MONOLIT•INFO

Monolit Suite 7.0

Complete Feature List

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CONTENTS (COMPLETE)

1. Technical features and system architecture

1	Technical features and system architecture
1.1	**System architecture**
1.1.1	Fully integrated system with all the subsystems functioning in the common environment on the central database
1.1.2	Central data processing is used in the architecture of the system
1.1.3	Combination of geographically distributed system installations installed in different DPCs to manage shared data
1.1.4	Centralized application subsystems based on one of the DPCs in a distributed environment
1.1.5	Deployment in MS Azure cloud environment
1.1.6	Hybrid system deployment, where some services is transferred to the MS Azure cloud environment, and some remains in the enterprise DPC
1.1.7	Providing services based on SaaS model for some application subsystems
1.1.8	Wide range of technologies for creating system workplaces based on the tasks to be solved - local workstations, Smart Client, Web Client
1.1.9	Workstations for mobile employees on devices running Android and Apple iOS.
1.1.10	Data integration services with external systems supporting push and pull protocols.
1.1.11	The system infrastructure is based on the Microsoft platform, MS SQL Server is used for data storage.
1.1.12	MS SQL Server is supported in MS Azure cloud environment based on both the IaaS (SQL on VM) and PaaS model (MS SQL Server Managed Instance) model
1.1.13	The latest Microsoft technology to ensure high performance, scalability and fail-safety
1.1.14	Transparent interaction with Microsoft ecosystem components - MS Office, MS SQL Server Reporting Services, MS SharePoint.
1.2	**Support for enterprise-level configurations**
1.2.1	The system is optimized for enterprises with large databases and a large number of users
1.2.2	Load balancing and scalability is implemented in multi-server configurations.
1.2.3	The internal services for the system's reliability are provided. Production servers are monitored and in case of a server failure the workload is transferred to another server. MS Windows failover and NLB clusters are fully supported.
1.2.4	The advanced access control system, all activities in the system are logged.

1	Technical features and system architecture
1.2.5	The set of development tools is included. They are used for configuring the system according to customer requests.
1.2.6	Change management procedures are supported. There are special tools for controlling modifications on test servers, testing the changes and installing them on production servers. In many cases the modifications can be installed on-line without stopping the system's activities.
1.2.7	Embedded monitoring and administrative tools can be used for monitoring the system's availability and performance and control all production and test servers.
1.2.8	The system is integrated with MS Azure build-in management and diagnostics tools that can be used for system performance administration and monitoring when deployed in MS Azure environment
1.3	**Scalability and reliability**
1.3.1	In multi-server configurations different servers process different workload types, and the workload of the same type is load-balanced. Servers can be added to the server farm as-needed.
1.3.2	Horizontal scaling of read-only and read-write requests to the pool of SQL servers is used
1.3.3	Web farms with hardware or software load balancing tools are supported
1.3.4	Fail-safety is provided by built-in system tools and system virtualization technologies, MS Windows Server Failover Cluster and MS SQL Server AlwaysOn.
1.3.5	Support for scalability and fail-safety tools available in MS Azure environment
1.4	**Access management and data security**
1.4.1	Users and user groups access management (browsing, modification, etc) is implemented: • at the level of forms, form elements, system reports, database elements • on the basis of analytic view of data (by clients, types of commodities and materials (CAM), warehouses, etc.).
1.4.2	Browsing and modification of key entries (documents, accounting transactions, master data) are controlled according to user rights.
1.4.3	User activities are audited and logged. User Id, action, time of the action and additional information are registered.
1.4.4	Multistep filtering and data isolation technologies are used to exclude the physical capacity of unauthorized data access.
1.4.5	User authentication is based on modern standards, including using Azure AD
1.5	**Management and development tools**
1.5.1	The central management console is used to control and monitor all the system's servers.

1	Technical features and system architecture
1.5.2	Central error collection and handling system
1.5.3	Use of built-in MS Azure tools for system administration and monitoring when deployed in a cloud environment
1.5.4	Metadata are widely used to set up and configure the system. Metadata are version-controlled.
1.5.5	Built-in development tools provide description and modification service for data storage and business process, reports, user input forms, user work places.
1.6	**Master data (classifiers)**
1.6.1	Master data are hierarchical; several hierarchical trees can be defined for the same master data. The examples of master data are: • Company master; • Address master; • Warehouse master; • Expenses type master; • etc.
1.6.2	All the system's master data have the following features: • the structure (set of fields, sub-tables etc.) of a master is defined by corresponding physical concept; • unlimited number of hierarchical trees can be set up
1.6.3	Groups defined in master data hierarchical trees are widely used in reporting parameterization, setting user access, accounting transactions calculation rules, etc.
1.6.4	Master data dependencies are described and processed
1.6.5	Master data elements can be numbered auto or manually.
1.6.6	Master data structures configured by adding new attributes.
1.7	**Enterprise functionality**
1.7.1	Support for A/R and A/P accounting and reporting for different legal entities within the same holding or separate business units within a single database
1.7.2	Intercompany receivables are processed and accounted for
1.7.3	Control user access to data by branches or legal entities within a holding

2. Intelligent Information Management (IIM—ECM)

2	Intelligent Information Management (IIM—ECM)
2.1	**ECM - DocFlow Architecture**
2.1.1	Functionality of Intelligent Information Management (IIM—ECM) is a set of solutions presented both within Monolith Suite desktop applications and in the form of the IIM Web application (Monolit DocFlow). In both cases, the electronic document storage is connected to the system (application). The basic distribution of functions by applications: • Electronic document storage - **ERP and ECM** • Document model – **ERP and ECM** • Tasks and routes management - **ECM** • Electronic documents exchange with counterparties **– ERP** • Internal accounting electronic document management **– ERP** • Electronic archive of accounting documents **– ERP** • Event information distribution tools - **ERP and ECM** • Address book and access management **– ECM**
2.2	**General ECM web application (Monolit DocFlow) features**
2.2.1	ECM web application is implemented as a Single Page Application, accesses WebAPI. Supports operating using any modern browsers: IE, Edge, Chrome, etc.
2.2.2	A standard Monolith ERP workstation is used for configuration and administration. Two levels of administration are provided at the system ideology level: • **IT administration**: general settings, input of document types, settings for attribute types, task types, distribution methods, etc. • **Business administration** is performed by key business users in terms of further classification of documents (user-defined document types), setting up business process routes, distribution, additional fields, etc.
2.2.3	Support of online editing or viewing attachments from the browser (without having to download) using MS Office-Online
2.2.4	Multilingual user interface and system data; unicode is supported for all the text fields.
2.2.5	Interface arrangement: • modern and intuitive interface • "page-based" interface arrangement, allowing the entire document viewing by scrolling • adaptability when used on any device, including tablets and smartphones
2.2.6	Integration with Monolith ERP systems using the XMLExchange transport subsystem. This allows to: • Publish the documents from other systems to Monolit DocFlow

2	Intelligent Information Management (IIM—ECM)
	• Provide business processes of approval, approval, familiarization, etc. for documents (or other objects, for example, sales plans from ERP) • Create documents for other systems based on a unified procedure and in a unified web interface
2.2.7	Capability of simple documents creation by sending messages to email addresses associated with various types of documents
2.2.8	Capability to perform actions in third-party systems using PowerShell scripts
2.2.9	Support two authentication types: • login-based for domain users • by personnel number with sending SMS to the phone from the Personnel system
2.2.10	Personalized role-based document access
2.2.11	The system can be installed both in the enterprise DPC and in MS Azure cloud environment.
2.2.12	When using MS Azure cloud environment, the installation is both possible based on IaaS model and based on more modern PaaS model. Azure services — SQL Server Managed Instance and Web App Services — are used in the latter case. The PaaS model allows to use a wide range of capabilities for scaling and ensuring the system fail-safety built in the MS Azure platform, while reducing the cost of system deployment and further administration.
2.2.13	The system installed in MS Azure cloud environment preserves the entire set of necessary interactions with the systems in the enterprise DPC
2.2.14	The system provides integration with Azure AD, which allows users who are authenticated in the enterprise AD to authenticate in the ECM system without having to input additional identification data.
2.2.15	Tools for distributing the event information with tasks and documents
2.3	**Electronic documents storage**
2.3.1	Support all formats (from office documents to multi-media files)
2.3.2	Multiuser and single e-doc processing modes with track of changes, versions, audit trail
2.3.3	E-docs classification, determination of links to documents. For each e-doc type the following can be defined: • Obligatory presence of e-docs for document status processing • Obligatory pattern usage, pattern definition on base of document analytics • E-doc can be linked to review within document confirmation process
2.3.4	E-docs can be linked to any system documents and to any classifier elements
2.3.5	Remote users documents upload service, that provides control on traffic from server to users separately from traffic of remote session

2	Intelligent Information Management (IIM—ECM)
2.4	**Document model description**
2.4.1	The functionality supports: • description and management of Company's business-processes; • documents classification; configuring documents processing schemes; • user rights configuration to access documents.
2.4.2	The multi-level scheme of documents description provides, on the one hand, minimization of storage structures, and on the other hand, possibility to add new types of documents and configure their individual processing independently. Implementation example: • **Object type** – describes method of storage for primary documents in the database. The documents of the same document type are stored in the same database structures. • **Object** – details the object type. Every *object* is processed by the corresponded system module. The *object* can have individual procedures for document creating and modifying, presentation forms, etc. • **Document type** – sets classification to the Object. An actual document is identified by a combination "Object"+"Document type". The document types are created on user level with help of system settings and for each type the individual processing can be configured. • **User-customized document type** – allows the process owner (document type administrator from the business unit) to define an arbitrary classification of documents within the document type, as well as to specify the route and rules for document processing
2.4.3	Flexible configuration of documents processing sequence of statuses and rules of statuses definition (statuses relations) for each system object
2.4.4	Setting document status is controlled by a special procedure (check procedure). It checks if the status is set according to rules, regulations and agreements enforced at the enterprise. Example: Customer balance control
2.4.5	The following can be set for *check procedure* • execution conditions • execution mode (block, warning), • user groups who authorized to ignore check procedure
2.4.6	Access to a document can be defined: • by master data groups • by intercompany • by access personification with support of delegation of powers
2.4.7	Flexible scheme of documents relations configuration and that relations processing.
2.4.8	Support of documents auto-numbering system that describes auto-numbering rules for new documents. Documents manual numbering, limitation to document numbers changes
2.4.9	Document processing is fully logged.
2.4.10	Document group processing.
2.4.11	E-mail management

2	Intelligent Information Management (IIM—ECM)
2.4.12	Support for multiple document revisions (versions)
2.4.13	Support for searching by document attributes, as well as by document content and content of the files attached to the document
2.4.14	Configuration of "document processing chain" for user. That chain defines sequence of document processing statuses, document processing special parameters etc. Only *chains* that are assigned to a user workplace can be accessed from it.
2.4.15	For each processing chain information visibility and edit mode can be configured
2.4.16	Documents registering functionality
2.4.17	In case of necessity of collective solution on document processing the confirmations are added in documents processing chain.
2.5	**Tasks and routes management**
2.5.1	The "Task" object and the grouping of tasks in "Routes" subordinate to the "Document" object. The tasks are divided into incoming (which the user needs to perform) and outgoing (which must be controlled) for each user. For each task the following is defined: • task activity start date • task activity period • performer • author • task execution date Tasks are grouped in stages, stages correlate with document statuses and form a document route. The document route can be both described in advance in the form of a template or generated by the user within the document instance.
2.5.2	Presence of an arbitrary tasks classification: • document approval tasks, which arise at document approvals list generating • tasks, related to the questions, asked within the document approval • tasks, related to the orders initiated at any stage of the document processing
2.5.3	Stages parameters and settings: • binding stage to the document status • setting the automatic setting the document status when the stage is completed • Automatic start of the next stage when the previous one is completed (otherwise, the document author can start the stage manually) • The task execution order within the stage: parallel or sequential • Capability to add tasks to the stage manually • Permission for negative reviews • Permission for comments to positive reviews • Stage task execution term • Action in case delayed execution: interrupt/forced termination Possibility to change within a specific document can be specified for each parameter when making these settings in a pre-configured template.

2	Intelligent Information Management (IIM—ECM)
2.5.4	Task parameters and settings: • Task can be linked to particular performer or to performers group. In second case any performers group member start task execution • Task execution result storage option in case of document confirmation restart • Obligatory attributes that should be filled in terms of task execution • The task execution conditions are set in document – can be described in pattern depending on document main and additional fields values Automated task execution function. Task can be linked to "custom" procedure, that will be executed in terms of task execution.
2.5.5	Capability to ask a question to the task author and to retrieve the answer to the question from the author when executing the task
2.5.6	The document familiarization functionality is supported in two modes: • familiarization "with signature confirmation", according to which the user is required to confirm familiarization with the document • familiarization "regular", which does not require any action from the user, but only gives them the right to view the document Either an explicit indication of the user list for familiarization, or the use of groups from the "Address Book" is provided for familiarization. Including "user, auto-populated" groups
2.5.7	Capability to set various filters on the task list. For example, by the deadline "expired", "deadline expires", "according to plan" or by the direction "incoming", "outgoing" or based on task type
2.6	**Electronic documents interchange**
2.6.1	Electronic documents interchange system support the following types of interchanges: • Orders from Modern Trade clients — ORDERS • Confirmation of orders to customers – ORDRSP • Confirmation of dispatch to customers – DESADV • Confirmation of receipt from customers – RECADV • Invoice to customer – INVOIC • Commercial dispute from customers — COMDIS • Appendix to shipment notification (DESADV for alcoholic products) — ALCDES
2.6.2	Technologies used in exchange: • SOAP-based exchange. XMLDSig-based EDS format • Exchange over HTTP • PKCS7-based EDS format • File-based exchange

2	Intelligent Information Management (IIM—ECM)
2.6.3	E-docs interchange via EDI provider ("Sphere Courier"): • Primary documents in unstructured format • UTD in PIVAT format • UTD in PI format • UTD in ADD format • Document (non-structured document) • Power of attorney

2.6.4	In terms of interchange via EDI provider the following functions were developed:
	• Electronic signature
	• Electronically signed e-docs storage in e-docs DW
	• New documents creation on base of received e-docs
	• Links between e-docs and ERP documents
	• E-docs group print in any formats by request
	• Interchange scheme configuration for each type of e-doc
	• Route progression in accordance with interchange scheme control
	• E-docs attachments preview
	• Possibility of group uploading of all the attachments for the ED list to the local user directory
	• E-mailing on base of e-docs events:
	  ○ Route interruption
	  ○ E-docs assignment to user

2.7	**Internal electronic documents interchange**
2.7.1	Internal accounting electronic document management is implemented based on ED storage
2.7.2	Creation of ED is performed based on the entered ERP document
2.7.3	The main attachment signing is performed with a simple signature and is carried out in stages, there may be one or several signatories in each stage. The stages of signing are strictly sequential (for example, the stage for internal document approving person goes after the stage of signing the document by the commission chairman), but the signing may proceed in parallel within the same stage (for example, commission members).
2.7.4	Generation of a complete signatories list before the beginning of the main ED attachment signing and inclusion of the entire signatories list to the main attachment
2.7.5	Automatic removal of the main attachment, if it is necessary to correct the ERP document attributes
2.7.6	Manual or automatic completion of the ERP document only after all the EDS are set
2.7.7	Capability to specify the date of internal documents transfer from the paper original copy to the electronic original copy and/or back.
2.7.8	ED events distribution is supported

2	Intelligent Information Management (IIM—ECM)
2.8	**Electronic documents archive**
2.8.1	Electronic accounting and other financial documents archive (scan copies) is implemented based on ED storage
2.8.2	Bar-coding the originals: • Bar-code print on out coming documents • Labels with bar-code print for incoming documents
2.8.3	Coding usage for splitting scan copies on packages, packages splitting by e-docs types and e-docs link with ERP documents
2.8.4	Various ways of e-docs upload: • Sequential – together with document input into the system • Straight line for return documents • Straight line for incoming documents • E-doc upload without ERP document input. Creation of ERP document on base of uploaded copy
2.8.5	Functions of images processing and optimization before upload • Bar codes processing • Size compression • Signature and stamps brightness increase
2.8.6	Original documents storage and delivery functions: • E-Docs folders. Originals location in folders tracking • E-docs folders statuses and movement; Folders storage places tracking
2.8.7	E-docs saved lists processing functions: • E-docs search by bar-code • Original current location definition – folder, place in archive • ERP document preview from corresponding e-doc • Select functions for ERP documents, on base of e-docs types
2.8.8	E-mailing on events with e-docs • E-doc assignment to user for processing • Processing finished event • E-doc redirection to another user • E-doc processing cancellation
2.8.9	Document information completeness control: • Documents without links to e-docs of particular types control • E-docs without link to ERP document control • Primary documents presence in archive control • Originals receipt control when ERP documents processing is based on documents copy (send by e-mail, fax, etc)
2.8.10	E-docs group print on demand

2	Intelligent Information Management (IIM—ECM)
2.9	**Instruments for e-mailing inform about events**
2.8.1	Instruments for e-mailing inform about events — notification users about various events related to the document as well as on the occurrence of specified deadlines for tasks associated with the document.

2.9.2	E-mailing inform about following events:
	• Connected with confirmations:
	  ○ Notification on confirmation necessity with reminder configuration
	  ○ Document owner notification about confirmation or cancellation
	  ○ Information on confirmation start, stop or delay
	  ○ Information on confirmation delegation
	• Connected with questions, answers, orders:
	  ○ Notification on sending
	  ○ Notification on execution or decline
	• Connected with status creation/cancellation
	• Connected with e-docs selection for processing
	• Connected with specific events in application systems
	  ○ Project management
	  ○ Enterprise Assets Management

2.9.3	For each event the following can be configured: • E-Mail Recipient • Header and message text with use of macro substitution • Sending mode (individual or group – when all messages are collected in one letter) • Reminder mode • Html-format with a direct link to the document, provided by using the Web client
2.10	**“Address Book” and access management**
2.10.1	The presence of the "Address Book” object, which is used • during the user interaction within the electronic document management tasks is implemented using the "Address Book” object. • when selecting document attributes and for viewing the information about colleagues (both within the Company and among counterparties).
2.10.2	Support for user groups in the address book, including groups which composition is automatically updated by the system due to changes in position, subordination and other parameters
2.10.3	Import of data from multiple HR systems
2.10.4	Delegation of authority to work with documents and tasks: • Description of the various access roles: author, performer, reader, administrator, etc. • Delegating the access role for a period for one, several or all types of documents for a period • Providing access to a document for a user list or group • Delegating the authority to perform the task • Automatic delegation to the manager at dismissal

3. Master Data Management (MDM)

3	Master Data Management (MDM)
3.1	**Master Data Management System Architecture**
3.1.1	The MDM system is designed for centralized master data management of a company or a group of companies and for the quality control of data processing and modification processes.
3.1.2	In terms of architecture, the MDM system may operate: • within a centralized Monolit Suite installation — all the holding companies use the same DB • in a distributed structure - local Monolit Suite installation for each holding company
3.2	**System-Wide Features**
3.2.1	Master data transfer system architecture and configuration description tools
3.2.2	Tools to describe subscriber systems, data transfer direction settings, for each exchange object
3.2.3	Absence of restrictions on setting up processing of any ERP system master data due to description of exchange objects at a low system level
3.2.4	Various customizable data transfer scenarios for different exchange objects (manual, automatic scheduled, etc.)
3.2.5	Resolving encoding duplication conflicts - prefixes, postfixes, automatic numbering
3.2.6	Storage and presentation of source (local) values of master data key fields and centralized alignments
3.2.7	Description integrity control system for transferred structures and item values
3.2.8	The consistent generation of centralized master data (consolidation, unification, harmonization)
3.3	**Coordination of Changes in Master Data Using "Monolit: ECM - DOCFLOW" System**
3.3.1	An electronic document management system can be selected as the method of adding/adjusting for MDM object
3.3.2	The ECM document becomes an interface for changing the master data for MDM objects transferred for ECM control. The user performs master data changes (adding, editing) directly from the ECM document.
3.3.3	The ECM document interacts directly with the data classifiers in the MD database
3.3.4	The ECM document route provides the possibility to enter various groups of information on the created or modified items at various stages and to coordinate them
3.3.5	The ECM document allows creating / modifying the list of items of one or several MD objects

3	Master Data Management (MDM)
3.3.6	The ECM document considers all the rules and restrictions related to the MDM object
3.3.7	The ECM document manages distribution of changes among subscribers.
3.3.8	Description of the business process of creating/changing Master data is performed by all the existing ECM tools: document types, statuses, tasks, distribution, access, attachments of documents. The association of document (user-type document) and the MDM object and permissible operations with it is described to manage the Master data
3.4	**Service and Application Functions**
3.4.1	Search function: • Search by substring, indicating which fields and attributes are searched for • Search by the intersection of conditions specified for the fields and attributes of the classifier • Search in items found in the previous step
3.4.2	Logging of changes to classifiers, including committing changes to specific fields and attributes
3.4.3	Capability to create a new item using the pattern
3.4.4	Description of the rules for filling attributes for different groups of classifier items
3.4.5	Functionality to determine the multi-attribute relevance of an item data
3.4.6	Description of item duplication verification conditions when the item is created
3.4.7	Name generation settings based on fields and attributes
3.4.8	Description of requirements for mandatory filling of attributes
3.4.9	Built-in constructor for describing relationships of MDM attribute types and service functions activated for each attribute type
3.5	**Master Data Settings Quality Audit**
3.5.1	The functionality for analyzing the correspondence of master data items and reference values setting attributes described using a constructor.
3.5.2	Capability to analyze the correctness of settings using a special reporting form
3.5.3	Automatic scheduled analysis of the descriptions correctness (job) and distribution of deviations among the pre-configured groups of recipients

4. General ledger

4	General ledger
4.1	**Key Functionality**
4.1.1	***Chart of accounts***
4.1.1.1	Multi-segment chart of accounts for transactions registration
4.1.1.2	Allowed and prohibited segments combinations
4.1.1.3	Accounts and segments action periods, open and close accounts and segments function, account zero balance control before closing. Preliminary accounts closing (without zero balance control)
4.1.2	***Transactions***
4.1.2.1	Various methods of accounting transactions entry: • Import from other systems of "MONOLIT SUITE" – standard mode; • Manually, directly in "MONOLIT: General ledger" system, without preliminary preparation by tools of other systems of "MONOLIT SUITE"; • Import from other program systems (non-"MONOLIT") by preparation of data in coordinated format.
4.1.2.2	Transactions division by journals, control user access to journals on user group level, separate journals for manual and system transactions
4.1.2.3	Set up documents numeration on journal level
4.1.2.4	Block prohibited correspondences on transactions posting
4.1.2.5	Different data types support (actual, budget, forecast, etc)
4.1.2.6	Storno transaction processing in one of the further periods, Storno on journals level function
4.1.2.7	Exclude storno transactions in interfaces and reports (documents list, transactions journal, turn-over ledgers etc)
4.1.2.8	Full audit trail for documents and transactions
4.1.2.9	Use additional analytical attributes in transactions
4.1.2.10	Set up accounts to obligatory use analytical attributes, such as “brand”, “company”, “type of services” etc
4.1.2.11	Accounts balance and turnover calculation with detail analysis by analytical attributes (for previously set up accounts)

4	General ledger
4.1.3	***Financial periods and pattern transactions***
4.1.3.1	Financial years and periods, different period length (quarter, month, week, day) and multiple calendars. Fiscal calendar and calendar periods are defined by the user
4.1.3.2	Special (adjustment periods) function, special periods information separation from main periods in reports
4.1.3.3	Period states (statuses), closing periods for particular user groups or full period closing. Period state changes log. Periods closing only for particular data types (only for Actual)
4.1.3.4	Financial period closing and company final financial result by activity categories calculation – with help of pattern transactions
4.1.3.5	Transaction patterns library with processing order definition. Pattern transaction group posting. Use one pattern for different data types (Budget, Actual)
4.1.4	***Report forms***
4.1.4.1	Reporting by whole chart of accounts or its part (turnover balance reports, General ledger, reports for accounts correspondence, ledgers, samples by accounting transactions, etc.)
4.1.4.2	Report form libraries (several books of financial statements) – in accordance with several "parallel" standards of financial statements – national standards of accounting, IFRS (International Financial Reporting Standards) and management accounting, etc.
4.1.4.3	Historicity of reports definition and descriptions. Reports calculation for previous periods on base of descriptions, valid at that particular moment
4.1.4.4	Drill-down analysis tools for each cell of report matrix up to basic transaction level
4.1.4.5	Report results storage, with unlimited versions for one period
4.1.4.6	Create universal reports, multiple calculations of one report definition with additional parameters. Unified report description for different data types (Actual, Budget etc.)
4.1.4.7	Report groups definition, calculate report groups by One click, calculate part of groups
4.1.4.8	Dividing costs onto groups, with usage of additional analytical attributes for instance: • applied for financial accounting and fiscal accounting, • applied for financial accounting and not applied for fiscal accounting, • not applied for financial accounting and applied for fiscal accounting, • not applied for financial accounting and not applied for fiscal accounting Select all costs from one group by account patterns – in turnover–balance reports and also in financial and fiscal reports
4.1.4.9	Data preparation for fiscal registry generation

4	General ledger
4.2	**Enterprise functionality**
4.2.1	Centralized multi-segment corporate chart of accounts (with partition in terms of unified organizational structure separate accounts for each legal entity or subsidiary)
4.2.2	Define different (complete or partly) tables of financial periods for each company
4.2.3	Financial statements preparation by each entity, as well as in consolidated way for the group
4.2.4	Intercompany eliminations library, tools of intercompany correspondence control (matrix of intercompany control)
4.2.5	Eliminating operations (payment of intercompany loans, settlements, investments, gains, etc.) through the "pattern transactions"
4.2.6	Consolidated financial statements for enterprise holding (ensure overall & independent analysis of financial reports and accounting for each legal entity or subsidiary)
4.2.7	Set up alternative hierarchies for business entities, Financial data consolidated from different entities viewed from any number of hierarchical perspectives
4.2.8	Control user access to data by branches or legal entities within a holding
4.3	**IFRS transformation support**
4.3.1	Financial statements (Balance Sheet, Profit and Loss Statement, Cash Flow, Report on capital flow) in accordance with IFRS
4.3.2	Adjustments, visible only in IFRS (or only in Russian) reports
4.3.3	Alternative ways of adjustments storage • special (adjustment periods) • special accounts
4.3.4	Use second functional currency (instead of local one) for evaluation of each transaction and financial reports preparation (in case when according to IAS 21 functional currency should vary from local one)
4.3.5	Translation of financial reports from functional currency into presentational currency
4.3.6	Tools for segment and combined reporting
4.3.7	Currency classifier maintenance
4.3.8	Currency rates library, new rate types description tools
4.3.9	Support of historical and periodical rates, ability to describe calculated rates

5. Account Receivables, Account Payable

5	Account Receivables, Account Payable
5.1	**Master data**
5.1.1	Vendor Master Data • Vendor number. • Vendor name. • Vendor address. • Vendor Tax number. • Contact name of supplier. • Postal code field.
5.1.2	Suppliers with multiple locations, addresses, and currencies for every supplier.
5.1.3	Multiple banks and currencies.
5.1.4	Multiple companies, divisions, and cost centers.
5.2	**Cash accounting at operational, foreign currency and special accounts in banks and accounting of financial investments and credit operations**
5.2.1	Operations in operational and deposit accounts in rubles and foreign currencies. Postings of credit and debit payments both manually and in Bank-client system.
5.2.2	Integration with various "Bank-client" systems of Russian and international banks.
5.2.3	Printing of credit payment bank documents.
5.2.4	Cash assets revaluation with generation of accounting transactions.
5.2.5	Access restriction according to organizational hierarchy.
5.2.6	Reporting for monetary operations – availability of standard analytic and accounting reports generated in MS Excel format.
5.3	**Accounting of allowances**
5.3.1	Employee expense reports include details on meals, transportation, lodging, etc.
5.3.2	Creation, confirmation and print of "Business trips" documents package including: • Request for business trip • Order on business trip (based on request), allowances calculation, depending on city and country on base of "Allowances calculation matrix" with use of tax restrictions • Trip certificate • Business task • Expense report Information exchange with authorized agency for agency fees on travelling and hotel costs control The data in all documents are stored and displayed according to the requirements of the federal law "About Personal Data"
5.3.3	Entering and printing of employee expense reports.

5	Account Receivables, Account Payable
5.3.4	Transactions creation depending on what reported cash amounts are used for.
5.3.5	Integration of material receipt and employee expense report.
5.3.6	Aging report shows a line item for each posted invoice. Aging reports with one line item per customer.
5.3.7	Binding of cash register orders with employee expense reports.
5.3.8	Revaluation of reporting person's liability.
5.3.9	Employee expense report by cost centers and departments.
5.4	**Cash operations records**
5.4.1	Cash operations (cash flow) in local currency (rubles) and in actual currency of individual operation.
5.4.2	Printing of cash receipts and cash vouchers.
5.4.3	Daily check registers (cash book)
5.4.4	System integration with cash register. Monolit Suite interface to cash register.
5.4.5	Distribution of cash voucher processing among different work places: accounting department, distribution, cash desk. Convenient document re-numeration to cash desk processing.
5.4.6	Support data exchange with HRM-system of payroll journals data. Information is stored in accordance with federal law on "Personal information"
5.4.7	Payroll journals closing with generation of cash vouchers and/or transferring of unpaid sums onto depositor.
5.5	**Settlements with contractors**
5.5.1	Independent entering of proforma invoices from suppliers with consequent pricing of receipt order and statement of completed works, as well as generation of proforma invoices from suppliers on the basis of entered receipt orders and statement of completed works.
5.5.2	Multiple search criteria, including vendor, invoice number, and dollar amount.
5.5.3	Flexible invoice processing (e.g. one check from multiple invoices or multiple checks from a single invoice).
5.5.4	Invoice and connected to invoice check posting in different periods.
5.5.5	Payments may be processed even when an invoice does not exist.
5.5.6	Reinstates an invoice or cancels a check (still payable by the system).
5.5.7	Recognizes credit notes or cost adjustments made by user.
5.5.8	Factoring settlements with vendors: • standard factoring, reverse factoring, reverse factoring with direct debit

5	Account Receivables, Account Payable
	• "Payment documents list" creation with different parameters depending on factoring type • bank documents generation in "finished" status.
5.5.9	Factoring settlements with customers: • Selection factoring as settlements type in customer contract • Customers invoices in factoring list inclusion; factoring list confirmation tracking • Factoring payment processing Factoring invoice payment block by return document; inclusion of return documents in special list "return list"
5.5.10	Debit and credit documents binding.
5.5.11	Documents binding for specific payment types with preliminary configured periodicity: • by document number; • by FIFO principle on organization level, • based on data from Finance accounting.
5.5.12	Transactions posting in the process of documents binding.
5.5.13	Distribution of invoice sum to different accounts within the same company or location.
5.5.14	Aging report shows a line item for each posted invoice. Aging reports with one line item per customer.
5.5.15	Settlements with suppliers both in local currency (rubles) and natural currency (currency of operation) or in conventional units.
5.5.16	Transactions calculation: • for currency exchange difference, • currency debt revaluation at the end of period, • for currency exchange difference in conventional units, • currency debt revaluation at the end of period in conventional units. (provide calculation of sum differences in fiscal accounting and currency exchange difference and revaluation in accounting)
5.5.17	Invoice for customer generation on the basis of waybills or statement of completed works.
5.5.18	Printing methods for necessary initial documents (waybills, invoices, shipment orders) configuration.
5.5.19	Credit department documents creation: • reminders, • claims, • etc. Track the history of these documents processing.
5.5.20	Consignment invoicing and tracking
5.5.21	Receivables can be sold to a third party and can be identified as non-qualified in user-defined fields
5.6	**Debt reconciliation process**
5.6.1	Different statements of reconciliation are possible:

5	Account Receivables, Account Payable
	• reconciliation of settlements, • reconciliation of returned tare, • reconciliation of leased equipment • etc.
5.6.2	Creation and cycling printing of statements of reconciliation by type of statement for group of organizations, payment types, etc. The date and status of the last statement of reconciliation is taken into account.
5.6.3	Tracks the status of statement of reconciliation.
5.7	**Alimony management**
5.7.1	Information import of alimony payment from HRM system and creation of payment documents.
5.8	**Purchase and Sales Ledgers, VAT accounting**
5.8.1	Purchase ledger and sales ledger on the basis of payment documents, invoices and completed operations of debit and credit documents binding.
5.8.2	Independent accounting of material (service) receipt and invoice posting. VAT accounting by the date of invoice.
5.8.3	Purchase ledger with consideration of VAT by advanced payments.
5.8.4	Sales ledger with consideration of VAT by received advanced payments.
5.8.5	Creation and printing of additional pages in Purchase Ledger.
5.8.6	Excise tax and VAT in-transit management when date of delivery does not match date of sale.
5.8.7	Invoice for advance payments at the end of period or dynamic invoice view for advance payments in ledger.
5.8.8	Adjusting and correction invoices registration. Full document package registration control
5.8.9	Vendors invoices registration in case of agency service provision. Inclusion of such invoices into purchase ledger and invoices list
5.8.10	Electronic documents interchange with vendors. E-docs storage in special archive
5.8.11	Delivery documents packaged print (waybill, invoice, quality certificate etc.) while processing shipment documents or statement of completed works. Authorization of signature on printed documents.
5.8.12	Printing of authorized person initials on primary documents: 1. list of persons authorized to sign primary documents; 2. definition of a person authorized to sign today's documents.
5.9	**Support IAS 21 requirements**
5.9.1	Exchange differences registration and tracking when payment is done in advance. Registered difference is allocated to asset value. The procedure comply with IAS 21 requirements.

5	Account Receivables, Account Payable
5.10	**Dividends**
5.10.1	Import of shareholder list.
5.10.2	Management of taxes for dividends, tax privileges.
5.10.3	Different schemas of dividend disbursement: • payment in cash desk; • transfer to bank with preliminary payment approval; • definition of quantity and sums of dividend disbursement during a year.
5.11	**Enterprise functionality**
5.11.1	Support for A/R and A/P accounting and reporting for different legal entities within the same holding or separate business units within a single database
5.11.2	Intercompany receivables are processed and accounted for
5.11.3	Control user access to data by branches or legal entities within a holding

6. Fixed Assets and Intangible Assets accounting

6	Fixed Assets and Intangible Assets accounting
6.1	**Master data**
6.1.1	By-Object accounting of FA and IA. Assets can be tracked by • asset numbers, • serial number, • object types. User-defined set of attributes for assets can be used to characterize assets features. Attributes formats are numeric, alphanumeric, date.
6.1.2	Four parallel FA value evaluation methods in accordance to organization accounting requirements: • in local currency for accounting; • in local currency for fiscal accounting; • in other possible functional currencies (for instance: for report in IFRS format).
6.1.3	Flexible rules for FA and IA value evaluation allowing to generate object value while inputting initial documents.
6.1.4	Track cost history by each FA and IA object – audit trail (acquisition, modernization, disposal). History contains reference to the date, document number, supplier ID, sum and comments.
6.2	**Key Functionality**
6.2.1	Provision of horizontal links between FA system and A/P or A/R. Captures asset data such as A/P reference, date of purchase, and cost. Invoices from suppliers are linked with FA objects.
6.2.2	VAT calculation and generation of accounting transactions in accordance with legislation.
6.2.3	Possibility of FA cost reassessment — generation of assessed value.
6.2.4	Accounting of costs and expenses of objects under construction and non-commissioned objects.
6.2.5	Online views of fixed assets and transaction records (cost, depreciation, location, lease) on definite date.
6.2.6	Tracks asset by locations. Internal movements of FA. Tracks both the book and depreciation balance at the date of its transfer.
6.2.7	Calculates the gain and loss of a disposed or sold asset for book and tax purposes. VAT adjustments calculation for sold or disposed assets with no zero depreciated cost.
6.2.8	Registration of profit while transferring disposed assets to receipt of scrap and spare parts.
6.2.9	Fixed asset service or maintenance cost registration per object.
6.2.10	Fixed assets preservation and re-entry functions

6	Fixed Assets and Intangible Assets accounting
6.2.11	Asset parallel movement on warehouse on receipt, transition, write-off
6.2.12	Transaction calculation and end-of-period updates to G/L.
6.2.13	Accounting of FA objects with value less than fixed amount in functional currency in line with the following requirements: • objects are not accounted in fiscal accounting ; • objects cost should be written-off in accounting at the month of object putting into operation (system provide standard document for his operation – 'Asset cost decrease' with transaction to expense account). Objects remain in accounting but with zero cost (off – balance sheet).
6.2.14	Grouping of intangible assets using analytical attribute, which can be used for reporting, transactions, depreciation calculation.
6.2.15	Prepaid costs accounting and their allocation on expense accounts. Algorithm of distribution is set up taking into account number of days in a month (prepaid cost is modeled as FA card in a system).
6.2.16	Capability to generate the order of document approval based on various attributes (for example, the order of reviewers when writing off FA objects, which have the residual value)
6.2.17	Capability of primary FA accounting forms digitization and signing the primary forms using both QES and simple ES
6.2.18	Providing various tools for calculating property tax and statistical reports
6.3	**Assets depreciation**
6.3.1	Unlimited number of standard and user –defined depreciation methods can be rules-based dependent on: • reference to object evaluation cost • configuration of algorithm for calculation start/end, including status of FA whether it is on operation • configuration of algorithm for calculation of depreciable cost • classifier of depreciation norms, taking into account depreciation method (straight-line, declining balance), coefficients to increase/decrease depreciation norm, liquidity cost, seasonality. User can convert to accelerated depreciation method or change depreciation method while having depreciation change history report.
6.3.2	Parallel calculation of book, tax and other types of amortization according to company's accounting rules, tax legislation and international standards.
6.3.3	Accountant can establish links between FA objects (FA cards) and necessary set of depreciation methods. Depreciation is calculated only for those objects which have defined depreciation method.
6.3.4	History of depreciation calculation by assets per each depreciation method. Online overview and analysis of accumulated depreciation on definite date.
6.3.5	Prorate allocation of FA object depreciation by different cost centers. Change history is stored.
6.3.6	Depreciation adjustments calculation when an asset is disposed or sold.
6.3.7	Depreciation bonus calculation for fiscal accounting.

6	Fixed Assets and Intangible Assets accounting
6.3.8	Depreciation for group of objects calculation where depreciation method is defined.
6.3.9	Manual adjustment of object depreciation for correction of accountant mistakes and audit remarks.
6.3.10	Tracks non-depreciating assets, such as expensed items or land.
6.4	**Leased assets managing**
6.4.1	Tracks leased assets (for instance, equipment) by: • companies (lessees) • location • serial numbers
6.4.2	Records and stores details on leased property with the reference to document nr and date.
6.4.3	Online overview of leased object status.
6.4.4	Generates reports on all leased assets, their details, and payments information.
6.5	**Assets reports**
6.5.1	Availability of analytical and transactions reports by FA objects (in Excel format), including FA tax reports in accordance with Goscomstat resolution No. 7, 21.01.03, report on calculation of deferred tax of assets and liabilities in accordance to PBU 18 resolution and other.
6.5.2	'Register of FA' report is available, which provide the list of object for physical counting in the form of INV-1.
6.6	**Assets budgeting**
6.6.1	Projects current year's depreciation.
6.6.2	Through integration with "Investment project management" module provides: • Capital budget maintenance; • Budget actual fulfillment by deliveries and payments; • Compares actual fulfillment to the capital budget and calculate variances; • Forecast adjustment based on actual data; • Generate depreciation projections; • Reporting to compare capital budget forecast and budget fulfillment and calculate variances.
6.7	**Enterprise functionality**
6.7.1	Support for asset transactions and reconciliations of holdings legal entities in single database.
6.7.2	Reports transfers between companies and companies' divisions in individual reports and consolidated reports.
6.7.3	Control user access to data by branches or legal entities within a holding.

7. Material Management

7	Material Management
7.1	**Key Functionality**
7.1.1	Registration of all material movements : • material receipt for PO, return delivery to supplier, internal movement, material write off to production, material write off to cost center, scrapping, waste, material write off for shipping etc.; • material batch management (used-defined set of batch attributes); • State change registration for particular analytical batch (for example Laboratory control passed) • Stock control by storage places, inventory movement registration by storage places • user-defined list of units of measure (UOM) which provide flexible UOM conversion capabilities.
7.1.2	Several methods of material receipt and invoice registration : • **Distributed schema**: material receipt is registered in warehouse, invoice is registered afterward by accountant, who allocates all costs per each line of material receipt. Invoice can be attached to several material receipts. • **Integrated schema:** Material receipt and invoice are created in warehouse. Invoice generation. Cost allocation is done in warehouse.
7.1.3	Multi currency capability — parallel cost estimation in rubles and other currency (historical and average currency rate) for all operations with inventory.
7.1.4	Multilevel complete set structure (complete set may contain other complete sets), which allow to realize different models of inventory movement as well as stock and costing accounting. Flexible system of shipment units (SU) is attached to complete sets structure as well as recalculation coefficients among them.
7.1.5	Quantitative inventory accounting in temporary storage locations, safekeeping warehouses or customs warehouses.
7.1.6	FIFO, LIFO, Standard, Average or Dynamic (accounting by actual cost of batch) inventory costing approaches. Inventory valuation, paid in advance, comply with IAS-21 and Russian Tax legislation
7.1.7	Direct raw material and auxiliary material assignment to particular batch of production.
7.1.8	Different inventory estimation approaches for the same material depending on legal entity or division of the company or department.
7.1.9	Cost relocation between batches for packing / repacking operations.
7.1.10	Manual adjustment to inventory values or inventory quantities. Batch cost revaluation.
7.1.11	Inventory receipt from production.
7.1.12	Inventory receipt purchased by cash.

7	Material Management
7.1.13	Inventory turnover accounting for accountable persons on off-balance sheet accounts. Transactions calculation at the moment of inventory issue from warehouse to accountable person. Quantitative and inventory cost balance is available per accountable person.
7.1.14	Off-balance sheet inventory movement registration for inventory processing or storage. Transactions may be calculated used off-balance sheet accounts.
7.1.15	Inventory return to supplier triggers inventory cost write-off based on current inventory cost estimation, creation of invoice to supplier with original purchase prices and deviation sum and transactions calculation.
7.1.16	Inventory internal movement documents. Manage intercompany inventory movements. 'In-transit' status of inventory.
7.1.17	Document for resorting operations
7.1.18	Materials selection restriction in documents (for example without laboratory control) by analytical batches depending on batch attributes and status
7.1.19	Standard set of analytical, accounting and tax reports (turnover register, warehouse status, list of documents). Reporting in Microsoft Excel data format.
7.2	**Warehouse check**
7.2.1	Reporting capability for : • inventory status (ordered or planned stock); • actual stock; • reserved stock.
7.2.2	Planned stock creation based on production plans, orders to suppliers and internal movements.
7.2.3	Blocking of sales order line for stock items which actual or planned stock is negative.
7.2.4	Mass document correction procedure for elimination of stock items in shipment documents in case of shortages or negative stocks.
7.3	**Inventory counting**
7.3.1	Physical inventory count result is registered using special document type allowing fast and convenient data inputting.
7.3.2	Inventory stock loss limits. Over-limit loss after physical inventory calculation
7.3.3	Generates transactions for discrepancy between physical stock and system calculated stock after physical stock count.
7.3.4	'Inventory list' report for physical stock count. Report form conforms to accounting regulations.

7	Material Management
7.4	**Inventory write-off to direct / indirect production expenses**
7.4.1	Management of issue operations: • Material issue to cost center (indirect expenses) • Material issue to production (direct expenses)
7.4.2	Material link to particular product or batch is performed using 'Material write off to production' document. Batch analytical accounting functionality must be activated.
7.4.3	Configuration of transaction patterns. Transaction calculation in material issue documents.
7.4.4	User- specified reason list for material write-off operations.
7.5	**Analytic batches Management**
7.5.1	Analytical batch options: • Material group, warehouses, documents types and time intervals description for batch accounting processing • Unlimited list of quality and other attributes for material group or particular material with use of classifier additional attributes functionality • Batch selection rules in material movement documents • Material quantity allocation to analytical batches in document lines on specified algorithm
7.5.2	Materials by places of storage accounting rules: • Storage places description (coding, storage terms, items prohibited for storage etc) for selected warehouse • Grouping of storage places by storage areas • Storage places table view. Graphical view provides warehouse layout description tools
7.5.3	Batch Quality control based on a sequence of quality characteristics for raw materials, semi-products and finished products. Batch quality certificate.

7.5.4	Incoming material batches control:
	• First control stage (visual examination, documents check) Batch can be processed to next stage or blocked
	• Second control stage — laboratory. Can be processed in Monolit Suite or with help of external software. In that case the following exchanges are provided:
	  ○ ERP informs laboratory system on material receipt
	  ○ ERP sends request to laboratory system for batch analysis
	  ○ ERP records analysis results and solution on bacth block or access
	• Access control to blocked batches

7	Material Management
7.5.5	Stock level control for analytical batches (including by places of storage).
7.5.6	Batch attachment and distribution for shipping documents based on analytical attributes. Manual adjustment of distributed values.
7.5.7	Termination of analytical batch for processing.
7.5.8	Generating reports showing the distribution of stocks by analytical batches in the warehouse and storage sites.
7.5.9	Support for USAIS requirements for the accounting of alcoholic beverages. Performing automatic exchanges with USAIS (UTM)
7.5.10	Support for finished products (goods) design accounting as a batch attribute. Design selection based on geographical distribution of sales
7.5.11	Separate accounting of product batches purchased back from the buyer
7.6	**Material purchase management on safekeeping scheme**

7.6.1	Common task principles:
	• Material accounting is processed on separate warehouse without write-off discipline
	• On safekeeping warehouse the batch accounting is processed, that solves the following tasks (in addition to standard ones):
	  ○ Stock level by bathes (vendor, contract, storage price)
	  ○ Material write off by batches . Material transferred directly to production from safekeeping warehouse
	• Ownership transfer is recorded by special system document — Receipt with buyout from vendor

7.6.2	System supports the following buyout types: • Once a day • Once a week • Once month All other types are recorded by document “secondary receipt”
7.6.3	Material buyout processing chain: • Buyout document creation • Vendor confirmation
7.6.4	Two order types can be used: • Order on delivery — controls the logistic part of the scheme • Order on buyout — financial part

8. Product Costing

8	Product Costing
8.1.	**Key Functionality**
8.1.1	Description of production process stages in the system with indication of allocation sequence of various types of costs over process stages (in accordance with company costing model).
8.1.2	Exact direct costs allocation of each process stages to products of given stage on the basis of BOM
8.1.3	Allocation bases creation for indirect costs on the basis of production volumes, weight of direct costs and other analytical information
8.1.4	Calculate allocation bases on basis of budget or forecast values
8.1.5	Multi-step allocation of indirect costs on the basis of various analytical information
8.1.8	Depreciation costs allocation rules change depending on percent of equipment capacity utilization (excess capacity)
8.1.7	Reports by cost components (cost structure) of semi-finished goods in each production stage.
8.1.8	Work-in-process (WIP) by cost components
8.1.9	Cost calculations in several currencies (in two, as minimum)
8.1.10	Parallel simultaneous cost calculation by various evaluation systems (according to accounting principles, according to managerial principles etc).
8.1.11	Cost calculation process sequence control. Cost calculation steps integration into period closing procedure
8.1.12	Generate transactions on base of calculated costs
8.1.13	Multi-hierarchical classifiers of cost objects and cost components. Ability to organize different parallel structures with help of additional hierarchies
8.1.14	Making description on base of object groups with further application of that descriptions to all elements of described groups
8.1.15	Main classifiers synchronization with external sources. Synchronization is described as one of cost calculation steps
8.1.16	Flexibly adjustable automatic calculation quality control services. Controls list and types are described by user. Controls can be installed in closing procedure and block the procedure in case of errors
8.2	**Cost calculation by production orders**
8.2.1	Describe production orders processing in the system. Input material writing off and production reports by orders
8.2.2	Allocate costs directly to product, produced by particular order, and directly to the whole order.
8.2.3	Allocation bases for indirect costs generation on the basis production volumes, connected to the particular order, orders

8	Product Costing
8.2.4	Multi-step allocation of indirect costs on the basis of various analytical information • to all produced products • to products, produced only for particular order (direct order costs) • to particular product, produced for all orders (direct product costs)
8.2.5	Calculate production cost by each order separately (different costing for one product in different orders)
8.2.6	Generate reports by cost components (cost structure) of semi-finished goods for each order.
8.2.7	Parallel simultaneous cost calculation by various evaluation systems (according to accounting principles, according to managerial principles etc) for each order
8.2.8	Ability to keep stock by products and orders • Analysis of warehouse stocks by products and orders (what quantity of particular product and particular order is available) • Analysis of warehouse movement by orders
8.3	**Enterprise functionality**
8.3.1	Describe in one data base production processes of different production units of one holding
8.3.2	Specific descriptions for each production unit
8.3.3	Ability to make cost calculations separately both for subsidiaries and different legal entities of one holding
8.3.4	Control user access to data by branches or legal entities within a holding
8.4	**Check List – period closing procedure monitoring**
8.4.1	Check List – number of extensible steps, that split the accounting closing procedure up to basic quants
8.4.2	Each step is connected with the particular system event that is executed during closing procedure
8.4.3	System collects and updates current steps status on user request
8.4.4	Monitoring interface demonstrates date and user name for each completed step
8.4.5	Target day for each step setting with actual day of execution deviation control

9. Sales Management

9	Sales Management
9.1.	**Master data for sales management**
9.1.1	Classifiers and links between elements of various classifiers: • ***"Company master"*** — complete information about business partners (code, name, TIN, ownership type, etc.). Linked with classifier "Addresses" (several delivery addresses, legal address, etc.) and "Persons" (sales representatives for company or delivery addresses, director of sales outlet, etc.) • ***"Addresses"*** — various addresses of company (legal, post, delivery, etc.). Contains attributes (the name, phone) and the address of the company (retail outlet) and is linked with "Company Master" and "Persons". Addresses are inserted with help of special setter tool, linked to Federal Information Address System (FIAS). Supports FIAS update. Supports addresses update. System stores changes list in case of Addresses list update. ○ Delivery addresses (retail outlets) additionally contain the information on licenses for sales of alcoholic drinks • ***"Persons"*** — information about in-house and external persons (drivers, sales managers, etc.). Is linked with "Company Master" and "Addresses" • ***"Contacts"*** — information about business partner contact persons.
9.1.2	Hierarchical structure of classifiers enables reports generation for various department needs in different business aspects (by cities, channels, types of companies, etc.) and supports other adjustments.
9.1.3	Agreements with customers contains set of framework conditions for sales process support: • agreement validity period; • specific customer's prices and discounts (with support of history and logging of information modifications); • customer's billing terms (in calendar and banking days), selection of one of several simultaneously active billing terms depending on analytical attributes of the document, support for history and information modifications (log) • customer's credit limit: support for several credit lines with different terms, sums and validity terms for credit pledges, support of history and credit data modification logs • tare operations terms: type of tare — returnable or not, returnable tare credit terms, permitted terms for over-returns • additional attributes of shipment documents (type of payment, method of delivery); • agreement contact persons
9.1.4	Finished goods and material master allows description of complete sets of any level of enclosure. Each complete set component is itself a separate element of the classifier, with own set of attributes (weight, shipment unit, etc.). Support for warehouse accounting of complete sets and their components. Support for accounting of complex complete sets — "multipacks" type.

9	Sales Management
9.2	**Management of credit limits**
	Credit limit sum calculation
9.2.1	Interface for credit types description: algorithms and calculation parameters, action periods. All formulas and parameters descriptions are historical. The parameters include various classification, attributes and coefficients for credits security provision and control. Support accounts receivables, payment delay control, sales plan fulfillment , trade channel, distributors sales price type and other parameters and restrictions.
9.2.2	Credit calculation is based on special document "Credit assignment". Lines of that document can be created for company group, credit type group etc. Credit limit value is calculated on begin and end date
9.2.3	Daily credits are calculated and recorded to contracts on base of another document – "Operative credit assignment". Calculation is based on company fulfillment of daily and month plan
9.2.4	Credit limit calculation. System stores all parameters, used in calculation
9.2.5	System supports print of various documents, sequence of credit confirmation etc
9.2.6	Approval chain for calculated credit limits. Credit limit record is entered in customer's agreement after last approval.
9.2.7	Supports sequential credit decrease on base of new terms, recorded in contract
9.3	**Modeling of sales business processes**

9.3.1	Modeling of various business functions of a sales cycle is supported by document model. Document is described by a sequence of discrete conditions — "statuses". Set of installed statuses and underlined operations in the system defines document process chain — business function.
	• Adjusted types of documents define a set of properties and attributes for modeling of specific subject tasks (shipment of goods, stock goods transition, debts creation, cash acceptance, etc.);
	• Document statuses define
	  ○ set of operations which should be executed in system under its activation in the document (for example to reserve the goods in a warehouse, to calculate the prices, etc.);
	  ○ document processing stage — as finished or not finished (for example, "document Items are entered", "Shipment is allowed", "is shipped", etc.)
	  ○ dependence between statuses- to guarantee consistency of document circulation model (for example — it is not allowed to put the status "is shipped" in a warehouse if the status "Shipment is allowed" has not been put is the document.
	• Document processing chain defines:
	  ○ Documents- (system object) for processing
	  ○ Processing logics (for example- status sequence, user interfaces, etc.)
	  ○ List and order print for various predefined reports

9	Sales Management
9.3.2	Support for adjustment of scheme of locking and locking overcoming for different user groups. • Operative balance — an integrated indicator, for the shipment possibility check • Check on document attribute conformity to reference value at the certain status of the document, (for example, for the centralized delivery it is necessary to indicate the vehicle) • Unified checks (for example- access is not allowed for specified user group to specific period)
9.3.3	Customer orders input: • with inventory allocation from planned stock (available — to- promise production) • with allocation from actual stock (FG at warehouse) or without allocation • with execution of the various checks defined by the scheme of a credit check (overdue invoices, overdraft credit, etc.); • with the subsequent creation (on request) of one or several waybills on shipment • in the required currency (the local currency, invoice currency or other), with sums recalculation to the domestic currency for the purpose of correct accounting support. • with automatic selection of product batches based on the remaining shelf life, manufacturer and other parameters, recorded individually with different customers and distribution centers
9.3.4	Additional order lines generation, which depends on document's attributes (for instance — transportation services, loading services, etc.)
9.3.5	Ergonomic interface for entering documents related to order and invoice issuing with purpose of maximum processing speed: • quick search of classifier positions for which operator does not know the code; • check of FG stock at warehouse at the moment of input of document line; • possibility of inclusion of FG "per line allocation" at the moment of each line input
9.3.6	Allow delivery addresses input without selection from classifier (for instance, for "customer pick-up") and configuring of methods (selection from classifier, manual input) and obligation of filling such fields of shipment document as "driver", "vehicle", "vehicle operator" (in case of FG delivery with external transport).
9.3.7	Distinguishing in the system of concepts "goods shipped from warehouse" and "goods delivered to client" for centralized delivery or delivery by railroads. Accounting of FG in transit.
9.3.8	Allow released shipment document use as the document for re-usable tare return (primary document crediting)
9.3.9	Supports credit-claim department functions. Remind, claims letters, etc.
9.3.10	The special interface for deficit SKU distribution among customers. • Provide information on deficit SKU for the certain period of time in breakdown on days and customers, supports order lines correction and spare SKU allocation. • FG is allocated at warehouse after correction approval and costs recalculation in orders and invoices is carried out.

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9.3.11	Claims processing systems supports: • "Claim on actual delivery" process. Process documents on base of warehouse receipt, drawn up by customer and transport company with option to describe oversupply or incomplete delivery or not appropriate quality. Overlimited breakage transfers to transport company • "Claim after delivery" documents by reclamation specialist and is processed by several stages of confirmation chain. On first stage confirmation depends on claim category and claim value. Stage result – retro bonus calculation. On second stage the responsible direction is defined, reason of low quality is defined, cost center for expenses write off is defined • Further claims processing by distributors is done on WEB portal • For each claim type primary document print is supported • Claims analysis can be done with help of various reports
9.3.12	Special document "Distributor report on Materials usage" provides group processing of documents on POSM and advertising materials assignment to distributor: • Information on actual materials usage • Shipment confirmation • Sales document creation
9.4	**Pricing**
9.4.1	Support different price tables configuration, price selection rules (for instance): • by delivery region; • by type, method of delivery and payment terms; • by customer category or sales channel; • by size of shipment batch of specific goods; • by size of all shipment batch in current document.
9.4.2	Support different discounts and extra charges tables configuration, selection rules (for instance) • by delivery region; • by type, method of delivery and payment terms; • by customer category or sales channel; • by size of shipment batch of specific goods; • by size of all shipment batch in current document. • by distance to delivery address
9.4.3	Sales prices management includes elements, that are required for support variety of basic prices (price tables) , derived (calculated and recommended) and individual (contract) prices: • Interface for basic and derived price types and discounts. Derived price is the function of basic price, for each several formulas are linked with different action period and parameters. Formula is processed according to confirmed pattern, can include arithmetical actions, coefficient etc. Each formula usage is regulated by different parameters and attributes, such as Companies, Addresses, SKU, Units of measurement • Prices storage object – sales price table, discounts table, contracts

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	• For price modeling the "Price and discount order" document is used:
	  ○ Basic price change – in case of basic price change and derived prices recalculation
	  ○ Price recalculation – in case of new derived prices or formulas appearance
	  ○ Individual (contract) price usage (with restriction on companies and addresses)
	  ○ Individual prices recalculation on base of basic prices with use of formulas (with restriction on companies and addresses)
	  ○ Action (contract) price usage on base of special document "Action" and recommended for Action period values (with restriction on companies and addresses)
	  ○ Discounts usage – is used for discount definition for SKU without restriction on companies and addresses
	  ○ Individual discounts usage with definition of particular discount for SKU (with restriction on companies and addresses)
	• For each type of "Price and discount order" document the print function is available, sequence of confirmation is defined, registration in system tables with action period is provided

9.4.4	Data history support for prices and discounts tables.
9.4.5	Final price in documents calculation on the basis of pricing adjustment rules (configuration matrix): • table prices; • discounts or extra charges; • contract prices; • priorities and sequence of prices and discounts selection.
9.4.6	Support collection of analytical information on price difference from ECOD (EDI system) and price in sales order for retail clients. Price difference control. Price difference analysis with help of special reports
9.5	**Rebate processing**
9.5.1	Customers rebate calculation for the following period depending on a number of conditions: • sales volumes for the previous period; • fulfillment of the approved sales plan for the previous period; • payment settlements conditions with the customer; • fulfillment by the customer of other various formal conditions
9.5.2	The chain of the approval of the calculated rebate sum allows to consistently execute: • carrying over of unpaid rebate sum from last period; • calculation / input of the rebate sum for the current period; • definition of a valid start date of a rebate payment; • the rebate approval — after that the rebate starts to be paid.

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9.5.3	Granting of the calculated rebate sum by one of the algorithms: • in the form of the discount to goods price — with check of already paid rebate sum; • in the form of the credit-note; • in the form of discount in the separate line in a sales order.
9.6	**Check terms for products ordering and shipment**
9.6.1	Customer's operative balance check at the moment of order / shipment bill issuing by the following components: • current credit limit; • unpaid invoices (accounts receivable); • past-due accounts receivable; • outstanding invoices (ordered but not shipped orders); • free advanced payments of customer (account payable); • copies of payment documents of customer (not past-due); • debt on empties.
9.6.2	Settlements and credit limits checks for affiliated organizations.
9.6.3	Taking into account copies of customer's payment documents; determination of payment documents copies "time validity".
9.6.4	Blocking of order or shipment bill issuing in case of non-fulfillment of condition by sum of operative balance, as well as by past-due accounts receivable.
9.6.5	Adjustment of user groups that has a right for authorized overcoming of blocking of document issuing.
9.6.6	Adjusting of various algorithms for customer's balance check for various customers groups.
9.6.7	Aggregate credit limits checks of various sales subdivisions / branches during customer's agreements drawing
9.6.8	Customer's balance review at any moment, for detailed analysis of its components up to each document. Analysis of tare accounts receivable by occurrence terms.
9.6.9	Credit department workflow functions. Creation of special documents (reminder, claims to customer, etc.) with blocking possibility of orders and shipments issuing.
9.7	**Empties management**
9.7.1	Special mechanisms of accounting in quantitative and money term, tare accounting both at the enterprise, and on the customers balance.
9.7.2	Manage Empties as a separate object with attributes "re-usable (returnable) tare", "the operative (registration) price", "the sales price".
9.7.3	Several parallel prices (the balance price, the operative (registration) price, the sales prices) for different operations with empties.

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9.7.4	Revaluation of the customer's debt related to empties according to approved accounting, tax and management accounting methodology.
9.7.5	Accounting of customer debts for each type of empties (including delay terms), support tare debts revaluation at excess of the terms established by the agreement with the customer, or in case of change of the pledge price, and also support for tare receipt process on the enterprise.
9.7.6	Check of the customer complete balance including empties debt.
9.7.7	Empties on customer balance are sold if they cannot be returned in time.
9.7.8	Empties turnover control.
9.7.9	Prevention of unapproved over-return and attempts of customer's frauds at the moments of changing empties' prices.
9.7.10	Allow check of the overdue accounts receivable on pledge tare.
9.7.11	Usage for pledge tare standard write off disciplines (Average, FIFO, LIFO).
9.8	**Accounts receivable management**
9.8.1	Support of various schemes of settlements with account within single agreement. Support customer payment days (for example Monday or Thursday) and deferred period of payment.
9.8.2	Credit limits on goods in transit.
9.8.3	Credit limit recalculation
9.8.4	Payment date change with help of special document "Payment date change order". That function provides payment date change on list of selected documents by one or several customers.
9.9	**"Missed sales" processing**
9.9.1	Fixing in documents of the ordered quantity and assortment. Preservation of this information at any subsequent correction of documents. Calculation of actual quantity of goods in transit on base of ordered quantity and list of restrictions. Support of "Shipment prohibit and volume limitation" matrix. In case of difference between actual and ordered quantity the following reasons can be determined: • actual stock; • shipment restriction; • shipment prohibit; • credit limits excess; • Repeated order; • Transport capacity excess. Missed sales analysis processed with help of special reports.
9.9.2	Analysis of distinctions between ordered and shipped quantity.

9	Sales Management
9.10	**Leased equipment**
9.10.1	Integration of the inventory and nomenclature accounting of the equipment.
9.10.2	Accounting of the equipment at customers (up to installation addresses) both on its types, and specific inventory object, support of rent calculation, of service planning and accounting of such equipment.
9.10.3	Equipment service planning and accounting.
9.10.4	Integration with CRM system: • transfer of the information on equipment presence in retail outlets according to accounting data to CRM system; • carrying out of "operative inventory" • specification of serial numbers of the equipment
9.11	**Creation of proforma invoices**
9.11.1	Customers invoices creation based on one of following algorithms: • creation one invoice on one shipment bill; • creation multiple shipment bills on one invoice • invoice creation on one shipment bill and goods returns on the same shipment bill • creation standard / correction / invoice on base of return from customer, customer claim or goods cost correction.
9.11.2	Support e-docs interchange; electronic signature; storage of all invoices and necessary primary documents and signatures in electronic format.
9.12	**Stock control**
9.12.1	Operative accounting of warehouse FG inventory by various aspects: • ordered (planned) stock • actual stock • reserve for drawn documents
9.12.2	Planned stocks creation on the basis of the production plan, orders to suppliers and shipped from releasing department of goods internal transit.
9.12.3	Blocking of goods issuing (ordering) depending on lack of actual or planned FG inventory at warehouse.
9.12.4	Documents correction at shortage of goods for shipment fulfillment.
9.12.5	Support of warehouse inventory. Calculation of losses above permitted standard.
9.12.6	Integration and data exchange with WMS.

9	Sales Management
9.13	**Excise**
9.13.1	Support for accounting of excise rates on alcoholic goods and beer
9.13.2	Excise calculation in documents and its printing in primary documents
9.13.3	Excise charge upon shipment from a warehouse and accounting of charged but unrealized excise sums on separate account
9.13.4	Charged excise internal transactions posting
9.13.5	Reporting creation for excise (tax registers).
9.13.6	Support of work with excise warehouses (i.e. goods with charged excise).
9.13.7	Preparation of documents lists for calculation of tax preferential (VAT, excise) on products sold outside Russia.
9.14	**Accounting of alcoholic goods**
9.14.1	Accounting of licenses on sales of alcoholic goods
9.14.2	Generation of standard reports on alcoholic products. The following procedures are provided for transferring data to the TTS "Taxes": • Declaration of the scope of ethyl alcohol, alcoholic and alcohol-containing products supply (form 6), including report available to the distributor over Web for checking the turnover of alcoholic products • Declaration on the scope of production and turnover of alcohol and alcohol-containing products, products data (form 3) • Declaration of the scope of ethyl alcohol, alcoholic and alcohol-containing products transportation (form 8) At the same time, delivery addresses can be transmitted with breakdown by fixed declaration fields (FIAS)
9.14.3	Preparation and print of special alcoholic certificate, including certificates on shipments of product from another production site: • on transition to another site all copies of certificates from another sites are attached • on each leaf of certificate the bar-code is printed • all certificates are scanned and are stored as one multi-leaf e-doc.
9.14.4	Data exchange with EGAIS system: • extract procedure for alcoholic products movement in XML format for further upload into EGAIS system • confirmation from EGAIS upload into ERP.
9.15	**Export operation accounting**
9.15.1	Accounting of creation dates of Cargo Customs Declaration (CCD)
9.15.2	Printing of special primary documents (invoices)
9.15.3	Support of specific calculation terms on empties
9.15.4	Accounts receivable control in the invoice currency and in the local currency
9.15.5	Separate accounting of goods, produced for export

9	Sales Management
9.16	**Special interactions with customers support**
9.16.1	Factoring with customers support: • determination factoring as a settlement type in contract • including customer invoices in factor list; track of that list confirmation by factor • payments processing, made by factor • payment block of invoices included into factor list by return document; including such return documents into special list – "returns list"
9.16.2	Support of consignment sales: • Customers consignment warehouses support • Accounting of goods, located on consignment warehouses on own balance • "Consignment reports" preparation
9.16.3	3PL sales support: • 3PL warehouses support • Accounting of goods, located on 3PL warehouses on own balance • Interaction with 3PL operators WMS systems
9.16.4	Support for interaction with 3PL-operators based on the responsible storage (RS) scheme • Order processing begins with the custodian warehouse and is "reoriented" to the 3PL warehouse in the process of product batches selection and reserving • Automatic withdrawal from and placement for storage for each shipment or return Support for operations with alcoholic products (USAIS) - parallel accounting of batches on both own and custodian balance
9.17	**Transactions & Reporting**
9.17.1	Adjusting of rules for accounting transactions creation and support of sales cycle operations with accounting transactions.
9.17.2	Set of operative, analytical and statistical reports: • shipment reports (sales, returns, etc) based on aspects as documents, customers, supply addresses, products, managers etc. • reports, related to discounts analysis, reports on analysis of deviations of actual sales prices from basic table prices • reports on settlements with customers (customer master data, reconciliation reports, reports on indebtedness terms, debit sheets and special reports for accounts receivable analysis); • warehouse reports: balance lists, goods cards, reports for analysis of goods in transit; • reports on customers leased equipment and its transition; • special accounting reports: sales ledger, etc.

10. CRM — mobile sales & service & interaction with distributors

10	CRM — mobile sales & service & interaction with distributors
	General Scope: A mobile sales force automation (SFA) solution that lets you set up and manage your in-field selling processes (pre-selling, van-selling) and merchandizing activities, as well as set up interaction with all companies involved into the process (distributors, retail chains, retail equipment servicing centers, etc.).
10.1	**Key Functionality**
10.1.1	Maintain a master files and hold various additional information about your customers and sales outlets: • General outlet details • Outlet categories • Outlet open/close hours • Contact persons and their details, etc. Available set of additional attributes can be expended and customized according to Customer requirements
10.1.2	Maintain various monitoring surveys an in-field employee completes during outlet visits, depending on • field employee role (salesperson, merchandiser etc.) • territory (belonging to a specific region) • distribution points type • type of visit to be performed (standard visit, census, audit, etc.) Flexibly customize information requested in a survey. Process gathered information and display it separately in a special form. Assign different types of tasks to be completed during an outlet visit and configure their insistence Generation of the monitoring planned values, setting the mandatory filling of the value and photos for monitoring
10.1.3	Plan activities and manage tasks for a field employee (visits, phone calls, jobs etc): • Visits per specific planning period • Visits by weeks • Detailed visits by weekdays • Ordered visit lists within each single weekday Outlet visit schedules generation based on plans
10.1.4	A field employee enters reports on tasks completed to be reviewed by the supervisor. Adjust defined sales journeys (reassign tasks to other staff and/or other dates, cancel planned tasks and add new ones, indicating a reason where necessary)
10.1.5	Control all business processes supported by the system in real time and analyze accumulated information through a set of reports covering all system functionalities Basic groups of reports: • Reports on tasks planned for the sales force

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	• Daily reports on sales force activities — actual visits to outlets, tasks completed, monitoring results • Weekly reports providing statistics by sales force teams and by regions • Price monitoring reports • Competitor activity analysis reports • Salesperson or sales team performance per time period and/or compared to other periods • Retail equipment placement reports • Retail equipment repair requests • Reports on orders, indirect sales reports, and warehouse stock reports
10.1.6	A mobile salesperson accesses the system through mobile device (PDA), optionally with a connected pocket-size printer to print primary documents or mobile cash register
10.2	**Salesperson Workstation (PDA-Based)**
10.2.1	Provide an in-field employee with immediate access to the following information: • Journey route—list of visits scheduled for the current date, indicating tasks and surveys • Orders—list of orders collected in outlets, new order entry • Detailed information about outlets handled by a salesperson • Current balance between an outlet and company/ distributor • Current stock levels in Company warehouses • Current prices for Company products for a selected customer • Availability of rented retail equipment in an outlet • Retail equipment maintenance (installation, repair, relocation) requests • Bar coding of retail equipment • Previous deliveries and order status for a selected customer • List and values of KPI assigned to in-field employee for current period and KPI level of completeness
10.2.2	Collect pre-sales orders (pre-selling) and record deliveries (van selling) Various order collection and delivery scenarios available: • Collect pre-sales orders on behalf of Company (pre-selling—direct deliveries) • Collect pre-sales orders on behalf of a distributor who works with this outlet or chain (pre-selling—indirect sales). After the PDA is synchronized and the order is submitted to a central CRM database, it is transmitted to the distributor who will make the delivery • Make deliveries from a salesperson van and print of cash receipt or a delivery note and invoice straight from the van (van selling) PDA order entry: • Fast search for required items • Provision of discounts and promotion campaigns when campaign conditions are observed by the distribution point • Use of templates (filters) for quick order entry • Complete a template using quick selections from a hierarchical classifier • Calculate suggested order/delivery quantities based on previous orders and remaining product inventory in the outlet as captured during earlier visits

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	• Calculate order amount based on individual price lists for specific outlets • Get remaining inventory in Company and distributors' warehouses • Track remaining stock on van • Print accompanying documents (cash receipts, delivery notes, invoices using a portable printer – for van selling) • Track order completion by Company or by a distributor based on order status data and actual delivery data

10.2.3	During outlet visits, an in-field employee can enter the following information:
	• Information requested in the survey, such as
	  ○ Stock levels in the outlet
	  ○ marketing information (product exposure, promos, pricing etc.)
	  ○ competitors products information (product exposure, promos, pricing etc.)
	  ○ if rented equipment is present
	• Any changes in outlet details (name, contact persons, attributes, etc.)
	• Marks of special tasks completed in a distribution point, set by supervisor or auditors;
	• Information about company equipment, installed in a distribution point

10.2.4	Setting the start form and the main menu of the mobile application for quick access to the main functions. Capability to quickly access the functions of other applications (for example, the feedback function in the Knowledge Base application)
10.2.5	Several data synchronization modes are available between a in-field employee handheld and the central CRM database
10.2.6	On-line order transfer is designed for online sending an order from a mobile device to the CRM system. The mobile application has the following features: • after completing the order entry, the application offers to immediately send it, and in the absence of an Internet connection, the order will be placed in the automatic sending queue. • automatic sending to the system of orders placed in the send queue, in the background, at a specified time interval. • online order transfer does not require a standard synchronization session, which reduces the total number of mobile device synchronization sessions and reduces data transfer costs
10.2.7	Capability to select a price list when working with orders on a mobile device. Price list sets are downloaded from the corporate information system of a company or a distributor and can be assigned to individual distribution points or groups of distribution points. If this functionality is enabled in the main attributes of the order on the mobile device, it is possible to choose the price list from the list of the allowed price lists for this distribution point. When changing the price list in the order, all the lines of the order are automatically recalculated according to the new price list. Specialized integration modules with distributors for the 1C system allow to automatically transfer all the available price lists from the corporate information system of the distributor to the CRM system and assign them to distribution points in accordance with the pricing policy.

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10.2.8	Current field personnel location control during visits. Information source – GPS modules in PDA for current location collection and maps for presentation of planned route in CRM workplaces Field personnel work with this module in two modes: 1. Entry and adjustment of actual distribution point coordinates 2. Planned visits control In first mode field employee saves received with help of PDA GPS module outlet coordinates. Then system verifies information and that coordinates are saved in data base as master coordinates. In the second mode system locates PDA during the visit and transfer them to data base for comparison with the master ones
10.2.9	Visit duration accounting and automatic recording of visit times
10.2.10	Collection of field employee route GPS tracking during daily targets completion. Source of information PDA GPS module. Coordinates collection is done periodically, information transfers by packages in background mode. CRM system statistically process received information for GPS module errors reduction.
10.2.11	Encrypting GPS data on mobile devices is designed to prevent unauthorized changes in route tracking and the actual location recorded at the time of the visit by a mobile employee. Key generation for data encryption is performed using the built-in cryptographic tools of the mobile device operating system.
10.2.12	The route mapping module is designed to control the daily route on a mobile device and has the following functions: • Display and search for distribution points on the map, include and exclude points from the route; • Build on optimal route of travel between the distribution points that need to be visited during the day using Google services; • Determine the necessary parameters for the route builder (end point of the route, possibility of changing the order of visits, restrictions by the road types, etc.); • Display additional information in the list of visits that the mobile employee needs to work effectively: ○ the number of unfulfilled visits in the route; ○ the presence of special tasks in the distribution point; ○ distance to the distribution point; ○ GPS coordinates recording sign during the visit
10.2.13	The PDA is capable of sending any type of file from trade agents' mobile devices to CRM data base. The particular file from PDA puts in queue for further transfer to CRM. Information transfers in background. • Mobile client provides tools for queue management. Each file current queue status is available, queue place can be changed, file can be repeated in case of connection errors • In desktop workplaces functions of files preview and saving available

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10.3 Online reporting module (PDA-based)

10.3.1 The module is designed to build online reports on the PDA.
The module provides flexible configuration of reports and algorithms for displaying data.

The PDA-based module functionality:

- Online reporting on the areas assigned to the user
- Access to the latest information from the user mobile device
- Capability to generate reports both by distribution points and grouped by territory
- Tracking KPI progress
- Manager's access to his team employees' reports
- Individual display data customization for each user.

10.4 Supervisor workplace (PDA-based)

10.4.1 PDA-based supervisor workplace includes the following functionality:

- Online operations with active customer base
- Receiving the latest information on the distribution points
- Viewing the current prices for the selected client for the Company's products;
- Viewing contract terms for the distribution point
- Operations with leased equipment at the distribution point;
- Creation the requests for maintenance (installation, repair, relocation) of trading equipment
- Bar coding of the trading equipment
- Capability to generate a route based on the routes of subordinate employees or an arbitrary set of points from the territories of all the subordinate employees;
- Capability to view routes and visits of subordinate sales representatives, including questionnaires and comments.
- Capability to create tasks for sales representatives in distribution points, as well as monitoring of their completion;
- Carrying out field training for a sales representative and recording the results of training;
- Auditing the activities of sales representatives - generation of joint routes and filling in special audit questionnaires, using which the quality of the sales representatives work and the accuracy of the information collected by them are subsequently assessed.
- Obtaining prompt access to information received from subordinates (sales representatives) using mobile or stationary workstations;
- Viewing the information on training, audits and achievements of the subordinates.

10.5 Warehouse audit

10.5.1 The warehouse audit module allows to maximally automate warehouse audit management processes and eliminate identified inconsistencies, to achieve accuracy and efficiency in performing tasks in the warehouse audit business process.

It is designed to solve the following tasks:

- identifying and promptly eliminating errors in the warehouse and logistics departments operation;
- control of products storage conditions in accordance with the terms of distribution agreements.

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The module consists of two main units of the workstation and the application.

The workstation contains summary information on unplanned, planned and completed audits. It also allows to plan an audit and distribute audits by months, view all the audit data and send comments on the visits performed.

Monolith-Audit mobile application has the following features:

- Adding new visits.

  In a visit, an employee may:

  - View the information about the visit (data on the warehouse, basic information, list of premises).
  - Fill out the checklist (customizable set of questionnaires).
  - Fill out the warehouse calculator (indicators entry questionnaire).
  - Conduct an inventory (form of data comparison in the system and the actual data from the warehouse with the possibility of entering the actual balances).
- Common calendar with a history of visits with marks that determine the route status.
- Map with warehouse markers with the capability to filter by territory and to select a warehouse with certain characteristics. The type of marker on the map determines the result of the last visit, the need for a new visit and belonging to the current route.
- Online warehouse data updates:
  - updates on the warehouse (change in the number of premises, product balances, presence and removal of nonconformities);
  - last audit results
- Expandable list of audit types. For each type a set of questionnaires is determined.
- The form for filling the address is in accordance to FIAS standard. (It is executed manually by filling out the fields with the address or automatically. The second method allows to automatically determine the current warehouse location and address.)
- Creating and viewing the tasks.

Any employee of the company can perform an audit through the application, since it has a convenient intuitive interface.

10.6 Application for driver

10.6.1

The main function of the application is to improve the quality of product delivery and reduce costs for both own and involved vehicles.

Solution characteristics:

- Integration with the third-party systems
- Route rebuild function
- Option to switch to navigation mode
- Sending SMS to drivers
- Notes on arrival at destination
- Display of estimated arrival time
- Analysis of the order fulfillment quality

The mobile application automatically retrieves the route; it is integrated with the ServiceDesk system, which allows the relevant services to respond quickly to the driver's problems; it displays the time of route completion; it informs the driver about the movement in the loading area.

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10.7	**Knowledge base**
10.7.1	The module contains two main functional sections: • Knowledge base. A workstation that allows users to create all the necessary materials, create a base of training materials (catalogs, articles, glossary and courses). • Personnel training and testing. Runs in the mobile application. Employees access the training materials and can take courses to gain knowledge assessment. The application also provides the feedback (chat) service with the possibility to attach files.
10.8	**Additional Features and Services**
10.8.1	Secure access to application and to PDA settings. Password to PDA settings can be set up for all users centralized or can be set up for particular user. Password to application is defined by each user. For first entry password, generated by CRM system is used
10.8.2	Messaging sales force PDAs to notify salespersons in real time about an activity (meetings, trainings etc.), clarify tasks or communicate changes in work assignments. The system will limits the list of recipients to your area, and provide receipt confirmations. Each message can consist additionally attached file (in Word of Excel format) that will be downloaded to PDA and shown to user
10.8.3	Gather information on equipment used by in-field sales force (phone/PDA models and serial numbers). The system will link employees to their PDA serial numbers; any synchronization attempt from a PDA with a different serial will be blocked
10.9	**Web applications**

10.9.1	The E-Commerce Web application is a tool for independent order placing by the distribution points. This application is compatible with all the mobile devices (iOS, Android, Windows) and adapted to different screen sizes.
	Application functions:
	• Order placement:
	  ○ Convenience and ease of order placement;
	  ○ Graphic display of reserves data;
	  ○ Display of the minimum order quantity;
	  ○ Payment method selection
	  ○ Entering the return requests;
	• Surveying and receiving feedback
	• Viewing additional features
	• Display of actual information on leased equipment and planograms;
	• Requests for equipment installation and repair;
	• Checking discounts by distribution points;
	• Display of sales plans and the actual fulfilment;
	• Option to call the responsible sales representative;

10.9.2	Telesale web application has the following functionality: • Registration of incoming calls; • Generating a outgoing calls plan; • Viewing an outgoing calls scheduling calendar; • Creating orders;

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	• Sending orders to CRM; • Viewing the status and details of the created orders; • Viewing contact information of the distribution point; • Viewing warehouse stock information

10.9.3	Web application for working with distribution points (Outlets) includes the following functions:
	• Convenient search and filtering
	• Working with distribution points on the map
	  ○ Viewing the information on distribution point
	  ○ Editing distribution point parameters (name, shop sign)
	  ○ Filling in additional attributes
	  ○ Operations with leased equipment
	  ○ Retrieving the information about the price lists available for the distribution point
	• Function of the new distribution points creation. Consists of an intuitive wizard. When creating a new point, an employee fills in all the necessary attributes of the created outlet step by step, the point address is filled in according to the FIAS standard
	• Creation of distribution point closing requests
	• Working with a list of requests for distribution point creation and deactivation (adjustment, confirmation or rejection of requests)
	• Sales service positions structure management
	• Appointment of employees to positions

10.10	**Support customer loyalty programs**
10.10.1	Customer loyalty programs manage collection and presentation of information about incentives received by customers during activities aimed at existing customer retention and/or new account development: • Flexibly configure loyalty program terms • Establish and track goals for outlet loyalty program completion and bonus • Determine if a customer (an outlet) meets program conditions based on survey data entered by a salesperson • For each salesperson, create tasks to achieve a specified number of loyal customers, and track task completion
10.11	**Key Performance Indicators**
10.11.1	Establish key performance indicators (KPIs) for a sales cycle and track sales force progress toward targets: • Create separate targets for different employee roles, areas or up to each specific salesperson • Define targets using a library of algorithms: use extensive set of built-in algorithms and/or add new algorithms • Make targets parametric, control and limit parameter values entered by regional analysts • Calculate target indicators daily and display calculation results on a PDA (salespersons have the ability to see their everyday completion of targets) • Use indicator calculation results when calculating bonus amounts for the sales force

10	CRM — mobile sales & service & interaction with distributors
	The basic set includes more than 10 different algorithms to calculate indicators, including: • Sales volume by different dimensions (total, by brands, by sorts, by SKU) • SKU distribution (%) – ratio of outlets with presence of particular product to total number of outlets • Number of outlets marked as a specified monitoring type • Number of active outlets—number of outlets in the area having at lease one order • Average order amount per visit • SKU distribution (%)—percentage of outlets carrying a specified product out of the total number of outlets visited • Average number of target SKUs • Average OOS—ratio of SKUs temporarily out of stock to the number of visits made
10.11.2	KPI automatic calculation. Module is intended for KPIs calculation for the employees using settings, made in online reports. The functionality allows the administrators to flexibly configure the formulas and dependencies for KPIs calculation. Thanks to a single set of basic indicators used for calculating KPIs and for generating online reports, company employees can quickly track the fulfillment of goals by building online reports and analyze the values of all the components which form the basis for their KPIs calculation.
10.12	**Rented Retail Equipment Recording & Maintenance**
10.12.1	Use Retail Equipment Recording & Maintenance module to document presence and state of rented equipment in a sales outlet, and to plan equipment maintenance Support the following activities: • Take physical inventory of Company-owned retail equipment located in outlets and distributor warehouses • Development of equipment bar-codes data base by scanning bar-codes with PDA in terms of sales person visit, • Continuously monitor equipment presence and verify inventory and serial numbers • Manage equipment placement and movements • Get distributor's information on planned and actual equipment placement addresses • Control adherence to agreed equipment placement rules throughout outlets
10.13	**Rented Retail Equipment Repair Management**
10.13.1	Use this module to gather and submit to equipment servicing centers requests for rented equipment repairs, track request completion, track warranty repairs and generate acceptance reports The module provides end-to-end processing of requests from outlets for repairs of Company-owned equipment installed at outlets: • Equipment repair requests are entered by salespersons • Requests are approved by supervisors or analysts, and a servicing center is selected—automatically or manually—to handle the request • Requests are submitted to the corresponding servicing centers

10	CRM — mobile sales & service & interaction with distributors

- A servicing center responds with a confirmation of receipt and repair times and, after the repair is completed, submits lists and costs of materials and works performed
- A salesperson acknowledges that a request is completed
- Generation of acceptance reports and invoices for servicing companies on base of repair requests
- technician's mobile application which allows to enter the information on the works conducted, used spare parts and materials during the repair requests fulfillment

10.14 Sales Force Recording & Payroll

10.14.1 Use this module to keep track of personal data, calculate pay and record payments to salespersons. The module provides accounting for both in-company sales force and for the sales force on a distributor's payroll, and allows remote access for data entry by Company supervisors and analysts.

Enter and edit the following data:

- Personal details for salespersons employed by Company distributors
- Payroll, allowances and KPI-based bonuses for salespersons based on reporting period results
- Training and field training schedules with ability to track completion and create corresponding tasks on a PDA
- Personal development plans for each employee

10.15 Business Intelligence System Integration

10.15.1 All information stored in the system can be consolidated into a data warehouse and analyzed using OLAP tools.

CRM data analysis methods include:

- Analysis of SKU distribution in sales outlets
- Analysis of trade marketing activities
- Sales force performance analysis (planned vs. actual)
- Analysis of retail and promotional equipment placement throughout outlets
- Analysis of indirect sales and order completion by distributors

10.16 Remote access to CRM workplaces

10.16.1 The system's client-server based workstations allow users to remotely perform all the system functions, from reports generating to promptly online entering and adjusting data in the system. Such workstations are designed for all the users who need remote access to the system:

A web application (online CRM client) implements functionality of any system workstation and provides remote access from any Internet-enabled computer. Any operation available in the system can be performed using the online client, from reporting to online data entry and editing. Online client can be used by any user requiring remote access to the system, including:

- Supervisors (plan and track sales force performance)
- Telesellers in remote company locations (enter orders taken over the phone)
- Analysts in remote company locations
- Distributor employees
- Servicing center employees
- Generate reports and use business intelligence tools

10	CRM — mobile sales & service & interaction with distributors
	The following GPS functions are available on the workstations: • viewing and adjusting the reference coordinates of distribution points on the map • display of planned and actual routes of mobile employees, grouped by teams on the map • Comparison of the reference distribution point location and the actual location of the mobile employee when making visits with consideration of the specified error • control of the visits correctness (matching the reference distribution point coordinates) in various reports and KPIs • viewing the route of the sales agent travelled per day on the map • calculation and display of the distance travelled along the route
10.16.2	Entering information about a new distribution by an employee using a PDA. Entering such information to the system has two levels: after transmitting the information about new points from the PDA, it is analyzed by the supervisor, who decides on adding this point to the classifier and its inclusion in the schedule of visits. Additionally, the approval of a new distribution point by the analyst can be configured.
10.17	**Distributor Integration Module**
10.17.1	Integrate the "Monolit: CRM" to a corporate information system, distributor databases and retail chains for data exchange. Data exchanges can be done in batch mode (XML-based files), using a web service, or through EDI technology.
10.17.2	A common integration module with transfer protocol based on open standards. This module provides a data exchange with any accounting system. A specific integration modules for 1C versions 7.7, 8.1 and 8.2 that can be used to set up data exchange with 1C systems. Integration module enables the following data exchanges: • Transmit orders to the distributor's system (pre-sales orders collected by salespersons on outlet visits) and generate delivery notes to deliver products to customers • Get distributor inventory balance data (for a salesperson to decide if orders can be accepted) • Get order completion status • Get data on deliveries completed and customer returns • Get data on inventory receipts and inter-warehouse movements to monitor consignment warehouses • Get balances with customers and a list of customers (outlets) to block orders from • Get data on installed rented equipment in order to control the presence of equipment at outlets • Transmit changes in product catalog and outlet classifier, including the ability to keep code correspondence of classifiers both on the distributor's side and on the CRM system

10 CRM — mobile sales & service & interaction with distributors

10.18 CRM Photo module

10.18.1 Module provides photos processing on CRM workplaces and on PDA

Module solves the following tasks:

- Preparation of photo catalogue – storage of one or more pictures for each SKU
- Photo catalogue preview on PDA during order taking
- Taking pictures of outlet – product facing, retail equipment – in terms of visit with help of PDA camera. Taken pictures are transferred to CRM data base
- Pictures quantity and type is determined in special survey. Each picture, taken by PDA is linked to the correspondent monitoring of the survey. With help of that all pictures can be classified – "Coolers photos", "Facing photos" etc.
- Pictures become available from supervisor and analytic workplaces

10.19 Outlet performance management module

10.19.1 Module provides the following functions:

- Preparation profitably optimal SKU lists (Must Stock) by regions and trade channels
- Track and establish distribution KPI for sales forces by each SKU by regions and trade channels
- Preparation of target SKU and creation order lines on PDA with that optimal/target SKU
- Outlets segmentation by profit potential for costs optimization and each segment working standards control

10.20 Distribution points audit module (MiniCRM)

10.20.1 Module solves the following tasks:

- Company employee involvement in sales process improvement
- Product absence or non-appropriate product quality or facing notification
- Retail equipment usage monitoring

Employee mobile client display all nearby outlets. In case if employee finds issues with product in outlet he can notify about it.

Mobile client provides information on responsible field employee and supervisor and history of previous issues

Notification is done with help of messages

All messages are processed in the following way:

- Supervisor and managers every day receive report on opened issues on the territory
- Field employees receive messages directly on PDA as a targets in outlets
- After issue close field employee sets status "Complete" to the issue and attaches photo as a proof

Module supports the following issues cycle:

- Creation and registration (photo can be attached)
- Field employee notification
- Issue closing (photo attached as a proof)
- Message author and supervisor notification on issue closing
- Integration with products quality assurance service information system for prompt removal of detected production defects

10	CRM — mobile sales & service & interaction with distributors
10.21	**Distribution points routing module**
10.21.1	The module is designed to solve the problem of routing the distribution points on a separate territory (for example, the territory of a city and region), including: • territory optimization - distribution of the entire set of distribution points across the territories of sales representatives, auditors and merchandisers • daily routes optimization - distribution of distribution points of each sales representative by days of the week with consideration of the necessary frequency of visits to the distribution points • Generating the optimal daily route for visiting the distribution points The automatic distribution of points across territories and the generation of daily routes are performed by the system using mathematical optimization methods.
10.21.2	The module has a wide range of interface tools for interactively simulating routes on a map, including: • use of Open Street Map provider maps that do not require a license (Internet access is only required for an application to run) • capability to quickly change the maps provider • display of all the sales representatives, auditors and merchandisers territories within the selected region on the map with consideration of the user access level • checking and specification of the distribution point coordinates by their addresses from the customer cards • territory display format control (color, size of points) for each sales representative • capability to move points between territories (including in group mode, in selected areas) in the process of interactive route modelling • displaying detailed information on each distribution point (including the sales representative territory, required number of visits, monthly sales (dal), average number of orders) • detailed legend of the total calculation results (in terms of territories - number of visits, mileage over the planning period, duration of the business day, performance of the required frequency of visits) with the capability to include the comparative results in modelling • detailed legend of the daily routes calculation result for the selected territory (by day of the week - number of visits, mileage) with the capability to include the comparative results in modelling • display of the created visit routes on a map with the possibility of rebuilding • capability of changing the planned visit days for each distribution point of the territory and rebuilding daily routes • redistribution of plans to visit distribution points during the period of replacing an employee who is on vacation or sick leave

11. Human Resources Management

11	Human Resources Management (HRM)
11.1	**Personnel record keeping**
11.1.1	***Maintenance of the Employee Database across Corporate Divisions*** (gender, full name, photo, transfers, salary changes, punishments, incentives etc.)
11.1.1.1	Generation of any information on corporate structure, staff list, and personnel through orders only
11.1.1.2	In the system, the Order concept corresponds to a traditional paper-based order, and any order can be printed out for approval (unified form support must be provided)
11.1.1.3	For corporate structure, the following order types are supported: • Creation • Liquidation • Resubordination • Modification of corporate division parameters
11.1.1.4	For a staff list, the following order types are supported: • Creation • Liquidation • Resubordination • Modification of staff list item parameters
11.1.1.5	Support of the following personnel order types, affecting both corporate structure and staff list: • Hiring • Transfer between positions • Combining jobs (within the company) • Substitution of an absent employee, including substitution by part-time employee • Parameter modification (salary, pay grade etc.) • Dismissal
11.1.1.6	Personal data maintenance for each employee in a personal card, including: • Birth date/place, marital status, spouses, children • Documents (passport details, taxpayer identification number, pension fund number, military card, officer identity card etc.) • Registration address, actual residence address, e-mail address • Education • Evaluations • Training • In-service training
11.1.1.7	Data change history support. Data viewing and building reports for any time period.
11.1.1.8	Integration with Lotus Notes, employee databases synchronization

11	Human Resources Management (HRM)
11.1.1.9	***Employment book copies***
11.1.1.9.1	Operations with an employment book copy: • Uploading of a scanned copy of an employment book • Uploading multiple scanned copies of employment books • Viewing scanned copies with scaling and image rotating • Printing out the whole employment book with copy stamps • Current page printout • Logging the change history of scanned copies
11.1.1.10	***Applications and forms for Insurance Number of Individual Ledger Account (INILA)***
11.1.1.10.1	Drawing up employee applications • for a new INILA • for change of the INILA • for a copy of the INILA
11.1.1.10.2	Handling and storage of application forms for INILA
11.1.1.10.3	Preparation of application forms and a list for submission to Pension Fund • for a new INILA • for change of the INILA • for a copy of the INILA
11.1.1.11	***Health insurance policies maintaining***
11.1.1.11.1	Maintaining catalog for health insurance policies recording: • insurance companies • insurance programs • cities of registration
11.1.1.11.2	Maintaining employee requests: • to receive new health insurance policy • to change personal data, health insurance policy replacement • to receive a copy of health insurance policy • to extend or change the insurance program
11.1.1.11.3	Record keeping of employee health insurance policies
11.1.1.11.4	Record keeping for data import and export operations for registration of health insurance policies with insurance companies
11.1.2	***Personnel Order Generation***
11.1.2.1	Personnel orders generation for a single employee or for a group
11.1.2.2	In group mode, the following orders are supported: • Employee transfers from one position to another • Changes of vacancy parameters (salary at the first place) when a staff position changes (as a result of executed change order) • Orders for vacancy parameter changes

11	Human Resources Management (HRM)
11.1.2.3	Orders can be adjusted in a conventional way: manually, by system (through salary indexation), and by filling parameters with values set for a staff position.
11.1.3	***Order Statuses***
11.1.3.1	An order can have a number of statuses, such as Completion in Progress, Planned, Executed. Special functions, such as Execute Order, Cancel Order, Plan Order are used for switching order statuses
11.1.3.2	Order validity check in terms of database integrity, with corresponding system state information update.
11.1.3.3	Providing the business process related to the maintenance of collective financial liability (CFL), maintaining the list and composition of the Teams, registration of signing, familiarization and execution of CFL contracts
11.1.3.4	Provision of user access to specific features through system configuration
11.1.4	***Time Sheet Management*** • Entering and editing time sheet data, drawing up of a work schedule for each employee (required when completing orders for hiring, transfers and working schedule changes)
11.1.4.1	Employee lists generation for a time sheet type
11.1.4.2	Work schedules generation (using a template)
11.1.4.3	Maintenance of daily and consolidated time sheet record keeping (separately or simultaneously)
11.1.4.4	Filling out of a daily time sheet on the basis of work schedules
11.1.4.5	Complete a time sheet with sick leaves, business trips, evening hours, and night hours, based on primary documents
11.1.4.6	Keeping weekly employee time sheets for various projects (cost centers)
11.1.4.7	Verifying time sheets for correctness/validity during processing
11.1.4.8	Distribution of user access by time sheet types
11.1.4.9	Logging daily time sheet generation and modifications
11.1.4.10	Consecutive closing of time sheets by different company services
11.1.4.11	Support of working time patterns
11.1.4.12	Paperwork support (unified time sheet forms)
11.1.4.13	Support docflow storage for the time sheet record keeping in electronic form with an Electronic Signature (printed form images)
11.1.4.14	Support of an analytic cube for compiling time sheet record keeping reports

11	Human Resources Management (HRM)
11.1.5	***Piecework Order Management*** • Entering and editing information for **piecework** orders and piecework pay calculation per order (generation of collective pay based on job results and subsequent distribution of this pay among the employees according to each employee's input)
11.1.5.1	Maintaining classifiers for job types, job rates, work order types and groups, teams and team members
11.1.5.2	Team list generation based on predefined terms
11.1.5.3	Maintaining a bank of work order pay distribution methods
11.1.5.4	User access distribution by operations
11.1.5.5	Verifying work orders for correctness/validity during processing
11.1.5.6	Paperwork support (drawing up work orders in corporate divisions)
11.1.6	***Calculation of Consolidated Piecework Payment*** • Collective payment generation based on team output and quality evaluation, and payment distribution on the basis of personal input of each integrated team member
11.1.6.1	Maintaining classifiers for job types, job rates, evaluation factors, evaluators, integrated teams
11.1.6.2	Team list generation based on personnel orders
11.1.6.3	Verifying values for correctness/validity during processing
11.1.7	***Payroll Record Keeping for Drivers*** • Entering and editing information on products (goods) transportation, and calculate piecework pay for delivery drivers
11.1.7.1	Import of data on drivers' output and quantities of goods delivered (consignment notes) with verification of imported data for correctness/validity
11.1.7.2	Maintaining classifiers for vehicle categories, driver teams, loading works and their rates
11.1.7.3	Maintaining a bank of team pay distribution methods
11.1.7.4	Team list generation based on personnel orders
11.1.7.5	Processing of finished goods transportation data for a preceding period
11.1.8	***Work Contract Management (per RF Civil Code)*** • Entering and editing data on work contracts, additional agreements, job completion reports and calculation of payments per job completion reports
11.1.8.1	Maintaining classifiers for job types and rates, out-house teams
11.1.8.2	Maintaining individual and team contracts
11.1.8.3	Maintaining additional agreements to contracts
11.1.8.4	Maintaining job completion reports and earnings distribution in case of team contract
11.1.8.5	Filing job completion reports in corporate divisions

11	Human Resources Management (HRM)
11.1.8.6	User access distribution by operations
11.1.8.7	Verification of pay amounts in job completion reports against the contract
11.1.8.8	Paperwork support, including the ability to draw up job completion reports in corporate divisions
11.1.9	***Calculation of Payment for Equipment Overhauls:*** • Organizing temporary equipment repair teams. Generate employee payments depending on employee salary rates and rated/actual repair terms, record of index of labour distribution within the team.
11.1.9.1	Maintaining classifiers of repair types and job cost.
11.1.9.2	Drawing up orders on conducting overhaul
11.1.10	***Sick Leave Record Keeping, including ESN:*** • Entering and editing sick list data • Support of information exchanges with the Russian SIF in order to retrieve a disability certificate in the electronic document format (ESN)
11.1.10.1	Maintaining classifiers of sick list types and diseases
11.1.10.2	Employee service record and sick leave pay percentage calculation
11.1.10.3	Calculation of sick days
11.1.10.4	Payable hours per working schedule (in case of summarized working hours recording)
11.1.10.5	Sick days and hours across calendar (accounting) months distribution
11.1.10.6	Average pay and monthly pay limitation
11.1.10.7	Regional and individual pay limitation ratios
11.1.10.8	Distribution of user access by corporate divisions
11.1.10.9	Locking primary documents to prevent editing
11.1.10.10	Ensuring the capability of recalculating the sick leave notes (when adjusting the base for calculating the average number)
11.1.10.11	Paperwork support (unified pay calculation forms)
11.1.11	***Vacation & Other Leave Record Keeping*** • Entering and editing vacation/leave data on principal vacations, additional vacations, study leaves, maternity leaves etc.
11.1.11.1	Maintaining of a leave type classifier
11.1.11.2	Granting combined leaves with leave duration calculation
11.1.11.3	Monitoring provision of material aid for a vacation, sum calculation
11.1.11.4	Monitoring the quantity of vacation days already granted to an employee
11.1.11.5	Leave days across calendar (accounting) months distribution
11.1.11.6	Average earnings for leave calculation

11	Human Resources Management (HRM)
11.1.11.7	Distribution of user access by corporate divisions
11.1.11.8	Locking primary documents to prevent editing
11.1.11.9	Paperwork support (unified forms)
11.1.12	***Business Trip Record Keeping*** • Entering and editing data on employee business trips
11.1.12.1	Maintaining a classifier of companies
11.1.12.2	Entering and editing business trip related data, recording excess expenditures and calculating taxes on them
11.1.12.3	Paperwork support (unified forms T-9, T-9a, T-10, T-10a)
11.1.13	***Bonus Record Keeping*** • Entering and editing data on employee bonuses
11.1.13.1	Maintaining a bonus type classifier
11.1.13.2	Personnel lists for each bonus type per period (months, quarter, year) based on personnel orders generation
11.1.13.3	Bonus payment order lists on the basis of corporate structure and bonus type settings generation
11.1.13.4	Orders and lists for bonus payments to senior executives in corporate divisions generation
11.1.13.5	Default amounts in bonus payment orders, set bonus amounts and percentages for groups of employees
11.1.13.6	Verification of bonus amounts against limitations
11.1.13.7	Paperwork support for bonus recording
11.1.14	***Allowance Record Keeping*** • Entering and editing data for allowance calculations. Maintaining per-position and individual allowances as defined in RF Labour Code
11.1.14.1	Maintaining an allowance type classifier
11.1.14.2	Maintaining a list of individual allowances and per-position allowances
11.1.14.3	Allowance amounts (individual and per-position) for current months on the basis of actual workings hours calculation
11.1.14.4	Verification of allowance amounts against limitations
11.1.14.5	Paperwork support for allowance recording
11.1.15	***Advance Payment Record Keeping*** • Entering and editing data on advance payments to employees
11.1.15.1	Personnel lists for advance payments against salaries per period (month, quarter, year) on the basis of personnel orders generation

11	Human Resources Management (HRM)
11.1.15.2	Default advance amounts on the basis of corporate structure and filled positions. generation
11.1.15.3	Advance payment sum generation on the basis of actual working hours in the first half of the month
11.1.15.4	Advance payment sum generation with account for increments, deductions and alimony payments
11.1.15.5	Paperwork support for advance payments recording
11.1.16	***Vacation Leave Schedule*** • Entering and editing planned vacation leaves, leave days remaining from preceding periods, and a vacation leave schedule
11.1.16.1	Maintaining vacation leave periods for employees with prolongation in accordance with rules
11.1.16.2	Maintaining a classifier of harmful working conditions linked to workplaces, calculation of vacation leaves due to harmful conditions
11.1.16.3	Numbers of standard vacation days by types and vacation periods calculation
11.1.16.4	Maintaining orders to recall an employee from his/her vacation leave with optional vacation prolongations, re-calculation of vacation pay on request
11.1.16.5	Distribution of emails with a list of planned vacation leaves based on vacation leave schedule
11.1.16.6	Maintaining a vacation leave reserve by types and vacation periods
11.1.16.7	Maintaining a vacation leave plan
11.1.17	***Record keeping for Workwear*** • Entering and editing data on workwear (uniforms, protective garments and shoes etc.), required for work activities
11.1.17.1	Maintaining a classifier for workwear measurement units, workwear groups and types, workwear usage norms
11.1.17.2	Maintaining workwear record cards to record employee's workwear usage history during his/her employment
11.1.17.3	Generation and modification of workwear usage norms by staff list positions
11.1.17.4	Control of workwear usage against the norms specified for employee's position at the time he/she received the workwear
11.1.17.5	Control user access to workwear record keeping data

11	Human Resources Management (HRM)
11.1.18	***Benefit Package Record Keeping*** Motivate employees through individual benefits such as: • Payments for innovation proposals • Payments for knowledge and skill • Medical insurance • Additional retirement insurance • Tuition assistance • Employee stock purchases • Employee loans • Coverage of employee expenditures (phone, car, hospitality/entertainment etc.) • Company cars and phones • Other benefits
11.1.18.1	Maintaining a classifier of benefit types
11.1.18.2	Granting benefits to employees
11.1.18.3	Periodical data entry for determining benefit amounts
11.1.18.4	Periodical calculation of benefit amounts
11.1.18.5	Maintaining standard allowances per staff position
11.1.18.6	Benefits/allowances linked to working location of a staff position (Northern allowances, regional allowances etc.) allocation
11.1.18.7	Inheritance and granting of benefits to an employee depending on his/her staff position
11.1.18.8	Distribution of user access by benefit/allowance types and operations
11.1.18.9	Paperwork support for granting benefits
11.1.19	***Salary Change (Raise) Planning***
11.1.19.1	Maintaining a plans list (years for which salaries are changed)
11.1.19.2	Maintaining a list of corporate structure elements and employees excluded from a salary change planning process
11.1.19.3	Maintaining a directory of employee evaluation values
11.1.19.4	Importing, viewing and editing employee evaluations
11.1.19.5	Maintaining a set of salary raise matrices
11.1.19.6	Planning salary bracket changes
11.1.19.7	Calculation of "compa ratios" (Comparison Ratios) for employees and job positions
11.1.19.8	Calculation of actual company payroll

11	Human Resources Management (HRM)
11.1.19.9	Development of a salary raise matrix based on employee evaluation and calculated comparison ratios
11.1.19.10	Computation of salary change percentages for all company employees on the basis of the generated salary raise matrix
11.1.19.11	Distribution of planned salary raise percentage tables for specific corporate divisions among the heads of these divisions
11.1.19.12	Salary raise percentage data collection from the heads of corporate divisions
11.1.19.13	Computation of new pay levels for all employees based on salary raise percentages
11.1.19.14	Orders to change salary brackets in grades, employee salary amounts and other recording data generation
11.1.20	***Food Tray Record Keeping (Data on Meals in Canteens)***
11.1.20.1	Importing of primary data on providing meals for employees on cashless basis (from "Lotus" to "MONOLIT HRM")
11.1.20.2	Storage and display of data on meals; analysis of data conformity with staff list and estimated deductions.
11.1.20.3	Data source of the calculating kernel of "MONOLIT HRM" system for generation of deductions for meals with account for possible reimbursement for employee meals.
11.1.20.4	Drawing up reports with detailed cost of employee meals per branch
11.1.21	***Record Keeping of Harmful or Hazardous Working Conditions***
11.1.21.1	Record of work areas recognized as harmful on the basis of workplace assessment.
11.1.21.2	Assignment of harmfulness to an employee's workplace
11.1.21.3	Record keeping of the actual duration of work in harmful or hazardous working conditions
11.1.21.4	Calculation of additional vacation days due to harmful conditions
11.1.21.5	Calculation of harmful exposure allowance
11.1.22	***Record keeping of medical examinations and workplaces certification results***
11.1.22.1	Maintaining the "Harmful and Dangerous Production Factors", "Laboratory and Functional Research" catalogs
11.1.22.2	Record keeping of appointment cards for medical examinations, employees medical examinations results
11.1.22.3	"Production workplaces" record keeping
11.1.22.4	"Employee medical records" record keeping
11.1.22.5	Import of "SALC download data"

11	Human Resources Management (HRM)
11.1.23	***Record keeping for non-standard working hours (idle time, overtime)***
11.1.23.1	Maintaining a catalog of non-standard working hours types accounting
11.1.23.2	Maintaining orders for idle times / overtimes
11.1.23.3	Record keeping of actual working hours for idle time and overtime
11.1.23.4	Group operations for idle time orders generation
11.1.24	***Part-time work record keeping (PTW)***
11.1.24.1	Maintaining a PTW causes catalog
11.1.24.2	Maintaining orders for employee PTW
11.1.24.3	Automatic keeping of PTW in the time sheet records
11.1.24.4	Automatic distribution of PTW employee lists
11.1.25	***Additional Attributes for Corporate Structure, Staff List, Vacancies***
11.1.25.1	Assign any number of hierarchical attributes to corporate structure, staff list and vacancy management
11.1.25.2	For each attribute type, the following can be defined: • change history for both the attribute itself and its relationship with system objects • orders available to modify both the attribute itself and its relationship with system objects
11.1.26	***Reporting***
11.1.26.1	Generation of reports representing any unified personnel reporting forms provided for industrial enterprise activities: T-1, T-2, T-3, T-5, T-6, T-7, T-8, T-8a, T-9, T-9a, T-10, T-10a, T-11, T-11a, T-13, T-51, T-53, T-53a, T-54a, T-60, T-61, T-73, unified forms of Ministry of Taxation, State Committee of RF for Statistics and others
11.1.26.2	Setting up custom reports using personnel and salary calculation data in Microsoft Excel format
11.1.26.3	Customization of default reports provided in the system, creation of original custom reports, configuration of ODBC access to the database
11.1.26.4	Support of an analytic cube for all personnel record keeping data used in compiling reports
11.1.27	***Enterprise functionality***
11.1.27.1	Maintaining employee records for different legal entities within the same holding or separate business units within a single database

11	Human Resources Management (HRM)
11.2	**Payroll Processing**
11.2.1	***Key Functionality***
11.2.1.1	Compilation and maintenance of a database containing information necessary for payroll processing
11.2.1.2	Setting up calculation procedures for income and withholdings
11.2.1.3	Configuration of calculation bases for income tax assessment, average earnings, payments to Pension Fund and extrabudgetary funds
11.2.1.4	Calculation of advance payments
11.2.1.5	Calculation of payments for work contracts
11.2.1.6	Calculation of piecework wages
11.2.1.7	Calculation of time-based wages and various allowances
11.2.1.8	Calculation of sick leave, vacation and other leave payments and related allowances
11.2.1.9	Calculation of income tax, UST (unified social tax), obligatory retirement insurance, child support allowances, alimony, garnishments
11.2.1.10	Cash disbursement slips and pay sheets
11.2.1.11	Reporting by salary types and man-hours for categories, divisions, cost centers etc.
11.2.1.12	Generation of standard payroll-related documents: calculation sheets (form T-51), calculation/pay sheets (form T-49), payslips, references etc.)
11.2.1.13	Generation of quarterly reporting packages for UST and obligatory retirement insurance advancing
11.2.1.14	Generation of annual reporting packages for Pension Fund and Tax Inspection, in importable formats
11.2.1.15	Accounting transactions posting
11.2.1.16	Payments submission to a telebanking system
11.2.1.17	Preparation of necessary data for credit cards and bank account remittances
11.2.1.18	Sending out payslips by email
11.2.1.19	Support of an analytic cube for generation of reports on payroll processing results
11.2.1.20	Integration with Lotus Notes in the following areas: • canteen deductions • controlling and settling mobile communication expenses

11	Human Resources Management (HRM)
11.2.2	***Scenario-Based Payroll Processing***
11.2.2.1	Creation and maintenance of scenario step types required for payroll processing
11.2.2.2	Description of a payroll processing scenario and calculation sets
11.2.2.3	Execution of a payroll processing scenario and generation of reports
11.2.2.4	Closing scenario-based calculations
11.2.2.5	Logging scenario-based calculations
11.2.2.6	Setting up calculation procedures for income and withholdings to be used in scenario-based calculation
11.2.3	***Data Export***
11.2.3.1	Configuration of data export from the system in various formats
11.2.4	***System of Billing to Company Employees (MassPayments)***
11.2.4.1	Generation of payments from various primary data sources available in "MONOLIT HRM"
11.2.4.2	Distribution of payment sums across transactional accounts of the paying company
11.2.4.3	Generation of payment documents (transfer orders) on the basis of the distribution created during payment transaction
11.2.4.4	Exchange with telebanking systems on the basis of the generated payment documents (transfer orders)
11.2.4.5	Exchange with "MONOLIT SUITE" accounting modules, including transfer of complete impersonal aggregate transfer orders (aggregated by payer transactional account, by date and by payment type) on receipt of confirmation from the bank
11.2.5	***PIT Related Calculations***
11.2.5.1	Support of PIT (Personal Income Tax) calculation operations: exemption, calculation of deductions according to legislation requirements
11.2.5.2	A procedure for preparing of personal income data to be submitted to State Tax Inspection software
11.2.5.3	Generation of 1-NDFL and 2-NDFL reporting forms and various certificates on average earnings within the system
11.2.6	***Enterprise functionality***
11.2.6.1	Payroll processing and reporting for different legal entities within the same holding or separate business units within a single database
11.2.6.2	Control of user access to data by branches or legal entities within a holding

11	Human Resources Management (HRM)
11.3	**Access Control**
11.3.1	Control of user access to system objects and operations, such as: • System functions and reporting sets • Authorization of actions performed by a user • Orders on corporate structure, staff list, personnel orders • Locking primary documents to prevent further editing • Time sheets, piecework job orders, salaries and tariff rates by levels • Work contracts per RF Civil Code • Personnel cards by types of operations performed • Benefit package by type of operations performed • Employees by their affiliation to corporate structure divisions • Data export/import operations by kinds and types of operations performed

11.4	**Personnel Training, Evaluation & Development**
	• The system supports activities aimed at development of professional and personal qualities of company employees, motivating employees to increase overall company performance, including:
	  ○ Employee training planning
	  ○ Training and training record
	  ○ Employee evaluation
	  ○ Career planning

11.4.1	***Full-Time Training***
11.4.1.1	Maintaining a classifier for training types, training areas, planning types and stages
11.4.1.2	Scheduling employee training
11.4.1.3	Training organization (group formation, notification of employees etc.)
11.4.1.4	Development of a training plan and assessment of training costs
11.4.1.5	Training completion record
11.4.1.6	Completed training record in an employee's personal card
11.4.1.7	Maintenance of a Document Storage to save to database, display and edit copies of any MS Office-accessible documents in `.doc`, `.xls`, `.jpg` and other formats through corresponding software applications
11.4.2	***On-The-Job Training (Field Training)***
11.4.2.1	Maintaining a classifier for training types, training fields, planning types and stages
11.4.2.2	Development of schedules, planning of training activities for each employee
11.4.2.3	Field training: completing field training forms, storing recorded information, generating reports based on specified criteria
11.4.2.4	Personal development plans (PDP): completing PDP training forms, storing recorded information, generating reports based on specified criteria
11.4.2.5	Field audits: completing field audits forms, storing recorded information, generating reports based on specified criteria

11	Human Resources Management (HRM)
11.4.2.6	Completed training record in an employee's personal card
11.4.3	***Remote Training***
11.4.3.1	Development of corporate remote training courses either with the help of third party providers (online courses with game-playing elements) or in-house development with minimal third party involvement
11.4.3.2	Remote training planning, organization and monitoring
11.4.3.3	Recording the data related to remote training and storing the recorded information
11.4.3.4	Generation of reports on remote training based on specified criteria
11.4.4	***Performance Appraisal***
11.4.4.1	Development of appraisal scenarios and appraisal document templates
11.4.4.2	Planning performance appraisal activities
11.4.4.3	Conducting performance appraisal, including annual performance appraisal (APA)
11.4.4.4	Summing up (preparation of recommendations on personnel development, approve appraisal results)
11.4.5	***Career Planning & Personnel Development***
11.4.5.1	Creation of a talent pool: • Forecast of changes in managerial personnel • Determination of the pool to positions ratio (number of pool candidates available for a position) • Creation of a list of candidates for a talent pool • Candidates training
11.4.5.2	Planning employee careers: • Evaluation of employees at hiring and determination of suitable workplaces • Evaluation of employees' performance and potential • Motivation of employees • Selection of candidates for a talent pool and search for "best match" employees • Promotion of employees, promotion and succession scenarios • Development needs analysis • Matching supervisor's recommendations with individual preferences • Assessment of employee loss risks
11.4.5.3	Manage employee development: • Development activities management system • Management of rotations, mixed training etc. • Integration with the training management and evaluation system • Recording detailed development history and drawing up detailed development plans • Training course recommendation

11	Human Resources Management (HRM)
11.5	**Self Service portal: Member's area and Manager area** • Display of employee data at the enterprise portal (built on MS Sharepoint platform), employee data search
11.5.1	***Personal card***
11.5.1.1	**Display of personal employee data:** • Full name • Birth date • Photo • Position • Subordinancy (direct and functional) • Presence at the workplace (or reasons of absence)
11.5.1.2	**Organization diagram** • Display of hierarchy tree of direct employee subordinance • Display of employee photos • Display of data on employee supervisors, subordinates and colleagues • Employee search • Display of employee's personal card
11.5.2	***Corporate structure***
11.5.2.1	Display of corporate structure • Subordinance and management of branches and subdivisions • Employees and their position in subdivisions • Unified data search across subdivisions, positions and employees
11.5.3	***Employee vacation leaves***
11.5.3.1	Display of information on employee vacation leaves: • Monthly display of planned and actual vacation leaves for any year • Display of actual vacation leaves of an employee for any year • Display of a remaining leave list
11.5.3.2	Display of vacation requests: • Maintenance of the list of employee's vacation requests • Filing a request for a regular leave • Filing a request for a special leave • Filing a request for a compensation for unused leave • Printout of vacation requests
11.5.3.3	Display of vacation leaves of subordinates • Display of data on vacation leaves of employee subordinates for any year • For each subordinate, monthly information on the planned and actual leave duration is displayed
11.5.4	***Employment book copies***
11.5.4.1	Display of an employment book copy from the personal account: • Display of an employment book copy for an employee • Printout of an employment book copy

11	Human Resources Management (HRM)
11.5.5	***Paysheet (payslip)***
11.5.5.1	Display of an employee payslip from the personal account: • Display of a payslip for an employee • Printing of a payslip copy • Use of a two-factor SMS authentication
11.5.6	***Certificate of Insurance Number of Individual Ledger Account (INILA)***
11.5.6.1	Drawing up applications from personal account • for a new INILA • for change of the INILA • for a copy of the INILA
11.5.7	***Health insurance policy document***
11.5.7.1	Filing a request by the employee from the Member's area: • to receive new health insurance policy • to change personal data, health insurance replacement • to receive a copy of health insurance policy • to extend or change the insurance program
11.5.8	***Application for financial aid***
11.5.8.1	Filing a financial aid application by the employee from the Member's area: • due to the first marriage • due to the birth of a child • due to burial • due to anniversary
11.5.9	***Applications from the employees to change the personal data and documents:***
11.5.9.1	Filing an application by the employee from the Member's area: • for the registration address change • for the Russian passport replacement

12. Transportation Management

12	Transportation Management
12.1.	**Master data (classifiers)**
12.1.1	Classifiers and links between elements of various classifiers: • **Vehicle Types** — the classifier of vehicle types contains general vehicle attributes (tonnage, rate of loading / unloading etc.). • **Vehicles** — the classifier, containing information on vehicles, used at transportations, with their attributes (number, type — the reference to a classifier element "Vehicle Type", the company — vehicle owner, the driver). It is linked with other master data: ○ ***Inventory cards*** of "MONOLIT: FA & IA accounting" system (for a vehicle- number of an inventory card of FA, or for long cargo vehicle- a set of numbers is defined). ○ ***Persons*** — the information on the driver. ○ ***Company master*** — the information on the carrier company
12.1.2	Supplier of the transport services (carrier) Agreement, containing structured information on routes and planned cost of delivery: • **Route** ○ Type of vehicle; ○ Starting and destination point- group of addresses (regions), cities ○ General attributes- distance, time of delivery, period of use, etc. • **Route cost** ○ Total route cost; ○ Per distance cost ○ Cost of man-hour; ○ Cost of above norm hour; ○ Cost per cargo unit ○ Total cost of rout with several destination points
12.1.3	Special data model, the basic concept which is the **transport document**— allows to establish links and dependences between various objects of Monolit Suite. Transport documents are divided into the types, corresponding to various subject concepts, for example: 1. **Trip** — object that combines shipments made by vehicle. Is limited by time period, distance and set of geographic points (from where — to where); 2. **Route —** part of trip that details shipments over it. Limits: from where, to where, what distance, etc.; 3. **Trip documents** — various documents, conditionally dependable and linked between each other (invoices, route sheets, CMR note, etc.).
12.2	**Dispatching of vehicle loading**
12.2.1	Interactive creation of vehicle loading (automobiles, railway cars, etc.) with the help of dedicated interface that allows to simplify operator's work and provide maximum information for making decision during vehicle loading
12.2.2	Create of special document of the system — loading sheet on the basis of planned shipment and FG transitions between sales warehouses

12	Transportation Management
12.2.3	Create loading sheets on the basis attributes, initial documents, master data information and rules: • Vehicle Types; • Loading capacity and cargo volume of vehicle • Type of vehicle loading; • Grouping of orders by weight (actual) and volume; • Grouping of orders by delivery addresses (dividing by delivery zones) • Possibility to specify loading sequence
12.2.4	Create documents on railway transportation — railway receipts.
12.2.5	Processed in the system as an ERP documents the transportation documents provide: • drivers time sheets registration • Drive kilometers registration • Fuel control • Fuel write off on base of standard or actual information • Aggregation of transport document in special object – Trip
12.2.6	Transport documents (for example, shipment bills) based on attributes of other documents (addresses of delivery, etc.)
12.2.7	Accounting of documents return in the system (closing of route list), of transport arriving to customer, etc. by special documents statuses
12.2.8	Accounting of temporary data related to operation and use of transport in the system: • Planned and actual dates of loading / delivery / unloading • Downtime
12.2.9	Ramp queue calculation on base algorithm with the following restrictions: • Available ramps quantity • One truck ramp processing time • Minimal time of order load start • Product delivery optimal time
12.3	**Requests for vehicles and carrier's web portal**
12.3.1	Input requests for cargo delivery. Create requirements for goods delivery on the basis of sales and purchase orders.
12.3.2	Collect opposite shipping requests into round trip
12.3.3	Calculate carriers rating on the basis of work results during the previous period. It is considered: • Quantity of the executed trips • Efficiency of requests fulfillment • Quality of delivery (damaged items presence) • Quantity of the executed "difficult" trips (i.e. trips which some carriers have refused)

12	Transportation Management
12.3.4	Distribute shipping requests between carriers based on: • confirmed in the agreement of carriers routes • a carrier rating • quantity of the executed trips from the moment of rating calculation Publish requirements on carrier's Web portal
12.3.5	Support for the acceptance of requirements and transport attributes (the driver, vehicle number, etc) by carriers on a WEB-portal. Requirement transfer to other carrier, in case of absence the acceptance during the specified time. Assignment of a sign "difficult" to requirement in case of refusal by several carriers
12.3.6	Auction processing via WEB portal provides the following: • Carriers rating • Optimal tariffs determination • Carriers selection Auctions on deliveries are processed with the following rules: • Auction lots – loading sheets • Lot starting price is determined on base of rules (auction tariffs lists or from carrier contracts) • The winner becomes carrier with minimal lot price
12.3.7	Create route sheets on the basis of the confirmed requirements
12.3.8	Analytical reporting on carriers work
12.4	**Own and carriers transport use cost estimation**

12.4.1	Transport usage and works cost estimation :
	• Planned transportation cost
	  ○ on the basis of supplier agreement data for transportation services;
	  ○ specified directly by user;
	  ○ on the basis of hour cost and delivery time norms
	• Actual cost of delivery (based on invoices from suppliers) with distribution of invoice sum on delivered orders.

12.4.2	Accept carriers invoices, execute correctness check for billing (correctness of sums, exclusion of repeated billing)
12.4.3	Support for deviations analysis- plan/fact by time and cost evaluations of transportation
12.4.4	Round trips support. Delivery cost allocation among route legs.
12.4.5	Estimation of conditional charges values on executed, but not accepted in the accounting period trips. Create detailed reports for conditional charges analysis in following aspects: • Regions • Type of cargo • Types of vehicles • Types of tariffs • Norm and above norm expenses

12	Transportation Management
12.4.6	Support for direct conformity between cost and transport documents. Flexibly adjusted algorithm of distribution of delivery expenses on the following expense types • Depreciation • Spare parts • Drivers payroll • Advance reports expenses (trip expenses, wash cleaning, tyre mounting, etc.) • Transportation by carrier's vehicles List of expense types is extendable

12.4.7	Distribute transportation expenses on delivered raw materials and FG and store results in following aspects:
	• Vehicles
	• Transport documents
	• Delivered goods
	Support for calculation of:
	• Cost of use of own vehicle (for the period);
	  ○ All expenses for vehicle, by expense types
	  ○ per SKU cost of cargo transportation
	  ○ Efficiency of vehicle use — the comparative report
	• Transportation cost:
	  ○ total cost of the transportation service;
	  ○ Cost of transport expenses for delivery of a specific cargo batch (SKU)
	• Cost of delivery per SKU. It can be imported to the Regional Profitability system (direct transportation expenses) for the detailed analysis of a transport share expenses in the general cost structure

12.4.8	Create special reports on the basis of the calculated data • cost of use of own transport • RM and FG cost rise • Register of transportations for the period • Special reports on vehicle use
12.4.9	Create accounting transactions based on results of delivery expenses distribution

13. Yard Management

13	Yard Management
13.1	**Master data (classifiers)**
13.1.1	Classifiers and interrelation between the elements of different classifiers:

- **Warehouse terminals**: a classifier of terminals for loading and unloading. Each terminal may be connected with several warehouses. For example, tare reception and finished products shipment may be performed via the same ramp. One warehouse may be connected with several terminals. For example, one terminal is used for loading finished products into vehicles with load carrying capacity of 20 tons and more, while the other is used for loading finished products into vehicles with load carrying capacity of less than 20 tons.
- **Reference points**: a classifier of reference points where vehicle passage is registered in real time mode (entry permission, site entry, commencement of loading, termination of loading, departure etc.)
- **Vehicle statuses**: a classifier of vehicle statuses on site (waiting for entry permission, waiting for commencement of loading, loading, moving to the checkpoint etc.). Linked to the following classifiers:
  - **Buffers**, showing the availability and volume of parking places on site. Each vehicle in specific status occupies a specific place in the buffer (parking place). "Warehouse ramp" is a special kind of buffer, where the places are loading windows
  - **Resources.** Each vehicle in specific status may require specific resources (e.g. a printer for printing out accompanying documents)
  - The multitude of valid transitions is formed in association with the **Reference points** classifier
  - **Conditions**. The classifier describes the logical conditions with the values calculated at the moment of vehicle passing a certain reference point. The transitions may branch depending on condition values.
- **Standard routes** is a classifier defining the purpose of the vehicle arrival at the plant. Each standard route is associated with one particular terminal. The route depends on load type, vehicle type, and operation type (loading or unloading). The examples of standard routes are:
  - Tare unloading
  - Loading of finished products for customer delivery
  - Unloading commodities and materials from suppliers
  - Unmarketable goods removal
  - etc.

  A standard route defines a specific sequence of reference points to be passed by a vehicle during its trip to a certain warehouse terminal. Linked to the following classifiers:
  - **Load type.** The classifier structure is based on shipping logistics system (Finished Products, Tare, Commodities and Materials, Unmarketable Goods)
  - **Vehicle type.** The classifier structure is based on shipping logistics system
  - **Checkpoint** (access gate). Each terminal is connected with a specific access gate. Different gates assigned to the same terminal may be used for entrance and exit.
- **"Contractor type".** The classifier used for classifying shipping/delivery addresses. The contractor type is defined by allocating the address to one of the groups, e.g.:
  - Another plant

13	Yard Management
	○ Retail network ○ Distributor ○ Supplier ○ etc. Used for estimating the priority of vehicle handling.
13.1.2	Vehicle handling duration standards depending on load type, terminal and order nomenclature • **Semi-fixed time expenditures** ○ Standard time of vehicle registration at self-registration terminal or by a dispatcher on arrival at plant ○ Standard time of vehicle handling at the checkpoint (document check, weighing) at entrance ○ Time of travel across the site from the checkpoint to the terminal ○ Overall consumption of time on approaching the ramp and docking. ○ Time of travel across the site from the terminal to the checkpoint ○ Standard time of vehicle handling at the checkpoint (document check, weighing) at exit • **Semi-variable time expenditures** ○ Calculation of loading/unloading duration on the basis of order nomenclature ○ Allowance for order complexity factors ♦ By interval scale on the basis of the overall number of order items ♦ By the proportion of the load rated by ABC method (in case the warehouse management system (WMS) optimizes distribution by this criterion) ○ Calculation of the duration of accompanying work, such as drawing up and printing of accompanying papers on the basis of interval scale by width of products range. Availability record of free resources of the specified type.
13.1.3	Combination of visit plan on the basis of standard route set. In case of several tasks (loadsheets) connected with the visit of the vehicle to the plant a sequence of standard routes is set up to schedule vehicle movement on site, e.g.: ○ Unloading materials from supplier at the central materials warehouse ○ Loading advertising materials at the central materials warehouse for shipment to distributors ○ Loading finished products at the finished products warehouse for shipment to distributors • System setting enable combining several standard routes within the yard without leaving the premises. Time of vehicle transfer between terminals on site is defined. • If such transfer is not possible, pairs of standard routes mapped within the yard may be joined, eliminating downtime connected with waiting for entry permission. Time of vehicle transfer between the access gates (checkpoints) linked to different terminals on site is defined.
13.1.4	Vehicle handling priorities • **Static priority** is calculated by the system as a sum of scores calculated on the basis of such visit features as ○ Load type ○ Contractor type

13	Yard Management
	○ Operation type Besides, in manual mode additional scores (user priority component) may be added • **Dynamic priority:** To avoid delay in admitting low priority vehicles to plant territory additional scores may be added: ○ Per minute of vehicle stay on the premises ○ Per minute of vehicle stay in current status
13.1.5	**Notification settings**. In some situations, such as obtaining entry permission or waiting for a free loading window, the change in vehicle status in the yard management system is not directly connected with the actions of the driver. For such cases the system may be set up to send notifications with specification of the destination and a template for notification text. The keywords in the template are substituted by current parameter values (date and time, loading window number, etc.) There are 3 possible notification destinations: • The driver • Freight service provider (transport operator) • Contractor (load buyer/supplier) There are 3 possible ways of notification: • E-mail • SMS • Text display at the terminal (only for the driver and for reference points with vehicle passage registered at the terminal)
13.2	**Vehicle Queue Management**
13.2.1	The queue is a list of vehicles with specification of current status for each vehicle and its accumulated priority value. A vehicle enters the queue at the moment of registration of its arrival at the plant. Both self-registration by the driver using remote terminal and manual registration by a dispatcher. After registration, vehicle status is changed to "Waiting for entry permission".
13.2.2	The queue functions according to finite-state automation principle. As the queue moves and ramps and parking places on site become free, the next vehicle chosen according to priority is that with maximum accumulated priority. The process is mostly automatic and does not require manual interference of the operator. If such interference is necessary, the operator has 2 options: • Change vehicle status to "Emergency situation", intended for coping with such situations as breakdowns etc. • Manually change vehicle status to any of the possible statuses In both cases the actions are recorded in the protocol; the operator should comment on the situation, explaining the reason for manual interference.
13.2.3	A screen interface for viewing the current queue status and queue management, including the following features: • Dispatcher data entry forms for viewing and modification of information on vehicles on the premises, such as current status and time, compared with standard values (advance or delay). • Dispatcher data entry forms for viewing and modification of

13	Yard Management

	• information on vehicles waiting for entry permission (outside the premises), such as time of arrival to registration, waiting period and priority
	• Data entry forms for checkpoint personnel, displaying the data
	  ○ On vehicles waiting for entry to the premises through a specified access gate
	  ○ On vehicles waiting for leaving the premises through a specified access gate (with load weight control)
	  ○ On vehicles on the premises having entered through a specified access gate
	  ○ On vehicles which left the premises through a specified access gate
	• Data entry forms for registering the passage of reference points by the driver (with support of electronic passes or bar codes)
	• A data entry form (a graphic chart) showing the current status of warehouse terminal ramps in real time mode

13.2.4	Mobile application for quick viewing of work plan information (vehicle supply) and current queue status. Includes data forms for viewing: • daily task (plan for the shift) the production plan for the production lines • current status of the vehicle queue and loading windows in the context of vehicles with the ability to display detailed information on each visit (vehicle) • workload of external and internal parking for cars.
13.3	**Queue Planning**
13.3.1	The purpose of dynamic queue planning is to define the expected entry permission time for vehicles which are yet outside the premises and expected time of assigned loading windows becoming free for vehicles waiting at parking places on the premises.
13.3.2	The basis of dynamic planning is an operation plan (a daily task for warehouses) compiled within the module "Shipment operation planning". The expected time of vehicle arrival for registration is defined on the basis of this plan.
13.4	**Connection with WMS**
13.4.1	A communication interface with SOLVO WMS is provided. WMS at each plant controls the following equipment • Driver self-registration terminal (if used) • Scales for vehicle weighing at entrance and at exit (if load weight control is applied) • Sensors of vehicle docking to a warehouse terminal ramp (if used) • The outdoor terminal for displaying the current queue status and rated time of entry and placing for loading or unloading of the vehicles waiting for handling. Besides, the WMS informs the yard management module on the actual status of loading windows at the warehouses managed, and on the times the windows become occupied or free.

14. Transportation Scheduling

14	Transportation Scheduling
14.1	**Master data (classifiers)**
14.1.1	The main part of master data used by the operational shipment planning module is defined in the systems "Transport Logistics" and "Yard Management". The operational shipment planning module uses the existing classifiers and the settings of both systems. The module includes the following classifiers: • **Type of Ramp Operations.** The classifier contains information on periodic, scheduled and routine operations to be performed at loading windows of warehouse terminals. The operation type record contains data on standard operation period (an interval between consequent operations of the same type) and on work duration. • **Template for Ramp Operations**. The template defines the range of operations of each type confined to a specific loading window. This data is used to calculate the availability schedule of each loading window for a target time interval (usually for the next full day).
14.2	**Operational Shipment Plan Calculation**
14.2.1	The result of operational shipment plan calculation is a "day's schedule" for a warehouse. This schedule is the basis for planning the vehicle handling queue at warehouse terminals as part of the yard management system. Variants of operational shipment plan calculation. At present, 2 variants of operational shipment plan calculation have been defined. • Winter. In this calculation variant, the time the load stays inside the vehicle is minimized. Thus the cost of vehicle body heating for loads susceptible to freezing is decreased. • Summer. In this calculation variant, the time the load stays in the warehouse is minimized. In seasons of high demand the limiting factor is the capacity of the finished products warehouse.
14.2.2	The source data for the calculation are the compiled vehicle travel routes including both the delivery of products from plants to contractors and delivery of materials, tare etc. from contractors to plants. The following parameters are defined by the system for each route: • Minimum permissible shipment time. This limitation is caused by the availability of products for shipment in the issuing warehouse • Maximum permissible shipment time. This limitation is caused by the delivery time intervals coordinated with contractors. The system analyses the time intervals for all contractors in the order of visiting the delivery points and defines the limit value which guarantees meeting all the intervals. • Optimal shipment time. This time is calculated assuming all the delivery points should be visited within the specified time intervals with minimal delay by contractors. Besides that, the available time resource schedule for loading windows of warehouse terminals, designed on the basis of ramp operation templates, can also be used as source data.
14.2.3	The function of minimizing the use of loading windows is used as an option in plan calculation. In such case, the system detects the number of loading

14	Transportation Scheduling
	windows available at the warehouse terminal which should be opened to perform all the planned shipments.
14.2.4	Shipment planning is carried out concurrently at all plants in the common time scale. The results for each plant are presented in local time corresponding to the time zone of the plant. In case of intracompany transit between the plants, planning the loading operation at the shipping plant is followed by a planned unloading operation at the receiving plant.
14.2.5	The algorithm of shipment plan compilation for all plants and warehouse terminals is implemented. The results of planning may be analyzed and corrected.
14.3	**Operational Shipment Plan Analysis and Correction Interface**
14.3.1	A screen form for analyzing and correcting the operational shipment plan enables data viewing and editing in the following ways: • As a table (manual selection of the loading window, the starting time and duration of loading and unloading operations • Directly on a graphic chart using Drag&Drop technology. The following editing operations are available on the chart: ○ Moving of the block corresponding to loading and unloading of a specific vehicle to another loading window or changing the order of blocks at a specific window. ○ Changing the rated duration of loading and unloading operations by moving the right or left border of corresponding chart blocks.

15. Enterprise Assets Management

15	Enterprise Assets Management (EAM)

General Description and Application

Enterprise Assets Management System (EAM) is suitable for managing any kind of equipment in use at the plant, including buildings and structures. Management consists in fulfilling the following tasks:

- Equipment classification, availability record, operational condition record, defining responsibility for operation and maintenance.
- Equipment servicing aimed at maintaining its operational properties, safety, and optimization of operational and maintenance costs. Organizing works in case of faults (production line/auxiliary equipment failures).
- Planning of resources necessary for maintenance, such as spare parts and expendable materials, personnel labour input, tools and attachments, combined with budgeting, maintenance personnel management, procurement planning and procedure.
- Accounting and management records, namely fixed asset accounting, records of spares and expendables, costs (including personnel costs).

Maintenance efficiency analysis in terms of tasks listed above.

The system is closely integrated with the following adjacent MONOLIT SUITE modules:

- Fixed Assets management
- Inventory management
- Budget management
- Purchase management
- Master planning
- Human Capital management
- Production management

15.1 Master data (classifiers)

15.1.1 **Unified classifier of objects (UCO)** is based on 3 fundamental concepts:

- Model – a hierarchic description of equipment types in terms of its properties, attributes, maintenance practices, and interchangeability
- Engineering location (EL) – a functional description of model elements, from a plant down to units and assemblies. E.g.:
  - Country
  - Plant
  - Area
  - Workshop
  - Line
  - Work centre
  - Unit/Assembly
- Equipment item (EI) – a specific equipment specimen identifiable by serial number, identification number etc. The equipment item is installed at the specified engineering location or kept in free stock.

The difference between the concepts of an engineering location and an equipment item can be explained as follows: a compressor station installed in a production building meeting specific load and performance requirements is an EL, at which a specific EI of a certain manufacturer can be installed and further replaced by another EI or installed at another EL.

To carry out system tasks, there is a wide range of other classifiers linked to UCO objects (with changes log support).

15	Enterprise Assets Management (EAM)

- Equipment categories (historicity)
- Maintenance types (mechanic, electric, diagnostic and other aspects of maintenance)
- Persons responsible for different maintenance types
- Attributes enabling to describe various equipment properties and use them in search (performance, operating mode, hazardous industrial facility features, dimensions etc.)
- Attributes enabling to perform periodical alteration of operating parameters and to compare parameter values with limit and nominal values.

15.1.2 Spares and expendables

An extension of the standard classifier of commodity stocks and supplies. Spares and expendables may be linked to equipment models and specified for EL and EI (spares may as well be linked directly to EL and EO).

As part of the system, EAM possesses the following additional functions:

- An individual system of ancillary attributes, including support of structural attributes necessary e.g. for description of spare part dimensions.
- Advanced search system suitable for logical expressions consisting of several data attributes with use of such expressions as =, like,<>, >, <, and list reentrability. A search result may be a compilation of several other search results (added to the previous search result).
- Support of analogues and replacement parts. Analogues are fully interchangeable, while replacement parts are interchangeable within specific equipment.
- Information on spare part codes in vendor catalogues and information on the possibility of in-house manufacturing of spare parts
- Linking of electronic documents of any format (drawings, documentation etc.)
- Card of spares/expendables enabling instant access to information on specific part range (including or not including analogues):
  - Warehouse profile in terms of subdivisions with specification of reserve for specific tasks
  - Activity during a specific period
  - Supply history
  - History of prices in supplies, orders, contracts and tenders
  - Demand in spare parts
  - History of non-utilization
- Standards and use of minimum inventory (including maintenance of a centralized minimum inventory for the whole company or a group of companies)

15.1.3 Personnel

On the basis of the information of Human Capital Management system, two types of specialists performing equipment maintenance can be distinguished:

- Planning centers (PC) correspond to the position of a leading engineer in charge for a specific maintenance class of a specific equipment group. The connection with the employee occupying this position is provided.
- The performers are specialists actually performing maintenance work. Each performer may be linked to one or several SC's. The following data is available on the performers:

15	Enterprise Assets Management (EAM)
	○ A working time calendar for determining the time available for work, with account for vacations, sick leaves, training etc. ○ Documents, diplomas, certificates, notes, and work order authorization, including authorization to perform works connected with various dangers. • Manpower resources – grouping the performers by specialization and qualification. The manpower resource type is specified at the planning stage, while the actual performer is appointed before work commencement
15.2	**Equipment Maintenance Planning**
15.2.1	Maintenance of a template base for standard periodical and unscheduled works, which are linked to equipment model, EL and EI, or only to the model with verification for specific EL and EI. The template allows to describe the following aspects: • Work performance strategy (intervals) for each category (A, B or C). The strategy can be based on calendar, running hours and state of equipment. A maintenance group can be specified for describing the repair cycle consisting of several stages (M-1, M-2 etc.). It is possible to describe only the equipment currently in use or all available equipment. • Scope of operations (subtasks) to be performed as part of the main work. For each subtask, the duration and dependence on other subtasks (start-to-start, start-to-finish, finish-to-start and finish-to-finish) should be specified, including schedule displacement. • Spares and expendables necessary for performing the work • Equipment operating parameters to be recorded during the work • Resources necessary for performing the work, including: ○ manpower ○ equipment and accessories ○ resources of third parties (contractors) • Requirements to employee documents (certificates, authorizations etc.) • Inclusion of another template (e.g. the description of M-2 may consist of M-1 with additional operations)
15.2.2	Work plan calculation to the templates described above on calendar basis
15.2.3	Work plan calculation to the templates described above on running hours basis. Running hours forecast based on the forecast of production/consumption of products or resources, on the planning the loading of interchangeable equipment and taking into account the actual equipment time in service.
15.2.4	Manual work planning to a template or without a template
15.2.5	Work plan visualization and editing tools: • Versioning of changes: all changes are made in run-time version; upon completion, the system performs necessary validity/consistency checks; certain versions (e.g. plan version synchronized with the budget calculated on its basis) are saved for rollback or further analysis • Support of several representations of work plan: ○ As a hierarchical list with a Gantt Chart ○ As a calendar • Work selection (filtration) by the following criteria: ○ By equipment (including selection by EL, EI or model) ○ By status (planned, cancelled, forwarded for execution, executed, delayed, overdue)

15	Enterprise Assets Management (EAM)
	○ By availability of spare parts and various resources ○ By work type ○ By performer ○ By planning centre
15.2.6	Description of related works, when one of the operations is performed by a related branch. Such work may be confirmed or rejected by the related branch.
15.2.7	Description of additional works, i.e. works (by different branches) favorable to perform simultaneously. The system controls the synchronicity of such works and signals to one branch in case of change in the plans of another.
15.3	**Management of Spares and Expendables**
15.3.1	Formation of demand in spares and expendables. Demand analysis by various aspects: • By work completion time • By spare part groups • By equipment groups • By availability of free stock or minimum inventory (including analogues) Decision on the source of meeting the demands (free stock/minimum inventory, purchase, in-house manufacturing, manufacturing or moving from another branch).
15.3.2	Records of rejecting the spares in case of work cancellation, postponing the work to a date after the end of fiscal period or decreasing the quantity of materials needed after they have been ordered. This information is used in analytical records for allocating the free stock among the PC's.
15.3.3	Records of minimal inventory, including centralized minimum inventory. Meeting the demand by means of minimal inventory I slinked to a specific cost centre for the minimal inventory to be replenished from such centre.
15.3.4	Allocating the spares inventory receipt in demand lines (if no order is present) or in order lines. As a result, the spares received are reserved for specific tasks.
15.4	**Purchase Management**
15.4.1	Negotiating contracts with spare part suppliers. Management of catalog prices on spare parts and terms of delivery.
15.4.2	Holding of a tender for fixing supplier prices
15.4.3	Holding of a quarterly tender for supply
15.4.4	Framework tenders
15.4.5	Setting up purchase requests for spares and expendables. Both large (e.g. quarterly) requests and prompt requests for unscheduled tasks are possible.
15.4.6	Setting up requests for in-house manufacturing. Monitoring of manufacturing on request.
15.4.7	Setting up requests for transportation from other branches. Monitoring if transportation on request.
15.4.8	Setting up requests for spare parts manufacturing to order
15.4.9	Delivery order placement and status monitoring

15	Enterprise Assets Management (EAM)
15.4.10	ABC analysis of spare parts, consisting of the following stages: • Compilation of a spare parts list for analysis • Analysis proper, i.e. the list is divided into 3 groups: A, B and C • Creating a one year tender for Group A
15.5	**Resource Management**
15.5.1	Manpower allocation according to work demand in labour resources is performed with account for existing working time fund and works already planned. Here, only performers subordinate to a certain PC or any performers in the branch who belong to the corresponding labour resource may be taken into account.
15.5.2	Allocation of tools according to work demand in tools and equipment is performed with account for the works already planned and tools available in stock.
15.5.3	Allocation of subcontractor resource is performed on the basis of the existing work contract settled with the subcontractor
15.6	**Work Performance**
15.6.1	Two work performance schemes are possible for work containing subordinate tasks: • For the whole root work • For specific subordinate tasks There are also two methods of work performance control: • Via work orders • Via survey lists (for works not requiring spare parts, expendables and resource spending, e.g. inspection).
15.6.2	Work performance via work orders consists of the following stages: • Setting up a work order. Support of setting up multiple work orders; if necessary, the work orders may be printed • After setting up, a stock removal claim on spares and expendables is issued • Notice on work order execution (may be made by a PC or a performer). The following information should be entered: ○ Actual quantities of spares and expendables used. If any quantity of spares and expendables remains unused, the rejection is recorded and the reason for rejection is specified ○ Actual working time of the performers and total time spent ○ Actual working time of the subcontractors and total time spent ○ Actual time of using tools • A return-to-stock form is issued for unused quantities of spares and expendables • Work order acceptance by a PC. At this stage, accounting transactions and the write-off of spares and expendables are performed.
15.6.3	Work performance via a survey list includes recording the very fact of a survey and operating parameter values recorded during the survey

15	Enterprise Assets Management (EAM)
15.7	**Record of Engineering and Operational State**
15.7.1	Record of the engineering state of equipment, e.g. failures, damage, shutdown, service due etc. For each engineering state there is a processing procedure and a sequence of statuses. E.g. the sequence for failure is as follows: • registration • acceptance for processing • task creation: failure elimination task is created • task executed (work order completed) • task accepted (acknowledged by task creator)
15.7.2	A gateway for exchanging information on the engineering state of equipment with external systems: • engineering state record logging • current elimination status inquiry • elimination acceptance acknowledgement procedure
15.7.3	Engineering investigation report for certain engineering states or failure consequences preparation. The report form allows modeling the following investigation stages: • investigation initiation • recording of investigation results • approval of investigation results using standard assertion system • informing relevant branches of the enterprise about the investigation results
15.7.4	The following classification features of the event are recorded in the system after failure elimination: • immediate cause of failure • root cause of failure • severity category of failure consequences • downtime duration • total loss
15.7.5	Operational state record, e.g.: • mounting/dismounting • preservation/depreservation
15.7.6	Recording the equipment operational parameters, including the parameters during diagnostics. In case of exceeding the limit values the system creates a record on mechanical condition
15.8	**Budget Management**
15.8.1	Management and calculation of budgetary prices on spares, expendables and other resources
15.8.2	Management of budget estimate of planned work
15.8.3	Estimation of emergency job volume
15.8.4	Calculation of cost budget/estimate on the basis of work plan. Management of work plan compliance with the approved cost budget/estimate.
15.8.5	Calculation of purchasing budget/estimate on the basis of work plan and the quantities of spares and expendables remaining in stock. Monitoring of purchasing budget execution during the whole year and in specific periods.

15	Enterprise Assets Management (EAM)
15.9	**Recording and Planning of Equipment Running Hours**
15.9.1	Calculation of actual equipment time in service As meters cannot be installed at each EL where running hours should be calculated, special rules are used for assigning meter readings to subordinate EL with account for actual amount of work performed (in case of production equipment this is actual information on the range of products/semi-finished products manufactured at a specific production line)
15.9.2	System record on equipment decommissioning plans (for preservation or overhaul). The output information concerns equipment availability plans
15.9.3	Products and utilities manufacturing plan allocation among production lines and distribution of such plans among subordinate EL's. Coordination of planned and actual values of running hours by means of verification of actual running hours by the time of planning. The output is a running hours change forecast for EL.
15.9.4	Employing statistical load planning models involving technical data sheets for utility producing equipment. A variant of this approach is using statistical models at workshop level.
15.9.5	Calculation of demand in utilities involving parameter charts
15.9.6	Calculation of demand in utilities involving specific indicators relative to production plan
15.9.7	Implementation of the calculated equipment running hours forecast in calculation of work plan on running hours basis
15.10	**Reliability Management**
15.10.1	Periodical equipment rating The basis of the procedure is an inquiry filled in by the person responsible for maintenance and containing both weighted and unconditional parameters. The unconditional parameter defines the category (e.g. safety impact -> Category A). Weighted parameters are summed and than multiplied by the value of planned equipment load, thus obtaining the value of integral equipment criticality index. Four algorithms are available for category defining. • By falling of the integral index within the category range • By falling of the integral index within the range reduced to limit index values for categories • Distribution of equipment index by the cumulative index sum divided into ranges for each category • Distribution of equipment index by the limiting resource (labour input, maintenance cost etc.). Several limiting resources may be specified.
15.10.2	Nonconformance analysis of plans and equipment categories. Performed after recalculation of categories or on user's request at any moment. The following types of nonconformance are considered: • Planned work following the strategy based on running hours or on calendar in relation to the category higher than that of the current EL (A -> B, B -> C) • Planned work for decommissioned equipment • Planned work following the strategy related to the category lower than that of the current EL, i.e. the category became higher than that of the planned work (C -> B, B -> A) • EL belonging to Category A with no planned work for Category A

15	Enterprise Assets Management (EAM)
15.10.3	Calculation and display of equipment condition index. The index is calculated with account for the following data: • Measured equipment parameter values • Data obtained by audiovisual monitoring performed by the operator • Failure statistics based on compliance with running hours and failures which occurred in preceding periods
15.10.4	Failure classification and analysis
15.10.5	Typical and critical defects
15.11	**EAM BI Analytical Reports**
15.11.1	Group of cubes "Stock" includes the following data: • Availability of spares and expendables at specific date • Reserve for work at specific date • Disuse of spares • Minimum inventory norm • Free stock • Budgetary, actual and operational price • Deviation in using spares • Spares without action for a certain period • Standard stock
15.11.2	Group of cubes "Demand in spares and meeting the demand" includes the following data: • Demand created by work • Meeting the demand on claim stage • Meeting the demand on order stage • Spares supply history • Spares use history
15.11.3	Group of cubes "Planning and work execution" includes the following data: • Planned work • Failure elimination • Demand in labour resources • Use of labour resources • Labour hour cost estimate • Work execution via work orders • Work execution via survey • Availability of tools and equipment • Demand in tools and equipment • Use of tools and equipment • Demand in third party resources • Use of third party resources
15.11.4	Group of cubes "Budgets" includes the following data: • Cost of equipment maintenance and repair (cost budget) • Purchasing budget
15.11.5	Group of cubes "Reliability" includes the following data: • Number of failures • Equipment running hours • Duration of downtime

16. Manufacturing

16	Manufacturing
16.1	**Technological maps**
16.1.1	Basic information on all technological production processes input: • Technological processes description • Processes stages description • Each stage steps description
16.1.2	Technological processes results classification: • List of production stages from RM to finished goods including all types of WIP • List of utilities, used for production • List of works, processed in terms of auxiliary production
16.1.3	Creation of technological processes patterns – description of each processes flow, description of connected to process semi-finished products, utilities or equipment time expenditure Technological processes patterns attributes: • Pattern period of life • All alternative work centers • RM expenditure standards for each stage • Requirements in utilities • Work centers capacities • Each stage\step duration, connection between starting period of one stage with other stages
16.1.4	Hierarchical structure of technological processes in terms of each finished products category
16.1.5	Generation of technology maps patterns, that describes complete process of particular product or product group production on base of production processes patterns, links between production stages and RM recipes
16.1.6	Historicity of all system descriptions. Actual information presence on each date
16.2	**Production Management**
16.2.1	***Main production processes control*** • System supports manufacturing flow modeling and managing of analytical batches of semi-finished products and finished goods in each production area up to specific equipment units. • The system's application architecture is based on technological process descriptions in various production areas and their interactions.
16.2.1.1	Support for flexible description of any manufacturing flow by implementing adjustable concepts and setting up the relationships between them.
16.2.1.2	The following concepts are implemented: "process", "production stage", "work center" (an equipment unit). All processes, their attributes and relationships are defined through settings.
16.2.1.3	Adjustable settings: • Number of processes

16	Manufacturing
	• Production batch flow through processes and their stages • Steps as a part of each stage of the process • Process attributes describing equipment and material usage • Support for technological processes extension.
16.2.1.4	System tracks work center statuses and changes their statuses as production batches move through the current process.
16.2.1.5	Support for additional analytical attributes and descriptive characteristics for production batches, semi-finished products, and finished products
16.2.1.6	Trace production batches within a process, at each stage of the process. For each production batch, the following information is available: • Source batches information (raw and consumable materials, semi-finished products received from previous processing stage) • Batches obtained from the current process stage • Equipment utilization information
16.2.1.7	A log of equipment unit (work center) state changes-provides information on each specific production batch
16.2.1.8	Analysis of operation schedule for each work center
16.2.1.9	View lab analysis results for each batch of raw materials and semi-finished products
16.2.1.10	Access and process any information stored in the system by Supply Chain Management and Inventory Accounting system
16.2.1.11	Present results graphically: creates manufacturing flow progress charts
16.2.1.12	Manufacturing flows modeling for multiple sites (branches) within a single database
16.2.1.13	Capability of modelling the production processes of different legal entities sites in one database in case of technological processes coincidence
16.2.2	***Inventory management in production, RM report*** General Scope: System support management of inventory and semi-finished products in production shops and financial reports preparation
16.2.2.1	RM management by analytical batches and places of storage. Inventory movement between production warehouses, inventory write-off management
16.2.2.2	Generation of applications from the production for material warehouses and generation of loading lists for transportation
16.2.2.3	Negative balance for analytical batches control (including places of storage). Use of negative analytical batches balance for errors correction
16.2.2.4	Semi-finished products movement by technological processes. Support correction of WIP balance
16.2.2.5	Support warehouse Inventory taking: special ERP document "Inventory taking" provides fast and convenient input information on inventory and semi-finished products presence

16	Manufacturing
16.2.2.6	WIP accounting by RM, used in production. Support of Inventory taking differences allocation on produced products
16.2.2.7	RM report periods and stages management. Support primary accounting block depending on current RM report stage
16.2.2.8	Unfinished production processes management, exclusion of unfinished processes from RM report
16.2.2.9	RM write of standards calculation by sorts and particular materials. Standards analysis for different production sites
16.2.2.10	Generation of data for the calculation of by-product self-cost and passing these data to other modules
16.2.2.11	Log for all user activities, including their date and time, user name, and workstation name
16.3	**Utility Management**
	General Scope: System support utilities expenditure management by expenditure points and planning expenditure modelling
16.3.1	Flexible description of expenditure points structure, as for primary (for expenditure values input) and for calculated (for aggregation)
16.3.2	Utilities description by types, additional factors that influence on utilities expenditure description (for example environment temperature)
16.3.3	Support of various sources for expenditure input: • Directly from meters (with help of MES WonderWare system) • Manual input • Import from Excel
16.3.4	Planning utilities expenditure modelling functions: • 2 models for each expenditure points are available • Formula usage in models description • Goal values calculation on base of additional parameters • Additional parameters values collection from different sources including Monolit: Production management module
16.3.5	Reports generation in different formats: by expenditure points, by divisions, production sites, aggregated values
16.3.6	Expenditure points link to particular users
16.3.7	Log for all user activities, including their date and time, user name, and workstation name
16.4	**Utility Consumption Modeling**
16.4.1	The system is designed to describe a mathematical model for calculating the standard utility consumption within any technological processes specified in the "Process charts" module.

16	Manufacturing
16.4.2	Capability to describe the utility consumption rate in two ways - as a specific value; as a mathematical formula.
16.4.3	Use of the following as formula arguments: • any technological processes characteristics; • any attributes of process sites involved in the description of technological processes; • any characteristics of the products involved in the description of technological processes.
16.4.5	Built-in formula editor. Capability to describe formulas in text and tabular form.
16.4.6	The appendable set of functions used in the formula description.
16 4.7	Capability to customize the calculation and analysis scheme directly by business analysts of the client company.
16.4.8	Built-in formula debugging feature - without recording the results in the system.
16.4.9	Built-in calculation results analysis feature with a detailed display of the entire calculations chain.
16.4.10	Calculation errors logging tools.
16.4.11	Tools for operational analysis using OLAP.

17. Demand forecasting and sales planning

17	Demand forecasting and sales planning
17.1	**Master data and main functionality**
17.1.1	The classifier of delivery addresses (Geography of sales) • Updating of addresses from Sales base under the schedule or from the user interface. • Marking of active addresses on which forecasting/planning should be carried out. • Markup of new addresses. A sign "is checked up". • Binding of obsolete addresses to active addresses for support of history of demand and shipments. • Binding of CRM system warehouses to delivery addresses, for reception of the stock data in distributors warehouses and market sales from CRM. • Addresses binding with DRP planning objects. • Maintaining synonyms for names of territories for Sales branches, regions, contract types and channels. • Territories for Commercial Export and IC Export • Addresses where forecast was calculated with help of G4C highlight • Users access management by a geographical principle. Binding of users with territories accessible to them. • Report for the incorrectly linked addresses.
17.1.2	Geography of secondary sales: • Classifiers on base of Sales management and CRM update • Links between trading networks from CRM and companies from Sales management creation
17.1.3	Register “Sales regions” • Update from Sales management system
17.1.4	SKU classifier • Updating of the data about SKU under the schedule or from the user interface.
17.1.5	Matrix of the FG: • Instructions for every SKU and Sales branch on the periods when the goods should be on sale in this territory. • Sale territory can be set on base of Sales regions for delivery addresses (warehouses) • Territories and periods where SKU is brand-new setting • Operative (from the matrix interface) updating of the FG classifier. • Updating of the OLAP data.
17.1.6	Analogs function for new SKU forecasting: • SKU group that will be used in new SKU forecasting determination

17	Demand forecasting and sales planning
17.1.7	Business procedures management • Specific work procedure for each forecast or the plan type. Approval– from top to down or from below upwards. • Display of the current status on each step of procedure. • User actions log. • Errors log
17.1.8	Synchronization of the data • Loading of the fact and directory data under the schedule • Loading of the data and directories on the user request for selected attributes
17.1.9	Calendar of marketing actions • Conducting the list of marketing actions (the period, assortment, territory, type) with instructions of planned and actual efficiency (expert estimations).
17.1.10	Production sites capacities by periods and production lines
17.2	**Demand forecasting**
17.2.1	The rolling forecast of demand for 12 months across Russia • Forecast types: the budget, the budget 0+12, X+12. • Task for forecasting: the period, assortment • Correction of the computed forecast. • Maintaining history of change of forecasts. Recover of the previous version. History of a cell change. • Saving of corrections caused by external influences on the market (marketing actions). • Copy of corrections from previous to current forecast. • Analysis of deviations from the last forecast and last year. • Analysis of the forecast for conformity to the goals on market segments, on packing, on brands (tabular and graphic representation). • Loading of the forecast of demand from Excel for new SKU (on which there are no statistics).
17.2.2	The rolling forecast of demand for 12 months to delivery addresses • Forecast types: the budget, the budget 0+12, X+12 • Distribution of the forecast of demand across Russia on Geography of sales on a distribution matrix. • Distribution process from top to down is managed by procedure • Distribution analysis on territory as a whole and with breakdown on SKU. • Correction of distribution of the forecast on SKU. • Maintaining history of change of the forecast to addresses. Recover of the previous version. • Filter on unallocated SKU. • Analysis of deviations from the last forecast and last year.
17.2.3	Estimation budget X+Y:

17	Demand forecasting and sales planning
	• Actual information on previous periods upload • Selected forecast copy to planning periods • Forecasting periods values correction by SKU • Allocation of adjustments from top to bottom according to current rules • Estimation changes log by SKU and territories. Ability to roll-back to previous version • Corrected values highlight in interface • Unallocated SKU list • Variance from previous year or forecast analysis
17.2.4	Rolling forecast for export sales: • Forecast types: commercial export budget, IC export budget, Forecast X+12 for commercial export, Forecast X+12 for IC Export • Information upload from interface of Excel • Corrected values allocation on countries or addresses, depending on forecast type • Variances analysis
17.2.5	Estimation of budget X+Y for export sales • Forecast types: Estimation for commercial export, Estimation for IC export • Upload information from interface or Excel • Forecast correction by SKU • Corrected values allocation on countries or addresses, depending on forecast type • Variances analysis
17.2.6	Forecast for brand-new SKU: • New products distribution goals by regions and outlets setting • Season profile for new products setting • Period of actual sales usage setting • Forecast for new SKU calculation with use of distribution goals and season profile for 12 months • Unlimited number of calculations with different parameters in one forecast version • Results analysis in OLAP • Publishing of calculation results • Forecast copy functions
17.2.7	9 weeks demand forecast by delivery addresses: • Forecasting parameters – SKU, territories and end period for actual information selection • Forecast calculation in external module • Forecasting on main and PROMO SKU • Forecasting results analysis • Forecast status by regions • Forecast status presentation in interface

17	Demand forecasting and sales planning
17.3	**The forecast of delivery for distributors warehouses (to delivery addresses)**
17.3.1	Rolling forecast of delivery and distributor stocks forecast for 9 weeks: • Delivery forecast calculation on base of 9 weeks demand forecast and actual stocks information with use of restrictions on goals and delivery • Stock goals correction during forecast calculation in case of goals comply failure. Logging of such changes • Goals are set by SKU and Address • Forecast correction by addresses and SKU • Forecast correction is managed from top to bottom • Forecast confirmation with distributor via WEB interface
17.4	**Sales plan**
17.4.1	Secondary sales proposals preparation: • Secondary sales proposals preparation by sales geography • Proposals collection from bottom to top • Proposals analysis with use of actual information on current and previous year
17.4.2	Secondary sales plan: • Secondary sales plan preparation by geography • Information from proposals to plan copy • Plan preparation from top to bottom • Plan correction on each level by authorized users • Volumes transfer between territories • Plan publications history log
17.4.3	Purchase plan: • Plan calculation on base of secondary sales plan and distributor actual stocks. Plan is calculated with use of goals and daily stocks • Plan preparation from top to bottom • Plan correction on each level by authorized users • Volumes transfer between territories • Plan publications history log
17.5	**Scenario analysis**
17.5.1	Managing scenario support at the plan type level: • Setting the scenario support flag. • Building "end-to-end" scenarios (scenario chains) for different types of plan within S&OP (Sales and Operations Planning) process.
17.5.2	Scenario management: • Creating and deleting scenarios, copying data and settings from existing scenarios. • Publishing the selected scenario.
17.5.3	"What-if" analysis: • Scenario analysis and comparison using OLAP. • Factor analysis of plans using OLAP.

17	Demand forecasting and sales planning
17.6	**Plans and forecasts analysis**
17.6.1	Loading plans and forecasts into a multidimensional database (cubes): • Data in cubes is updated immediately after changing the data by the user. • Actual data (sales data) and regulatory reference information update is performed automatically based on the schedule or "on demand" from the user interface.
17.6.2	Functions for analyzing plans and forecasts: • Query in the required aggregation of data. • Comparing plan versions and scenarios. • Comparing of plans with actual data. • Factor analysis of plans by influence factors, which were considered in the plan version/scenario.
17.7	**Service functions**
17.7.1	Task management for creating and calculating weekly demand forecasts and receipts forecasts at distributors warehouses: • Planning the tasks for creation and calculation of forecasts specifying task date and time, the type of forecast created, calculation parameters. • During task execution, the conditions necessary for creating the forecast are checked, system actions logging, errors and the task status logging is performed.
17.7.2	Forecast publishing task management: • Forecast publishing task planning specifying the forecast version, publishing date and time, modules which the published forecast must be passed to. • During task execution, the conditions necessary for publishing the forecast are checked, system actions logging, errors and the task status logging is performed.
17.8	**User interface**
17.8.1	General functions • Updates installation • User authentication based on its Windows user account in (Active Directory) • User actions log • System settings and registers change log
17.8.2	Forms of work with forecasts and plans • Filter of data by SKU and Geography of sales (delivery address). • Adjustment of accuracy of data output — from 0 to 4 signs after a comma. • Adjustment of information output in tables and on graphs. User can specify where each indicator should be visible. • Adjustment of colours and styles of data output on graphs. • Data entry by movement of graphs parts. It is possible to change values for data range entirely by moving of a graph line. • Export/import of the data in/from Excel.

18. Master Planning. SCM Optimization

18	Master Planning. SCM Optimization
18.1	**Model definition tools**
18.1.1	Special software "Designer of models" for the definition of SCM model.
18.1.2	Creation of a model template on the basis of set of node types and rules of links establishment between them
18.1.3	Support of set of alternative model templates with possibility of a choice of a specific template for the decision.
18.1.4	Support for definition of any set of model node types and their classification within the limited set of subject categories (warehouse, process, vehicle, monitor, controller and so forth). Support for fixed set of attributes for each category
18.1.5	Parameterization of model node types by references to types of directories of Monolit Suite.
18.1.6	Description of rules creation of final set of model nodes and their attributes by references to interface procedures of Monolit Suite which define specific combinations of directories values and parameters for each node type.
18.1.7	Description of rules of arches creation on the basis of conformity to directories values at the next nodes.
18.2	**Complete model creation**
18.2.1	Support for expanded set of the predetermined interface procedures in Monolit Suite structure, providing parameterization of model nodes in conformity to actual values of demand, inventory, capacities, delivery conditions and so forth
18.2.2	Tools for interface procedures processing in correct sequence according to model description in the designer
18.2.3	Developed tools for model integrity check, for errors and for critical situations recording, triggered by a call of the interface procedures.
18.2.4	Effective tools for allocation of subsets from full model. Support for their execution launch, necessary for testing and debugging of new models.
18.2.5	Saving of generated model in Monolit Suite database before its call on execution.
18.2.6	Set of verifying reports allowing integrity check and consistency of generated SCM model.
18.2.7	Models deferred creation and calculation function plans models calculation schedule including night time for servers load balance
18.2.8	Operators E-mail, SMS informing on calculation process and found errors
18.2.9	With help of 'Autochange' function models can be changed after their creation. Provides flexibility to model. 'Autochange' may be imported from Excel.
18.2.10	Calculation parameters versions storage function. What-if analysis function, based on fixed field of parameters
18.2.11	Ability to select one of several SQL servers storing the necessary data to form a model for balancing the server load and increasing the system fault tolerance.

18	Master Planning. SCM Optimization
18.3	**Model with optimization software Oracle SNO**
18.3.1	Support for file creation in a format required by optimization software.
18.3.2	Support for additional parameterization of execution algorithm.
18.3.3	ORACLE SNO software start on the model execution.
18.3.4	Tracing of a current status of model execution process.
18.3.5	Reception of execution results in the form of output file of ORACLE SNO software.
18.3.6	Structure analysis of output file and loading of execution results in a database by tools of Monolit Suite
18.4	**Model execution results analysis**
18.4.1	Model execution results comparison with directories of Monolit Suite system. Revealing of potential integrity problems.
18.4.2	Extracting of model execution results in specialized OLAP — cubes, structured on the basis of objects categories.
18.4.3	Support for comprehensive results analysis by OLAP tools. Support for analytic tools of MS Excel and BI tools of MS Performance Point Server.
18.4.4	The mechanism of deferred deletion of calculation versions from OLAP cubes and Model Designer allows selectively clearing data structures from test calculations.
18.5	**Models library**
18.5.1	Budget models for 12/18 months.
18.5.2	Budget models estimate X+12/X+18 months
18.5.3	LRP Models for 36 months
18.5.4	Weekly model for 13 weeks
18.5.5	Operational weekly delivery matrix model

19. Distribution Resource Planning (DRP)

19	Distribution Resource Planning (DRP)
19.1	**Sales planning**
19.1.1	Tools for defining plans types with indication of planning axes, horizon, interval and slot.
19.1.2	Tools for defining check points of forecast stock by means of establishing connection between plan types (income , outcome)
19.1.3	Tools for indirect sales control by means of integration with MONOLIT Sales Management modules and MONOLIT CRM system
19.1.4	Tools for conducting OOS (out of stock) risk analysis at key account warehouses (distributors, RKA)
19.1.5	6-week sales forecast coordination with distributors. Coordinated forecast exchange with MONOLIT: Demand Forecasting and Sales Planning system
19.1.6	3 planning horizons have been established: day-by-day planning, weekly planning, annual month by month planning (including budget), strategic 36-month planning
19.2	**Processing of actual sales information**
19.2.1	Built-in tools for information acquisition on actual stocks and sales across all DC (including plants) according to the schedule or on user's request. Acquisition of actual information can be performed both in synchronous and asynchronous transfer mode.
19.2.2	Tools for plan/actual data comparison and presentation
19.2.3	Tools for on-line calculation and presentation of analytical information on product sales provision by warehouse stocks, goods in transit, and shipment and production plans. Dynamic recalculation of all analytical data "on the fly" upon any changes introduced in forecasts.
19.2.4	Integration with MONOLIT: Demand Forecasting and Sales Planning system to obtain actual sales plans
19.2.5	Integration with MONOLIT: Master Planning system to estimate the feasibility of obtained sales plans, with account for production, logistic and base material limitations
19.3	**Distribution planning and provision control**
19.3.1	Built-in tools for information acquisition on actual shipments and goods in transit from production units to DC according to the schedule or on user's request. Acquisition of actual information can be performed both in synchronous mode (remote procedure call) and in batch mode with the use of the system of guaranteed correspondence delivery. Besides that, it is possible to obtain data from other sources (including Excel or .dbf files)
19.3.2	Tracking goods in transit
19.3.3	Weekly distribution planning is accomplished by calculation of weekly planning model in MONOLIT: Master Planning system. The system develops the model on the basis of sales forecasting data, state of equipment, raw material inventory, formulations, job tracking sheet, and logistical costs.
19.3.4	Processing of weekly applications involves shipment plan calculation with the help of Xpress MP optimizer. Here, the optimization criterion is the minimization

19	Distribution Resource Planning (DRP)
	of possible OOS situations. During model development, the system also checks the sufficiency of distributor's assets with account for their payment schedule.
19.3.5	Daily production planning is carried out based on the factories provision rate in the assigned territory, with consideration of the planned promotional activities and the need for the export goods production.
19.3.6	Obtaining information on actual stock and actual sales across distributor warehouses. Tools for shipment orders creation across distributor addresses (distributor stock control)
19.3.7	Tools for operative dispatching. Tools for shipment orders input and processing from each production site for the nearest period (day, week,…)
19.3.8	Display of order statuses. Tracking: • actual order execution • influence of each department on order modification
19.3.9	Analysis and recovery of deleted orders
19.3.10	Shipping notes and bills of loading based on shipment orders generation.
19.3.11	Allocating products declared for shipment to means of transport and control of exceeding of allowable production amounts.
19.3.12	Monitoring the corrections introduced into orders by company specialists. The system logs all the user order changing activity, arranges them according to their reasons, with account for their objectivity, presents the factor analysis data in the form of pivotTable, and prepares the data for display in cubes.
19.3.13	Control of correspondence of the order to actual amount of products shipped against a stock delivery note. Orders for extra shipment generation to fit the order size
19.3.14	Control and analysis of transport costs for each order
19.3.15	Output report forms with the function of building diagrams and pivot tables for further use by various institutions.
19.3.16	Processing of various order types in the DRP system: • Order for shipment of products to network customers • Order for the shipment of products to distributors and interfirm deliveries • Orders for shipment of empty PET containers • Order for shipment of products to export customers • Order for reusable containers return • Orders for shipment and return of CO^2 cylinders
19.3.17	Vehicle ordering process. Capability of vehicle pre-ordering by direction. Kitting of accepted vehicles Editing orders is carried out separately from the vehicle orders processing. It is possible to adjust the assortment of shipment orders until the completion of shipment. Capability of placing several orders for the shipment of products in 1 vehicle. Determining the vehicle rating depending on the criticality of the products shipment to the client against the regulatory provision rate
19.3.18	Services for accumulation and shipment to low-volume addresses. Estimation of the full vehicle FTL date.

19	Distribution Resource Planning (DRP)
	The accumulation of products for shipment on FTL date.
19.3.19	Services for promotional activities planning. Coordination of additional promotional scopes with specialists in sock management. E-mail distribution /updates.
19.3.20	Automatic algorithm for calculating the stock rate in the supply chain.
19.4	**Distributors Credit Terms DataWarehouse**
19.4.1	Saving all information on balance sheet and payment change dynamics for each distributor according to the schedule
19.4.2	Recording distributor balance during the credit control procedure
19.4.3	Coordination of payment plan with the distributor based on the amount of products planned for shipment. Distributor payment plan fulfillment control and confirmation mechanism.
19.4.4	Completely transparent algorithm of actual clients balance formation
19.4.5	Currency regulatory control of distributors credit terms by setting a planning space
19.4.6	Tools for calculation and control of debt on reusable containers to increase turnover and fulfil the company objectives with consideration of the returnable containers fleet.
19.5	**Processing of orders from distributors (WEB portal)**
19.5.1	User-friendly WEB portal interface for shipment orders registration. Technology optimized for operation on low-speed and instable data transfer channels. Includes built-in visualization tools (charts, diagrams)
19.5.2	Data transfer from the Web into the main database with delivery report
19.5.3	Dispatches generation based on received orders
19.5.4	Support of user access rights restriction tools on WEB
19.5.5	Setting the order processing period. Locking of order processing outside the specified period
19.5.6	On-line access of distributors to current order information on the Web
19.5.7	Additional analytical information for distributors: • Comparison of the order with sales plan • Cost of ordered products • Planning shipment date, delivery type • Current and planned balance changes – payment schedule • Graphical display of order vs. sales plan comparison
19.6	**Support of Master Planning model generation**
19.6.1	Setting packages with change history, for scenario analysis and generation of model clusters in the «Monolit: Master-Planning» module
19.6.2	Means of model consistency control
19.6.3	Master data extra processing system. Recalculation of sales forecasts as part of scenario analysis

19	Distribution Resource Planning (DRP)
19.6.4	The system supports the master plan processing cycle from plan compiling to calculation and uploading the plans to data storage facilities and other systems.
19.7	**Processing the orders of retail networks**
19.7.1	Import of orders sent via EDI, PDA and Excel
19.7.2	Delivery time record accurate to the minute
19.7.3	Order progress tracking using "traffic light" signals, comparing actual order progress with planned/critical values
19.7.4	Algorithm of order distribution among retail networks
19.7.5	Record of products in stock with account for shelf life
19.7.6	Analysis reports on processing orders of retail networks, including order correction in DRP system and tracking product returns by analytic data
19.7.7	Promo/non-promo product remainder selection for meeting the order requirements Capability of products shipment in various packages: pcs., v/p, boxes, pallets...
19.7.8	Contract liabilities before customers taken into account in order processing
19.7.9	Labelling the incoming orders of network customers in accordance with the agreed promotions.
19.7.10	Tracking the order execution with consideration of the GPS data.
19.7.11	OMF - Control Tower project. Unified center to control the receipt and correctness of order placed by network customers.
19.8	**Integration of solution for multiple enterprises within a single platform**
19.8.1	Ensuring the capability of planning and managing distribution of several enterprises within a single platform, separation of access based to the settings of planning space
19.8.2	Partitioning data structures by planning space eliminates the mutual effect of users from different companies.
19.8.3	The chain of processing customer orders may differ based on the needs of companies.
19.8.4	Algorithms of distribution planning and management constitute a solution library for various companies belonging to a single group. Both joint use of a single planning and distribution scheme and customization of solutions for each company are possible
19.8.5.	The system is ported to MS SQL 2014. The solution configuration provides for the main processing server and a set of replication servers built using the always ON technology for generating reports and load distribution.
19.8.6	Support for the use of Memory Optimized Table technology, which can significantly reduce the time to access shared tables, is implemented.

20. Supplier relations management

20	Supplier relations management
20.1	**MRP. Raw materials requirements planning**
20.1.1	***Raw material stock level check and requirements calculation***
20.1.1.1	Access to the inventory information in warehouses of various production sites or the logistical centers of the company (including, various legal entities or company branches.
20.1.1.2	Analytical data: • provision rate in days - number of days for which there is enough stock at the current planned consumption • Deficit/Surplus - absolute deviation from the safety stock for each day • below safety stock/Above turnover rate - absolute value of the deviation from the stock indicators for each day • Totals by Materials, Plant, Date, Branch
20.1.1.3	Access to suppliers open orders with information of order status and date of expected raw materials receipt.
20.1.1.4	Configurable algorithms of inventory calculation on a date of planning start on the basis of the actual data, forecasts of materials for manufacturing needs, the data about materials in transition and open orders to suppliers
20.1.1.5	Calculation of production supply by materials stocks on the basis of need forecast
20.1.1.6	Configurable algorithms for calculation of raw materials needs on a basis: • systems of calendar plans (forecasts) of FG and semi-finished goods production • actual data of daily average consumption for the previous periods • actual data of previous period consumption taking into account a linear trend • consumption norm for period • links between RM and products by sales directions
20.1.1.7	Setting of materials consumption norms for FG, semi-finished goods production by the stages of production cycle including planned losses, time required for production and possible delays at the beginning of the use of specific materials
20.1.1.8	Linking of materials positions with directions of sales and finished goods characteristics (export country, type of the marketing activity)
20.1.1.9	Accounting of reserve stocks values in days or natural units.
20.1.1.10	Support for raw materials and purchase volume estimation (on the basis of long-period plans) for purchasing budgets creation and new agreements closing.
20.1.1.11	Support for alternative situations scenarios in the calculation of the scheduled stock balances and planned receipts: • variations of date, order quantity, supplier, • requirement quantity manual correction • use of "internal delivery" information for own production plans calculation
20.1.2	***Bill of Materials (BOM)***

20	Supplier relations management
20.1.2.1	Creation of BOM (Bill of Materials), including: • production stages • consumption norms at each stage with the possibility to indicate a specific material • demands for technological resources • capacity requirements at each stage (for specified working center) • duration of each stage (for specified working center) • specifying alternative material code and/or consumption norms depending on: factory, season, production line, geography of sales • BOM (Bill of Materials) versions (only one version can be active at a time)
20.1.2.2	Auto-generation of BOM patterns, that describe full SKU production cycle on the base of linked production processes and stages descriptions
20.2	**Contracts with suppliers and recommendation for supplier selection**
20.2.1	***Suppliers contracts on raw materials database keeping and creation on its basis recommendations for supplier selection, batch volumes and supply conditions.***
20.2.1.1	Provide of supplier's product range and price both as real material and generalized material.
20.2.1.2	Support for different supply price indications in Contract depending on delivery terms or delivery batch volume.
20.2.1.3	Support for different delivery cost and additional services indication in "Contract with supplier" depending on various shipment places (cities or railway stations).
20.2.1.4	Setting up of minimum / maximum production or transport batch for each Contract / Stage of contract / product range
20.2.1.5	Configurable schedule of delivery and supplier's capacity restrictions within the Contract
20.2.1.6	Register of possible suppliers in the form of quotations.
20.2.1.7	Calculation of full price including transport expenses for supplier rating.
20.2.2	***Optimum supplier selection for purchase by specified algorithm***
20.2.2.1	Formalization of supplier selection process on set criteria: • Volume quotas on the suppliers, calculated by results of the tender • Rating of the supplier • Full delivery price including transport and customs expenses • Required delivery batch • Delivery terms • Payment terms • Support for delivery in specified terms
20.2.2.2	Creation of planned orders on the basis of system recommendations
20.2.2.3	Support for manual correction of planned orders with changes history records.
20.3	**PO creation**

20	Supplier relations management
20.3.1	***Supplier database creation***
20.3.1.2	PO creation on the basis of planned order for specified period (month, etc.)
20.3.1.3	Schedule of delivery based on PO with indication of nomenclature, quantity, shipment and delivery places and dates of planned receipt.
20.3.1.4	Capability of operating control of the generated order compliance with the contract amount
20.3.1.5	Capability to control the order amount distribution among budget items, control of budget amount non-exceedance for the distributed items.
20.3.1.6	Support for PO tracing by the following statuses: • *Order is created* • *Order is approved* • *Order is confirmed by supplier* • *Order is shipped by supplier* • *Order is delivered to warehouse* • *Order is fulfilled*
20.3.1.7	Order conformity check to delivery conditions described in Contract • *Nomenclature* • *Price* • *Currency* • *Batch size* • *Schedule*
20.3.1.8	Orders list review based with status information of each order
20.3.1.9	Support for creation of "Pay-in slip" for warehouse delivery on the basis of PO. Copying of PO lines in "Pay-in slip" with support for consequent corrections of quantity and nomenclature.
20.3.1.10	Actual deliveries check, their comparison with orders and correctness check of quantitative and price features • *By supply nomenclature* • *By delivery price* • *By delivery currency* • *By delivery volume*
20.3.1.11	Allowable deviations of delivery quantity in PO in % and absolute expression.
20.3.1.12	Review of actual shipment bills based on a contract for all production sites, including receipt date, quantitative and price features.
20.3.1.13	Support for information review on the planned deliveries to enterprise warehouses according to PO. Delivery execution check. Indication of delivery terms: • *Expected delivery* • *Delayed delivery* • *Partially executed delivery* • *Executed delivery*
20.3.1.14	Generation of purchase orders (to the plant or RS warehouse) based on the production order: • Quantity control by production orders (not exceeding maximum quantity) • Automatic determination of the purchase order price based on the quantity of the production order and the contract price (single price, regardless of the delivery batch)

20	Supplier relations management
20.3.2	***PO execution check*** Support for PO payment indication terms (schedule) and providing its fulfillment control
20.3.2.1	Payments schedule creation (financial obligations) by PO according to payment terms, described in Contract.
20.3.2.2	Check of PO financial obligations for not exceeding of Contract sum
20.3.2.3	PO financial obligations reimbursement for fulfilled deliveries.
20.3.2.4	Creation of ANP for invoices for fulfilled deliveries.
20.3.2.5	Review of invoices list related to contract, including state of payment of each invoice (not paid, partially paid, fully paid)
20.3.2.6	Control of quantity and price in receipts and invoices with consideration of the production order presence - the receipt is checked for compliance with the order and delivery terms in the contract, with consideration of the data in the production order
20.3.3	***Production orders***
20.3.3.1	Production orders input to record in the system of the quantity and cost of the batch that is ordered from the supplier and can be redeemed in parts for the agreed price regardless of the delivery batch: • With the indication of the contract - "working version" of the order, which is available for selection in supply orders • Without specifying the contract - the "planned version" of the production order. For coordination of scopes and terms with the supplier even without a valid contract • the possibility of manually specifying the "actually produced quantity" on the production order line
20.3.3.2	Generation of the supply order for the production orders: • distribution of quantities from production orders by purchase order lines using FIFO method • possibility of manual distribution for users with administrator rights • determining the price on the supply order line with consideration of the quantity from the associated production order line (several production order lines may refer to one supply order line)
20.3.4	***Interbranch movements***
20.3.4.1	Formation of the supply requirement from another branch, both from the supplier and the recipient in the form of a schedule document
20.3.4.2	Interbranch movement schedule documents used in the calculation of scheduled stock balances for the future period, both from the supplier and the recipient
20.3.4.3	Generation of the "Transport unit" document with consideration of the vehicle full load
20.3.4.4	Synchronization of the "Transport unit" document with transport logistics, for which it is used as a movement request
20.3.4.5	Generation of the picking list for warehouse logistics based on the movement requests in the same vehicle

20	Supplier relations management
20.3.4.6	Ensuring the interaction of warehouse logistics and the initiator of the movement request to resolve issues of picking (discrepancies in the declared and available quantity and/or products)
20.3.4.7	End-to-end tracking of movement through the receipt of document processing statuses (picking list at the shipment warehouse, delivery note for receipt at the acceptance warehouse, vehicle requirement and delivery note for shipping in transport logistics)
20.3.5	***Deficiency record***
20.3.5.1	Capability of prompt interaction between the employees responsible for planning of materials and the employees responsible for the preparation of the day-by-day (operational) production plan
20.3.5.2	A special user interface where, after a change in scheduled stock balances (as a result of the publishing the new version of the production plan, input/deletion of planned receipts, changes in balances, recipes, etc.), deficiencies in the inventories are displayed. • capability to handle deficiencies by different user groups • notification based on customized rules depending on the actions taken by users
20.3.5.3	Accounting for the results of deficiencies processing during the generation of a new version of the production plan • mandatory change of bottling plan if the deficiency has been confirmed • capability to change the bottling plan, if the deficiency has been specified as "high probability" • transfer of data on the quantity and volume of delayed bottling from the operational production planning subsystem (bottling) to the materials planning subsystem
20.3.5.4	Generation of KPI for operations depending on the quantity and volume of delays
20.3.6	***Reporting***
20.3.6.1	Support for following reporting creation: • Register of PO to supplier according contracts • Register of deliveries according PO • Register of deviations of deliveries from PO
20.4	**Request creation for non variable materials on the basis of departments requests.**
20.4.1	Support for departments requests review on RM
20.4.2	PO creation on basis of single or several requests from departments.
20.5	**Vendor Managed Inventory (VMI)**
20.5.1	Support supplier access to information via WEB portal: • Access authorization • High level of security with wide range of access settings • WEB interface based on adjusted business-functions list: information review, data input, calculation processing
20.5.2	Warehouse management by supplier function: • Supplier receive information on actual stock, list of requirements and calculated stocks on client warehouse

20	Supplier relations management
	• Information on suppliers actual stocks and stock level calculation on base of supplier production plan, current orders to client including "goods in transit" • Preparation of delivery schedule • Delivery schedule confirmation process • Browsing all the supplier orders (for delivery, production orders) with the possibility to generate a printed form in MS Office Excel • Delivery orders confirmation • Order process tracking
20.6	**Tender Module**
20.6.1	Maintaining single database of actual and potential suppliers of RM with detailed information on suppliers (projects, contacts, all documents etc.) Supplier descriptions confirmation.
20.6.2	Special document "Tender request" creation – for preliminary tender terms confirmation with all responsible persons
20.6.3	Different tenders types processing: opened (for all suppliers) and closed (for preselected suppliers)
20.6.4	Multi-stage tenders processing with winner selection for each stage
20.6.5	Tenders conditions preparation: • 2 way tender condition definition: globally for the tender, locally for each country. Country – Currency restriction option for prices detailed by countries • Tender object definition option – RM or service (for example FG delivery) are available as an object with unconditioned granularity • Historical data on service previous periods volumes and costs upload option available. That option is used for next periods tender demands preparation • Tender demand preparation by tender objects by periods (month, year, etc). Historical data can be uploaded from Excel • Delivery type specification
20.6.6	Tender creation on base "Tender Request"
20.6.7	Gathering of supplier's tender offers, saving of information in form of documents – tender offers.
20.6.8	Several tender offers link to one tender on different periods function.
20.6.9	Support tenders for specific products – prices are set by components, circulation prices.
20.6.10	Tenders offers by countries creation
20.6.11	RM delivery and additional delivery costs calculation
20.6.12	Final price calculation function. Calculation method is based on price components, supports formulas description, delivery and additional costs.
20.6.13	Transport task calculation with help of FICO Xpress Optimization Suite. All types of restriction can be used as a calculation parameters – production capacities, purchase split between several suppliers.
20.6.14	Tenders winners selection on base of transport task calculation.
20.6.15	Current and previous tender results comparative analysis.
20.6.16	Creation and confirmation special document "Tender list"– for tender results and winners description

20	Supplier relations management
20.6.17	RM suppliers auctions module: • Auction type selection: hidden (the competitors are hidden, only bids are available) opened (all information is available) • Demand definition by RM/Factory by periods (separate lots) • Additional costs by each supplier/lot option for total price calculation • Online bids monitor with currency recalculation option • Final price calculation based on lot and additional costs • Bids analysis diagrams by each lot • Auction prolongation in case of 'final call' period bid. (predefined minutes) • Auction winner selection – minimum bid supplier (excluding specific auction)
20.6.18	Specific auctions: • Dutch auction – automated price rise from minimum till moment of first price accept • Rating auction – bids are hidden, only supplier rating available • Rating auction with handicap – option to modify supplier rating on predefined absolute or % value
20.6.19	Support for creation of contract with supplier on the basis of tender and it results.
20.6.20	Reports on base of tender and auctions results.
20.7	**Claims processing**
20.7.1	Support for list of RM qualitative characteristics indication in contracts with suppliers in form of admissible intervals values.
20.7.2	Issuing of delivery discrepancy certificates on quantity or quality according to contract terms.
20.7.3	Estimation of penalty indemnification size according to claim. Support for optimal indemnification.
20.7.4	Reporting on claims issuing and indemnification for certain period.
20.7.5	System support the following business processes modeling on WEB portal: • Current claims status • Completed audits information • Qualitative characteristics information • Preparation of response actions on received claims from client.
20.8	**Analysis Module**
20.8.1	ABCXYZ – classification of raw materials based on volume and cost criteria.
20.8.2	Support for review of RM norms turnover and calculation of optimum delivery period
20.8.3	Calculation of safety stock level based on specified service level (SSL)
20.8.4	Calculation of economical order quantity (EOQ)

21. Production Planning

21	Production Planning
21.1	**Master data (classifiers and settings)**
21.1.1	Maintaining of production equipment (working centers) types classifier with features indication (nominal output and certificate capacity of each equipment unit), or obtaining the specified data from the Unified classifier of objects (UCO).
21.1..2	Register of various production equipment units existing at enterprise with allocation to types
21.1.3	Using Bill of Materials (BOM) for each product, including receipt of materials and set of working centers used for production, with a possibility of entering corrections to nominal values of output, capacity and time of technological process depending from a specific product. • Bill of Materials has the feature of historicity. • Possibility of entering receipt lines specific for a branch office.
21.1.4	Provide of various processing routes used for manufacturing of each product. Processing route is a sequence of passing through working centers that is used for manufacturing of specific product or semi-finished product. Possibility of defining of alternate routes (alternate types of equipment at each stage).
21.1.5	Grouping products with assignment to each group of priorities that specify "significance" of products of given group relatively to overall company business.
21.1.6	Ranking products inside one group that reflects optimum sequence of products starting at one working center from point of view of minimization of sanitary treatment and line readjustment time.
21.1.7	Setting of indication of time norms for sanitary treatment and readjustment within the limits of matrix of transition from one product onto another within one unit of production equipment, in the context of product attributes
21.1.8	Scheduled works register, defining their normative duration, connection of works with types of equipment. Support of settings for defining of regular works at equipment, specification of base and step of operations repeatability, depending on the product being produced
21.2	**Actual data**
21.2.1	Entering or loading from external source of data about availability of semi-finished products with indication of time of expected completing for each day by results of shift and daily reports of shop. History of changing of actual data is stored and presented to user in the form of report for any passed interval of time
21.2.2	Schedule of availability of production equipment units by all days of planned interval with consideration of scheduled repairs. • Possibility of defining for equipment of operation intervals with decreased or increased output, • Possibility of defining of availability factor for the purpose of decreasing or increasing of certificate output for specific equipment unit. • Operative correction of availability schedule in case of abnormal or emergency situations.

21	Production Planning
21.2.3	Organization of access to actual sales data of all sales branches within integration with "MONOLIT: Sales management" module
21.2.4	Organization of access to data about actual and forecast provision at warehouses of finished products of all sales departments within integration with "MONOLIT: Distribution Resource Planning" module
21.2.5	Organization of access to data about actual shipments of previous periods and scheduled shipments for the following day within integration with "MONOLIT: Distribution Resource Planning" module
21.2.6	Organization of access to data about actual availability of raw products and component parts at warehouses by all factories of the company and history of changes of these remainders within integration with " MONOLIT: Material Management" module
21.3	**Production planning**
21.3.1	Production schedules generation by stages "upon needs" – on the basis of plans of finished goods shipment. • Production schedule can be generated for arbitrary time interval on base of initial sales or shipment plans. • Production schedule is a sequence of operation ordered by time • Production schedule can be presented as a Gant diagram and as a table with daily production volumes (Planning table)
21.3.2	Generation of the schedule of requirements in semi-finished products and materials linked with the production schedule.
21.3.3	Generation of production equipment loading schedule for each unit. Selection of alternate routes, order and time of output start with the aim of equipment loading optimization.
21.3.4	Provide tool for manual corrections of production schedules with control of scheduled shipments provision with products remainders at finished goods warehouse of factory and scheduled production.
21.3.5	Control of production schedule provision with materials and component items with consideration of actual remainders and scheduled receipts on the basis of opened orders to suppliers.
21.3.6	Control of feasibility of schedule "upon need" with consideration of available production capacities. Tools for analysis of stock dynamics, equipment utilization, bottleneck detection.
21.3.7	Support of alternative planning scenario. Selection of optimal scenario for confirmation and publish
21.3.8	Control of the availability of necessary semi-finished products

21	Production Planning
21.4	**Independent multi-enterprise planning**
21.4.1	Independent administration of any number of enterprises
21.4.2	Formation of libraries of data sources and internal algorithms with the possibility of independent use in each enterprise
21.4.3	Connecting new enterprises does not affect the current system works
21.4.4	Changing the work algorithms for any enterprise does not affect the rest of the enterprises.
21.4.5	Switching data sources used in any enterprise (based on existing ones or creating new ones) will not affect other enterprises in any way.
21.5	**History of schedules changing and audit**
21.5.1	Provide registration of schedule approval in accordance with rules specified by the Customer.
21.5.2	Maintaining of schedule changing protocol with control of: who, when and from what working place made corrections in plan.
21.5.3	Provide registration of information about schedules for previous periods and comparison of planned data with actual data about production (reports plan-fact).

22. Contract Management

22	Contract Management
22.1	Suppliers contracts control within holding or separate legal entity
22.2	Model of contract and additional agreements
22.3	Contract action period definition
22.4	Records for vendors not used on a regular basis
22.5	Various methods of actual and planned obligations reckoning
22.6	Contract Last version control with amendments. Each additional agreement accounting
22.7	Four main groups of conditions for each stage of a contract: • Delivery specification • Schedule and conditions of delivery • Schedule and conditions of settlements Routes and valuation of delivery
22.8	Initial documents (invoices, payment documents, payment requests, etc.) link to contract and contract stages with control of sums of all linked documents
22.9	Opening and closing of contract stages by specified conditions
22.10	All linked documents review from the contract
22.11	The price and discounts may be applied to the order total of the vendor agreement
22.12	Calculates purchase price variance by comparing the purchase price per item against contract price
22.13	Allocates cost to projects and expenses
22.14	Contract fulfillment control of by responsible persons at all stages
22.15	Standard documentation types for contracts, which can determine the contract status
22.16	Use contract data in following tasks: • Delivery cost planning • Purchase planning Payments planning
22.17	Assigns contract data to a purchase order line based on a link to MPS/MRP purchase requirements
22.18	Flexible invoice processing (e.g. one check from multiple invoices or multiple checks from a single invoice)
22.19	Personalized contract negotiation in Monolit Suite
22.20	Storage of electronic contract images and other user required documents in the Monolit Suiteh document
22.21	Optional generating delivery terms in the contract based on the results of the tender.

23. Cash Flow Management

23	Cash Flow Management
23.1	**Enterprise financial obligations (balance and off-balance) accounting and generation**
23.1.1	Enterprise financial obligations classification. Formal model of financial obligations arising.
23.1.2	Obligations generation in accordance with conditions described in contracts and classifiers.
23.1.3	Obligations reckoning control
23.1.4	Obligations list filtering of by a set of conditions.
23.1.5	Accounting transactions generation on the basis of obligations reckoning sums.
23.1.6	Reports on enterprise financial obligations of various level of details
23.1.7	Accounting of obligations and automatic generation of documents for settlements with suppliers using factoring
23.1.8	Accounting of obligations and automatic generation of documents for settlements with suppliers using a letter of credit
23.1.9	Out-of-contract obligations accounting including advance payments for out-of-contract deliveries
23.2	**Payment Requests creation and registration on the basis of existing financial obligations**
23.2.1	Unification of repaid obligations in the form of "Payment Request" (PR) documents
23.2.2	PR's creation according to a group of obligations
23.2.3	PR's requisites and sequence of its approval filling
23.2.4	Primary documents (invoices and other) review from PR.
23.2.5	Alerts users of outstanding action items
23.3	**Payment calendar creation. Payments assignment to bank accounts.**
23.3.1	Payments sums calculation based on "pseudo-currency" obligations
23.3.2	Control of sums assigned for payment from each bank account
23.3.3	Partial payment based on PR. One PR's payment from different bank accounts.
23.3.4	Payment calendar creation on multiple payment days confirmation

23	Cash Flow Management
23.4	**Payment documents and files for Bank-Client system generation**
23.4.1	"Details of payment" field generation in a payment order according to requirements of legislation
23.4.2	Combining of several PRs in one payment order
23.4.3	Payment orders transfer into Bank-Client systems of different banks.
23.5	**Currency legislation requirements control**
23.5.1	"Agreement certificate" document generation
23.5.2	"Currency operations certificates" and all necessary justifying documents according to national currency legislation requirements
23.5.3	Primary documents sums and dates control according to national currency legislation requirements
23.5.4	Reports on currency legislation requirements control
23.6	**Cash plans creation and registration**
23.6.1	Reports on financial obligations for cash planning
23.6.2	Cash plan creation according to a list of financial obligations and Cash Flow statement items
23.6.3	Cash plan creation according to investment projects obligations
23.6.4	Cash plans corrections
23.7	**Cash plan fulfillment control**
23.7.1	PRs and payment orders sums control according to cash plan
23.7.2	Reports on cash plan fulfillment
23.8	**Credits and Deposits management**
23.8.1	Credits and deposits values and schedule control
23.8.2	Credit and deposits schedule and interest calculation and payment control
23.8.3	Credits and deposits payments integration into Payment schedule
23.8.4	Monolit Suite documents preparation

24. Budgeting

24.1. Fixed Costs Budget Management

24.1	Fixed Costs Budget Management
24.1.1	**Master data**
24.1.1.1	Maintaining of classifiers: • Expenses types (ET) • Cost Items (CI) • Cost Centers (CC) • Expense centers (EC) and their use in primary documents
24.1.1.2	Relation between classifiers of expenses types, cost items, cost centers, financial obligation centers. Relation with segments of chart of accounts (or account masks).
24.1.1.3	Relation of classifiers of expenses types, cost items, cost centers, financial obligation centers with departments list.
24.1.1.4	Relation between Expense Items and Cost drivers
24.1.1.5	Entering sums of ET, CI and CC in primary documents. Inheritance of sums in documents created on primary documents base
24.1.1.6	Document sums assignment to ETs in accordance with distribution specified in contract.
24.1.2	**Departments expenses budgets accounting (operation expenses estimates) within a certain enterprise or a group of entities**
24.1.2.1	Formalized model of expenses budgets, purchases and payments.
24.1.2.2	Import of initial expenses estimates from external sources.
24.1.2.3	Multiple budgets support
24.1.2.4	"Master-Budget" creation and storage
24.1.2.5	Budgets creation in natural units (by cost drivers)
24.1.2.6	Different types of forecasts (0+12, 3+9, etc.)
24.1.2.7	Budget versus forecast comparison
24.1.2.8	Department's expenses budgets calculation on the basis of departments expenses estimates with consideration of VAT rates, budget currency exchange rates and planned inflation factor.
24.1.2.9	General cost register generation by expense types.

24.1	Fixed Costs Budget Management
24.1.2.10	Reports on comparison of budgets of different types
24.1.2.11	Budget adjustments are stored in the system as separtate documents "Transition"
24.1.2.12	Group transition between budget items and planning periods inside one document
24.1.3	**Purchase and payment budgets accounting within certain enterprise or a group of entities**
24.1.3.1	Purchase budget generation on the basis of expenses budget.
24.1.3.2	Purchase budget corrections with corrections results storage during budgets recalculation
24.1.3.3	Entering and storage of payment delays for purchase budget
24.1.3.4	Payment budget generation of on the basis of purchase budget and entered delays.
24.1.4	**Primary documents (requests, orders, contracts and PRs) control for adequacy to purchase budget.**
24.1.4.1	Control of correspondence to purchase budget by types of expenses at the stage of primary documents entering.
24.1.4.2	Control of correspondence to purchase budget by types of expenses at the stage of primary documents approval of
24.1.4.3	Obtaining of detailed balance by types of expenses for each document.
24.1.4.4	Fixation and storage of balances by types of expenses for specified date for the purpose of consequent analysis.
24.1.4.5	Generation of "plan – fact" reports from a point of view of department estimates, Types of Expenses, Cost Centers and Cost Items.
24.1.5	**Actual data calculation according to departments expenses budgets and purchase budgets**
24.1.5.1	Actual departments expenses calculation on the basis of Genersl Ledger transactions and links between classifiers and Crart of Accounts segments (masks)
24.1.5.2	Calculation of actual data on purchase on the basis of purchase documents analytical figures
24.1.5.3	Showing an actual data in prognosis of expenses estimates and purchases

24.2. Revenue and Variable Costs Budget Management

24.2	Revenue and Variable Costs Budget Management
	Variable Costs Budget Management methodology is based on use of general system classifiers, i.e. materials, goods, prices, recipes, cost items etc. **Certain budget model algorithm** is designed according to an *individual technical project for each customer (separately of standard functionality delivery)*. ***The budgeting modules basic functionality with settings for brewing industry is presented below***.
24.2.1	**Revenue Budgeting**
24.2.1.1	Planned revenue calculation. A wide set of analytical characteristics is supported: SKU, sales regions, trade channels, clients, addresses etc.
24.2.1.2	Built-in budgeting algorithms library
24.2.1.3	Open list of calculation parameters, e.g.: • Sales plan (volumes) • Planned prices • Planned tax rates • Planned bonuses • Prices deviation coefficients • Etc. Full set of parameters is determined while system set up.
24.2.1.4	Different versions of initial and resulting data keeping
24.2.1.5	Tools for calculation results analysis based on special interfaces
24.2.1.6	Built-in algorithms of planned license fees and bottles & crates sales revenue calculation
24.2.1.7	Set of reports based on MS Excel pivot tables
24.2.1.8	Different prognosis types and versions calculation: budgets, rolling forecasts, adjusted forecasts
24.2.2	**Raw materials costs budgeting**
24.2.2.1	Planned RM costs calculation. A wide set of analytical characteristics is supported: SKU, plants, etc.
24.2.2.2	Availability of built-in budgeting algorithms library

24.2	Revenue and Variable Costs Budget Management
24.2.2.3	Open list of calculation parameters, e.g.: • Production plan (volumes) • RM consumption norms • Planned prices for RM • Seasonal characteristic for all setups • Production losses • Different adjusting coefficients • Etc. Full set of parameters is determined while system set up.
24.2.2.4	Production plans creation based on shipment plan
24.2.2.5	Different versions of initial and resulting data keeping
24.2.2.6	Tools for calculation results analysis based on special interfaces
24.2.2.7	Set of reports based on MS Excel pivot tables
24.2.2.8	Different prognosis types and versions calculation: budgets, rolling forecasts, adjusted forecasts
24.2.2.9	Built-in algorithms of RM purchase price calculation on base of tenders information
24.2.3	**Logistics costs budgeting**
24.2.3.1	Planned logistics costs calculation. A wide set of analytical characteristics is supported: SKU, plants, clients, delivery addresses etc.
24.2.3.2	Availability of built-in budgeting algorithms library.
24.2.3.3	Open list of calculation parameters, e.g.: • Shipment plan (volumes) • Tariff list for transportation detailed by transport types • Charts and trucks capacity setup • Delivery map • Tariff list for Loading • Tariff list for storage at trans-shipment points • Not-tariffed expenses: insurance, charts sealing etc. • Etc. Full set of parameters is determined while system set up.
24.2.3.4	Different versions of initial and resulting data keeping
24.2.3.5	Tools for calculation results analysis based on special interfaces
24.2.3.6	Set of reports based on MS Excel pivot tables
24.2.3.7	Different prognosis types and versions calculation: budgets, rolling forecasts, adjusted forecasts

24.3. Personnel Costs Planning

24.3	Personnel Costs Planning
	Main tasks and objectives: • Accounting, monitoring and analysis of data on the forecast number of employees and personnel costs, • export of data retrieved to external systems and modules • import of actual cost data
24.3.1	**Key Functionality**
24.3.1.1	Calculate actual headcount and costs for the preceding month
24.3.1.2	Create a current month plan based on the preceding month's plan
24.3.1.3	Compare actual corporate structure changes to the previously planned structure
24.3.1.4	Forecast information on headcount, company structure up to each position adjustment
24.3.1.5	Forecast information registration on new departments structures up to position and further data analysis in OLAP
24.3.1.6	Information allocation by positions
24.3.1.7	Forecast information on planning new depts. headcount
24.3.1.8	Enter miscellaneous forecasting data
24.3.1.9	Calculate forecast headcount and personnel costs
24.3.1.10	Adjust forecast results (sequestering)
24.3.2	**Supported User Actions**
24.3.2.1	Enter planned headcount for in-house staff, divisions, branches
24.3.2.2	Enter other forecasting data values for in-house staff, division, or branch
24.3.2.3	Enter adjustments to the resulting forecast
24.3.2.4	Access planned branches, divisions, in-house personnel
24.3.2.5	Ability to close planned headcount and forecasting data values input step
24.3.2.6	Ability to modify miscellaneous forecasting data values for a closed forecasting data values input step

24.3	Personnel Costs Planning
24.3.3	**Forecast Analysis**
24.3.3.1	Customize cube location and configuration, including cube dimensions customization: • Corporate structure elements • In-house status (in-house/out-house) • Cost centers • Location • Additional corporate structure elements list Provide cube data views consistent with budgeting data definitions
24.3.3.2	Use of predefined budgeting analytical cube with use of united Data warehouse and support of all common measures
24.3.3.3	Load cube data via the user interface
24.3.3.4	Store user profiles
24.3.3.5	Compare various personnel costs budget plans
24.3.3.6	Control user access to data through user profile
24.3.4	**Personnel Costs Budget Export**
24.3.4.1	Aggregate personnel costs budget data with accounts
24.3.4.2	Make export data views consistent with budgeting data definitions
24.3.4.3	Analyze data for all personnel costs
24.3.4.4	Export prepared data to "Profitability Analyzer" module

24.4. Marketing Campaign Budget Management

24.4	Marketing Campaign Budget Management
	Marketing Campaign Budget Management methodology is based on use of general system classifiers, i.e. materials, goods, prices, recipes, cost items etc., supported by the system data model. **Certain budget model algorithm** is designed according to an *individual technical project for each customer, not falling under terms and conditions of standard functionality delivery*. ***The budgeting modules basic functionality for brewing industry is presented below***.
24.4.1	**Centralized Marketing Campaign Budget Record**
24.4.1.1	A formalized model of campaign budget as a separate part of the operating budget of the enterprise
24.4.1.2	Display of the list of campaigns as a pseudo-classifier broken down by sales channel, by campaign type and by conducting period.
24.4.1.3	Cost classification by budget components, expenditure types, distributors and by relevant SKU
24.4.1.4	Centralized registration of campaigns within the Monolit Suite, with access from various modules
24.4.2	**Campaign Budgeting Based on the Second Sales Analysis in CRM Module**
24.4.2.1	Planning of sales increasing activities as a precondition for marketing campaign
24.4.2.2	Calculation of planned second sales volume for a target SKU at the level of macro regions and sales representatives
24.4.2.3	Exchanges with external systems for modeling sales in order to obtain the planned volume for campaign
24.4.2.4	Calculation of planned sales prices for every distributor and SKU
24.4.2.5	Calculation of the sum planning cost estimate on the basis of target prices for various budget components and cost types.
24.4.2.6	Evaluation of the planned effectiveness of the campaign with varying degrees of detail
24.4.2.7	Cost integration to the level necessary for further analysis
24.4.2.8	Approval of the campaign as a separate portion of operational budget
24.4.2.9	Monthly campaign budgeting

24.4	Marketing Campaign Budget Management
24.4.3	**Multilevel Campaign Budget Management**
24.4.3.1	Establishing the connection of the campaign stage with primary documents
24.4.3.2	Distribution of primary documents among several campaigns or several stages of one campaign
24.4.3.3	Storage of promotional discounts in the lines of primary documents
24.4.3.4	A detailed campaign balance by campaign stages for each document and overall balance by cost type
24.4.3.5	Viewing primary documents for the campaign (contracts, orders, claims, bills, payments etc.) via the campaign's interface
24.4.3.6	Monitoring the compliance of primary documents with campaign budget by cost type and by campaign stage during entering and approval of primary documents
24.4.3.7	The reflection of actual budget implementation in campaign editing
24.4.3.8	Calculation of actual campaign performance on the basis of the primary documents and the data on second sales in CRM
24.4.3.9	The calculation of the actual effectiveness of the campaign with varying degrees of detail
24.4.3.10	Monthly budget monitoring
24.4.3.11	Reallocation of unused campaign budget on the basis of campaign performance and closure results
24.4.4	**Payment Documents Compilation for the Campaign**
24.4.4.1	Automated creation of invoices and orders for price changes
24.4.4.2	Automated creation of orders for promotional discounts changes
24.4.4.3	Compiled documents inclusion in current budget balance calculation
24.4.5	**Reserve Calculation for the Campaign**
24.4.5.1	Calculation of sums for reserve accrual on the basis of second sales data in CRM

24.5. Listing Expenses Budget Management

24.5	Listing Expenses Budget Management
	Listing Expenses Budget Management methodology is based on use of general system classifiers, i.e. materials, goods, prices, cost items etc., supported by the system data model. *However, specific budget model building algorithm is designed according to individual technical project for each customer, not falling under terms and conditions of standard functionality delivery*. ***The budgeting modules basic functionality for brewing industry is presented below***.
24.5.1	**Centralized Listing Contracts Expenses Budget Management**
24.5.1.1	A formalized model of listing Expenses budget as a separate part of the operating budget of the enterprise — economic passport (EP)
24.5.1.2	Display of the list of economic passports as a pseudo-classifier broken down by sales channel and by validity period.
24.5.1.3	Expenses classification by activities, cost type and contractors
24.5.2	**EP Budgeting**
24.5.2.1	Determination of the geography of the EP in the CRM system
24.5.2.2	Calculation of planned second sales volume by SKU
24.5.2.3	Calculation of the sum planning Expenses estimate for various activities, cost types and periods.
24.5.2.4	Calculation of planned depreciation for the retail equipment installed at the client
24.5.2.5	Expenses integration to the level necessary for further analysis
24.5.2.6	Approval of the EP as a separate portion of operational budget
24.5.3	**Multilevel EP Budget Management**
24.5.3.1	Establishing the connection of the economic passport with primary documents
24.5.3.2	A detailed balance of economic passport for each document by EP stages for each document and overall balance by cost type
24.5.3.3	Viewing primary documents for the EP (contracts, orders, claims, bills, payments etc.) via the EP interface
24.5.3.4	Monitoring the compliance of primary documents with EP budget by cost type and by EP stage during entering and approval of basic documents
24.5.3.5	Calculation of actual EP performance on the basis of the primary documents and the data on second sales in CRM

24.5	Listing Expenses Budget Management
24.5.4	**Compilation of Documents on the Basis of EP Data**
24.5.4.1	Compilation of listing contracts on the basis of EP data
24.5.4.2	Compilation of accounts on the basis of actual execution of listing contract commitments
24.5.5	**Reserve Calculation for Listing Expenses**
24.5.5.1	Calculation of sums for reserve accrual on the basis of second sales data in CRM and listing contracts execution data — by SKU, by activity, by special SKU and by TM-activity.

25. Investment Projects Management

25	Investment Projects Management
25.1	**Investment projects (IP) accounting**
25.1.1	Formal model of investment budget (by projects) and its versions
25.1.2	Obtaining of IPs list as a pseudo-classifier split onto years, enterprises and types of investment activities
25.1.3	IP accounting in different currencies
25.1.4	IP-related payments planning (RTM-planning)
25.1.5	VAT accounting within IP
25.2	**Investment budget execution control**
25.2.1	Keeping the connection of IP with contracts, planned contracts and other primary documents.
25.2.3	Allocation of primary documents to several IP
25.2.4	Obtaining of detailed balance for IP for each document
25.2.5	Review of primary documents that are allocated to IP: contracts, orders, invoices, payments documents etc.
25.2.6	Primary documents control for correspondence to IP budget by types of expenditures at the stage of document entering and approval
25.2.7	Possibility of fixation and storage of IP balance for specified date for the purpose of consequent analysis.
25.2.8	IP budget fulfillment confirmation based on deliveries and payments
25.2.9	Keeping IP budget fulfillment status
25.2.10	Planned depreciation calculation based on IP planned data.
25.2.11	Reports on results of IP budget fulfillment
25.3	**Investment projects schedule control**
25.3.1	Graphical presentation of project stages and separate tasks
25.3.2	Creation the link between schedule and ERP documents
25.3.3	Creation the link between schedule and E-docs
25.3.4	All linked documents can be pre-viewed from schedule
25.3.5	Link errors identification functions
25.3.6	Current schedule correspondence to budget control
25.3.7	Report preparation with schedule of one or several projects

26. Profitability Analyzer

26	Profitability Analyzer
26.1	**Calculation and analysis of profitability**
26.1.1	Full product, manufactured by different production units (separate legal entities) and sold in different regions of the country by different sales divisions (delivered by different types of transport facilities) — *up to the profitability of particular client and particular outlet calculation and analysis.*
26.1.2	Presentation of profitability results in dynamics for several periods.
26.1.3	Profitability by unit of volume (by liter, by dal, by th. dal etc) and in absolute values
26.1.4	All necessary reports on cost structure and profitability with aggregation by any analytical attribute (dimension), described in the system. For profitability calculation the following dimensions can be used: Brand, Production unit, Delivery type, Trade Channel, Region, Clients group / client/ delivery address, etc.
26.1.5	Flexible adjustment of profitability reports by usage of multiple hierarchies of each analytical attribute (dimension). All necessary settings can be done by user himself
26.1.6	Flexible system adjustment to complicated logistic schemes (for example products delivery through distribution warehouses of different levels) and ability of correct costs allocation on each step of distribution. Ability to collect distribution and other logistics costs from "Monolit: Transportation Management" system and allocate them directly to particular product delivered to particular outlet through particular distribution warehouse.
26.1.7	Use various natural figures as "cost drivers". In order to provide maximum correct allocation the following natural figures can be used: • Indirect sales volumes • Sales forces quantity connected to particular client • Sales equipment quantity, connected to particular client • Etc All that information can be collected from the "Monolit CRM"
26.1.8	Flexible adjustment of collection of "direct" sales and trade marketing costs for purpose of Customer/Outlet Profit calculation. Among such direct costs can be: • Costs connected with sales forces activities (salary, billing costs, travelling and entertainment, car maintenance). That costs can be allocated to the particular clients, with whom that sale force persons are connected • Trade Marketing costs (sales equipment depreciation and maintenance, POSm costs etc). That costs can be allocated to the particular clients to whom that equipment was written off

26	Profitability Analyzer
26.1.9	Allocation of indirect costs on a dynamic basis, generated on the basis of monthly sales volumes or from the beginning of the year (to a specific customer / outlet) or any other physical or monetary indicators that are described in the system as "cost drivers".
26.1.10	Historicity of profitability model descriptions.
26.1.11	Full audit trail for system settings and profitability information
26.2	**Calculation and analysis of budget (forecast) profitability and "plan / fact" analysis**
26.2.1	One allocation model both for actual and budget profitability calculation
26.2.2	Use one set of reports for actual and budget profitability analysis
26.2.3	"Budget / Actual" analysis with grouping by any attribute / group of attributes (cost-drivers).
26.2.4	Flexible instruments of import budget figures both from the "Monolit Suite" and from external sources.
26.2.5	Calculate Standards by SKU and use them in those profitability models, where usage of Standard Cost methods is required
26.3	**BI tools for profitability analysis**
26.3.1	Built-in instruments for cubes creation and description. Ability to create unlimited number of cubes. Cubes interface is integrated into standard workplaces.
26.3.2	Process OLAP cubes with results of profitability calculation. That can be done by user himself
26.3.3	Standard interfaces of cubes analysis provide: • Work with information using standard functionality of pivot tables • Setting of user profiles with specific lines and columns order and number • Change views of columns and lines by user himself • Export results to MS Excel in pivot tables
26.3.4	Chart and diagram interfaces of cube analysis provide: • create standard diagrams and charts directly in the system • diagrams can be created on base of all types of information, stored in the cube
26.3.5	Integration with MS Office: all information can be easily exported into MS Excel as pivot tables

27. Factor analysis

27	Factor analysis
	General scope: • Deviations and changes in values of different types analysis, evaluation of influence of some pre-defined figures – factors • monetary valuation of each factor influence • storage of calculated results
27.1	**Key features**
27.1.1	Import initial budget and forecast information from Budgeting modules
27.1.2	Import initial actual information from all Monolit Suite modules
27.1.3	Each data element in system is described with set of analytical attributes: • Attributes are used for data classification and values selection • Each value can be connected with several attributes • Common set of attributes is unlimited
27.1.4	Attributes synchronization
27.1.5	Supports "connected attributes" tool • for each basic type attribute type additional attributes can be connected by rule 1:N • Hierarchies and values of additional attributes can be set within the system or imported • Additional attributes can be used together with common ones in formulas descriptions
27.1.6	Translation of analyzed values in calculations to the selected unit of measure-ment – based on table of correspondence between different units of measurement
27.1.7	Flexible language of factor formulas definition, ability to describe any factor
27.1.8	Universal tools for any data type analysis. Calculation actual and forecast figures is done on base of one common definition
27.1.9	Manual correction of calculated values
27.1.10	Set up scheme of calculation and analysis directly by business–analysts themselves
27.1.11	Presence of calculation steps analysis tool. System supports total figures analysis, deviation analysis, detailed factor analysis with ability to select and group information by any analytical attributes
27.1.12	Graphical results presentation. Built-in diagrams
27.1.13	Reporting with analysis results in Microsoft Excel spreadsheet format
27.1.14	Control concurrent multi-user access with access control facilities
27.1.15	Analysis results storage with calculation context description

27	Factor analysis
27.2	**BI tools for factor analysis**
27.2.1	Built-in instruments for cubes creation and description. Ability to create unlimited number of cubes. Cubes interface is integrated into standard workplaces.
27.2.2	Process OLAP cubes with results of Factors calculation. That can be done by user himself
27.2.3	Standard interfaces of cubes analysis provide: • Work with information using standard functionality of pivot tables • Setting of user profiles with specific lines and columns order and number • Change views of columns and lines by user himself • Export results to MS Excel in pivot tables
27.2.4	Chart and diagram interfaces of cube analysis provide: • create standard diagrams and charts directly in the system • diagrams can be created on base of all types of information, stored in the cube
27.2.5	Integration with MS Office: all information can be easily exported into MS Excel as pivot tables

28. Business Intelligence (BI) tools

28	Business Intelligence (BI) tools

	Purpose:
	• Business Intelligence (BI) system is designed for analysis of the enterprise operations and retrieving the information required for management decisions.
	• General features:
	  ○ High performance due application of OLAP.
	  ○ Single corporate data storage.
	  ○ Common categories for different business processes analysis.
	  ○ Consolidation of data from different sources (ERP, CRM).
	  ○ Wide selection of analysis tools— from Excel to specialized BI-applications.

28.1	**CRM data analysis**
28.1.1	Analysis of CRM data: • distribution analysis of SKU in retail outlets. • analysis of TM activities. • analysis of sales representatives activity (plan/fact). • Coolers usage analysis • Distribution plans fulfillment analysis (Lighthouse)
28.1.2	Administrator functions: • Management of data loading into warehouse and OLAP cubes • Adjustment of data sources
28.1.3	Analysis categories: • Time (date, week, month, year) • SKU (code, tare, brand, grade) • Territory (channel, sales branch, regional branch, region) • Retail outlets (name, territory) • Sales representatives (name, channel, role) • Activities (name, settlements type) • Sales channel Structure of categories and its describing fields can be flexibly adjusted. Detailed data up to specific visit level is supported.
28.1.4	Distribution analysis measures: • Availability, average availability • Out of stock (OOS), average OOS • Closed OOS, an average on closed OOS • New Listing, an average on New Listing • Quantity of reports • Q-ty of retail outlets at which SKU is available (a grade, a brand)
28.1.5	Trade Marketing analysis measures: • Value of activity, average value of activity • Quantity of reports • Quantity of visits • Quantity of visits with resulted order • Percent of retail outlet participation in the activity Measure calculation is based on specific activity algorithm. There are 4 algorithms:

28	Business Intelligence (BI) tools
	• A — q-ty of sales outlets (SU) in which monitoring has been provided on any visit during the period • B — q-ty of sales outlets (SU) in which monitoring has been provided on last visit during the period • C — q-ty of sales outlets (SU) in which monitoring has been provided on each visit during the period • D- q-ty of sales outlets (SU) in which monitoring has been provided on first visit during the period.
28.1.6	Sales representatives activity KPIs (coverage): • Quantity of visits • Quantity of visits resulted by the order • Quantity of orders • Quantity of active clients • order Volume • Average volume of the order • Quantity of the visited retail outlets • Quantity of sales representatives • Quantity of the working days • Total of retail outlets in territory • Total of sales representatives in territory • planned coverage • Actual coverage • Plan on visiting of retail outlets • Quantity of visits per day • Quantity of visited retail outlets in day • Quantity of visited retail outlets in a week • Strike Rate (% of the visits which have been resulted by order) • Quantity of man-days under the schedule • Actual quantity of man-days • Quantity of not entered reports.
28.1.7	Analysis of refrigeration equipment maintenance in retail shops.
28.1.8	Analysis of distribution development plans.
28.2	**HR expense budget analysis**
28.2.1	Updating of the OLAP cube data at any time from user interface. Report designer for the multidimensional data is built in user interface
28.2.2	Analysis categories (dimensions): • plan version • Period of planning (month-year) • Cost centers • Branches • Divisions • Staffing • Geography • Budget articles and 10 additional analysis categories which can be adjusted by users.

28	Business Intelligence (BI) tools
28.3	**Profitability analysis**
28.3.1	Flexible adjustment of objects groupings (production, warehouses, regions, divisions) and attributes of the profitability analysis. Updating of the OLAP cube data during period closing scenario. Report designer for the multidimensional data is built in user interface Information preparation on SQL server side in case of large data amounts Support dimensions historicity
28.3.2	Configuring of an OLAP-cube structure without programming by system user. Dimensions settings: • periods • cost objects grouping • planning objects grouping Measures settings: • type — monetary, weighed under objects, physical; • currency of monetary measures; • type of physical measures — issue volume, sales volume, number of staff, shop floor working space, norms, etc.; • type of the data — actual, planned, forecasted.
28.3.3	Analysis categories: • Period (month, quarter, year) • Finish goods (grade, type, manufacturer, brand, packing) • Cost structure (expense items) • Sales Regions • Regional warehouses • Sales divisions • Sales channels
28.4	**The forecast and sales plan analysis**
28.4.1	Data consolidation from ERP, CRM, DRP, SCM and Forecast & Sales Plan Analysis (FSPA) modules
28.4.2	Analysis categories (dimensions) • Time (decade, month, year) • SKU (name, code, grade, brand, category, segment, tare, volume, alcohol contents) • Type of secondary packing • delivery Addresses (name, code, address, Sales branch, region, agreement type, sales channel) • forecast/plan type (name, planned period starting date)
28.4.3	Measures: • Forecast of demand • Forecast of goods delivery on distributors warehouses

28	Business Intelligence (BI) tools
	• Plan of shipments • Plan of secondary sales • Forecast of stock inventory • Forecast of inventory in days (purpose) • Actual shipments • Goods in a transition • Actual sales in the market • Actual stock inventory • Actual stock inventory in days
28.5	**SCM plans analysis**
28.5.1	The analysis of the calculated in model SNO (Supply Network Optimizer) measures (volumes) of the basic production stages: 1. Purchase of the basic raw materials — malt, rice, barley, corn, syrup, a bottle, a re-usable bottle, cans and pre-forms; 2. Storage of raw materials and materials in a warehouse; 3. FG production (by stages); 4. FG storage in a warehouse; 5. FG Shipment on distributive warehouses; 6. FG Shipment to distributors; 7. Demand fulfillment plan.
28.5.2	Analysis categories (dimensions): • *Time (decade, month, year)* • *SKU (name, code, grade, brand, category, segment, container, volume, the alcohol contents, mash type, type DRP)* • *Raw materials (name, code, type, subtype)* • *Distributors (name, code, type, subtype, region, sales branch)* • *Equipment (type, production plant)* • *Supplier (name, code, city)* • *Site (name, type)* • *Recipient (the name, type)* • *Semi-finished goods (name, code, type)* • *plan Identifier (calculation number, plan starting date)*
28.5.3	Demand meeting plan indicators: • *Demand meeting plan* • *Demand* • *Minimum demand* • *% of demand meeting* • *Stock at of the period beginning* • *Stock at of the period end* • *Stock in periods based on demand* • *Stock rate* • *Minimum stock* • *Maximum stock*
28.5.4	Measures of FG Shipment to distributors stage: • *Shipment volume, th. of dal*

28	Business Intelligence (BI) tools
	• *Shipment volume, pack.*
28.5.5	Measures of stage of FG Shipment on distributive warehouses • *Shipment from production sites, th. of dal* • *Shipment from production sites, pack.*
28.5.6	Measures of FG storage: • *Warehouse inventory* • *Arrival from production* • *Shipment from warehouse* • *Warehouse inventory at the period end*
28.5.7	Measures of FG Production stage (*bottling in brewery industry*) • *Production (bottling)* • *Line capacity* • *Line accessibility, day* • *Line utilization rate-%*
28.5.8	Measures of Filtration stage (*example for brewery industry*): • *Submitted on Filtration* • *Filtration output*
28.5.9	Measures of Fermentation stage (*example for brewery industry*): • *Level in CCTs (Cylindrical Conic Tank)* • *Has arrived in CCTs* • *Submitted on a filtration* • *Level in CCTs at the period end* • *Filled CCTs at the period start, pcs.* • *Filled CCTs at the period end, pcs.* • *Empty CCTs at the period start, pcs.* • *Empty CCTs on the period end, pcs.* • *Submitted on filtration CCTs, pcs.*
28.5.10	Measures of Brewing stage (*example for brewery industry*): • *Submitted to brewing* • *Brewing Volume*
28.5.11	Measures of Ram Materials warehouse storage stage • *inventory at the period start* • *Arrival* • *Arrival from branches* • *Submitted to production* • *inventory at the period end*
28.5.12	Main raw materials purchase stage indicators: • *Scope of purchase* • *Scope of delivery* • *Cost of delivery* • *Minimum delivery scope* • *Maximum delivery scope*

28	Business Intelligence (BI) tools
28.6	**Logistics department KPI analysis – BI logistics**
28.6.1	System calculates values on the following directions: • *Shipment orders performance* • *Own and external transport usage efficiency* • *Railway transport movement analysis* • *Company transport means availability* • *Own transport efficiency* • *Loaders efficiency* • *Loaders availability* • *OOS analysis by volumes and reasons* • *Demand forecast precision analysis* • *Client claims analysis* • *Warehouse usage efficiency*
28.6.2	Analysis categories (dimensions) • *SKU* • *Delivery address* • *Shipment plan version* • *Sales plan version* • *Filling plan version* • *Time* • *City* • *Company* • *Units of measurement* • *ABC categories* • *Recipients* • *Beer sorts* • *Countries* • *Production type* • *Company type* • *Shipped product type* • *Production sites* • *Cost centers*
28.6.3	Shipment requests fulfillment analysis.
28.6.4	Own and involved vehicle use effectiveness.
28.6.5	Analysis of railway rolling stock movement data based on the information from the Russian Railways. Analysis of the location of cars, idle times, payments and fines, repairs of the rolling stock.
28.6.6	Readiness of the company's vehicles.
28.6.7	Performance by own vehicles.
28.6.8	Performance by loaders.
28.6.9	Availability of loaders.
28.6.10	OOS analysis by volumes and reasons.
28.6.11	Distributors' data correctness analysis.
28.6.12	Demand forecasting accuracy estimate.
28.6.13	Customer claims analysis.
28.6.14	Company's warehouses use effectiveness analysis.

28	Business Intelligence (BI) tools
28.7	**Production and technical departments KPI analysis**
28.7.1	System calculates values in the following directions: • Information on incoming and out-coming RM control analysis • Information on out-coming FG control analysis • Filling process results analysis • Production Budget control • Spare parts standards control • Investment projects fulfilment • Semi-finished products cost control
28.7.2	Analysis categories (dimensions) • SKU • Production plan version • Time • Suppliers • Raw materials • Production sites
28.7.3	Analysis of raw materials incoming control data
28.7.4	Analysis of finished products outgoing control data
28.7.5	Analysis of bottling process data
28.7.6	Execution of production costs budget
28.7.7	Analysis of production output data
28.7.8	Meeting the standards for spares and consumables reserve
28.7.9	Analysis of the investment projects execution
28.7.10	Analysis of semi-finished products cost
28.8	**Procurement department KPI analysis**
28.8.1	System support analysis on the following directions: • RM procurement • Accounts payable • Actual expenditure from planning variance control • Production provision by Raw materials • RM turnover • RM budget fulfilment
28.8.2	Analysis categories (dimensions) • SKU • Shipment plan version • Time • Unit of Measurement • Company • Raw Materials • Production sites
28.8.3	Purchase of raw materials
28.8.4	Settlements with suppliers
28.8.5	Deviations of the raw materials actual consumption from the standards (recipes)
28.8.6	Provision rate of the production with raw materials

28	Business Intelligence (BI) tools
28.8.7	Turnover rate of main material types
28.8.8	Execution of raw material cost budget
28.9	**Company Management KPI calculation**
28.9.1	The "KPI Level 1" module consists of OLAP cubes and a set of analytical reports. The module calculates the company performance indicators: 1. Gross Brand Contribution 2. Gross Customer contribution 3. Sales volume 4. Plant's director KPIs 5. Working capital use efficiency indicators (WCM) 6. Profit and loss (P&L) report indicators
28.9.2	Gross Brand Contribution
28.9.3	Gross Customer contribution including Export
28.9.4	Sales volume
28.9.5	Plant's director KPIs
28.9.6	Working capital use efficiency indicators (WCM)
28.9.7	Profit and loss (P&L) report indicators
28.10	**The General Ledger**
28.10.1	Presentation of General Ledger information in OLAP mode. Support of Actual/Budget analysis. Analysis categories (dimensions) • Periods • Transaction types • Data types • Accounts • Account types • Brands • Account segments
28.11	**Revenue budget analysis**
28.11.1	Presentation of Revenue budget information in OLAP mode. Support of Actual/Budget analysis. Analysis categories (dimensions) • Time • Budget version • SKU • Brands • Sorts • Production categories • Price segments • Tare volume • Tare type • Regions • Trade Channels • Clients • Price components

28	Business Intelligence (BI) tools
28.12	**Sales plans fulfilment analysis**
28.12.1	System calculates values and support actual/budget analysis in following directions: • Company primary sales • Company secondary sales • Shipment budget • Secondary sales budget • Monthly primary sales plan • Monthly secondary sales plan • Actual stocks
28.12.2	Analysis categories (dimensions) • SKU • Time • Unit of measurement • Delivery addresses • Regions • Trade channels Actual and budget information on primary sales additionally linked to • Production sites • Documents Actual and budget information on secondary sales additionally linked to • Documents types • Outlets • CRM warehouses • Dimensions for outlet analysis (can be defined according ti customer needs)
28.12.3	Measures for primary sales analysis
28.12.4	Measures for secondary sales analysis
28.13	**Accounts receivable forecasting**
28.13.1	System prepares and calculates values for 60 days Accounts payable forecasting by days and clients Analysis categories (dimensions): • *Time* • *Clients* • *Trade Channels* • *Regions* Measures: • *Actual current Account payables* • *Shipment cost by orders* • *Shipment cost by delivery plan* • *Payment for actual shipment* • *Payment for shipment by orders* • *Payment for shipment by delivery plan* • *Account payable forecast on begin of the day* • *Account payable forecast on the end of the day*
28.14	**Analysis of the marketing campaigns effectiveness in commercial networks**
28.14.1	The system calculates indicators that allow comparing the planned and actual indicators: • *Campaign budget*

28	Business Intelligence (BI) tools
	• *Increase in sales as a result of the campaign* • *Discounts and prices* • *Promotional pressure* • *Specific costs per campaign* • *Campaign profitability* Data sources: • *Marketing Campaign Management* • *ERP core modules* • *CRM*
28.14.2	Analysis categories (dimensions): • *Time* • *SKU* • *Regions* • *Activation parameters* • *Campaigns* • *Activation type* • *Mechanics* • *Network* • *Channel*
28.14.3	Campaign budget: • *Budget for free products plan* • *Budget for free products actual* • *Budget for marketing products (CCI) plan* • *Budget for marketing products (CCI) actual* • *Budget for the third-party services plan* • *Budget for the third-party services actual* • *Budget for additional preference plan* • *Budget for additional preference actual* • *Total budget plan* • *Total budget actual*
28.14.4	Discounts and prices: • *Budget for discount plan* • *Budget for discount plan* • *Discount to counterparty plan* • *Shelf discount plan* • *Actual discount* • *Compensation to counterparty plan* • *Compensation to counterparty actual*
28.14.5.	Profit calculation: • *Net Sales Value plan* • *Net Sales Value actual* • *Gross Customer Contribution actual* • *Gross Customer Contribution plan*
28.14.6	Campaign indicators: • *Promotion period duration* • *Promotional pressure* • *Investment per product unit plan* • *Investment per product unit actual* • *Constant investment per product unit plan* • *Constant investment per product unit actual* • *Variable investment per product unit plan* • *Variable investment per product unit actual*

28	Business Intelligence (BI) tools
	• *Promotion products per RUR 100 of investments plan* • *Promotion products per RUR 100 of investments actual*
28.15	**Distribution points profitability analysis**
28.15.1	The system calculates indicators allowing to evaluate the cost-effectiveness of each distribution point: • *Company TM costs share in proceeds %* • *Company and FER TM costs share in proceeds %* • *Company total costs share in proceeds %* • *Incremental sales based on last year's period, l* • *Incremental GCC based on the last year's period, RUR* • *Costs per increment litre based on the last year's period, RUR/l* • *Incremental sales based on last period, l* • *Incremental GCC based on the last period, RUR* • *Costs per incremental sales based on the last period, RUR/l* • *Commercial productivity as per TM budget* • *Commercial productivity as per TM+FER budget* • *Commercial productivity as per conditional budget* • *Costs with FER per litre including VAT, RUR/l* • *Costs with FER per litre excluding VAT, RUR/l* • *Costs without FER per litre including VAT, RUR/l* • *Costs without FER per litre excluding VAT, RUR/l* • *Sales dynamics %* • *GSV per 1 litre, RUR/l* • *GCC with specific cost per 1 litre only, RUR/l* • *GCC without trade marketing costs per 1 litre, RUR/l* • *GCC without campaign costs per 1 litre, RUR/l* • *GCC without FER campaign costs per 1 litre, RUR/l* • *GCC including all the costs per 1 litre, RUR/l* • *Sales growth, last period* • *ROI based on the last period* • *ROI based on the last year's period* • *RE shelf share* • *GCC including all the costs per 1 litre last year, RUR/l* Data sources: • *Marketing Campaign Management* • *ERP core modules* • *CRM*
28.15.2	Analysis categories (dimensions): • *Time* • *SKU* • *Regions (distribution points)* • *Campaigns* • *Activations* • *Mechanics* • *Network* • *Channel* • *Refrigeration equipment (RE)* • *Mechanics in RE*
28.15.3	Secondary sales: • *GP including BGP, l* • *GP excluding BGP, l* • *GP including BGP, dal* • *GP excluding BGP, dal* • *GP including BGP last year, l* • *Gross sales*

28	Business Intelligence (BI) tools
	• *Proceeds with distributor mark-up, RUR*
28.15.4	TM campaign budget (plan): • *BGP costs* • *CCI costs* • *Service costs* • *Discount* • *Advertisement agencies services costs*
28.15.5	TM campaign costs (actual): • *BGP costs* • *CCI costs* • *Service costs* • *Discount* • *Advertisement agencies services costs* • *Scope with campaign*
28.15.6	Operating costs distributed among distribution points (actual): • *Total discounts* • *Promo National TM costs* • *Total CoS* • *Total Logistics* • *Total Trade Marketing* • *Total Sales* • *Listings OT costs*
28.15.7	Costs of lisiting on On-Trade channel: • *Listings OT*
28.15.8	Cost of equipment maintenance in distribution points: • *Cost of repairs, RUR*
28.15.9	Depreciation of equipment in distribution points: • *FA depreciation*
28.15.10	Profit: • *GCC with specific cost only, RUR* • *GCC without trade marketing costs, RUR* • *GCC without campaign costs, RUR* • *GCC without FER campaign costs, RUR* • *GCC including all the costs, RUR* • *GCC including all the costs last year, RUR*
28.15.11	RE use effectiveness: • *Number of doors at the beginning of the month* • *Number of doors at the end of the month* • *Doors number change* • *Payback*
28.15.12	Shelf monitoring: • *Total number of Company products facings in DP in RE* • *Total number of facings in DP in RE* • *Number of ASP*

29. Working Capital Management

27	Working Capital Management
	General scope: • Working Capital calculation • Planning of Working Capital by main components • Actual versus budget factor analysis of calculated values
29.1	Import initial budget and forecast information from Budgeting modules
29.2	Attributes synchronization
29.3	Translation of analyzed values in calculations to the selected unit of measurement – based on table of correspondence between different units of measurement
29.4	Flexible language of formulas definition, ability to describe different planning scenario
29.5	Universal tools for any data type analysis. Calculation actual and forecast figures is done on base of one common definition
29.6	Turnover calculation
29.7	Accounts Receivable, Accounts Payable, Inventory Levels planning
29.8	Working capital planning
29.9	Manual correction of calculated values
29.10	What if analysis, information replication between budget versions
29.11	Actual vs Budget analysis tools with Factor analysis features.
29.12	Set up scheme of calculation and analysis directly by business–analysts themselves
29.13	Presence of calculation steps analysis tool. System supports total figures analysis, deviation analysis, detailed factor analysis with ability to select and group information by any analytical attributes
29.14	Graphical results presentation
29.15	Reporting with analysis results in Microsoft Excel spreadsheet format

30. Enterprise Reporting

30	Enterprise Reporting
30.1	Financial and management reports for holdings with subsidiaries
30.2	Support of various data types: actual, budget, forecast
30.3	Initial financial data collection from different accounting systems of MONOLIT SUITE ("General Ledger", "HRM", accounting systems), import from subsidiaries data bases (local MONOLIT SUITE installations) or other external sources – MS Excel files, dbf, etc.
30.4	Translation of subsidiaries' data into presentation currency
30.5	Tools for imported data editing and analysis.
30.6	Financial results in MS Excel files in different formats according to corporate requirements
30.7	Consolidation and reports preparation procedure: • splitting consolidation into steps (import, validation, adjustments, elimination, reporting, validation, export, etc) • setting of steps order and dependence • ability to set up users' roles and to restrict access to certain steps and operations • ability to define users' validations, that provide data consistency • ability to define rules for adjustments, to make groups of adjustments, to make adjustments from calculation steps
30.8	Locking the data when consolidation is complete
30.9	Setting up of data processing and import rules for group of companies or for each business entity