

A man and a woman in business attire are sitting at a wooden table, looking at a laptop. The woman is on the left, smiling and touching her forehead. The man is on the right, smiling and pointing at the laptop screen. The laptop is silver and has the TietoEnator logo on the lid. The background is a blurred office setting.

**SYSTEM10 - XDREAM Pricing Information**  
Treasury, Risk, and Cash Management System



## SYSTEM10 - Accounting

### **What is XDREAM?**

XDREAM is a Market Calculator that enhances the prices you receive from market feeds by using market data from different sources together with calculated prices or prices quoted in-house. XDREAM also provides a set of calculators which you can use for analysing the prices in the market. It can also be used as a contribution tool to update your Reuter/ HTML-pages.

### **Sources**

In XDREAM a price, such as a currency rate, can be set up to use automatic, manual or calculated sources. If set as manual it is updated by a dealer and if set as automatic it is retrieved from a defined data source. This source may be a RIC or a page from Reuters® or some other price feed, a HTML page on the Internet or a certain cell on a spreadsheet. If set as calculated the price is derived by automatically using other available prices as the basis for a calculation. Examples may be the calculation of a currency cross or interpolation of a rate. Interest rates are retrieved in the same way as prices but are in XDREAM used to build zero coupon yield curves.

### **Calculations**

XDREAM is able to perform numerous calculations from the market prices retrieved. To support the calculations performed there are functions for freezing market prices while calculating and using the calculated prices as the basis for other calculations. Market standard periods are calculated from a

comprehensive currency calendar and calculations can naturally be performed for other periods including broken dates and forward forward periods. The instrument register enables you to use benchmark instruments such as bonds for observations when constructing zero coupon curves.

### **Instruments**

XDREAM includes a comprehensive market instrument handler and this makes it possible to set up complex yield curves that comprise of depo-rates, FRA-rates, benchmark bond rates etc.

### **Distribution**

Based on manual, automatic or calculated prices XDREAM is able to distribute pricing information within the XDREAM installation or to other systems. A price entered or calculated by a dealer can thus be a private calculation or can be distributed to all or some other dealers. Prices can also be published by sending information to price contributors such as Reuters® or to internet/intranet/WAP-pages. Prices can be extracted to a spreadsheet in real time and there used for further calculations. The results of the calculation can be pulled back into XDREAM and used as a basis for further calculation or to be distributed further.

### XDREAM Calculations

- Zero Coupon Curves from most instruments
- Yield to Maturity
- Implicit Interest Rates
- Conversions between interests with different day basis
- Conversions between compounding frequencies
- Calculation of currency crosses
- Calculation of broken date and forward/forward currency rates
- Interpolation between rates and prices
- Currency Swaps from interest and FX-rates
- Interest Rate Swaps
- FRA Strips
- Greeks for Options
- Option strategy graphs

### Example

XDREAM can be set up in numerous ways and can be used for various purposes. In this example a bank is using XDREAM to support its FX-trading operation. The European FX-desk quotes the USD/EUR rates manually in XDREAM during trading hours. When the European market closes this responsibility is transferred to the US FX-desk. At the end of the US trading day the USD/EUR is set to automatic and is retrieved by the system. Other FX-rates are retrieved automatically from Reuters or other sources. From this combination of manual and automatic rates all currency cross, forward/forward and broken date rates are

calculated. These rates are used to automatically populate any services to which FX-rates are to be contributed. This may be information vendors such as Reuters but also internet/intranet information pages as well as the bank site for automated FX-trading provided for its clients. The rates are also provided as DDE-information and can be used by analysts in spreadsheets and other documents.

### XDREAM and SYSTEM10

If you are a SYSTEM10 user XDREAM is or can be installed as a part of your Treasury system. Important common functions

such as instruments, currencies and holidays are then shared by the two systems. Deals entered in SYSTEM10 can be used as templates for further calculations in XDREAM and drag and drop of data can be performed between the two systems.

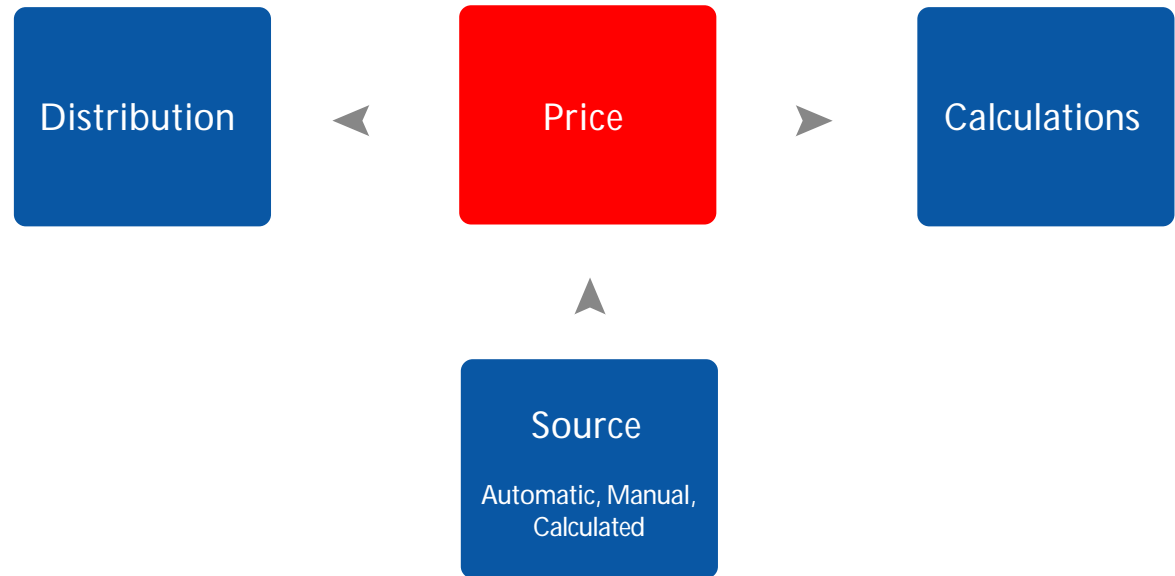
### Technical Requirements

Workstations: Windows NT® or 2000 networked PCs.

Server (optional): Windows NT or Unix server is recommended.

Database: ODBC-compliant database.

Data Sources: Market price information can be retrieved from one or more of: Reuters®, HTML-pages, Bloomberg® .



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