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INFORMATION MODEL FOR ELECTRONIC ARCHIVING OF DOCUMENTS

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SUMMARY
Archiving means precise marking and storing of a document, as well as its keeping and processing, which supplies the conditions for its quick and efficient finding. There are several ways of archiving the documents: data libraries, microfilms, scanning and electronic archiving. Electronic archiving requires the existance of data base which enables fast approach to pieces of informantion, simple search of the documents in the archive, protection from distroying or missuse, decreasing of the archive space, lower costs of operating as well as full monitoring of the documents. The paper shows information model for electronic archiving using CASE tools as the foundation for data base creation.
Key words: electronic archiving, data base, conclusion.

1. INTRODUCTION
The final phase of a life cycle of each document is archiving. Long lasting record of a great number of documents within the organizations has been a legally bound obligation. Keeping paper documents is a very demanding procedure concerning the necessary space as well as environmental and safety conditions required for safe and permanent keeping. Nowadays with the era of computers and informational technologies, electronic archiving has been more and more represented method of archiving.

2. ARCHIVING OF DOCUMENTS

2.1. The Document
A document is a recorded piece of information. Each process most often requires using of documents or generation of the documents. It is necessary to create the process of controlling the documents in order to ensure that the corresponding pieces of information are disposable and to prevent careless usage of wrong information .The process of controlling the documents enables adequate level of management of all kinds of documents which are generated and used within the business system.
A document is any written composition which serves to activate, fulfill, change, interrupt or end certain operation . It can contain an attachment (a drawing, table, graphic)or a physical object which is attached to a document for the sake of completion, explanation or supplying evidence of document content.
Documents can have certain form (forms, sheets), free forms (letters, memorandums),or in a specific shape technical drawings, drafts).

2.2. Archiving

Documentation within the business system should be regarded as the system which includes:

- Generation of documents
- Usage of documents
- Keeping/archiving documents.

Archiving means precise determining and storing of a document, its keeping and processing which enables the conditions for its quick and efficient search. The very original is archived according to certain classifying systems , while the documentation transferred on other media is archived depending on the functions of these media. The keeping conditions are the foundation of good archiving which must prevent various causes of destruction of the documents (e.g. natural disasters, theft, etc.) The archiving system should enable good and cheap reproduction of documentation which has been archived while protecting the original as much as possible and using the documentation transferred on other media.

The archive keeps records of passive documents which can be seen and copied- The updating of the archive implies involving new document. Browsing the archive means searching the documents under certain criteria.

2.3. Record

ISO 9001 defines recording as a document which shows the obtained results or proofs fulfilled activities. Thus, the recordings are used or generated in business system. The reason for creating the recordings are enabling the pieces of information necessary for processes of management, fulfilling the aims or showing the correspondence with the requirements , i.e. the requirements of laws and standards as well as the requirements of the customers.

Obligatory recordings which an organization must have as a proof of implementation and correspondence to the standard ISO 9001 are regulated as standards.

Request for the content of a recording is a form or a sheet which contains fields. A field has its name and meaning which is interpreted by the context of information, as well as the value, i.e. data and the form of representing the field. Keeping the records mainly implies the input of the data in electronic forms in MS Word or MS Excel. This method of keeping implies easier way of finding certain recording , good layout and easy reading and preserving but the main disadvantages are the principle of fulfilling where each performer has the freedom in fulfilling (this implies the described fields on various documents such as causes, reasons, kinds etc.) as well as the inability of using these data for informational procession but only for “manual” procession.

3. INFORMATION MODEL FOR ARCHIVING

3.1. Model of the Data for Archiving

To enable information processing of the records, the record fields represent the basis for the model of the data which describes the structure of the data and operating rules of the observed process for information modeling of the data. Data base consists of various data needed for every day work (similar data grouped together make a data base)-it can also be browsed and updated as a whole or as separated data bases. Data base consists of the documents that are active every day- user calls, changes, sends and generates new documents. All attachments can be transferred into electronic form using a scanner and memorized as pictures of the documents.

The model of the data should enable defining of the elements for physical generation of the transactional data base and using of the user’s application.

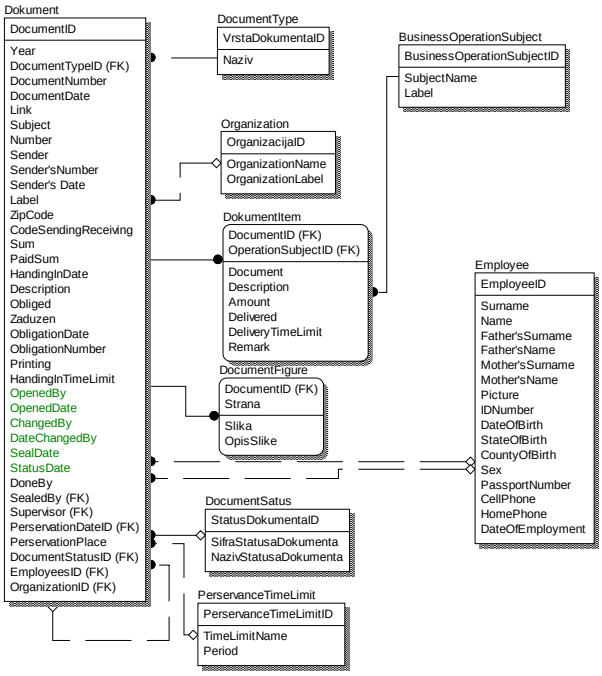


Figure 1: Data Model for Archiving

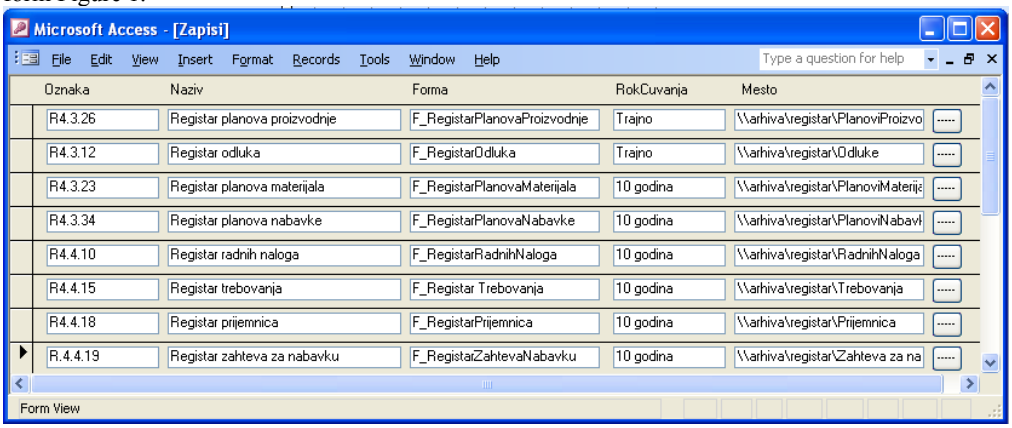
3.2. Electronic Registration

Registration is a group of records which refer to the same subject and are kept arranged in the same cover. Each registration has its label.

All the records which are kept in the registrations can be divided on external and internal ones. External records are all the documents whose original delivery does not come from operating system (various kinds of forms, offers, invoices, receipts, etc.). Internal records are plans, decisions, all the documents that are created and used within the operating system for the realization of all the processes (plans, decisions, working accounts, ordering, transfer sheets, inconsistencies, etc.

When the electronic archive is mentioned, the place of record on external memory of a computing system is stated.

In Figure 2 the applicative model for the registration has been done on the basis of the data model form Figure 1.



Oznaka	Naziv	Forma	RokCuvanja	Mesto
R4.3.26	Registar planova proizvodnje	F_RegistarPlanovaProizvodnje	Trajno	\\arhiva\registar\PlanoviProizvo
R4.3.12	Registar odluka	F_RegistarOdluka	Trajno	\\arhiva\registar\Odluke
R4.3.23	Registar planova materijala	F_RegistarPlanovaMaterijala	10 godina	\\arhiva\registar\PlanoviMaterija
R4.3.34	Registar planova nabavke	F_RegistarPlanovaNabavke	10 godina	\\arhiva\registar\PlanoviNabavk
R4.4.10	Registar radnih naloga	F_RegistarRadnihNaloga	10 godina	\\arhiva\registar\RadnihNaloga
R4.4.15	Registar trebovanja	F_Registar Trebovanja	10 godina	\\arhiva\registar\Trebovanja
R4.4.18	Registar prijemnica	F_RegistarPrijemnica	10 godina	\\arhiva\registar\Prijemnica
R.4.4.19	Registar zahteva za nabavku	F_RegistarZahtevaNabavku	10 godina	\\arhiva\registar\Zahteva za na

Figure 2: List of Electronic Registers

The opening of each registration shows the survey of all the records that are kept in it according to key items which enable browsing and where separate survey of each records with the corresponding attachments can be done (Figure 3).

Figure 3: List of Register Contents

4. CONCLUSION

Today we have a great amount of information in business systems that are kept on various magnetic and optical media in various formats which enables their keeping, and which requires search for necessary pieces of information by employees. Therefore, firms must find methods and techniques of collecting keeping, reproducing and archiving. One of the solutions is electronic archiving using electronic registration until integrated information systems can be introduced.

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