

## **Development of requirements for automation of the accounting process in 1C while implementing IFRS at manufacturing enterprises**

***Kilicheva Farida Beshimovna***

*PhD in Economics, Associate Professor*

*Renaissance educational university*

***Khasanova Khusnorakhon Fakhriiddinovna***

*PhD in Economics, Acting Associate Professor*

*Renaissance educational university*

***Irmukhamedova Muslima Dilshodovna***

*Masters in Graduate school of Business and Entrepreneurship*

**Annotation:** The article considers the methodological problems associated with the automation of the accounting process that arise during the transition of Uzbek companies to reporting in accordance with International Financial Reporting Standards (IFRS). Recently, this problem has become very relevant, as more and more companies trying carry out or plan to carry out the formation of reporting under IFRS in order to attract foreign investments.

Characterized the main methodological issues that companies need to solve at the stage of making a decision on process automation, as well as reviewed the main stages associated with the development of an appropriate set of methodological documents for automating the accounting process during the transition to IFRS.

**Key words:** NAS (National Accounting Standard), IFRS (International Financial Reporting Standards), automation, accounting process, chart of accounts, mapping.

### **Introduction**

Currently, active work is being carried out in the Republic of Uzbekistan to attract foreign direct investment to the country's economy, and conditions are being created for the effective work of foreign investors. In order to provide the necessary informational environment for foreign investors and expand opportunities for access to international financial markets, the government has taken important decisions to accelerate the transition of large enterprises and joint-stock companies to international financial reporting standards (hereinafter referred to as IFRS) [1,2].

The introduction of IFRS makes it possible to consistently eliminate the shortcomings and inconsistencies of the national accounting system with the demands of a market economy without violating the integrity of this system. In addition, the application of IFRS contributes to the improvement of the local system of accounting information through the use of uniform accounting methods for managing business activities, provides managers with such information that significantly increases management efficiency, makes it possible to competently communicate with shareholders and the market, increases the transparency of the company,

strengthens the system of corporate behavior. In addition, the use of IFRS improves the business climate in the country and strengthens the sense of confidence among entrepreneurs. Business entities have the opportunity to increase the competitiveness of the enterprise by providing reliable and transparent information to interested users. Investors, on the other hand, can obtain information, which make it is possible to evaluate the object of possible investments. All this contributes to mutual trust between Uzbekistan and the international community.

A feature of the current situation with the transition of enterprises to IFRS is that the accounting process is carried out in accordance with the National Accounting Standard (NAS) in all companies. Moreover, the accounting process itself in accordance with this standard has not been canceled and the requirements for the transition to IFRS relate specifically to the provision of company statements in accordance with international standards.

### **Analysis and results**

In fact, at the initial stage of transition to IFRS, when preparing financial statements in accordance with IFRS, companies resort to the help of consulting companies that ensure the “shifting” of current financial statements to reporting in accordance with international standards. But more and more companies are deciding to move on to self-preparation of such reports. For these purposes, it is necessary to carry out serious work to systematize all accounting processes and automate key routine procedures in order to reduce the time for preparing reports and reduce the risk of the human factor influencing on it.

In such cases, the company's management usually sets the task of creating a comprehensive automated corporate reporting system, which should ensure the preparation of consolidated financial statements in accordance with IFRS and the preparation of reports for shareholders on its basis.

In this paper, it is proposed, on the basis of a systematic approach, to consider the formalization of the process of transition to IFRS reporting for enterprises and companies that conduct the accounting process according to NAS.

Currently, the Republic of Uzbekistan uses a number of local (1UZ, UZASBO, ASBT) and foreign (1C Enterprise 7.7, 1C Enterprise 8.3, ERP systems such as SAP, ORACLE, AXAPTA) and a number of other software products that provide partial or complex automation of the accounting process. The functionality of these software products was developed in accordance with the requirements of NAS and the transition to IFRS requires significant changes both in the process of generating accounting entries and the development of additional elements (modules) that allow generating statements in accordance with IFRS.

This is especially true for enterprises that are required to publish their statements within a certain timeframe and, moreover, several time a year, for example, according to the request of the stakeholders, where the company's securities are quoted. In addition, when automating the process of checking information, the number of errors associated with the “human factor” is significantly reduced in reporting, and the need for such programs is growing every year [3] for both the stage of entering it into the system and at the stage of checking the consistency of data.

In this regard, it is possible to single out problematic issues typical for all Uzbek companies regarding the preparation of financial statements in accordance with IFRS, in particular, it is necessary to:

- formalize the transition from the coordination of the preparation of financial statements in accordance with IFRS to directly independent preparation of financial statements; moreover, this transition should take place under the regular control of the board of the company and auditors;

- create and formalize the process of preparing financial statements in accordance with IFRS, including the development of methodology, accounting policies, chart of accounts, accounting registers and other guidelines; develop a strategy for the transition to parallel accounting in accordance with NAS, IFRS, tax accounting, management accounting, as well as budgeting based on IFRS;
- to develop an integrated information system based on software products available and used in the country (for example, 1C) as a basis for accounting according to NAS, tax accounting and accounting according to IFRS, as well as for preparing budgets;
- to create in the structure of the company a division for the preparation of financial statements in accordance with IFRS, to attract employees with experience in preparing such financial statements;
- develop an action plan for the preparation of financial statements in accordance with IFRS, which will meet the requirements of disclosure and transparency (UK Disclosure and Transparency Rules);
- develop a strategy for integrating information systems to automate the preparation of financial statements in accordance with IFRS.

As can be seen from the above, the work on translating reporting to international standards does not consist only in instructing programmers to write additional program codes. First of all, the task of transferring the reporting of an enterprise to IFRS standards lies in the organizational plane. The quality of reporting, the timing of its preparation and the amount of manual labor depend on how competently the task is set for programmers, therefore the methodological base of the project is the foundation on which an automated system for accounting and reporting under IFRS will be designed and built. At the same time, those responsible for the development of the methodology should not only know IFRS and the specifics of the company's activities. Methodologists must have an excellent understanding of the automation process and the features of the selected software product. As practice shows, consultants in companies specializing in automation, as a rule, do not know IFRS well enough, and specialists in IFRS departments in customer companies often do not understand the technical side of the issue.

In this regard, before embarking on the development of a methodology, it is necessary to make sure that this task will be handled by specialists who own both the methodological and technical side of the matter, and it is also necessary to conceptually think over the issue of functional architecture!

A number of publications related to the organization of the IFRS implementation process the role of methodologists in automation projects is described by following tasks [4,5,6]:

1. Participation in the selection of the optimal software product for solving the problem of preparing financial statements in accordance with IFRS, taking into account the specifics of the customer.
2. Choice of the method of preparing reports under IFRS (full/partial automation, automation of fully parallel accounting, automation by converting from NAS, etc.).
3. Identification of the list of tasks to be automated.
4. Development and / or adaptation of methodological documents for working in the system, in particular:
  - chart of accounts according to IFRS (significantly differs from the chart of accounts according to NAS);
  - map of conformity (mapping) of data according to NAS and IFRS;
  - reference information and methods of its application;

- an album of reporting forms in accordance with IFRS and a methodology for filling them out;
- calculation algorithms and data generation in the system (including scheduled operations);
- method of loading initial balances into the system;
- accounting regulations according to IFRS in the company, etc.
- 5. Development of project documentation, including:
  - functional and technical requirements for the system;
  - terms of reference for the development / improvement of the system;
  - program and methodology of test tests;
  - user and administrator manual, etc.;
- 6. Testing of the developed functionality.
- 7. User training.
- 8. Consulting support during the operation phase (mandatory requirement)
- 9. Passing an external audit of the information system (if necessary).

It should be noted that under the methodological base of an automation project, we mean a set of documents regulating the procedure for accounting and reporting under IFRS in a company and necessary for the design and development of an automated system. A universal list of documents usually does not exist, since it may vary depending on the specifics of the company's activities and requirements for the level of automation.

Let us consider the issues related to the set of methodological documents required for the case when full automation (all areas of accounting and reporting generation) is chosen as the reporting method, performed by converting data from NAS. This process is broken down into the following steps:

Stage 1. Development of the IFRS chart of accounts. Since the accounting process is automated at most enterprises and it uses a chart of accounts in accordance with NAS No. 21, for the purposes of automating IFRS reporting, a chart of accounts will need to be formed in the form of specialized off-balance accounts, detailed and adapted to the requirements of the software product on which it is supposed perform automation, namely:

- allocate top-level accounts and sub-accounts;
- organize the coding of accounts by analogy with IFRS codes with NAS account codes (for example, account 5010 "Cash" NAS, account F5010 "Cash" in IFRS);
- determine the language for naming accounts (sometimes one language is used, sometimes several);
- for each account, specify its type (active, passive, active-passive);
- describe the analytics (subconto) for each account (for example, for the account NAS 6010 “Settlements with suppliers” (similar to the account being entered in accordance with IFRS F6010 “Settlements with suppliers”), it is advisable to keep records in the context of counterparties and counterparty agreements; accordingly, subconto of the first level - "Counterparties", second level subconto - "Contracts of counterparties");
- select accounts for which not only total, but also quantitative accounting will be kept (as a rule, these are accounts that have the analytics "Materials" or "Nomenclature");
- separate foreign currency accounts, which will be recorded not only in functional currency, but also in foreign currencies.

Depending on the specifics, it may be necessary to organize other features and characteristics on the IFRS Chart of Accounts (for example, it may be necessary to mark accounts for which

accounting is kept in the context of branches / divisions; monetary accounts, the balances of which are subject to revaluation in accordance with IFRS 21 “The Effects of Changes in Foreign Exchange Rates”, and etc.).

As practice shows, it is advisable to develop the Chart of Accounts by the customer's specialists in coordination with external project methodologists. The table below shows an example of the document format for conformity of the chart of accounts with NAS and IFRS

NAS code	Code name of NAS	IFRS code	Code name of IFRS	Cur	Quant	Out of balance	Active	Subconto 1	Subconto 2	Subconto 3
4000	Счета к получению	F4000	Accounts receivable				A	Counterparties	Basis for contract	
4010	Счета к получению от покупателей и заказчиков (в суммах)	F4010	Accounts receivable from buyers and customers (in UZS)				A	Counterparties	Basis for contract	
4011	Счета к получению от покупателей и заказчиков (в валюте)	F4011	Accounts receivable from buyers and customers (in foreign currency)	+			A	Counterparties	Basis for contract	
4020	Счета к получению от реализации прочих активов (в суммах)	F4020	Accounts receivable from sale of other assets (in UZS)				A	Counterparties	Basis for contract	
4021	Счета к получению от реализации прочих активов (в валюте)	F4021	Accounts receivable from sale of other assets (in foreign currency)	+			A	Counterparties	Basis for contract	
4030	Счета к получению от реализации услуг (в суммах)	F4030	Accounts receivable from the sale of services (in UZS)				A	Counterparties	Basis for contract	
4031	Счета к получению от реализации услуг (в валюте)	F4031	Accounts receivable from the sale of services (in foreign currency)	+			A	Counterparties	Basis for contract	
4090	Прочие счета к получению	F4090	Other accounts receivable				A	Counterparties	Basis for contract	
Признаки счета:										
Cur - currency accounting										
Quant - quantitative accounting										
Out of balance - off-balance sheet										
Active - sign of activity (A-Active, P-passive, AP - active-passive)										
Subconto (1,2,3) - section of analytical accounting										

Stage 2. Development of a list of typical business transactions and the methodology for their reflection on the IFRS Chart of Accounts (Map of functional coverage). Since the activities of any organization can be reduced to a finite set of business transactions reflected in the system for various areas of accounting (for example, the “Fixed Assets” section involves the following operations: receipt of fixed assets, acceptance for accounting of fixed assets, revaluation of fixed assets, moving fixed assets, changing the parameters / characteristics of fixed assets, OS disposal, etc.), then each operation is registered in the system in a certain way, i.e. is reflected in the accounting accounts: the posting, the amount of the posting, the registrar document of this posting are determined, a record is made. To form a list of typical business transactions under IFRS, you must:

- analyze and describe NAS operations in the information system for previous periods (one or two years);
- describe transactions specific to IFRS that are not reflected in NAS (accrual of a number of estimated reserves, accounting for leasing, accounting for work contracts, depreciation of assets, etc.).
- determine how the described transactions will be reflected in accordance with IFRS - either by converting NAS data according to the mapping rules, or by separate documents in accordance with IFRS (some documents may already be provided in the software product; they may need to be finalized, and in case of absence - created from scratch );

As a result, at this stage, there is an understanding for which postings it is necessary to describe the mapping, which should be excluded from the conversion; a list of tasks for automation is born in terms of documents that require revision / development. It is advisable to entrust the development of the Functional Coverage Map to external project methodologists (since they are better aware of the technical capabilities of the software product and the results of this work will form the basis for the formation of the Functional and Technical Requirements for the system



being developed) with subsequent approval by the customer. The table below shows an example of the functional coverage map format.

Operation code	Debit	Name	Kredit	Name	Contents of operation	Reflection in IFRS
1	01xx.	Own fixed assets	0810.	Fixed assets facilities construction	Fixed assets commissioning	IFRS document "Adoption of OS IFRS"
2	01xx	Own fixed assets	0820.	Acquisition of individual OS objects that do not require assembly	Fixed assets commissioning	IFRS document "Adoption of OS IFRS"
3	0820.	Acquisition of individual OS objects that do not require assembly	6030	Accounts payable to suppliers and contractors	Supplier Invoice	IFRS Document "Accounts Payable"
4	9210	Disposal of property, plant and equipment	01xx	Own fixed assets	Write-off, disposal of fixed assets	IFRS document "Disposal of fixed assets IFRS"
5	02xx	Depreciation of own fixed assets	9210	Disposal of property, plant and equipment	Write-off, disposal of fixed assets (амортизация)	IFRS document "Disposal of fixed assets IFRS"
note						
01xx -- it is possible to choose from fixed asset accounts 0110-0199						
02xx -- it is possible to choose from fixed asset depreciation accounts 0210-0299						

Stage 3. Development of a matching map (mapping) of data according to NAS and IFRS. This compliance map should be used to convert NAS entries to the IFRS Chart of Accounts and to search for account matches when performing regulatory procedures (for example, depreciation, month closing, etc.).

The conformity map is developed on the basis of an analysis of typical business operations of the customer. This should describe the correspondence between NAS and IFRS documents, between NAS and IFRS accounts, account analysts; matching for specific postings. If the IFRS posting amounts differ from the NAS amounts, then for each correspondence it is necessary to describe the rule for calculating the amount of the IFRS posting.

A separate list contains NAS transactions that are not subject to conversion to IFRS (excluded from conversion). For example, depreciation entries in NAS (Dt20xx, Kt 02xx) are not subject to conversion, as they will be formed as a separate document in the IFRS system, since depreciation rates, as a rule, are different in NAS and for IFRS purposes.

In order for the NAS transaction (not contained in the list of excluded) to be converted into an IFRS transaction, a correspondence must be found for both the debit and credit of the transaction accounts using the Compliance Map, the rule for calculating the amount is determined, and the values of the subconto for filling are found. If quantitative records are kept on the accounts, then the quantity must also be converted from NAS.

When preparing the Compliance Map, the priority rules should be described separately, for example: the highest priority is for the transactions contained in the list "Excluded from conversion", the priority of the next order is the transactions for which the most complete correspondence is set (for example, the transaction Dt 6710 "Settlements with personnel", Kt 5010 "Cashier" corresponds to the posting of IFRS Dt F6710, Kt F5010, while the values of the subconto to IFRS accounts are equal to the values of the subconto of NAS accounts), the priority of the lower level is other correspondences.

Stage 4. Development of regulatory and reference information (NSI) used for the purposes of IFRS, and the methodology for its application. NSI refers to constants, directories and registers that will be required for accounting in accordance with IFRS. It should be described as:

- objects that are available in the NAS system and will be used in IFRS without modifications and changes;
- objects available in the NAS system, for which it will be necessary to refine any details/parameters for the purposes of IFRS;
- objects specific to IFRS and absent in the NAS system, such as, for example:
- constant “Date of prohibition of editing IFRS”;
- constant “IFRS discount rate”;
- reference book “Conformity of accounts” and
- reference book “Exclusion of postings”;
- reference book “Fixed assets IFRS”;
- register “Results of IFRS revaluation”, etc..

Stage 5. Development of rules for accounting for specific transactions, i.e. transactions that require accounting estimates, such as:

- depreciation for the purposes of IFRS (what methods, depreciation rates, liquidation value to use; at what point to start and stop accrual; depreciate each object or group);
- impairment of assets (what discount rate to use, how to determine the fair value of objects, to which assets and in what proportion to distribute the loss);
- accounting for leasing (how to distribute the interest component);
- accounting for operations under contracts (how to determine the degree of completion, how to assess future income and costs under contracts);
- calculation of reserves (what formulas are used to calculate estimated reserves of each type);
- data consolidation mechanisms (if consolidated reporting is required).

Stage 6. Development of an album of reporting forms in accordance with IFRS and methods for generating indicators. This stage includes the output forms of reporting under IFRS in accordance with the established requirements and includes:

- standard balance sheet, built according to the IFRS Chart of Accounts, with accompanying transcripts (OSV on the account, account analysis, account card, subconto analysis, etc.);
- IFRS reporting package (Statement of Financial Position, Statement of Comprehensive Income, ODDS, Statement of Changes in Equity and transcripts to them);
- special and specific reports, for example, “IFRS depreciation statement”, “Report on the results of conversion of transactions”, “Calculation of deferred taxes”, “Reference-calculation on the formation of reserves”, etc.

It should be especially noted that the preparation of financial statements in accordance with IFRS is associated with the adoption of decisions, the basis for which is the professional judgment of the compilers. It cannot be programmed. Even taking into account the ability in any automated system to enter manual adjustments and correct the numbers calculated by the system, certain difficulties and limitations will arise. It is not always possible to describe all types of calculations with all possible options in the language of formulas. Therefore, finding the optimal compromise between the amount of work, program performance and user convenience is one of the priorities to be solved at the stage of development and implementation of a software product for maintaining the accounting process in accordance with IFRS.

## **Conclusion**

Summarizing the above material, we made the following main conclusions:

- attracting investments in the economy of the republic is directly related to ensuring the transparency of the activities of companies and enterprises that are recipients of such investments. Such transparency allows the transfer of companies to internationally recognized international financial reporting standards;
- in ensuring the rapid formation of relevant reporting in accordance with IFRS, an important role is played by the automation of the accounting process using specialized software products, in particular 1C;
- the transition to IFRS and the automation of relevant reporting is a complex process that requires the involvement of not only programming specialists, but also relevant specialists in the field of accounting methodology, specialists with experience in reporting under IFRS;
- when an enterprise switches to IFRS reporting, it is necessary to complete a number of stages related to the development of an appropriate set of methodological documents, including: the procedure for generating a chart of accounts for IFRS; formation of a list of typical business transactions and the methodology for their reflection in the chart of accounts; development of a compliance map (mapping) of data according to NAS and IFRS; development of relevant regulatory and reference information and accounting rules for specific transactions used for IFRS purposes, as well as the development of an album of reporting forms in accordance with IFRS and a methodology for generating indicators.

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