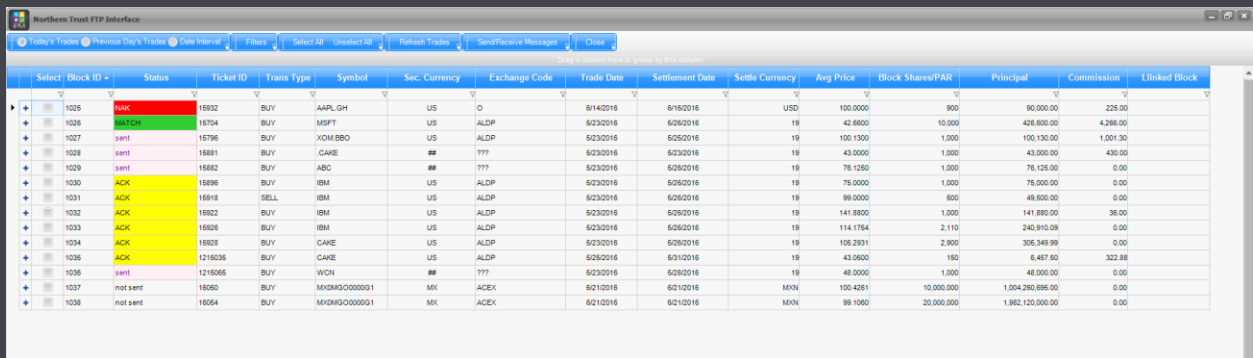


XML Integration with Northern Trust

For INDATA clients using Northern Trust (NT) for trade settlement services, iPM Epic clients can now gain further automation and process improvement by utilizing XML functionality. As opposed to the previous flat file-driven process, XML integration works in real-time and eliminates the need to import files into the NT system once the files have been exported from the INDATA iPM system. Below are some screen shots of the new capability.



Select	Block ID	Status	Ticket ID	Trans Type	Symbol	Sec. Currency	Exchange Code	Trade Date	Settlement Date	Settle Currency	Avg Price	Block Shares/PAR	Principal	Commission	Linked Block
+	1025	NAK	18932	BUY	AAPL.GH	US	O	6/14/2016	6/18/2016	USD	100.0000	900	90,000.00	225.00	
+	1026	MATCH	18704	BUY	MSFT	US	ALDP	6/23/2016	6/28/2016	19	42.6600	10,000	426,600.00	4,266.00	
+	1027	sent	18796	BUY	XOM.BBO	US	ALDP	6/23/2016	6/28/2016	19	100.1300	1,000	100,130.00	1,001.30	
+	1028	sent	18881	BUY	CAKE	##	???	6/23/2016	6/28/2016	19	43.0000	1,000	43,000.00	430.00	
+	1029	sent	18882	BUY	AEC	##	???	6/23/2016	6/28/2016	19	78.1250	1,000	78,125.00	0.00	
+	1030	ACK	18996	BUY	IBM	US	ALDP	6/23/2016	6/28/2016	19	75.0000	1,000	75,000.00	0.00	
+	1031	ACK	18918	SELL	IBM	US	ALDP	6/23/2016	6/28/2016	19	99.0000	800	49,620.00	0.00	
+	1032	ACK	18922	BUY	IBM	US	ALDP	6/23/2016	6/28/2016	19	141.8800	1,000	141,880.00	36.00	
+	1033	ACK	18920	BUY	IBM	US	ALDP	6/23/2016	6/28/2016	19	114.1764	2,110	240,910.09	0.00	
+	1034	ACK	18923	BUY	CAKE	US	ALDP	6/23/2016	6/28/2016	19	105.2931	2,900	305,349.99	0.00	
+	1036	ACK	1218036	BUY	CAKE	US	ALDP	6/23/2016	6/31/2016	19	43.0500	180	8,467.50	322.88	
+	1036	sent	1218086	BUY	WGN	##	???	6/23/2016	6/28/2016	19	48.0000	1,000	48,000.00	0.00	
+	1037	not sent	18060	BUY	MXRMO000001	MX	ACEX	6/21/2016	6/21/2016	MXN	100.4261	10,000,000	1,004,260,698.00	0.00	
+	1038	not sent	18064	BUY	MXRMO000001	MX	ACEX	6/21/2016	6/21/2016	MXN	99.1060	20,000,000	1,982,120,000.00	0.00	

Above: Blotter of frozen trades available for export to NT and column showing status of individual trades (i.e. sent, ACK-acknowledged by NT, NAK-not acknowledged by NT, Match, not sent, etc.)

Message Detail: Below screen with the NAK open and showing the xml messaging that powers the interface:

The screenshot shows the Northern Trust FTP Interface with a trade table. The trade with Block ID 1025 is highlighted in red with a 'NAK' status. An XML message detail window is open, showing the following content:

```

- <File clientname="INDATA DEVELOPMENT" sequence="" timestamp="Wednesday 22 Jun 2016 11:38:23" messagecount="1" endofday="No">
- <Message>
- <AcknowledgementDetails>
  <MsgIndicator>NAK</MsgIndicator>
  <SenderId>TRADE SERVICES</SenderId>
  <RecipientId>CLIENT</RecipientId>
  <DateReceived>14-05-2014</DateReceived>
  <TimeReceived>04:20 US-CT</TimeReceived>
  <OriginatorsRef>120455-XYZ</OriginatorsRef>
  <BlockRef>1025</BlockRef>
  <OriginatorsAction>NEWM</OriginatorsAction>
- <ErrorCodes>
  <ErrorCode>TRC102</ErrorCode>
  <ErrorText>Mandatory Field Missing Value</ErrorText>
  <ErrorLocation>CountryofQuotation</ErrorLocation>
</ErrorCodes>
- <ErrorCodes>
  <ErrorCode>TRC102</ErrorCode>
  <ErrorText>Mandatory Field Missing Value</ErrorText>
  <ErrorLocation>Quantity</ErrorLocation>
</ErrorCodes>
</AcknowledgementDetails>
</Message>
</File>
  
```

Below: Detail of individual trade allocation with ability to filter messages by a variety of criteria.

The screenshot shows the Northern Trust FTP Interface with a trade allocation table. A filter dialog box is open, allowing users to filter messages by Block Status, Symbol, Broker, and Currency. The table below shows the following data:

Order ID	Account	Customer ID	Custodian	Shares/PAR	Principal	Commission	Net Consid.	Settle Currency	Settle Amt.	Trad...	Broker Type	Broker Name
11097	ZinnenDTR	18872	ZinnenDTR	500	50065	500.65	50670.65	USD		1	Executing	FIDELITY
1028												

For More Information, please contact your INDATA Representative at (888) 454-4060 or email info@indataipm.com