What's New in

Temenos Transact

January 2021

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|Release Highlights

Analytics

Operational Data Store/Snapshot Data Store » TDL Supports NuoDB Database

Operation Data Store (ODS) and Snapshot Data Store (SDS) are enhanced to support NuoDB database along with Oracle, MS-SQL, Azure SQL and PostgreSQL, which promotes cloud agnostic database support in Temenos Delta Lake (TDL).

> **The topics related to this feature are given below:**
>
> Operational Data Store
>
> Snapshot Data Store

Analytics Data Store » ADS DW Process

The following functionalities are updated in the Analytics Data Store (ADS) module:

- The ADS business dates table is renamed as ADSBusinessDate in MySQL and target database.
- You can load the data for the reference tables from CSV files.
- You can stop or interrupt the running ADS data reprocess.
- The column list table in read snapshot is changed to multi-selection check box that allows you to select the required columns.
- The ADS staging table metadata is stored in the metastore that allows the system to automatically map the columns from input component. The required validation are performed while saving.
- The DW load processing time is optimised based on java utilities.
- A user guide is prepared with instructions to create user defined JARs.

These changes make ADS more user friendly in terms of configuration and

usage.

> **The topic related to this feature is given below:**
>
> ADS DW Process

Banking Framework

Account Reporting Events and Services

It is mandatory for banks in the United Kingdom to move from SWIFT MT messages to ISO 20022 MX messages by November 2021. By 2025, all payments and cash messages should be moved from MT to MX format for SWIFT messaging (CBPR+).

The Account Reporting Events and Services (IZ) module is introduced in Temenos Transact, which provides a soft and flexible mechanism to enrich the content of the Cash Management (CAMT) messages. The IZ module leverages the Integration Framework (IF) Designer capabilities to provide a soft mechanism to customise the content of a preconfigured default entry event released by Temenos. The default entry event released by Temenos streams the accounting entry data near real time through IF Data Event Streaming (DES).

This functionality provides the following benefits:

- Preconfigured default entry event to enrich the entry tags of the CAMT message.
- Ability to stream accounting entries near real time using IF Data Event Streaming.
- Soft mechanism to modify or add new tags.

> **The topics related to this feature are given below:**
>
> Account Reporting Events and Services
>
> Tasks for Account Reporting Events and Services

Limits » Buffer Limits for Individual Customers

Buffer limits represent an extra allowance on the product validation limit approved by the credit committee for the bank's client. Some clients have

identified the need to assign buffer limits at customer level as well, even if the customers are not part of a group.

The `LIMIT` application has been enhanced to allow users to assign buffer limits to individual customers. When a user assigns a buffer limit to an individual customer, the system accepts any valid records in `CUSTOMER`, irrespective of whether they are part of a record in `CUSTOMER.GROUP` or not. Temenos Transact allows the user to create only one buffer limit per customer and per Limit product.

The Risk & Exposure Overview (CUSTOMER.SCV.CHECK) enquiry has been enhanced to display buffer limits at the customer level. When sub-allocating from buffer limits that belong to individual customers, the user can sub-allocate only to validation limits that have the same customer and Limit product (`LIMIT.REFERENCE` record). This functionality allows the users to:

- Create buffer limits for individual customers.
- View the advised amounts of buffer limits for individual customers in the Risk & Exposure Overview (CUSTOMER.SCV.CHECK) enquiry for each customer and drill-down to the buffer limit details.

> **The topic related to this feature is given below:**
>
> Buffer Limits for Individual Customers
>
> Buffer Limits Enquiry for Individual Customers
>
> Buffer Limits Enquiry at Customer Level

Generic Accounting Interface » Processing Cross-Currency Booking Request

The Generic Accounting Interface (GAI) module has been enhanced to allow booking requests in cross-currencies, that is, currencies other than the account currency, through parameterisation. Banks can define the exchange rate type to be used for processing the cross-currency booking requests in the *Exchange*

Rate Type field in the `AC.ENTRY.PARAM` application. If the processing is successful, accounting entries are raised for the account in request by applying necessary currency conversion if the transaction currency is different from the account currency, and the corresponding contra account is debited or credited to ensure a well-balanced operation.

> **The topic related to this feature is given below:**
>
> Processing Cross-Currency Booking Request

Private Wealth

Securities » Trailer Fees Accrual Per Portfolio

Trailer fees is a commission paid by an issuer of security to the bank for providing the bank's customer with services such as holding, investment advices and other handling services of those financial instruments. Banks usually enter into an agreement with the issuer to define how and when to calculate and receive trailer fees. The trailer fees accrual is done daily and payment is done periodically. Banks want to post the trailer fees accrual per security per portfolio.

Banks can now post the trailer fees accrual per security per portfolio. To provide this functionality, the *Accr Per Port* field is introduced in the `SC.TR.FEE.PARAMETER` application. If this field is set to Yes, accrual entries are posted per portfolio. If this field is left blank, accrual entries are posted per account officer.

> **The topic related to this feature is given below:**
>
> Trailer Fee Accrual per Security per Portfolio

Securities » LTV Determination based on Rating

The loan amount lent by financial institutions against an asset is based on the Loan-to-value (LTV) of a financial institution applicable for that asset class. According to the credit policy of the financial institution, the LTV of the asset class is defined based on various attributes of the asset. Fixed income instruments such as bonds may have multiple sources of credit ratings from credit rating agencies such as Moody's, Fitch, Bloomberg, and so on. In such cases, financial institutions define priorities based on which the bond rating from a credit rating agency is selected and the LTV is calculated.

Temenos Transact is now enhanced to determine the LTV based on the rating

available for the bonds. When there are multiple ratings available from rating agencies, the rating required for LTV calculation is be determined based on bank's pre-configured priorities such as ranking of the ratings and priority of the rating agency.

> **The topic related to this feature is given below:**
>
> LTV Determination based on Rating

Securities » Separate Account Linkage Entries

Inflation linked bonds (ILBs) are debt instruments designed to protect the investors from inflation. The ILBs are indexed to the country's inflation index, so that the principal and the interest payments rise and fall with the rate of inflation. For such instruments (ILBs) held in own book portfolio, the linkage entries due to changes in the inflation index needs to be posted separately for principal and accrued interest and coupon.

Temenos Transact is enhanced to separately post the accounting linkage entries (that is, the entries that are generated due to changes in the inflation during the bond's tenure) as different entries for principal (cost) and accrued interest or coupon. The separation of linkage entries is effective only for securities that are held in own book portfolio.

> **The topics related to this feature are given below:**
>
> Separate Account Linkage Entries
>
> Managing Debit Instruments

Derivatives » Asian and Performance Options

Asian and Performance options are now supported in Temenos Transact.

Asian Options

An option type where the payout depends on the average price of the underlying asset over a certain period of time as opposed to standard options (American and European) where the payoff depends on the price of the underlying asset at a specific point in time (that is, at the time of maturity). Asian options are classified as:

- Fixed Strike - The strike is fixed while average of spot price is used to determine the payout.
- Fixed Spot - The spot price is fixed and the strike price is the average of spot prices on the observation dates.

Performance Options

Track the performance of the underlying asset from the date of commencement of the option upto maturity. The appreciation or depreciation of the underlying asset is used to determine the payout.

> **The topics related to this feature are given below:**
>
> Asian and Performance Options
>
> Tasks for Asian and Performance Options
>
> Warrants and Hedge Transaction Details
>
> Notional Reconciliation of Warrants and Hedge Transaction

Regional Banking Solutions

CEMAC Model Bank

Asset Classification and Provisioning

This module allows the classification of assets based on the number of payments in default or based on the duration of the debit balance of the account without any significant credit movements.

The `AFRACP.ACCOUNT.DAYS.PAST.DUE` application is introduced to store the movement in the classification based on the number of days past due.

The topic related to this feature is given below:

Asset Classification and Provisioning

Finland Model Bank

Account Related Processing » Restrict View of Transactions

This functionality allows banks to restrict the display of past transactions and balances to a customer who is added to an account. While adding a new customer to an account through the change customer activity, the branch user has the option to either permit or restrict the new customer from viewing the past transactions.

The following items are introduced as part of this functionality:

- The XJOINTVIEW external property class is used to update the customer name, joint owner, joining date, and joint owner leaving date.
- The STMT.ENT.BOOK.JOINTVIEW.FI no file enquiry is used to get the list of transactions.
- The *View Past Transactions* field is added to the `AA.ARR.CUSTOMER` application for the user to set the permission to view the past transactions in an account.

> **The topic related to this feature is given below:**
>
> Account Related Processing

Collateral » Automatically Depreciate the Vehicle's Collateral Nominal Value

A vehicle's nominal value depreciates over time with a fixed percentage per year. The default value will be different for trucks, vessels, aircraft, and each value may be changed by the user.

This functionality allows banks to automatically depreciate the vehicle's

collateral nominal value.

The following items are introduced as part of this functionality:

- The `COLLATERAL.TYPE,FI` and `COLLATERAL,FI` versions are used to capture the depreciation details.
- The `FICOLL.COLLATERAL.PARAM` application is used to capture the collateral types that have to be depreciated.
- The `FICOLL.DEPRECIATION.COLLATERAL` application is used to store the collateral IDs.

> **The topic related to this feature is given below:**
>
> Collateral

Collateral » Expiry of Lease Agreement for Real Estates

This functionality allows banks to monitor the collaterals which are of lease agreement type whose lease agreements are expiring in the upcoming months. Also, for the expiring lease agreements, the system creates a task for the user to either renew the lease agreement or reduce the current mortgage period to lesser than the lease expiry date.

The following items are introduced as part of this functionality:

- The `COLLATERAL,FICOLL.EXP.LEASE.AGREEMENT` version is used to capture collaterals with lease expiry dates and real estate numbers of the plot or building which is considered for the lease agreement.
- The LEASE.EXPIRY enquiry is used to list the lease agreements with collateralised deeds that are nearing expiry.
- The *Lease Expiry Task Period* field is added to the `FICOLL.COLLATERAL.PARAM` application to capture the period of lease expiry up to which the system will pick the collateral to create a task.
- The FICOLL.UPD.CR.CONTACT.LOG service is used to pick up the collaterals which are expiring in the period mentioned in the

`FICOLL.COLLATERAL.PARAM` application and create a task using the `CR.CONTACT.LOG` application so that the user can instruct the borrower to either, renew the lease, or agree with the borrower to reduce the current mortgage period to less than the lease agreement period remaining.

- The `FICOLL.CR.CONTACT.LEASE.CONCAT` application is used to capture the *Lease Expiry Date* of the collateral and the *Cr Contact Reference* of the created task.

> **The topic related to this feature is given below:**
>
> Collateral

Global Model Bank

Goods and Services Tax (GST) » Charge Validation

The Value Added Tax (VAT) functionality allows the user to apply VAT on the charges collected from the customers.

The system will prioritise the *Refund Version* value in the `TAXREG.PARAMETER` application, over the modules available. Also, the system will update the `TAXREG.GST.DETAILS` application with the calculated tax amount.

> **The topic related to this feature is given below:**
>
> Goods and Services Tax (GST)

Hungary Model Bank

Warrants » Locking of Accounts

This functionality allows banks to handle the priority 3 locks. Once the manual lock is placed through the

`AC.LOCKED.EVENTS,HUWRNT.OTHER.LOCKS.INPUT` version and the record is committed, the system will utilise or have access to only those lock types whose priority is 3. All lock types where the priority is 1 will not be utilised by the Queuing solution and will be treated as money spent. Also, in case the lock has been removed and the queue item has been cancelled or settled, the Queuing solution will replace the lock if it has not expired in the meantime.

> **The topic related to this feature is given below:**
>
> Warrants

Lebanon Model Bank

Salary Blocking

This functionality allows banks to safeguard loan payments by locking the installment amount once the salary is credited to the settlement account.

The following items are introduced as part of this functionality:

- The `SALBLK.SAL.BLOCK.PARAM` application is used to define which customer, product, category etc. can be exempted from salary blocking and allows users to define which property has to be configured for calculating the salary block amount.
- The SALBLK.SAL.BLOCK.DIFF.CURR enquiry is used to list all the locked amounts when the currency of the salary is different from the currency of the loan.
- The `SALBLK.SALARY.LOCK` application is used to store the lock amount details.
- The `SALBLK.SALARY.LOCK.HIS` application is used to store the lock amount history details.

> **The topic related to this feature is given below:**
>
> Salary Blocking

Norway Model Bank

Lending » Adjust the Interest Rate When a Loan is Changed before Maturity

This functionality allows banks to send out messages to the customer using the Temenos Transact delivery framework in a printable or readable format. When the calculated charges of the premium or discount are linked, the calculation specification will be generated as a notice for charge details in printable format.

New periodic attribute property class records were introduced and linked to the ACTIVITY.RESTRICTION property class to check if the customer has repaid all dues on premium and if the customer has breached any fixed rate agreement in the past 6 months.

A new product conditions record for the ACTIVITY.MESSAGING property class was introduced to send out the messages to the customer.

The `AA.ARRANGEMENT.ACTIVITY,NOLEND.ACTIVITY` version allows the bank to capture the premium or discount that is applicable for the lending arrangement.

> **The topic related to this feature is given below:**
>
> Lending

Saudi Arabia Model Bank

Early Closure Charges » Auto Ijara

This functionality facilitates the calculation of the Partial Early Settlement (PES) charges as per the SAMA regulation. The present SAMA regulation entails collecting the immediate next three future profit instalments as a PES charge when an advance payment is initiated. The functionality also covers some additional validations for allowing Partial Early Settlement (PES) transactions.

The calculation of charges and the validation for the minimum advance repayment are strictly based on the payment schedule. In case of a changed installment, the new upcoming installment amounts will be considered for calculation.

> **The topic related to this feature is given below:**
>
> Early Closure Charges

Tunisia Model Bank

Foreign Currency Operations » Foreign Trade Title

This functionality allows the banks to receive and store the foreign trade title information from the TTN (Tunisie Trade Net) interface, as well as amend and cancel the trade title. Information related to customs imputation can also be stored.

The following applications and enquiries are introduced with this functionality.

- The `TNFCOP.FOREIGN.TRADE.TITLE` application is introduced to store the foreign trade title details received from the TTN interface. Several versions of the application are provided to enable the domiciliation, customs imputation, amendment and cancellation of a foreign trade title.

- The TNFCOP.AMEND.CANCEL.TITLE enquiry is introduced to fetch the details of the foreign trade title details, which are received from the TTN interface and domiciled.

- The TNFCOP.TITLE.DOMICILIATION enquiry is provided to view the trade titles which are stored into Temenos Transact from the TTN interface.

- The TNFCOP.TITLE.IMPUTATION enquiry is used to fetch the list of trade titles.

- The TNFCOP.IMPUTATION.ALL.NGP enquiry is provided to view the customs imputation for all NGP codes, which are flown into Temenos Transact from the TTN interface or customs.

- The TNFCOP.TITLE.DOMICIL.AMOUNT enquiry is provided to view the various amounts of a trade title, which are flown into Temenos Transact from the TTN interface or customs.

> **The topic related to this feature is given below:**
>
> Foreign Currency Operations

Foreign Currency Operations » Foreign Trade Title Clearance

This functionality allows banks to send reports to the Central Bank of Tunisia regarding foreign trade titles. It also allows the update of the imputation, settlement and reservations manually.

The following applications and enquiries are introduces with this functionality:

- The `TNFCOP.FOREIGN.TRADE.TITLE` application is used to receive and store the data from the TTN (Tunisie Trade Net) interface.
- The TNFCOP.AMEND.MANUAL.UPDATE enquiry is used to fetch the details of the foreign trade title details, received from TTN and domiciled.

> **The topic related to this feature is given below:**
>
> Foreign Currency Operations

Customer Infrastructure » Garnishment Handling

The functionality allows users to create garnishment orders and freeze the funds from the customer accounts. It also allows users to block and unblock securities, the details being available in the `SC.BLOCK.SEC.POS` application.

The following applications and enquiries are introduced for this functionality.

- The `TNCUIN.GARNISH.ORDER` application is used to create and amend the garnishment order.
- The `TNCUIN.GARNISHMENT.PARAM` application is used to parameterise the details for the garnishment order.
- The `TNCUIN.LOCK.DETAILS` application is used to store the details of the locked account details.

- The TNCUIN.LOCKED.DETAILS enquiry displays the list of locked amounts for the customer and the garnishment order.

The locked amounts in the accounts can be increased or decreased, and further on released.

The topic related to this feature is given below:

Customer Infrastructure

United States Model Bank

Single Customer View » Beneficiaries on SCV

The Beneficiaries on SCV functionality introduces the following changes to Single Customer View:

- Beneficiaries Tab: The Beneficiaries tab has five new deal icons, which allow opening new different beneficiary type records: ACH, Fedwire, Check, Swift and ACH. All the beneficiary records are displayed in the new inquiry in the Beneficiaries tab. The inquiry allows for the beneficiary records to be viewed, edited or deleted.
- Address Tab: There is a new inquiry triggered when selecting the **Address Link** inquiry icon. It allows the creation of the `DE.CUSTOMER.PREFERENCES` records.

> **The topic related to this feature is given below:**
>
> Single Customer View

Retail

Arrangement Architecture » Residual Principal in Payment Schedule

If a *Residual Amount* is set for a contract, the Payment Schedule projection is changed to reflect the same along with the last installment's *Total Due* at the time of loan creation itself. Thus, the outstanding amount after the last installment is always zero. The details are also seen in the Schedule Details enquiry.

The topics related to this feature are given below:

Amortisation and Residual Amounts

Residual Principal in Payment Schedule

Technology

Integration Framework

Data Event Streaming » TAP Integration

In Data Event Streaming, the following functionalities are introduced and thus facilitating TAP to use DES as a common event delivery solution.

Supporting Additional Column

DES can be configured to stream additional column for any other product, if required.

Configuring Schema Handler

By default, DES supports schema handling for Transact system which includes Relational Replication (RR) and IF schemas. To support additional schema handling, DES can be configured to inject the schema handler.

> **The topic related to this feature is given below:**
>
> TAP Integration

ESB Adapter for IBM Integration Bus » Enabling SSL Connectivity in IIB Adapter

SSL in IIB provides a secure connection over Transport Layer Security (TLS) for MQ (through TCP enabled channel) and JMS. SSL certificates validate this connection, which is configured at broker level.

This functionality provides a way to accept SSL properties as input at IIB outbound design time to make connection to secured queue and enables the SSL connectivity for both types of connectivity (JMS and MQ).

For MQCONNECT mode, the SSL has been implemented through MQ Channel and applicable only for CLIENT mode. The following properties has been added for MQCONNECT:

- sslCipherSuite
- sslPeerName (optional)

The topic related to this feature is given below:

Enabling SSL Connectivity in IIB Adapter

Interaction Framework

UXP Browser » Enabling Third Party Integration

UXP Browser provides a framework to integrate itself with any external system and offers the functionalities **Print Preview** and **Upload Document** for integration. UXP Browser is flexible to integrate any external system that needs the above functionalities.

The topic related to this feature is given below:

Enabling Print Preview and Document Upload Features

IRIS R18 » API Versioning Capability

This feature generates two generic service XMLs during Provider API creation, where the generic service XMLs internally point to the latest specific Provider API.

To facilitate this feature to the existing Provider APIs, a utility service is created, which generates the two generic service XMLs for the specific service XML.

> **The topic related to this feature is given below:**
>
> API Versioning Capability

Platform Framework

Temenos Workbench V1 (UXP) » Packager License Check

While deploying a record, if the company is not specified to it, then users can deploy that record to all the companies that have licensed application.

> **The topic related to this feature is given below:**
>
> Handling Company Specific Deployment

Temenos Workbench » Version Wizard

In Temenos Workbench, the Version wizard has been enhanced such that users can now create Versions using the following four stages:

- Core Definition
- Field Selection
- Field Details
- Version Associations

> **The topic related to this feature is given below:**

Creating Version

Infrastucture » API and Event Schema Vocabulary Validation

Temenos now provides a standard centralised vocabulary, which provides consistent naming conventions in the REST APIs developed across the products in Temenos. It is a guiding standard to define attribute names used under request and response schemas. The resource and domain names are used while designing REST API interface for Microservices Business Functions. The business and command events will also be validated.

The topic related to this feature is given below:

API and Event Schema Vocabulary Validation

Treasury

Forex » Trade Dated Accounting for FX Spots

According to Central Bank of Argentina (BCRA) regulations, settling any transaction that involves foreign currency and purchasing or selling an asset for cash, require booking the commitment under cash and cash equivalent groups in the balance sheet.

The Foreign Exchange (FX) module is enhanced to facilitate Trade Dated General Ledger (TDGL) accounting for FX spot contracts. Banks have the flexibility to opt for cash accounting (trade-dated general ledger accounting) or contractual accounting (value-dated accounting). When opted for cash accounting, the transactions are treated as non-contingent and positions are updated as Asset and Liability (AL) and undergo AL revaluation.

> Click here to understand the technical impact of this enhancement for customisation and upgrades.

> **The topic related to this feature is given below:**
>
> Accounting

|Technical Notes

Banking Framework

New Module – Payments Beneficiary

A new module Payments Beneficiary (BY) has been split from the System Tables (ST) module. `BENEFICIARY` and `BENEFICIARY.LINKS` applications have been moved from ST to BY module.

- This module will be automatically installed during the upgrade process and requires no manual intervention.
- Any local developments referring to the `BENEFICIARY` and `BENEFICIARY.LINKS` tables in componentised format should be modified to refer the BY component.

Treasury

Forex » Trade Dated Accounting for FX Spots

The TXN.ENTRY.FX enquiry is built in the `RE.CONSOL.SPEC.ENTRY` table. Indexing OUR.REFERENCE and TRANS.REFERENCE columns in the table helps in improving the performance.

|Extensibility APIs

Java Extensibility

Category: ■ New ■ Enhanced ■ Existing ■ Deprecated

Package	Class	Method name	Description	Hook*/API
payments	PaymentLifecycle	**updateProduct**	Helptext change to accommodate heavy weight product updation as well.	Hook
payments	PaymentLifecycle	**getChargeResponse**	Gets a charge response for the transaction, which can either be the calculated charge amount or a boolean value indicating that the system default calculation is to be used.	Hook
payments	FeeDeterminationHook	**getChargeAmount**	Deprecated. Use `PaymentLifecycle.getChargeResponse` instead.	Hook
system	DataAccess	**setFieldValue**	Returns the record updated with the value of the given field name replaced with the provided field value.	API

Package	Class	Method name	Description	Hook*/ API
contract	Calculation	**updatePrincipal**	Enables the implementer to modify the list of principal each of which has an amount and date.	Hook
contract	Calculation	**getAmortizationAmount**	Enables the implementer to calculate and return the amortization amount for the given period.	Hook
hook.countrymodelbank.finland	Collateral	**getDepreciationAmount**	Allows the implementer to customize the depreciation calculation methods in collateral.	Hook
countrymodelbank.saudiarabia	IslamicLoan	**calculatePartialEarlyPayment**	Calculates the Charge Amount based on the number of early repayment installments for a Partial Early Settlement transaction.	API
countrymodelbank.regulatory	Tax	**updateTaxRefund**	Updates an existing goods and services tax record with the provided tax details	API

Hooks are placeholders where routines can be attached to a version/enquiry/delivery.