

Intellect™ One Treasury

PRODUCT ADOPTION DOCUMENT

<Fixed Income Securities>

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1.0 Introduction

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

1.1 Purpose

This document is intended to provide the specification for Intellect™ One Treasury Fixed Income 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 TM
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.	AFS	Available For Sale
8.	HFT	Held For Trading
9.	HTM	Held Till Maturity
10.	BPS	Represents combination of Book-Portfolio-Strategy
11.	FIS	Fixed Income Securities

12.	FO	Front Office
13.	BO	Back Office
14.	OUTRIGHT	Simple Buy/Sell of the Securities
15.	REPO	Repurchase Agreement
16.	P&L	Profit & Loss
17.	SWIFT	Society for Worldwide Interbank Financial Telecommunication
18.	BLOTTERS	A Blotter refers to an excel-like window to see details of trades with various other required attributes as per given selection criteria
19.	COH	Cost of Holding
20.	MTM	Mark to Market
21.	EOM	End of Month
22.	QTY	Quantity
23.	Acc.	Accounting
24.	RCN	
25.	FIFO	First In First Out(sourcing methodology)
26.	LIFO	Last In First Out (sourcing methodology)
27.	WAP	Weighted Average Price
28.	Reval	Revaluation
29.	CYTM	Constant Yield To Maturity

30.	SLM	Straight Line Method
31.	MIS	
32.	YTM	Yield To Maturity
33.		

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	COPY+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

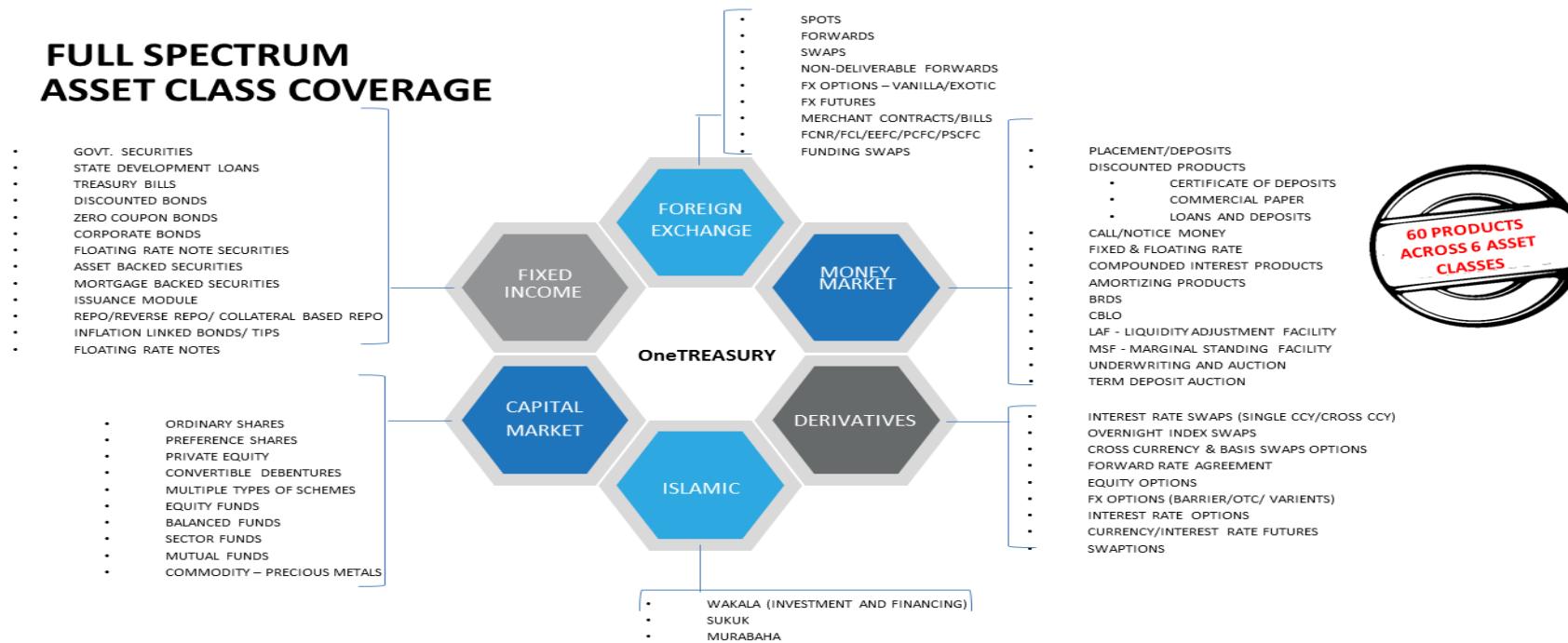
Example –

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.

FULL SPECTRUM ASSET CLASS COVERAGE



2.1 LO Architecture


FRONT OFFICE TRADER/TREASURER

- 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


RISK OFFICER

- Compliance & Audit Framework
- Comprehensive Risk Analytics
- Poor Visibility - Risk, Position and Limits
- Workflow for Exception Management
- Cash Forecasting - All maturities & Stress Testing


OPERATIONS MANAGER

- 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


CHIEF INFORMATION OFFICER
DASHBOARD – DATA VISUALIZATION – MULTICHANNEL
DIGITAL TREASURY
BUSINESS PROCESS MANAGEMENT -
FRONT OFFICE 10

11. Deal Management
12. Pre Deal Analytics
13. Decision Support Blotters
14. Trade Events
15. Analytics
16. Cash Flow Management
17. SWAP Trading
21. Real-time Position Management
22. Online Messenger (OLM)
23. Automated Dealing System (ADS)

BRANCH POSITION INTEGRATION (BPI) 20
QUEUE CONFIGURATION
EVENT ROUTER
ONLINE EXTERNAL SYSTEM DEAL STP
WORKFLOW BLOTTERS
EXCEPTION PROCESSING
**One
TREASURY**
RESOURCE MOBILIZATION 30

31. Issuance
32. Domestic Borrowings & Deposits
33. International Borrowings
- Foreign Currency Loans
34. MIS

FUND MANAGEMENT 40

41. Cash Flow Mgmt
42. Analysis
43. MIS tool

FRONT OFFICE
LIMITS & CONTROL FRAMEWORK 50

51. Online Limit Mgmt
52. Work Flow Blotters
53. Valuations
54. NPA Management

RISK MANAGEMENT 60

61. Real-time Risk blotters
62. IR Curve Analysis
63. Market Risk
64. Liquidity Analysis
65. Counterparty Credit Risk
66. Collateral Management
71. Stressed VaR
72. Sensitivity DV01
73. Risk Factor Changes
74. Hypothetical Transactions
75. Behavioral Analysis
76. Mark To Market

STRESS TESTING 70
PORTFOLIO MANAGEMENT 80

81. Portfolio Monitoring
82. Portfolio Simulation
83. Portfolio Hedging & Analytics
84. Portfolio Transfer

ALM 90

- 91..ALM/FTP
92. Liquidity Gaps
93. Interest Rate Risk
94. NIM Analysis
95. Concentration Analysis
96. B/S Projection
97. Limits Monitoring

BACK OFFICE PROCESSING 100

101. Deal Management
102. Workflow/Queue Mgmt
103. Confirmation Matching
104. Accruals/Revaluation/Accretion

SETTLEMENT & RECONCILIATION 110

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 FIS Module Overview

Intellect™ One Treasury Fixed Income module is a rich application covering wide features of Bond Market. 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 and delivery of the securities. Intellect™ One Treasury also generates swift text messages which can be integrated with SWIFT terminals for transmitting the messages.

Intellect™ One Treasury Fixed Income covers full functionality from Front to back office. So, the flow of FIS Module is defined as:

S. No.	Module Name/Description	Module ID
1.	Static Data Setup(Maintenances/Master)	Setup
2.	Front Office Deal Management	FISFO
3.	Middle Office Deal Management	FISMO
4.	Back Office Deal Management	FISBO
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

Intellect Treasury - Windows Internet Explorer provided by Intellect Design Arena Ltd

intellect DEMO BANK Jan 10, 2017 14:28:35

Welcome INTELLECTFO | LogOut

Setup

- Startup
 - Book
 - Branch
 - Currency
 - Create New**
 - Modify/Delete
 - Search
 - Authorized List
 - Unauthorized List
 - Currency Hierarchy
 - Dates
 - Unit Codes
 - Account Data
 - Customer
 - Forward Dates
 - Product
 - Product GL
 - Dealer Portfolio
 - Portfolio
 - Customer Spread
 - Currency-Branch Mapping
 - Branch-Portfolio
 - Funding Cutoff
 - Internal Info
 - Module Customer
 - GlobalSwiftadd
 - Delivery Selection
- + Money Market

Currency

Currency Info

Currency Code *	Short Name *	Description *	Country *	First Weekend *	Currency Type	Euro Indicator *	IMPACS Code	Initial Margin for CTA % *	Include SDR Basket	Swift Currency Code *	Rate Conversion Method *	Interest Method *	Significant Decimal Digits *	Second Weekend	Gulf Currency *	Spot Days *	FMS Code	Non-Deliverable	Index Code
<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>									

* indicates Mandatory Field

Rates

Add | CopyFromExisting | Clear

Home Logout DEMO BANK INTELLECTFO January 10 , 2017 Info Feedback Print Help

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.

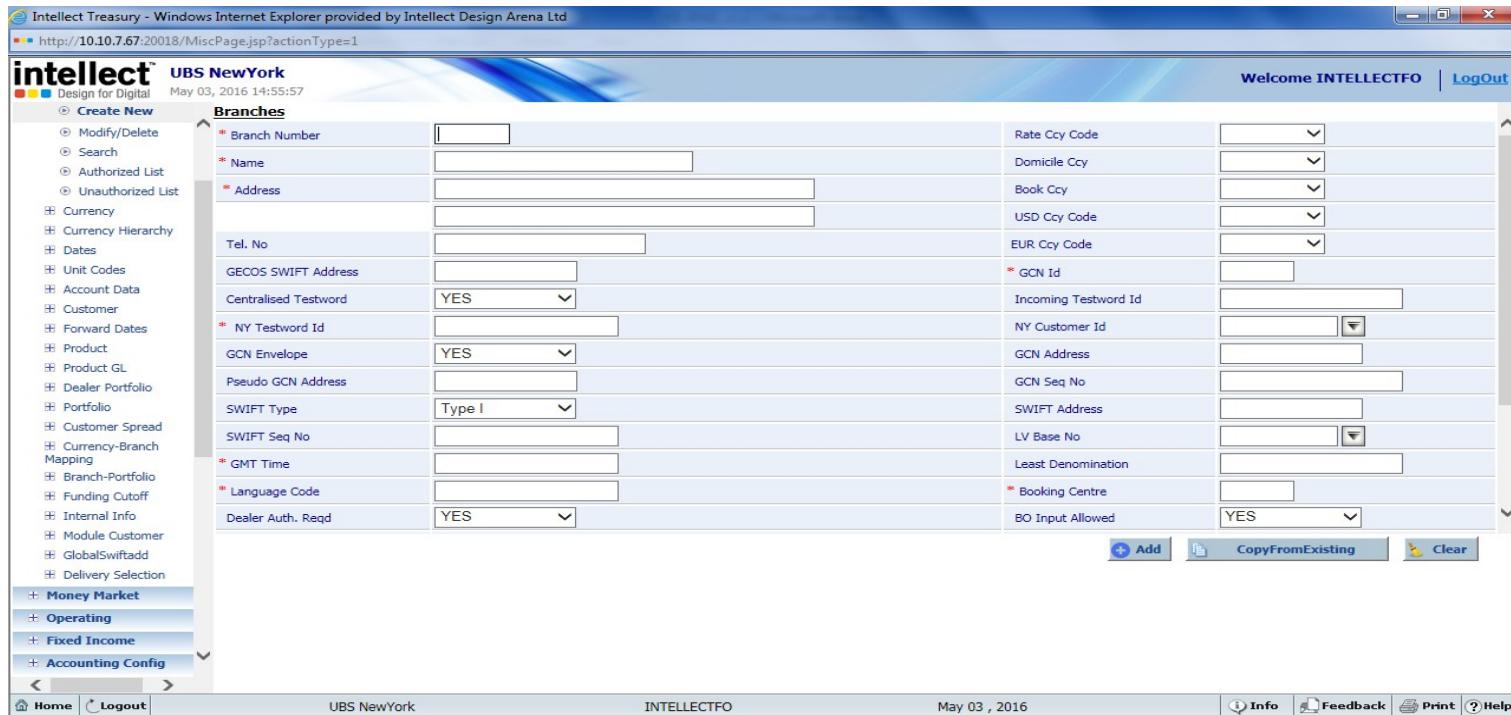
The weekends are to be selected as per the respective countries. Once the [3.11 Account Data](#) is maintained, the currency can be mapped to the respective account.

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



The screenshot displays the 'Branches' setup screen in the Intellect One Treasury application. The main form contains numerous input fields for defining a new branch, including fields for name, address, contact details, and various financial and operational parameters. The left sidebar provides navigation links for different setup modules and system functions.

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

intellect™ RISK, TREASURY & MARKETS

intellect™ UBS NewYork

Welcome INTELLECTFO | LogOut

May 03, 2016 14:55:57

Operating

- + Fixed Income
- + Accounting Config
- + Tax & Brokerage
- Admin
 - Dealer Group
 - Dealer
 - Create New**
 - Modify/Delete
 - Search
 - Authorized List
 - Unauthorized List
 - Dealer Mapping
 - Download Config
 - Printer
 - Printer Mapping
 - UserEntd
 - Warehouse Movement
- + Futures
- + Document Management
- + Commodities
- + EAM

Dealer Limits

General [Restrictions] [Portfolio Selections] [Miscellaneous] [Limits]

Dealer Id *	DLR2	Dealer Name *	DLR2
Access Level *	DEALER	Dealer Group *	MGMT
Daylight Limit (USD) *	10000.00	Overnight Limit (USD) *	10000.00
MAT Daily Limit (USD) *	10000.00	MAT MTD Limit (USD) *	10000.00
Dealer Type	INDIVIDUAL	Split Cross Currency	YES
GMR Check Required	YES	Remarks	
Default Branch *	UBS NewYc		

	All Branches	Selected Branches	All Portfolios	Selected Portfolios
Branch *	UBS NewYork UBS Copenhagen UBS Zurich CBA DEMO BANK5 DEMO BANK6 DEMO BANK7	UBS NewYork	AFS CAMB CAMB CAMB CAMB CAMP	HFT
	> <	> <	> <	> <
		Portfolio *		

+ Add | CopyFromExisting | Clear

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

The screenshot shows a Windows Internet Explorer window titled "Intellect Treasury - Windows Internet Explorer provided by Intellect Design Arena Ltd". The URL is "http://10.10.7.67:20018/MiscPage.jsp?actionType=1". The page header includes the Intellect logo and "UBS NewYork". On the right, it says "Welcome INTELLECTFO" and has a "LogOut" link. The left sidebar has a navigation menu with "Setup" expanded, showing "Startup", "Money Market", "Operating", "Fixed Income", "Accounting Config", "Tax & Brokerage", "Admin" (which is expanded to show "Dealer Group", "Dealer", "Dealer Mapping", "Create New" (selected), "Modify/Delete", "Search", "Authorized List", "Unauthorized List", "Download Config", "Printer", "Printer Mapping", "UserEnt", "Warehouse Movement"), and "Futures". The main content area is titled "Dealer Mapping". It contains three input fields: "User ID *" with value "INTELLECTFO", "Dealer ID *" with value "MGMT", and "Language *" with value "en_US". At the bottom are buttons for "+ Add", "CopyFromExisting", and "Clear".

3.4.2 Description

➤ Prerequisites

- Dealer

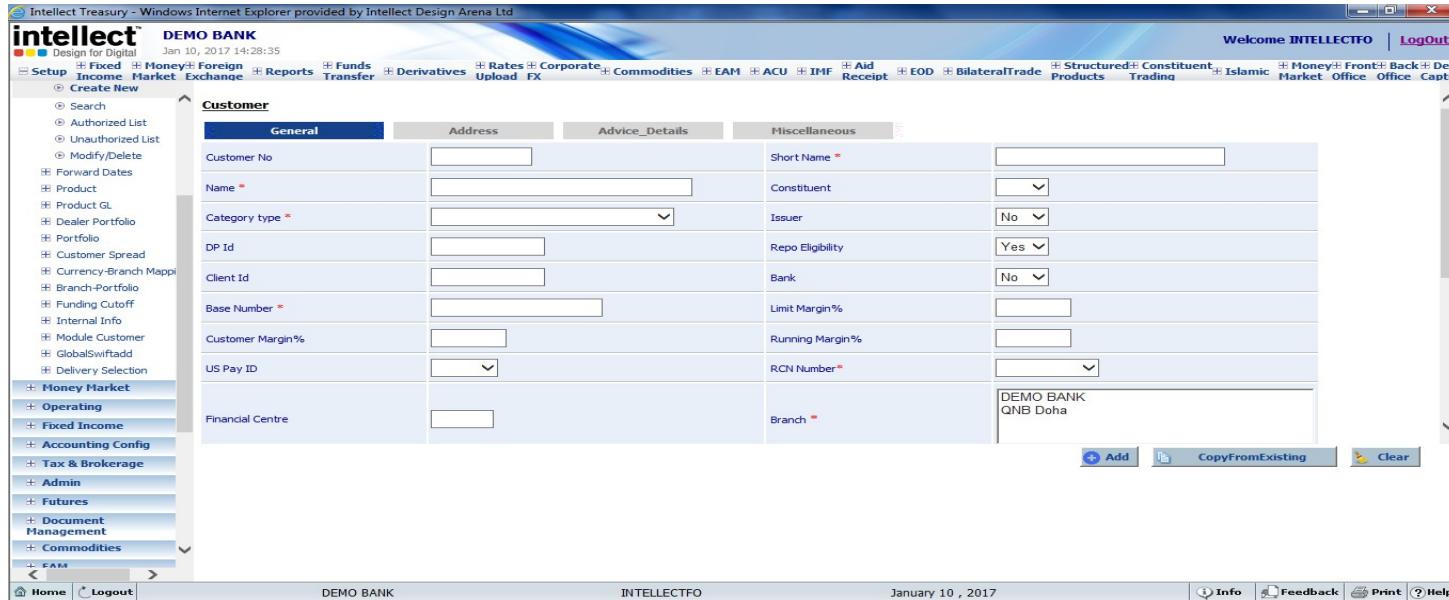
Intellect™ One Treasury is an entitlement based system and for dealers to access the application, user id should be assigned which is mapped to a specific dealers through dealer mapping master.

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

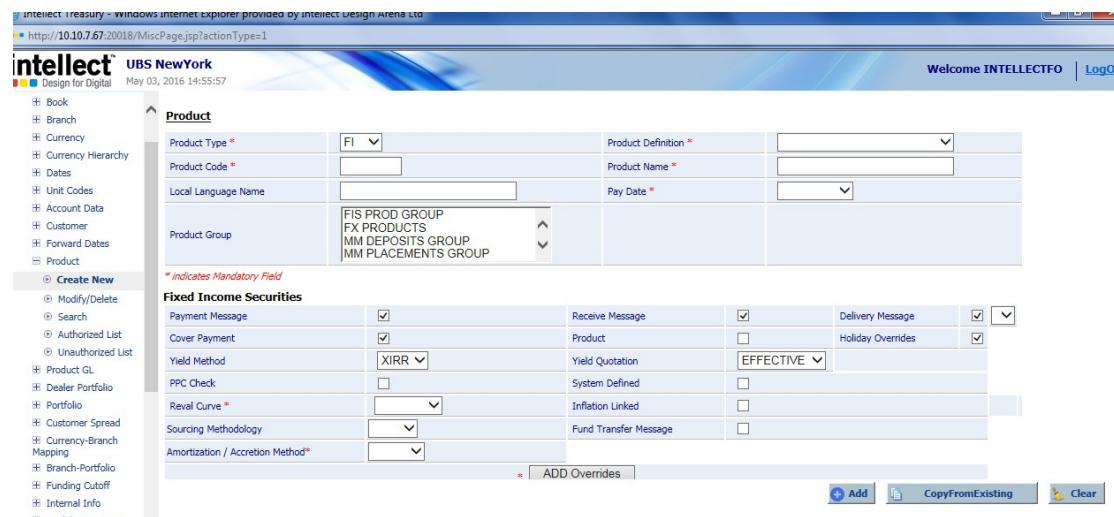
Configuration of customer details, mapping to specific branch, module is done in this master.

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
 - Sourcing Methodology such as FIFO,LIFO,WAP
 - Amortization/Accretion Method such CYTM,IRR,SLM
 - Hard(Overrides), Soft(Errors) and Deal Verification Checks

In current application 1XX Product series belongs to Coupon bearing Instruments like Bonds and 2XX series products belongs to discounted instruments such as ZC Bonds, Treasury Bills. (Provide hyper link for FIS Products and flavours supported in the system).

3.7 Security Maintenance

Intellect™ One Treasury fixed income module supports configuration and maintenance of securities using Security Maintenance screen. Securities are manually configured or directly flown from Bloomberg or market data providers.

3.7.1 Screen Path & Layout

Navigation Path: Intellect One Treasury >> Fixed Income >> Front Office >> Security Maintenance

Security Maintenance

Security						CashFlows	Options	MIS	Inflation Details	MarketRates	
Product Type	Currency	Face Value	IP Date	Issue Date	Maturity Date						
US TREASURY BONDS	USD	100	04-May-2015	04-May-2015	04-May-2018						
Description	Issuer Code		Issuer Name		Issuer Domicile	ISIN					
TEST	FED RESERVE		FEDERAL RESERVE BANK NEWYORK		USA	TESTRRC					
Category	Precision	Issue Size	Ex-Dividend	Cut-Off Days	On Settlement Date	Ex-Dividend Date					
YES	4	10000000	NO								
Coupon Details											
Coupon	Coupon Frequency	Compounding Frequency	Coupon Rate	Odd Coupon Type	Last Coupon Date						
FIXED	6M	6M	4.00000000	Last Small Coupon	04-May-2018						
Interest Basis	BenchMark Code	Reprice Frequency	Next ResetDate	Spread%	Rate Floor%	Rate Ceiling%					
ACTUAL/360											
Trading Details											
Yield Type	Yield Method	Yield Quotation	Quote Method	Quote Type							
YTM	XIRR	NOMINAL	CLEAN	PERCENT							
Trading Allowed	Buy Back Allowed	Repo Allowed	Short Sell Allowed	Settlement Days	Internal Deal Allowed						
YES	NO	YES	NO		NO						
Rate Reasonability Type	RRC Min	RRC Max	Coupon Holiday Logic		Maturity Holiday Logic	C/FHolidayAdj					
ABSOLUTE	5.0	3.0	Nxt Work		Prev Work	FIXED					
GENERATE CASH FLOWS											
Status:Authorized											

3.7.2 Description

➤ Prerequisites

- Product
- Currency
- Customer
- Unit codes

- To create/configure security in the system basic details should be entered such as product type, FV, Issue Date, and Maturity Date along with coupon, issuer and trading details.
- Based upon details entered, cash flows of the securities are produced using cash flow generate option. This cash-flow can be seen in Cash flow tab.
- Once mandatory [fields](#) are filled along with generated cash flows, security can be saved in the system using Save or Save& Auth Option. Intellect™ One Treasury provides option for saving and then authoring any security. System also provides option to directly authorize the securities.
- Market Prices of the securities can also be updated manually using Market Price tab.
- Security maintenance screen consist of six tabs storing all the information of any security. Following are the tabs present in the current security maintenance screen

S. No	Tabs/Screen	Description	Additional Points
1.	Security	<p>This tab consists of all the important data for configuring/creating a security.</p> <ul style="list-style-type: none"> ○ Product, Issuer Details etc. ○ Coupon Details ○ Trading Details 	<ul style="list-style-type: none"> ○ Mandatory tab for creating securities
2.	Cash flows	<ul style="list-style-type: none"> ○ Based upon coupon details, Cash flows of the securities are displayed in this 	<ul style="list-style-type: none"> ○ Amortized Cash flows can

		tab.	<ul style="list-style-type: none"> ○ also be entered/ inserted. ○ Mandatory for security creation(Cash flows has to be generated)
3.	Options	This tab captures <ul style="list-style-type: none"> ○ Option related details of a bond. ○ Date Wise Rating Details ○ Re-issuance details 	<ul style="list-style-type: none"> ○ Non Mandatory tab for creating securities
4.	MIS	This tab consist of MIS details of securities such as <ul style="list-style-type: none"> ○ Step Up Details ○ NPA Status ○ BSE/NSE Code ○ Quote & Rating Category ○ Other Important Fields for MIS 	<ul style="list-style-type: none"> ○ Non Mandatory tab for creating securities
5.	Inflation Details	<ul style="list-style-type: none"> ○ Inflation Linked Bond details are entered 	<ul style="list-style-type: none"> ○ Non Mandatory tab for creating securities
6.	Market Rates	<ul style="list-style-type: none"> ○ Market Prices of the securities on a specific date can be entered 	<ul style="list-style-type: none"> ○ Non Mandatory tab for creating securities

➤ Intellect™ One Treasury supports various types of securities along with different flavours. Security types supported are as follows

S. No	Product	Type	Description	Flavours
	Coupon Bearing Instruments	Bonds(1XX Series)	<ul style="list-style-type: none"> ○ Govt. Securities ○ State Development Loans ○ Corporate Bonds ○ Inflation Linked Bonds(ILB) ○ Floating Rate Notes Securities(FRN's) ○ Issuance 	<ul style="list-style-type: none"> ○ Fixed ○ Floating ○ Put –Call Options ○ WPI –CPI Linked ○ ABS MBS Amortized Bonds
	Discounted Instruments	2XX Series	<ul style="list-style-type: none"> ○ Treasury Bills ○ ZC Bonds ○ Discounted Bonds 	

3.7.3 User Actions

Intellect™ One Treasury system is an entitlement based system and Maker-Checker concept for request creation and authorization. In Security Master Following are the actions which can be done on the security

S. No	Scenario	Revised Status	Subsequent Actions(s)
1	Creating a New Security	Security is Saved But Not Authorized. (NEW) (Shown in UnAuth Search)	Deletion and Authorization
2	Creating a New Security	Security is Saved and Authorized.(AUTHORIZED) Based upon Authorization rights, Security can be authorized.(Shown in Auth Search)	Deletion
3	Deletion of Security	Security is deleted from the System	No Further Action Possible.
4	Modification of security	Modify	Save, Save & Auth

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

The screenshot shows a Windows Internet Explorer window titled "PORTFOLIO details - Windows Internet Explorer provided by Intellect Design Arena Ltd". The URL in the address bar is "http://10.10.7.67:20018/PORTFOLIOEvent.do?Event=PORTFOLIO_ListView&ListAction=QUERY&%24%24Portfolio_code=LQDT&ListType=APPLICATION&E". The main content area is a form titled "Portfolio" with two tabs: "General Details" (selected) and "Additional Details". The "General Details" tab contains the following fields:

Field	Value
Portfolio Code *	LQDT
Portfolio Description *	LIQUIDITY PORTFOLIO
CounterParty	(dropdown menu)
Portfolio Type *	Risk Trsy
Investment Guidelines	(dropdown menu)
Reporting Currency *	USD

A note at the bottom left says "* indicates Mandatory Field". A "Close" button is located at the bottom right of the form.

3.8.2 Description

➤ Prerequisites

- Unit codes
- Currencies

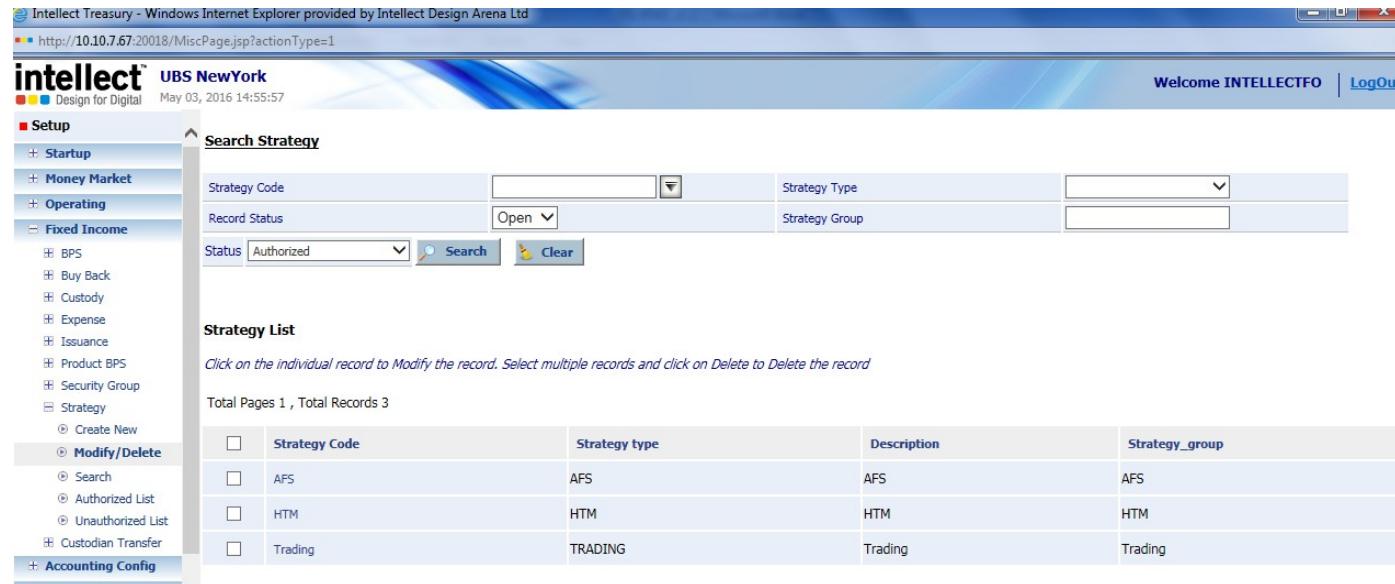
Intellect™ One Treasury tracks investments portfolio wise. This Master is also used for restricting/configuring portfolios to specific modules and currencies under additional details tab.

3.9 Strategy

Strategy Maintenance is used for defining/configuring strategies in the application.

3.9.1 Screen Path and Layout

Navigation Path: Intellect™ One Treasury >> Setup >> Fixed Income >> Strategy



	Strategy Code	Strategy type	Description	Strategy_group
<input type="checkbox"/>	AFS	AFS	AFS	AFS
<input type="checkbox"/>	HTM	HTM	HTM	HTM
<input type="checkbox"/>	Trading	TRADING	Trading	Trading

3.9.2 Description

➤ Prerequisites

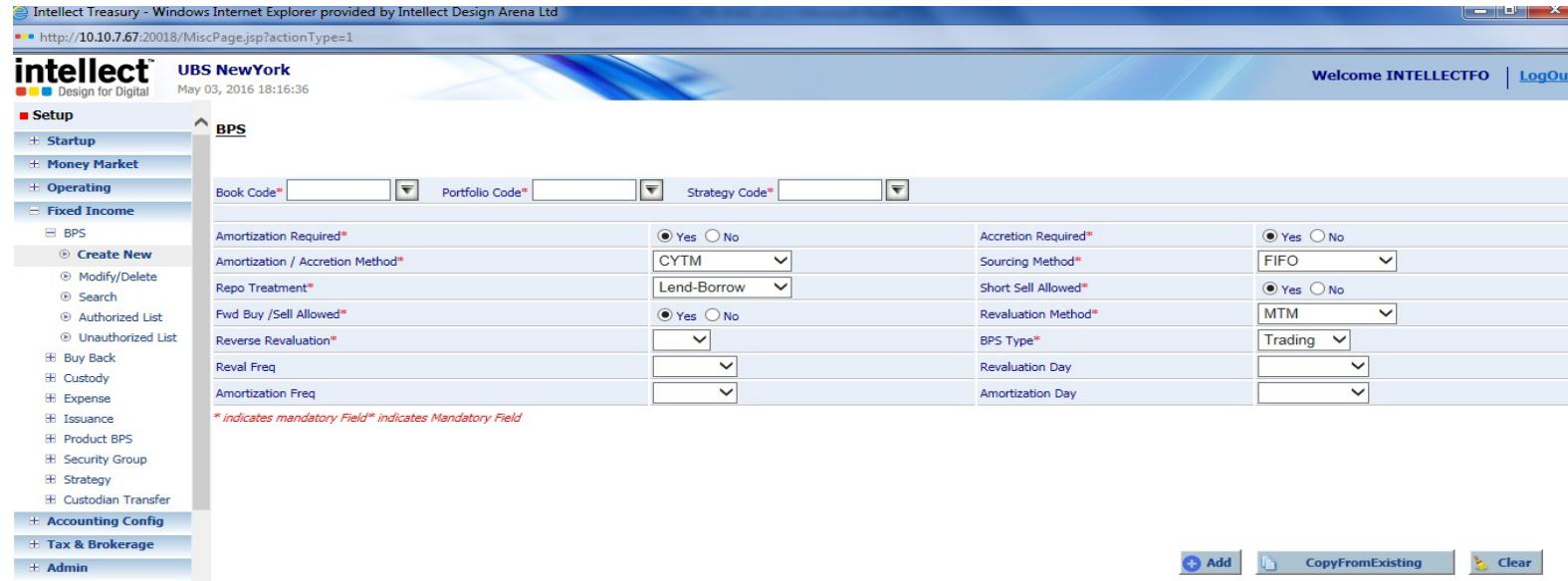
- NA

In current system Portfolio's such as AFS, HTM and HFT are defined as Strategy in the application. Creation of strategies is required for booking FIS deals.

3.10 BPS (Book-Portfolio-Strategy)

3.10.1 Screen Path and Layout

Navigation Path: Intellect™ One Treasury >> Setup >> Fixed Income >> BPS Master



The screenshot shows the Intellect Treasury - Windows Internet Explorer provided by Intellect Design Arena Ltd interface. The URL is http://10.10.7.67:2008/MiscPage.jsp?actionType=1. The page title is "intellect UBS NewYork" and the date is May 03, 2016 18:16:36. The right side has "Welcome INTELLECTFO | LogOut". The left sidebar menu includes: Setup, Startup, Money Market, Operating, Fixed Income (selected), BPS (selected), Create New (selected), Modify/Delete, Search, Authorized List, Unauthorized List, Buy Back, Custody, Expense, Issuance, Product BPS, Security Group, Strategy, Custodian Transfer, Accounting Config, Tax & Brokerage, Admin. The main content area is titled "BPS" and contains fields for Book Code*, Portfolio Code*, and Strategy Code*. Below these are several configuration groups: Amortization Required (radio buttons for Yes or No, Yes is selected), Amortization / Accretion Method (CYTM dropdown), Repo Treatment (Lend-Borrow dropdown), Fwd Buy /Sell Allowed (radio buttons for Yes or No, Yes is selected), Reverse Revaluation (dropdown), Reval Freq (dropdown), Amortization Freq (dropdown). To the right of these are: Accretion Required (radio buttons for Yes or No, Yes is selected), Sourcing Method (FIFO dropdown), Short Sell Allowed (radio buttons for Yes or No, Yes is selected), Revaluation Method (MTM dropdown), BPS Type (Trading dropdown), Revaluation Day (dropdown), and Amortization Day (dropdown). At the bottom are buttons for Add, CopyFromExisting, and Clear.

3.10.2 Description

➤ Prerequisites

- Book Maintenance
- Portfolio
- Strategy

Fixed Income module uses a proper and valid BPS combination for booking and tracking of deals. This is a very important master as parameters such amortization/accretion required, sourcing methodology; short sell allowed, Reval and amortization frequencies, Repo Treatment are defined in BPS Screen.

3.11 Account Data

3.11.1 Screen Path and Layout

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

Intellect Treasury - Windows Internet Explorer provided by Intellect Design Arena Ltd
<http://10.10.7.67:2018/MiscPage.jsp?actionType=1>

intellect™ UBS NewYork May 03, 2016 18:16:36 Welcome INTELLECTFO | [LogOut](#)

[Create New](#) [Modify/Delete](#) [Search](#) [Authorized List](#) [Unauthorized List](#)

[Customer](#) [Forward Dates](#) [Product](#) [Product GL](#) [Dealer Portfolio](#) [Portfolio](#) [Customer Spread](#) [Currency-Branch Mapping](#) [Branch-Portfolio](#) [Funding Cutoff](#) [Internal Info](#) [Module Customer](#) [GlobalSwiftadd](#) [Delivery Selection](#)

[+ Money Market](#) [+ Operating](#) [+ Fixed Income](#) [+ Accounting Config](#)

Account Data

Customer No. *	<input type="text"/>	Customer Name	<input type="text"/>
Account No. *	<input type="text"/>	RCN No. *	<input type="text"/>
Account Desc. *	<input type="text"/>		
Status *	<input type="text"/>		
Swift Ccy Code *	<input type="text"/>	Sys.Prod.Code	<input type="text"/>
Account Type *	<input type="text"/> N - Nostro M - Margin Account C - Current Account B - Bank Account G - GL O - Custodian Account V - Vostro Account P - proforma account		
Acc.Wth.Corrrespondent #	<input type="text"/>	Margin Balance	<input type="text"/>
Balance *	<input type="text"/>		
Acc Balance Rqd*	<input type="text"/>		
<small>* indicates Mandatory Field</small> <small># Mandatory for Nostro Account</small>			

[+ Add](#) [CopyFromExisting](#) [Clear](#)

3.11.2 Description

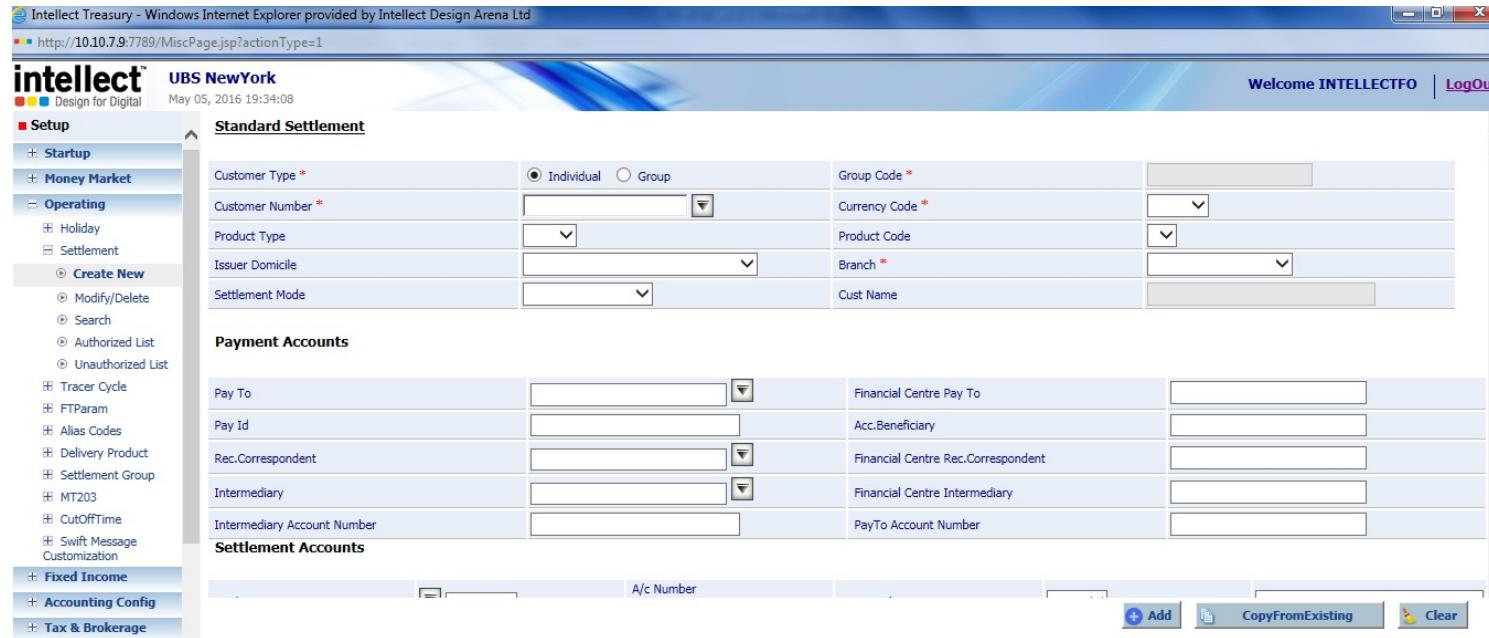
- Prerequisites
 - Customer
 - Unit Codes
 - Currency
- This maintenance is used for maintaining accounts for customers. Account type field consists of different accounts that can be maintained with the respective currency. Each currency defined in the system can be configured to the respective account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

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



The screenshot displays the 'Standard Settlement' configuration screen within the Intellect Treasury application. The left sidebar menu is visible, showing the 'Operating' section is currently selected. The main form contains several groups of input fields:

- Standard Settlement:** Fields include Customer Type (radio buttons for Individual or Group), Group Code, Customer Number, Currency Code, Product Type, Product Code, Issuer Domicile, Branch, Settlement Mode, and Cust Name.
- Payment Accounts:** Fields include Pay To, Financial Centre Pay To, Acc.Beneficiary, Rec.Correspondent, Financial Centre Rec.Correspondent, Intermediary, Financial Centre Intermediary, and Intermediary Account Number.
- Settlement Accounts:** A section with a toolbar containing 'Add', 'CopyFromExisting', and 'Clear' buttons.

3.12.2 Description

➤ Prerequisites

- Customer
- Product
- Currency

- o Account Data
- o 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

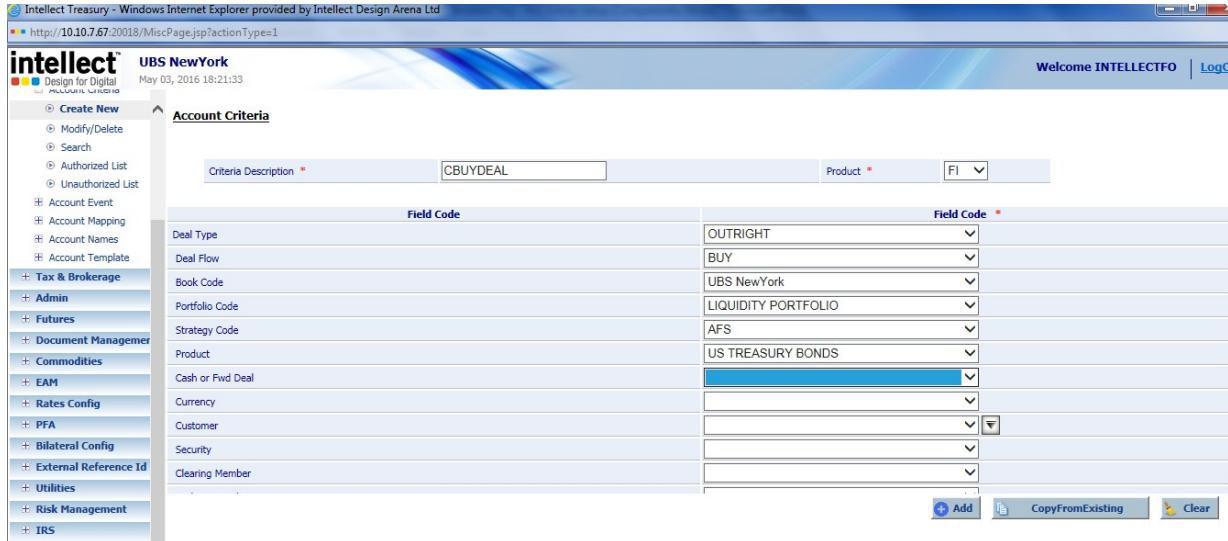
- o Book
- o Portfolio
- o Strategy
- o Product
- o Currency
- o Customer
- o Security
- o Unit codes

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



Field Code	Field Code *
Deal Type	OUTRIGHT
Deal Flow	BUY
Book Code	UBS NewYork
Portfolio Code	LIQUIDITY PORTFOLIO
Strategy Code	AFS
Product	US TREASURY BONDS
Cash or Fwd Deal	USD
Currency	USD
Customer	
Security	
Clearing Member	

3.13.2.1.2 Description

➤ Prerequisites

- Unit codes

- Customer
- Currency
- Branch
- Product

In Fixed income 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.	Deal Type	Type of Deal(Repo or Outright)
2.	Deal Flow	Buy/Sell
3.	Book Code	Specific to Book Code
4.	Portfolio Code	Investment, Liquidity
5.	Strategy Code	AFS,HFT or HTM
6.	Product	Bonds, Bills
7.	Cash or Forward Deal	Whether its Cash or Forward Deal
8.	Currency	Specific to Particular currency

9.	Customer	For specific Customer
10.	Security	For Specific Security
11.	Clearing Member	Specific Clearing Member
12.	Exchange Code	Specific Exchange Code(If Exchange Traded Security)
13.	Contract Code	Specific Contract Code(If to pass entries to some particular accounts)

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 Description

- Prerequisites
 - Account Criteria
 - Accounting Event
 - Accounting Date

- List of Events that can be configured

- ⌚ FI DEAL AUTH - Deal authorization event
- ⌚ FI DEAL PL ENTRIES – PL Entries event
- ⌚ FI EXP/INC BOOKING FOR SALE – Expense/Income
- ⌚ FI PURCHASE REV FOR SALE -
- ⌚ FI DEAL CONTINGENT ENTRIES – Contingent Entries
- ⌚ FI DEAL REV CONTINGENT – Reversal of Contingent Entries
- ⌚ FI DEAL REV PL – Reversal of Profit/Loss
- ⌚ FI REPO DEAL AUTH – Repo deal authorization
- ⌚ FI REVERSE PL – Reversal of Profit/Loss
- ⌚ FI DEAL SETTLEMENT – Settlements
- ⌚ FI EXP/INC BKNG FOR REDEMPTION – Expense/Income for Redemption
- ⌚ FI PL ENTRIES FOR REDEMPTION – Profit/Loss entries for Redemption
- ⌚ FI SETTLEMENT FOR REDEMPTION – Settlement entries for Redemption
- ⌚ FI PURCHASE REV FOR REDEMPTION -
- ⌚ FI ACCRUALS – Accrual entries event
- ⌚ FI ACCR REVERSAL FOR COUPON – Accrual reversal for Coupon
- ⌚ FI ACC BAL RECON FOR COUPON -
- ⌚ FI RECV FROM CUSTODIAN FOR CP -

- ⌚ FI ACCRETION PROCESS – Accretion Event
- ⌚ FI ACCRETION FOR SHORT SALE – Accretion Entries for Short sell
- ⌚ FI AMORTISATION PROCESS – Amortisation Process
- ⌚ FI AMORT FOR SHORT SALE – Amortisation Process for short sell
- ⌚ FI REVALUATION PROCESS -
- ⌚ FI REVAL FOR SHORT SALE -
- ⌚ FI REPO ACCRUAL – Accrual Event for Repo
- ⌚ FI REPO ACCR SHORT SALE – Accrual Event for Repo Short Sell
- ⌚ FI DEAL REVERSAL – Deal reversal Event

➤ 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

Intellect Treasury - Windows Internet Explorer provided by Intellect Design Arena Ltd
 http://10.10.7.67:20018/MiscPage.jsp?actionType=1

intellect™ UBS NewYork May 03, 2016 19:33:25 Welcome INTELLECTFO | [LogOut](#)

Account Event

Create New
 Modify/Delete
 Search
 Authorized List
 Unauthorized List

Account Mapping
 Account Names
 Account Template

Tax & Brokerage

- Admin
- Futures
- Document Management
- Commodities
- EAM
- Rates Config
- PFA
- Bilateral Config
- External Reference Id
- Utilities
- Risk Management

Events Listing

Account	Db / Cr	Field Code	Account Number	RCN Acc No	Flag Acc No
<input type="checkbox"/> FCY Settlement account	Credit	Buy Consolidated PS	1111100	TREASURY	G-GL
<input type="checkbox"/> FCY Settlement account	Debit	Buy Consolidated PS			
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					

* indicates Mandatory Field

| 1-2 of 2 |

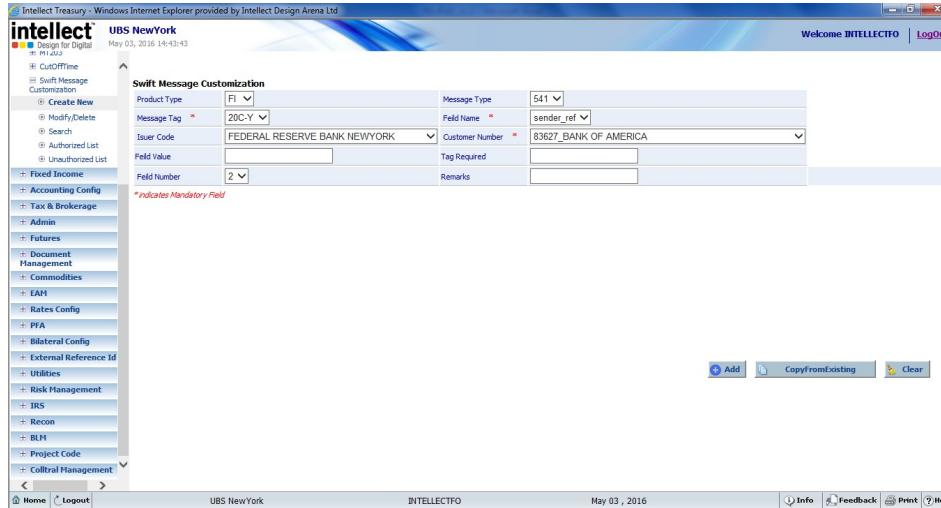
3.13.2.3.2 Description

- 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.

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

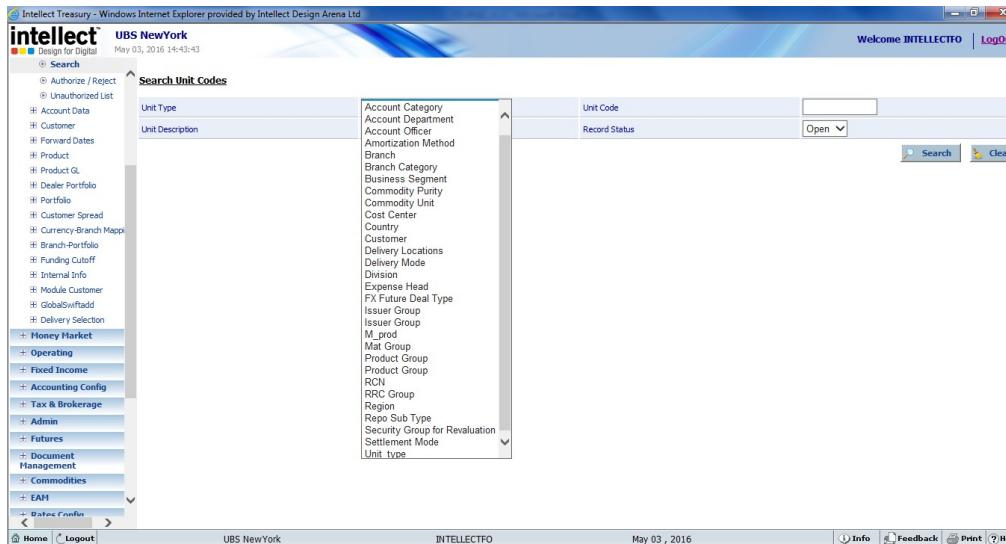
- Prerequisites
 - Product
 - Customer
 - Unit Codes

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 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

The screenshot shows a Windows Internet Explorer window titled "Internalinfo details - Windows Internet Explorer provided by Intellect Design Arena Ltd". The main content area is a form titled "Internal Info maintenance". The form contains the following fields:

Branch *	Module *	
UBS NewYork	FI	
Parameter Name *	Parameter Value *	Parameter Description *
BO_SUBSTITUTE_FEATURE	Y	Substitution feature Enabling flag in BO
Maker	Checker	
MAKER	MAKER	
Make Date Time	Check Date Time	
01/13/2015	01/13/2015 00:00 AM	

A note at the bottom left says "* indicates Mandatory Field". At the bottom right of the window is a "Close" button.

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.

3.17 Custody Master

3.17.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Set Up >> Fixed Income >> Custody

The screenshot shows a Windows Internet Explorer window titled "Custody details - Windows Internet Explorer provided by Intellect Design Arena Ltd". The URL in the address bar is http://10.10.7.67:20018/CustodyEvent.do?Event=Custody_ListView&ListAction=QUERY&%24%24Custody_id=10002&ListType=APPLICATION&EntityName. The window contains a form with the following fields:

Custody	
Custody Id *	10002
Custody Type *	Both
Location Code *	delivry Locatns
Custody Description *	FEDERAL RESERVE BANK NEWYORK
Custody Address	1020 16TH STREET, DENVER CO, 80202
Swift Address	FRNYUS33XXX
Alternate Address	[empty]

A note at the bottom left says "* indicates Mandatory Field". A "Close" button is at the bottom right.

3.17.2 Description

- Prerequisites

- Customer
- Swift Address

This Master is used for creating/maintain custodian settlement and delivery. Custodian type can be own, customers or both.

4.0 Front Office Functionality

Intellect™ Treasury FIS Front Office module support various aspects of Bond/Bills deal booking along with monitoring, managing of the positions and limits involved. Following are some prominent features of FISFO Module which is available in the system.

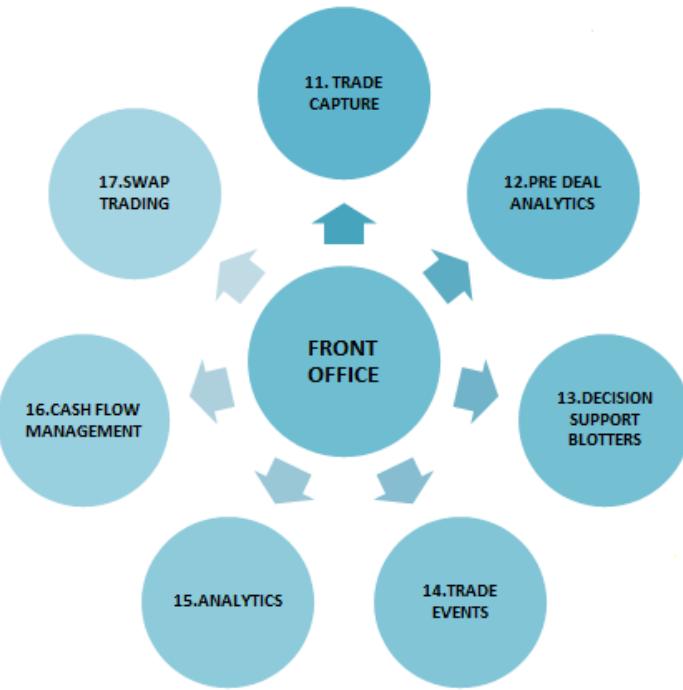


Figure: Front Office Functions

Intellect™ One Treasury Fixed Income FO Module supports following types of deal/trade booking in the system.

- Outright Deal(Plain Buy/Sell)
- Repo and Reverse Repo Deals

4.1 FIS Outright Deal

Outright Deal Tab is used to book deals for both coupon-bearing and discounted debt securities. It is also used for modification, Cancellation and authorization of the already booked deal.

Outright Deal capture screen is used for creating/entering new deal in the system. 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. ([See More Details: Outright Data Field Definitions](#)).

4.1.1 Screen Layout & Functional Description

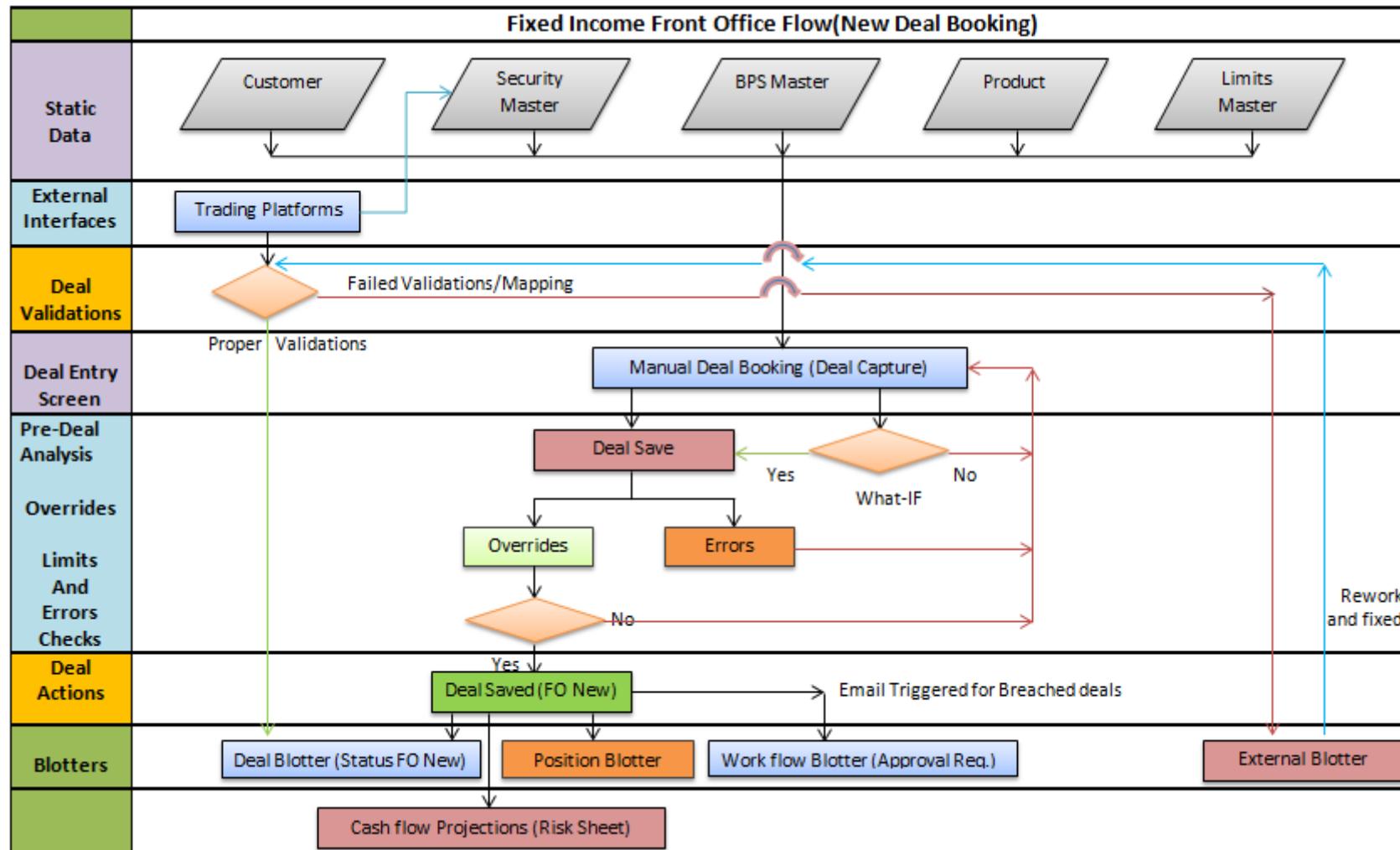
Navigation Path: Intellect™ One Treasury >> Fixed Income >> Front Office >> Outright Deal Capture

Intellect - Fixed Income FIS Front Office (DEMO BANK 10-Jan-2017)

Outright											
Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate
10-Jan-2017 14:53:40	BUY	10-Jan-2017	TBOND01	100.0	BANK OF NEWYORK	1,000,000	10,000	INR	102.0000	4.8189	
Settlement Adj ...	Principal Amt	Accr. Int.	Settlement Amt		Broker	Brokerage(%)	Settl. Mode	Delivery Mode			Ext. Ref. No.
0.00	1,020,000.00	17,875.00	1,037,875.00	PHONE[1]							
Tax Code	Compute Tax Amt	Security Ratings		Deal Entry Dt.		<input type="checkbox"/> Subscription	<input type="checkbox"/> Private Placement	<input type="checkbox"/> Open Market Operations			
						<input type="checkbox"/> When Issued					
Purpose				Branch	(%)Commission	CommissionAmount	Brokerage Amt				
OTHERS FIS											
Portfolio Description											
Branch	Portfolio	Strategy	Quantity	Amount	Sh...	Remarks					
UBS NewYork	VALO	Trading	10,000	1,000,000							
NTELLECTFO TBOND01 BANK OF NEWYORK											

Figure: FISFO Outright Deal Capture Screen

4.1.3 Process Flow



4.1.4 Process Description

➤ **Prerequisites**

- Currency
- Security
- Product

- To capture outright deal in the system, basic details should be entered like Flow, Value Date, and Security along with Counterparty details.
- Based upon Deal Face Value(Amount), System Calculates Quantity or vice versa by use of following formula
- On Entering Price System Calculates Yield based upon underlying yield method defined in [Security Setup](#) or calculates Yield by entering price in the deal capture screen. The formula used in the system are as :

Yield (r) =

Or

Present Value (PV)

Where, n = Remaining tenor of the i^{th} cash flow of security in years, according to the interest basis specified for the security

= No. of Days / d_{year}

r = yield to maturity (or put/call if specified). It is calculated based on whether YTM or YTC or YTP is opted at Security level.

PV = Price of the security

FV = Future Value of the security

i = each cash flow period.



Where Quantity= Quantity entered in Deal capture

TDS = Settlement Adjustment Amount

- After deal related Calculations, 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: **5EC1701000072**

Where 1st digit represents Module Number (Outright deal starts with 5ECXXXX Series)

Next Two Alphabets = Booking center

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.

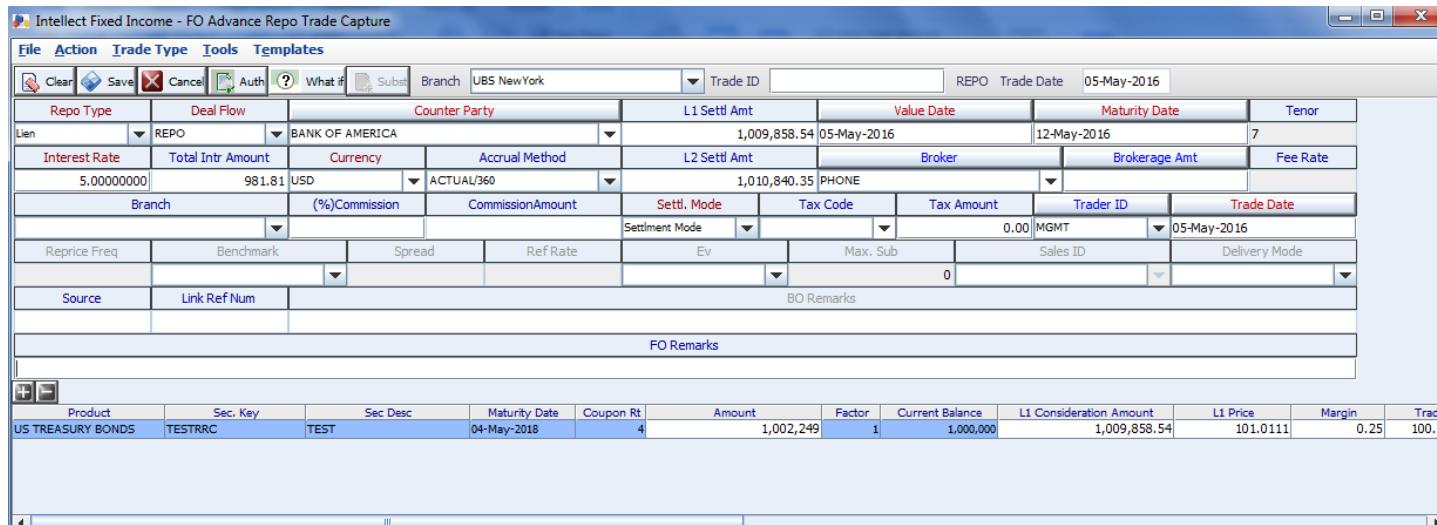
4.2 FIS Repo Deal

Advance Repo Trade screen is used to book repo/reverse repo deals against approved securities by regulators. Intellect™ One Treasury Supports pledging of one or more than one securities in the system for booking repo trades. Repo deal has 2 legs, the first leg has value date today (Cash deals) and the second leg is forward leg.

Repo: Sell-Buy and for **Reverse Repo: Buy-Sell** for first and second leg respectively.

4.2.1 Screen Layout & Functional Description

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Front Office >> Advance Repo Trade Capture



Product	Sec. Key	Sec Desc	Maturity Date	Coupon Rt	Amount	Factor	Current Balance	L1 Consideration Amount	L1 Price	Margin	Trade
US TREASURY BONDS	TESTRRC	TEST	04-May-2018	4	1,002,249	1	1,000,000	1,009,858.54	101.0111	0.25	100.7

4.2.3 Process Flow

Kindly refer to the [4.1.3 Process Flow](#) for deal process flow in front office.

4.2.4 Process Description

➤ Prerequisites

- Static data's such as [Currency](#), [Securities](#), [Product](#), Counterparty, Portfolios, Strategy, and [Branch-Portfolio-Strategy](#) should be maintained prior to deal booking in the system.
 - Securities should be marked Yes for Repo allowed [field](#) in the Security Maintenance screen for repo deal booking.
-
- To capture new Repo/Reverse deal, details such as Flow (Trade type), Leg1 Value Date, Counterparty, Tenor Days, Interest Rate, currency, settlement mode along with pledge security/securities. Refer [10.2.2 Data field for Repo Screen](#) for field details.
 - Securities are searched and selected in the panel by clicking on Product or Security Key labels. Once selected details were displayed. Security Prices populated based upon market prices maintained in the system. If not maintained, manual entry is done.
 - Based upon amount and margin values, system calculates L1 consideration amount, trade price and repo interest amount.
 - Using Security and deal details, system arrives at calculating Repo amount and Repo quantity using below formulas.
 -
 -

- Accrued Interest for Leg1 is calculated using Per Day accrual, Number of days between last coupon date and Value Date to arrive at clean price of the security

-

-

-

- Clean Price of the Security is calculated now

-

In Order to Calculate Leg1 Consideration amount Leg1 Clean Price multiplied with Repo Quantity.

- Settlement Amount for Leg1 is calculated using below formula

-

- Once Settlement amount for Leg1 is calculated ,System calculates Repo Interest amount using below formula
 -

- Settlement Amount for Leg2 = Settlement Amount Leg1 + Repo Interest.

- To Calculate Leg 2 Consideration and Leg2 Clean Price, System calculates Leg2 Accrued interest first then Subtracting it from Settlement amount Leg2 using below formula
 -

 -

 -

 -

- Leg 2 Clean Price and Leg2 Price (Dirty) is calculated using Leg2 Consideration amount and leg2 settlement amount respectively.
 -

o

- After deal related [Calculations](#), 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 (provide hyperlink) 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: **3EC1701000XX**

Where 1st digit represents Module Number (Repo deal starts with 3ECXXXX Series)

Next Two Alphabets = Booking center

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.

- Fixed Income module Supports various Repo Types functionality in the system which are
 - Market Repo
 - ⌚ BSB(Buy/Sell Backs)
 - ⌚ SBB (Sell/Buy Backs)
 - Lien

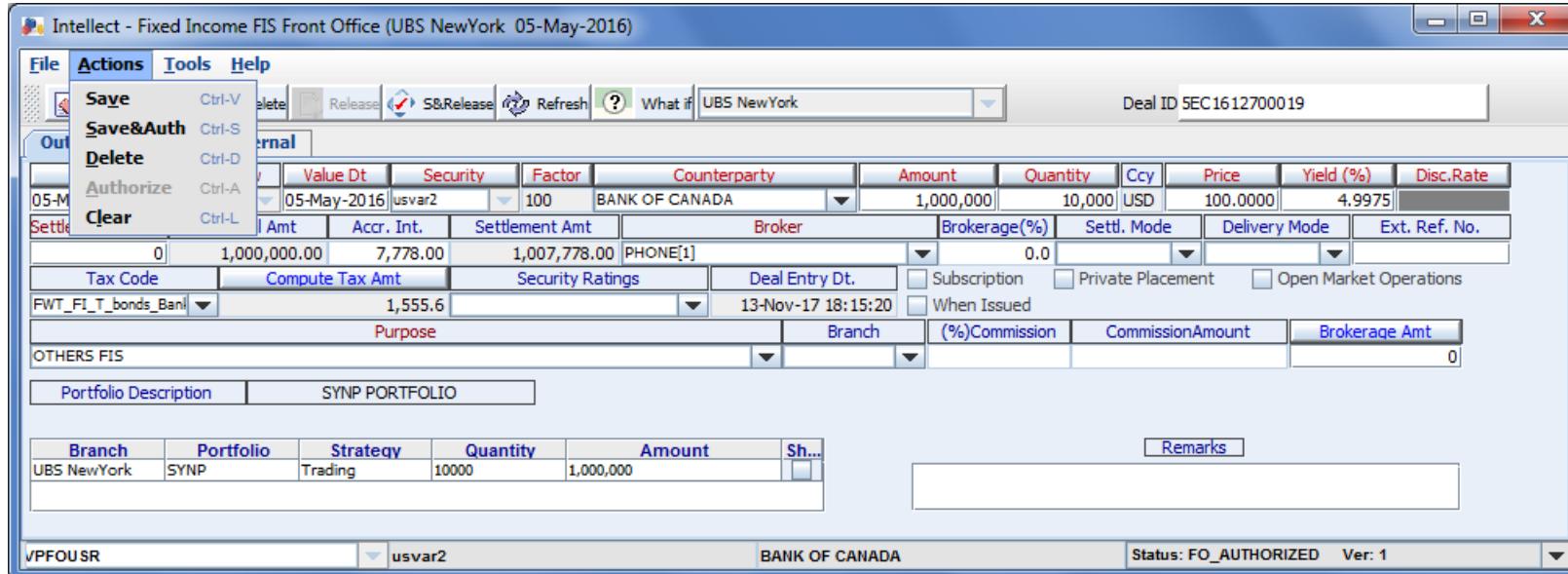
- Key differences between various repo types are highlighted in the below table.

S. No	Repo Type	Description	Key Features
1.	Market Repo <ul style="list-style-type: none"> ○ Sell/Buy Backs(SBB) ○ Buy/Sell Backs(BSB) 	Securities are sold together with an agreement to buy back later after some time or tenor. Also Known as Simple Repurchase Agreement.	<ul style="list-style-type: none"> ○ Transfer of Ownership
2.	Lien/ILF	Lien marked securities won't be available for SELL until the original deal gets matured and settled.	<ul style="list-style-type: none"> ○ No Transfer of Ownership. ○ Holdings are not affected ○ No Accrued Interest

4.3 User Actions

4.3.1 Screen Layout & Path

Navigation Path: Intellect One Treasury >> Fixed Income >> Front Office >>Actions



The screenshot shows the Intellect - Fixed Income FIS Front Office application window. The title bar reads "Intellect - Fixed Income FIS Front Office (UBS NewYork 05-May-2016)". The menu bar includes "File", "Actions", "Tools", and "Help". The "Actions" menu is open, showing options like Save, Save&Auth, Delete, Authorize, and Clear. The main workspace displays a deal entry form with the following data:

	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate
05-MAY-2016	usvar2	100	BANK OF CANADA	1,000,000	10,000	USD	100.0000	4.9975		
Settle Date	Settlement Amt	Broker	Brokerage(%)	Settl. Mode	Delivery Mode	Ext. Ref. No.				
0	1,000,000.00	7,778.00	1,007,778.00	PHONE[1]	0.0					
Tax Code	Compute Tax Amt	Security Ratings	Deal Entry Dt.							
FWT_FI_T_bonds_Bank	1,555.6		13-Nov-17 18:15:20							
Purpose		Branch	(%)Commission	CommissionAmount	Brokerage Amt					
OTHERS FIS										
Portfolio Description	SYNP PORTFOLIO									
Branch	Portfolio	Strategy	Quantity	Amount	Sh...		Remarks			
UBS NewYork	SYNP	Trading	10000	1,000,000						

At the bottom, there are status indicators: "Status: FO_AUTHORIZED Ver: 1" and user information: "VPFOUSR" and "usvar2".

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 FIS transactions

- Duration Limits
- Issue Size Limits
- Issuer Limit

- Trading Limit
- Open Position Limit
- Pre-Settlement Risk
- Cut Off Stop Loss Limit
- Industry Limit
- Portfolio Limit
- Deal Size(Min and Max Limit) Limit(Per Deal)

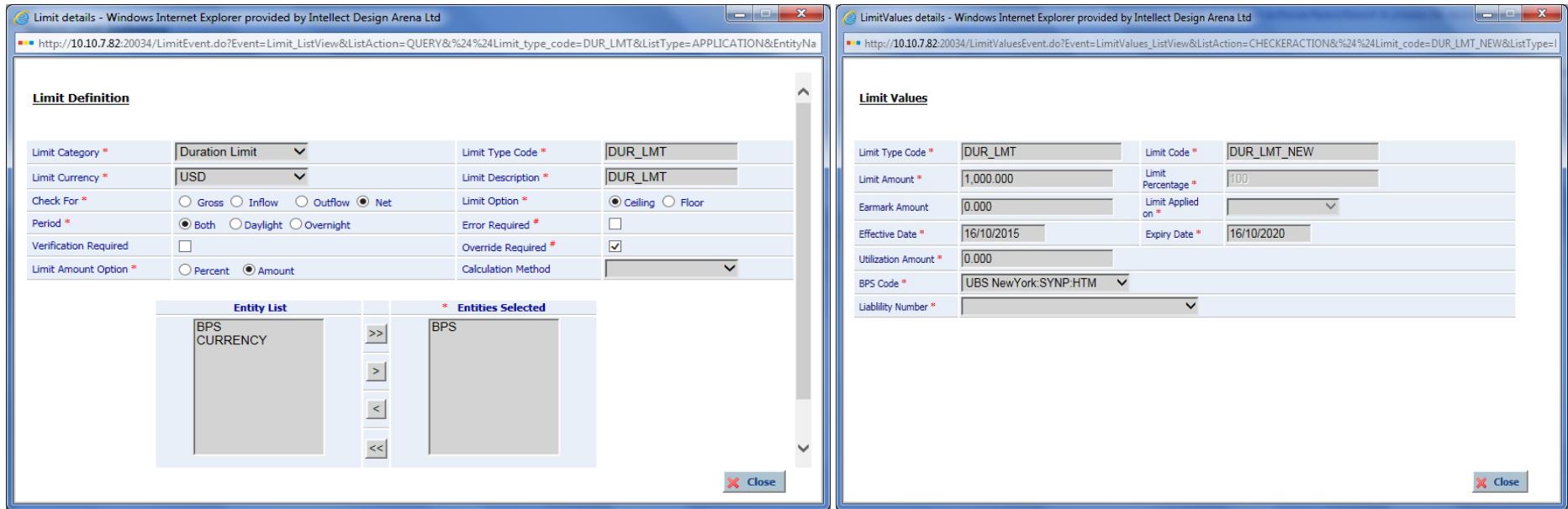
5.1.2.1 Duration Limit

Duration Limit is set on [BPS](#) Level to restrict the exposure to Interest Rate Risk. It is applicable only to FIS module and calculates the weighted average duration at BPS level and compares against the limit set. Please refer to [10.1 Computation Logic & Formulas](#) for calculations.

5.1.2.1.1 Screen Path & Setup

First step is to setup Limit definition followed by assigning values/defining parameters in Limit Values Master screen.

Navigaton Path: Intellect™ One Treasury >> Setup >> Risk Management >> **Limit Definition & Limit Values**



Limit Definition

Limit Category *	Duration Limit	Limit Type Code *	DUR_LMT
Limit Currency *	USD	Limit Description *	DUR_LMT
Check For *	<input type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input checked="" type="radio"/> Net	Limit Option *	<input checked="" type="radio"/> Ceiling <input type="radio"/> Floor
Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight	Error Required #	<input type="checkbox"/>
Verification Required	<input type="checkbox"/>	Override Required #	<input checked="" type="checkbox"/>
Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount	Calculation Method	

Entity List

BPS CURRENCY	Entities Selected
BPS	

Limit Values

Limit Type Code *	DUR_LMT	Limit Code *	DUR_LMT_NEW
Limit Amount *	1,000,000	Limit Percentage *	100
Earmark Amount	0.000	Limit Applied on *	
Effective Date *	16/10/2015	Expiry Date *	16/10/2020
Utilization Amount *	0.000		
BPS Code *	UBS NewYork:SYNP.HTM		
Liability Number *			

5.1.2.1.2 Description

- Prerequisites
 - Branch
 - Currency

While booking the deal, based upon defined underlying parameters, System will check for the no. of deals booked for each BPS and then calculates weighted average and in case it's breaching that will be shown in What-IF Analysis. See below screenshot for same.

What if		
Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Yield Check		IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 1.965689 not exceeding the defined Duration Limit 2.0	IN LIMIT
Limit Check		LIMIT BURST
Common Check	Limit: SR01 under SETTLEMENT RISK has in limit. Limit Amount: 7,000,000, Utilization Amt: 1,010,111.	IN LIMIT
DEALER LIMIT MAINTAIN	Deal amount::1,000,000.00 is with in the limit and Maximum deal amount ::50,000,000.00and Minimum Deal Amount::1,000,000.00	IN LIMIT
Issue Size Limit Check	Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM	LIMIT BURST
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

5.1.2.2 Issue Size Limit

Issue Size limit is set to restrict users from investing/dealing in specific security and to negate the risk. It's maintained at BPS level.

5.1.2.2.1 Screen Layout & Setup

Navigaton Path: Intellect™ One Treasury >> Setup >> Risk Management >> **Limit Definition & Limit Values.**

<div style="border: 1px solid #ccc; padding: 10px;"> <p>Limit Definition</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Limit Category *</td> <td style="width: 15%;">Issue Size</td> <td style="width: 15%;">Limit Type Code *</td> <td style="width: 15%;">ISS_SIZE</td> </tr> <tr> <td>Limit Currency *</td> <td>USD</td> <td>Limit Description *</td> <td>ISS_SIZE</td> </tr> <tr> <td>Check For *</td> <td><input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net</td> <td>Limit Option *</td> <td><input checked="" type="radio"/> Ceiling <input type="radio"/> Floor</td> </tr> <tr> <td>Period *</td> <td><input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight</td> <td>Error Required *</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Verification Required</td> <td><input type="checkbox"/></td> <td>Override Required *</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Limit Amount Option *</td> <td><input type="radio"/> Percent <input checked="" type="radio"/> Amount</td> <td>Calculation Method</td> <td><input type="button" value="▼"/></td> </tr> </table> <div style="margin-top: 10px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">Entity List</th> <th style="width: 85%;">* Entities Selected</th> </tr> <tr> <td style="padding: 5px;"> <input type="checkbox"/> BPS <input type="checkbox"/> BROKER <input type="checkbox"/> COUNTRY <input type="checkbox"/> CURRENCY <input type="checkbox"/> DEALER <input type="checkbox"/> ISSUER <input type="checkbox"/> LIABNUM <input type="checkbox"/> PRODUCT <input type="checkbox"/> PRODUCT_TYPE <input type="checkbox"/> SECURITY </td> <td style="padding: 5px;"> <input type="button" value=">>"/> <input type="button" value=">"/> <input type="button" value="<"/> <input type="button" value="<<"/> <input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/> </td> </tr> </table> </div> </div>	Limit Category *	Issue Size	Limit Type Code *	ISS_SIZE	Limit Currency *	USD	Limit Description *	ISS_SIZE	Check For *	<input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net	Limit Option *	<input checked="" type="radio"/> Ceiling <input type="radio"/> Floor	Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight	Error Required *	<input type="checkbox"/>	Verification Required	<input type="checkbox"/>	Override Required *	<input checked="" type="checkbox"/>	Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount	Calculation Method	<input type="button" value="▼"/>	Entity List	* Entities Selected	<input type="checkbox"/> BPS <input type="checkbox"/> BROKER <input type="checkbox"/> COUNTRY <input type="checkbox"/> CURRENCY <input type="checkbox"/> DEALER <input type="checkbox"/> ISSUER <input type="checkbox"/> LIABNUM <input type="checkbox"/> PRODUCT <input type="checkbox"/> PRODUCT_TYPE <input type="checkbox"/> SECURITY	<input type="button" value=">>"/> <input type="button" value=">"/> <input type="button" value="<"/> <input type="button" value="<<"/> <input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/>	<div style="border: 1px solid #ccc; padding: 10px;"> <p>LimitValues details - Windows Internet Explorer provided by Intellect Design Arena Ltd</p> <p>http://10.10.7.82:20034/LimitValuesEvent.do?Event=LimitValues_ListView&ListAction=CHECKERACTION&%24%24ReqId=10450&%24%24QueueName=PE[</p> <p>Limit Values</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Limit Type Code *</td> <td style="width: 15%;">ISS_SIZE</td> <td style="width: 15%;">Limit Code *</td> <td style="width: 15%;">ISSUESIZELMT</td> </tr> <tr> <td>Limit Amount *</td> <td>5000.00</td> <td>Limit Percentage *</td> <td>100</td> </tr> <tr> <td>Earmark Amount</td> <td>0.00</td> <td>Limit Applied on *</td> <td><input type="button" value="▼"/></td> </tr> <tr> <td>Effective Date *</td> <td>16/10/2015</td> <td>Expiry Date *</td> <td>16/10/2018</td> </tr> <tr> <td>Utilization Amount *</td> <td>0.00</td> <td>BPS Code *</td> <td>UBS NewYork:SYNP:AFS</td> </tr> </table> <div style="margin-top: 10px;"> <input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/> </div> </div>	Limit Type Code *	ISS_SIZE	Limit Code *	ISSUESIZELMT	Limit Amount *	5000.00	Limit Percentage *	100	Earmark Amount	0.00	Limit Applied on *	<input type="button" value="▼"/>	Effective Date *	16/10/2015	Expiry Date *	16/10/2018	Utilization Amount *	0.00	BPS Code *	UBS NewYork:SYNP:AFS
Limit Category *	Issue Size	Limit Type Code *	ISS_SIZE																																														
Limit Currency *	USD	Limit Description *	ISS_SIZE																																														
Check For *	<input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net	Limit Option *	<input checked="" type="radio"/> Ceiling <input type="radio"/> Floor																																														
Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight	Error Required *	<input type="checkbox"/>																																														
Verification Required	<input type="checkbox"/>	Override Required *	<input checked="" type="checkbox"/>																																														
Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount	Calculation Method	<input type="button" value="▼"/>																																														
Entity List	* Entities Selected																																																
<input type="checkbox"/> BPS <input type="checkbox"/> BROKER <input type="checkbox"/> COUNTRY <input type="checkbox"/> CURRENCY <input type="checkbox"/> DEALER <input type="checkbox"/> ISSUER <input type="checkbox"/> LIABNUM <input type="checkbox"/> PRODUCT <input type="checkbox"/> PRODUCT_TYPE <input type="checkbox"/> SECURITY	<input type="button" value=">>"/> <input type="button" value=">"/> <input type="button" value="<"/> <input type="button" value="<<"/> <input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/>																																																
Limit Type Code *	ISS_SIZE	Limit Code *	ISSUESIZELMT																																														
Limit Amount *	5000.00	Limit Percentage *	100																																														
Earmark Amount	0.00	Limit Applied on *	<input type="button" value="▼"/>																																														
Effective Date *	16/10/2015	Expiry Date *	16/10/2018																																														
Utilization Amount *	0.00	BPS Code *	UBS NewYork:SYNP:AFS																																														

5.1.2.2.2 Description

- Prerequisites
 - Branch
 - Currency
 - Entity List as shown in above screenshot.

In Intellect™ One Treasury, Issue Size limit is defined in terms of percentage of the security. Application checks how many deals are booked for mentioned security (Which is under booking).

Limit Setup Process is similar as defined in [5.1.2.1.1 Screen Path & Setup](#). While defining the limit, its type should be defined as Issue Size limit with applicable entity parameters.

For Example: Consider Following scenarios, in which a new security has been created and System checks for Issue Size limit.

Security Maintenance

Security						CashFlows		Options		MIS		Inflation Details		MarketRates	
Product Type	Currency	Face Value	IP Date	Issue Date	Maturity Date										
US TREASURY BONDS	USD	100	29-Apr-2015	29-Apr-2015	29-Apr-2018										
Description	Issuer Code		Issuer Name		Issuer Domicile	ISIN									
USTBND3012	FED RESERVE		FEDERAL RESERVE BANK NEWYORK		USA	USTBND290418									
Category	Precision	Issue Size	Ex-Dividend	Cut-Off Days	On Settlement Date	Ex-Dividend Date									
YES	4	1000000	NO												
Coupon Details															
Coupon		Coupon Frequency		Compounding Frequency		Coupon Rate		Odd Coupon Type		Last Coupon Date					
FIXED		12M		12M		5.00000000		Last Small Coupon		29-Apr-2018					
Interest Basis		BenchMark Code		Reprice Frequency		Next ResetDate		Spread%		Rate Floor %		Rate Ceiling %			
ACTUAL/360															
Trading Details															
Yield Type		Yield Method		Yield Quotation		Quote Method		Quote Type							
YTM		XIRR		NOMINAL		CLEAN		PERCENT							
Trading Allowed		Buy Back Allowed		Repo Allowed		Short Sell Allowed		Settlement Days		Internal Deal Allowed					
YES		NO		NO		NO				NO					
Rate Reasonability Type		RRC Min		RRC Max		Coupon Holiday Logic		Maturity Holiday Logic		C/FHolidayAdj					
NONE						Nxt Work		Prev Work		FIXED					
GENERATE CASH FLOWS															
Status:Authorized															

Scenario 1(Within the Limit): As No Deal is booked, so what-IF showing as 0.1 Percentage (as Deal Amount/Issue Size * 100)

Intellect - Fixed Income FIS Front Office (UBS NewYork 29-Apr-2016)

Deal ID											
Outright		Repo		Internal							
Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate
29-Apr-2016 15:40:02	BUY	29-Apr-2016	USTBND2904	100.0	BANK OF AMERICA	1,000	10	USD	100,000	4.9983	
Settlement Adj ... Principal Amt Accr. Int. Settlement Amt Broker Brokerage(%) Settl. Mode Delivery Mode Ext. Ref. No.											
0.00 1,000.00 0.00 1,000.00 PHONE[1]											
Tax Code		Compute Tax Amt		Security Ratings		Deal Entry Dt.		Subscription	Private Placement	Open Market Operations	
										When Issued	
Purpose Branch (%)/Commission CommissionAmount Brokerage Amt											
OTHERS FIS											
Portfolio Description		SYNP PORTFOLIO									
Branch	Portfolio	Strategy	Quantity	Amount	Sh.	Remarks					
UBS NewYork	SYNP	AFS	10	1,000							

What if

Message	Description	L
Common Check	Tax is not Applicable	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:AFS and Currency: USD is 8341.580236 not exceeding the defined Duration Limit 100000.0	IN LIMIT
Limit Check	Limit: SR01 under SETTLEMENT RISK has burst. Limit Amount: 7,000,000.00, Utilization Amt: 9,532,172.29,	LIMIT BUR
Common Check	Broker Limit is within the limit for Limit Type bankBrokerLimit is: 100 % Current Brokerage is:100.00 %	IN LIMIT
Common Check	Broker Limit exceeded for Limit Type bankBroker Limit is: 0 % Current Brokerage is:100.00 %	LIMIT BUR
DEALER LIMIT MAINTAIN	Deal amount:1,000.00 is less than minimum amount: 1,000,000.00	LIMIT BUR
Common Check	Issue Size 0.10 percentage is not Exceeding the Issue Size Limit value 5000 percentage	IN LIMIT
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID: MGMI	LIMIT BUR

Scenario 2(Breaching the Limit):

Intellect - Fixed Income FIS Front Office (UBS NewYork 29-Apr-2016)

File Actions Tools Help

Outright Repo Internal

Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate
29-Apr-2016 15:40:02	BUY	29-Apr-2016	USTBND2904	100.0	BANK OF AMERICA	500,000,000	5,000,000	USD	100.0000	4.9983	
Settlement Adm.	Principal Amt	Accr. Int.	Settlement Amt	Broker	Brokerage(%)	Settl. Mode	Delivery Mode	Ext. Ref. No.			
0.00	500,000,000.00	0.00	500,000,000.00	PHONE[1]							
Tax Code			Compute Tax Amt	Security Ratings		Deal Entry Dt.	<input type="checkbox"/> Subscription	<input type="checkbox"/> Private Placement	<input type="checkbox"/> Open Market Operations		
							<input type="checkbox"/> When Issued				
Purpose				Branch	(%)Commission	CommissionAmount	Brokerage Amt				
OTHERS FIS											
Portfolio Description		SYNP PORTFOLIO									
Branch	Portfolio	Strategy	Quantity	Amount	Sh...	Remarks					
UBS NewYork	SYNP	AFS	5,000,000	500,000,000							
INTELLECTFO		USTBND0312		BANK OF AMERICA							

What if

Message	Description	L
Common Check	Tax is not Applicable	IN LIMIT
Common Check	Limit: TREASURYLIMIT under BANK LIMIT has in limit. Limit Amount: 1,000,000,000, Utilization Amt: 500,000,000.	IN LIMIT
Limit Check	Limit: newBkrLmt under BROKER LIMIT has burst. Limit Amount: 0.00, Utilization Amt: 33,285,000,000.00.	LIMIT BURS
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:AFS and Currency: USD is 1.978859 not exceeding the defined Duration Limit 100000.0	IN LIMIT
Limit Check	Limit: SR01 under SETTLEMENT RISK has burst. Limit Amount: 7,000,000.00, Utilization Amt: 509,531,172.29.	LIMIT BURS
Common Check	Broker Limit is within the limit for Limit Type bankBrokerLimit Limit is: 100 % Current Brokerage is:100.00 %	IN LIMIT
Common Check	Broker Limit exceeded for Limit Type bankBroker Limit is: 0 % Current Brokerage is:100.00 %	LIMIT BURS
DEALER LIMIT MAINTAI	Deal amount:500,000,000.00 is greater than maximum amount: 50,000,000.00	LIMIT BURS
Issue Size Limit Check	Issue Size 50000.00 percentage is Exceeding the Issue Size Limit value 5000 percentage	LIMIT BURS
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURS

In this scenario, Issue Size limit is shown as 50,000 Percentage (As Deal Amount/Issue Size * 100 = 500000000/100000*100).

P.S: No deals were booked prior to this What-IF Check. We need to consider the amounts in case deals have been booked using created securities.

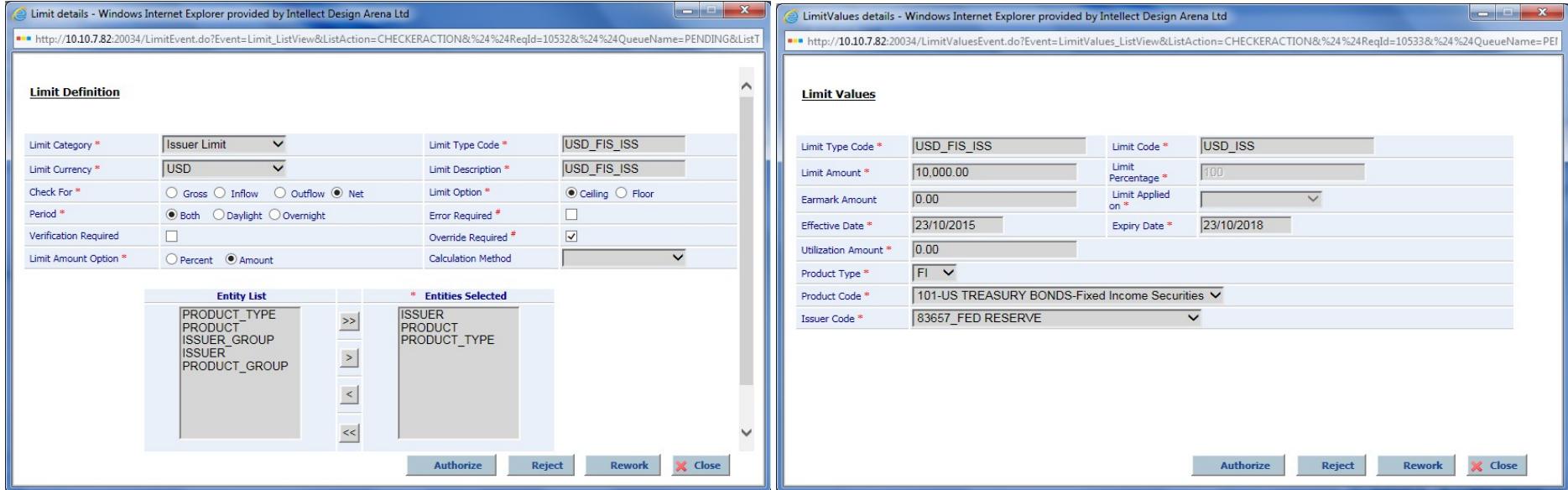
Similar Messages were repeated during deal booking processing in [Overrides](#) or [Error](#) Pop ups based upon limit configuration.

5.1.2.3 Issuer Limit

In Intellect™ One Treasury Issuer limits are checked for net (Buy - (Sell or matured or cancelled) for all the deals booked into the system across all products issued by one issuer, the system checks the holding of all securities with the issuer and compares it with the limit.

5.1.2.3.1 Screen Layout and Setup

Navigaton Path: Intellect™ One Treasury >> Setup >> Risk Management >> **Limit Definition & Limit Values**



Limit Definition

Limit Category *	Issuer Limit
Limit Currency *	USD
Check For *	<input type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input checked="" type="radio"/> Net
Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight
Verification Required	<input type="checkbox"/>
Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount

Entity List

PRODUCT_TYPE
PRODUCT
ISSUER_GROUP
ISSUER
PRODUCT_GROUP

*** Entities Selected**

ISSUER
PRODUCT
PRODUCT_TYPE

Authorize **Reject** **Rework** **Close**

Limit Values

Limit Type Code *	USD_FIS_ISS
Limit Amount *	10,000.00
Earmark Amount	0.00
Effective Date *	23/10/2015
Utilization Amount *	0.00
Product Type *	FI
Product Code *	101-US TREASURY BONDS-Fixed Income Securities
Issuer Code *	83657_FED RESERVE

Authorize **Reject** **Rework** **Close**

5.1.2.3.2 Description

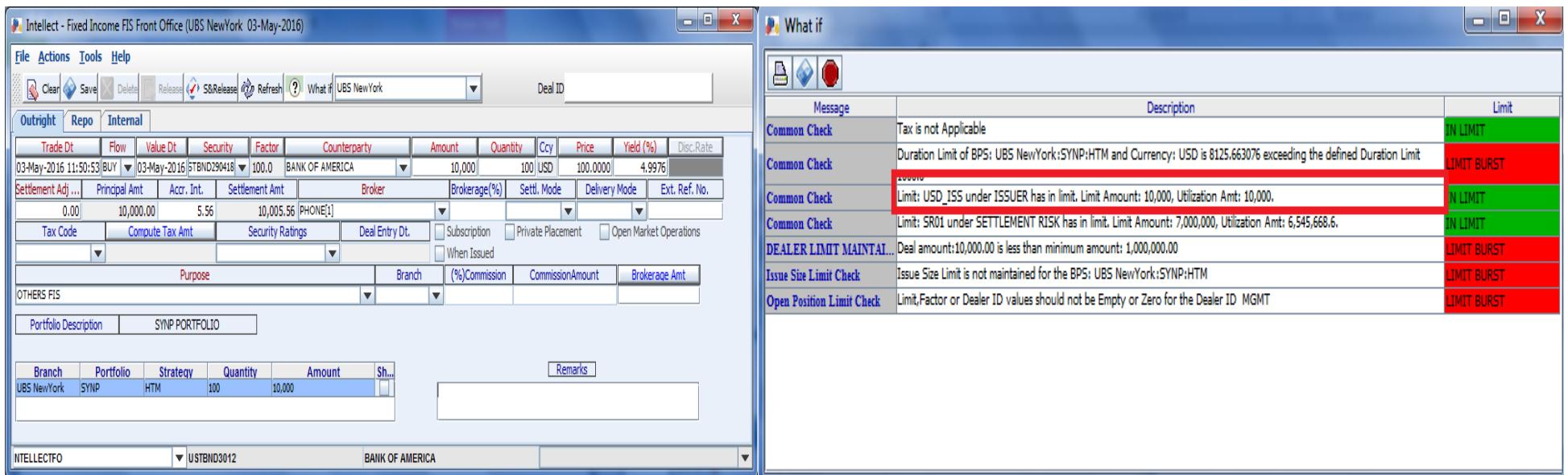
➤ Prerequisites

- Branch
- Currency
- Entity List or Underlying Parameters

Limit Setup Process is similar as defined in [5.1.2.1.1 Screen Path & Setup](#). While defining, limit type should be defined as Issuer limit with applicable entity parameters.

For Example: Consider Following scenarios, while booking a new deal in the system, [Pre-Trade Analysis](#) has been done to verify the Issuer limits check

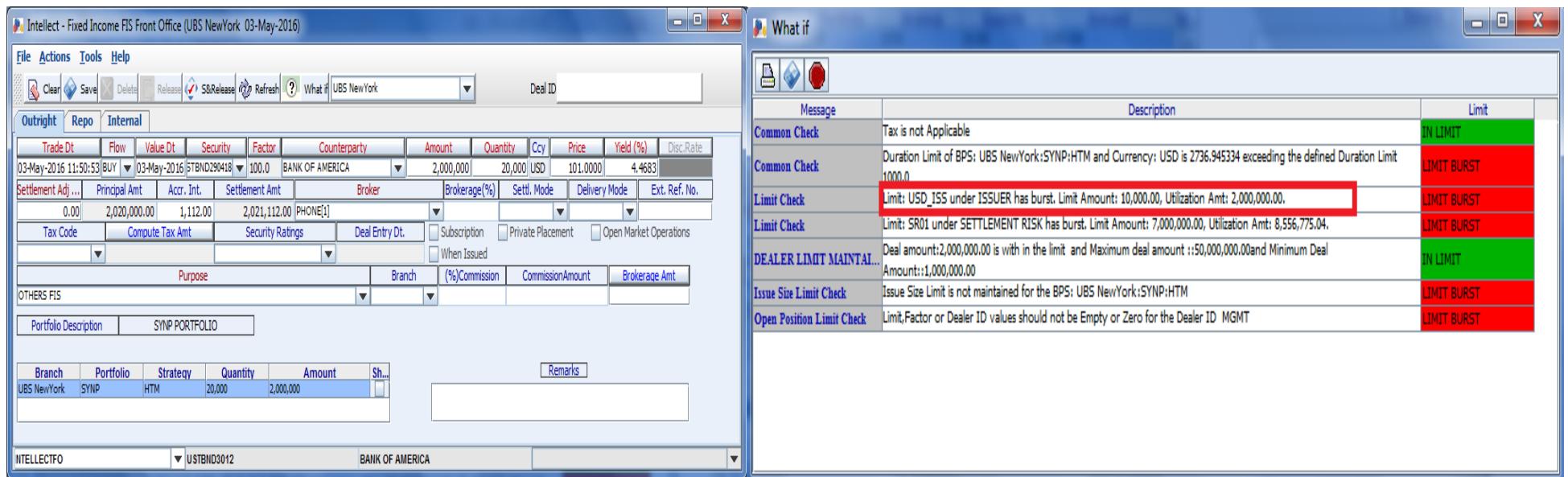
Scenario 1: (Within the Limit)



The screenshot shows two windows side-by-side. On the left is the 'Intellect - Fixed Income FIS Front Office' window for UBS New York on May 3, 2016. It displays a trade entry for a BUY of 100.0 units of TBND290418 at 100.000 USD per unit, with a price of 100.0000 and a yield of 4.9976%. The right window is a 'What if' analysis tool showing various limit checks. The 'Common Check' section includes messages like 'Tax is not Applicable' (IN LIMIT), 'Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 8125.663076 exceeding the defined Duration Limit' (LIMIT BURST), and 'Limit: USD_ISS under ISSUER has in limit. Limit Amount: 10,000, Utilization Amt: 10,000.' (IN LIMIT). Other checks listed include 'Common Check' (SR01 under SETTLEMENT RISK), 'DEALER LIMIT MAINTAIN...', 'Issue Size Limit Check' (Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM), and 'Open Position Limit Check' (Limit, Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT).

Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 8125.663076 exceeding the defined Duration Limit	LIMIT BURST
Common Check	Limit: USD_ISS under ISSUER has in limit. Limit Amount: 10,000, Utilization Amt: 10,000.	IN LIMIT
Common Check	Limit: SR01 under SETTLEMENT RISK has in limit. Limit Amount: 7,000,000, Utilization Amt: 6,545,668.6.	IN LIMIT
DEALER LIMIT MAINTAIN...	Deal amount:10,000.00 is less than minimum amount: 1,000,000.00	LIMIT BURST
Issue Size Limit Check	Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM	LIMIT BURST
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

Scenario 2: (Limit Breached)



The screenshot shows the Intellect - Fixed Income FIS Front Office interface for UBS NewYork on May 3, 2016. The main window displays a deal entry form with fields for Trade Dt, Flow, Value Dt, Security, Factor, Counterparty, Amount, Quantity, Ccy, Price, Yield (%), Disc.Rate, Settlement Adj., Principal Amt, Accr. Int, Settlement Amt, Broker, Brokerage(%), Sett. Mode, Delivery Mode, Ext. Ref. No., Tax Code, Compute Tax Amt, Security Ratings, Deal Entry Dt, Subscription, Private Placement, Open Market Operations, and When Issued. Below this is a section for Purpose, Branch, (%)/Commission, CommissionAmount, and Brokerage Amt, with OTHERS FIS selected.

To the right, a 'What if' message window lists various checks and their outcomes:

Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 2736.945334 exceeding the defined Duration Limit 1000.0	LIMIT BURST
Limit Check	Limit: USD_1SS under ISSUER has burst. Limit Amount: 10,000.00, Utilization Amt: 2,000,000.00	LIMIT BURST
Limit Check	Limit: SR01 under SETTLEMENT RISK has burst. Limit Amount: 7,000,000.00, Utilization Amt: 8,556,775.04	LIMIT BURST
DEALER LIMIT MAINTAIN	Deal amount:2,000,000.00 is with in the limit and Maximum deal amount ::50,000,000.00and Minimum Deal Amount::1,000,000.00	IN LIMIT
Issue Size Limit Check	Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM	LIMIT BURST
Open Position Limit Check	Limit.Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

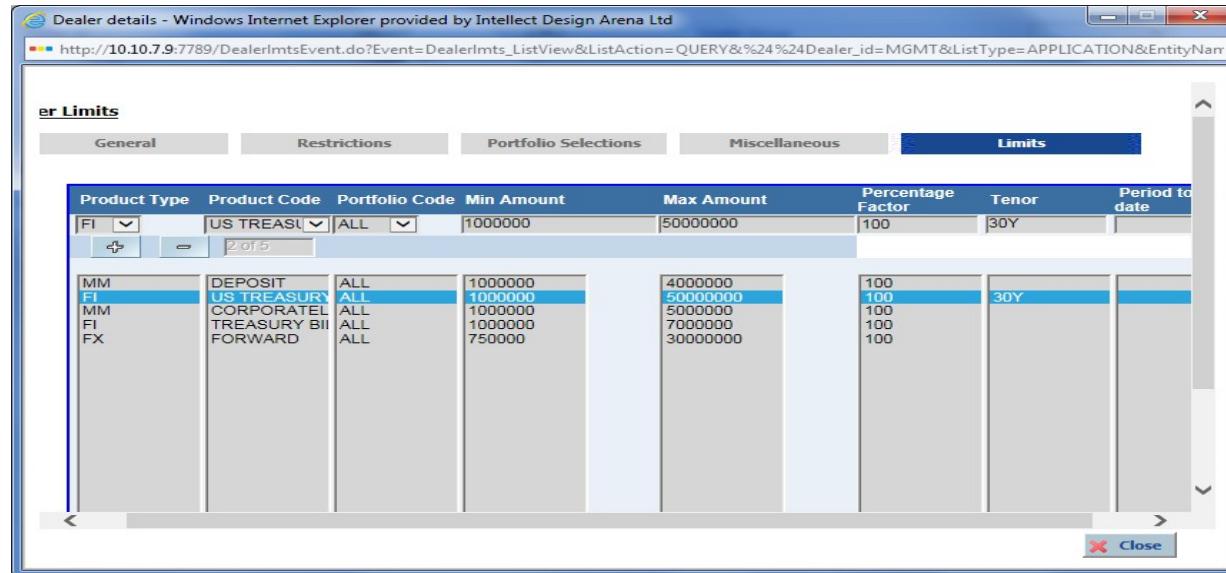
P.S: Similar Messages were repeated during deal booking process, in form of [Overrides](#) or [Error](#) Pop ups based upon limit configuration defined under setup.

5.1.2.4 Deal Size Limit

Minimum and maximum deal size limits are set for a dealer. If the dealer books a deal for an amount below the minimum deal size limit or above the maximum deal size limit, the limit bursts.

5.1.2.4.1 Screen Layout & Setup

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



5.1.2.4.2 Description

➤ Prerequisites

- Dealer
- Product and Product Type
- Portfolio

For Example: In above screenshot, for FI Product and for US Treasury Bonds the minimum and maximum amounts are 1000000 and 50000000 respectively. If dealer books a deal less than the minimum amount or more than the maximum limit, breached messages were shown as part of [Pre-Trade or What-If Analysis](#).

Case 1: Deal Amount is less (10000) than Minimum Deal Size Amount (1000000). In this case What-if displays the message of breached limit.

Intellect - Fixed Income FIS Front Office (UBS NewYork 03-May-2016)

Outright												Repo		Internal			
Trade Dt	Flow	Value Dt	Security	Factor	Counterparty		Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate					
03-May-2016 10:35:20	BUY	03-May-2016	USTBND2904	100.0	BANK OF AMERICA		10,000	100	USD	100.0000	4.9976						
Settlement Adj ...		Principal Amt	Accr. Int.	Settlement Amt	Broker		Brokerage(%)	Settl. Mode	Delivery Mode	Ext. Ref. No.							
		0.00	10,000.00	5.56	PHONE[1]												
Tax Code		Compute Tax Amt		Security Ratings		Deal Entry Dt.	<input type="checkbox"/> Subscription	<input type="checkbox"/> Private Placement	<input type="checkbox"/> Open Market Operations								
							<input type="checkbox"/> When Issued										
Purpose												Branch	(%)Commission	CommissionAmount	Brokerage Amt		
OTHERS FIS																	
Portfolio Description				SYNP PORTFOLIO													
Branch	Portfolio	Strateqy	Quantity	Amount	Sh...									Remarks			
UBS NewYork	SYNP	AFS	100	10,000													
NTELLECTFO												USTBND3012		BANK OF AMERICA			

What if

Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:AFS and Currency: USD is 1.967748 not exceeding the defined Duration Limit 100000.0	IN LIMIT
Common Check	Limit: USD_ISS under ISSUER has in limit. Limit Amount: 10,000, Utilization Amt: 10,000.	IN LIMIT
Common Check	Limit: SR01 under SETTLEMENT RISK has in limit. Limit Amount: 7,000,000, Utilization Amt: 10,005.56.	IN LIMIT
DEALER LIMIT MAINTAINANCE	Deal amount:10,000.00 is less than minimum amount: 1,000,000.00	LIMIT BURST
Common Check	Issue Size 1.00 percentage is not Exceeding the Issue Size Limit value 5000 percentage	IN LIMIT
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

Case 2: Deal Amount is greater (100000000) than Minimum Deal Size Amount (50000000). In this case also What-if displays the message of breached limit.

Intellect - Fixed Income FIS Front Office (UBS NewYork 03-May-2016)

Outright												Repo		Internal	
Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate				
03-May-2016 10:35:20	BUY	03-May-2016	USTBND2904	100.0	BANK OF AMERICA	100,000,000	1,000,000	USD	101.0000	4.4683					
Settlement Adj ...	Principal Amt	Accr. Int.	Settlement Amt		Broker	Brokerage(%)	Settl. Mode	Delivery Mode	Ext. Ref. No.						
0.00	101,000,000.00	55,600.00	101,055,600.00	PHONE[1]											
Tax Code	Compute Tax Amt	Security Ratings		Deal Entry Dt.		<input type="checkbox"/> Subscription	<input type="checkbox"/> Private Placement	<input type="checkbox"/> Open Market Operations							
					<input type="checkbox"/> When Issued										
Purpose						Branch	(%)Commission	CommissionAmount	Brokerage Amt						
OTHERS FIS															
Portfolio Description		SYNP PORTFOLIO													
Branch	Portfolio	Strateqy	Quantity	Amount	Sh...							Remarks			
UBS NewYork	SYNP	AFS	1,000,000	100,000,000											
INTELLECTFO												USTBND3012		BANK OF AMERICA	

What if

Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:AFS and Currency: USD is 1.967986 not exceeding the defined Duration Limit 100000.0	IN LIMIT
Limit Check	Limit: USD_ISS under ISSUER has burst. Limit Amount: 10,000.00, Utilization Amt: 100,000,000.00.	LIMIT BURST
Limit Check	Limit: SR01 under SETTLEMENT RISK has burst. Limit Amount: 7,000,000.00, Utilization Amt: 101,055,600.00.	LIMIT BURST
DEALER LIMIT MAINTAIN...	Deal amount:100,000,000.00 is greater than maximum amount: 50,000,000.00	LIMIT BURST
Issue Size Limit Check	Issue Size 10000.00 percentage is Exceeding the Issue Size Limit value 5000 percentage	LIMIT BURST
Open Position Limit Check	Limit, Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

Case 3: Deal Amount is between minimum and maximum deal Size amount .In this case What-if displays within the limit message.

Intellect - Fixed Income FIS Front Office (UBS NewYork 03-May-2016)

Outright												Repo		Internal	
Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate				
03-May-2016 10:35:20	BUY	03-May-2016	USTBND2904	100.0	BANK OF AMERICA	1,000,001	10,000	USD	101.0000	4.4683					
Settlement Adj ...	Principal Amt	Accr. Int.	Settlement Amt		Broker	Brokerage(%)	Settl. Mode	Delivery Mode			Ext. Ref. No.				
	0.00	1,010,000.00	556.00	1,010,556.00	PHONE[1]										
Tax Code	Compute Tax Amt		Security Ratings		Deal Entry Dt.		<input type="checkbox"/> Subscription	<input type="checkbox"/> Private Placement	<input type="checkbox"/> Open Market Operations						
							<input type="checkbox"/> When Issued								
Purpose						Branch	(%)Commission	CommissionAmount	Brokerage Amt						
OTHERS FIS															
Portfolio Description		SYNP PORTFOLIO													
Branch	Portfolio	Stragy	Quantity	Amount	Sh...								Remarks		
UBS NewYork	SYNP	AFS	10,000	1,000,001											
NTELLECTFO													USTBND3012	BANK OF AMERICA	

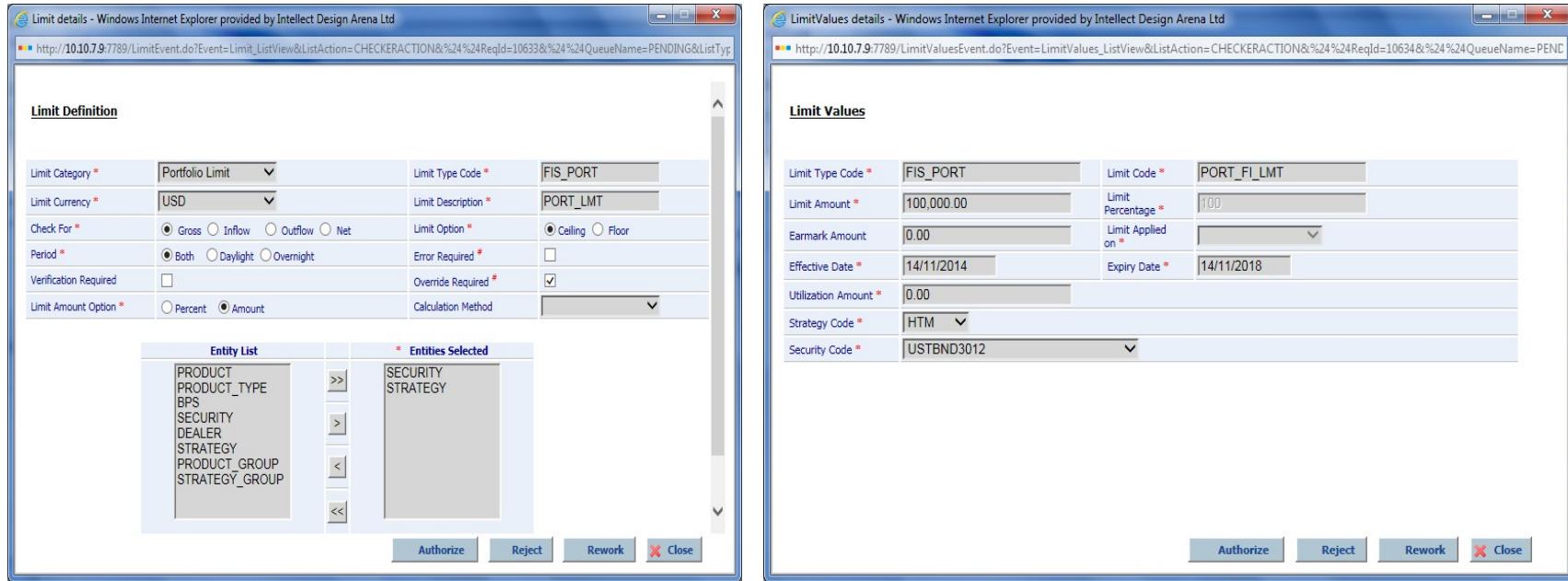
What if

Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:AFS and Currency: USD is 1.967986 not exceeding the defined Duration Limit 100000.0	IN LIMIT
Limit Check	Limit: USD_ISS under ISSUER has burst. Limit Amount: 10,000.00, Utilization Amt: 1,000,000.00.	LIMIT BURST
Common Check	Limit: SR01 under SETTLEMENT RISK has in limit. Limit Amount: 7,000,000, Utilization Amt: 1,010,556.	IN LIMIT
DEALER LIMIT MAINTAI...	Deal amount:1,000,000.00 is with in the limit and Maximum deal amount ::50,000,000.00and Minimum Deal Amount::1,000,000.00	IN LIMIT
Common Check	Issue Size 100.00 percentage is not Exceeding the Issue Size Limit value 5000 percentage	IN LIMIT
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

5.1.2.5 Portfolio Limit

5.1.2.5.1 Screen Layout & Setup

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



The image displays two side-by-side windows from the Intellect™ One Treasury application.

Left Window (Limit Definition):

- Limit Category:** Portfolio Limit
- Limit Currency:** USD
- Check For:** Gross (radio button selected)
- Period:** Both (radio button selected)
- Verification Required:** Unchecked
- Limit Amount Option:** Amount (radio button selected)
- Limit Type Code:** FIS_PORT
- Limit Description:** PORT_LMT
- Limit Option:** Ceiling (radio button selected)
- Error Required:** Unchecked
- Override Required:** Checked
- Calculation Method:** (dropdown menu)

Entity List: PRODUCT, PRODUCT_TYPE, BPS, SECURITY, DEALER, STRATEGY, PRODUCT_GROUP, STRATEGY_GROUP

*** Entities Selected:** SECURITY, STRATEGY

Buttons: Authorize, Reject, Rework, Close

Right Window (Limit Values):

- Limit Type Code:** FIS_PORT
- Limit Code:** PORT_FI_LMT
- Limit Amount:** 100,000.00
- Limit Percentage:** 100
- Earmark Amount:** 0.00
- Limit Applied on:** (dropdown menu)
- Effective Date:** 14/11/2014
- Expiry Date:** 14/11/2018
- Utilization Amount:** 0.00
- Strategy Code:** HTM
- Security Code:** USTBND3012

Buttons: Authorize, Reject, Rework, Close

5.1.2.5.2 Description

- Prerequisites
 - Currency
 - Entity List

Limit Setup Process is similar as defined in [5.1.2.1.1 Screen Path & Setup](#). While defining, limit type should be defined as Portfolio limit with applicable entity parameters.

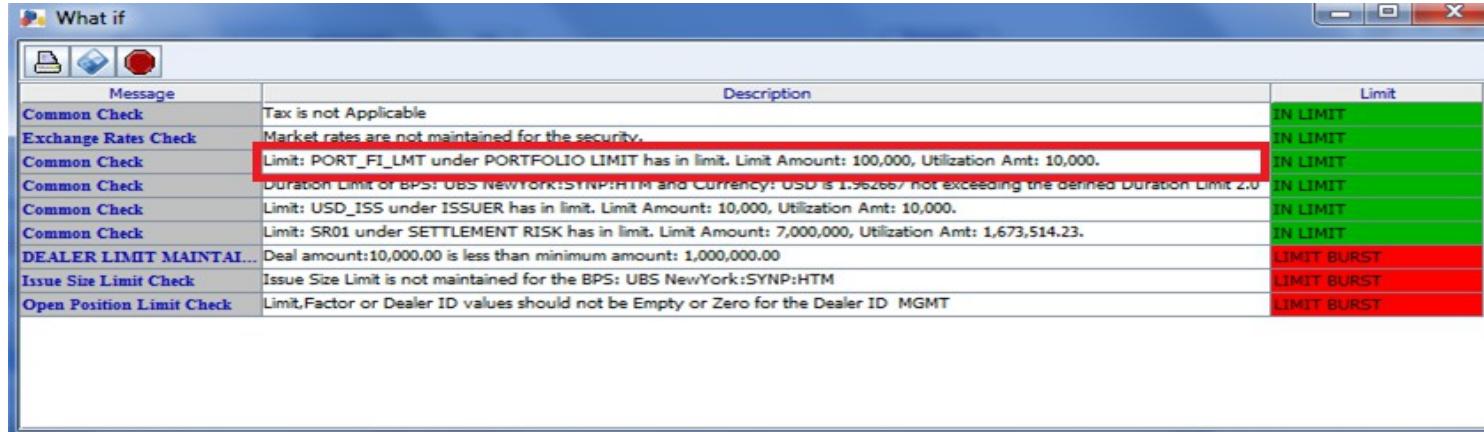
For Example: Consider Following scenarios, while booking a new deal in the system, [Pre-Trade Analysis](#) has been done to verify the Portfolio limit check

Scenario 1: (Within the Limit)

Intellect - Fixed Income FIS Front Office (UBS NewYork 05-May-2016)

Outright												Repo			Internal		
Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate						
05-May-2016 11:01:52	BUY	05-May-2016	USTBND2904	100.0	BANK OF AMERICA	10,000	100	USD	102,0000	3.9439							
Settlement Adj ...	Principal Amt	Accr. Int.	Settlement Amt		Broker	Brokerage(%)		Settl. Mode	Delivery Mode		Ext. Ref. No.						
0.00	10,200.00	8.33	10,208.33	PHONE[1]													
Tax Code	Compute Tax Amt	Security Ratings	Deal Entry Dt.					Subscription	Private Placement	Open Market Operations							
Purpose		Branch	(%)Commission	CommissionAmount	Brokerage Amt												
OTHERS FIS																	
Portfolio Description				SYNP PORTFOLIO													
Branch	Portfolio	Stratagy	Quantity	Amount	Sh...									Remarks			
UBS NewYork	SYNP	HTM	100	10,000													
NTELLECTFO												USTBND3012 BANK OF AMERICA					

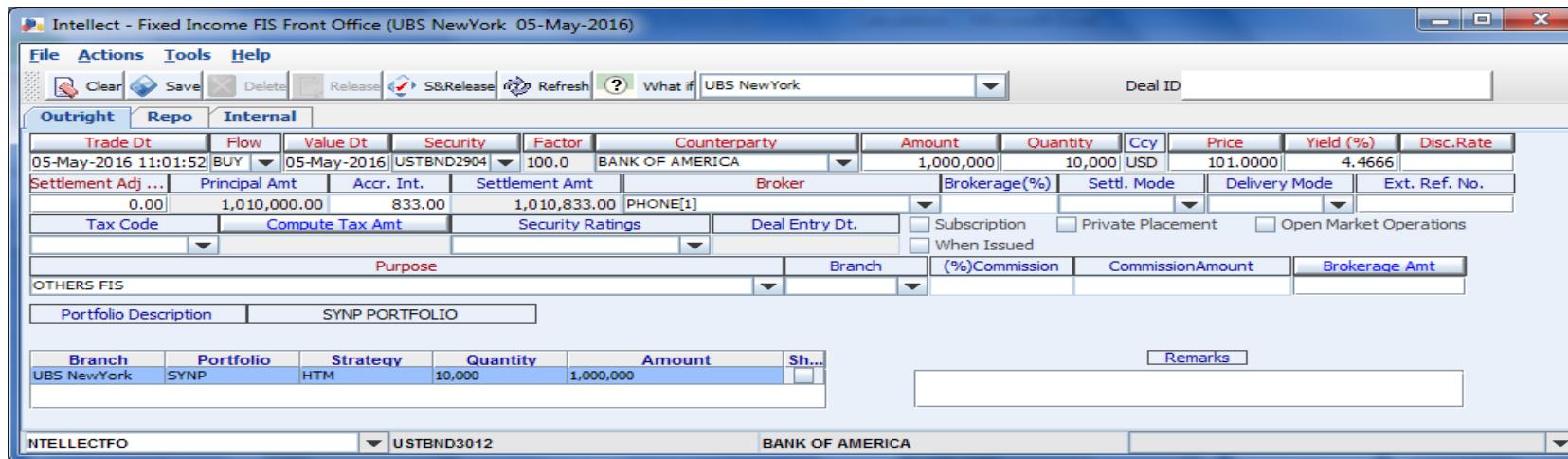
What if



Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Exchange Rates Check	Market rates are not maintained for the security.	IN LIMIT
Common Check	Limit: PORT_FI_LMT under PORTFOLIO LIMIT has in limit. Limit Amount: 100,000, Utilization Amt: 10,000.	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 1.96266/ not exceeding the defined Duration Limit 2.0	IN LIMIT
Common Check	Limit: USD_ISS under ISSUER has in limit. Limit Amount: 10,000, Utilization Amt: 10,000.	IN LIMIT
Common Check	Limit: SR01 under SETTLEMENT RISK has in limit. Limit Amount: 7,000,000, Utilization Amt: 1,673,514.23.	IN LIMIT
DEALER LIMIT MAINTAIN...	Deal amount:10,000.00 is less than minimum amount: 1,000,000.00	LIMIT BURST
Issue Size Limit Check	Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM	LIMIT BURST
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

Scenario2 (Breaching the limit)

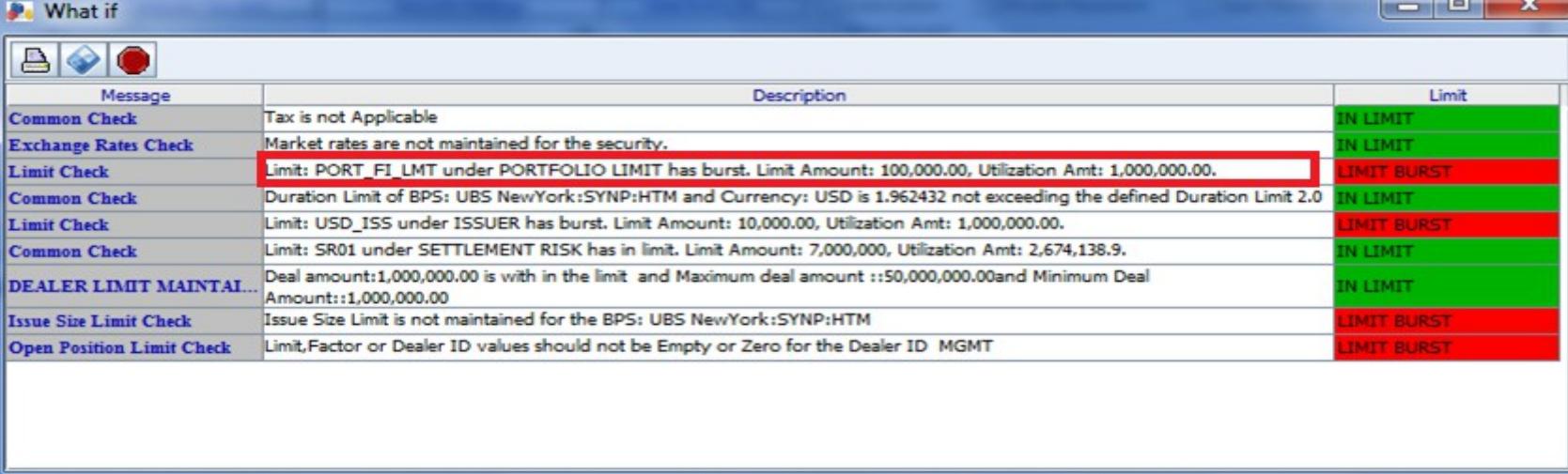
Intellect - Fixed Income FIS Front Office (UBS NewYork 05-May-2016)



The screenshot shows the Intellect Fixed Income FIS Front Office application window. The main area displays a trade entry form with the following details:

Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate
05-May-2016 11:01:52	BUY	05-May-2016	USTBND2904	100.0	BANK OF AMERICA	1,000,000	10,000	USD	101.0000	4.4666	

Below the main table, there are several input fields and dropdown menus for Settlement Adjustment, Broker information, and other transaction parameters. At the bottom of the form, there are sections for Portfolio Description (SYNP PORTFOLIO) and Remarks.



Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Exchange Rates Check	Market rates are not maintained for the security.	IN LIMIT
Limit Check	Limit: PORT_FI_LMT under PORTFOLIO LIMIT has burst. Limit Amount: 100,000.00, Utilization Amt: 1,000,000.00.	LIMIT BURST
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 1.962432 not exceeding the defined Duration Limit 2.0	IN LIMIT
Limit Check	Limit: USD_ISS under ISSUER has burst. Limit Amount: 10,000.00, Utilization Amt: 1,000,000.00.	LIMIT BURST
Common Check	Limit: SR01 under SETTLEMENT RISK has in limit. Limit Amount: 7,000,000, Utilization Amt: 2,674,138.9.	IN LIMIT
DEALER LIMIT MAINTAINANCE	Deal amount:1,000,000.00 is with in the limit and Maximum deal amount ::50,000,000.00and Minimum Deal Amount::1,000,000.00	IN LIMIT
Issue Size Limit Check	Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM	LIMIT BURST
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

5.1.2.6 Trading Limit

5.1.2.6.1 Screen Layout & Setup

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

Limit Definition <table border="1"> <tr> <td>Limit Category *</td> <td>Trading Limit</td> <td>Limit Type Code *</td> <td>FIS_TRD_LMT</td> </tr> <tr> <td>Limit Currency *</td> <td>USD</td> <td>Limit Description *</td> <td>FIS_TRD_LMT</td> </tr> <tr> <td>Check For *</td> <td><input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net</td> <td>Limit Option *</td> <td><input checked="" type="radio"/> Ceiling <input type="radio"/> Floor</td> </tr> <tr> <td>Period *</td> <td><input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight</td> <td>Error Required #</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Verification Required</td> <td><input type="checkbox"/></td> <td>Override Required #</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Limit Amount Option *</td> <td><input type="radio"/> Percent <input checked="" type="radio"/> Amount</td> <td>Calculation Method</td> <td></td> </tr> </table> <table border="1"> <tr> <td>Entity List</td> <td>* Entities Selected</td> </tr> <tr> <td> BPS BROKER COUNTRY CURRENCY DEALER ISSUER LIABNUM PRODUCT PRODUCT_TYPE SECURITY </td> <td> PRODUCT PRODUCT_TYPE SECURITY BPS CURRENCY ISSUER </td> </tr> <tr> <td colspan="2"> <input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/> </td> </tr> </table>		Limit Category *	Trading Limit	Limit Type Code *	FIS_TRD_LMT	Limit Currency *	USD	Limit Description *	FIS_TRD_LMT	Check For *	<input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net	Limit Option *	<input checked="" type="radio"/> Ceiling <input type="radio"/> Floor	Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight	Error Required #	<input type="checkbox"/>	Verification Required	<input type="checkbox"/>	Override Required #	<input checked="" type="checkbox"/>	Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount	Calculation Method		Entity List	* Entities Selected	BPS BROKER COUNTRY CURRENCY DEALER ISSUER LIABNUM PRODUCT PRODUCT_TYPE SECURITY	PRODUCT PRODUCT_TYPE SECURITY BPS CURRENCY ISSUER	<input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/>		Limit Values <table border="1"> <tr> <td>Limit Type Code *</td> <td>FIS_TRD_LMT</td> <td>Limit Code *</td> <td>TRD_LMT_FI</td> </tr> <tr> <td>Limit Amount *</td> <td>10,000.00</td> <td>Limit Percentage *</td> <td>100</td> </tr> <tr> <td>Earmark Amount</td> <td>0.00</td> <td>Limit Applied on *</td> <td></td> </tr> <tr> <td>Effective Date *</td> <td>14/11/2014</td> <td>Expiry Date *</td> <td>14/11/2019</td> </tr> <tr> <td>Utilization Amount *</td> <td>0.00</td> <td colspan="2"></td> </tr> <tr> <td>BPS Code *</td> <td>UBS NewYork:SYNP:HTM</td> <td colspan="2"></td> </tr> <tr> <td>Product Type *</td> <td>FI</td> <td colspan="2"></td> </tr> <tr> <td>Product Code *</td> <td>101-US TREASURY BONDS-Fixed Income Securities</td> <td colspan="2"></td> </tr> <tr> <td>Issuer Code *</td> <td>83657_FED RESERVE</td> <td colspan="2"></td> </tr> <tr> <td>Security Code *</td> <td>USTBND3012</td> <td colspan="2"></td> </tr> <tr> <td>Currency *</td> <td>USD</td> <td colspan="2"></td> </tr> </table> <input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/>	Limit Type Code *	FIS_TRD_LMT	Limit Code *	TRD_LMT_FI	Limit Amount *	10,000.00	Limit Percentage *	100	Earmark Amount	0.00	Limit Applied on *		Effective Date *	14/11/2014	Expiry Date *	14/11/2019	Utilization Amount *	0.00			BPS Code *	UBS NewYork:SYNP:HTM			Product Type *	FI			Product Code *	101-US TREASURY BONDS-Fixed Income Securities			Issuer Code *	83657_FED RESERVE			Security Code *	USTBND3012			Currency *	USD		
Limit Category *	Trading Limit	Limit Type Code *	FIS_TRD_LMT																																																																									
Limit Currency *	USD	Limit Description *	FIS_TRD_LMT																																																																									
Check For *	<input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net	Limit Option *	<input checked="" type="radio"/> Ceiling <input type="radio"/> Floor																																																																									
Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight	Error Required #	<input type="checkbox"/>																																																																									
Verification Required	<input type="checkbox"/>	Override Required #	<input checked="" type="checkbox"/>																																																																									
Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount	Calculation Method																																																																										
Entity List	* Entities Selected																																																																											
BPS BROKER COUNTRY CURRENCY DEALER ISSUER LIABNUM PRODUCT PRODUCT_TYPE SECURITY	PRODUCT PRODUCT_TYPE SECURITY BPS CURRENCY ISSUER																																																																											
<input type="button" value="Authorize"/> <input type="button" value="Reject"/> <input type="button" value="Rework"/> <input type="button" value="Close"/>																																																																												
Limit Type Code *	FIS_TRD_LMT	Limit Code *	TRD_LMT_FI																																																																									
Limit Amount *	10,000.00	Limit Percentage *	100																																																																									
Earmark Amount	0.00	Limit Applied on *																																																																										
Effective Date *	14/11/2014	Expiry Date *	14/11/2019																																																																									
Utilization Amount *	0.00																																																																											
BPS Code *	UBS NewYork:SYNP:HTM																																																																											
Product Type *	FI																																																																											
Product Code *	101-US TREASURY BONDS-Fixed Income Securities																																																																											
Issuer Code *	83657_FED RESERVE																																																																											
Security Code *	USTBND3012																																																																											
Currency *	USD																																																																											

5.1.2.6.2 Description

➤ Prerequisites

- Currency
- Entity List
- BPS
- Product
- Customer
- Security

Limit Setup Process is similar as defined in [5.1.2.1.1 Screen Path & Setup](#). While defining, limit type should be defined as trading limit with applicable entity parameters.

For Example: Consider Following scenarios, while booking a new deal in the system, [Pre-Trade Analysis](#) has been done to verify the Portfolio limit check

Scenario 1: (Within the Limit)

Intellect - Fixed Income FIS Front Office (UBS NewYork 05-May-2016)

What if

Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Exchange Rates Check	Market rates are not maintained for the security.	IN LIMIT
Common Check	Limit: PORT_FI_LMT under PORTFOLIO LIMIT has in limit. Limit Amount: 100,000, Utilization Amt: 10,000.	IN LIMIT
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 1.962192 not exceeding the defined Duration Limit 2.0	IN LIMIT
Common Check	Limit: USD_ISS under ISSUER has in limit. Limit Amount: 10,000, Utilization Amt: 10,000.	IN LIMIT
Common Check	Limit: SR01 under SETTLEMENT RISK has in limit. Limit Amount: 7,000,000, Utilization Amt: 1,673,313.71.	IN LIMIT
Common Check	Limit: TRD_LMT_FI under TRADING has in limit. Limit Amount: 10,000, Utilization Amt: 10,000.	IN LIMIT
DEALER LIMIT MAINTAIN...	Dealer amount:10,000,000 less than minimum amount: 1,000,000,000	LIMIT BURST
Issue Size Limit Check	Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM	LIMIT BURST
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

Scenario 2(Limit Breached):

Intellect - Fixed Income FIS Front Office (UBS NewYork 05-May-2016)

The screenshot shows the same interface as the first one, but with a different deal entry. The deal details are as follows:

Trade Dt	Flow	Value Dt	Security	Factor	Counterparty	Amount	Quantity	Ccy	Price	Yield (%)	Disc.Rate
05-May-2016 12:12:31	BUY	05-May-2016	STBND290418	100.0	BANK OF AMERICA	1,000,000	10,000	USD	99.9948	5.0000	
Settlement Adj ...	Principal Amt	Accr. Int.	Settlement Amt		Broker	Brokerage(%)	Settl. Mode		Delivery Mode		Ext. Ref. No.
0.00	999,948.00	833.00	1,000,781.00	PHONE[1]							
Tax Code	Compute Tax Amt		Security Ratings	Deal Entry Dt.							
Purpose						Branch	(%)Commission	CommissionAmount	Brokerage Amt		
OTHERS FIS											
Portfolio Description						SYNP PORTFOLIO					
Branch	Portfolio	Strategy	Quantity	Amount	Sh...	Remarks					
UBS NewYork	SYNP	HTM	100	9,999							
NTELLECTFO						USTBND3012 BANK OF AMERICA					



Message	Description	Limit
Common Check	Tax is not Applicable	IN LIMIT
Exchange Rates Check	Market rates are not maintained for the security.	IN LIMIT
Limit Check	Limit: PORT_FI_LMT under PORTFOLIO LIMIT has burst. Limit Amount: 100,000.00, Utilization Amt: 1,000,000.00.	LIMIT BURST
Common Check	Duration Limit of BPS: UBS NewYork:SYNP:HTM and Currency: USD is 1.962192 not exceeding the defined Duration Limit 2.0	IN LIMIT
Limit Check	Limit: USD_ISS under ISSUER has burst. Limit Amount: 10,000.00, Utilization Amt: 1,000,000.00.	LIMIT BURST
Common Check	Limit: SR01 under SETTLEMENT_RTSK has in limit. Limit Amount: 7,000,000. Utilization Amt: 7,664,086.9	IN LIMIT
Limit Check	Limit: TRD_LMT_FI under TRADING has burst. Limit Amount: 10,000.00, Utilization Amt: 1,000,000.00.	LIMIT BURST
DEALER LIMIT MAINTAIN...	Deal amount:1,000,000.00 is with in the limit and Maximum deal amount ::50,000,000.00and Minimum Deal Amount::1,000,000.00	IN LIMIT
Issue Size Limit Check	Issue Size Limit is not maintained for the BPS: UBS NewYork:SYNP:HTM	LIMIT BURST
Open Position Limit Check	Limit,Factor or Dealer ID values should not be Empty or Zero for the Dealer ID MGMT	LIMIT BURST

P.S: Similar Messages were repeated during deal booking process, in form of [Overrides](#) or [Error](#) Pop ups based upon limit configuration defined under setup.

5.1.2.7 Pre Settlement Risk (PSR) Limit

5.1.2.7.1 Screen Layout & Setup

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

<p>Limit Definition</p> <table border="1"> <tr> <td>Limit Category *</td> <td>PreSettlement Risk</td> <td>Limit Type Code *</td> <td>PS_LMT</td> </tr> <tr> <td>Limit Currency *</td> <td>USD</td> <td>Limit Description *</td> <td>PS_FI_LMT</td> </tr> <tr> <td>Check For *</td> <td><input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net</td> <td>Limit Option *</td> <td><input checked="" type="radio"/> Ceiling <input type="radio"/> Floor</td> </tr> <tr> <td>Period *</td> <td><input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight</td> <td>Error Required #</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Verification Required</td> <td><input type="checkbox"/></td> <td>Override Required #</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Limit Amount Option *</td> <td><input type="radio"/> Percent <input checked="" type="radio"/> Amount</td> <td>Calculation Method</td> <td>MLIV</td> </tr> </table> <p>Entity List</p> <table border="1"> <tr> <td>BPS</td> <td>LIABNUM</td> </tr> <tr> <td>BROKER</td> <td></td> </tr> <tr> <td>COUNTRY</td> <td></td> </tr> <tr> <td>CURRENCY</td> <td></td> </tr> <tr> <td>DEALER</td> <td></td> </tr> <tr> <td>ISSUER</td> <td></td> </tr> <tr> <td>LIABNUM</td> <td></td> </tr> <tr> <td>PRODUCT</td> <td></td> </tr> <tr> <td>PRODUCT_TYPE</td> <td></td> </tr> <tr> <td>SECURITY</td> <td></td> </tr> </table> <p>* Entities Selected</p> <p>Authorize Reject Rework Close</p>				Limit Category *	PreSettlement Risk	Limit Type Code *	PS_LMT	Limit Currency *	USD	Limit Description *	PS_FI_LMT	Check For *	<input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net	Limit Option *	<input checked="" type="radio"/> Ceiling <input type="radio"/> Floor	Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight	Error Required #	<input type="checkbox"/>	Verification Required	<input type="checkbox"/>	Override Required #	<input checked="" type="checkbox"/>	Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount	Calculation Method	MLIV	BPS	LIABNUM	BROKER		COUNTRY		CURRENCY		DEALER		ISSUER		LIABNUM		PRODUCT		PRODUCT_TYPE		SECURITY		<p>Limit Values</p> <table border="1"> <tr> <td>Limit Type Code *</td> <td>PS_LMT</td> <td>Limit Code *</td> <td>PSR_FIS</td> </tr> <tr> <td>Limit Amount *</td> <td>100,000.00</td> <td>Limit Percentage *</td> <td>100</td> </tr> <tr> <td>Earmark Amount</td> <td>0.00</td> <td>Limit Applied on *</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Effective Date *</td> <td>16/09/2015</td> <td>Expiry Date *</td> <td>16/09/2019</td> </tr> <tr> <td>Utilization Amount *</td> <td>0.00</td> <td></td> <td></td> </tr> <tr> <td>Liability Number *</td> <td>50034</td> <td></td> <td></td> </tr> </table> <p>Authorize Reject Rework Close</p>				Limit Type Code *	PS_LMT	Limit Code *	PSR_FIS	Limit Amount *	100,000.00	Limit Percentage *	100	Earmark Amount	0.00	Limit Applied on *	<input type="checkbox"/>	Effective Date *	16/09/2015	Expiry Date *	16/09/2019	Utilization Amount *	0.00			Liability Number *	50034		
Limit Category *	PreSettlement Risk	Limit Type Code *	PS_LMT																																																																								
Limit Currency *	USD	Limit Description *	PS_FI_LMT																																																																								
Check For *	<input checked="" type="radio"/> Gross <input type="radio"/> Inflow <input type="radio"/> Outflow <input type="radio"/> Net	Limit Option *	<input checked="" type="radio"/> Ceiling <input type="radio"/> Floor																																																																								
Period *	<input checked="" type="radio"/> Both <input type="radio"/> Daylight <input type="radio"/> Overnight	Error Required #	<input type="checkbox"/>																																																																								
Verification Required	<input type="checkbox"/>	Override Required #	<input checked="" type="checkbox"/>																																																																								
Limit Amount Option *	<input type="radio"/> Percent <input checked="" type="radio"/> Amount	Calculation Method	MLIV																																																																								
BPS	LIABNUM																																																																										
BROKER																																																																											
COUNTRY																																																																											
CURRENCY																																																																											
DEALER																																																																											
ISSUER																																																																											
LIABNUM																																																																											
PRODUCT																																																																											
PRODUCT_TYPE																																																																											
SECURITY																																																																											
Limit Type Code *	PS_LMT	Limit Code *	PSR_FIS																																																																								
Limit Amount *	100,000.00	Limit Percentage *	100																																																																								
Earmark Amount	0.00	Limit Applied on *	<input type="checkbox"/>																																																																								
Effective Date *	16/09/2015	Expiry Date *	16/09/2019																																																																								
Utilization Amount *	0.00																																																																										
Liability Number *	50034																																																																										

5.1.2.7.2 Description

- Prerequisites

- Limit Currency
- Entity List
- Liability Number(Customer)

Limit Setup Process is similar as defined in [5.1.2.1.1 Screen Path & Setup](#). While defining, limit type should be defined as Pre-Settlement Risk limit with applicable entity parameters.

Pre-Settlement Limit Values is computed by the system during deal entry before settlement. Pre-settlement Risk value is sum of two components

- CMTM(Current Marked to Market value)
- MLIV(Maximum Likely Increase in value)

$$\text{So, PSR} = \text{CMTM} + \text{MLIV}$$

System calculates PSR values based upon the calculation method defined in limit definition screen. Calculation Method can be Total Exposure or MLIV.

Please Refer to the [Appendix](#) for PSR Calculations.

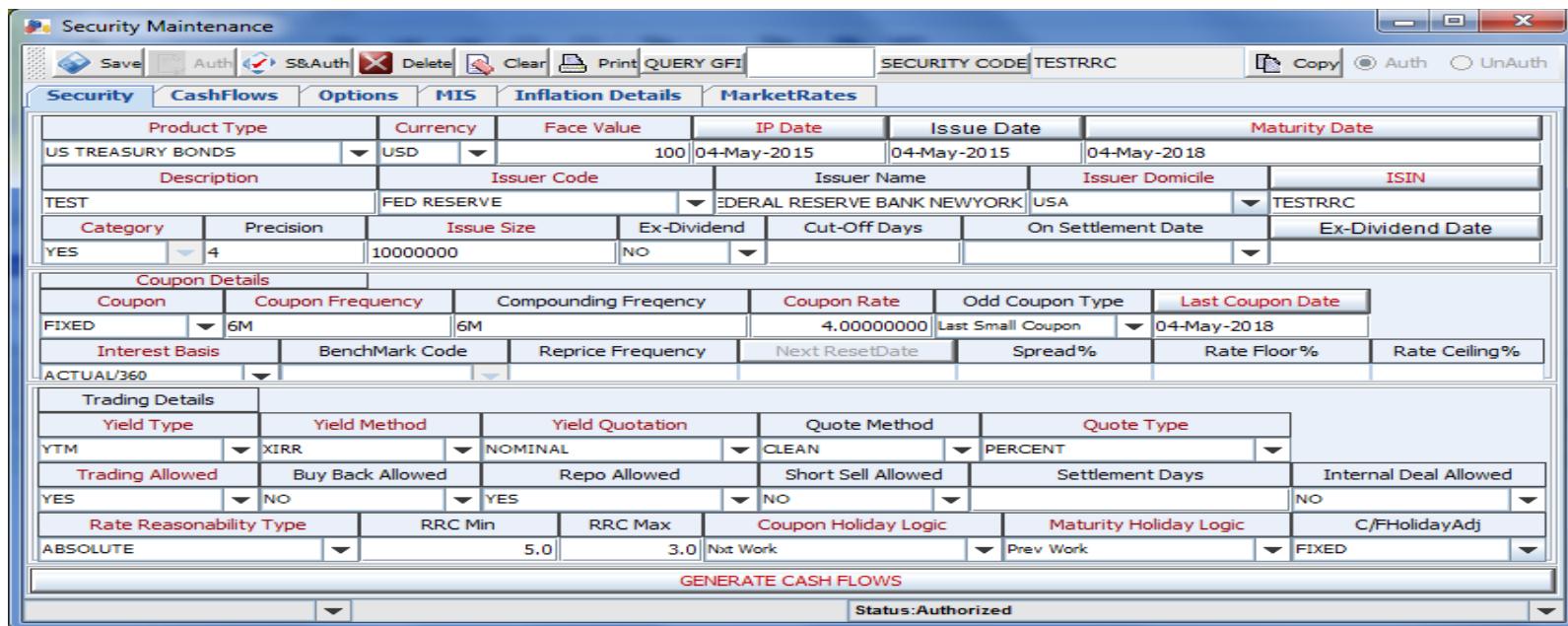
5.2 Business Checks

5.2.1 Rate Reasonability Check

During deal entry process Rate reasonability check is performed for ensuring that the price or yield is within a defined range or not. In Security maintenance, Rate Reasonability type [field](#) is selected for enabling this check. It can be defined either in terms of absolute value or percentage of market yield.

5.2.1.1 Screen Layout and Setup

Navigation Path: Intellect One Treasury >> Fixed Income >> Front Office>> Security Maintenance



Security Details					
Product Type	Currency	Face Value	IP Date	Issue Date	Maturity Date
US TREASURY BONDS	USD	100	04-May-2015	04-May-2015	04-May-2018
Description	Issuer Code	Issuer Name	Issuer Domicile	ISIN	
TEST	FED RESERVE	FEDERAL RESERVE BANK NEWYORK	USA	TESTRRC	
Category	Precision	Issue Size	Ex-Dividend	Cut-Off Days	On Settlement Date
YES	4	10000000	NO		Ex-Dividend Date

Coupon Details					
Coupon	Coupon Frequency	Compounding Frequency	Coupon Rate	Odd Coupon Type	Last Coupon Date
FIXED	6M	6M	4.00000000	Last Small Coupon	04-May-2018
Interest Basis	BenchMark Code	Reprice Frequency	Next ResetDate	Spread%	Rate Floor% / Rate Ceiling%
ACTUAL/360					

Trading Details					
Yield Type	Yield Method	Yield Quotation	Quote Method	Quote Type	
YTM	XIRR	NOMINAL	CLEAN	PERCENT	
Trading Allowed	Buy Back Allowed	Repo Allowed	Short Sell Allowed	Settlement Days	Internal Deal Allowed
YES	NO	YES	NO		NO
Rate Reasonability Type	RRC Min	RRC Max	Coupon Holiday Logic		Maturity Holiday Logic
ABSOLUTE	5.0	3.0	Nxt Work		Prev Work
C/F Holiday Adj					
FIXED					

GENERATE CASH FLOWS

Status:Authorized

5.2.1.2 Description

➤ Prerequisites

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

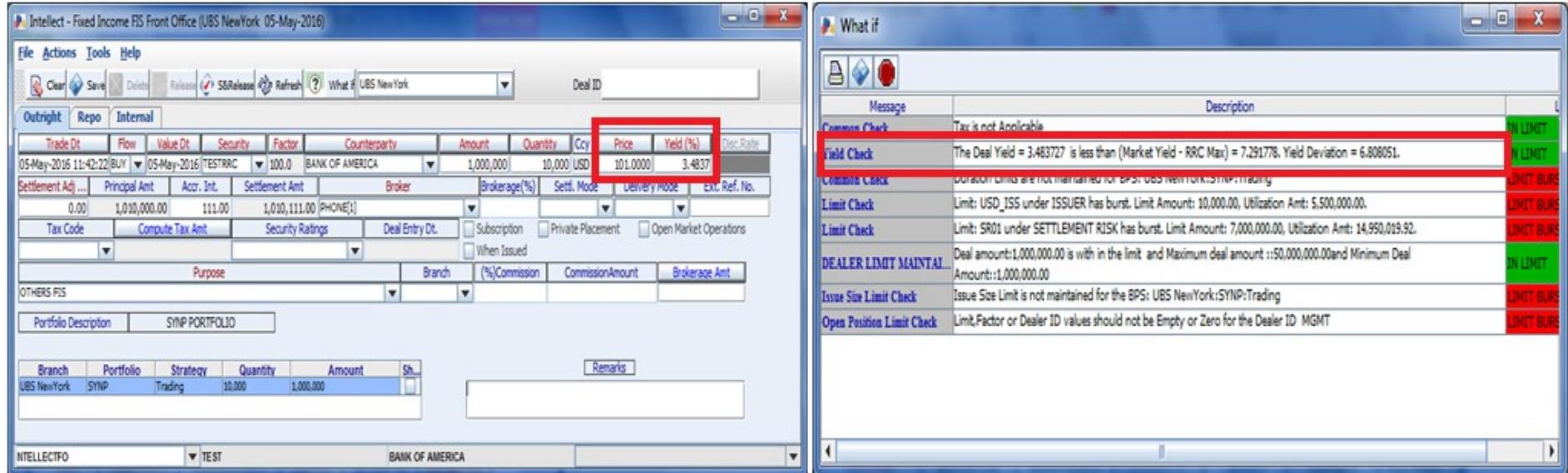
- ① In [Product Master](#) >> Add/Modify Overrides section, Both Override and Deal Verification check boxes should be marked as YES for Rate reasonability check.
- ② In [Internal Info Maintenance](#) >> Parameter Name (CHECKREUTER_RRC) should be marked as 'ONLINE' mode.
- ③ Security Rates should be maintained. (Security Maintenance>> [Market Rates Tab](#)).

➤ Calculation

For Example: A security is maintained in the system with values **Y1= 10.291778205**, **R1 =5** and **R2=3** with rate reasonability type as Absolute. Using Same Security a deal has been booked. See screenshot for same.

Where **Y1** – Market Yield for the Security, **Y2**- Yield in Deal Capture Based upon Entered Price, **R1**- Min RRC and **R2** – Max RRC.

(Where $R2 \leq R1$).



➤ What-IF Analysis Data matched with calculation shown as below

S. No	Field(Parameter)	Value
Input		
1.	Y1(Market Yield)	10.291778205
2.	R1(Min RRC)	5
3.	R2(Max RRC)	3

Output		
4.	Y2(Deal Yield)	3.483727
5.	Market Yield –RRC Max	7.291778205
6.	Yield Deviation	6.808051205

5.2.2 Short Sell Check

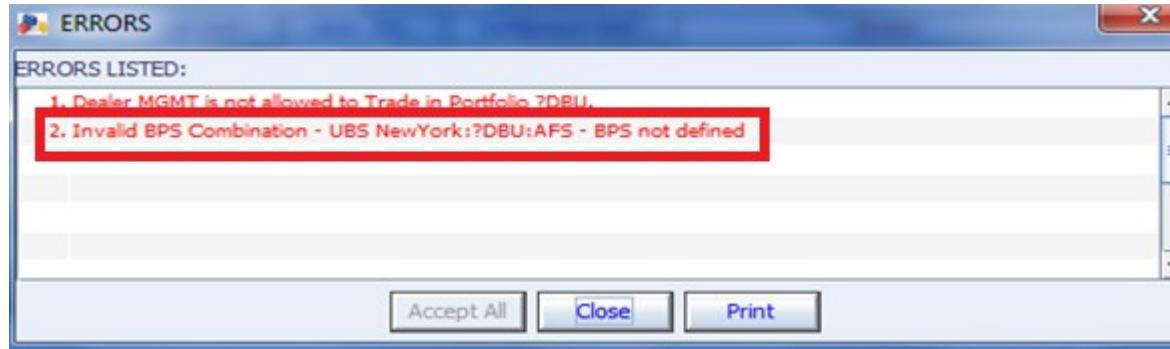
In Intellect™ One Treasury Short sell check is enabled in order to ensure that the sell position of a security does not exceed the total buy position. Short Sell check is defined at security level as well as at BPS level.

S. No	Short Sell Conditions	Description	Navigation Path
1	Marked as Y only at security level	Short Sell will be Checked for all the BPS allocations	Intellect™ One Treasury >> Fixed Income >> Front Office >> Security Maintenance
2	Marked as Y only at BPS level	Short Sell will be checked only for Specific BPS	Intellect™ One Treasury >> Setup >> Fixed Income >> BPS Maintenance

5.2.3 BPS Check

In Intellect™ One Treasury fixed income module deals are booked and tracked on maintained B (Branch)-P (Portfolio)-S (Strategy) combinations only. Blotters such as Position blotter, holding blotter shows BPS level defined data. [Refer to BPS Master](#)

System throws an error in case the BPS is invalid or not defined.



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

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 >> Fixed Income >> Front Office>> Deal Capture >>What-IF Screen.

Refer [Limit Checks](#) for Screenshots.

5.3.2 Description

- Prerequisites
 - Limit Definition and Values

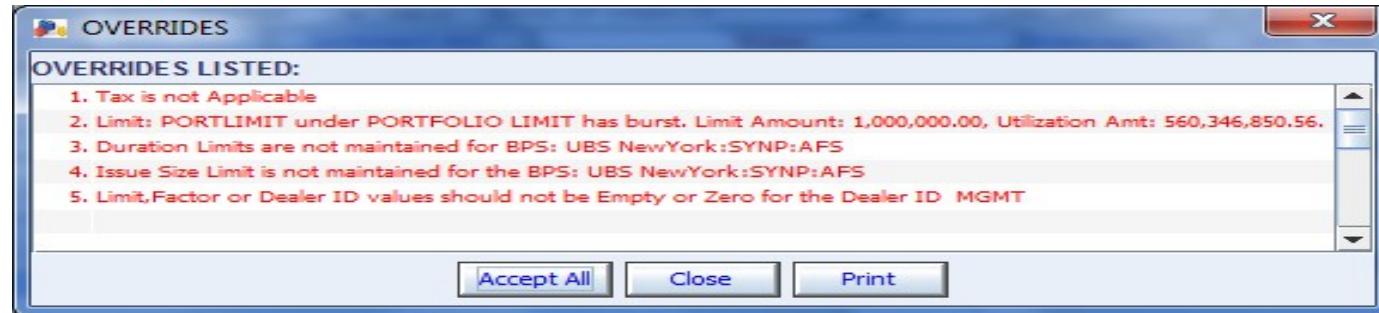
S. No.	Descriptions	Remarks
1	This field will display the type of Check.	Checks defined like Various Limits and validations
2.	Description of the check	Details related to Limits and Business Checks.
3.	Whether the check defined is within the limit or it is breaching the limit	Colour Codes are used here.

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 >> Fixed Income >> 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.

Product Overrides - Windows Internet Explorer provided by Intellect Design Arena Ltd
http://10.10.7.9:7789/Override.jsp?mode=DEFAULT&prodType=FI

Override Name	Error Required	Override Required	Deal Verify required
Trade date Holiday in Local ccy	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Trade date Holiday in Security ccy	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Value date Holiday in Local ccy	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Value date Holiday in Security ccy	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Trade date lies between Book Closing dat	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Security is maturing on Trade Date	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Security Coupon Is reset on Trade Date	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
PSR Limit	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
DELIVERY MODE MANDATORY			
Dealer Group Limits	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
ISSUESIZE Limit	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
CP Concentration Limit	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Duration Limit	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
RATERESONABILITY CHECK			
Issue Size Max	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Cp concentration Limit check	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Dealer Limit Maintenance Check	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Limit or Factor Empty Check	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
PSR SR Limit Check	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No

Ok | **Close**

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

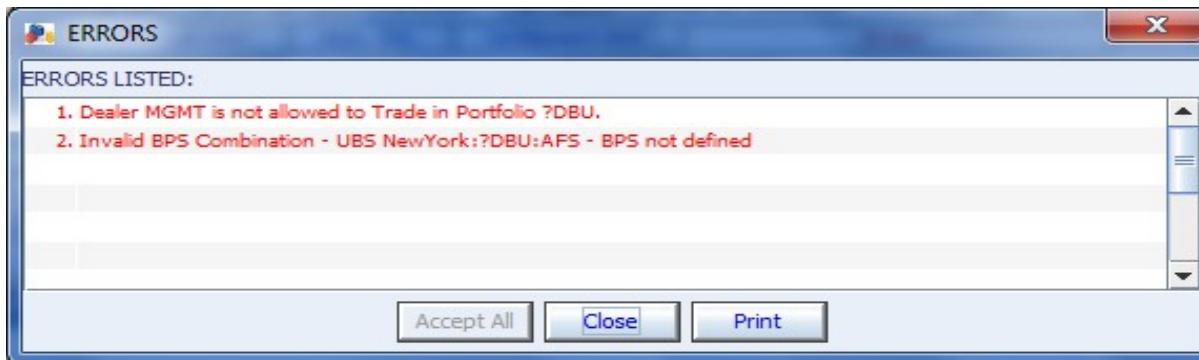
5.5 Error (Hard Checks)

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 in case of errors.

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

5.5.1 Screen Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> 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 Behavior
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 FIS 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 FISBO Module which is available in the system.



Figure: Back Office Functionality

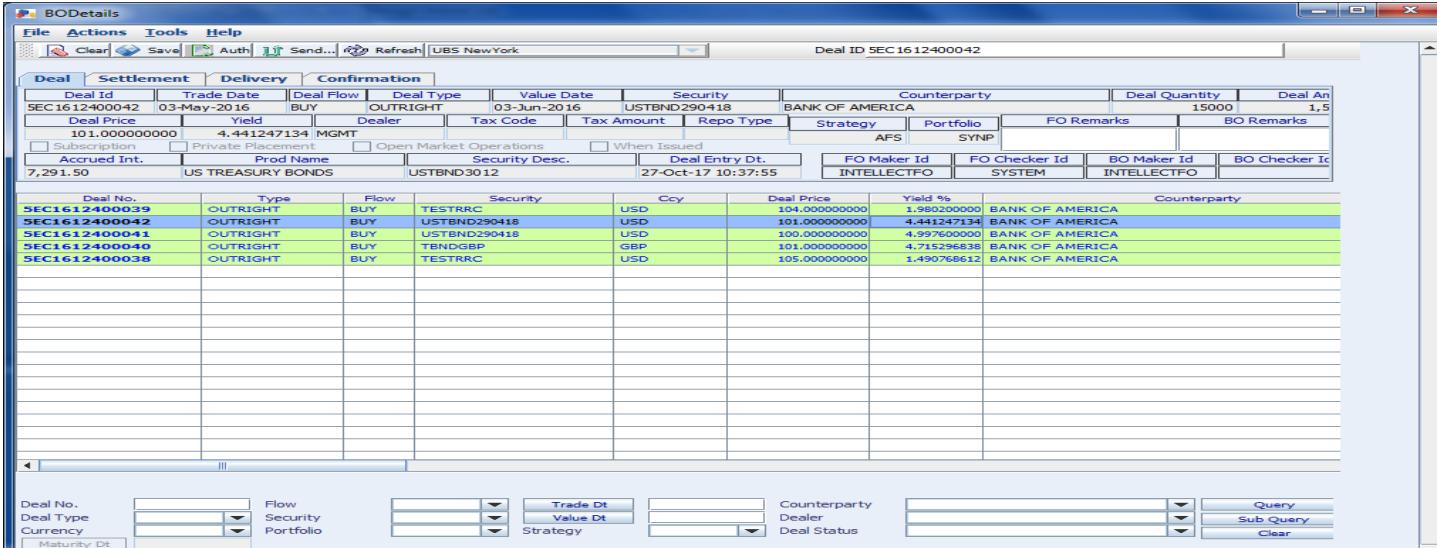
6.1 Deal Enrichment Process

Deal Enrichment Screen is used to verify details for FO Authorized deals (Outright as well as Repo/Rev repo) followed by settlement, delivery and confirmation of the deals.

6.1.1 Enrichment of Outright Deal

6.1.1.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Back Office >> Deal Enrichment



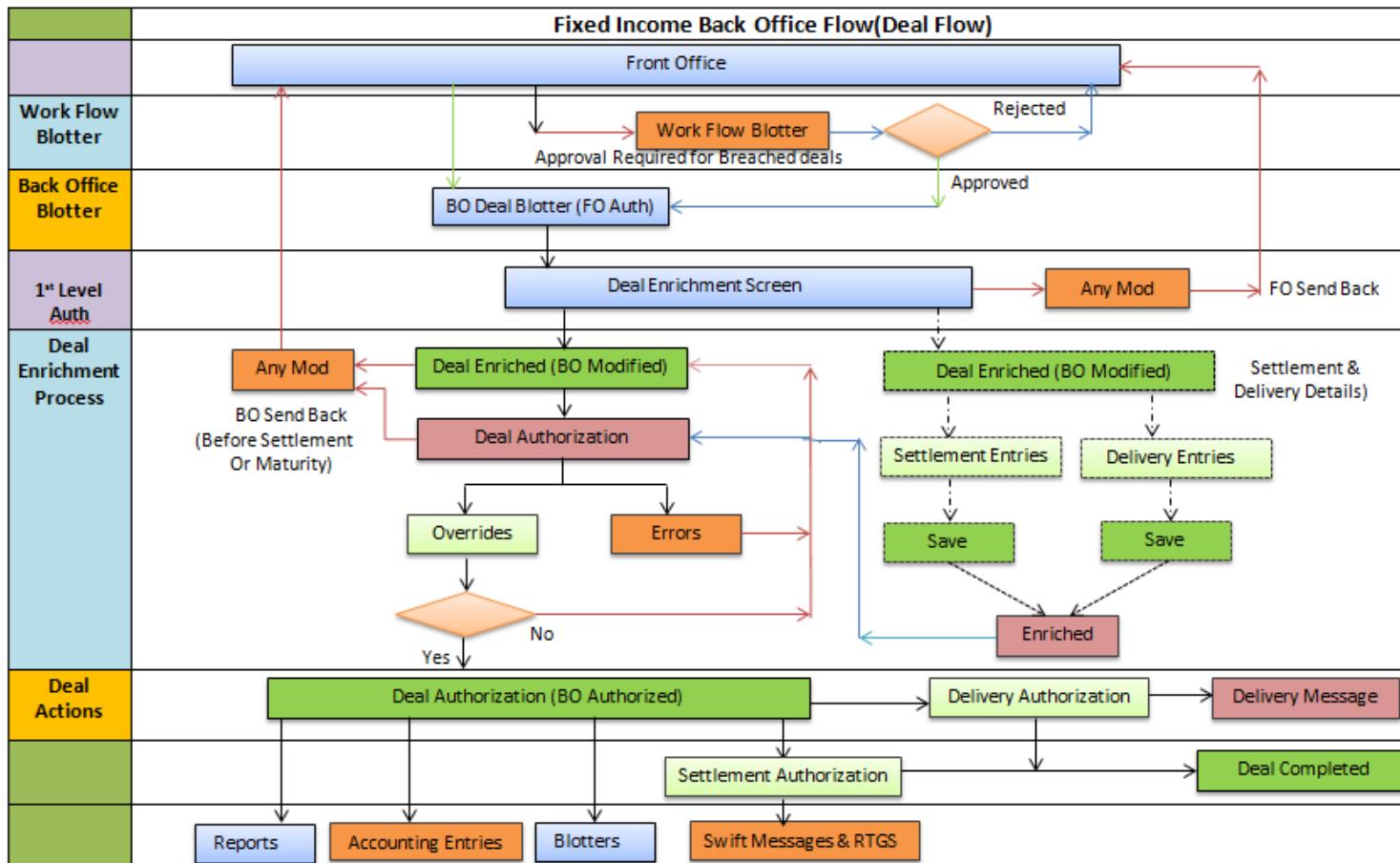
The screenshot shows the 'BODetails' application window. At the top, there's a menu bar with File, Actions, Tools, and Help. Below the menu is a toolbar with Clear, Save, Auth, Send..., Refresh, and a dropdown for UBS NewYork. The main title bar says 'Deal ID SEC1612400042'. The interface has tabs for Deal, Settlement, Delivery, and Confirmation, with Settlement selected. The main grid displays deal details for several entries:

Deal Id	Trade Date	Deal Flow	Deal Type	Value Date	Security	Counterparty	Deal Quantity	Deal Amt
SEC1612400042	03-May-2016	BUY	OUTRIGHT	03-Jun-2016	USTBND290418	BANK OF AMERICA	15000	1,5
101.0000000000	4.441247134	MGMT						
Subscription	Private Placement			Open Market Operations		When Issued		
Accrued Int.	Prod Name		Security Desc.	Deal Entry Dt.			FO Maker Id	FO Checker Id
7,291.50	US TREASURY BONDS		USTBND3012	27-Oct-17 10:37:55			INTELLECTFO	SYSTEM
FO Remarks	BO Remarks						BO Maker Id	BO Checker Id
Deal No.	Type	Flow	Security	Ccy	Deal Price	Yield %	Counterparty	
SEC1612400039	OUTRIGHT	BUY	TESTRRC	USD	100.0000000000	1.0000000000	BANK OF AMERICA	
SEC1612400042	OUTRIGHT	BUY	USTBND290418	USD	101.0000000000	4.441247134	BANK OF AMERICA	
SEC1612400041	OUTRIGHT	BUY	USTBND290418	USD	100.0000000000	4.397600000	BANK OF AMERICA	
SEC1612400040	OUTRIGHT	BUY	TBNDGBP	GBP	101.0000000000	4.715296838	BANK OF AMERICA	
SEC1612400038	OUTRIGHT	BUY	TESTRRC	USD	105.0000000000	1.490768612	BANK OF AMERICA	

At the bottom, there are search and filter controls:

Deal No.	Flow	Trade Dt	Counterparty	Query
Deal Type	Security	Value Dt	Dealer	Sub Query
Currency	Portfolio	Strategy	Deal Status	Clear
Maturity Dt				

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

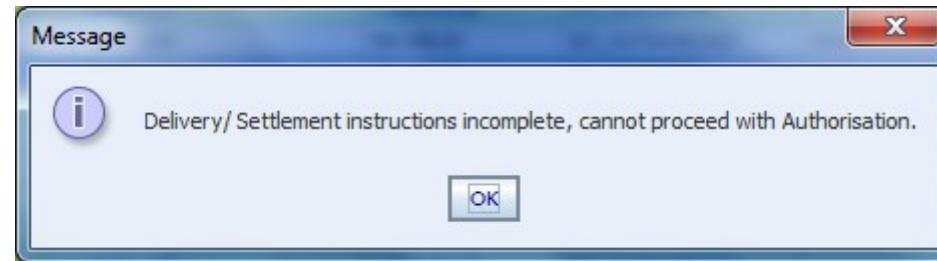
- To start the enrichment of the deal in Back Office, the deal should be authorized in Front Office.
- Enrichment began with verification of deals. In Deal tab, almost all the fields are disabled for modification except BO & Custody Remarks. Delivery Mode should be selected before enriching. Following are the option to select.

S. No.	Flow	Delivery Mode	Description
1	Buy	RF	RF(Receive Free)
		RAP	RAP(Receive Against Payment)
2	Sell	DF	DF(Delivery Free)
		DAP	DAP (Delivery Against Payment)

- In case of wrong data or some mismatch, User revert the deal to Front Office by using SENDBACK feature.
- If all the data's entered is correct, User enriched the deal (BO 1st level Authorization). Deal Status is BO_MODIFIED.

6.1.1.3.2 Settlement Enrichment

Intellect™ One Treasury Fixed Income Module won't allow BO authorization until the settlement and delivery details data is enriched.



- Pay To, Counterparty Account, Settlement account flag details to be entered in order to enrich the settlement section. Refer to [Static Data Setup](#) for more details.
- Field Values Counterparty, settlement amount, settlement mode and date would be auto populated and non-editable sections based upon deal values.

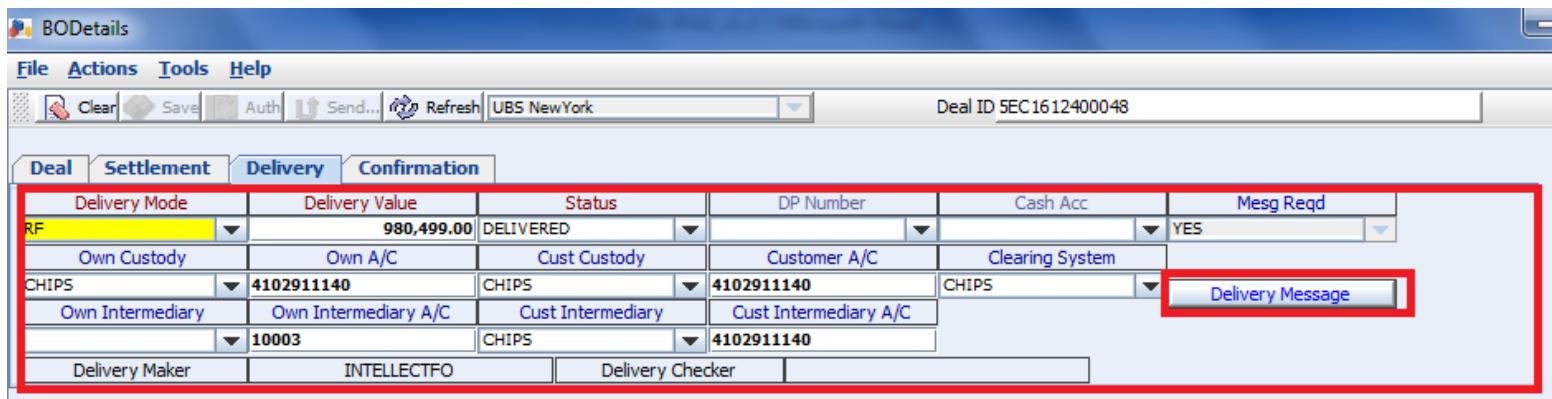
The screenshot shows the BODetails application interface. The title bar says 'BODetails'. The menu bar includes 'File', 'Actions', 'Tools', and 'Help'. Below the menu is a toolbar with icons for 'Clear', 'Save', 'Auth', 'Send...', 'Refresh', and a dropdown for 'UBS NewYork'. The main area has a 'Deal ID' field containing '5EC1612400048'. Below this is a table with tabs for 'Deal', 'Settlement', 'Delivery', and 'Confirmation'. The 'Settlement' tab is selected. A red box highlights the 'Settlement' tab and the row below it, which contains fields for 'Counterparty', 'Settlement Amt.', 'Settlement Mode', 'Settlement Date', 'Status', 'Pay Id', 'Pay To', and 'Acc Beneficiary'. The 'Settlement Mode' dropdown is set to 'Settlement Mode'. The 'Settlement Date' dropdown is set to '11-May-2016'. The 'Status' dropdown is set to 'SETTLED'. The 'Pay To' and 'Acc Beneficiary' fields show '4102911140'. The 'Settlement' tab also includes a 'Nostro Account Desc' field with 'CASA GBP NOSTRO- BANCO BILBAO' and a 'Settlement Maker' field with 'INTELLECTFO'. At the bottom of the table, there are buttons for 'View Messages', 'Payment Message', 'Receive Message', 'CoverPay Messa...', and 'Funds Tranfer'. The row following the table is also highlighted with a red box and contains buttons for 'Payment Mesg Reqd', 'Receive Mesg Reqd', 'Cover Pay Mesg Reqd', and 'Fund Trans Mesg Reqd'. The 'Payment Mesg Reqd' dropdown is set to 'YES', and the 'Fund Trans Mesg Reqd' dropdown is set to 'NO'.

- Based upon selection of transaction messages, SWIFT message previews can be viewed in settlement section.
- For more details on settlement authorization Refer to [Section](#) settlement authorization.

6.1.1.3.3 Delivery Enrichment

Delivery involves outflow of securities in case of Sell deal and receipt of securities in case of Buy deal.

- Custodian details such as Own Custodian Name, Own Account Number, Customer Custodian Name, Customer Account number, clearing system are filled. Please refer to the [Custody Master](#) for setting up configuration.



Delivery Mode	Delivery Value	Status	DP Number	Cash Acc	Mesg Reqd
RF	980,499.00	DELIVERED			YES
Own Custody	Own A/C	Cust Custody	Customer A/C	Clearing System	
CHIPS	4102911140	CHIPS	4102911140	CHIPS	Delivery Message
Own Intermediary	Own Intermediary A/C	Cust Intermediary	Cust Intermediary A/C		
	10003	CHIPS	4102911140		
Delivery Maker	INTELLECTFO	Delivery Checker			

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

6.1.1.3.4 Confirmation Enrichment

To confirm a deal this screen is used. Deals which yet to be confirmed are shown in confirmation queue. Details such as Confirmation status date and remarks are filled.

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

P.S: There is no need for Confirmation authorization as it will be taken care during deal authorization step.

6.1.2 Deal Authorization

6.1.2.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> 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, confirmation message MT 518 is generated. Based upon accounting configurations in the system, relevant entries are passed.

6.1.3 Accounting Entries

In Intellect™ One Treasury, once the deal is back office authorized configured entries will get generated. Following are the events whose corresponding entries are mentioned in attached excel.

S. No.	Deal Events	Description	Reference
1.	Buying any Security	T-Bond-Security can be bought at either Premium or at discount. T-Bills are always bought on discount	Refer to Excel Sheet FIS_Accounting_Entries.xlsx
2.	Daily Accrual/Amortization	Bought at discount-accrual will happen Bought at Premium—amortization will occur	""
3.	Coupon Payment/Receive	Based Upon Coupon frequency either coupon has to be paid or receive	""
4.	Revaluation	<ul style="list-style-type: none"> ○ Above Market Price ○ Below Market Price 	""
5.	Deal Maturity		""
6.	Selling of Security		""
7.	Security Maturity		""

6.1.4 Delivery Authorization

This is done in delivery tab for the deals which are pending for delivery authorization. Deals which are pending for delivery authorization are shown in delivery queue. Based upon **delivery** modes, swift message are generated accordingly in the system.

S. No.	Delivery Mode	Description	MT type

	RF	RF(Receive Free)	MT540
	RAP	RAP(Receive Against Payment)	MT541
	DF/FD	DF(Delivery Free)/FD (Free Delivery)	MT542
	DAP/DVP	DAP (Delivery Against Payment)/ DVP (Delivery Versus Payment)	MT543

-
-
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-

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-

- System provides options to stamp the delivery status of the deal which can be selected in delivery tab.

The screenshot shows the BODetails application interface. At the top, there's a toolbar with 'File', 'Actions', 'Tools', and 'Help' menus, along with buttons for 'Clear', 'Save', 'Auth', 'Send...', 'Refresh', and a search field for 'UBS New York'. Below the toolbar, the 'Deal ID' is displayed as 'SEC1612400048'. The main window has tabs: 'Deal', 'Settlement', 'Delivery' (which is currently selected), and 'Confirmation'. In the 'Delivery' tab, there are several input fields: 'Delivery Mode' (RF), 'Delivery Value' (980,499.00), 'Status' (a dropdown menu with 'DELIVERED' highlighted by a red box), 'DP Number' (102911140), 'Cash Acc' (Customer A/C), and 'Msg Rqrd' (YES). Below these, there are sections for 'Own Custody' (Own A/C) and 'CHIPS' (4102911140). There are also sections for 'Own Intermediary' (Own Intermediary A/C) and 'Own Intermediary A/C' (Cust Intermediary A/C). At the bottom of the tab, there's a 'Delivery Message' button. Below the tabs, there's a table titled 'Delivery Maker' with columns: 'Element', 'Deal Status', 'Settlement Mode', 'Settlement Status', 'Delivery Mode', 'Delivery Status', 'Confirmation status', and 'BPS'. The table contains several rows, each with a green background. One row is highlighted with a red box around its 'Delivery Status' cell, which shows 'TO BE DELIVERED'. Other rows show 'UNCONFIRMED', 'UNCONFIRMED', 'CONFIRMED', 'CONFIRMED', and 'CONFIRMED' in the 'Delivery Status' column.

S. No.	Status	Description
	To be Delivered	To be delivered status deals will be identified during pre EOD checks.
	Delivered	Deal is delivered
	Stop Delivery	In case of cancellation of deliveries, Stop delivery option is selected.
	Defer Delivery	To defer the delivery of securities to the next working day, defer delivery option is selected.

6.1.5 Settlement Authorization

This is done in settlement tab for the deals which are pending for authorization in settlement queue. Settlement is done in security currency only.

- Based upon selected message types for any deal like Payment, cover, receive and Fund Transfer is previewed and generated from the system which is sent to custodian.

S. No.	Message Type	Description	MT type
1.	Payment	Payment Messages	MT202 – Banks MT103- Individuals
2.	Receive	Confirmation Message	MT210
3.	Cover Pay Message	It is used to order the movement of funds to the beneficiary institution via another Intermediary Bank	MT202- Financial Institutions
4.	Funds Transfer		

-
-
-



- Intellect™ One Treasury fixed income module supports both manual and auto settlement. System has option to mark the settlement status as to be settled, settled, stop settlement or to defer settlement.

BODetails

File Actions Tools Help

Auth (highlighted with a red box)

Deal ID SEC1611900044

Deal			Settlement			Delivery			Confirmation		
Counterparty	Settlement Amt.	Settlement Mode	Settlement Date	Status		Pay Id	Pay To	Acc Beneficiary			
BARCLAYS BANK	985,277.78	Settlement Mode	06-May-2016	TO BE SETTLED			A:IRVTUS3NXXX				
Counterparty A/C	Settlement A/C Flag	Own A/C	Cheque Number	TO BE SETTLED		Intermediary	Correspondent	Pay Msg Receiver			
4102911120	Nostro			SETTLED				BARCLAYS BANK			
Nostro Account Desc			GBP NOSTRO - BARCLAYS	STOP SETTLEMENT		Receive Mesg Reqd	Cover Pay Mesg Reqd	Fund Trans Mesg Reqd			
Settlement Maker	INTELLECTFO	Settlement Checker		DEFER SETTLEMENT		YES	YES	NO			
			View Messages	Payment Message	Receive Message	CoverPay Messa..	Funds Tranfer				
Deal No.	Type	Flow	Security	Ccy	Deal Price	Yield %	Counterparty				
SEC1611900030	OUTRIGHT	BUY	SEC003	USD	101.000000000	2.860000000	DEUTSCHE BANK				
SEC1612400048	OUTRIGHT	BUY	5666	GBP	98.049900000	2.000000000	CISCO SYSTEMS CAPITAL				
SEC1611900025C1	Repo-Leg1	SELL	LKB00619G019	GBP	104.436300000	0.000000000	BANK OF AMERICA				
SEC1611900024C1	Repo-Leg1	SELL	LKB00619G019	GBP	104.436300000	0.000000000	BANK OF AMERICA				
SEC1611900044	OUTRIGHT	BUY	EXDV02	GBP	99.000000000	6.209708005	BARCLAYS BANK				

- System has options to stamp the settlement status of the deal as explained below

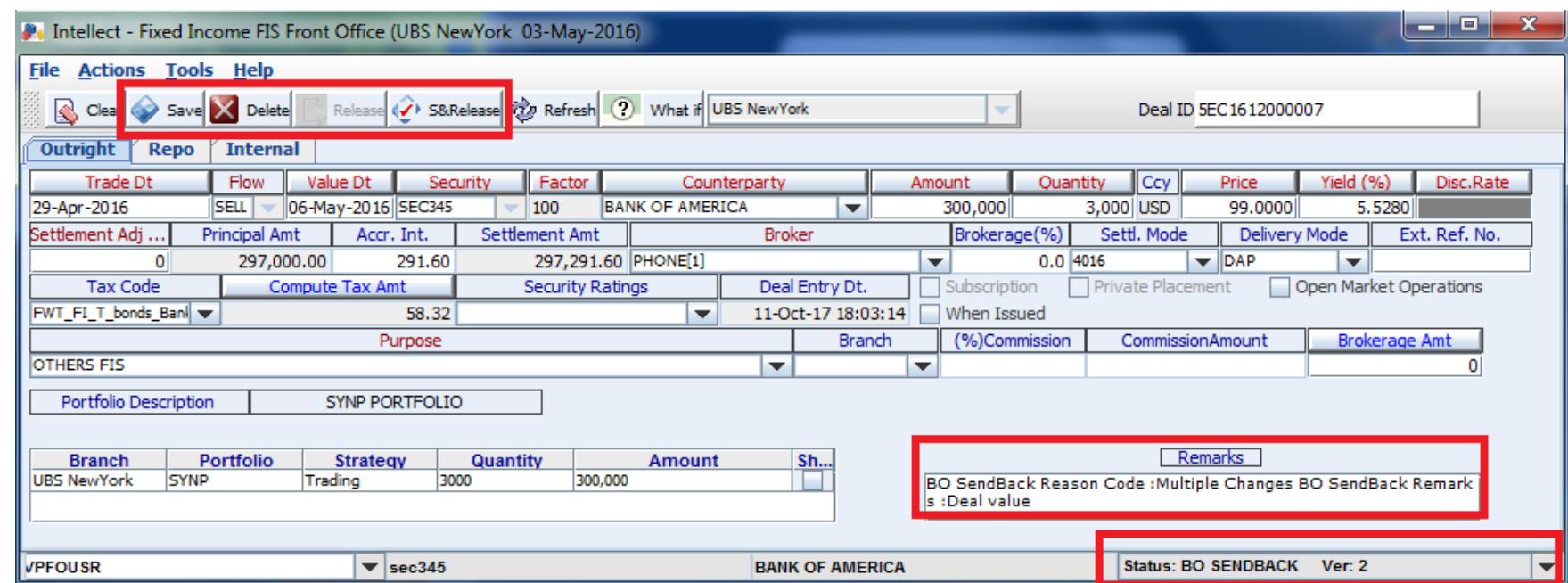
S. No.	Status	Description
1.	To be Settled	Default Status of the deal. As part of EOD auto settlement job, to be settled deals(Back Office authorized) will be picked and settled during EOD
2.	Settled	Deal is settled in Back office.
3.	Stop Settlement	Settlement can be stopped for the deal. For example in case of cancellation
4.	Defer Settlement	Settlement can be deferred to next working day by changing status.

- After verifying the settlement details of the deal, logged in user authorizes the deal.
- Following are the Impacts of Settlement Authorization
 - Dealer Limits reset.

- In case of Manual Settlement, settlement entries are generated and deal marked as settled.
 - Holding gets updated on authorization.
- In case of a Repo Deal, the holdings gets impacted based upon the underlying Repo treatment method. For Securities Repo treatment parameters is defined under BPS master.
- Repo Treatment Method can take following Values
 - ⌚ Sell-Buy
 - ⌚ Lend- Borrow
 - In Case of Sell-Buy, the holding gets increased on Value Date of Buy leg and decreased on Value Date of Sell leg.
 - In Case of Lending-Borrowing, the holdings won't get impacted and will remain same.
- Auto Settlement: Intellect One Treasury Fixed Income Module checks for BO Authorized deals which are yet to be settled during EOD. Deals with Value date as current business date will be picked for auto settlement.
- Settlement Entries (Refer to [6.1.3 Accounting Entries](#))

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.



6.1.7 Enrichment of Repo Deals

Process of enriching the repo deals is similar to as of outright deals. In case of repo deals, two legs are enriched one by one. For details on enrichment refer to the section [6.1.1 Enrichment of Outright Deal](#)

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 1 st 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 fixed income 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	FIS Outstanding Transactions	All outstanding transactions from the current business date including outright as well repo deals
	FIS Repo Deals	Repo deals done in the system between two specific dates
	T-Bills Matured Deals	All Treasury Bills which are matured are included in this report.
	T-Bills T-Bond Details	All Bills and Bonds between two specific dates.
	Cancelled Deals	All cancelled transactions between two specific dates including outright as well repo deals

2	Security Price	Report consists of information related to security prices.
	Coupon Received	Securities for which coupon is received reported here
	Holdings Report	Report consists of holding information of securities
	Issuer Holdings	
	Holding Details Report	This report has details of holding for the securities.
3	Marked to Market Report	MTM reports are generated for <ul style="list-style-type: none"> o Profit/Loss for the Day(Daily MTM) o Profit/Loss for forwards Reports can be generated in Online as well as in EOD mode.
4	FIS Position Report	Tenor wise Position report for all the available securities included in this report.
	Limit Utilization Report	Report consists of utilized amount of counterparties along with available and allocated amount.
5	Bond Revaluation Report	
6	Accrual Accretion Report	Accrual Accretion details shown in this report.

7	FIS Settlement Report	Report consists of settlement details of the deal.
8	Custodian Report	
9	Audit Trail Report	

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

8.0 Interfaces

Intellect™ One Treasury Fixed Income Module supports following interfaces for pricing, rates and trades.

S. No	Category	Interface Name	Description
1.	Market Rates	Bloomberg	
2.	Security Prices/Yields	Bloomberg	
3.	Market Rates	Reuters	
4.	Security Prices/Yields	Reuters	

5.	Govt. Securities	NDS-OM	Negotiated Dealing System- Order Management
6.	Market Repos in all kind of Govt. Securities	CROMS	ClearCorp Repo Order Matching System

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
 - Position Blotter
 - Holding Blotter
 - Deal Query
- Portfolio-Strategy Transfer
- Deal Compare
- On Behalf functionality
- Concurrent Audit

- Deal Slip
- Voucher Summary
- 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

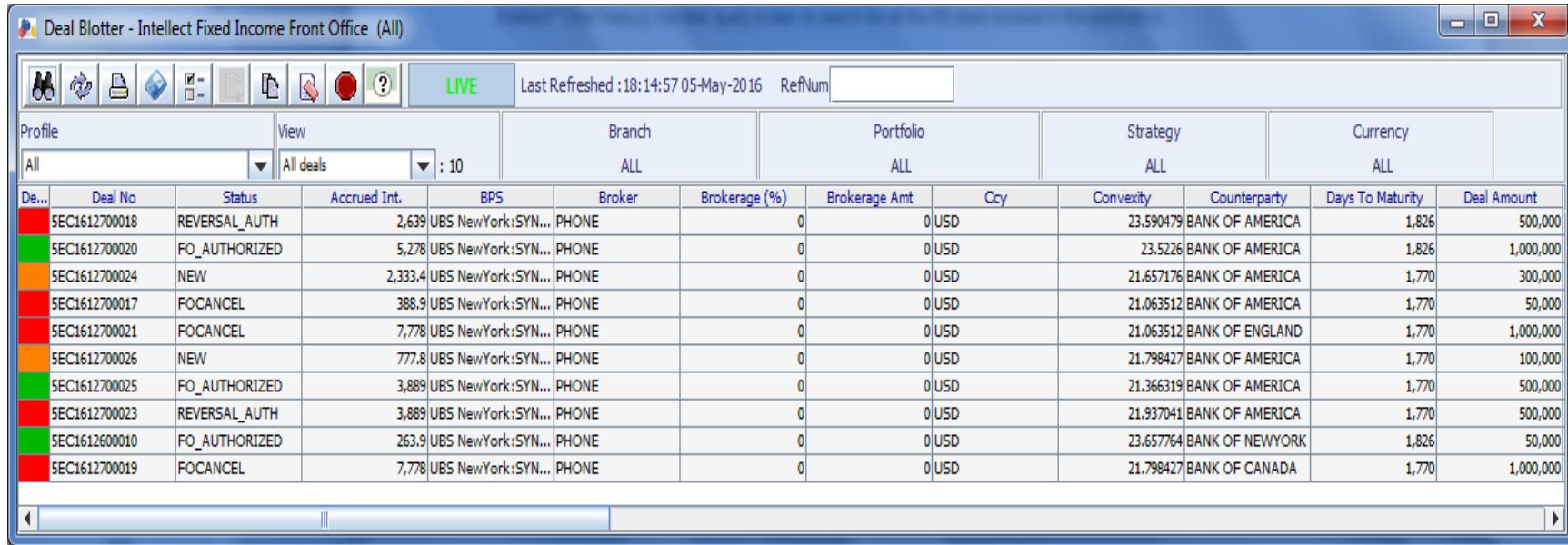
9.1.1 Deal Blotter

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 >> Fixed Income >> Front Office/Back Office>> Deal Blotter

Deal Blotter - Intellect Fixed Income Front Office (All)



The screenshot shows a software application window titled "Deal Blotter - Intellect Fixed Income Front Office (All)". The interface includes a toolbar with icons for file operations, a status bar indicating "LIVE" and the last refresh time "18:14:57 05-May-2016", and a search bar for "RefNum". Below the toolbar, there are several dropdown menus and filters: "Profile" (set to "All"), "View" (set to "All deals", with a dropdown showing "10"), "Branch" (set to "ALL"), "Portfolio" (set to "ALL"), "Strategy" (set to "ALL"), and "Currency" (set to "ALL"). The main area displays a table of deals with the following columns: Deal No, Status, Accrued Int., BPS, Broker, Brokerage (%), Brokerage Amt, Ccy, Convexity, Counterparty, Days To Maturity, and Deal Amount. The deals listed are: SEC1612700018 (REVERSAL_AUTH), SEC1612700020 (FO_AUTHORIZED), SEC1612700024 (NEW), SEC1612700017 (FOCANCEL), SEC1612700021 (FOCANCEL), SEC1612700026 (NEW), SEC1612700025 (FO_AUTHORIZED), SEC1612700023 (REVERSAL_AUTH), SEC1612600010 (FO_AUTHORIZED), and SEC1612700019 (FOCANCEL). Each deal row contains a color-coded status indicator (red, green, orange) and various financial details.

De...	Deal No	Status	Accrued Int.	BPS	Broker	Brokerage (%)	Brokerage Amt	Ccy	Convexity	Counterparty	Days To Maturity	Deal Amount
SEC1612700018	REVERSAL_AUTH		2,639	UBS NewYork:SYN...	PHONE	0	0 USD		23.590479	BANK OF AMERICA	1,826	500,000
SEC1612700020	FO_AUTHORIZED		5,278	UBS NewYork:SYN...	PHONE	0	0 USD		23.5226	BANK OF AMERICA	1,826	1,000,000
SEC1612700024	NEW		2,333.4	UBS NewYork:SYN...	PHONE	0	0 USD		21.657176	BANK OF AMERICA	1,770	300,000
SEC1612700017	FOCANCEL		388.9	UBS NewYork:SYN...	PHONE	0	0 USD		21.063512	BANK OF AMERICA	1,770	50,000
SEC1612700021	FOCANCEL		7,778	UBS NewYork:SYN...	PHONE	0	0 USD		21.063512	BANK OF ENGLAND	1,770	1,000,000
SEC1612700026	NEW		777.8	UBS NewYork:SYN...	PHONE	0	0 USD		21.798427	BANK OF AMERICA	1,770	100,000
SEC1612700025	FO_AUTHORIZED		3,889	UBS NewYork:SYN...	PHONE	0	0 USD		21.366319	BANK OF AMERICA	1,770	500,000
SEC1612700023	REVERSAL_AUTH		3,889	UBS NewYork:SYN...	PHONE	0	0 USD		21.937041	BANK OF AMERICA	1,770	500,000
SEC1612600010	FO_AUTHORIZED		263.9	UBS NewYork:SYN...	PHONE	0	0 USD		23.657764	BANK OF NEWYORK	1,826	50,000
SEC1612700019	FOCANCEL		7,778	UBS NewYork:SYN...	PHONE	0	0 USD		21.798427	BANK OF CANADA	1,770	1,000,000

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. In case of Repo and Reverse Repo deal, the two legs of the deal are populated separately with the same Deal No. By double clicking a particular deal, a deal can be fetched from Deal Blotter onto the Deal Capture Screen for any further action.

9.1.2 Position Blotter

9.1.2.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Front Office>>Position Blotter

Position Blotter - Intellect Fixed Income Front Office											
Security	Ccy	Face Value	EOM Price	UBS NewYork:SY...	Prev MTM	Prev MTMPrice	MTM	MTM Price	WAP	BookValue'	
usvar1	USD	100	0.0	1,050	0.000000	0.000000	0.000000	0.000000	107.095238	107.	
usvar2	USD	100	0.0	400	0.000000	0.000000	0.000000	0.000000	98.500000	98.	
usvar3	USD	100	0.0	500	0.000000	0.000000	0.000000	0.000000	94.000000	94.	
Total (USD)				1,950	0.000000	0.000000	0.000000	0.000000	299.595238	299.	

9.1.2.2 Description

➤ Prerequisites

- Deals available in the system
- User Preferences
- BPS Should be maintained

Net Positions of the securities displayed in the position blotter for available BPS. This blotter also shows aggregate positions for available securities and BPS combinations.

P&L is also calculated security-BPS wise in online mode with respect to MTM prices. The blotters get refreshed automatically for a system configured time interval OR on clicking the "Refresh" button. The amounts are displayed by default in security currency.

9.13 Holding Blotter

Intellect™ One Treasury Holding Blotter shows/displays current holdings of securities available in the system.

9.1.3.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Front Office>>Holding Blotter

Holding Blotter - Intellect Fixed Income Front Office							
Security	Demo Bank:DCHI:AFS		Demo Bank:DCHI:HFT		Demo Bank:DSHA:AFS		
	Amount (K)	Book Value	Amount (K)	Book Value	Amount (K)	Book Value	Total (K)
LKA36415E081	20,000.000	18,691,454.779	0.000	0.000	0.000	0.000	20,000.000
SLDB1	1,000.000	980,000.000	1,000.000	970,000.000	10.000	10,200.000	2,010.000
Total (LANKAN R...	153,174.000	149,201,974.780	133,174.000	129,178,780.000	1,331.740	1,358,374.800	287,679.740

9.1.3.2 Description

- Prerequisites

- Settled Deal

- User Preferences

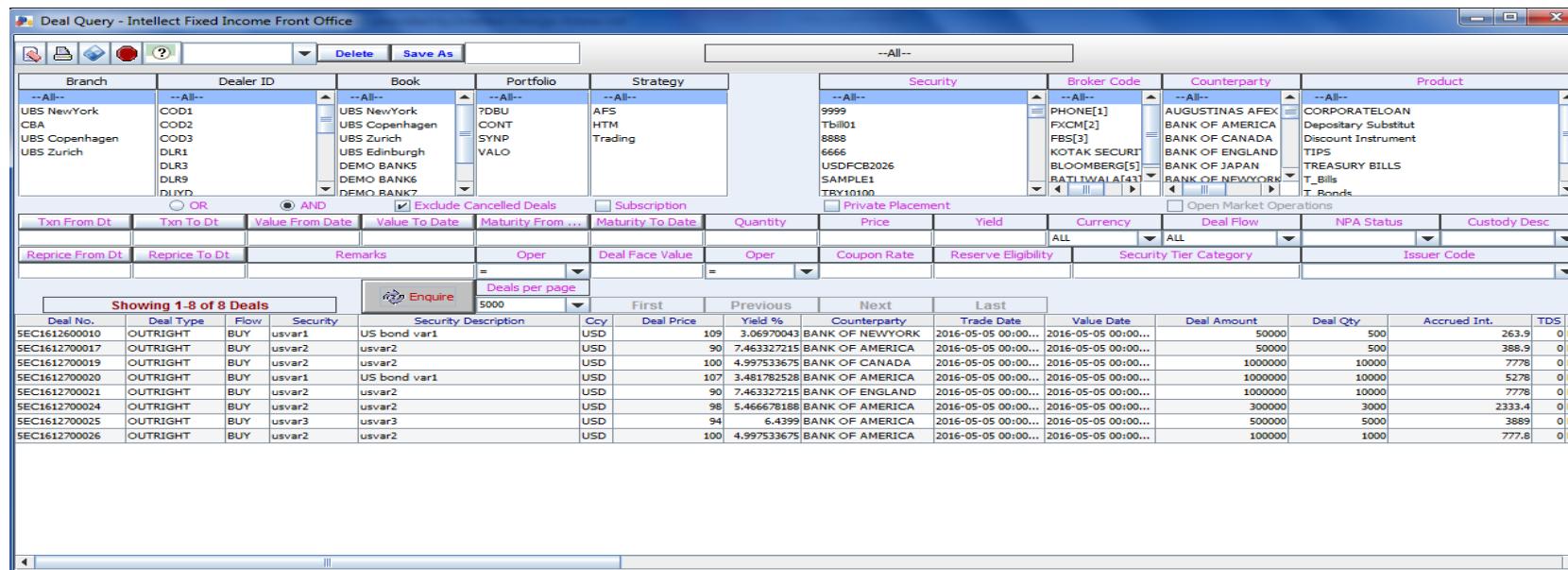
Holding Blotters gets updated as soon as the deal is settled in back office. Holdings displayed according to security BPS combinations.

9.1.4 Deal Query

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

9.1.4.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Front Office/Back Office >>Deal Query



Deal No.	Deal Type	Flow	Security	Security Description	Ccy	Deal Price	Yield %	Counterparty	Trade Date	Value Date	Deal Amount	Deal Qty	Accrued Int.	TDS
SEC1612600010	OUTRIGHT	BUY	usvar1	US bond var1	USD	109	3.06970043	BANK OF NEWYORK	2016-05-05 00:00...	2016-05-05 00:00...	50000	500	263.9	0 MC
SEC1612700017	OUTRIGHT	BUY	usvar2	usvar2	USD	90	7.463327215	BANK OF AMERICA	2016-05-05 00:00...	2016-05-05 00:00...	50000	500	388.9	0 MC
SEC1612700019	OUTRIGHT	BUY	usvar2	usvar2	USD	100	4.997533675	BANK OF CANADA	2016-05-05 00:00...	2016-05-05 00:00...	1000000	10000	7778	0 MC
SEC1612700020	OUTRIGHT	BUY	usvar1	US bond var1	USD	107	3.481782528	BANK OF AMERICA	2016-05-05 00:00...	2016-05-05 00:00...	1000000	10000	5278	0 MC
SEC1612700021	OUTRIGHT	BUY	usvar2	usvar2	USD	90	7.463327215	BANK OF ENGLAND	2016-05-05 00:00...	2016-05-05 00:00...	1000000	10000	7778	0 MC
SEC1612700024	OUTRIGHT	BUY	usvar2	usvar2	USD	98	5.466678188	BANK OF AMERICA	2016-05-05 00:00...	2016-05-05 00:00...	300000	3000	2333.4	0 MC
SEC1612700025	OUTRIGHT	BUY	usvar3	usvar3	USD	94	6.4399	BANK OF AMERICA	2016-05-05 00:00...	2016-05-05 00:00...	500000	5000	3889	0 MC
SEC1612700026	OUTRIGHT	BUY	usvar2	usvar2	USD	100	4.997533675	BANK OF AMERICA	2016-05-05 00:00...	2016-05-05 00:00...	100000	1000	777.8	0 MC

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

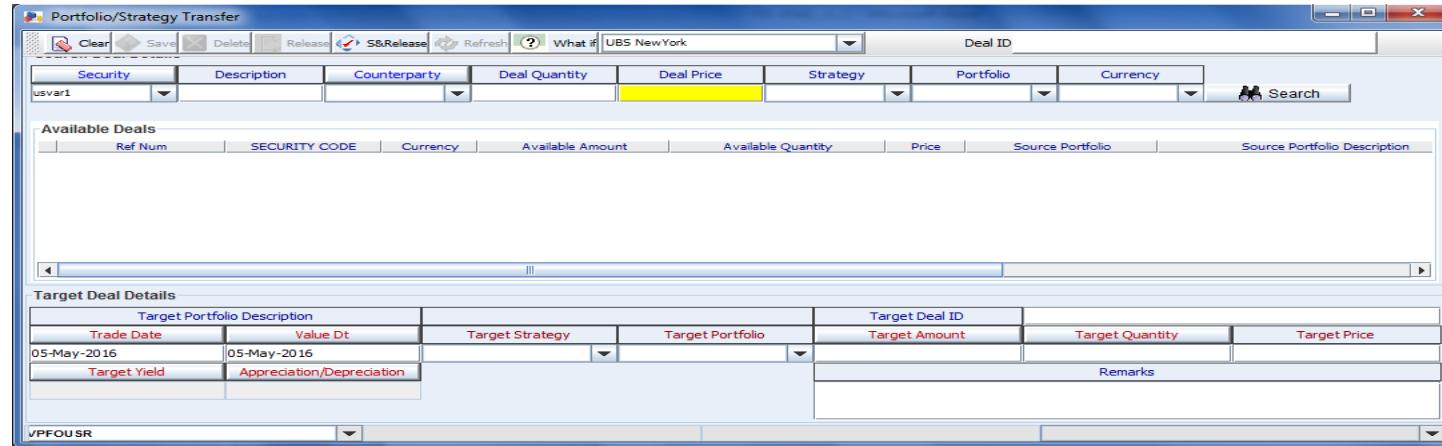
➤ Intellect™ One Treasury Blotters have some common features which are

- User Preferences
- Spooling and Printing of Blotter data
- Sorting and Column Arrangements
- Help
- Refresh

9.2 Portfolio Strategy Transfer

9.2.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Front Office >> Portfolio Strategy Transfer



9.2.2 Description

➤ **Prerequisites**

- Available Deals
- Target Portfolio/Strategy

Application provides feature to transfer a security from one portfolio/strategy to another based upon business needs.

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 >> Fixed Income >> Back Office >> Deal Enrichment>>Tools>>Concurrent Audit

<<Screenshot will be attached >>

9.3.2 Description

➤ Prerequisites

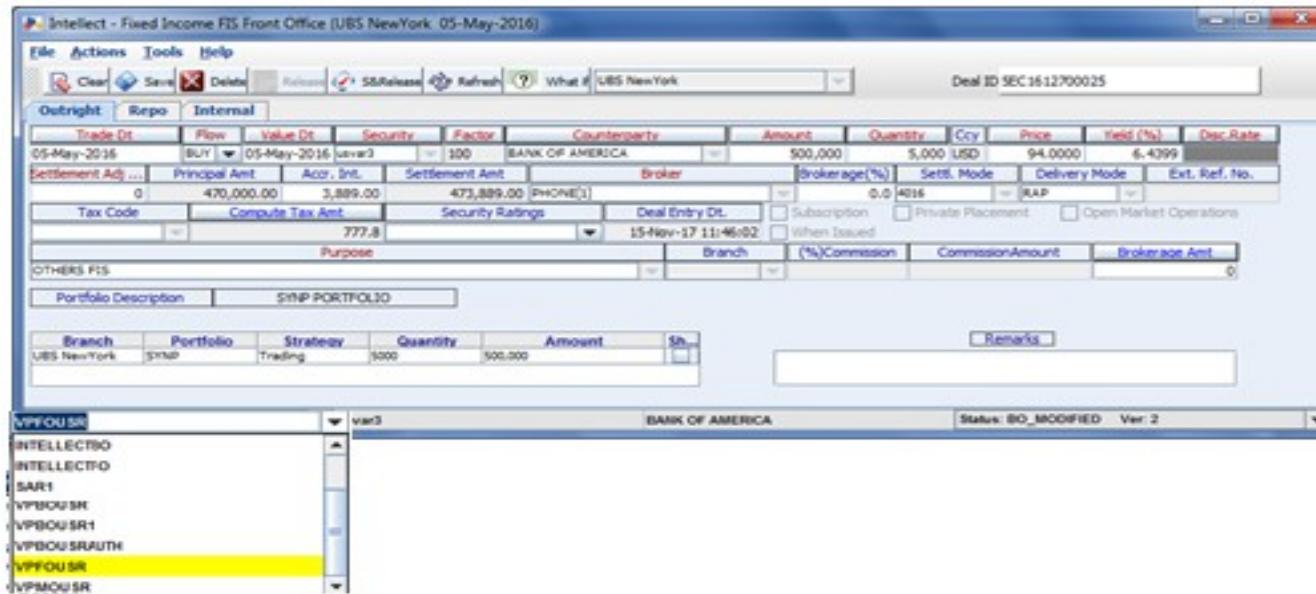
- Swift Messages
- Reuters Conversation
- Deal Authorized in Back Office

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 >> Fixed Income >> 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 its previous version(s).

9.5.1 Screen Path & Layout

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

Deal Compare Ref. No: SEC1612700025		
	Version - 2	Version - 1
Deal No	SEC 1612700025	SEC 1612700025
Deal Date	15-Nov-2017	15-Nov-2017
Dealer Id	MGMT	MGMT
Branch Name	PHONE	PHONE
Security Code	usvar3	usvar3
Deal Flow	BUY	BUY
Deal Type	OUTRIGHT	OUTRIGHT
Customer Name	BANK OF AME...	BANK OF AME...
Portfolio Code	SYNP	SYNP
Deal Quantity	5000	5000
Deal Face Value	500000	500000
Trade Date	05-May-2016	05-May-2016
Value Date	05-May-2016	05-May-2016
Broker Name		
Brokerage	0	0
Purpose	P0019	P0019
Strategy Code	Trading	Trading
Deal Price	94	94
Yield	6.4399	6.4399
Accr Int	3889	3889
Repo Accr Int		
Repo Tenor	0	0
Repo Amount	0	0
CCY Code	USD	USD
FOMaker Id	INTELLECTFO	INTELLECTFO
FOMake Date	05-May-2016	05-May-2016
FOChecker Id	SYSTEM	SYSTEM
FOCheck Date	05-May-2016	05-May-2016
Deal State	Current	History
Ext Ref No		
BOMaker Id	INTELLECTFO	
BOMake Date	05-May-2016	
BOChecker Id		
BOCheck Date		

9.5.2 Description

➤ Prerequisites

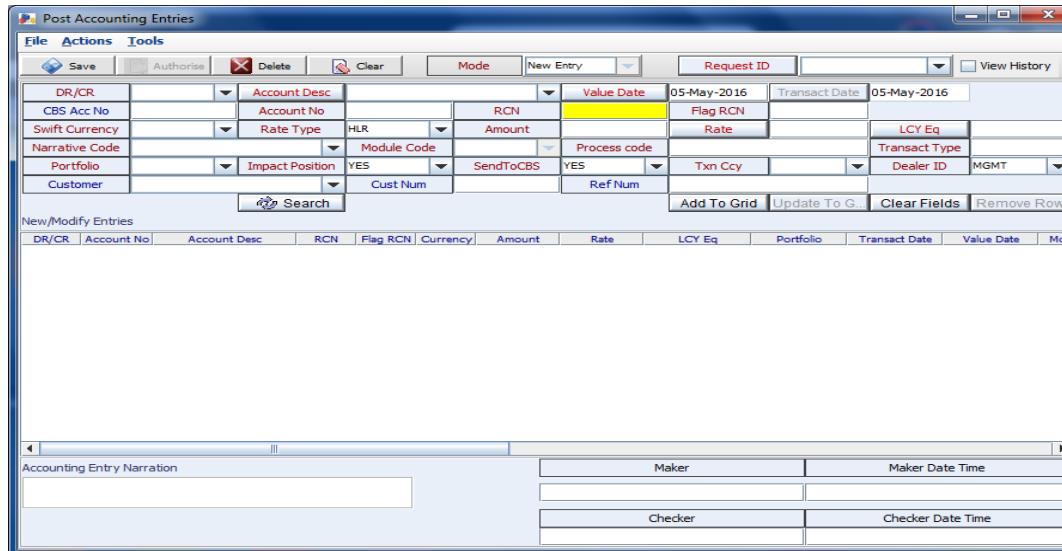
- Deal is available and any modification has been done

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.

9.6 Voucher Summary (Post Accounting Entries)

9.6.1 Screen Path & Layout

Navigation Path: Intellect™ One Treasury >> Fixed Income >> Back Office >> Post Accounting Entries (Voucher Summary)



The screenshot shows the 'Post Accounting Entries' window. At the top, there's a toolbar with buttons for Save, Authorise, Delete, Clear, Mode, New Entry, Request ID, and View History. Below the toolbar is a grid of input fields for various transaction details. The fields include DR/CR, Account Desc, Account No, Value Date (set to 05-May-2016), Transact Date (set to 05-May-2016), CBS Acc No, Swift Currency, Rate Type (set to HLR), Amount, Rate, LCY Eq, Narrative Code, Module Code, Process code, Portfolio, Impact Position (set to YES), SendToCBS (set to YES), Txn Ccy, Dealer ID (set to MGMT), Customer, Cust Num, Ref Num, and a 'Search' button. Below the grid are buttons for Add To Grid, Update To G, Clear Fields, and Remove Row. At the bottom, there's a section for Accounting Entry Narration and a table for tracking Maker and Checker information with their respective dates and times.

DR/CR	Account No	Account Desc	RCN	Flag RCN	Currency	Amount	Rate	LCY Eq	Portfolio	Transact Date	Value Date	Mod

Accounting Entry Narration	Maker	Maker Date Time
Checker	Checker Date Time	

9.6.2 Description

➤ Prerequisites

- BO Authorized deals

Voucher Summary screen is used to post Adhoc Accounting entries. This screen is used for manual adjustments with respect to account balances or to pass any accounting entries. System also provides the option of sending these accounting to Core Accounting system.

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

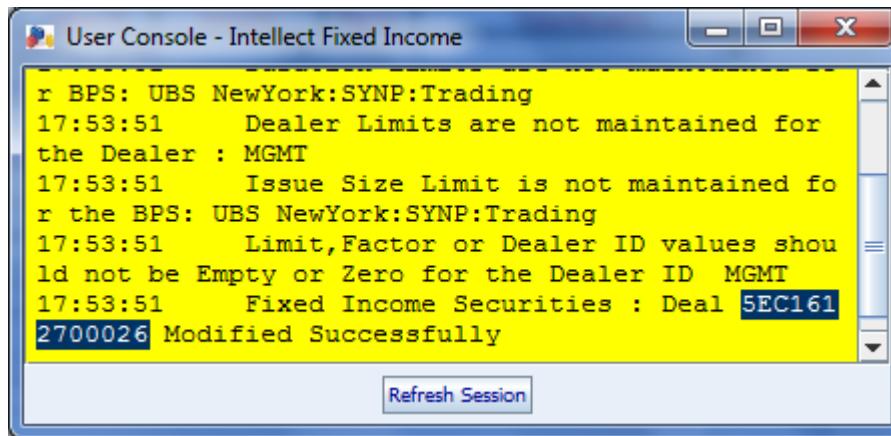
This feature is available across all the modules. System provides option to print the deal tickets also.

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 >> Fixed Income >> Front/Back Office >> User Console



9.8.2 Description

➤ Prerequisites

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

User Console acts as an auditing tool also as it keeps 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.

10.0 Appendix

10.1 Computation Logic & Formulas

10.2 Field Definitions

10.2.1 Field Definitions for Outright Deal 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.	Flow	This will display the type of transaction(Buy or Sell)	VARCHAR2	M	
3.	Value date	This is the day on which actual payments or receipts of funds take place	Date	M	
4.	Security	This will display the list of Securities	VARCHAR2	M	

5.	Quantity	This will display the Quantity to buy or sell	NUMBER	M	
6.	Price	This will display the Deal Price of the security.	NUMBER	M	
7.	Amount	It is essentially system calculated value based on quantity input.	NUMBER	M	
8.	Yield	This will display the Yield of the security.	NUMBER	M	
9.	Disc Rate	This will display Discounted rate if applicable	NUMBER	M	
10.	Settlement Adj Amount	This will display adjusted settlement amount.	NUMBER	M	
11.	Purpose	This will display purpose.	VARCHAR2	M	
12.	Accrued interest	This will display accrued interest to be paid to or received.	NUMBER	O	
13.	Settlement Amount	This will display Final Settlement amount.	NUMBER	O	
14.	Principal Amount	This will display Principal Amount	NUMBER	O	

10.2.2 Field Definitions for Repo Screen

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

S. No.	Field Names	Field Description	Data Type	Mandatory	Remarks
1)	Repo Type	This will display the relevant repo type applicable for the deal for Ex. Lien, SBB/BSB or Market Repo etc.	VARCRHARA	M	
2)	Deal Flow	Flow denotes whether is the security is being bought or sold	VARCRHARA	M	
3)	L1 Settlement Amount	This is sum of Leg1 Consideration and Accrued Interest Leg1.	NUM	O	

			BE R		
4)	Tenor	This denotes Repo tenor. Value Date Leg 2 = Value Date Leg 1 + Tenor-Days	N U M BE R	M	
5)	Accrual Method	This will provide an option for selecting applicable Accrual methods	V A R C H A R2	M	
6)	L2 Settlement Amount	This Field will display the L2 Settlement Amount.	N U M BE R		
7)	Settlement Mode	User can select from the drop down the mode the way the settlement should take place	V A R C H A R2	M	

8)	Broker	This will display the Broker Information.	V A R C H A R2	M	
9)	Brokerage Amount	This will display the brokerage amount for selected broker.	N U M B E R	O	
10)	% Commission	Commission Percentage as setup for the deal parameters is displayed here	V A R C H A R2	O	
11)	Commission Amount	Based on the Commission % maintained and Yield Commission Amount is calculated	A M O U N T	O	
Field Definitions for Grid Structure					

1.	Security Key	Displays the ISIN of the Security	Va rc ha r2	M	
2.	Maturity Date	This will display the Maturity Date of the Selected Security	D AT E	M	
3.	Coupon Rate	Coupon Rate of the Selected Security	N U M BE R	M	
4.	L1 Consideration Amount	This will display the L1 Consideration Amount	N U M BE R	O	
5.	L1 Price	Price to trade one unit (Quantity) of a security. This is Market Price which is maintained in Security master Market rates Tab.	N U M BE R	M	

6.	Margin	Margin to be applied on the Face Value of the underlying Security.	N U M B E R	M	
7.	Trade Price	Trade Price of the Security Calculated based upon Margin	N U M B E R	M	
8.	Interest Amount	Repo interest is calculated on the first leg consideration amount for the repo period, Interest rate and Accrual Method	N U M B E R	O	

10.2.3 Field Definitions for Security Maintenance

List of Important fields under security tabs defined here

S. No.	Field Names	Field Description	Data Type	Mandatory	Remarks

1)	Product Type	This will display the list of Products using securities are created	VARCHAR2	M	
2)	Face Value	Face Value of security	NUMBER	M	
3)	IP Date	It is the date on which the first interest payment for a security will be made	DATE	M	
4)	Issue Date	This will display the Date on which security is issued	DATE	O	
5)	Maturity Date	The date on which the security will get matured	DATE	M	
6)	Issuer Code	This will display who is issuing the securities	VARCHAR2	M	
1)	ISIN	This is an unique International securities Identification Number issued by National Numbering Agency in any particular country where the security is issued	VARCHAR2	M	
2)	Issue Size	This will display the Issue Size associated with Issuer. Also check while booking deals.	NUMBER	M	

3)	Coupon	This will display the type of coupon(fixed or floating)	VARCHAR2	M	
4)	Coupon Frequency	This will display the frequency at which coupon is to be paid.	VARCHAR2	M	
5)	Coupon Rate	Rate on which coupon amount will be calculated.	NUMBER	M	
6)	Last Coupon Date	The date on which last coupon will be paid out.	DATE	M	
7)	Interest Basis	This will display the Day Count Convention used for calculations	VARCHAR2	M	
8)	Yield Type	This will provides an option to select desired Yield Type	VARCHAR2	M	
9)	Yield Method	This will provided an option to select specific Yield Method in order to derive the yield for a given price	VARCHAR2	M	
10)	Quote Type	<p>The type of the quotes available are</p> <ul style="list-style-type: none"> ⌚ Percent : The price of the security is in percentage basis, It is computed considering 100 as unit paid-up value. 	VARCHAR2	M	

		Absolute: The price of the security is on actual basis, It is computed wrt the unit paid-up value maintained in Security Master Maintenance			
11)	Trading Allowed	User can select the value from drop down, which denotes whether the security is allowed for trading or not	VARCHAR2	M	
12)	Rate Reasonability Check	User can select the value from drop down whether, it can be absolute or percentage value of the bands maintained	VARCHAR2	M	
13)	Precision	It describes the targeted decimal point up to which calculation related to security cash flows should occur.	NUMBER	O	
14)	Odd Coupon Type	The type of coupon required to calculate the cash flows, which is based on issue date and maturity date, when the first/last coupon date is not in sync with the actual coupon frequency.	VARCHAR2	O	
15)	Benchmark Code	The Benchmark by which the rate will get decided in case of repricing cash flows for a floating rate instrument	VARCHAR2	O	

16)	Reprice Frequency	The frequency at which the repricing will happen 1M, 2Y etc. (Applicable for floating rate securities)	VARCHAR2	O	
17)	Spread (%)	This is applicable for floating rate Securities. It is the spread (+/-) above the Benchmark.	NUMBER	O	
18)	Rate Floor (%)	This is applicable for floating rate Securities to set limit on minimum coupon rate.	NUMBER		
19)	Rate Ceiling(%)	This is applicable for floating rate Securities to set limit on Maximum coupon rate	NUMBER	O	
20)	Quote Method	User can select the method from the drop down <input checked="" type="radio"/> ⓐ Clean Price – Price which is computed exclusive of accrued interest <input type="radio"/> ⓑ Dirty Price - Price which is computed inclusive of accrued interest	VARCHAR2	O	
21)	Buy Back Allowed	Whether Security can be bought back by the issuer.	VARCHAR2	O	

22)	Repo Allowed	User can select the value from drop down, which denotes whether the security can be allowed for repo/reverse repo trading.	VARCHAR2	O	
23)	Short Sell Allowed	User can select the value from drop down, which denotes whether the securities are allowed for short sell or not	VARCHAR2	O	
24)	Settlement Days	User can enter the days in which the settlement for a given security will take place	NUMBER	O	

11.0 Glossary

11.1 Day Count/Interest Basis

A convention to determine the number of days between two 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

- ① 30/360
- ① 30/365
- ① Actual/365
- ① Actual/Actual
- ① Actual/nActual
- ① 30E/360
- ① 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.

11.2 Odd Coupon Type

Irregular cash flows are handled using Odd coupon type method defined in Security Master.

11.2.1 Description

- **First Small Coupon:** If the first coupon payment date doesn't fall in the complete cycle of the coupon frequency then we call it as a First Small Coupon. Here the coupon amount is paid on a pro rate basis for the respective number of days (lesser than a normal coupon period)

- **Last Small Coupon:** If the last coupon payment date doesn't fall in the complete cycle of the coupon frequency then we call it as a last Small Coupon. Here the coupon amount is paid on a pro rate basis for the respective number of days (lesser than a normal coupon period)

- **For Example:** Issue date = 11-Sep-2013, First IP date = 30-Sep-2013 and coupon frequency = 6 months, Maturity Date = 25-Aug-2014
 - The Coupon paid on 30-Sep-2013 is called as First Small Coupon.
 - The Coupon paid on 25-Aug-2014(3rd Coupon Payment date) is called as Last Small Coupon