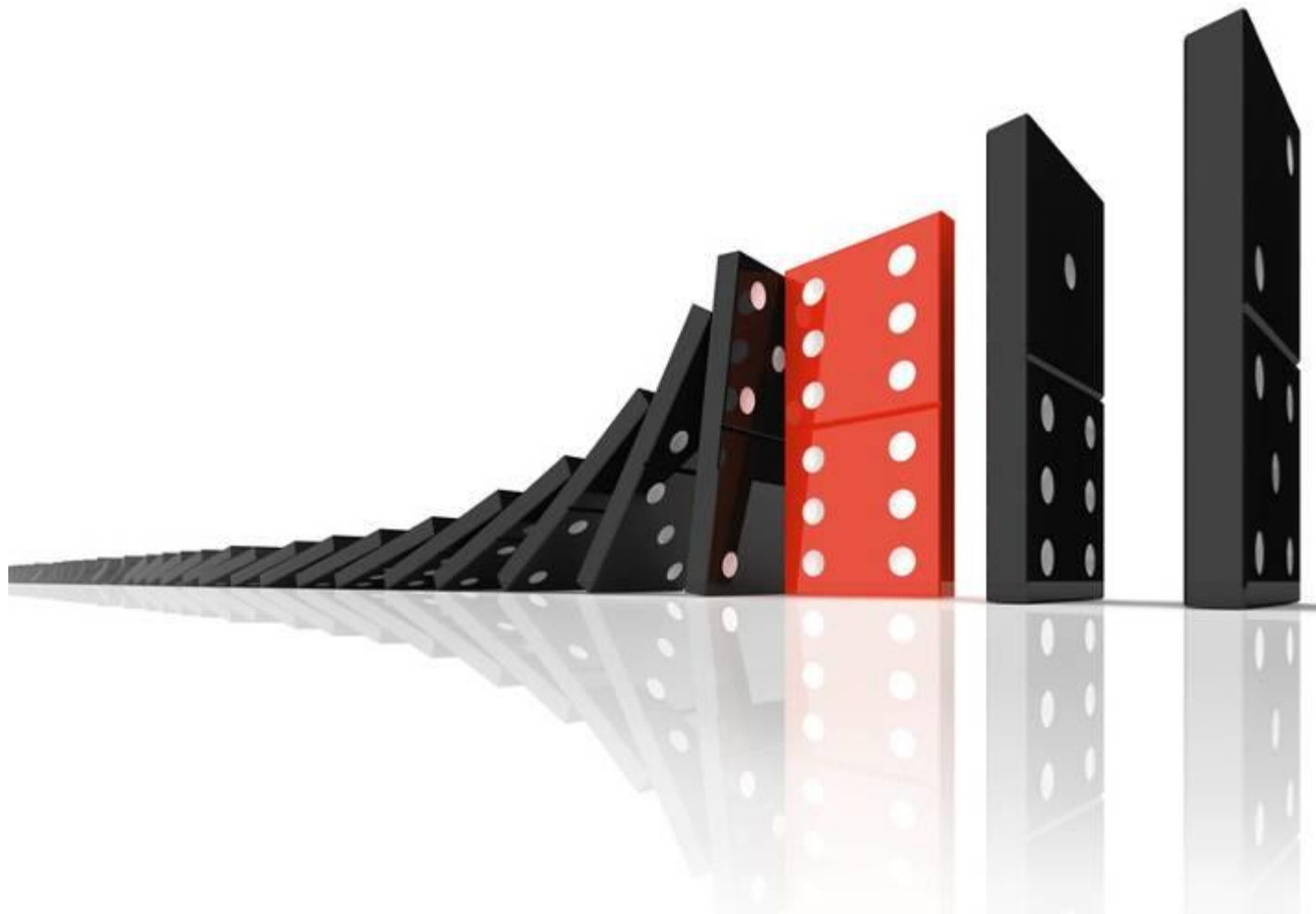


Kustom Impact Analyser

Predicting Kondor+ & K+TP Upgrade impacts on your custom code

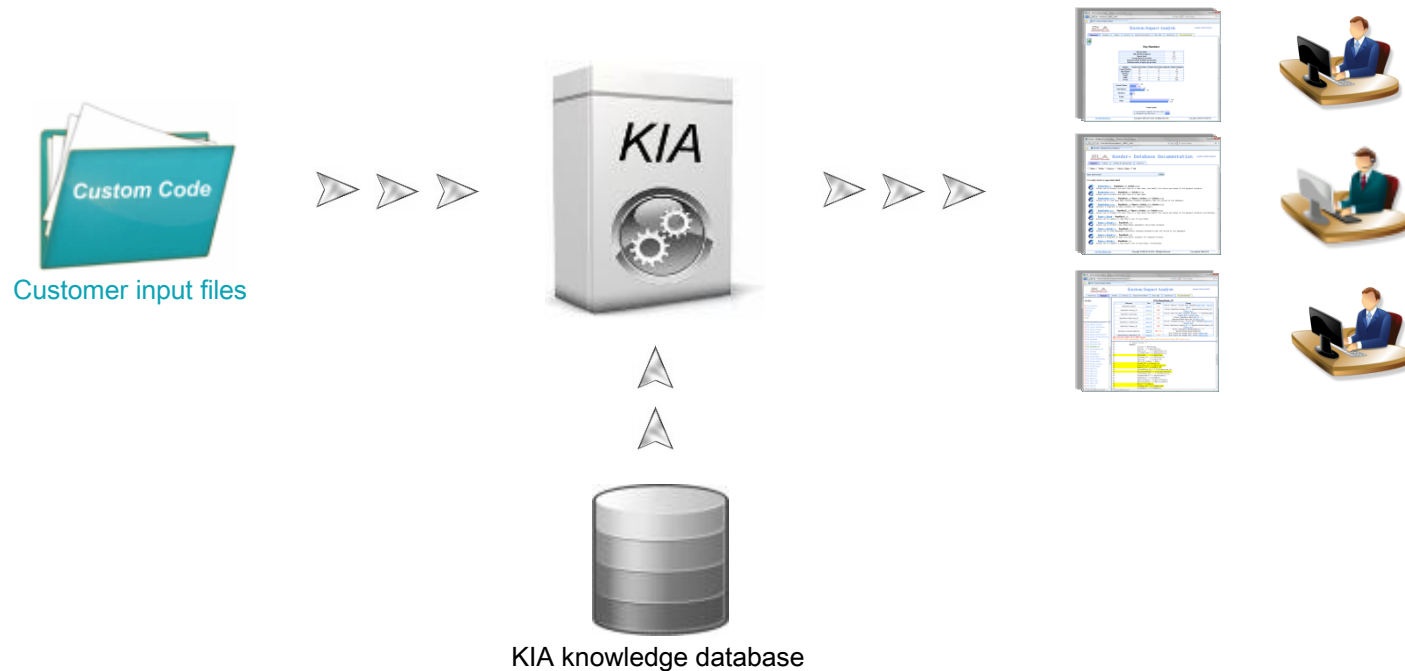


What is the Kustom Impact Analyser?

The KIA analyses your customized developments and helps you saving time and money when migrating Kondor+ or K+TP.

It generates a tailor made HTML report for the following audience:

- ❑ **Project Managers**
- ❑ **Business Analysts**
- ❑ **Developers**



Kondor+ or K+TP 3.x Upgrade Decision

The Kustom Impact Analyser can influence the upgrade decision

A Kondor+ or K+TP migration relies on two main streams

- ☒ **Core Product migration**: easy to be under control as a standard migration process is provided by the software vendor
- ☒ **Customization migration**: is difficult to estimate and keep under control in terms of effort, cost and time as nothing exists to quantify this migration of the client customizations. This phase is quite often seen as the “Pandora box”

Therefore the banks can be reluctant in upgrading as they miss visibility for the project

- ☒ Cost
- ☒ Length
- ☒ Operational risk

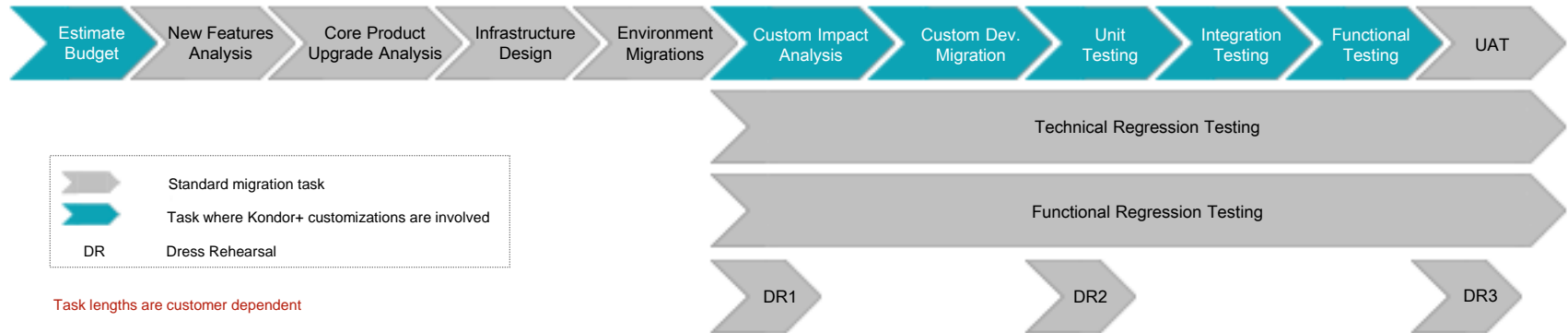
The KIA is an upgrade enabler as it allows to

- ☒ Estimate the project cost
- ☒ Reduce and control the project length (analysis, development and testing phases)
- ☒ Monitor the customization migration progress
- ☒ Reduce the operational risk of missing the migration of custom developments

The KIA can influence the upgrade decision as it gives **confidence and visibility** in a Kondor+ or K+TP upgrade. **You keep your upgrade under control.**

Kondor+ or K+TP 3.x Upgrade Project

A 3.X upgrade project may have new functionality as business drivers.
But preserving the company investment in the form of custom developments and interfaces is essential.



All together, an important part of the investment will be to estimate and migrate this custom code, in the following tasks:

- Estimate Budget
- Custom Impact analysis
- Custom Development Migration
- Testing phases (Unit, Integration and Functional)

Key to the project success is that the custom code migration is **exhaustive**.
The **speed** and **effectiveness** of the migration will determine an important part of the overall length of the upgrade.

How KIA can help you migrating K+ or K+TP

Use standard project metrics?
Use sampling of code?

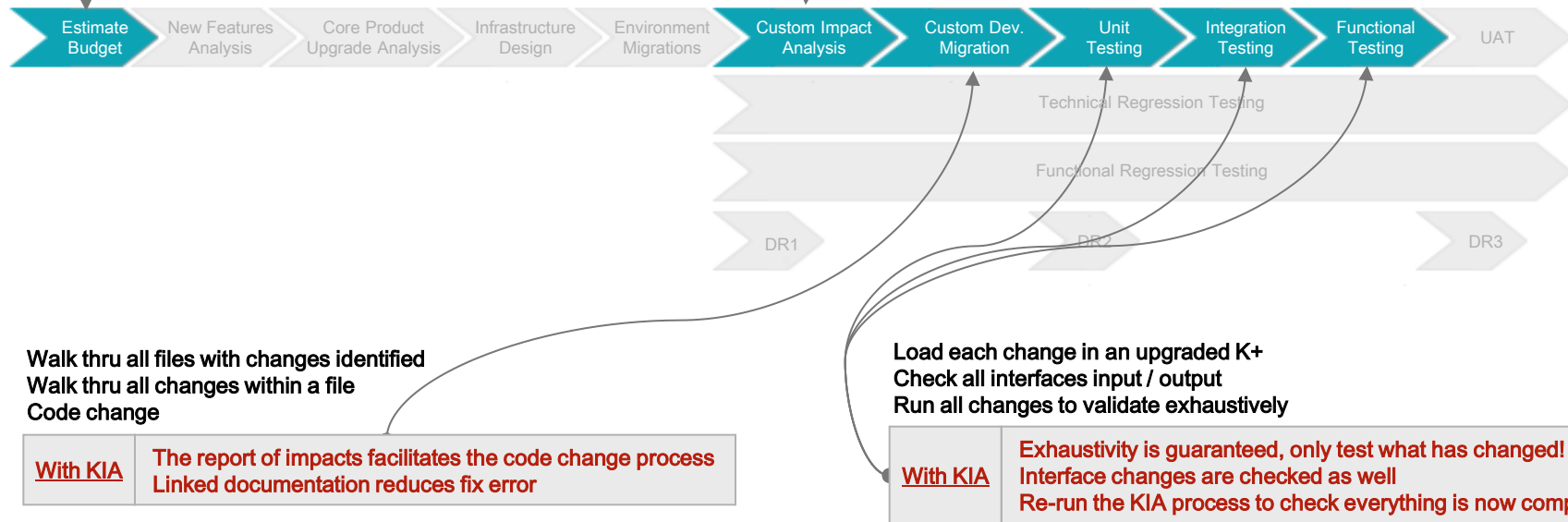
With KIA

Generation of DB of impacts provide exact number of impacts
Use of KIA provides a finite metric of effort per module impacted

Analysis of the differences between the two K+ (or K+TP) versions at high level
Choice of fix methodology (i.e. all bonds or all Custom windows)
Identification of all impacts
Identification of change in both documentations at detail level
Identification of fixes to apply (new field name, change of choice,...)

With KIA

Database of all changes between the two K+ versions
Creation of a report providing all the impacts
Link between impacts and enhanced change documentation



KIA will impact all phases in a **qualitative** way, reducing risk, catching issues earlier.
But also in a **quantitative** way, with accurate budget metrics and greatly reducing effort to identify, implement and validate changes required

Qualitative improvements

- ☒ Most upgrade projects overshoot on customization migration by 100%
- ☒ Except projects where prior analysis is equal to the migration phase!
- ☒ Items missed discovered at integration testing stage cost 5 times as much to fix
- ☒ Items missed discovered at Acceptance testing or later can delay the project, cost real money or create reputation risk

Quantitative improvements

	Manually	With KIA
Estimate number of changes and effort	40	2
Analyse differences between two K+ versions	40	0
Identify impacted modules	20	0
Identify changes to be made	80	10
Execute changes	40	10
	220	22

mandays

Sample CBA based on real migration experience.

The installation used the full range of Kondor+ asset classes (millions of trades).

Their customized development size was 3,000 SQL files (more than 2 millions of code lines).

The KIA **lowers** significantly project **risk** that could **double the project cost**.
And it pays itself by **dividing** at least **by 5** the project effort around your custom code and interface migration.



Rabobank

These institutions trusted the KIA for a successful Kondor+ and K+TP upgrade project.

Kustom Impact Analyser

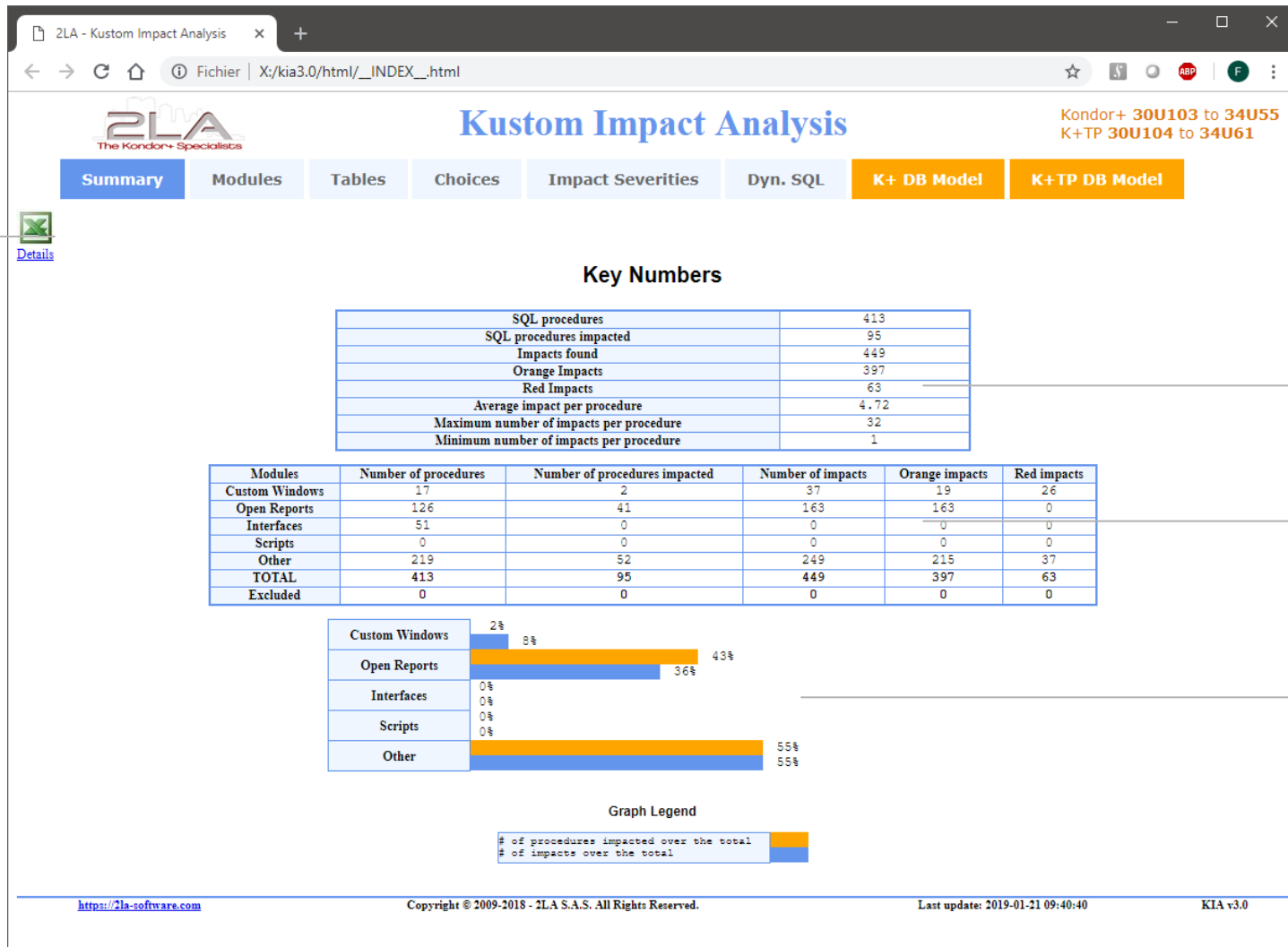
[Learn More...](#)

The Kustom Impact Analyser...

- ▣ Provides Metrics on your SQL code (Sybase and Microsoft SQL Server)
 - ▣ Number of files or procedures impacted
 - ▣ Total number of impacts
 - ▣ Number of impacts per file or procedure
- ▣ Points out where and how your:
 - ▣ SQL source code should be amended
 - ▣ Import & Export interface files should be changed (*KplusFeed* and *XML* formats)
 - ▣ KSQL reports should be reviewed
 - ▣ UNIX Shell scripts containing SQL statements should be amended
- ▣ Tells where the impacts are in your source code (line number but also highlighted line)
- ▣ Provides the underlying Kondor+ database documentation explaining the changes
- ▣ Enables an exhaustive validation during the development migration lifecycle through several runs
- ▣ Eases the test cases writing as it points out where the issues are
 - ▣ In which Kondor+ modules: Custom Windows, Interfaces, Open Reports, etc.
 - ▣ Which instruments are impacted
 - ▣ What has to be changed
- ▣ Provides different views to navigate within the impact analysis (technical or functional approach)
- ▣ Allows to focus the test efforts on the development pieces where the changes were performed

KIA Change Metrics

Excel document containing all the details
(nb. of impacts per procedure, etc.)



It shows what should be changed and how...

2LA - Kustom Impact Analysis

Fichier | X:/kia3.0/html/panels/modules/ModulesPanel.html

Kustom Impact Analysis Kondor+ 30U103 to 34U55
K+TP 30U104 to 34U61

Summary Modules Tables Choices Impact Severities Dyn. SQL K+ DB Model K+TP DB Model

Modules

- Custom Windows
- Open Reports
- Interfaces
- Scripts
- Other
- All

© 2LA S.A.S.

Procedures

- AL_Simple_Report
- Basis_get
- CallMargins
- DG_CallAccountsDeals_send
- DG_CapFloorDeals_send
- DG_CreditSwapDeals_send
- DG_FXOTC_FxOptionsDeals_send
- DG_ForwardDeals_send
- DG_FraDeals_send
- DG_FxOptionsDeals_send
- DG_FxSwapDeals_send
- DG_IamDeals_send
- DG_LoansDepositDeals_send
- DG_SpotDeals_send
- DG_SwapDeals_send
- DG_SwapDeals_send
- DeletedDeals
- ForwardDealsBackUp_select
- FxSwapDealsBackUp_select
- IAS_CoherencyDealCo
- IamDealsBackUp_select
- K3S_Bond_Futures
- K3S_Bond_Futures_CTD
- K3S_BondsDeals_Fixed_CF
- K3S_BondsDeals_Floating_FCF
- K3S_BondsOtcOptDeals
- K3S_Bonds_Convertible
- K3S_Bonds_Fixed_CallPut
- K3S_CapFloorDeals

BondsDeals.TypeOfEvent	line_48	UPC	Choice [TypeOfEvent]: values have changed[K+ Table] [K+ Choice]
BondsSchedule.CashFlowType	line_79	UPC	Choice [CashFlowType]: values have changed[K+ Table] [K+ Choice]
EventCashFlowData.CashFlowType	line_77	UPC	Choice [CashFlowType]: values have changed[K+TP Table] [K+TP Choice]
EventRevaluationData.CpnVariationAER	line_81	REN	Renamed: CpnVariationAER --> CpnVarAER[K+TP Table]
EventRevaluationData.MarketValueCurLocalVariation	line_78	REN	Renamed: MarketValueCurLocalVariation --> MarketValueLocalVariationCur[K+TP Table]
FloatingRatesValues.Rate	line_87	MOV	Moved: FloatingRatesValues.Rate --> FloatingRatesRT.Rate[K+ Table]
LoansDepositDeals.FXResetLag	line_89	REN	Renamed: FXResetLag --> PrincipalFXResetLag[K+ Table]
NDFFixInsertionQuotes.FixingDate	line_85	MOV	Moved: NDFFixInsertionQuotes.FixingDate --> NDFFixInsertionPerimeters.FixingDate[K+ Table]
NDFFixInsertionQuotes.Perimeter_Id	line_86	MOV	Moved: NDFFixInsertionQuotes.Perimeter_Id --> NDFFixInsertionPerimeters.Perimeter_Id[K+ Table]

```
62 kplus..BondsDeals.DownloadKey,  
63 kplus..BondsDeals.CompoundProducts_Id_From,  
64 kplus..BondsDeals.Codifiers_Id,  
65 kplus..BondsDeals.OriginalId,  
66 kplus..BondsDeals.BatchFlag,  
67 kplus..BondsDeals.TimeStamp  
68 FROM kplus..BondsDeals  
69  
70 SELECT * FROM SwapDeals  
71  
72 SELECT UnrealizedAmount FROM kplustp..PaymentReconciliation  
73  
74  
75 SELECT MarketValueCurLocalVariation FROM kplustp..EventRevaluationData  
76  
77 SELECT CashFlowType FROM kplustp..EventCashFlowData  
78  
79 SELECT CashFlowType FROM kplus..BondsSchedule  
80  
81 SELECT CpnVariationAER FROM kplustp..EventRevaluationData  
82  
83 SELECT SpreadType FROM BasisSwapSpContracts  
84  
85 SELECT Perimeter_Id, FixingDate FROM NDFFixInsertionQuotes  
86  
87 SELECT Rate FROM FloatingRatesValues  
88  
89 SELECT FXResetLag FROM LoansDepositDeals  
90  
91 EXEC dbo.K_RTP_BondsDealsMore  
92  
93  
94 END
```

Module
Selection

Procedure
Impacts

Procedure
Selection

Procedure
Source Code

...with the relevant documentation links...

2LA - Kustom Impact Analysis

Kondor+ 30U103 to 34U55
K+TP 30U104 to 34U61

Summary Modules Tables Choices Impact Severities Dyn. SQL K+ DB Model K+TP DB Model

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- Open Reports
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- Scripts
- Other
- All

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- CallMargins
- DG_CallAccountsDeals_send
- DG_CapFloorDeals_send
- DG_CreditSwapDeals_send
- DG_FXOTC_FxOptionsDeals_send
- DG_ForwardDeals_send
- DG_FraDeals_send
- DG_FxOptionsDeals_send
- DG_FxSwapDeals_send
- DG_IamDeals_send
- DG_LoansDepositDeals_send
- DG_SpotDeals_send
- DG_SwapDeals_send
- DG_SwapDeals_send
- DeletedDeals
- ForwardDealsBackUp_select
- FxSwapDealsBackUp_select
- IAS_CoherencyDealCo
- IamDealsBackUp_select
- K3S_Bond_Futures
- K3S_Bond_Futures_CTD
- K3S_BondsDeals_Fixed_CF
- K3S_BondsDeals_Floating_FCF
- K3S_BondsOtcOptDeals
- K3S_Bonds_Convertible
- K3S_Bonds_Fixed_CallPut
- K3S_CapFloorDeals

BondsDeals.TypeOfEvent line 15 UPC Choice [TypeOfEvent]: values have changed[K+ Table] [K+ Choice]

BondsSchedule.CashFlowType line 79 UPC Choice [CashFlowType]: values have changed[K+ Table] [K+ Choice]

EventCashFlowData.CashFlowType line 77 UPC Choice [CashFlowType]: values have changed[K+TP Table] [K+TP Choice]

EventRevaluationData.CpnVariationAER line 81 REN Renamed: CpnVariationAER --> CpnVarAER[K+TP Table]

EventRevaluationData.MarketValueCurlLocalVariation line 75 REN Renamed: MarketValueCurlLocalVariation --> MarketValueLocalVariationCurl[K+TP Table]

Click on the documentation links associated to each impact raised...

RepoDeals - Windows Internet Explorer

Y:\kia\html\documentation\data\tables\RepoDeals.html

RepoDeals

Heading Money Market

Display name Repo Deals

Number of Fields 103

Comments Allows you to capture repo (Repurchase Agreement) deals.

☒ NOC: No Changes

☒ DEL: Deleted field - MOV: Moved - REN: Renamed

☒ NEW: New field - UPD: Updated datatype - UPC: Updated Choice - UPN: Updated AllowNull flag

Impact	Table name	Field name	Datatype	Null	Table name	Field name	Datatype	Null	Comments
MOV	RepoDeals	Accrued	float	Yes	RepoSecuSched	Accrued	float	Yes	Kondor+ automatically displays the bond when the bond name is calculated on the va is calculated by the night
NEW					RepoDeals	AdjustMaturityDate	choice	No	Indicates if the Maturity Date schedule
NEW					RepoDeals	Adjusted	choice	No	Indicates if the dates used payments are the the same as the is paid. Activated: roll conv calculation AND payment dates o determines the interes
MOV UPN	RepoDeals	Amount	float	No	RepoSecuSched	FaceAmount	float	Yes	Specifies the nominal value of s field is activated for bond de automatically when the Quantit the following formula: [Quant bond]
UPC	RepoDeals	Basis	choice	No	RepoDeals	Basis	choice	No	Specifies a basis for the calc default, the money market ba displayed as defined in the Calc for the currency of the deal.
NOC	RepoDeals	BatchFlag	choice	No	RepoDeals	BatchFlag	choice	No	Flag used to optimize the trigge issued from batch
UPD UPN	RepoDeals	BlockNumber	int	Yes	RepoDeals	BlockNumber	numeric (20,0)	No	The block number of the deal is This only applies when the dea

...to get the full documentation details

...and a documentation search engine

Browser: X:\kia3.0\html\panels\modules\ModulesPanel.html

Rechercher...

ZLA - Kustom Impact Analy...

Kustom Impact Analysis

Kondor+ 30U55 to 34U55
K+TP 30U104 to 34U61

Summary Modules Tables Choices Impact Severities Dyn. SQL K+ DB Model K+TP DB Model

Modules

- Custom Windows
- Open Reports
- Interfaces
- Scripts
- Other
- All

Module	Line	Type	Description
EventCashFlowData.CashFlowType	line_78	UPC	Choice [CashFlowType]: values have changed[K+TP Table]
EventRevaluationData.CpnVariationAER	line_82	REN	Renamed: CpnVariationAER --> CpnVarAER[K+TP Table]
EventRevaluationData.MarketValueCurlLocalVariation	line_9	REN	Renamed: MarketValueCurlLocalVariation --> MarketValueLocalVariationCurl[K+TP Table]
ExportCodifierStep.BOContext	line_5	UPC	Choice [BOContext]: values have changed[K+TP Table]
FloatingRatesValues.Rate	line_88	MDV	Moved: FloatingRatesValues.Rate --> FloatingRatesRT.Rate
LoansDepositDeals.FXResetLag	line_90	REN	Renamed: FXResetLag --> PrincipalFXResetLag[K+ Table]
NDDFixInsertionQuotes.FixingDate	line_86	MDV	Moved: NDDFixInsertionQuotes.FixingDate --> NDDFixInsertionPerimeters.FixingDate[K+ Table]
NDDFixInsertionQuotes.Perimeter Id	line_8		

Procedures

- AL Simple Report
- Basis_get
- CallMargins
- DG_CallAccountsDeals_send
- DG_CapFloorDeals_send
- DG_CreditSwapDeals_send
- DG_FXOTC_FxOptionsDeals_send
- DG_ForwardDeals_send
- DG_FraDeals_send
- DG_FxOptionsDeals_send
- DG_FxSwapDeals_send
- DG_IamDeals_send
- DG_LoansDepositDeals_send
- DG_SpotDeals_send
- DG_SwapDeals_send
- DG_SwapOptionsDeals_send
- DealsByBrokerForADealer
- DeletedDeals
- ForwardDealsBackUp_select
- FxSwapDealsBackUp_select
- IAS_CoherencyDealCo
- IamDealsBackUp_select
- K3S Bond Futures

```
1 CREATE PROC AL_Simple_Report
2 AS
3 BEGIN
4
5 SELECT BOContext FROM kplustp..ExportCodifierStep
6
7 SELECT RealizedAmount, UnrealizedAmount FROM kplustp..
8
9 SELECT MarketValueCurlLocalVariation FROM kplustp..Eve
10
11 SELECT kplus..BondsDeals.BondsDeals_Id,
12 kplus..BondsDeals.DealStatus,
13 kplus..BondsDeals.InputMode,
14 kplus..BondsDeals.CaptureDate,
15 kplus..BondsDeals.TradeDate,
16 kplus..BondsDeals.Users_Id,
17 kplus..BondsDeals.Users_Id_Last,
18 kplus..BondsDeals.Folders_Id,
19 kplus..BondsDeals.Sellers_Id,
20 kplus..BondsDeals.Purposes_Id,
21 kplus..BondsDeals.TypeOfEvent,
22 kplus..BondsDeals.BlockNumber,
23 kplus..BondsDeals.Comments,
24 kplus..BondsDeals.DealType,
25 kplus..BondsDeals.Bonds_Id,
26 kplus..BondsDeals.Quantity,
27 kplus..BondsDeals.FaceAmount,
28 kplus..BondsDeals.CapturedMarketValue,
29 kplus..BondsDeals.Price,
30 kplus..BondsDeals.Yield,
31 kplus..BondsDeals.MoneyMarketYield,
32 kplus..BondsDeals.Accrued,
33 kplus..BondsDeals.ConversionRate,
34 kplus..BondsDeals.GrossAmount,
35 kplus..BondsDeals.SpotRateCoupon.
```

Click on this tab

...to have access to the documentation tool and its Google like Search Engine...

Browser: X:\kia3.0\html\documentation\panels\search\SearchPanel.html

ZLA - Kondor+ Database D...

Kondor+ Database Documentation

Kondor+ 30U55 to 34U55

Search Tables Tables & Categories Choices

Tables Fields Choices Choice Values All

repo sched

Find

10 result(s) found on repo sched:

- RepoSchedule - Allows you to display the cash flow of a repo deal, and modify the values and dates of the payment schedule.
- RepoScheduleList - Allows you to archive the cash flow of a repo deal.
- RepoScheduleMts - Allows you to view Repo deal cashflow schedule movements that are stored in the database.
- RepoScheduleTpl - Contains a template of Repo Schedule for Compound Product
- RepoScheduleVer - Allows you to display the cash flow of a repo deal, and modify the values and dates of the payment schedule (versioning).
- RepoSecuSchedule - Allows you to capture a repo Deal's set of securities
- RepoSecuScheduleList - Allows you to archive Repo (Repurchase Agreement) Securities Schedule
- RepoSecuScheduleMts - Allows you to view RepoDeals Securities Schedule movements that are stored in the database.
- RepoSecuScheduleTpl - Contains a template of Repo Securities Schedule for Compound Product
- RepoSecuScheduleVer - Allows you to capture a repo Deal's set of securities (versioning).

...then select the data model part you want to dive in

It also analyses your interface files

Select the interface file format and the file to be analysed...

KIA Interface Analyser

INPUT FORMAT

KpFeed TXT KpFeed KML KpFeed XML KSQL SQL Ref. Manual

No file selected!

Find Impacts

2LA
The Kondor+ Specialists

Example of interface file analysed

RepoDeals.1 - WordPad

Fichier Edition Affichage Insertion Format ?

```
#####
# Import file sample : RepoDeals.1 Last
#
#####
# Insertion
#####
ACTION "INS"

TBL RepoDeals
DownloadKey "RepoKey1"
DealStatus V "Valid"
TradeDate 28/04/2000
DealType B "Buy"
PaymentType R "Rate"
RoundingType R "Round"
```

Ouvrir

Rechercher dans : KplusFeedTxt

- PapersDeals.Allocation
- PapersDeals.Cutup
- Portfolios.1
- Portfolios.2
- RatingsMatrix.1
- RepoDeals.1
- RepoDeals.2
- RepoDeals.Bond
- RepoDeals.Equity
- RepoDeals.Liquidation
- RepoDeals.MbsAbs
- RepoDeals.Papers

Nom du fichier : RepoDeals.1

Type de fichier : Tous les fichiers

Ouvrir

...to get the result of the impact analysis

Interface Analysis Results - Windows Internet Explorer

☒ DEL: Deleted field - MOV: Moved - REN: Renamed

☒ NEW: New field - UPD: Updated datatype - UPC: Updated Choice - UPN: Updated AllowNull flag

Impact	25U6		30U61		Field comment
	Table name	Field name	Table name	Field name	
UPC	RepoDeals	Basis	RepoDeals	Basis	Specifies a basis for the calculation of interest basis is automatically displayed as defined in the the currency of the deal. This c
UPC	RepoDeals	CompoundAverageFrequency	RepoDeals	CompoundAverageFrequency	If indexation of deal is Floating rate then you calculated at Annual, Semi-Annual, Quarterly, M frequencies. However, Compound Frequency field is (added 1.7).
UPC	RepoDeals	DealType	RepoDeals	DealType	Specifies whether the deal is a bu
UPD, UPN	RepoDeals	DownloadKey	RepoDeals	DownloadKey	An alphanumeric string used to download or transfer another system.
UPC	RepoDeals	Indexation	RepoDeals	Indexation	Specifies whether the repo deal is based on a fixe is activated when rate is specified in t
MOV, UPC, UPN	RepoDeals	CapturedMarketValue	RepoSecuSched	CapturedMarketValue	Indicates whether the market value was captu
MOV	RepoDeals	ForwardPrice	RepoSecuSched	ForwardPrice	Specifies the price of the bond used in the colla date. The price is automatically calculated when a as the payment type
MOV, UPN	RepoDeals	GrossAmount	RepoSecuSched	GrossAmount	The gross amount of the deal is the market value value date. This is automatically calculated using bond [(Price + Accrued) x Face Amount / 100] For
MOV, UPN	RepoDeals	Haircut	RepoSecuSched	Haircut	Specifies the haircut of the deal. By default, the the hedge ratio of the bond or equity has been (changed 1.7).
					Specifies whether coupon payments are used in the