Speedwell Weather

Speedwell Weather
Speedwell Weather System

SWS Back Office-Process Flow

Contents

SWS Terminology

e.g. LGA CDD July

Weather Index

Payoff

e.g. Call Strike 500

Weather Derivative

e.g. LGA CDD July Call Strike 500

Transaction

e.g. BUY LGA CDD July Call Strike 500 For $100

Transactions are always attached to a portfolio

Portfolio

These terms are capitalised in future slides

SWS Back Office

The Flow of a Weather Trade

Flow of a Weather Trade: Booking

A trader books a Transaction in SWS

SWS immediately:

- ❑Locks up for editing/deleting the Weather Derivative
- ❑Sends an internal message to SWS desktops
- ❑Makes available the Transaction in the Back Office
- ❑Integrates the Transaction in P&L, VaR, Credit Reports, etc

Only a person with Back Office privileges can:

- ❑Edit the Transaction (e.g. *Premium/Transaction Date*)
- ❑Mark the Transaction as deleted (*the Transaction is never physically deleted from the DB*)
- ❑Record statuses
- ❑Record payments
- ❑Settle the Transaction
- ❑Remove the Transaction from the assigned portfolio

Flow of a Weather Trade: Stages

- SWS offers the following standard stages through which a Transaction is processed:

Trade Life Cycle Status List

IDStatus	Position	Status Name	Is Visible	Payment Occurring	Is Status For Transaction Part
0	0	Contract is sent	☑	☐	☐
1	1	Contract is signed	☑	☐	☐
2	2	Premium is exchanged	☑	☑	☑
5	3	Broker's fees are paid	☑	☑	☐
3	4	Settlement is paid	☑	☑	☑
4	5	Post Settlement is paid	☑	☑	☑

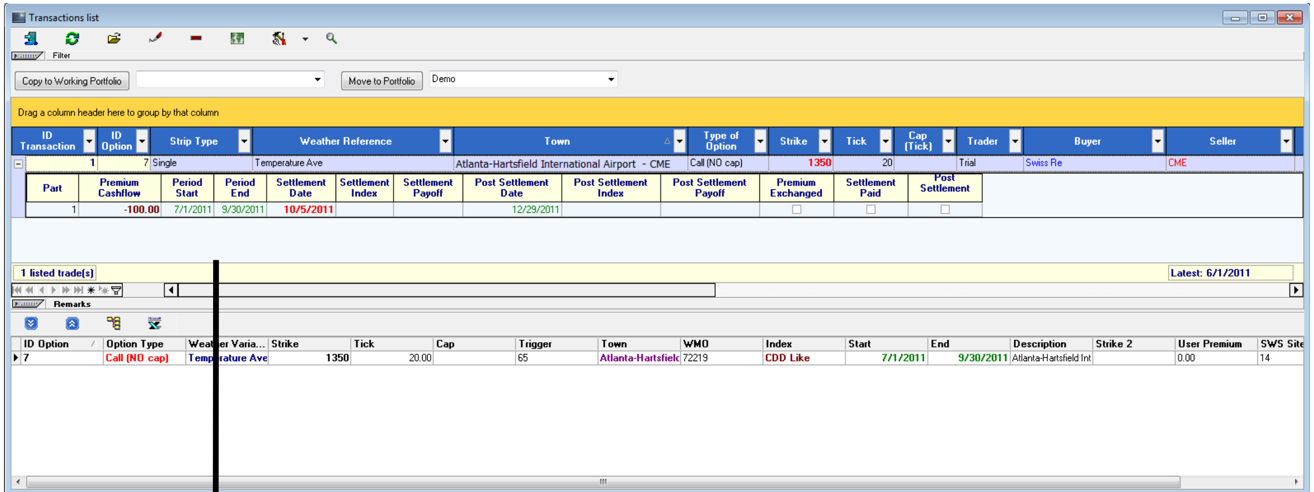
- Additional stages can be added if desired (e.g. “Traders have signed off the deal”)
- Additional stages can be added by a user with Back Office permissions

Flow of a Weather Trade: Screens

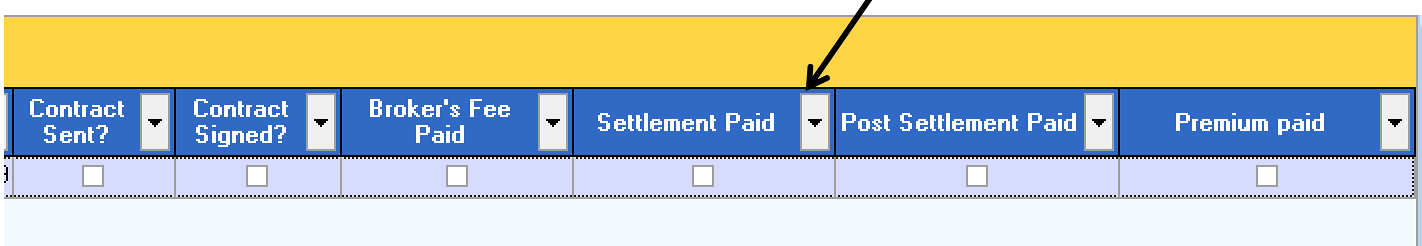
- When going through the initial stages (Contract is sent, Contract is signed, etc) of the Transaction the Transaction Life Cycle Management screen can be used

- When settling trades, it is possible to either process:
  - each Transaction individually
    - => Using the Transaction Life Cycle Management screen
  - the Transactions in batches
    - Using the Settlement Processing screen

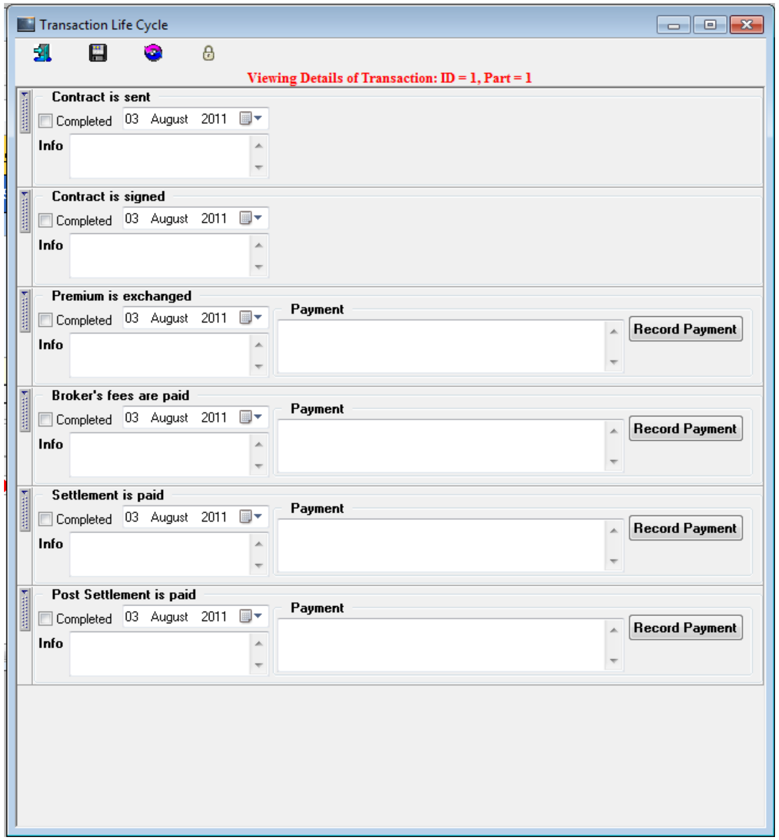
Flow of a Weather Trade: Transaction Life Cycle Management



The list of trades can be filtered by transaction status



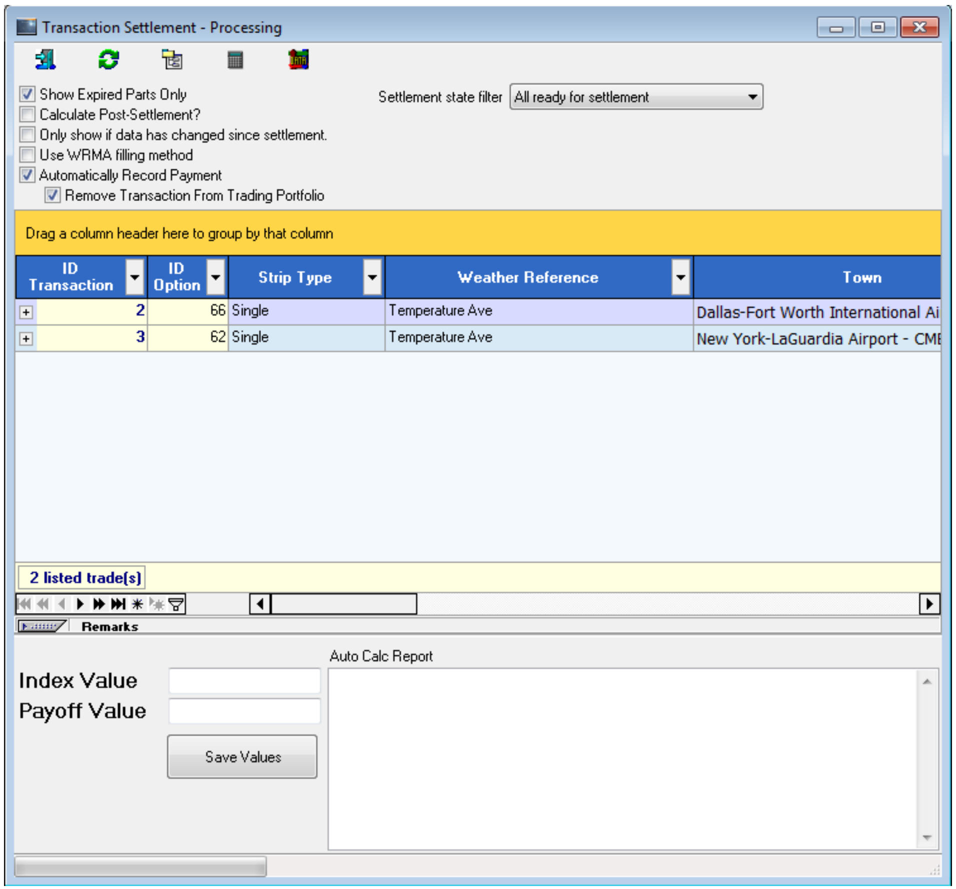
Flow of a Weather Trade: Viewing Transactions Individually



This screen helps the back office going through each individual stages of the transaction.

The key stages are:
-Premium is paid
-Settlement is paid

Flow of a Weather Trade: Settlement Batch Processing



SWS can batch process Transactions. This automatically records payments and removes Transactions from the portfolios.

Integration with in-house systems

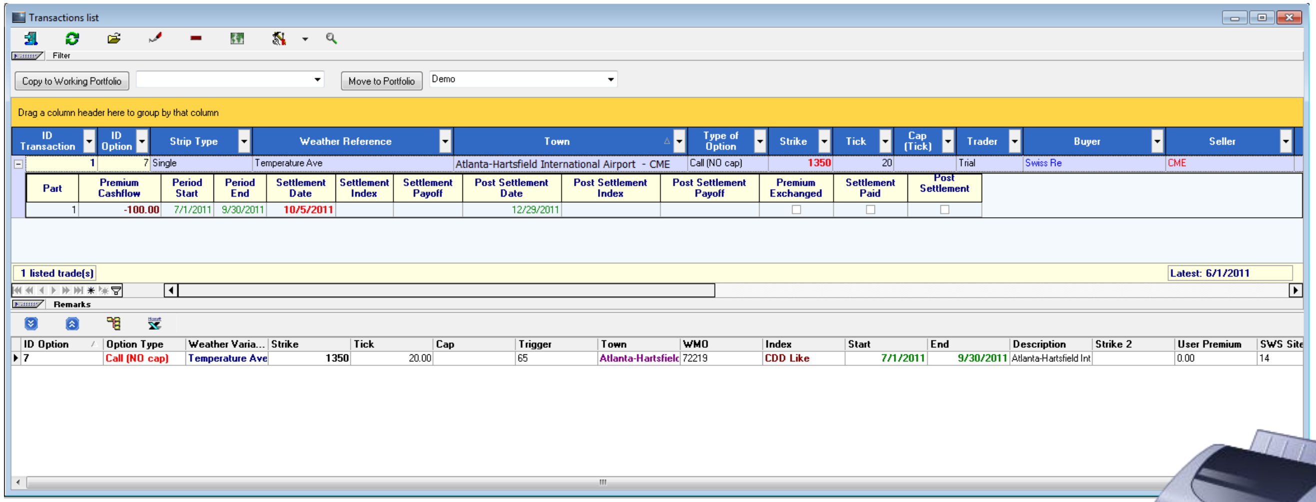
Speedwell have experience of integrating SWS into other existing back office processes.

It is possible to raise email alerts at key stages in the settlement life cycle (eg when a Transaction has been edited). These can be implemented using SQL Server emailing functionalities and triggers or by creating specific Windows Services

Generation of Confirmations and Invoices

Traders Sign-Off

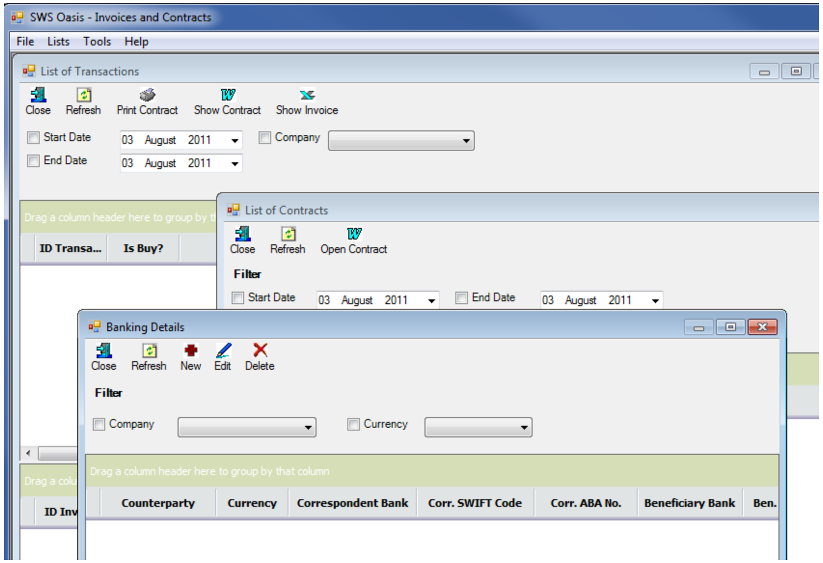
This grid allows the user to filter and export the Transaction Life Cycle grid view to Excel®, print the document and hand it to the trading desk for confirmation.



SWS Invoices and Contracts Module

The SWS Invoices and Contracts module is an optional component which can be licensed to automate the generation of:

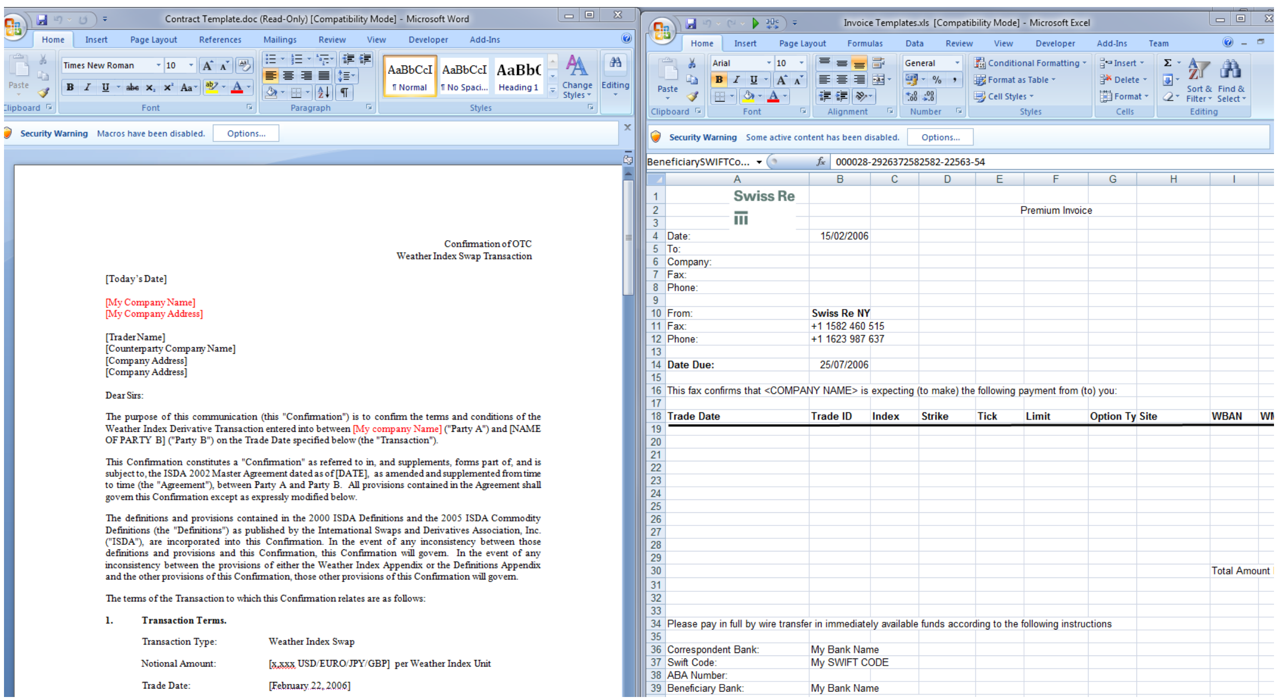
- Standard ISDA Contracts
- Invoices (Premium, Brokerage, Settlement)



Template Setup

The first step when using this module is to:

- ❑ Setup all the banking details for the various counterparties
- ❑ Personalise the invoice template

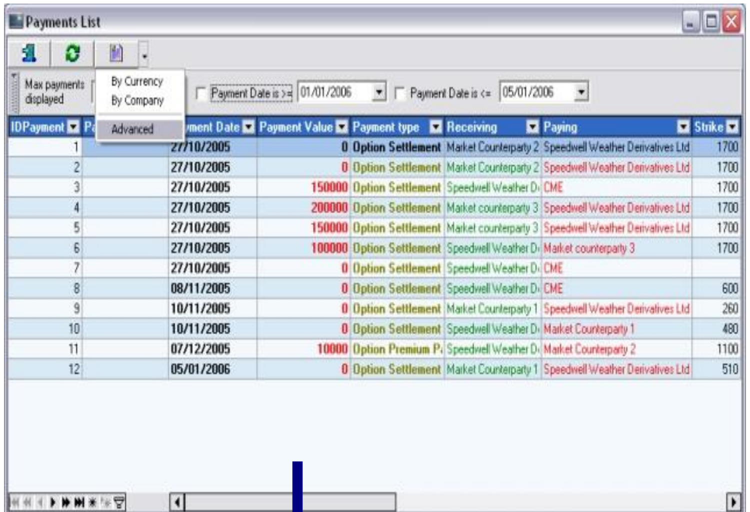


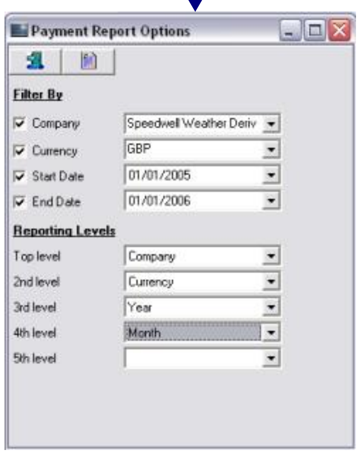
Communicating with in-house systems

Using direct DB calls or the SWS API it is possible to further integrate SWS into your back office or to develop your own tools to reconcile ledgers, for example.

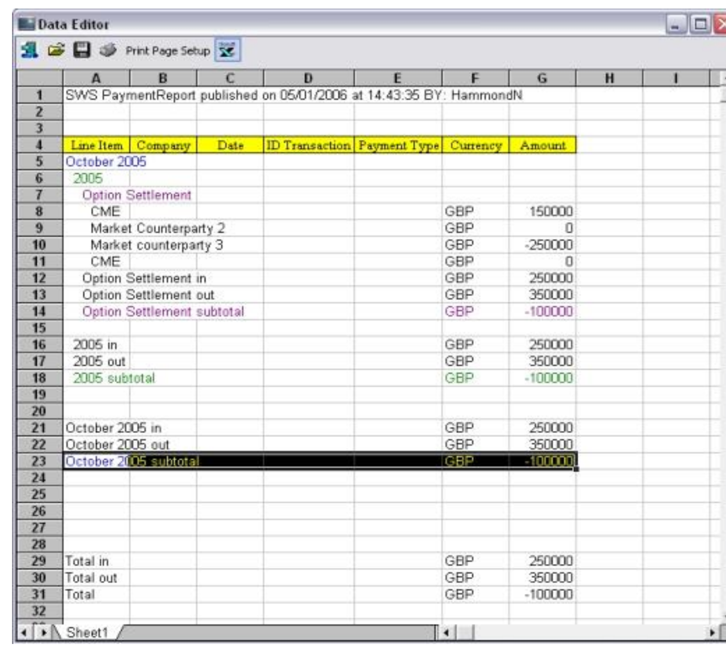
Payment Reports

Payment Report Overview





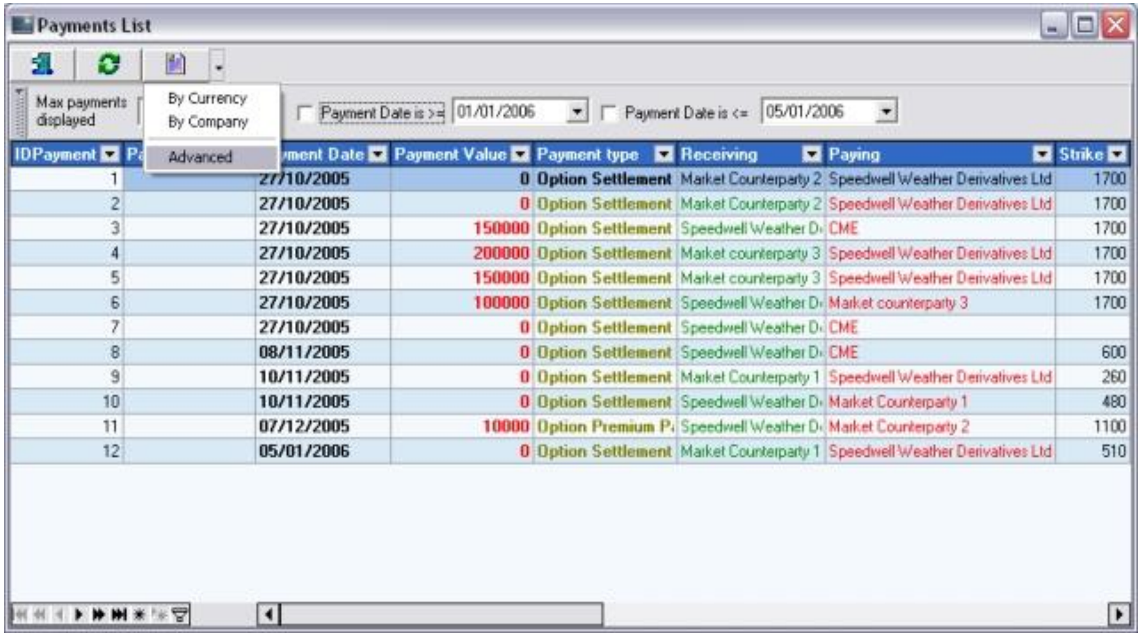
Payment Reports can be generated from the main Payments List. Reports can be generated by currency, company or may be tailored towards a very specific output. The results can be exported to MS Excel®, saved and/or printed off as required



Viewing the List of Payments

The payment list contains all the payments that have been recorded in SWS

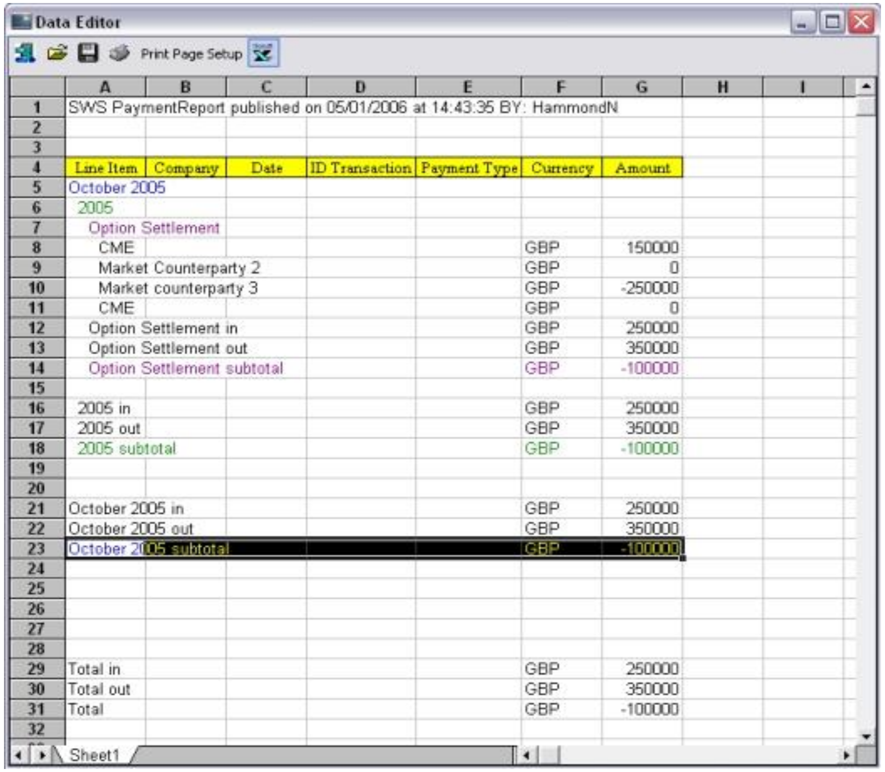
It shows the amount, the counterparty, which Transaction or Invoice is linked to the payment, etc.



IDPayment	Pa	ment Date	Payment Value	Payment type	Receiving	Paying	Strike
1		27/10/2005	0	Option Settlement	Market Counterparty 2	Speedwell Weather Derivatives Ltd	1700
2		27/10/2005	0	Option Settlement	Market Counterparty 2	Speedwell Weather Derivatives Ltd	1700
3		27/10/2005	150000	Option Settlement	Speedwell Weather D	CME	1700
4		27/10/2005	200000	Option Settlement	Market counterparty 3	Speedwell Weather Derivatives Ltd	1700
5		27/10/2005	150000	Option Settlement	Market counterparty 3	Speedwell Weather Derivatives Ltd	1700
6		27/10/2005	100000	Option Settlement	Speedwell Weather D	Market counterparty 3	1700
7		27/10/2005	0	Option Settlement	Speedwell Weather D	CME	
8		08/11/2005	0	Option Settlement	Speedwell Weather D	CME	600
9		10/11/2005	0	Option Settlement	Market Counterparty 1	Speedwell Weather Derivatives Ltd	260
10		10/11/2005	0	Option Settlement	Speedwell Weather D	Market Counterparty 1	480
11		07/12/2005	10000	Option Premium P	Speedwell Weather D	Market Counterparty 2	1100
12		05/01/2006	0	Option Settlement	Market Counterparty 1	Speedwell Weather Derivatives Ltd	510

Other Payment Views

SWS contains many other payments views allowing the user to generate report by ‘levels’ such as counterparty, companies, type of payments, etc

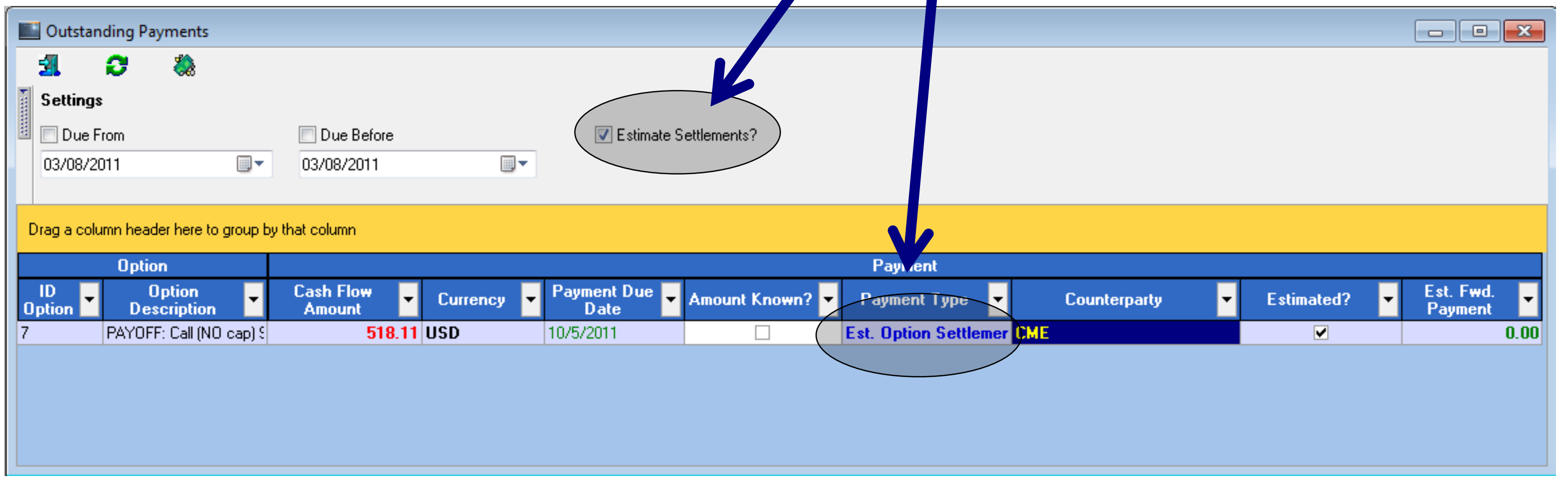


	A	B	C	D	E	F	G
1	SWS PaymentReport published on 05/01/2006 at 14:43:35 BY: HammondN						
2							
3							
4	Line Item	Company	Date	ID Transaction	Payment Type	Currency	Amount
5	October 2005						
6	2005						
7	Option Settlement						
8	CME					GBP	150000
9	Market Counterparty 2					GBP	0
10	Market counterparty 3					GBP	-250000
11	CME					GBP	0
12	Option Settlement in					GBP	250000
13	Option Settlement out					GBP	350000
14	Option Settlement subtotal					GBP	-100000
15							
16	2005 in					GBP	250000
17	2005 out					GBP	350000
18	2005 subtotal					GBP	-100000
19							
20							
21	October 2005 in					GBP	250000
22	October 2005 out					GBP	350000
23	October 2005 subtotal					GBP	-100000
24							
25							
26							
27							
28							
29	Total in					GBP	250000
30	Total out					GBP	350000
31	Total					GBP	-100000
32							

Outstanding Payments

This screen reports the outstanding payments.

It is possible to estimate upcoming settlements too in order to prepare cash flows

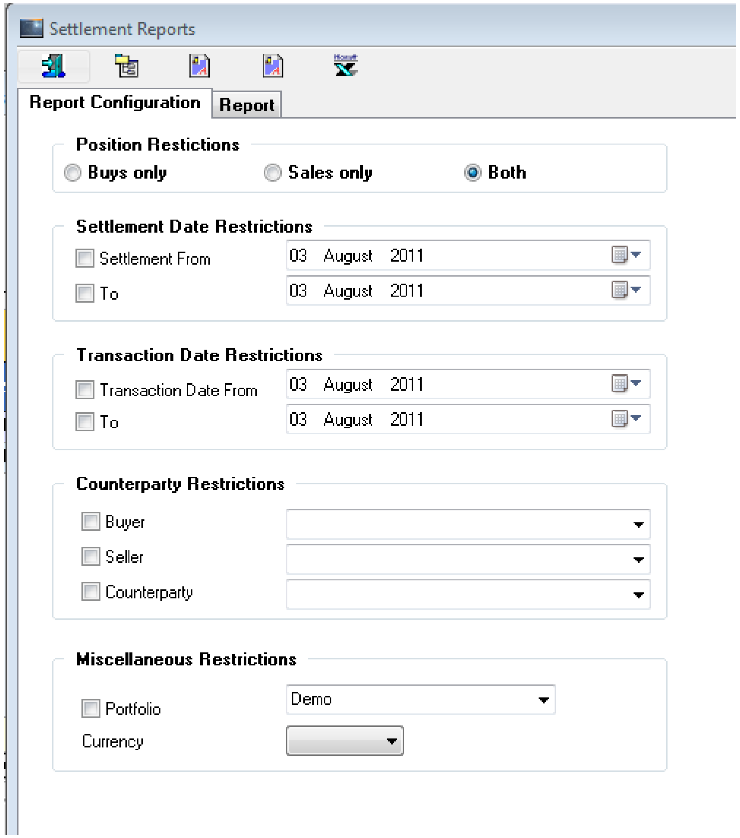


SWS Back Office

Settlement Reports

Settlement Report Configuration

Before running the report, the user can use filters to specify Transactions to be included



Settlement Report Output

The settlement report is output on a spreadsheet and shows which transactions have been settled.

When settled, the index and payoff are reported.

If a Transaction has expired and cannot be settled, the row is highlighted in red

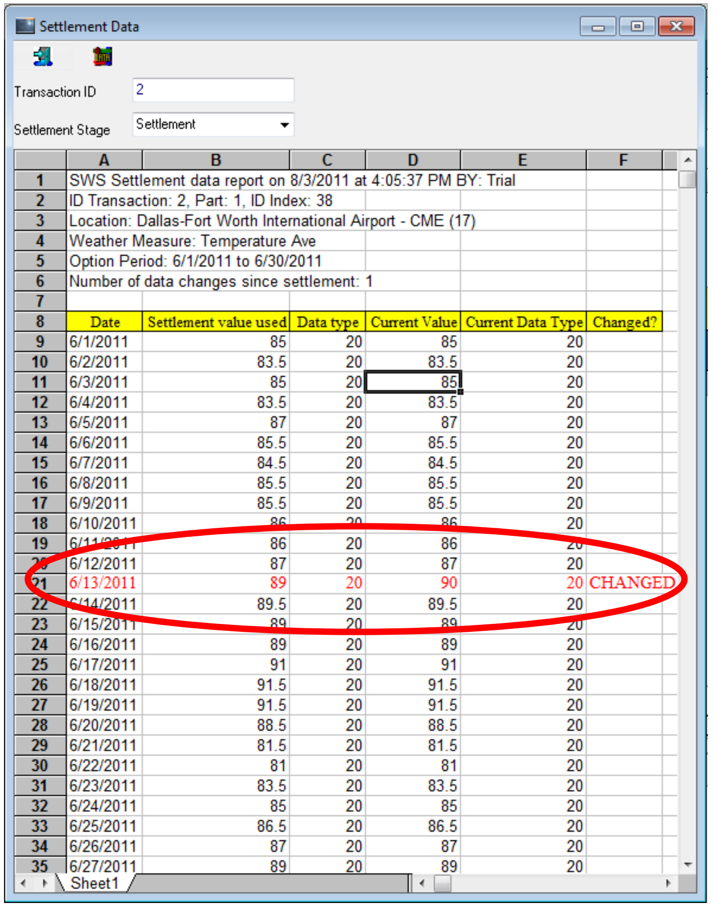
Settlement Reports

Report Configuration | Report

	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL
1	Settlement Date	Post Settlement Date	Account Ref.	Description	Transaction Date	Strike	Cap	Tick	Strike 2	Cap 2	Tick 2	Rebate	Option Type	Index Type	Weather Type	Settlement Index	Settlement Payo
2	10/5/2011	12/29/2011			6/1/2011	1350		20					Call (NO cap	CDD Like	Temperature A		
3	7/5/2011	9/28/2011			6/1/2011	650		20					Call (NO cap	CDD Like	Temperature A	653	60
4	7/5/2011	9/28/2011			6/1/2011	290		20					Call (NO cap	CDD Like	Temperature A		
5																	
6																	

Viewing the Values Used to Settle a Trade

SWS records a snapshot of the weather data used to settle a Transaction.
These settlement values are insulated from any subsequent weather data updates (eg arising from a met office quality control revision). This provides a **full audit trail** and also provides the basis for any post settlement adjustment ("true up"), if required.
If a settlement value is different from current data then that value is highlighted in red:



	A	B	C	D	E	F
1	SWS Settlement data report on 8/3/2011 at 4:05:37 PM BY: Trial					
2	ID Transaction: 2, Part: 1, ID Index: 38					
3	Location: Dallas-Fort Worth International Airport - CME (17)					
4	Weather Measure: Temperature Ave					
5	Option Period: 6/1/2011 to 6/30/2011					
6	Number of data changes since settlement: 1					
7						
8	Date	Settlement value used	Data type	Current Value	Current Data Type	Changed?
9	6/1/2011	85	20	85	20	
10	6/2/2011	83.5	20	83.5	20	
11	6/3/2011	85	20	85	20	
12	6/4/2011	83.5	20	83.5	20	
13	6/5/2011	87	20	87	20	
14	6/6/2011	85.5	20	85.5	20	
15	6/7/2011	84.5	20	84.5	20	
16	6/8/2011	85.5	20	85.5	20	
17	6/9/2011	85.5	20	85.5	20	
18	6/10/2011	86	20	86	20	
19	6/11/2011	86	20	86	20	
20	6/12/2011	87	20	87	20	
21	6/13/2011	89	20	90	20	CHANGED
22	6/14/2011	89.5	20	89.5	20	
23	6/15/2011	89	20	89	20	
24	6/16/2011	89	20	89	20	
25	6/17/2011	91	20	91	20	
26	6/18/2011	91.5	20	91.5	20	
27	6/19/2011	91.5	20	91.5	20	
28	6/20/2011	88.5	20	88.5	20	
29	6/21/2011	81.5	20	81.5	20	
30	6/22/2011	81	20	81	20	
31	6/23/2011	83.5	20	83.5	20	
32	6/24/2011	85	20	85	20	
33	6/25/2011	86.5	20	86.5	20	
34	6/26/2011	87	20	87	20	
35	6/27/2011	89	20	89	20	

Exporting Reports to Excel®

Exporting Reports

- All the grids in SWS can be exported by right clicking on them and choosing the option “Export to Excel”
- All the Spreadsheets in SWS can be exported by clicking on the toolbar button ”Export to Excel” or by double right-clicking and saving the file from the Spreadsheet Editor
- Reports that are not part of SWS by default and that can be extracted from the database can be saved as a SQL Query. This can also be exported from the grid view
- Portfolios Reports are saved in the database and can be emailed at the end of the day

SWS Back Office

Trade Query

Transaction P&L

Transactions are reported in the Transaction P&L report, in the Daily VaR report and in many other Back Office screens

Site	Country	Weather Ref.	Option Type	Compound Index?	Index Type	Option Start Date	Option End Date	Strike 1	Strike 2	Cap 1	Cap 2	Tick 1	Tick 2	SWS Station ID	Market Level.	Index Fwd.	Index Vol
Atlanta-Hartsfield International Airport - CME	United States	Temperature Ave	Call (NO cap)	False	CDD Like	7/1/2011	9/30/2011	1350				20		14	1,378.00	1308.853654	108.81741
New York-LaGuardia Airport - CME	United States	Temperature Ave	Call (NO cap)	False	CDD Like	6/1/2011	6/30/2011	290				20		20	50.00	234.5	2.865372723E-0

It is possible at any time to find transactions (included deleted and settled)
through the Transaction Life Cycle Management screen

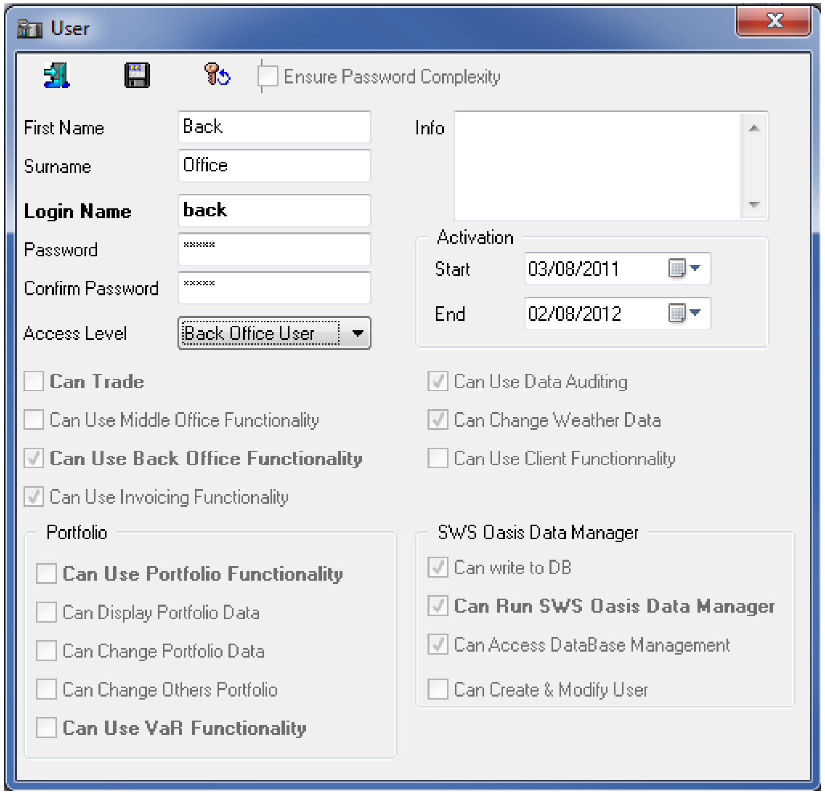
Settled Transactions also have a static trace of the data used when settling them.

Any Transaction can be opened in the pricing form for further inspection when necessary.

Segregation of Duties: User Permissioning

SWS Permissioning

Through the SWS Data Manager, key SWS functionalities can be permissioned on a per-user basis. These permissions can be set up by a “Super-User”

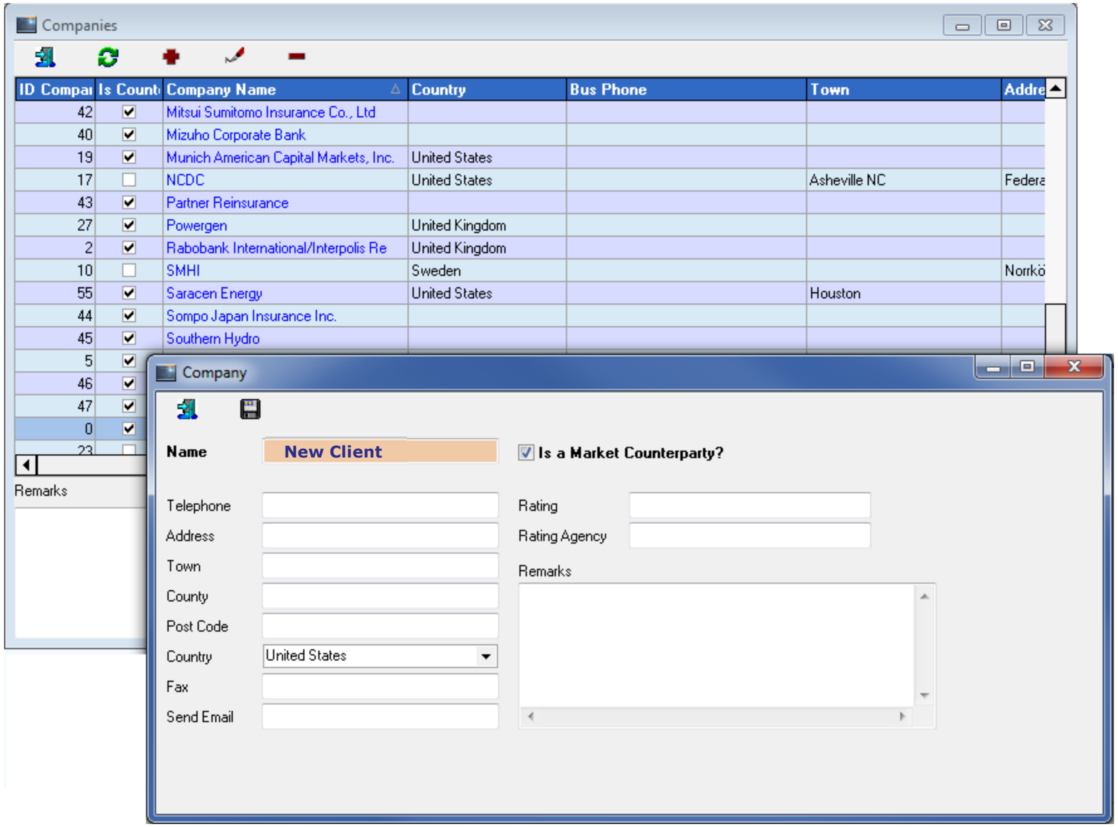


SWS Back Office

Static Data Maintenance

Counterparties

Back Office users manage counterparties, bank details and contacts



FX Rates

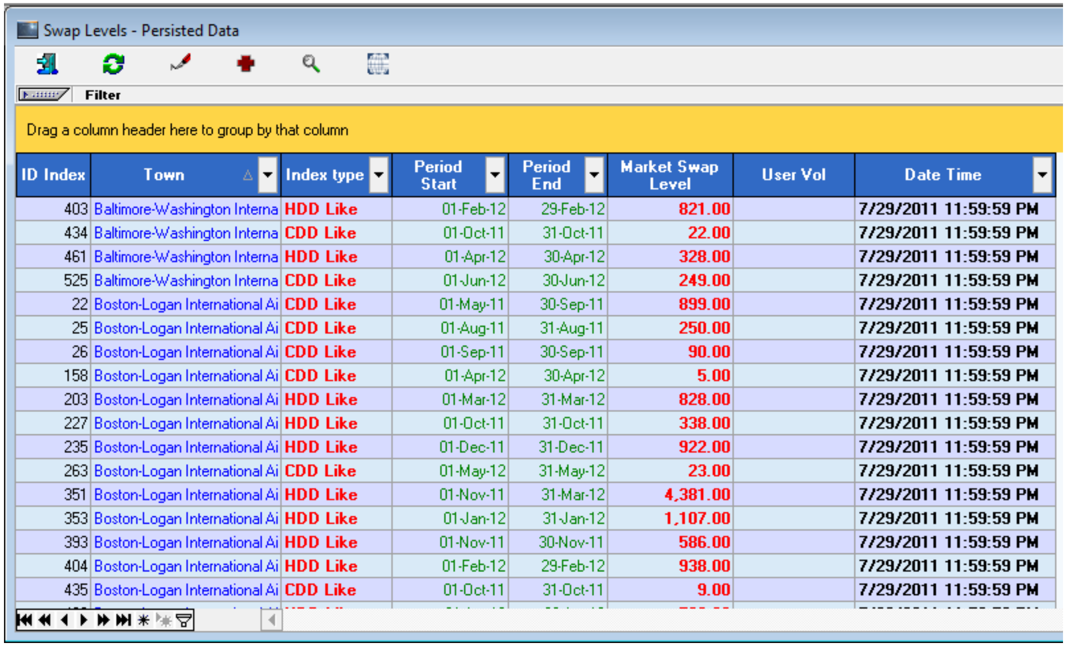
FX Rates can be provided by Speedwell Weather via FTP

However, users may prefer to either:

- Import their own FX Rate using the SWS API (SWS standard FX Rate import Spreadsheet)
- Import their own FX Rate from a CSV File
- Import their own FX Rate using a “DB to DB call”

CME Futures Closes

CME closing prices can be provided by Speedwell Weather



ID Index	Town	Index type	Period Start	Period End	Market Swap Level	User Vol	Date Time
403	Baltimore-Washington Interna	HDD Like	01-Feb-12	29-Feb-12	821.00		7/29/2011 11:59:59 PM
434	Baltimore-Washington Interna	CDD Like	01-Oct-11	31-Oct-11	22.00		7/29/2011 11:59:59 PM
461	Baltimore-Washington Interna	HDD Like	01-Apr-12	30-Apr-12	328.00		7/29/2011 11:59:59 PM
525	Baltimore-Washington Interna	CDD Like	01-Jun-12	30-Jun-12	249.00		7/29/2011 11:59:59 PM
22	Boston-Logan International Ai	CDD Like	01-May-11	30-Sep-11	899.00		7/29/2011 11:59:59 PM
25	Boston-Logan International Ai	CDD Like	01-Aug-11	31-Aug-11	250.00		7/29/2011 11:59:59 PM
26	Boston-Logan International Ai	CDD Like	01-Sep-11	30-Sep-11	90.00		7/29/2011 11:59:59 PM
158	Boston-Logan International Ai	CDD Like	01-Apr-12	30-Apr-12	5.00		7/29/2011 11:59:59 PM
203	Boston-Logan International Ai	HDD Like	01-Mar-12	31-Mar-12	828.00		7/29/2011 11:59:59 PM
227	Boston-Logan International Ai	HDD Like	01-Oct-11	31-Oct-11	338.00		7/29/2011 11:59:59 PM
235	Boston-Logan International Ai	HDD Like	01-Dec-11	31-Dec-11	922.00		7/29/2011 11:59:59 PM
263	Boston-Logan International Ai	CDD Like	01-May-12	31-May-12	23.00		7/29/2011 11:59:59 PM
351	Boston-Logan International Ai	HDD Like	01-Nov-11	31-Mar-12	4,381.00		7/29/2011 11:59:59 PM
353	Boston-Logan International Ai	HDD Like	01-Jan-12	31-Jan-12	1,107.00		7/29/2011 11:59:59 PM
393	Boston-Logan International Ai	HDD Like	01-Nov-11	30-Nov-11	586.00		7/29/2011 11:59:59 PM
404	Boston-Logan International Ai	HDD Like	01-Feb-12	29-Feb-12	938.00		7/29/2011 11:59:59 PM
435	Boston-Logan International Ai	CDD Like	01-Oct-11	31-Oct-11	9.00		7/29/2011 11:59:59 PM

Users may prefer to enter their own closes/marks using the SWS API (standard Excel® Spreadsheet)

Weather Risk Portfolio Setup

Real, Mirrored, Working and Enterprise Portfolios

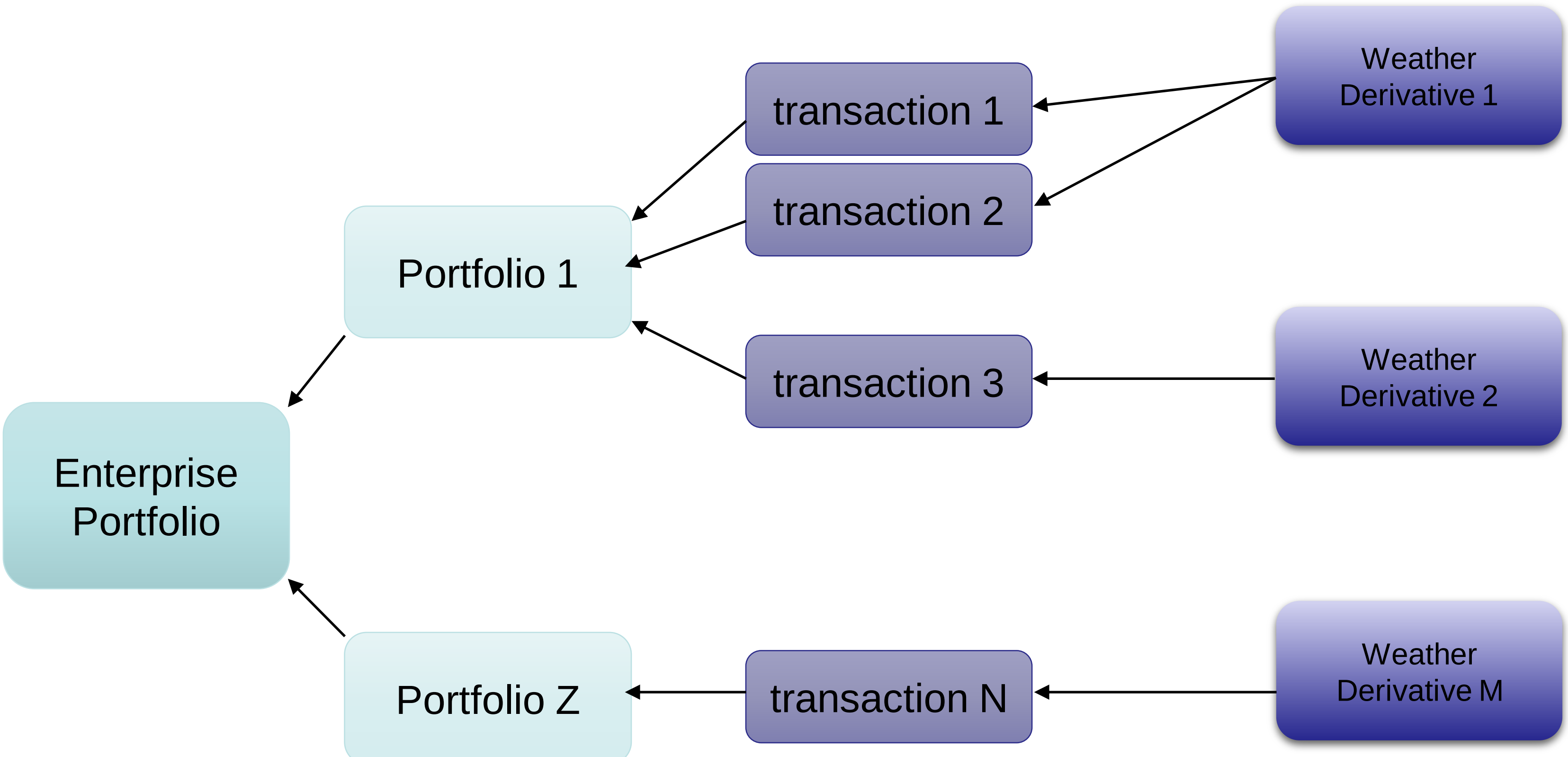
SWS supports four types of portfolios:

- Real Portfolios are the portfolios that contain actual executed transactions.
- Working Portfolios are “throw away” Portfolios and can be used for analysis (eg marginal impact of a proposed transaction).
- Mirrored Portfolios are working portfolios that mirror a real portfolio but for which a different portfolio risk model is attached to for analysis or reporting purposes.
- The Enterprise Portfolio is the portfolio made of all Real Portfolios

There is no limit to the number of Portfolios

Using Portfolios

Once defined (saved), a Weather Derivative may be traded. The transaction is booked into any portfolio. The Enterprise Portfolio collates all Portfolio risks.



Seasonal Portfolios

- The user can freely assign a real transaction to any Real Portfolio
- A transaction may be moved from one Portfolio to another
- Portfolios may be split according to different rules such as:
  - Winter / Summer
  - By currency
  - “Live” / “Future” Portfolios
  - By geography

T: +44 (0) 1582 465 551
E: SWSsales@speedwellweather.com
Harpenden, UK / Charleston, SC, USA

www.speedwellweather .com

Speedwell Weather