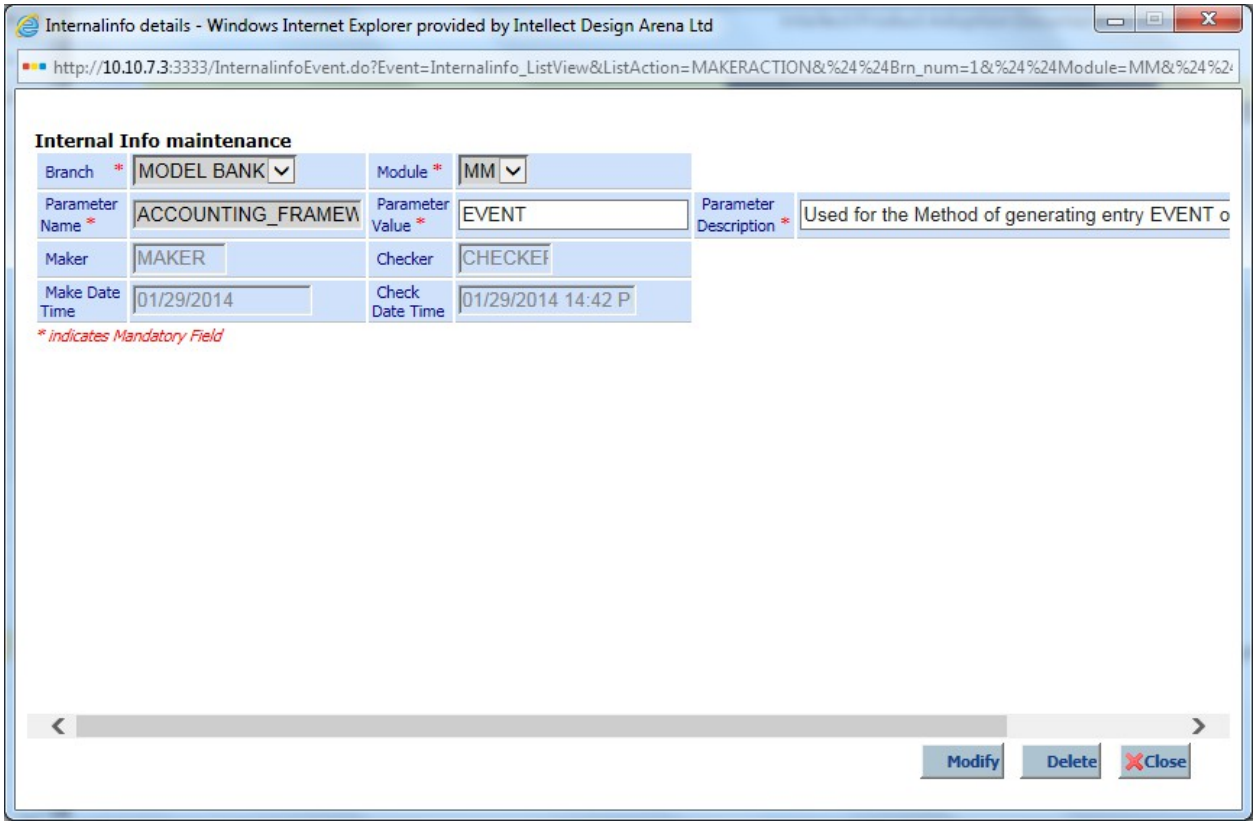
- Prerequisites
  - Unit Type

Intellect One Treasury uses Unit codes maintenance for storing the information and segregation of units such as Country, Branch, Branch Category etc. fields used in the application.

3.16 Internal Info

3.16.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Start Up >> Internal Info



3.16.2 Description

- Prerequisites

- Branch
- Product
- Parameter Name

Internal Info Master is used for configuring parameters based upon business logic which can be specific to any module or common.

4.0 Front Office Functionality

Intellect™ Treasury MM Front Office module support deal booking with various Money Market product along with monitoring, managing of the positions and limits involved.

Intellect™ One Treasury Money Market FO Module supports following types of products for deal/trade booking in the system.

- Deposit
- Placement
- Discounted Deposit/Placement
- Notice Placement

4.1 MM Deal Capture

The Deal Capture screen is used for creating/entering new deals for different MM product such as Deposit, Placement, etc. It is also used for modification, Cancellation and authorization of the already booked deal.

Mandatory Inputs for a deal booking are marked with Red Labels while the fields with blue labels are conditional mandatory and black ones are optional.

4.1.1 Screen Layout & Functional Description

Navigation Path: Intellect™ One Treasury >>Money Market>> Front Office >>Deal Capture

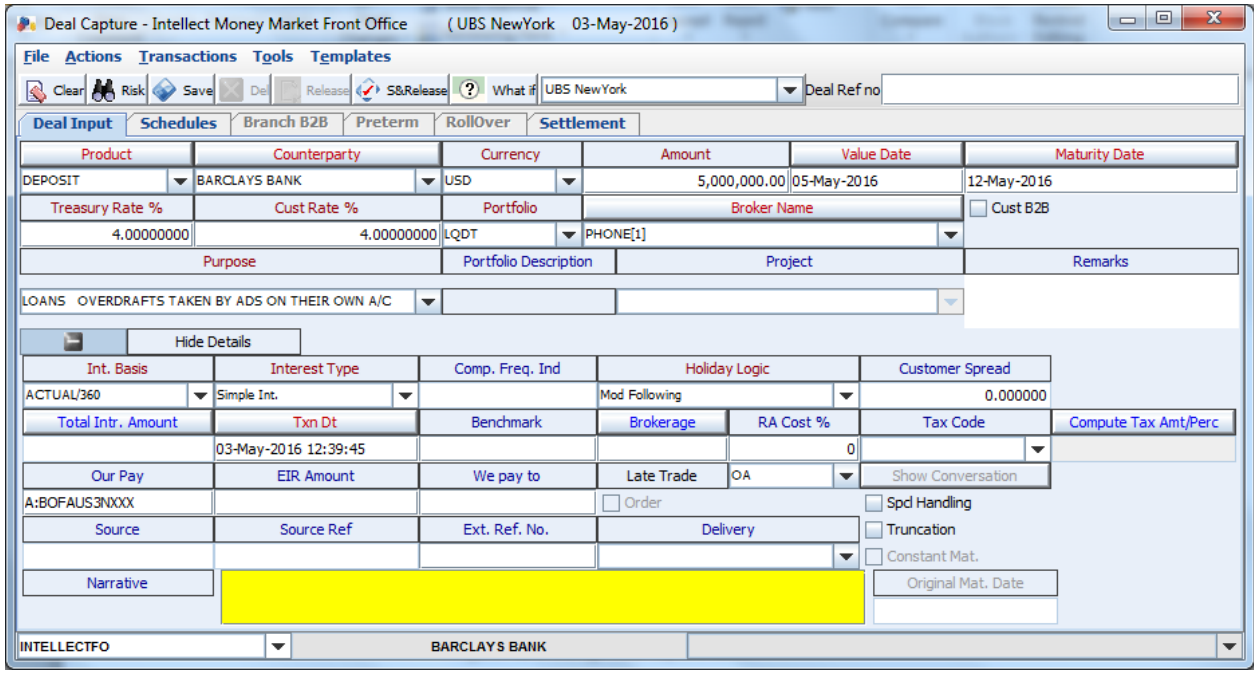
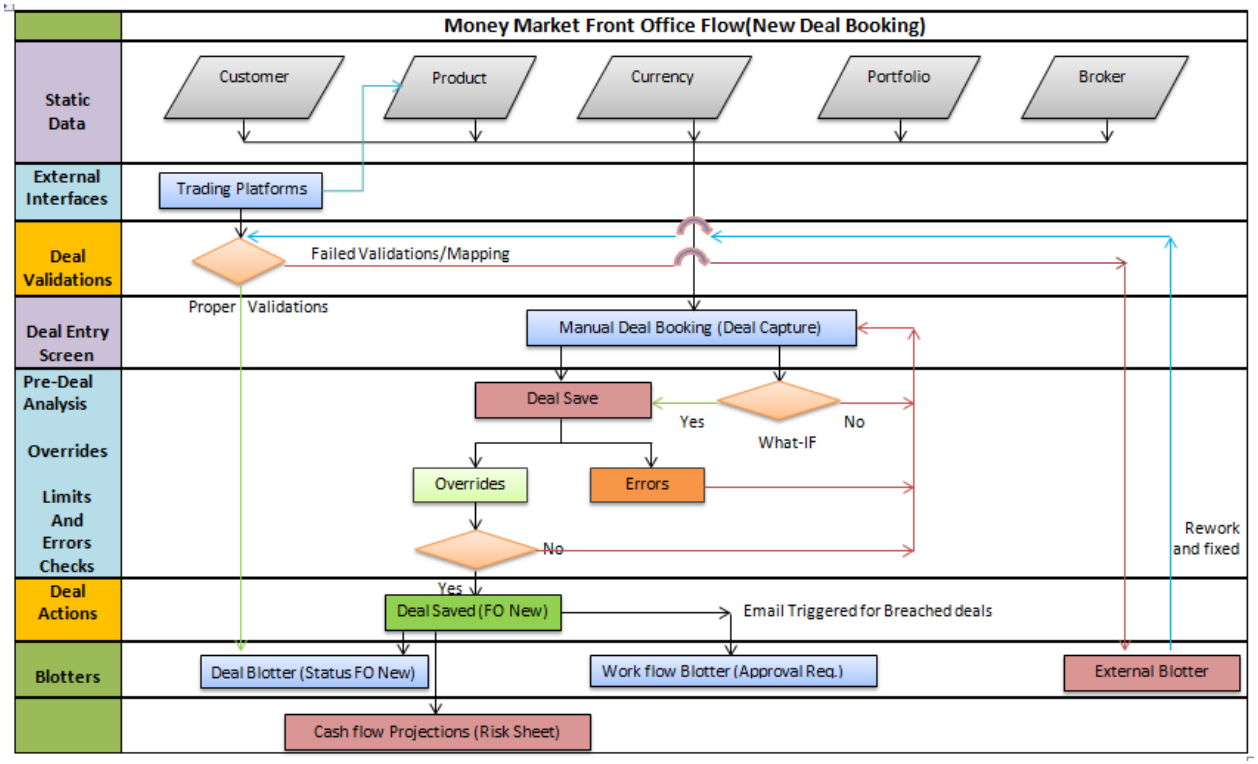


Figure: MMFO Deal Capture Screen

4.1.3 Process Flow



4.1.4 Process Description

- **Prerequisites**

- Product
- Customer
- Currency
- Portfolio
- Broker name

➢ To capture Deposit deal in the system, basic details should be entered like Product, Counterparty, Currency, Value Date, Maturity date, Treasury Rate, Customer Rate along with Portfolio and Broker details.

➢ Based upon Amount, Customer rate and Deal tenor, the System Calculates the total interest by use of following formula

Tenor/100

➢ User can check for Pre-Trade Analysis using What-IF Feature available in the system.

➢ After What-IF Verification, as per process flow of new deal booking, deal can be saved in the system. While Saving System Prompts for Hard (Errors) and Soft Checks (Overrides) as configured in the application at product level.

- While booking/Saving the deal, application verifies the business validations and in case of any breaching/violation of business rules, the same will be displayed on the Screen. Now the deal has been saved. For further actions on deal(s) please refer to the section 4.3 User Actions

- Once the deal has been booked, System generated a unique reference number and same will be stored in the application.

  For example: **2**EC1612400072

  Where 1st digit represents Module Number (Money Market deals starts with2ECXXXXX Series)

  Next Two Alphabets = Booking centre

  Next 5 digits stand for System Defined JDate

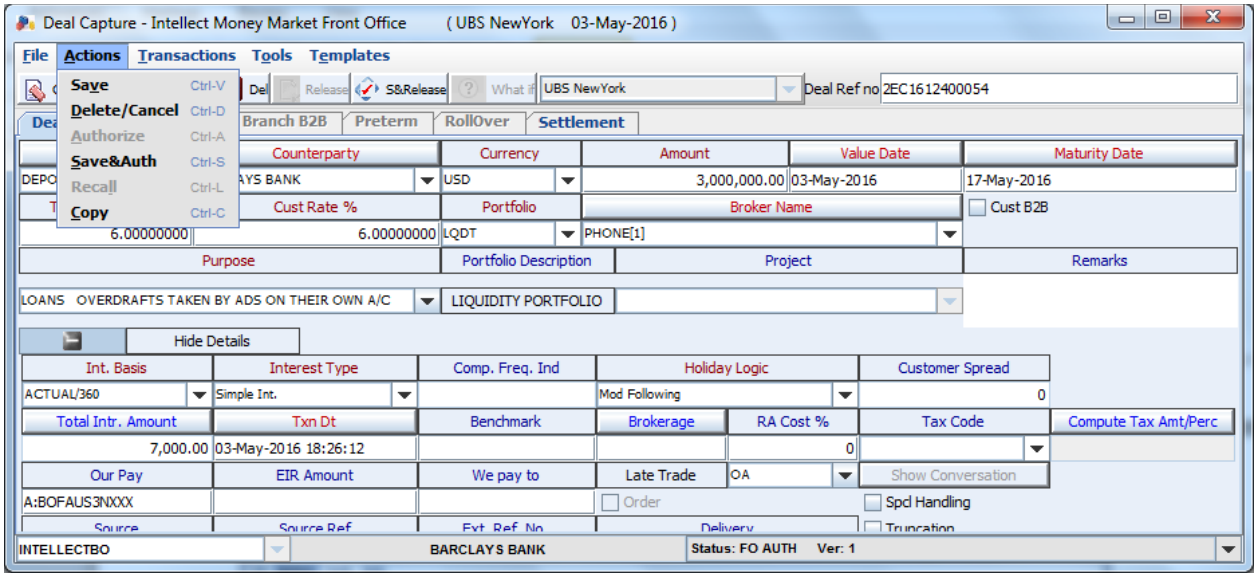
  Last 5 digits are for unique number generation. (It takes values from 1 to 99999)

- In case of Limit Breach, the deal sent to Workflow Blotter for approval and e-mail triggered from the system.

4.3 User Actions

4.3.1 Screen Layout & Path

Navigation Path: Intellect One Treasury >> Money Market >> Front Office >>Actions



4.3.2 Description

- Prerequisites
  - Deal Should be already entered in the system
  - Valid or Proper Entitlement to take Actions

User can perform action/s on the deal using tools and then selecting desired option or by using directly the menu icons provided in the deal capture screen.

Following table shows the Action performed by the user and its impact on deal status.

S. No.	Current Deal Status	Action Performed	Revised Deal Status	Subsequent Actions Possible
1.	FO NEW	Modification	FO MODIFIED	Cancellation , Authorization
2.	FO NEW	Cancel	FOCANCEL	No Further action is possible in Front Office
3.	FONEW	Saved	FOAUTHORIZED	Direct Cancellation is not possible in FO.
4.	FOMOD	Saved	FOAUTHORIZED	No Action in FO, After Send Back Only the deal can be modified.
5.	FO MOD	Cancel	FO CANCEL	No Further action is possible in Front Office.
6.	FO AUTH	Save	FO MODIFIED	Cancellation , Authorization

5.0 Middle Office Deal Management

Intellect ™ Treasury Application consists of comprehensive check-lists for analysing the impact of deal/trade booking (Pre and Post Analysis) in the system covering limit management, risk and Configurable alerts.

Those checks are categorized in Intellect™ One Treasury under following categories:

- Limit Management
- Pre-Trade Analysis(What-IF)
- Overrides(Soft Checks)
- Error(Hard Checks)
- Business Checks/Validations

5.1 Limit Management

Limit monitoring consists of Limit definition, online limit checking, update utilization and risk authorization. Limits are maintained using Limit definition and Limit Values Setup screens.

5.1.1 Screen Path & Setup

Navigation Path: Intellect™ One Treasury >> Setup >> Risk Management

5.1.2 Description

Intellect ™ One Treasury System, Limit maintenance is a two-step process. First the proposed limit should be defined in the System. After defining and authorization, Values are assigned using Limit Values Setup Screen. Following are the limits which are supported for MM transactions

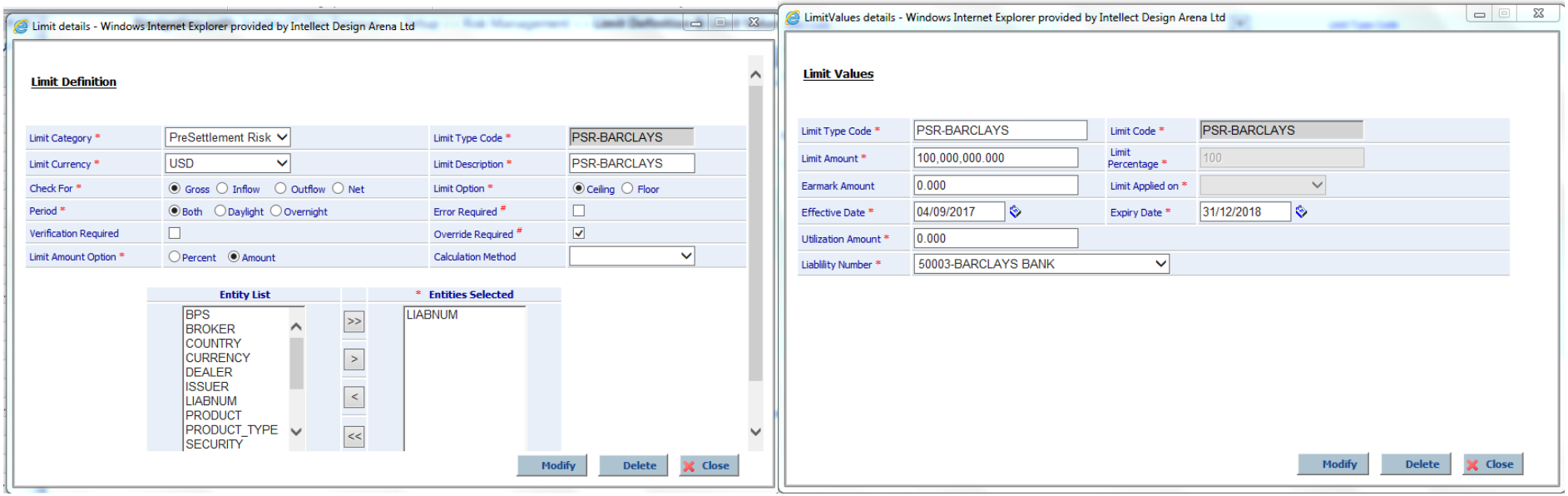
- Pre-Settlement Risk (PSR Limit)
- Rate Reasonability Check (RRC Limit)

5.1.2.7 Pre Settlement Risk (PSR) Limit

Pre-Settlement is computed by the System during Deal Entry (Including all the events that modify the deal.) before Settlement.

5.1.2.7.1 Screen Layout & Setup

Navigation path: Intellect™ One Treasury >> Setup >> Risk Management >> **Limit Definition & Limit Values**.



5.1.2.7.2 Description

- Prerequisites
  - Limit Currency
  - Entity List

- Liability Number(Customer)

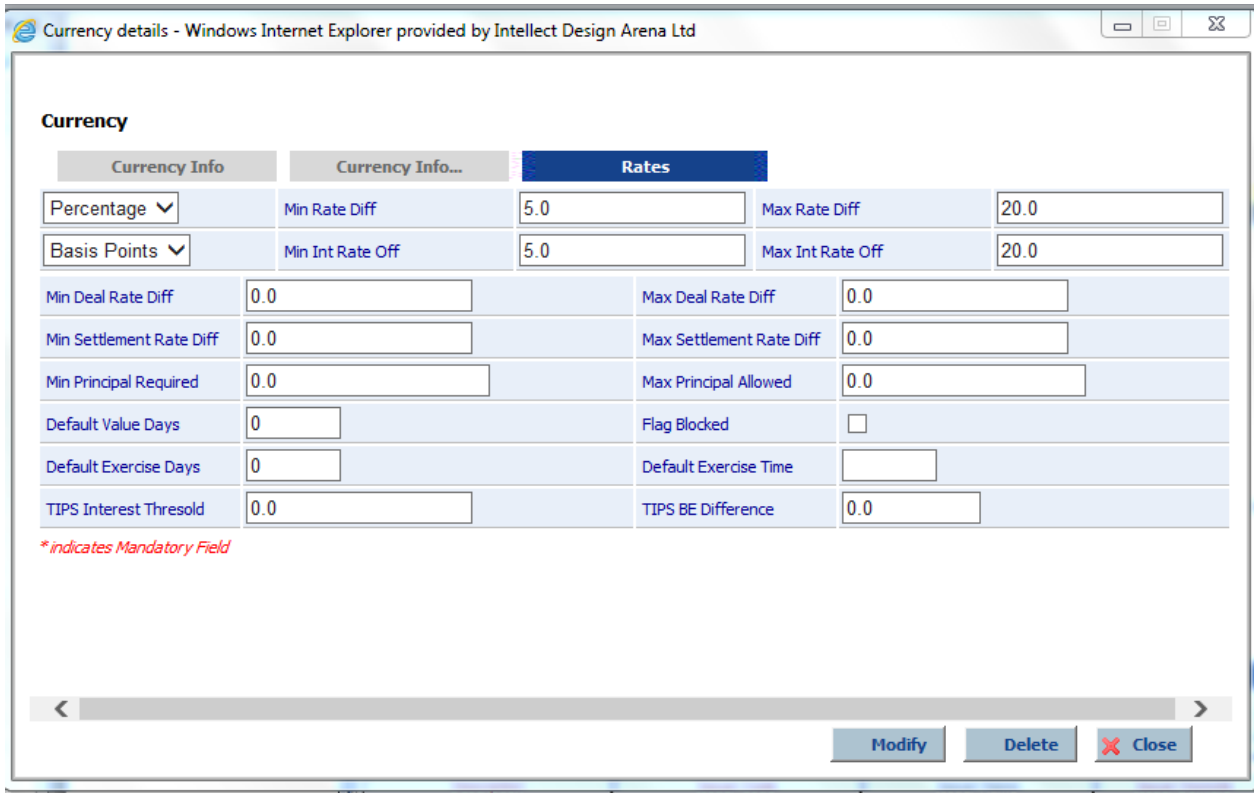
5.2 Business Checks

5.2.1 Rate Reasonability Check

During deal entry process Rate reasonability check is performed for ensuring that the price is within a defined range or not. In Currency maintenance, Rates tab, minimum and maximum values are defined. It can be defined either in terms of absolute value or percentage.

5.2.1.1 Screen Layout and Setup

Navigation Path: Intellect One Treasury >> Setup>>Startup >> Currency



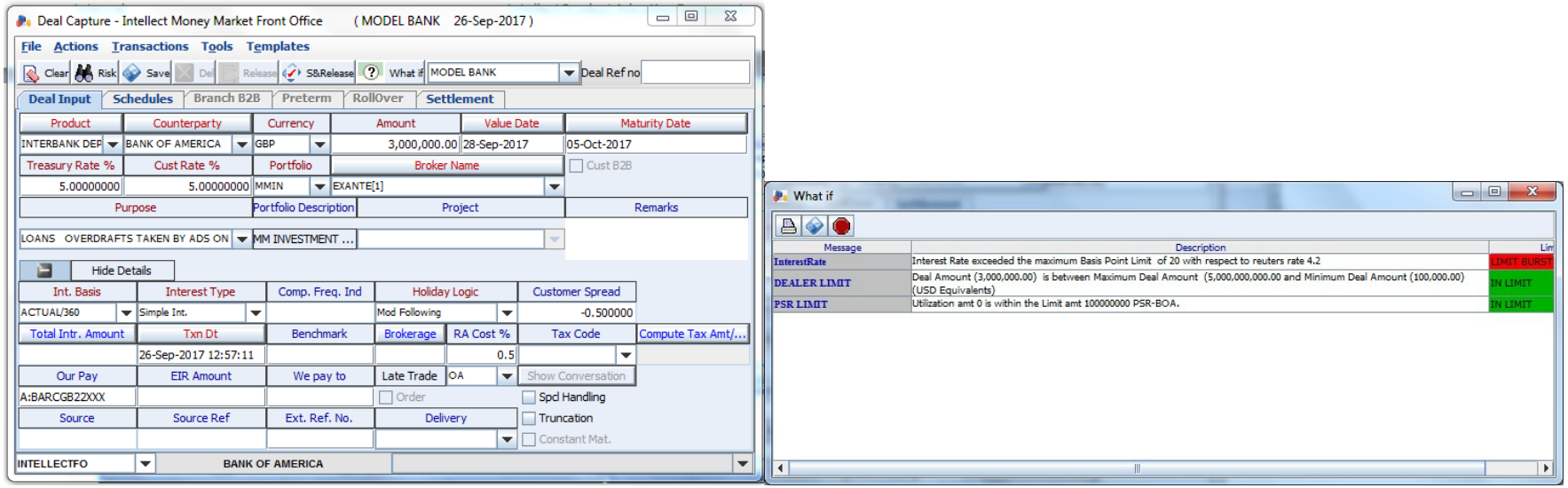
5.2.1.2 Description

- **Prerequisites**

To Enable RRC Check in the application, following configuration should be done

- In Product Master >> Add/Modify Overrides section, Both Override and Deal Verification check boxes should be marked as YES for Rate reasonability check.

- In Internal Info Maintenance >> Parameter Name (CHECKREUTER_RRC) should be marked as 'ONLINE' mode.



Based on the values maintained in the setup, the What IF will display the Interest rate "IN LIMIT" or "LIMIT BURST" for the specific currency in which the deal is being booked.

5.2.4 Other Checks

Other Business checks which are done in the system while deal booking are as follows

- Back valued date check
- Transaction or value date falling on holidays
- Maturity date falling on holidays

5.3 What-IF Analysis

What- IF is used to see the effect of booking an intended deal without actually booking it in the system. It acts as a decision making tool for the dealers. What-IF Screen checks for

a) Deal Data and various limits applicable for the deal based upon entered data

b) Non-input of any mandatory field data to book a deal

5.3.1 Screen Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front Office>> Deal Capture >>What-IF Screen.

Refer Limit Checks for Screenshots.

5.3.2 Description

- Prerequisites
  - Limit Definition and Values

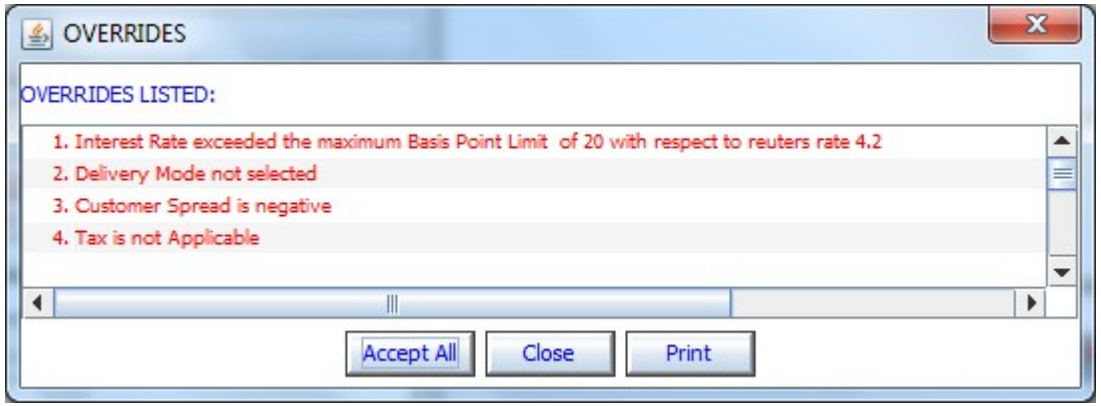
S. No.	Descriptions	Remarks
1	This field will display the type of Check.	Checks defined like Various Limits and validations
2.	Description of the check	Details related to Limits and Business Checks.
3.	Whether the check defined is within the limit or it is breaching the limit	Colour Codes are used here.

5.4 Overrides (Soft Checks)

Intellect ™ One Treasury Application supports configuration of Soft checks (Overrides) in the system at product level which will be used at the time of trade booking to check the impact. Dealer can accept and book the deal in case of overrides.

5.4.1 Screen Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front Office>> Deal Capture >>Save/Authorization>>Overrides (Soft Check)



5.4.2 Description

- **Prerequisites**
  - Limit Breach or any exception for which Override check is defined.

In One Treasury application, Overrides are configured in Setup Screens at product level under below path.

Navigation Path: Intellect™ One Treasury>> Setup >>Start Up >>Product>>Create New/Modify >> Add/Modify Overrides.

Overrides are also configured for limit validations/checks at limit definition level.

- **Navigation Path:** Intellect™ One Treasury>> Setup >> Risk Management Limit Definition>>Create New/Modify >> Add/Modify Overrides.

Override Name	Error Required	Override Required	Deal Verify required
BACK VALUED MESSAGES	Yes No	Yes No	Yes No
SUB LINE CHECK	Yes No	Yes No	Yes No
MAIN LINE CHECK	Yes No	Yes No	Yes No
TRANSACTION DATE HOLIDAY	Yes No	Yes No	Yes No
BACK VALUED TRANSACTION DATE	Yes No	Yes No	Yes No
MATURITY DATE HOLIDAY	Yes No	Yes No	Yes No
BACK VALUED MATURITY DATE	Yes No	Yes No	Yes No
FROM DATE HOLIDAY	Yes No	Yes No	Yes No
BACK VALUED FROM DATE	Yes No	Yes No	Yes No
INTEREST DATE	Yes No	Yes No	Yes No
INTEREST RATE	Yes No	Yes No	Yes No
ACCRUAL RATE	Yes No	Yes No	Yes No
INTEREST RATE	Yes No	Yes No	Yes No
NEW INTEREST RATE	Yes No	Yes No	Yes No
CP Concentration Limits	Yes No	Yes No	Yes No
LINK DOWN AUTH	Yes No	Yes No	Yes No
DEALER LIMIT	Yes No	Yes No	Yes No
PSR LIMIT	Yes No	Yes No	Yes No
DELIVERY MODE MANDATORY	Yes No	Yes No	Yes No

5.4.3 Actions

S.No.	Action Button	Action Performed	Application Behaviour
1	Print	Printing of the Overrides messages	Application will print the details.
2	Accept All	Accepting the Overrides Messages	After Acceptance deal can be booked.
3	Close	Close the pop-up	Closing of Overrides Pop-up

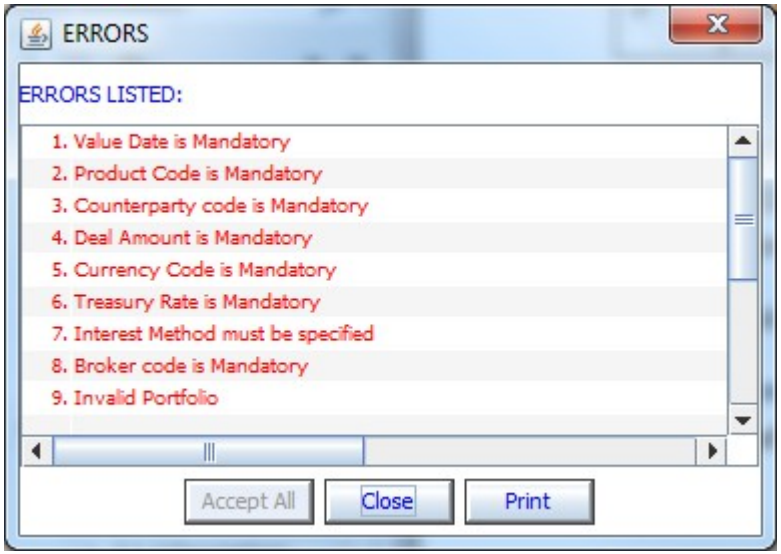
5.5 Error (Hard Checks)

Intellect ™ One Treasury Application supports configuration of Hard checks (Errors) in the system at product level which will be used at the time of trade booking to check the impact. In case of Errors, Dealer cannot accept it and won't be able to book the deal.

Errors will also be shown in case of non-input of data for mandatory fields.

5.5.1 Screen Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front Office>> Deal Capture >>Save/Authorization>>Errors (Hard Check)



5.5.2 Description

- **Prerequisites**
  - Limit Breach or any exception/field Validations for which Error check is defined or selected.

In Intellect ™ One Treasury Errors (Hard Checks) are configured in similar manner as of Overrides configuration. Refer to Section 5.4.3 for More Detail.

5.5.3 Actions

S.No.	Action Button	Action Performed	Application Behaviour
1	Print	Printing of the Error messages	Application will print the details.
2	Accept All	Accepting the Error Messages(Disabled here)	After Acceptance deal can be booked(Disabled here)
3	Close	Close the pop-up	Closing of Error Pop-Up

6.0 Back Office Deal Management

Intellect™ One Treasury MM Back Office module support various aspects of deal verification/enrichment and authorization for the booked deals. Back Office process also includes Settlement, delivery and confirmation of the deals. It also provides transmission of financial instructions through swift alliance. Following are some prominent features of MMBO Module which is available in the system.

Figure: Back Office Functionality

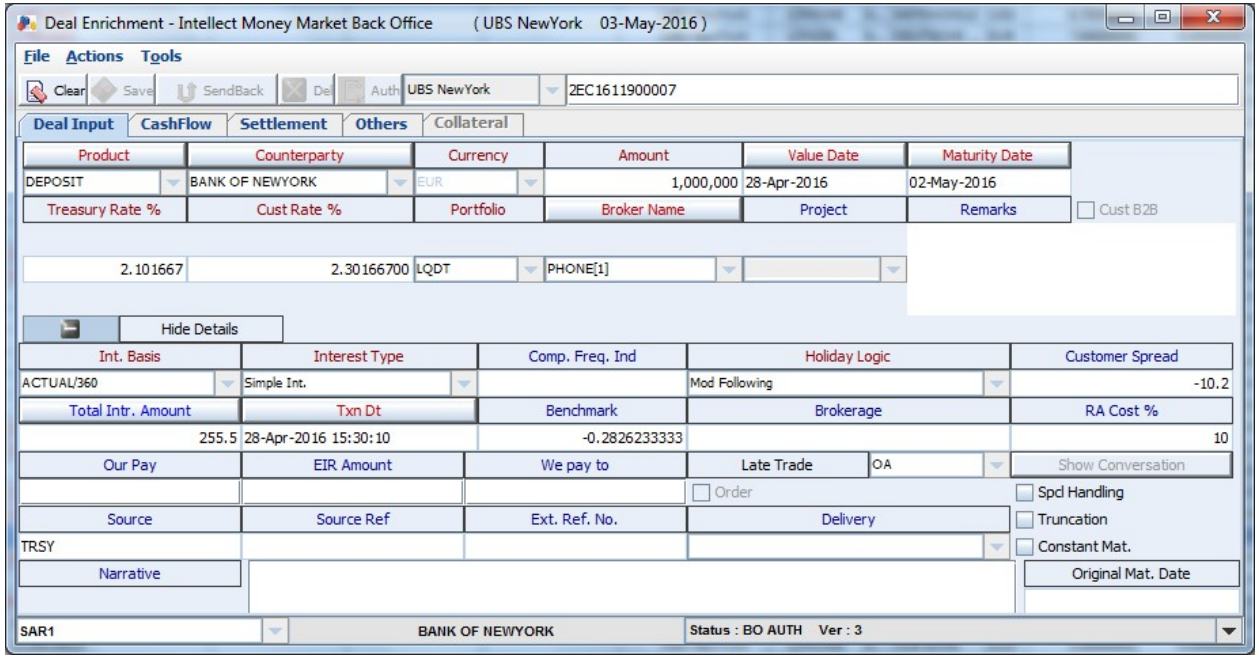
6.1 Deal Enrichment Process

Deal Enrichment Screen is used to verify details for FO Authorized deals. The user can also verify the cash flows, settlement, and confirmation of the deals.

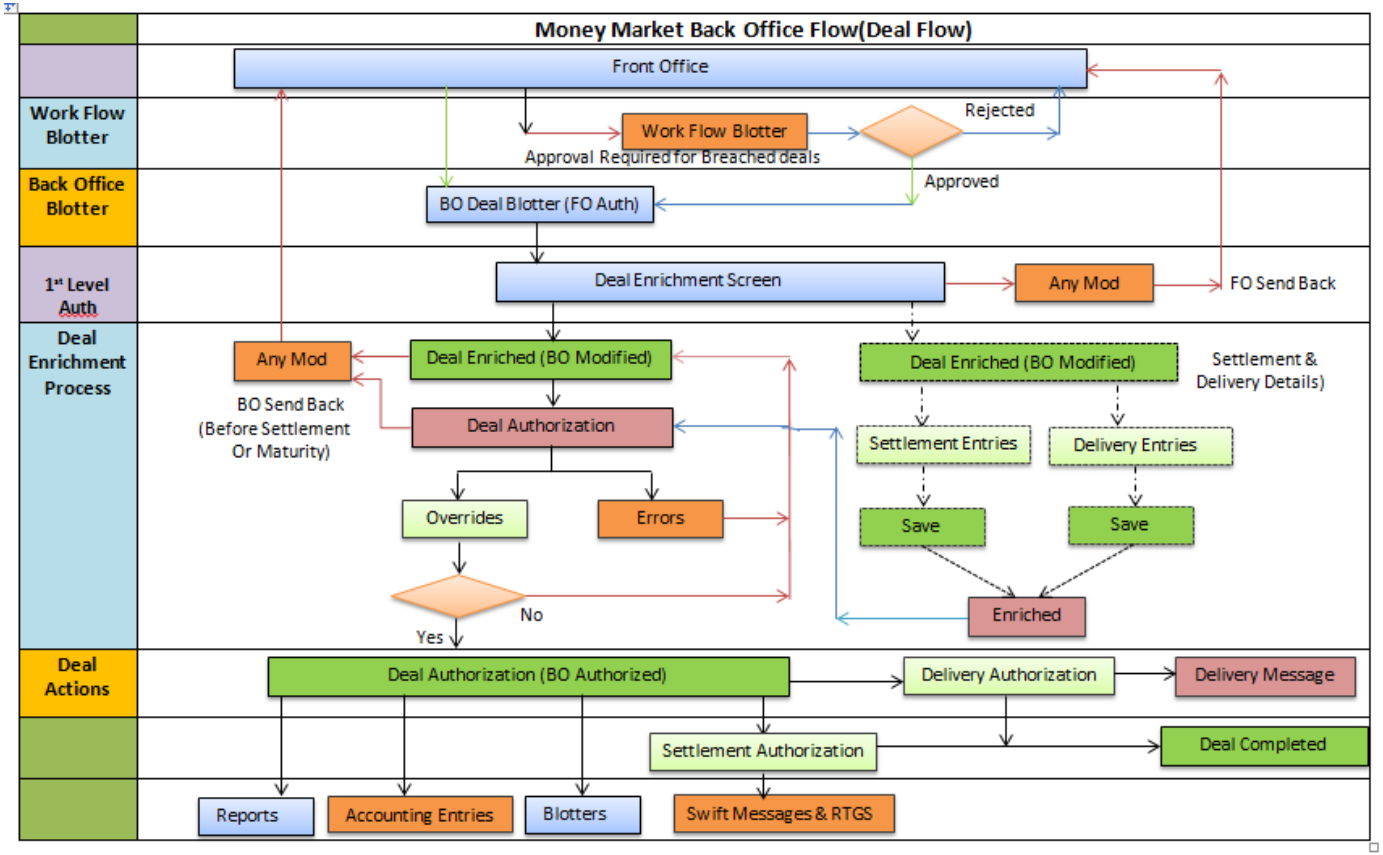
6.1.1 Enrichment of Outright Deal

6.1.1.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Back Office >> Deal Enrichment



6.1.1.2 Process Flows



6.1.1.3 Process Description

- Prerequisites
  - Deal should be Front Office Authorised
  - Standard Settlement Configuration
  - Accounting Configuration
  - SWIFT Messages Configuration

6.1.1.3.1 Deal Enrichment

- To start the enrichment of the deal in Back Office, the deal should be authorized in Front Office.
- Enrichment begins with verification of deals. In Deal Input tab, almost all the fields are disabled for modification.
- In the Cashflow tab it will display the Net Cashflow and Interest P/R
- In the Settlement tab it will display the Settlement data for the deal based on the pre-configured Standard Settlement instructions in the Setup.
- In the Others tab the deal status is FOAUTH and the Confirmation status is UnConfirmed.
- In case of wrong data or some mismatch, User can revert the deal to Front Office by using SENDBACK feature.
- If all the data's entered is correct, User enriches the deal by clicking on the Save button (BO 1st level Authorization). Deal Status is BO_ENRICH.

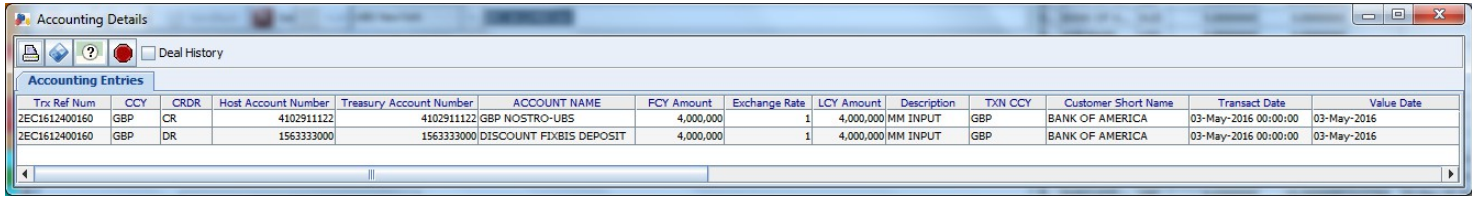
6.1.1.3.2 Confirmation Enrichment

In the Others tab, click on the Manual Confirmation button to confirm the deal.

- Based upon details entered, preview of confirmation message can be viewed.

6.1.1.3.3 Accounting Entries

In Intellect™ One Treasury, once the deal is back office authorized configured entries will get generated. User can verify the Accounting entries in the Deal enrichment screen by selecting the Tools>>Show Accounting Entries menu.



Trx Ref Num	CCY	CRDR	Host Account Number	Treasury Account Number	ACCOUNT NAME	FCY Amount	Exchange Rate	LCY Amount	Description	TXN CCY	Customer Short Name	Transact Date	Value Date
2EC1612400160	GBP	CR	4102911122	4102911122	GBP NOSTRO-UBS	4,000,000	1	4,000,000	MM INPUT	GBP	BANK OF AMERICA	03-May-2016 00:00:00	03-May-2016
2EC1612400160	GBP	DR	1563333000	1563333000	DISCOUNT FIXBIS DEPOSIT	4,000,000	1	4,000,000	MM INPUT	GBP	BANK OF AMERICA	03-May-2016 00:00:00	03-May-2016

Sr. No	Deal Event	Description
1	Trade Date	Contingent Entries
2	Value Date	Actual Input entries, Contingent Reversal
3	Maturity Date	Maturity Entries

1.1.2 Deal Authorization

1.1.2.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Back Office >> Deal Enrichment Screen.

Kindly refer to the section for screenshot.

6.1.2.1 Description

- Pre-requisites
  - Deal should be enriched (settlement and delivery details) condition
  - BO authorizer is different from the maker
- After Delivery and settlement enrichment the deal will be available for Back office authorization. On authorizing the deal, the deal status will change to BO AUTH and confirmation message MT 320 is generated. Based upon accounting configurations in the system, relevant entries are passed.

6.1.6 Deal Amendment

Intellect One Treasury supports amendment of the deal details prior to the settlement. To modify/amend the deals, system supports Send Back functionality to send the deals into FO for modification. System requires reason for send back of any deal. Deal details except settlement, delivery cannot be amended in back office. System reverses all the accounting entries and the new set of entries are passed for the new deal details.

Deal Capture - Intellect Money Market Front Office (UBS NewYork 28-Apr-2016)

File Actions Transactions Tools Templates

Clear Risk Save Del Release S&Release What if UBS NewYork Deal Ref no 2EC1611900006

Deal Input | Schedules | Branch B2B | Preterm | RollOver | Settlement

Product	Counterparty	Currency	Amount	Value Date	Maturity Date
Placements	BARCLAYS BANK	USD	1,000,000.00	29-Apr-2016	02-May-2016

Treasury Rate %	Cust Rate %	Portfolio	Broker Name	Cust B2B
3.30000000	3.30000000	LQDT	PHONE[1]	

Purpose	Portfolio Description	Project	Remarks
LOANS OVERDRAFTS TAKEN BY ADS ON THEIR OWN A/C	LIQUIDITY PORTFOLIO		BO SendBack Reason Code : Dlr error corrected immediately

Hide Details

Int. Basis	Interest Type	Comp. Freq. Ind	Holiday Logic	Customer Spread
ACTUAL/360	Simple Int.		Mod Following	0

Total Intr. Amount	Txn Dt	Benchmark	Brokerage	RA Cost %	Tax Code	Compute Tax Amt/Perc
275.00	28-Apr-2016 15:12:06			0		

Our Pay	EIR Amount	We pay to	Late Trade	OA	Show Conversation
A:BOFAUS3NXXX			Order		Spd Handling

Source | Source Ref | Ext. Ref. No | Delivery | Truncation

INTELLECTBO | BARCLAYS BANK | Status: BO SENDBACK Ver: 2

6.1.8 BO User Actions

S. No	Status	User Actions	Revised Status	Subsequent Action(s)

	FO Authorized	Send Back	FO Send Back	FO Save , FO Cancellation, FO Modify
	FO AUTHORIZED	BO 1st level Save	BO_MODIFIED	BO AUTH,SENDBACK
	BO Modified or BO Enriched(Before Settlement)	Send Back	BO Send Back	FO Save , FO Cancellation, FO Modify
	BO Authorized (Before Settlement	Send Back	BO Send Back	FO Cancel(Reversal Auth)

6.1.9 Swift Messages

Intellect One Treasury supports configuration and creation of swift messages .See below excel sheet for the swift messages supported in the system.

7.0 Reports

Intellect™ One Treasury generates all the important reports related to money market module. As part of reporting functionality, System generates online as well EOD reports based upon configuration. Following are the list of important reports along with its description.

S. No	Report Name	Report Description
1	**Outstanding Report**	MM Outstanding Deposits/Placements Report
	Deal Slip	All MM deal slips report
	QAC1017	Statement of Investments (renewals as well as fresh placements) and disinvestments
	QAC2008	Details of Money Market (FCB) deals
	QBS2002	Summary of interest accrued but not realised on BIS deposits
	QAC5008	Details of Money Market (FCB) deals for Value Date

P.S: Reports are customizable and based upon business requirement it can be modified.

8.0 Interfaces

Intellect™ One Treasury Money Market Module supports following interfaces for pricing, rates and trades.

S. No	Category	Interface Name	Description
1.	Market Rates	Bloomberg	
2.	Market Rates	Reuters	

9.0 Utility Features

Intellect™ One Treasury provides and supports wide range of utility features across all the modules. Some of them are as follows

- Blotters
  - Deal Blotter
  - Deal Query
- Deal Compare

- On Behalf functionality
- Concurrent Audit
- Deal Slip
- User Console

9.1 Blotters

It is an excel look like GUI to view the various details of deals such as positions, holdings and other important attributes. Hyperlink

9.1.1 Deal Blotter

Deal blotter displays the list of all the deals done today or for a selected time period based on the user preferences.

9.1.1.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front Office/Back Office>> Deal Blotter

De...	Deal No	Status	Last Updat...	A...	Amount	Audit By	Audit Date	Audit Remarks	Audit Status	Ben...	Brn Name	Br...	Broker N...	C...	Counterparty...	Curr...	Cust Rate	Customer Spread	De
	2EC1611900022	FO NEW	28-Apr-16 ...	1	400,000	0					UBS NewYork	1	PHONE	8...	BANCO CEN...	CAD	4.00000000	0.00000000	
	7EC1612000013D	FO NEW	29-Apr-16 ...	0	66,570,000	0				CASH	UBS NewYork	1	PHONE	8...	ANTRACHILE	INR	34.82799500	0.00000000	
	7EC1612000013P	FO NEW	29-Apr-16 ...	1	(1,000,000)	0					UBS NewYork	1	PHONE	8...	ANTRACHILE	USD	6.00000000	0.00000000	
	2EC1612000010	FO MOD	29-Apr-16 ...	1	2,000,000	0					UBS NewYork	1	PHONE	8...	ADB BANK	USD	3.00000000	0.00000000	
	2EC1612000012	FO MOD	29-Apr-16 ...	1	4,000,000	0					UBS NewYork	1	PHONE	8...	BANK OF A...	GBP	5.00000000	-10.00000000	
	2EC1611900010	FO MOD	29-Apr-16 ...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	BANK OF A...	AUD	5.00000000	0.00000000	
	2EC1612300004	FO NEW	02-May-16...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	ADB BANK	USD	8.90000000	0.00000000	
	2EC1612400125	FO NEW	03-May-16...	1	100,000	0					UBS NewYork	1	PHONE	8...	ADB BANK	EUR	6.00000000	-10.00000000	
	2EC1612400050	FO NEW	03-May-16...	1	200,000	0					UBS NewYork	1	PHONE	8...	BANK OF A...	USD	4.00000000	0.00000000	
	7EC1612400078D	FO MOD	03-May-16...	1	1,000,000	0				CA...	UBS NewYork	1	PHONE	8...	ANTRACHILE	USD	1.02573000	0.00000000	
	7EC1612400078P	FO MOD	03-May-16...	1	(1,000,000)	0					UBS NewYork	1	PHONE	8...	ANTRACHILE	USD	6.00000000	0.00000000	
	7EC1611900031P	FO NEW	03-May-16...	1	(1,000,000)	0					UBS NewYork	1	PHONE	8...	BANCO DE ...	USD	3.00000000	0.00000000	
	7EC1611900031D	FO NEW	03-May-16...	1	1,000,000	0				CA...	UBS NewYork	1	PHONE	8...	BANCO DE ...	USD	0.86921000	0.00000000	
	2EC1612400077	FO NEW	03-May-16...	0	1,000,000	0				LIB...	UBS NewYork	1	FXCM	8...	ADB BANK	USD	0.00000000	0.00000000	
	7EC1611900040D	FO NEW	03-May-16...	1	2,000,000	0				CA...	UBS NewYork	1	PHONE	8...	BANCO SAN...	USD	0.86921000	0.00000000	
	7EC1611900040P	FO NEW	03-May-16...	1	(2,000,000)	0					UBS NewYork	1	PHONE	8...	BANCO SAN...	USD	4.00000000	0.00000000	
	2EC1612400070	FO NEW	03-May-16...	1	1,250,000	0					UBS NewYork	1	PHONE	8...	BANCO DE ...	GBP	0.00000000	0.00000000	
	2EC1612400080	FO NEW	03-May-16...	1	5,267,000	0					UBS NewYork	1	PHONE	8...	AUGUSTINA...	CAD	0.25080000	-0.00080000	
	2EC1612400058	FO AUTH	03-May-16...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	BANK OF N...	USD	4.60000000	0.00000000	SY
	2EC1612400113	FO AUTH	03-May-16...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	BANK OF A...	USD	5.00000000	0.00000000	SY
	2EC1612400111	FO AUTH	03-May-16...	1	2,000	0					UBS NewYork	1	PHONE	8...	BANK OF N...	INR	8.00000000	0.00000000	SY
	2EC1612400110	FO AUTH	03-May-16...	1	1,000	0					UBS NewYork	1	PHONE	8...	BANK OF N...	INR	2.00000000	0.00000000	SY
	2EC1612400109	FO AUTH	03-May-16...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	BARCLAYS ...	USD	2.50000000	0.00000000	SY
	2EC1612400115	FO AUTH	03-May-16...	1	3,000	0					UBS NewYork	1	PHONE	8...	BANK OF E...	USD	2.00000000	0.00000000	SY
	2EC1612400055	BO AUTH	03-May-16...	1	1,000,000						UBS NewYork	1	PHONE	8...	CALICHERA	USD	1.00000000	0.00000000	SY
	2EC1612400065	BO ENRICH	03-May-16...	1	1,000,000						UBS NewYork	1	PHONE	8...	AUGUSTINA...	USD	2.30000000	0.00000000	SY
	2EC1612400143	FO AUTH	03-May-16...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	ADB BANK	CAD	1.00000000	0.00000000	SY
	7EC1612400005P	FO SENDBACK	03-May-16...	1	(100,000)						UBS NewYork	1	PHONE	8...	AUGUSTINA...	INR	8.50000000	-0.50000000	SY
	7EC1612400005D	FO AUTH	03-May-16...	1	100,000					CASH	UBS NewYork	1	PHONE	8...	AUGUSTINA...	INR	59.92882600	0.00000000	SY
	2EC1612400019	BO CANCEL/AUTH	03-May-16...	1	10,000						UBS NewYork	1	PHONE	8...	CALICHERA	USD	1.00000000	0.00000000	SY
	2EC1612400011	BO CANCEL/AUTH	03-May-16...	1	1,000						UBS NewYork	1	PHONE	8...	CALICHERA	USD	1.00000000	0.00000000	SY
	2EC1612400018	BO AMEND	03-May-16...	1	100,000						UBS NewYork	1	PHONE	8...	CALICHERA	USD	1.00000000	0.00000000	SY
	2EC1612400027	FO AUTH	03-May-16...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	BARCLAYS ...	USD	3.00000000	0.00000000	SY
	2EC1612400026	FO AUTH	03-May-16...	1	1,000,000	0					UBS NewYork	1	PHONE	8...	BARCLAYS ...	USD	3.00000000	0.00000000	SY
	2EC1612400010	BO AMEND/AUTH	03-May-16...	1	1,100,000						UBS NewYork	1	FXCM	8...	BANK OF A...	USD	9.00000000	0.00000000	SY
	2EC1612400009	BO AUTH/MOD	03-May-16...	1	2,000,000						UBS NewYork	1	FXCM	8...	BANK OF A...	USD	9.00000000	0.00000000	SY
	2EC1612400008	FO AUTH	03-May-16...	1	1,000,000						UBS NewYork	1	PHONE	8...	BANK OF A...	USD	2.30000000	0.00000000	SY
	2EC1612400007	FO AUTH	03-May-16...	1	1,000,000						UBS NewYork	1	PHONE	8...	BANK OF A...	USD	2.30000000	0.00000000	SY

9.1.1.2 Description

- **Prerequisites**
  - Deals available in the system
  - User Preferences

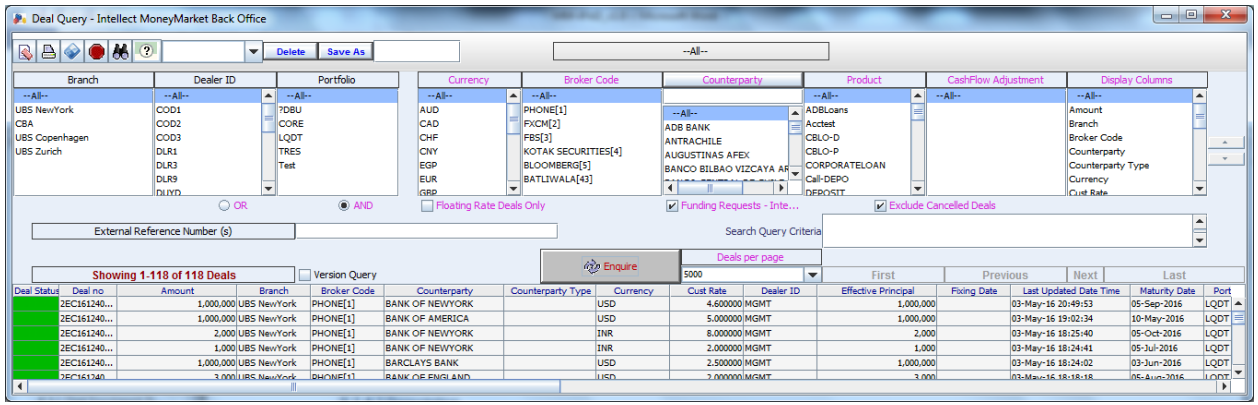
All the attributes of the deal displayed in deal blotter and it gets updated as soon as the deal is booked. So, Intellect™ One Treasury Deal Blotters are updated on a real time basis. By double clicking a particular deal, a deal can be fetched from Deal Blotter onto the Deal Capture Screen for any further action.

9.1.4 Deal Query

Intellect™ One Treasury has deal query screen to search for all the MM deals booked in the application.

9.1.4.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front Office/Back Office >>Deal Query



9.1.4.2 Description

- Prerequisites
  - Deals should be available in the system
  - User Preferences

Deal Query is a very powerful tool as it provides an option to use operators such as AND/ OR for filtering criteria's and used for various reporting and analysis purposes.

9.1.5 Features of Blotters

- Intellect™ One Treasury Blotters have some common features which are
  - User Preferences
  - Spooling and Printing of Blotter data
  - Sorting and Column Arrangements
  - Help
  - Refresh

9.3 Concurrent Audit

Intellect One Treasury application have concurrent audit feature to verify the deal details, Reuters conversation and counterparty confirmation in a single screen.

9.3.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Back Office >> Deal Enrichment>>Tools>>Concurrent Audit

<<Screenshot will be attached >>

9.3.2 Description

- **Prerequisites**
  - Swift Messages
  - Reuters Conversation

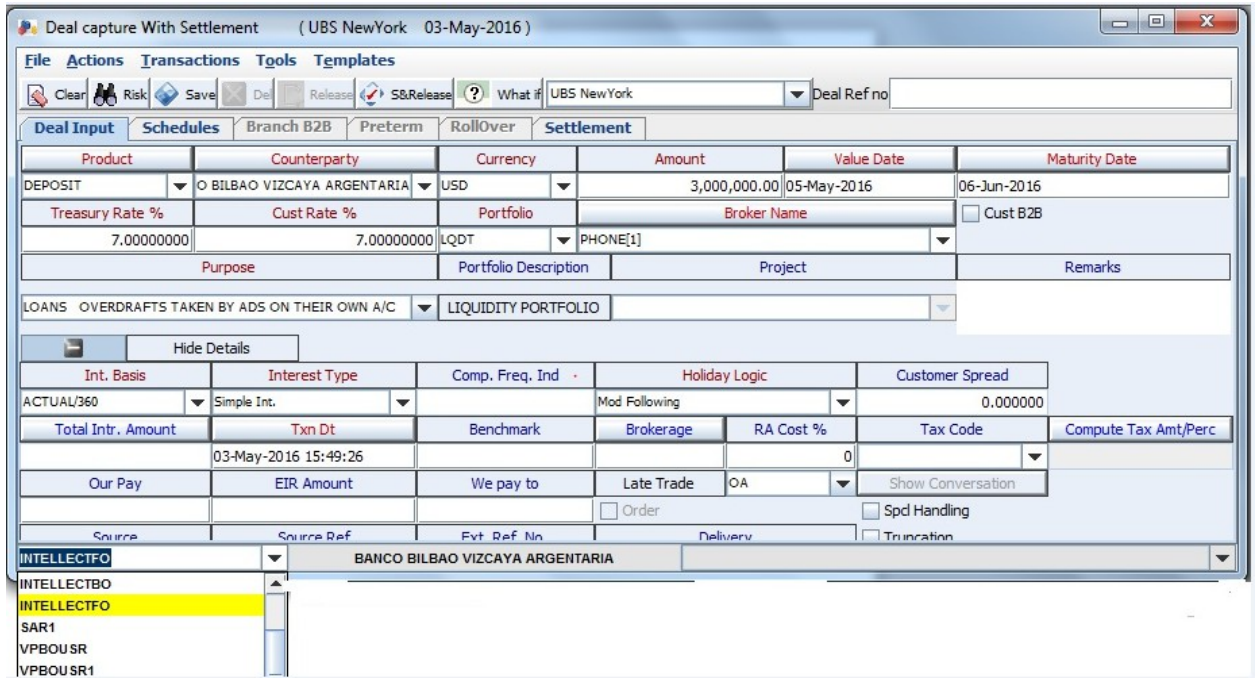
- Deal Authorized in Back Office

Concurrent Audit screen highlights the matched and unmatched data between deal details and counterparty confirmation messages.

9.4 On Behalf of Functionality

9.4.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money market >> Front Office >> Deal Capture



9.4.2 Description

- **Prerequisites**
  - Deals
  - Right to Access/Entitlements

This feature provides an option to the user for booking a deal on behalf or on account of another dealer in the system.

9.5 Deal Compare

Intellect™ One Treasury has deal compare feature for comparing the deal with it previous version(s).

9.5.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front/Back Office >> Deal Capture>>Tools>>Deal Compare

Deal Compare Ref. No: 2EC1726900007

	Version - 2	Version - 1
Deal No	2EC1726900007	2EC1726900007
Deal Date	26-Sep-2017	26-Sep-2017
Dealer Id	MGMT	MGMT
Branch Name	MODEL BANK	MODEL BANK
Product Name	INTERBANK DE...	INTERBANK DE...
Currency	USD	USD
Customer Name	DEUTSCHE BANK	DEUTSCHE BANK
Portfolio Code	MMWC	MMWC
Deal Amount	1,000,000	1,000,000
Rate Type	FIXED	FIXED
Customer Rate	3.8	3.8
Treasury Rate	3.8	3.8
Trans Date	26-Sep-2017	26-Sep-2017
Value Date	26-Sep-2017	26-Sep-2017
Maturity date	27-Sep-2017	27-Sep-2017
Spread	-3	-3
Broker Name	EXANTE	EXANTE
Purpose	BO AUTH	FO AUTH
FOMaker Id	INTELLECTFO	INTELLECTFO
FOMake Date	26-Sep-2017	26-Sep-2017
FOChecker Id	SYSTEM	SYSTEM
FOCheck Date	26-Sep-2017	26-Sep-2017
BOMaker Id	INTELLECTFO	
BOMake Date	26-Sep-2017	
BOChecker Id	INTELLECTBO	
BOCheck Date	26-Sep-2017	
Deal State	MMAuth	HISTORY
Ext Ref No		
Source	TRSY	TRSY

9.5.2 Description

- **Prerequisites**
  - Deal is available and any modification has been done

Deal Compare feature is available across all modules and helps in identifying the modification done on the deal with its original or modified state. It will display all versions under which deal has gone and unmatched data is highlighted. In case of no modification, no history found message will be displayed.

9.7 Deal Slip

Deal slip feature is used to generate deal tickets for the booked deals in the system.

9.7.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Front/Back Office >> Deal Capture/Enrichment>>Tools>>Deal Slip

9.7.2 Description

- **Prerequisites**
  - Deals booked in the system

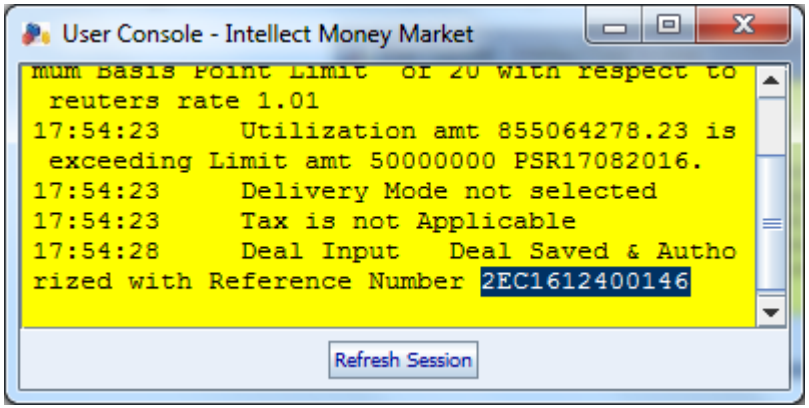
This feature is available across all the modules. System provides option to print the deal tickets also.

9.8 User Console

This utility feature is used to record the action performed on the deal such as (save, modify, delete etc.), deal overrides, warnings, exceptions and alerts in the system during the session.

9.8.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front/Back Office >> User Console



9.8.2 Description

- **Prerequisites**
  - Any Action on the deal
  - Overrides
  - Exceptions/Warnings

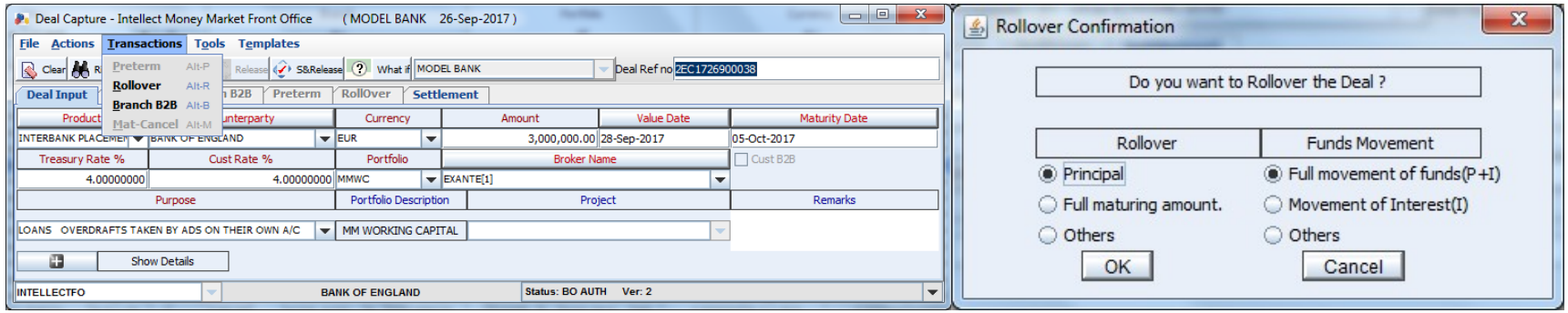
User Console acts an auditing tool also as it keep the log book for any actions. User console window will be launched automatically after logging in the system. All business impacting the actions performed by a dealer is written to the console with the timestamp.

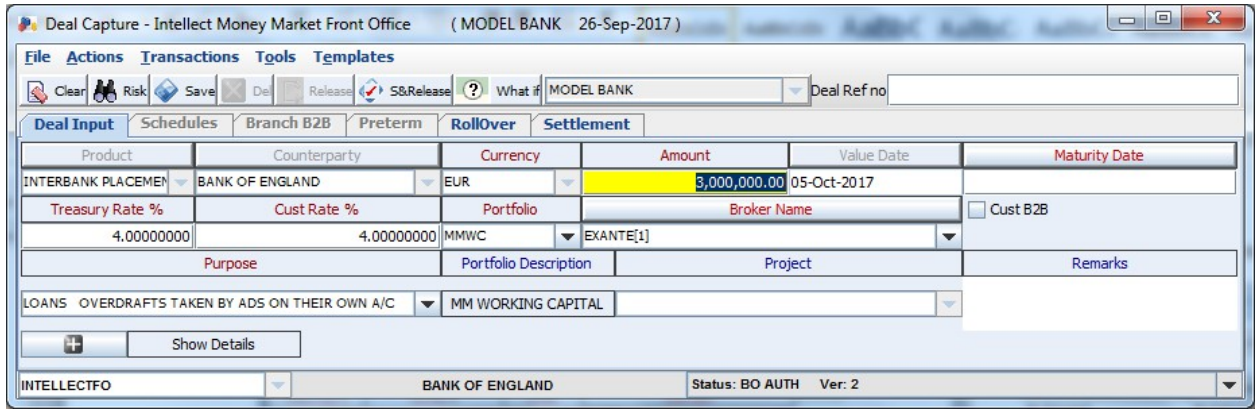
9.9 Rollover

This feature is used for an existing deal to extend further beyond its original maturity. The maturity date of the deal becomes the value date for the new deal.

9.9.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front Office >> Deal Settlement>> Transactions>> Rollover





9.9.2 Description

- **Prerequisites**

  - Deal should BO AUTH status
  - Deal should open in FO for Rolling over

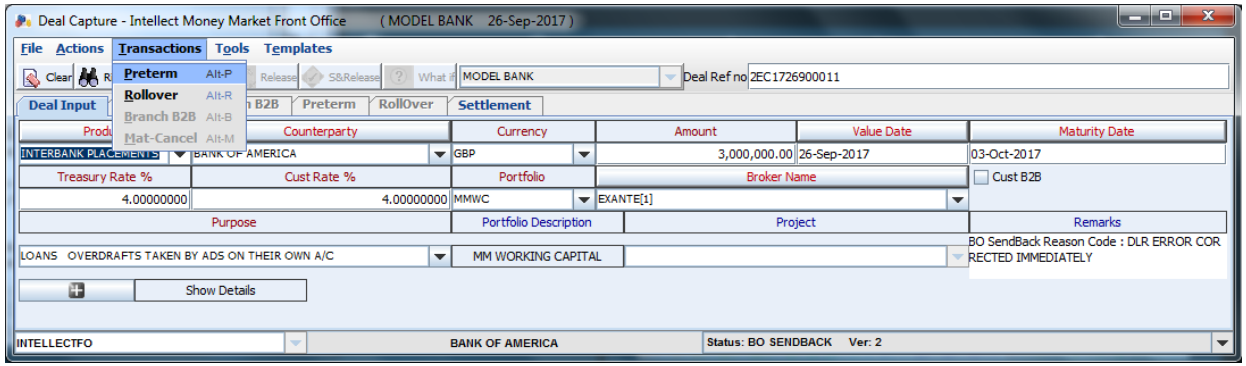
FO dealer is allowed to rollover a deal only if deal is BO authorized. Rollover can be of three types: Principal only, Principal + Interest (only if there has been no intermediary liquidation) and Other. Rollover is allowed only in Fixed Rate Deposits and placements.

9.10 Pretermination

This feature is used for discontinuing an existing deal on any given date prior to its original maturity date.

9.10.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Money Market >> Front Office >> Deal Settlement>> Transactions>> Preterm



9.10.2 Description

- **Prerequisites**
  - Deal should be BO SENDBACK status
  - Deal should not be matured
  - Break date for the deal should be less than the maturity date

This option is enabled for the FO user under the Transaction menu for a BO SENDBACK deal. Once in the Preterm tab, the user has to specify the Break date, where the pre-termination date should be less than the original Maturity Date but greater than or equal to the original Value Date. The Break amount of the deal is to be specified, for Full pre-termination, this is defaulted to the original principal. For Partially pre-termination, the amount to be pre-terminated needs to be entered in the break amount textbox.

10.0 Appendix

10.1 Computation Logic & Formulas

10.2 Field Definitions

10.2.1 Field Definitions for Deal Capture Screen

Following are the list of some important fields along with its definitions used in Deal Capture Screen.

Sl. No.	Field Names	Field Description	Data Type	Mandatory	Remarks
1.	Deal ID	This field will display Treasury Deal ID or reference number	VARCHAR2	M	
2.	Product	This will display list of all the products that are configured	VARCHAR2	M	
3.	Counterparty	This will display the list of all the customers that are configured	VARCHAR2	M	
4.	Currency	This will display the list of all the currency that are configured	VARCHAR2	M	
5.	Amount	The user need to input the required amount to book the deal	NUMBER	M	
6.	Value date	This is the day on which actual payments or receipts of funds take place	Date	M	
7.	Maturity date	This is the day on which final amount is paid or received	Date	M	

8.	Treasury Rate	The user need to input the required rate to book the deal	NUMBER	M	
9.	Customer Rate	The user need to input the required rate to book the deal	NUMBER	M	
10.	Portfolio	This will display the list of all the portfolios that are configured	VARCHAR2	M	
11.	Broker	This will display the list of all the brokers that are configured	VARCHAR2	M	

11.0 Glossary

11.1 Day Count/Interest Basis

A convention to determine the number of days between tow dates and number of days in a year to calculate accrued interest on bonds and other rate dependent securities.

Following are the list of interest basis which are supported in the Intellect One Treasury application

- Actual/360
- Actual/364
- 30/360
- 30/365
- Actual/365

- Actual/Actual
- Actual/nActual
- 30E/360
- 30E/365

11.1.1 Description

- **Actual/360:** In this method, each month is treated equally and year is assumed to be 360 days.
- **Actual/364:** In this method also, each month is treated equally and year is assumed to be for 364 days.
- **30/360:** Number of days calculated as Y(2)- Y(1)*360 + M(2)-M(1)*30 + D(2)-D(1)

  Y, M and D denote Year, Month and Days respectively and Number of days in a month taken as 30 and year is assumed to be of 360 days.
- **30/365:** Number of days is calculated exactly the same way as 30/360 basis explained above while year is assumed to be of 365 days.
- **Actual/360:** In this method, actual number of days between two given dates will be taken and year is assumed to be of 360 days.
- **Actual/365:** In this method, actual number of days between two given dates will be taken and year is assumed to be of 365 days.
- **Actual/Actual:** In this method, actual number elapsed between the two days are divided by the actual number of days in a year. For Example for leap year the denominator would be 366
- **Actual/nActual:** This is similar to Actual/Actual, only difference being, the rate is first derived based on the coupon frequency and then the actual days for a coupon period and the no. of basis days become the same making the coupon amount uniform across such coupon periods irrespective of actual no. of days falling in any period. For example, as per **Actual/Actual**, the coupon for a half year having 182 days shall be different from the other half year having 183 days in it. Whereas under **Actual/nActual**, both the coupons for such periods having 182 & 183 days respectively would be same.

- **30E/360 :** In this method, the number of elapsed days is calculated on the basis of a year of 360 days with 12 30-day months, subject to the following rules:
  - If either the first date or last date of the payment period falls on the 31st of a month, that date will be changed to the 30th.
  - If the last day of the payment period falls on the last day of February, the month of February will not be extended to a 30-day month. Rather, the actual number of days in February will be used.
  - The day count factor is calculated as the number of elapsed days divided by 360.

- **30E/365:** This method is similar to 30E/360 method with a slight change in denominator value. Instead of 360, basis of year is assumed to be 365 days.