

YESHIVA UNIVERSITY IMPLEMENTS THE VTLS VIRTUA INTEGRATED LIBRARY SYSTEM

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Description: A discussion of how Yeshiva University implemented the VTLS VIRTUA library catalog system.

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Two years ago, at the La Jolla convention, I presented Yeshiva University's online library system called YULIS. I said: "VTLS [our vendor] is currently developing and promoting a totally new library system called Virtua. We at Yeshiva will migrate to Virtua when the Hebrew display will be ready. Hopefully next year we'll be able to do a demonstration of our library system in Virtua."

Well, it has been two years, not one, but here we are.

Why did we move to Virtua? Why didn't we stay with Classic VTLS, into which we – together with VTLS – put so much time and effort to make it work so well for us? There were several reasons for the move. Firstly, VTLS will stop supporting their Classic system in the near future. Another reason was purely technical: Our library had to upgrade its aging computers to Windows 2000. The Classic VTLS client software, especially the Hebrew part, was not Windows 2000 compatible. So the move to Virtua was unavoidable. But let's pretend for a moment that we weren't forced to abandon

Classic. Would we have chosen to migrate to Virtua nonetheless? I strongly believe we would have, and this is why:

1. Virtua is Unicode based, Classic wasn't. Our library collections consist of many different languages and scripts. In Virtua, not only does the Hebrew script display correctly, but the Roman diacritics do as well .
2. Virtua is z39.50 compatible, Classic wasn't. This opens new opportunities for searching and cataloging, to our advantage and to the advantage of many other libraries.
3. In Classic, the gateway, meaning the catalog on the web, was an image of the client, and therefore it was rigid and inflexible. In Virtua, the gateway is a real gateway, which can be manipulated endlessly, and has many new and exciting options, as we shall see.

Migration to Virtua:

Since Virtua is a completely different system than Classic, work on the Hebrew display had to begin from scratch. Yeshiva was again the main consultant. Many hurdles had to be overcome. Let me just mention one, and I believe that many of you will sympathize: The dates in Hebrew records displayed backwards! We encountered that problem in Classic, and VTLS fixed it. We encountered it again in Virtua, and again

VTLS came through and fixed it. And they fixed many other problems too. Some issues remain. The road to Hebrew search and display heaven is long and full of unpredictable pitfalls. Here are some:

Let's take Unicode. Isn't Unicode wonderful? Yes, it is. It allows for the use and display of so many different characters. But look what happens:

First example:

The Yiddish double vowels: double vav, double yod, and vav-yod. These double vowels are represented by one character each in Unicode. In Classic VTLS, which was not Unicode compatible, the double vowels showed up as gibberish when downloaded from RLIN. Our astute library assistant recognized the problem, and changed the gibberish into two separate characters: two yods, two vavs, a vav and a yod. In Virtua, with its wonderful Unicode display, the Unicode double vowels look like two separate characters and don't call the attention of the library assistant. They remain as special Unicode characters in the record and Virtua recognizes them as such: special characters. They file at the end of the Hebrew alphabetical listing. Let me show you: Let's do a title search ייב: the resulting word ביי consists of a bet and two separate yods; now let's do a title search תתב: the resulting ביי here (between בת and ג) consists of a bet and the Unicode double yod). How can the double vowels be retrieved in a search? One has to enter the Unicode characters into the query, and there is no obvious provision for them on our keyboard. We can do it by entering

Ctrl+Alt+י or ם (one has to know that), or by copying and pasting, either from another record in the database, if we know where such a record is, or from the Unicode character map (Start → Programs → Accessories → System Tools → Character Map). Another possibility would be to display a virtual keyboard with all those special characters on the screen. But think for a moment: How is a user to know whether a word like ייב was entered into the system with a double yod or with two separate yods, and therefore how should he try to retrieve the word, with a double yod or with two separate yods? In order to solve this dilemma, we suggested the following to VTLS: The database should consider double vowels represented in one Unicode character as two separate characters, for sorting purposes, as well as for search purposes. This will bring all records containing double vowels **and** two separate vowels together in one alphabetical listing, regardless whether the query contained the double vowels or two separate vowels.

Second example: The Geresh, or single quote. The Geresh looks like an apostrophe or a single quote, but has its own Unicode character. This plays a role in Hebrew abbreviations such as ר', and in many Ladino words, such as ליב'רו. The Geresh creates problems similar to the ones described above concerning the Yiddish double vowels. Our suggested solution here is for the database to disregard all apostrophes, single quotes and the Geresh character for sorting and searching purposes, but to leave them in to be displayed. This will bring together all words containing an

apostrophe, a single quote, a Geresh, or none of the above, regardless of what was put into the query.

Third example: Gershayim. The Gershayim Unicode character looks like a double quote, and presents the same problems as the Geresh, but with a twist. Gershayim and double quotes are very heavily used in Hebrew, especially in date and name acronyms, such as תשס"ג or רמב"ם, רש"י, etc. When we approached VTLS with our solution to ignore Gershayim and double quotes for sorting and search purposes, their answer was: Ignoring Gershayim is fine; ignoring the double quotes in sorting and for browse searches is equally fine, but ignoring double quotes in **keyword** searches won't work, because the double quotes have a very specific meaning in Virtua keyword searches; they tell the system: everything within double quotes is a phrase. When a double quote is embedded within a word, such as is always the case in Hebrew acronyms, the system gets confused and shoots back: "misplaced quote", and the search fails.

We impressed upon VTLS that keyword searches for Hebrew acronyms are extremely crucial. What is the most intuitive way to find רשב"ם's works but by entering the word רשב"ם into an author keyword query? We have suggested solutions to this problem as well. VTLS is currently working on these problems, and I am sure we shall see the fixes in the near future.

Now let me get back to our migration from Classic VTLIS to Virtua, to the problems involved, and to the ways we dealt with them:

Our staff had to be trained in Virtua, and they needed time to practice the new system. Virtua works on Windows 2000, so all staff PCs had to be upgraded to Windows 2000 prior to training and practice. On the other hand, Classic had to remain operational during the transition, and the Classic Hebrew client only works on Windows 95 or 98, not Windows 2000, as I mentioned before. What to do? Our wizards at the MIS Department came up with the following solution: They installed new PCs which were powerful enough to accommodate two systems: Windows 98 was installed on the C-Drive, and Windows 2000 on the D-Drive. The staff learned to toggle between the two drives.

For training and practice we needed a database which could be “played” on, and on which mistakes, deletions, and fake records did not matter. This was achieved by putting a copy of our entire database on the server and connecting Virtua to that copy database. The purchase of a new, larger and more powerful server allowed the space for the test database.

Virtua staff training took place in the summer of 2002. Original plans called for migration to Virtua by the end of the summer. However, we quickly realized that more time was needed: Decisions had to be made, problems had to be ironed out, staff needed time to get comfortable operating on Virtua, and, last but not least, the new

gateway had to be designed. Therefore migration was put off till intersession in January of 2003. During those ten days in January the Classic VTLS database was frozen, and VTLS moved all data into a brand new Virtua database. Staff saved cataloging and circulation data onto files, which were uploaded into the new database before going live. Emails were sent to the entire Yeshiva University community informing everybody of the impending switch to a new OPAC and emphasizing its new features. And then we took the plunge, and we haven't regretted it.

Let me now touch briefly upon the gateway, some of its features, and some of the decisions we made regarding its design.

A staff committee to design the gateway was created. The main goals for the gateway were: eye-pleasing display and easiness of operation. The first screen shows you all of the gateway features and at the same time enables you to do both a browse search and a keyword search right there. Upon getting a search result you can scroll down and initiate a new query on that same screen. The sidebar and the top bar go with you through all your searches. You can put limits on your searches by language, publication date, etc. You can go to your search history, modify your search or simply resubmit it. You can select records, print them or send them to your email account. You can save your session with the search results for a later date. You can view your account, see what items you have out in circulation, which are overdue, and how

much you owe in fines. You can renew your books on the screen. If you are blocked, the system will not let you renew.

Our gateway committee did a wonderful job on the help screens, which are accessible from the top bar. Below the help screens you see “how to display Hebrew and other languages or symbols”. This will tell you all you need to know about fonts and settings for optimal display.

The side bar: the top gives you access to course reserve records and to ILL forms. Patrons fill out the ILL request form on the screen and send it via email to our ILL staff member.

The bottom part of the side bar takes you out of the OPAC to our e-journals list, our electronic databases and our e-books. Let me close by showing you some additional nice features accessible from the middle part of the side bar. Within “Advanced Search” we have something called “Heading Keyword Search”. A regular keyword search leads you to individual records, sometimes very many of them, so that it becomes difficult to oversee the results. A heading keyword search leads you to groups of records. For instance, let’s say you are looking for the works of Moshe Goshen-Gottstein. Unfortunately you forgot his first name and also his Hebraized name Goshen. All you remember is Gottstein. A regular keyword search will yield 39 individual records, some relevant, some not (Esther Gottstein is not relevant), and you have to look through all of them to determine their relevancy. The heading keyword

search will yield a headings list. You can immediately zero in on the group of records which is of interest to you.

“Search Other Libraries”: This feature lets you do a global or selective search of as many libraries as we provided for. The libraries have to be z39.50 compatible.

To sum up, Virtua has worked well for us and we have worked well for it. It’s almost perfect, but it’s still a work in progress. Helping VTLS perfect it has been challenging and exciting, and we are looking forward to continue contributing our knowledge and expertise in the future.

Thank you.

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