Subject: Global Value Cache
Posted by mirek on Thu, 11 Jun 2020 07:06:47 GMT
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Well, this feature development started when testing UWord with R PI4. When I has loaded some .jpg images into document, resizing these took ages, because jpg decompression is quite slow. So the idea was that decompressed image should be cached before resized, but the old caching mechanism favored reduced memory consumption. Which was sad given there was about 3GB RAM free during testing...

So it got me thinking that we maybe should react to the amount of free memory (however you define it) in the system while caching. First I started to develop a protocol that would communicate the information about available memory to all registered caches but then got better idea: Image is Value, so why not create single global cache of Values, adjusted to available system memory...

The result is https://www.ultimatepp.org/src$Core$ValueCache_en-us.html.

Image cache ("MakeImage") is now just client to this global value cache and its size is periodically adjusted (when running GUI) to the system current status...

Subject: Re: Global Value Cache
Posted by Tom1 on Sat, 13 Jun 2020 08:42:03 GMT
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Hi Mirek,

Just updated to latest SVN. Tried rebuild all, but ended up with the following:

Linking...
Draw.lib(MakeCache.obj) : error LNK2019: unresolved external symbol "class Upp::LRUCache<class Upp::Value,class Upp::String> & __cdecl Upp::TheValueCache(void)" (?TheValueCache@Upp@@YAAEAV?$LRUCache@VValue@Upp@@VString@2@@1@XZ) referenced in
    function "void __cdecl Upp::ValueCacheAdjustSize<class <lambda_2e35ad9d7fd5412418149da4b8e9862a> >(class <lambda_2e35ad9d7fd5412418149da4b8e9862a>)" (??$ValueCacheAdjustSize@V<lambda_2e35ad9d7fd5412418149da4b8e9862a>@@@Upp@@YAXV<lambda_2e
    35ad9d7fd5412418149da4b8e9862a>@@@Z)
Draw.lib(MakeCache.obj) : error LNK2019: unresolved external symbol "class Upp::Value __cdecl Upp::MakeValue(struct Upp::LRUCache<class Upp::Value,class Upp::String>::Maker &)" (?MakeValue@Upp@@YA?AVValue@1@AEAUMaker@?$LRUCache@VValue@Upp@@VS
    tring@2@@1@@Z) referenced in function "class Upp::Image __cdecl Upp::CachedRescale(class Upp::Image const &,struct Upp::Size_<int>,struct Upp::Rect_<int> const &,int)" (?CachedRescale@Upp@@YA?AVImage@1@AEBV21@U?$Size_@H@1@AEBU?$Rect_@H@1@

H@Z)
Draw.lib(MakeCache.obj) : error LNK2019: unresolved external symbol "bool __cdecl Upp::IsValueCacheActive(void)" (?IsValueCacheActive@Upp@@YA_NXZ) referenced in function "void __cdecl Upp::SysImageRealized(class Upp::Image const &)" (?SysImag
eRealized@Upp@@YAXAEBVImage@1@@Z)
Draw.lib(MakeCache.obj) : error LNK2019: unresolved external symbol "void __cdecl Upp::AdjustValueCache(void)" (?AdjustValueCache@Upp@@YAXXZ) referenced in function "void __cdecl Upp::SweepMkImageCache(void)" (?SweepMkImageCache@Upp@@YAXXZ)
Draw.lib(MakeCache.obj) : error LNK2019: unresolved external symbol "void __cdecl Upp::SetupValueCache(int,int,double)" (?SetupValueCache@Upp@@YAXHHN@Z) referenced in function "void __cdecl Upp::SetMakeImageCacheMax(int)" (?SetMakeImageCacheM
ax@Upp@@YAXH@Z)
Draw.lib(MakeCache.obj) : error LNK2019: unresolved external symbol "class Upp::StaticMutex Upp::ValueCacheMutex" (?ValueCacheMutex@Upp@@3VStaticMutex@1@A) referenced in function "void __cdecl Upp::ValueCacheAdjustSize<class <lambda_2e35ad9d7
fd5412418149da4b8e9862a> >(class <lambda_2e35ad9d7fd5412418149da4b8e9862a>)" (??$ValueCacheAdjustSize@V<lambda_2e35ad9d7fd5412418149da4b8e9862a>@@@Upp@@YAXV<lambda_2e35ad9d7fd5412418149da4b8e9862a>@@@Z)
C:\upp-svn\out\yyy\MSBT19x64.Gui.Protect\xxxx.exe : fatal error LNK1120: 6 unresolved externals

There were errors. (3:09.26)

Is this related to this new global value cahce?

Best regards,

Tom

EDIT: OK, thanks! It works again on Windows.

Subject: Re: Global Value Cache
Posted by coolman on Sat, 13 Jun 2020 12:44:22 GMT
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Hi,

There is a problem in the Linux with the commit Core: ValueCache. The IDE mouse response (double click, ...) and scrolling of large files are very slow.

Linux Ubuntu 18.04, Ubuntu clang version 10.0.1-++20200610113309+38f995e4cb4-1~exp1~20200610093918.17 0
Target: x86_64-pc-linux-gnu
Thread model: posix

BR, Radek

Subject: Re: Global Value Cache
Posted by mirek on Sat, 13 Jun 2020 17:14:03 GMT
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Should be now fixed.

Subject: Re: Global Value Cache
Posted by coolman on Sun, 14 Jun 2020 02:28:06 GMT
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Hi,

IDE in Linux works OK now, thanks.

Radek