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Subject: documentation and uvs

Posted by [hojtsy](#) on Mon, 30 Jan 2006 19:11:24 GMT

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I see all these files in the src.tpp direcorey in uvs. Some of them are also visible in srcdoc.tpp, but I edited the version in the src.tpp directory. There are other strange things you can see in the screenshot: There are two "Overview of U++ containers" pages, two "Serialization" pages, some pages don't have a name, etc. Some pages are also visible in src.tpp and srcdoc.tpp. After looking more closely at this confusion, it is possible that I was editing some obsolete versions of those files which should have not been visible in src.tpp.

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## File Attachments

1) [docs\\_in\\_uvs.jpg](#), downloaded 2248 times

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The screenshot shows a window titled "AIndex" with a file tree on the left and a documentation pane on the right. The file tree is organized into two main sections: "src" and "srcdoc". Under "src", there is a "Core" folder containing various classes and utilities like Algorithms, AMap, Any, Array, ArrayIndex, ArrayMap, BiArray, BiVector, Buffer, Callbacks, Color, CParse, Date formatting and scanning, Internationalization and translation files, Core package, Index, Serialization utilities, Moveable, Overview of U++ containers - NTL, NTL vs STL, One, Overview of U++ containers - NTL, Transfer semantics, Ptr and Pte, Segtor, Serialization utilities, NTL and standard library, Streams, Stream utilities, NTL Tutorial, Miscellaneous, Vector, and VectorMap. Under "srcdoc", there is another "Core" folder containing documentation for including binary data using .brc files, Charset and encoding issues, About storing configuration, Design decisions and tradeoffs, and Runtime dynamic linking using .dli files.

The right pane displays the documentation for the `AIndex` class. It starts with the class signature:

```
template <class T, class V,
class HashFn>
class AIndex
```

It then defines the template parameters:

- `T`: Type of elements to store. T must satisfy requirements for container flavor identified by parameter V and must have `operator==` defined.
- `V`: Basic random access container.
- `HashFn`: Hashing class. Must have defined `unsigned operator() (const T& x)` method returning hash value for elements.

The documentation describes the class as a template class that adds associative capabilities to basic random access containers, forming flavors of Index. It is used as a base class for concrete index flavors, `Index` and `ArrayIndex`. It allows adding elements at the end of sequence in constant amortized time like basic random container. Additionally, it also allows fast retrieval of a position of the element with specified value. Hashing is used for this operation. AIndex stores hash-values of elements, so it has no sense to cache them externally.

It also discusses the building of internal hash maps of AIndex, which is always deferred till search operation. This effectively avoids unneeded remapping if large number of elements is added.

Another section discusses the problem of removing elements from an AIndex, which causes an interesting problem. While it is possible to simply remove (or insert) an element at a specified position, such operation has to move a lot of elements and also scratches internal hash maps. Thus removing elements this way is slow, especially when combined with searching.

The solution for this problem is **unlinking** of elements. Unlinked elements are not removed from index, but they are **ignored** by search operations. Unlinking is a simple, constant time, fast operation. Further, it is possible to place an element at the first available unlinked position (rather than to the end of sequence) using the `Put` method, reusing unlinked position in short constant time.

The final paragraph notes that the only problem of unlinking is that it breaks the so-called **multi-key ordering**. This term means that if there are more elements with the same value in the

Subject: Re: grammar corrections

Posted by [mirek](#) on Mon, 30 Jan 2006 19:44:10 GMT

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Well, obviously some deleted files resurrected after your uvs2 sync...

I have just checked loading full update block into fresh empty dirs and nothing like that has happened for me. Could I ask you for compiling fresh uvs2 from current uvs2 tree (or snapshot) and repeat Sync? (in hope that it was just some gone uvs2 development anomaly..)

BTW, there is also a uvs2 functionality to revert to (or resurrect) older file, but I do not think that it is what you have done...

Mirek

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Subject: Re: grammar corrections

Posted by [hojtsy](#) on Mon, 30 Jan 2006 21:39:10 GMT

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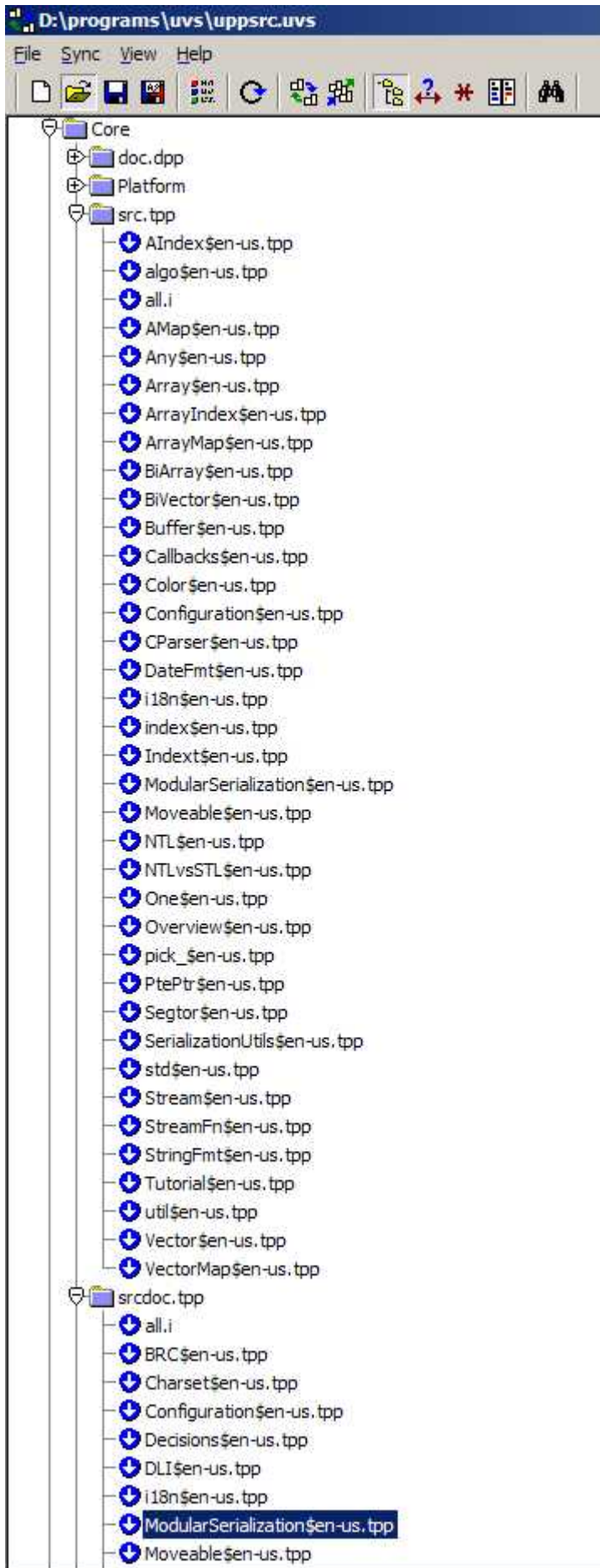
I recompiled UVS2 from the sources in uvs. I removed the whole uvs directory, and started synchronization from the start with the new uvs2.exe. It finished downloading everything, and the same unwanted files are present in the directory. See screenshot. How about you try to do a resync from the start?

Edit: my next idea is that uvs also saves removed files in the local archive. There should be an feature to extract a snapshot into an other directory.

### File Attachments

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1) [uvs\\_problem.jpg](#), downloaded 1359 times



Subject: Re: grammar corrections  
Posted by [mirek](#) on Mon, 30 Jan 2006 22:03:25 GMT  
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Not only .uvs dir has to be empty for fresh restart, but uppsrc as well.

Or, even better, just try with different set of dirs.

uvs2 would not remove existing files.

And yes, there is always complete history in local archive, included all deleted files.

Sorry for inconvenience, something strange happening here. I have checked myself (by syncing to empty archive/dir), Daniel does not have those deleted files in Core too. I really would like to know what is going on here.

Mirek

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Subject: Re: grammar corrections  
Posted by [hojtsy](#) on Mon, 30 Jan 2006 22:49:09 GMT  
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luzr wrote on Mon, 30 January 2006 17:03: Not only .uvs dir has to be empty for fresh restart, but uppsrc as well. Or, even better, just try with different set of dirs. uvs2 would not remove existing files. I removed everything before the sync, so there was no existing files. The uppsrc directory was created by uvs2.exe and populated with the files, including those which are deleted in the current version. Quote: And yes, there is always complete history in local archive, included all deleted files. Then you should see the deleted files in your own archive too, shouldn't you?

Hmm, maybe the problem is that I am viewing the uvs.uppsrc directory (where there are \$v files too), and you are viewing the uvs.uppsrc.uc, which is similar, but seems to lack the deleted files and \$v files.

By the way it has probably no connection with the problem, but I sometimes get this cryptic message from uvs2: Synchronizing project 'uppsrc'...

Connecting to server: 82.208.33.67

Modification block: server - 589; local - empty

Looking for full block...

Synchronization aborted, unlocking server archive - error:

Synchronization terminated with error(s), finishing batch processing.

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Subject: Re: grammar corrections  
Posted by [mirek](#) on Tue, 31 Jan 2006 06:24:55 GMT  
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Ahhh.... Yes.

There are two directories - "repository" (or, as you say, "archive") and the real development tree...

The content of repository is not meant to be worked with - this is for maintenance purpose (it is equivalent to those .cvs subdirs when using cvs, as far as I understand them). uvs2 uses repository to keep track of your changes and also to provide off-line history of changes.

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Subject: Re: grammar corrections  
Posted by [hojtsy](#) on Tue, 31 Jan 2006 07:04:24 GMT  
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OK then, please throw away those files from my corrections which do not exist in the current version, because I was editing an obsolete version of them. And would it be possible to move the posts of this uvs-related discussion to an other topic, so that I can continue here with the corrections?

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Subject: Re: grammar corrections  
Posted by [fudadmin](#) on Tue, 31 Jan 2006 17:04:48 GMT  
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hojtsy wrote on Tue, 31 January 2006 02:04... And would it be possible to move the posts of this uvs-related discussion to an other topic, so that I can continue here with the corrections?

I'll try ...

EDIT: Is it ok? If you would more to move - edit them and mark somehow or write numbers of messages

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