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## THE LOWEST LEVELS OF ARCHIVAL HIERARCHY *Adapting the Container List to ScopeArchiv*

### **Abstract:**

*Container lists have occupied a particular position within Hungarian archival practice for several decades. Their use is prescribed and regulated by law. They combine logical with physical description, being both an internal registry and a public finding aid. Researchers can submit orders for most archival records on the basis of these lists. This is why finding the best way to migrate the content of such lists to the scopeArchiv system was one of the many challenges the Electronic Archives Project has had to face. This paper highlights the conceptual problems and related issues entailed by this process as experienced in the Budapest City Archives.*

### **Key words:**

*e-archives, container list, data migration, registry, archival hierarchy*

### **Izvleček:**

#### **NAJNIZJI NIVOJI ARHIVSKE HIERARHIJE Prilagajanje seznama tehničnih enot programski opremi scopeArchiv**

*Popisi tehničnih enot imajo v madžarski arhivski praksi že desetletja poseben položaj. Njihovo uporabo določa zakon. So kombinacija logičnih in fizičnih popisov in predstavljajo tako interno evidenco kot tudi javni iskalni pripomoček. Na podlagi teh popisov raziskovalci naročujejo arhivsko gradivo. Eden mnogih izzivov projekta elektronskega arhiva je bil prav najti najboljši način, kako vsebino teh popisov prenesti v sistem scopeArchiv. Prispevek osvetljuje konceptualne in druge podobne težave, ki jih je ta proces prinesel v Mestnem arhivu Budimpešte.*

### **Ključne besede:**

*e-arhiv, popis tehničnih enot, migracija podatkov, evidenca, arhivska hierarhija*

## 1 INTRODUCTION

In the framework of the Electronic Archives Project,<sup>1</sup> the Budapest City Archives began using the scopeArchiv as its new Archival Information System in 2013. This change involved the migration of all public archival databases, beginning with the archival hierarchy in the old “Registrum” system that also stored the container lists. The container list is not only a necessary internal registry but also the most commonly used finding aid, therefore in its migration, the legal regulations and the comfort of the researchers were both important factors. It had to be easily

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<sup>1</sup> About the project see The Electronic Archives project in Budapest City Archives paper presented at the Conference on Technical and Field Related Problems of Traditional and Electronic Archiving in 2014 and published in the conference proceedings.

searchable and its contents had to be effectively orderable by researchers using the scopeQuery functions.

## 2 CONTAINER LISTS IN GENERAL

### 2.1 Emergence of container lists

The use of container lists in Hungarian archival practice dates from the 1950s. It was Győző Ember in 1958 who first suggested the use of this term as more general than the previously used "bundle list" that referred only to the most common type of the smallest storage unit. At the same time, he declared that the main purpose of drawing up container lists was the preservation of archival material and not the information of the public. The list had to contain the archival reference code, the title of the archival unit and the container reference code for every "smallest storage unit" or container, where the container reference code was independent of the storage location (Ember, 1958).

The container list, as an obligatory register, was included already in the 1971 regulation (Boross & Juhász, 2014), but I think there is no need for a detailed historical overview here, so I discuss only the law operative at the time of launching the Electronic Archives Project and the changes that it has underwent since then.

### 2.2 The regulation at the time of the Electronic Archives Project

The regulation operative in 2013 was the 10/2002. (IV. 13.) NKÖM decree of the Ministry of National Cultural Heritage on the professional requirements regarding the work of public archives in Hungary. It states that the storage units of archival material have to be registered in container lists that list and number the storage units for each fonds or subfonds separately, while also reflecting the archival structure below the fonds or subfonds level. There are general and specific data elements to be listed. General data elements for a container list are the name of the archives, section, fonds, and subfonds; date of creation and size of the fonds/subfonds given both in running meters and in the number of storage units. The specific data elements to be listed for each storage unit are the ordinal number of the container in the list and container type, and for each archival unit in the container the archival reference code, title and date of creation. In case of an archival unit taking up more than one container the reference codes of the first and the last record must be given for each container. As long as any archival material is not yet ordered enough to allow the completion of a regular container list, a temporary list of the containers is required.

### 2.3 Changes in regulation

In 2015, this decree was replaced by the 27/2015. (V.27.) EMMI decree of the Ministry of Human Capacities. There is one major change in the section on the container list ("raktári jegyzék"): it is renamed container registry ("raktári nyilvántartás"), emphasising that it already has an official status as a part of the electronic archival information system whether it be a printed document or not. This electronic archival information system is required to establish the connection between the general and the specific data elements.

Besides the registry function regulated by these decrees, it is important to consider that the container list also functions as a public finding aid. In many cases, these lists represent the most detailed description of archival material and researchers can submit orders relying on them. Even the limits for researcher's orders are set not only by the number of items but also by the number of archival boxes.

### 3 CONTAINER LISTS IN BUDAPEST CITY ARCHIVES

#### 3.1 Registrum

Before the Electronic Archives Project, container lists and archival registry of the Budapest City Archives were stored using a software called Registrum and accessible online on the webpage of the archives. Here, the “specific data elements” of the container list were attached in table format to the ISAD(G) description of the given fonds or subfonds, which already contained all the necessary “general data elements”. The columns of the table were: Sequential number, Storage unit (type of the container), Content unit, Articulation unit, Reference 1 and Reference 2. The first two columns were clearly used for the first two necessary data elements, but the use of the others varied with the type of archival material. The content unit was generally used for a title or description, while the articulation unit mostly contained the creation dates, although not in all cases. The Reference 1 and Reference 2 columns could contain material-specific data, but they were also often left empty. Although the rows of the table were already separate records in the database, archivists and researchers used them only in the visual form of the table, following the style of the old typed container lists.

#### 3.2 Migration plans

During the Electronic Archives Project, the Budapest City Archives decided to unite, its many different databases in a new coherent system. As part of this process, all already public archival databases with no digital content had to be migrated into the scopeArchiv Archival Information System, the contents of the “Registrum” among them. The process was quite clear in case of the registry information, but it was less simple to find the best way to include the tables of container lists into this new system. Since the preparatory phase of the project took unexpectedly long, there was not much time left for implementation and migration: they had to take place almost simultaneously. That meant that the mode of the migration had to be decided upon before the new system could really become familiar in everyday practice—and there was also little time for cleaning or correcting the old databases.

The decision on the migration of the container lists had to take into account the following points:

- a) automatic migration should be possible with minimal manual interruption;
- b) after the migration further data changes, imports and exports should be easily manageable by the archivists themselves;
- c) the contents of the container list should be searchable for users through the scopeQuery;
- d) the container list should be usable as a register;

- e) the container list should be usable as a finding aid and its units should be orderable for researchers;
- f) the container list should be printable in the form required by the then operative 10/2002. (IV. 13.) NKÖM decree.

The logic of the archival structure and the normal use of scopeArchiv functions would have suggested that all archival units down to the lowest levels be represented as part of archival hierarchy in the Units of Description module and connected to their containers in the Containers module. That would have been perhaps the professionally most suitable solution and can still be a goal for the future, but it was not a viable option for the mass migration process. Even if it had been possible to accomplish, the production of the then still required printed container lists would have been very difficult.

An easy but far less elegant option was to give up the separate records, keep the list form as it was, and put all this in a single memo field among the data of the given fonds or subfonds. Researchers could find it where it used to be (perhaps in a less appealing visual form) but the system would not recognize levels below the registry and all orders should be placed in text form. Although, obviously not practical in the long run, this option could have been accepted as a temporary solution until the previously described ideal version can be realized. A bit similar choice is to attach the old printable lists as documents to the registry levels in the Units of Description module—this was the temporary solution chosen by the National Archives.

The third way, that was finally opted for, in this phase of planning was to migrate the containers into the Units of Description module, allotting each container a separate record below the registry levels, with connection to itself in the Containers module. The data fields, which describe the contents of the archival units (Content unit, Articulation unit, Reference 1, Reference 2) would be imported into one field. Because there can be more rows (more than one archival units) for each container, this field should be repeatable. In this way, full containers could be normally ordered, but requesting only one archival unit from a container could be done only by placing an order in text form.

### 3.3 Implemented migration method

The implemented solution was partly based on this third option, except that not only all containers, but all rows of the container lists were migrated as separate records. Still, the idea of uniting the four descriptive columns in a single field was kept. In this way, in a migrated record of a container list the ordinal number and type of the storage unit appear in separate fields and also as the part of the reference code of the record, but all further data is listed in one memo field. Because it could not be warranted that the title and the creation date would always appear in the same column and especially not that the latter would be in any standard format, these also ended up in the memo field: none of the migrated “container list” records had any data in the creation date field, and all carried the title “Container list”. In this way, the data was searchable and all units inside the containers could be ordered separately, but the details appeared only in full view: neither list view, nor archival plan view showed the contents of the record, only the reference code and container data. Not surprisingly, researchers kept on using

(and archivists kept on recommending) the old tables which were still available but not updated any more.

### 3.4 Mass correction campaign

After the conclusion of the project, everyday use of the migrated databases highlighted issues deserving attention. One of them was the demand for a more convenient container list format. There was no intention to redesign entirely the format chosen before; rather, all migrated container lists were to be corrected in the shortest possible time. The fact also had to be considered that the system had been by then in use for more than a full year and many correctable Units of Description records had already had connections to the Loans module, so they could not be simply deleted from the database. The task was not to change the migrated structure, but follow the already used logic of the reference codes and rewrite the existing records by their corrected form. However, in many cases even the reference codes had to be corrected. As already mentioned, the use of the old tables had relied on their visual impression, and in the very common case of many rows belonging to a container, the container data (ordinal number and type of storage unit) were indicated only in the first row of the container, leaving these fields empty in the rows below. Sometimes, when several containers belonged to the same storage unit type, the type was indicated only for the first. Since each row became a separate record in the course of the migration, the rows with empty first fields lost their container data. Lacking container data, their reference codes had to be corrected also, so they could not be overwritten.

8. Raktári jegyzék					
Sorszám	Tárolási egység	Tartalmi egység	Tagolási egység	Jelzet 1	Jelzet 2
		Elnöki-Elnöki ügyosztályi iratok	1873-1911		
1	doboz	iratok	1873.	1-599	
2			1874.	1-475	
3				476-950	
4				951-1.400	

*Picture 1: Container list in the “Registrum” with many empty fields and an extra row*

#### 3.4.1 Formal correction

The mass correction campaign targeted the most obvious problem: the inadequate use of fields. As all content information was stored together in a user-defined field, these could be seen only in full view—a big step backwards from the previously used tables, both for archivists and researchers. But, the same amount of information could be suitably displayed in the system’s “favourite” fields: title and time of creation, visible in all views, and “contents” that appears at least in list view both in the scopeArchiv and the scopeQuery search result lists. Therefore, we wanted to use only these three fields for container list records besides the two types of reference codes. This could have been easily defined already for the migration, had the archivists had sufficient time to unify the use of the columns in

the various container lists. This preparatory work was the first to be undertaken now, making sure that all lists meet the following criteria:

- a) Every row in the table should describe a physically separate unit (either whole containers or independent archival units) that can be ordered in itself.
- b) No other row may remain in the tables beyond those that describe such units (previously there were some comments or titles between containers).
- c) All rows should contain the following data: Ordinal number, Type of the container (chosen from a given list), Title (previously “Content unit”) and Time of creation (previously “Articulation unit”).
- d) Two optional columns can be used for any further information: Title addition (previously “Reference 1”) and Contents (previously “Reference 2”).
- e) The Time of creation should be given as one date, or an interval between two dates, in the form YYYY, YYYY.MM or YYYY.MM.DD.

These criteria were determined in a way that allowed many of the previously used Registrum tables to be accepted without any changes. Many other correctly completed container lists required only minor changes (e.g. standardization of date forms or, perhaps, exchanging “Reference 1” and “Reference 2” columns).

HU BFL IV.1472.b Iparügyi nyilvántartások (1884-1949)	
HU BFL IV.1472.b 1. kötet Raktári jegyzék	
HU BFL IV.1472.b 2. kötet Raktári jegyzék	
Ref. code:	HU BFL IV.1472.b 1. kötet
Ref. code AP:	HU BFL IV.1472.b 1. kötet
Title:	Raktári jegyzék
Sorszám:	1.
Tárolási egység:	kötet
További adatok:	Tartalmi egység: "A" iparlajstrom Tárolási egység: 1895-1903 Jelzet1: 1903/33-ig Jelzet2: -

HU BFL IV.1472.b Iparügyi nyilvántartások (1884-1949)	
1. kötet A iparlajstrom (1903/33-ig) (1895-1903)	
2. kötet A iparlajstrom (1920/40-ig) (1903-1920)	
Ref. code:	HU BFL IV.1472.b 1. kötet
Ref. code AP:	1. kötet
Title:	A iparlajstrom (1903/33-ig)
Creation date(s):	1895 - 1903

*Picture 2: Unchanged data imported again into better chosen fields*

Of course, this is only the formal minimum to make the import possible, which results in a slightly corrected version of the old table visible to researchers in archive plan search and exportable for archivists from the list view of the scopeArchiv. For many container lists this is enough. Nevertheless, further improvements are possible—some of them have already appeared as a recommendation in our proposal for correcting of the migration, others were defined on the basis of requests by archivists calling attention to special features of the archival materials in their charge.

### 3.4.2 Corrections of contents

Even though the process had not been planned to leave time for the thorough revision of all lists, it was necessary to check whether they met the minimum criteria, and this task could be used as an opportunity to correct obvious mistakes in the table form before importing the list into scopeArchiv. In the “Reference 1” or “Reference 2” columns, there were sometimes specific codes (figures or letters) without any explanation: we recommended making these now more understandable

by adding notes and avoiding abbreviations. It had to be considered that the rows would be independent records now: though they appear as lists in the archive plan view, but as search results they will stand alone. For example where all the rows were described only as “records” with an interval of registration numbers and the date of creation, it was a good idea to include the short version of the name of the fond in the title of the list items.

### **3.4.3 Building a structure**

#### **3.4.3.1 Archival levels above the containers**

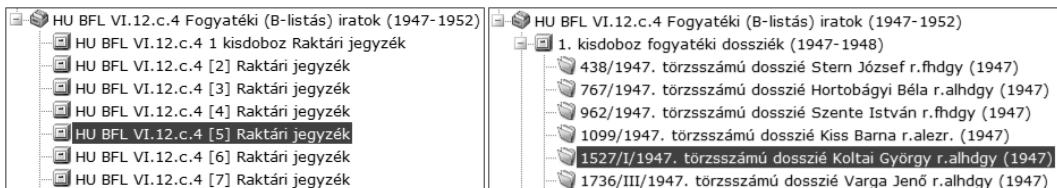
The regulations prescribed the container lists to be attached to fond or subfond level; the structure below these levels was to be included in the lists. This was manageable as long as the lists were separate documents, but already in the Registrum system there were different representations. Although the table structure was not optimal for inserting titles, nevertheless, many archivists opted for this to mark a series or subseries in the list. In other cases, when the lists appeared attached to these lower levels, an official version could be produced only by unifying them. With the container lists formally becoming part of the archival structure, their content has to be divided among the lowest archival levels, even though the ordinal numbering of the containers refers to their place within the whole fond or subfond but not in the series.

In the old container lists, group titles that were not officially registered as series or subseries could also appear. There were three ways to treat them: make them officially into archival levels (series or subseries); include them as “technical levels” to make the structure better organised; or drop them as separate records while including their information content in the title of all records on the lower levels below them.

#### **3.4.3.2 Archival units in storage units**

Since regulation required the title and date of creation for all archival units in a storage unit for a proper container list, in most cases there were many rows in the table for each container. Preserving the old list form, these records and whole containers appear on the same level in the new structure. This is still the most effective form, provided there are not too many archival units in the containers. There are, however, certain cases where the option of having two levels (archival units below container level) is worth considering even though this obviously demands more preparatory work. This is the case when

- a) the original container list would be very long (thousands of lines), but the list of the containers is much shorter (there are more than ten archival units for most of the containers);
- b) researchers often place orders for a whole container rather than for separate archival units in it (it generates a lot of useless documentation if they have to order each archival unit one-by-one instead of the full box);
- c) the items of the original list could not be shown online at the Query (because they contain sensitive data), but a general description of the contents of the whole container can be useful to the professional researcher.



*Picture 3: Many archival units in the same container: before and after*

### 3.4.3.3 Databases and item-level archival descriptions

Apart from the necessary container lists for many parts of the archival material, we also possess more detailed finding aids and databases. The previously already online accessible databases of the Budapest City Archives were also migrated to the new system within the Electronic Archives project: those with digital content (mainly pictures) were ingested into the Tessella SDB (now Preservica), but the rest were imported to the Units of Description module of the scopeArchiv and were placed, if their records could be fitted into the archival plan hierarchy, on levels below the migrated registry. In these cases, the migration resulted in two parallel structures below the fonds or subfonds: the container list and the database. During the revision, it is up to the archivists to decide whether to combine them or not:

- a) The easiest, but perhaps confusing, option is to maintain the migrated status and keep the two parallel structures side by side.
- b) According to the new regulation it is also acceptable not to keep the container list but establish the connection between the database records and the Containers module.
- c) The two structure can also be merged in cases when, for example, the database has no hierarchical structure in itself, but contains hundreds of records on the same level. Then it can be made more transparent by adding technical levels—and containers can be used as such technical levels.

The options for the import of other finding aids or lists of item-level archival descriptions are the same as for container lists with many rows for each container or databases without inner hierarchy.

## 4 CONCLUSION

The mass correction of the migrated container lists was a priority task for the year 2015. About 4500 container lists have been corrected so far, some of which consists of a single record while others contain nearly 7000 rows. By the end of last year 280279 of the 457604 “container list” type records of the scopeArchiv were already converted to the new form—and many of the migrated “container list” records were replaced by archival units connected to the Containers module.

The necessity to formally check all container lists also presented a good opportunity to correct their contents and to get rid of many structural problems inherited from earlier solutions and databases. Although the completion of these preparatory tasks before the first migration to scopeArchiv could have saved us the

technical steps of the new import, it is unlikely that we could have found the best solution before experiencing the new system in everyday practice. Nevertheless, when the current mass corrections are completed, we will have all public archival material not only described, but effectively searchable and orderable in our online Archival Information System.

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## POVZETEK

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### NAJNIŽJI NIVOJI ARHIVSKE HIERARHIJE Prilagajanje seznama tehničnih enot programski opremi scopeArchiv

Uporaba popisov tehničnih enot je v madžarski arhivski praksi že od petdesetih let prejšnjega stoletja in je bila predpisana z zakonom iz leta 2002, ki je bil posodobljen leta 2015. Popisi tehničnih enot niso le regulirane evidence, služijo tudi kot javni iskalni pripomočki. V mnogih primerih ti popisi predstavljajo najbolj natančne popise arhivskega gradiva, raziskovalci pa jih uporabljajo za naročanje gradiva.

V okviru projekta elektronskega arhiva je Mestni arhiv Budimpešta leta 2013 začel z uporabo programske opreme scopeArchiv. Ta spremembu je zajemala tudi migracijo vseh javnih arhivskih podatkovnih baz. Predtem so bili popisi tehničnih enot in arhivske evidence shranjeni v programu "Registrum" in dostopni na spletni strani arhiva. Popisi tehničnih enot so bili pripeti v tabelarični obliki k popisu določenega fonda ali podfonda. Stolci v tabeli so bili: zaporedna številka, tip tehnične enote, vsebina, čas nastanka?, razno 1 in razno 2. Po migraciji v scopeArchiv je vsaka vrstica postala en zapis, kjer so se vrstne številke in tipi tehničnih enot pojavili v ločenih poljih in hkrati kot del signature popisne enote, vse ostale informacije so bile navedene v enem besedilnem polju.

Po koncu projekta se je pojavila zahteva po obliku popisa tehničnih enot, ki bi bil bolj uporaben. Namen ni bil preoblikovati izbrane rešitve, ampak popraviti vse migrirane popise tehničnih enot v najkrajšem času. Množično popravljanje se je osredotočilo v prvi vrsti na nepravilno uporabo polj. Rezultat je rahlo popravljena različica stare tabele, ki je raziskovalcem vidna v iskalniku po tektoniki in jo lahko arhivist izvozi iz tabelaričnega pogleda v scopeArchivu. Ker je bilo potrebno za nov prenos preveriti vse popise, je bila to priložnost za vnos popravkov vsebine. Če bi

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ta dela opravili pred prvo migracijo, bi imeli seveda manj dela z drugo, pa vendar do te rešitve nismo mogli priti, preden smo začeli nov sistem uporabljati v vsakodnevni praksi.

Množično popravljanje migriranih popisov je bila prioritetna naloga v letu 2015. Popravljenih je že okoli 4500 popisov različnih dolžin: veliko jih vsebuje le en zapis, nekateri pa imajo tudi več kot 7000 vrstic. Ponekod so bili migrirani popisi zamenjani z arhivskimi enotami, povezanimi s modulom Tehnične enote. Po končanem množičnem popravljanju bo možno po vsem javnem arhivskem gradivu učinkovito iskati in ga naročati preko našega spletnega arhivskega informacijskega sistema.