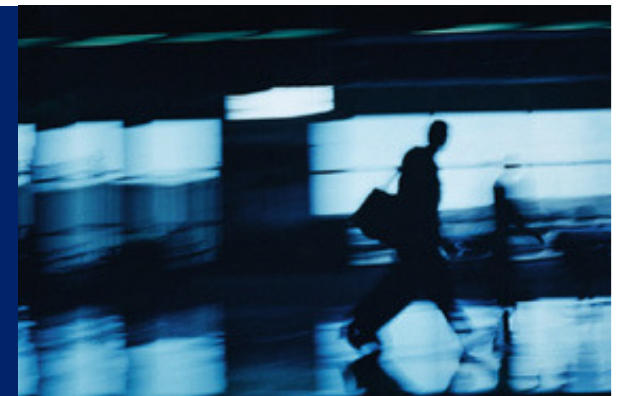


# ABSolution

ABS Servicing Solution by d-fine

Risk Breakfast, d-fine, 5th of September 2008

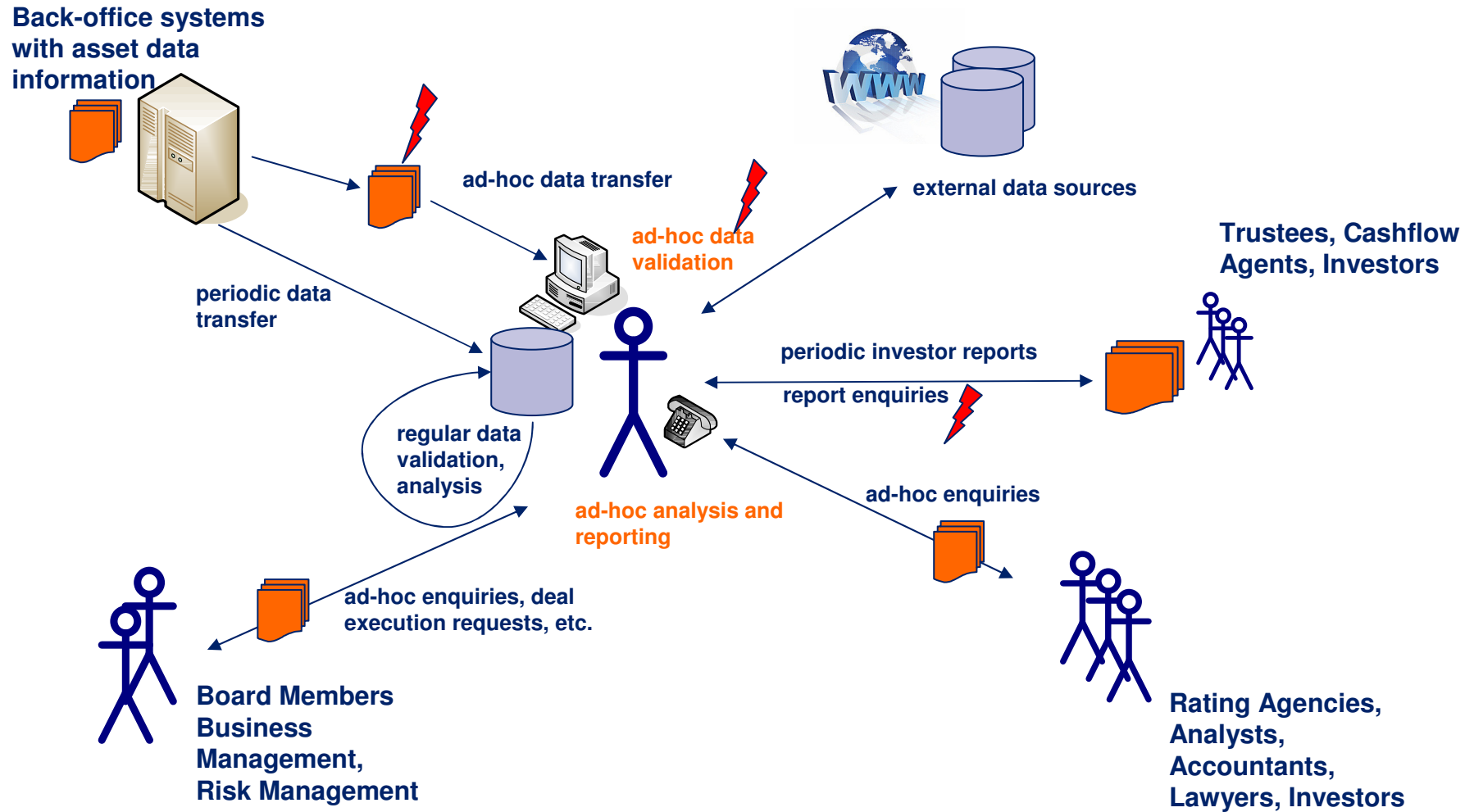




## d-fine in a nutshell

- With more than 200 professionals, d-fine is a leading European consulting firm dedicated solely to the **finance industry**.
- d-fine is built around
  - **Quantification and modelling**
  - **Risk management**
  - **Finance and reporting**
  - **IT integration**
- We help our clients with all **trading, back office, risk management, ALM**, and statutory **reporting** projects,
  - From analysis and design to industry-strength solutions
  - From mathematical modelling to business process implementations
  - From retail and corporate loans to exotic credit and equity derivatives
  - From internal rating systems to fully fledged Basel II and Solvency II implementations
  - From capital allocation and funds transfer pricing to risk-adjusted portfolio management

# The daily job of Structurers / Servicers:



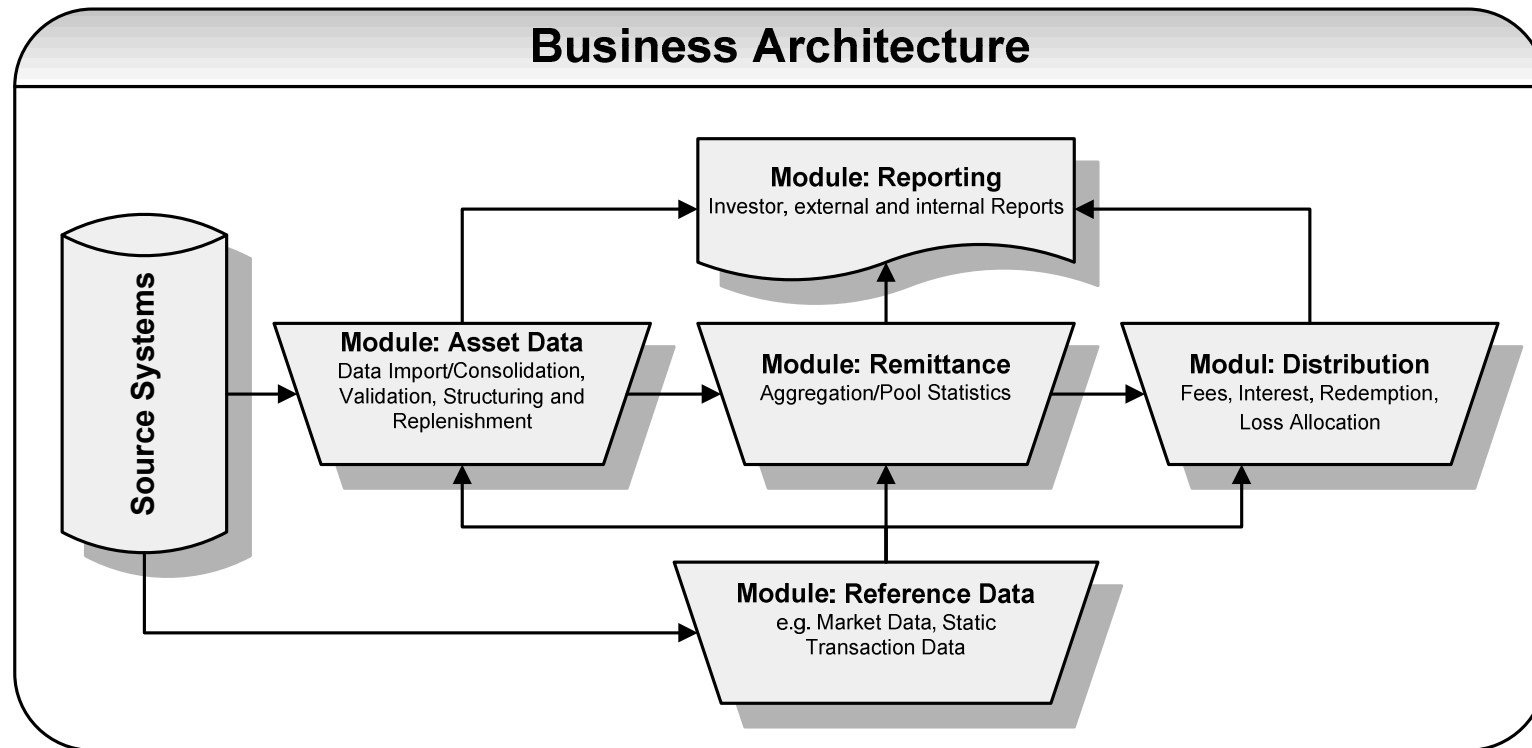
## The Challenge: Transparency and Consistency

- More than ever Investors demand **regular** information on
  - Details of the transaction payments
  - **Performance** of the underlying pool of assets
  - **Asset-level information** on delinquencies
  
- Availability and **Correctness** of Performance and Pool Information is key
  - Information about underlying pool **needs to be consistent** with transaction payment information.
  - Information provided as a result of ad-hoc inquiries needs **to be consistent** to information provided regularly.

## The Challenge: Operations

- Data Quality Issues
  - Regular, consistent access to asset level information needs to be established.
  - **Data quality assurance** has to be provided on each level of the reporting line, in particular on asset level.
  - **Regular processing of large amounts of data requires** either high manual efforts or adequate IT-support.
  
- Ability to Deliver
  - **Reporting quality and quantity** needs to be maintained or even improved on a high level throughout the lifetime of a transaction.
  - **Response times** to ad-hoc queries needs to be minimized without compromising quality of information.

# The Solution: Modular Business Architecture



# and supporting IT infrastructure: ABSolution

**ABSolution Alpha**  
 File - Transaction Show Period  
 Asset Pool Distribution Remittance Transaction Overview

**Haus 2000-1 - Transaction Overview**

**Transaction Overview**

Issue Date: **14.03.2000**  
 Legal Maturity Date (A-1): **10.12.2015**  
 Legal Maturity Date (A-2, M, B): **10.12.2037**

Class	Original Principle Amount	Current Ratings
A-1	319,400,000.00	AAA/AAA/Aaa/AAA
A-2	1,351,800,000.00	AAA/AAA/Aaa/AAA
M	70,600,000.00	A/A/A1/A
B	22,000,000.00	BBB/BBB/Baa2/BBB

**Asset Overview**

Pool Size: 10768  
[More...](#)

**Remittance Overview**

Principal Balance	Amount
Initial as of Cut-Off Date 15.02.2000:	2,884,925,788.91 €
Initial as of 16.04.2005:	942,683,348.98 €
Ending as of 16.05.2005:	936,394,056.03 €

[More...](#)

**Period Overview**

Payment Date: **10.06.2005**  
 EURIBOR (1 Month): **2.079 %**

**Period Status:**

- Initial Import: most recent Asset import on
- Remittance: most recent remittance process on 01 Januar 1970
- Distribution: Last distribution on 02 Februar 2007
- Reporting: no reporting so far

**Distribution Overview**

Class	Balance before Dist.	Balance after Dist.
A1	0.00 €	0.00 €
A2	849,931,284.67 €	840,048,146.56 €
M	70,600,000.00 €	70,600,000.00 €
B	22,000,000.00 €	22,000,000.00 €
Reserve Fund	17,638,000.00 €	17,638,000.00 €
<b>Totals</b>	<b>942,531,284.67 €</b>	<b>932,648,146.56 €</b>

[More...](#)

**Period Processes**

# ABSolution: Asset Data Management

The screenshot displays the ABSolution Alpha application window. The interface includes a menu bar (File, Transaction, Show, Period), a toolbar with icons for Asset Pool, Distribution, Remittance, and Transaction Overview, and a filter section set to 'All Loans' with 14954 assets found. A search area for Branch NO, Account NO, and Sub Account NO is also present.

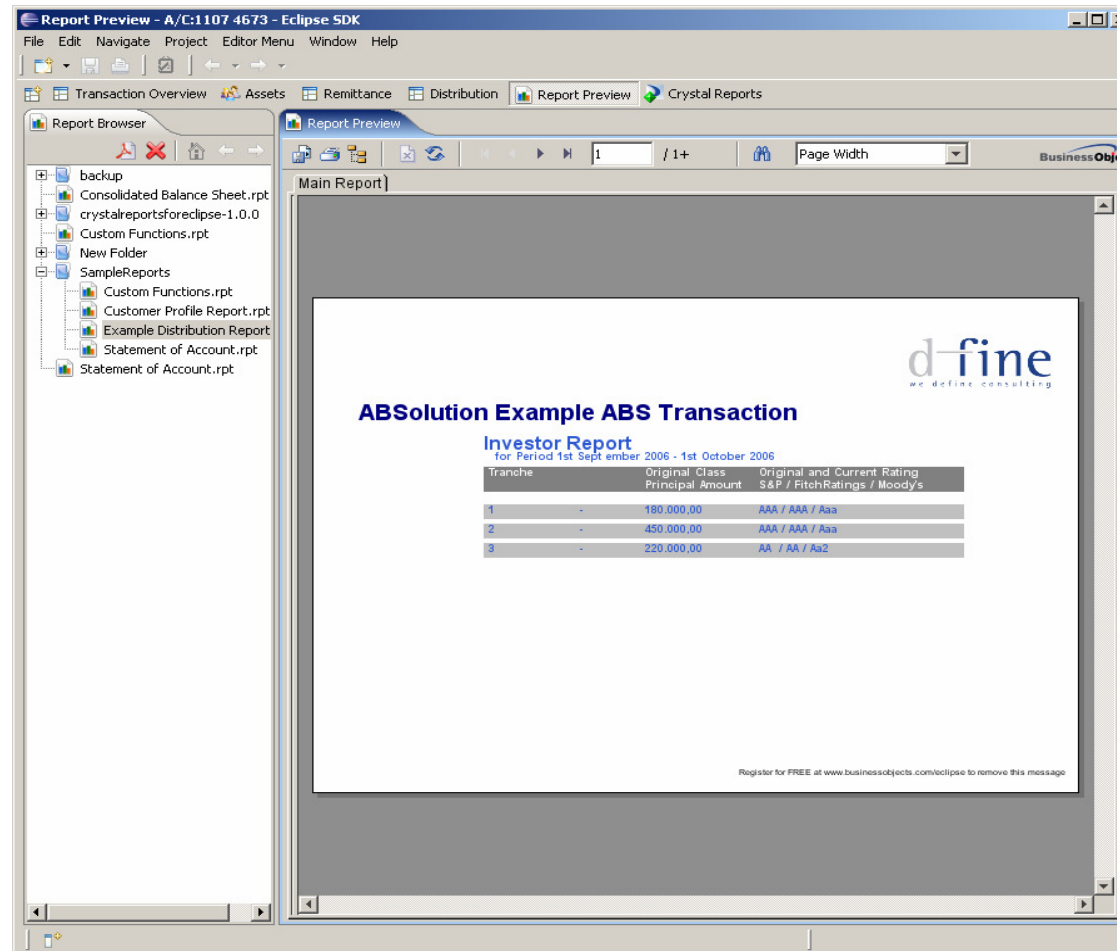
The main content area shows the 'Overview' for account 'A/C: 108 0550277 88'. It features a 'Current Loan' section with fields for Account-Nr. (108 0550277 88), Current Amount (-€ 14.795,02), and Scheduled Maturity (06.07.2022). Below this are 'General Details' and 'Current Status' sections.

General Details		Current Status	
Asset Type	Mortgage	Total Begin	-€ 14.795,02
Annuity Type	Annuity	Total End	-€ 14.795,02
Obligor UID	--	New Capital	€ 0,00
Obligor Type	--	Loan to Value	14,10%
Solvency State	Solvent	<input checked="" type="checkbox"/> Cancellation	
Coupon	0,00%	<input type="checkbox"/> Liquidation	
Payment Frequency	1	<input type="checkbox"/> Annuity	
Payout Date	--	<input checked="" type="checkbox"/> Deferral	
Original Loan Amount	€ 115.858,74	Delinquency Status	Delinquency Status 6!

The 'Warnings and Messages' section indicates 'There are currently no Warnings'. A 'Details' section is also visible but empty.

The bottom of the window shows a navigation bar with tabs for Overview, Asset Main, Cashflows, Cashflows Details, Obligor, Collateral, and Liquidation.

# ABSolution: Distribution Calculation and Integrated Reporting



# Stretching limits with daily replenishment!

The screenshot displays the ABSolution software interface with several key components:

- Eligible Assets Filter:** Includes filters for Facility ID, Internal Rating, Moody's Ind. Code, and Fitch Ind. Code. Order by: Facility ID (Asc).
- Eligible Assets List:** Shows a list of 16078 assets with columns for Facility ID, Description, and Amount.
- Suggested Assets List:** Shows a list of 34 suggested assets.
- Asset Main Information:**
  - Current Asset:** Facility ID: [PRESTAMOS PCAM] 00190003083019924800. Select a transaction to display: [Spain\_MIS] 00190003083019924800000000.
  - Pool Date:** 29.02.2008
  - Status:** Include Reason, Include Date.
- General Asset Information:**
  - Asset Type: Loan
  - Country: Spain
  - Currency: EUR
  - Maturity: 25.09.2012
  - Average Maturity: 29.02.2008
  - Account Manager
  - External Limit: EUR 2'968'409.37
  - Free Limit: EUR 868'409.37
  - Amount to be securitized
- Warnings and Messages:** There are currently no Warnings.
- Pool Statistics (for replenishment):**
  - Pool Hominal:** Fixed Pool: €2707646209.8, Selected Pool: €2713876863.8
  - Rating "Bucket" %:**

iB- and below	3.93%	3.93%
iB	8.51%	8.51%
iB+	17.87%	17.88%
iBB-	31.48%	31.51%
iBB	47.66%	47.7%
iBB+	61.42%	61.46%
iBB-	73.88%	74.03%
iBBB	82.8%	83%
iBBB+ and Above	93.37%	93.58%
  - REG Collateralized %:** 59.99% / 59.93%
  - Italian Contribution:** 5.6% / 5.6%
  - Spanish Contribution:** 23.93% / 24.1%
  - WAF:** Fitch: N/A, 8.3617; Moody's: N/A, 1120.1728
  - Weighted Average Life:** 0.25 years / 0.1 (final: 0.24)
  - Top Fitch Industries:**

Top Industry:	17.22% (Code: )	17.22% (Code: )
Second Industry:	17.04% (Code: )	17.05% (Code: )
Third Industry:	14.71% (Code: )	14.76% (Code: )
  - Top Moody's Industries:**

Top Industry:	20.37% (Code: 5)	20.5% (Code: 5)
Second Industry:	16.66% (Code: )	16.66% (Code: )
Third Industry:	14.31% (Code: )	14.31% (Code: )
  - Replenishment Criteria Result:**
    - WAL Criterion: ●
    - Notional Limit Criterion: ●
    - Country Criterion: ●
    - REG Criterion: ●
    - Collateralized Criterion: ●
    - WAF Criterion: ●
    - Industry Group Criterion: ●
    - Rating Bucket Criterion: ●
- Healing / Optimization Parameters:**
  - Total Notional (Billion Euros): 2,90
  - Countries to include:  Germany  Italy  Spain
  - Link by Rating (%):

iBBB+ and abv.	100,00	iBBB	94,00
iBBB-	83,00	iBB+	64,00
iBB	52,00	iBB-	35,00
iB+	22,00	iB	11,50
iB-	4,10		
  - Moody's Industry Code to c: Select All, Dese, Mark Relevant
  - Fitch Industry Code to con: Select All, Dese, Mark Relevant

## Summary

Problem	Solution
Inefficient highly manual processes -> Capacity overload, high operational risk, bad match of skills and duties	Highly automated process flow, manual interference only at critical points, system recovery -> massive reduction in operational risk
Data quality issues -> inconsistent reporting, large error finding efforts, reputational risk	Data quality checks and healing integrated into the process flow on each required level
Content and layout of investor reports poor	Access any relevant data and integrate directly in easily adaptable reporting solution
Response times and quality for ad-hoc analysis requests poor	Integrated full and quickly accessible history of data and reports
Bad performance of underlying IT systems	Highly scalable, high-performance IT infrastructure
Internal/external revision acceptance hard to achieve	Integrated audit trail, user rights concept, enforcement of four-eye principle where applicable

## Reference: ABS Servicing Infrastructure

**Client: Deutsche Bank PGK AG**

Starting point: 4 existing RMBS and one ABS (SME CLO) transaction, d-fine's Standard ABS Servicing Solution

**Objective: Complete integration of all servicing data flows and processes**

- Migration of existing servicing platform
- Integration of several additional transactions of different types, i.e. SME CLO, RMBS, true-sale and synthetic
- Usage of data management platform for portfolio management functions, in particular for structuring new transactions
- Total volume of securitized assets: about €30 billion

## Your contact at d-fine

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