

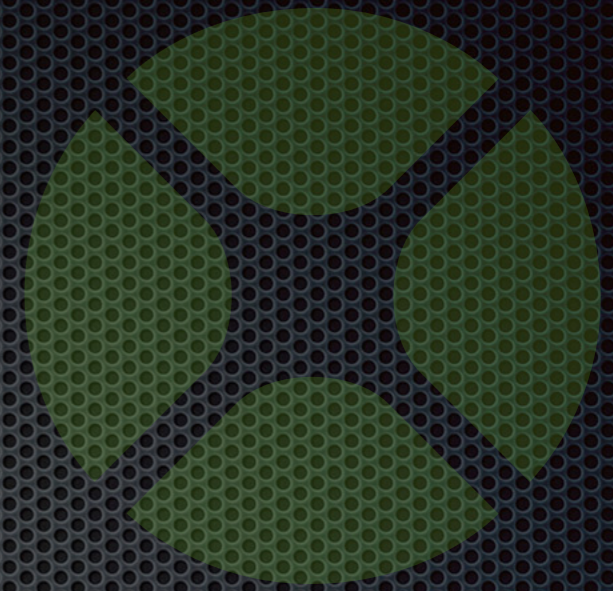


MBS Keynote

Christian Schmitz
CEO

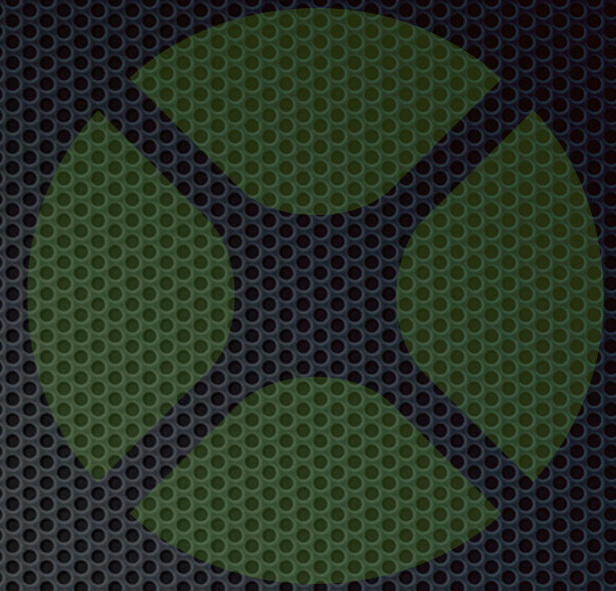
Monkeybread Software

MBS Plugins



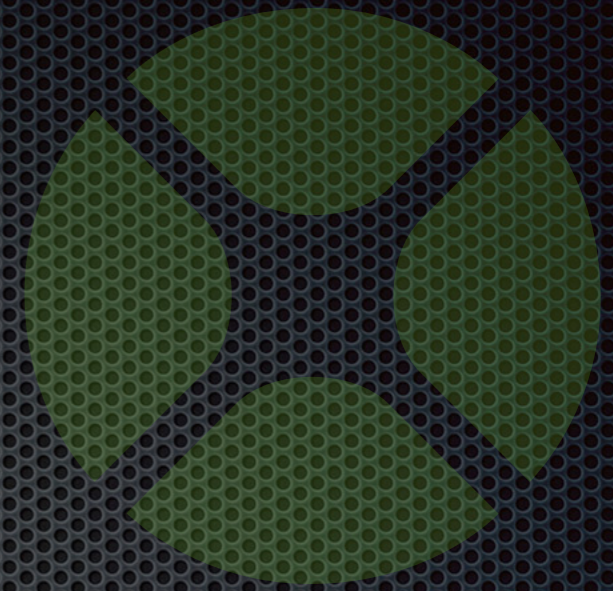
- Plugins since 2001
 - 19 years!
 - Full time job
- Huge Toolbox
 - Classes we needed for projects
 - Classes clients asked or paid for.

MBS Plugins



- 40 Plugins
- Over 65000 items in documentation
- Over 2600 classes
- Over 2100 example projects
 - All tested to build in 2019r2

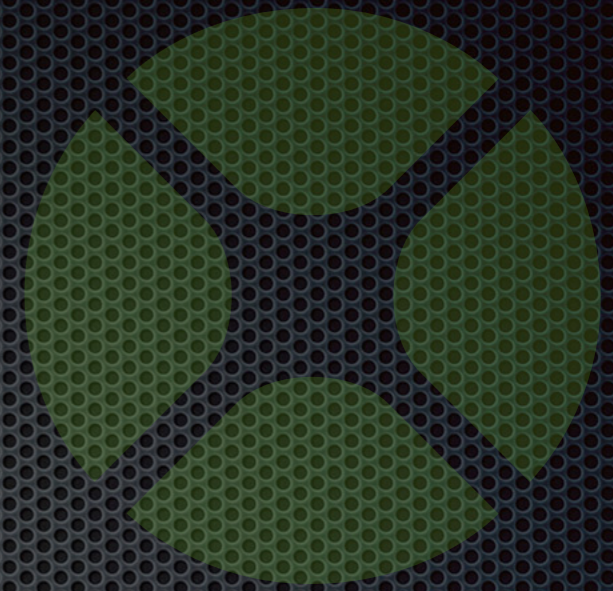
Xojo Versions



- 2015r3: 64bit and ARM
- 2016r2: new keywords
- 2016r4: Release HDC
- 2017r1: WebKit update
- 2017r2: GTK 3
- 2017r3: 64-bit IDE
- 2018r2: WebKit update and double for graphics
- 2018r3: More datatypes for databases
- 2019r2: API 2.0 and FolderItem changes

News & Changes


- What's new since last conference?



VISION FRAMEWORK

Vision Object Detection

Key	Value
performRequest...	
VNDetectRectan...	
▶ VNRectangleOb...	C7432527-5B36-4453-B4B8-12FA1E13C766
▶ VNRectangleOb...	725F38E0-0498-4C30-9ED8-933482FCE547
▶ VNRectangleOb...	A4B77E46-E360-4AE3-BF3A-6BAB69D3A260
VNDetectHuma...	
VNDetectBarco...	
▼ VNBarcodeObse...	30FC073D-E7F1-46F8-A0A7-B9F5E9941CD6
Confidence	1
topLeft	0.6727608/0.61994
topRight	0.8584473/0.6368474
bottomLeft	0.6853567/0.3736294
bottomRight	0.8704446/0.3897813
sybology	VNBarcodeSymbologyQR
payloadString...	developer.apple.com
sybology	VNBarcodeSymbologyQR
payloadString...	developer.apple.com
VNDetectTextRe...	
▶ VNTextObservat...	2D84E6EE-CD19-4B8F-9AFE-44B2FB1D15D5
▶ VNTextObservat...	50805759-A555-40E1-B3B1-D7C58576272A
▶ VNTextObservat...	63DA3308-844B-46DF-8281-746688DF030E



TAGLIB

- Cross platform Library
- Audio Tags read & write
- e.g. ID3v2 tags in MP3



LZ4 Compression

- Cross platform Library
- Very fast decompression
- Compression either fast or for smaller size



Barcode

30 of over 80 barcode types supported by MBS Plugin



CopyFileMBS

- Low level copy API for Mac
- With Progress events
- Recursive copying



Java

- Using variants to pass parameters
- CallMethod, CallNonvirtualMethod and CallStaticMethod
- Field & StaticField
- NewObject



LDAP & Active Directory

- OpenDirectory classes for MacOS
 - ODSessionMBS
- LDAPMBS class cross platform
- WindowsADSystemInfoMBS class

Large Numbers

- LargeNumberMBS class
 - Large integer with up to 4128 bit
 - Prime numbers
 - GCD
- BigIntegerMBS class
 - 320 bit floating point

Continuity Camera

- For MacOS Mojave and newer
- For iOS 12 and newer
- Take pictures with iPad or iPhone
- Both devices with same iCloud account



Take a photo with "My iPhone"

Use your iPhone's camera to take a photo.

Cancel

My iPhone

Take Photo

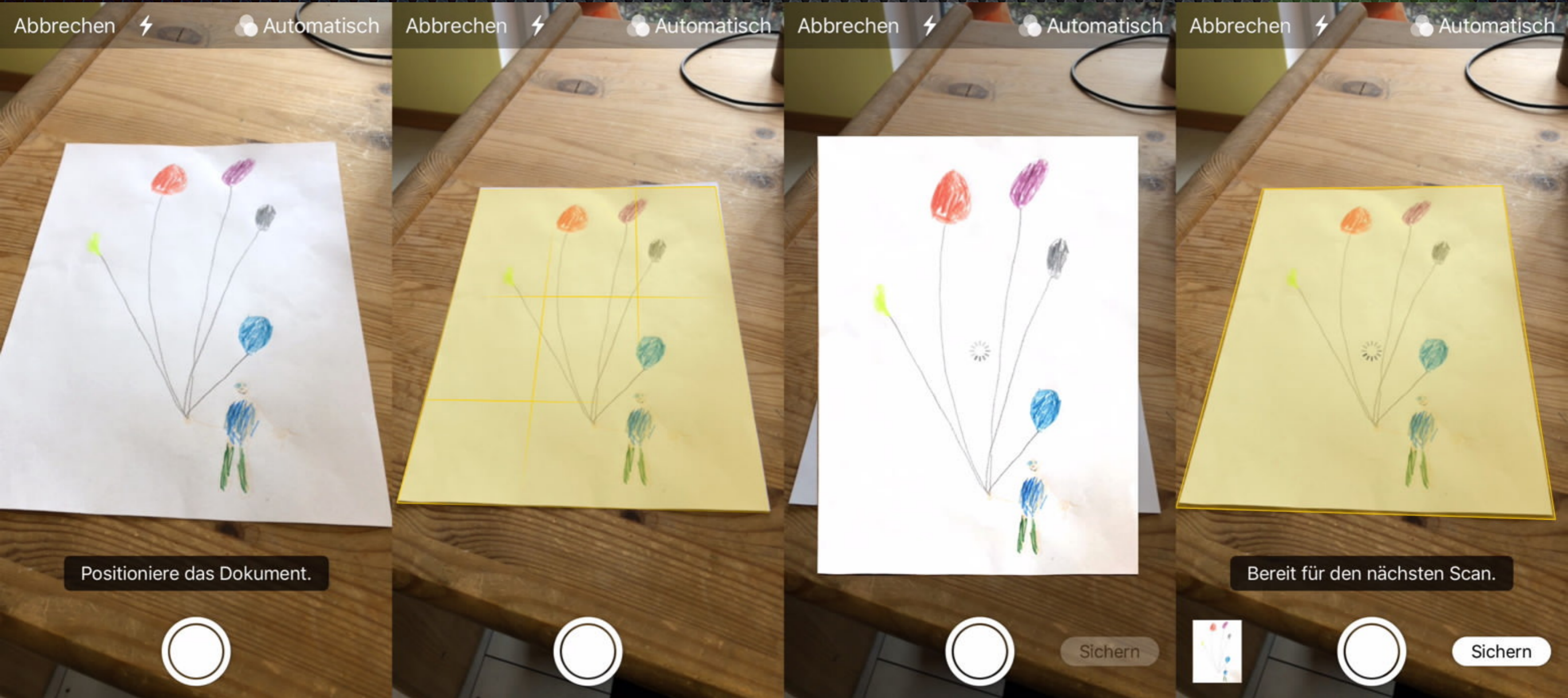
Scan Documents

iPad von Christian Schmitz

Take Photo

Scan Documents

Continuity Camera

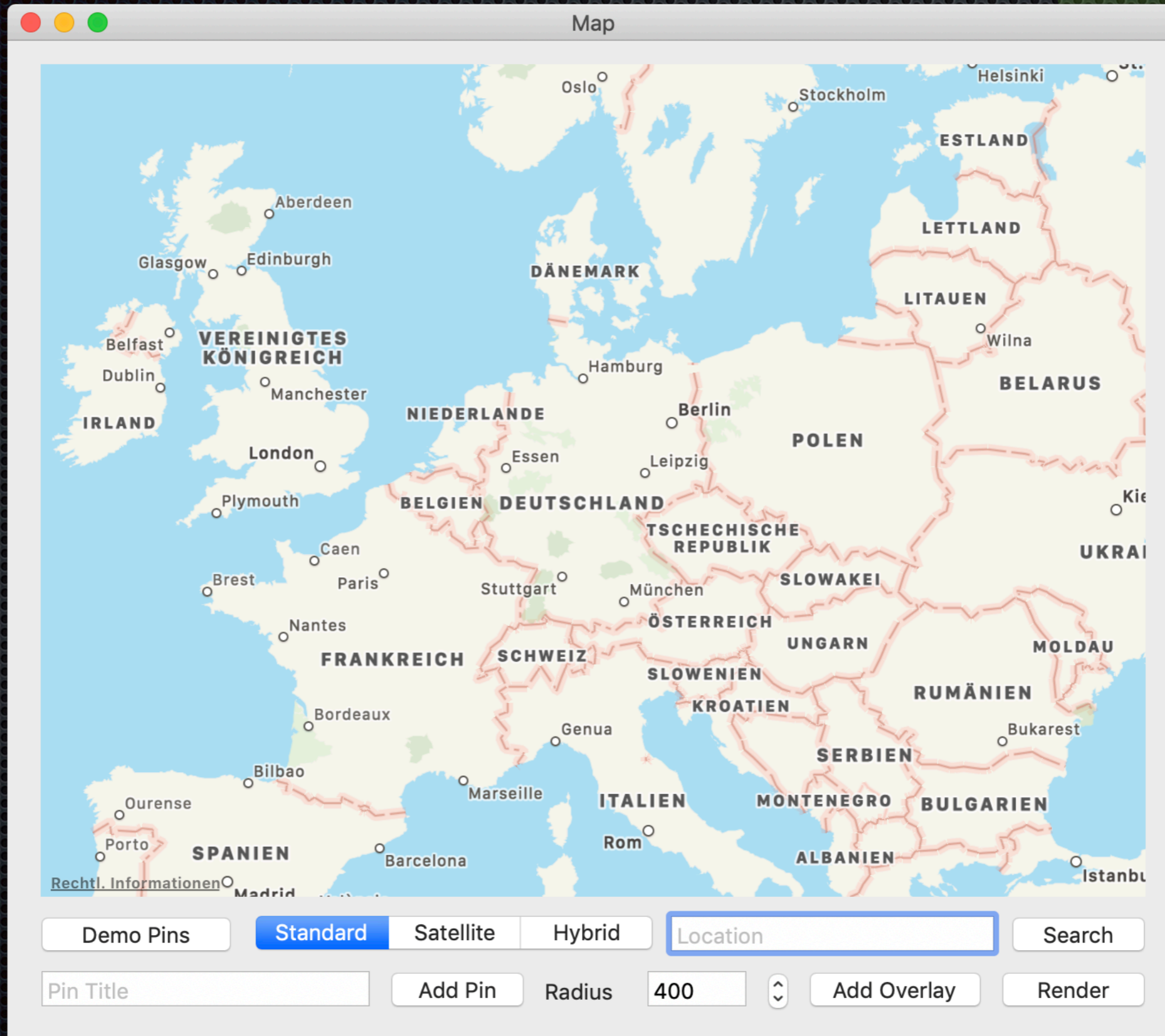


Map Kit

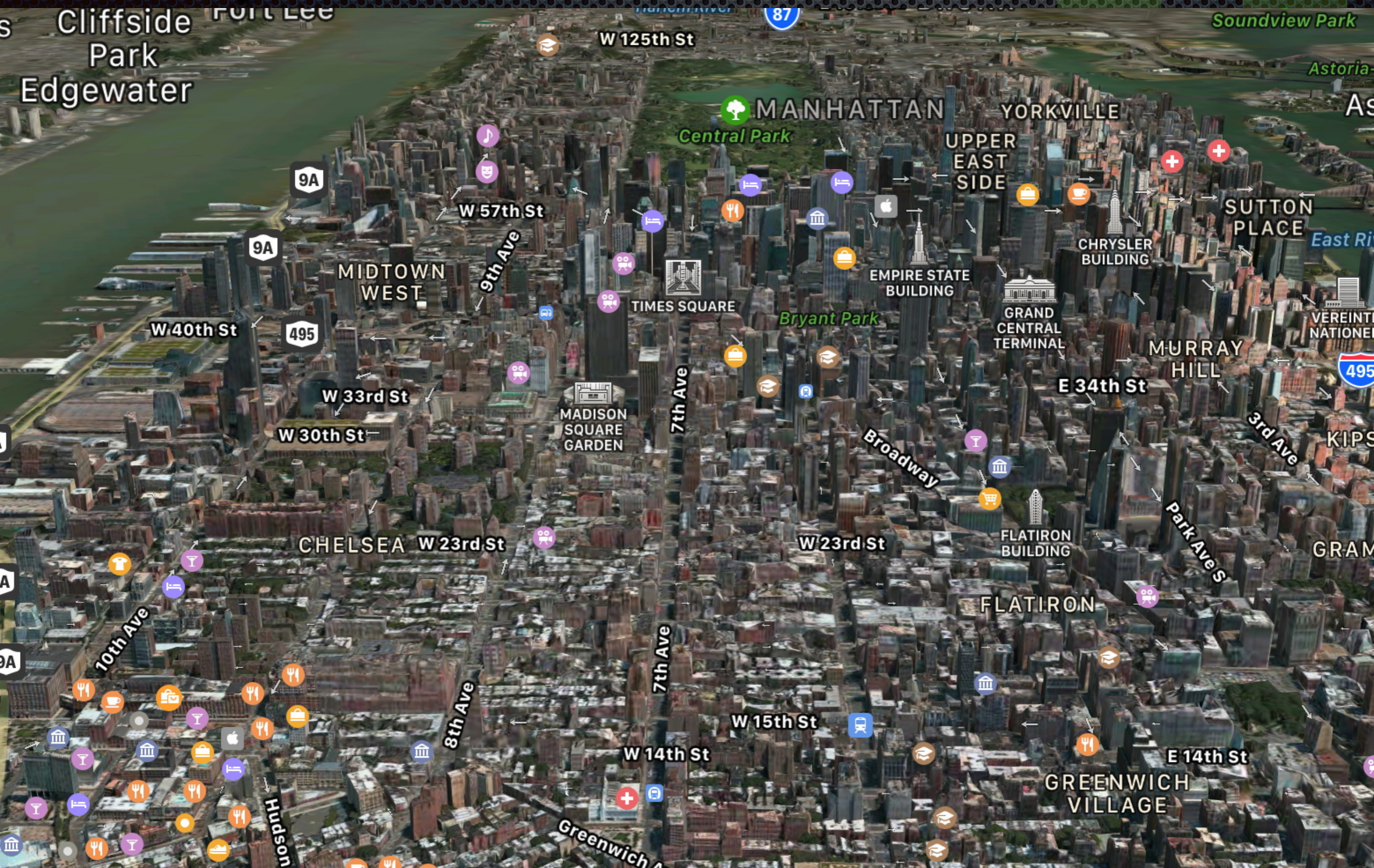
- For MacOS 64-bit
- Apple Maps data
- Show 2D or 3D maps with satellite images
- Render snapshots
- Plan routes and get directions
- Overlays and annotations for maps



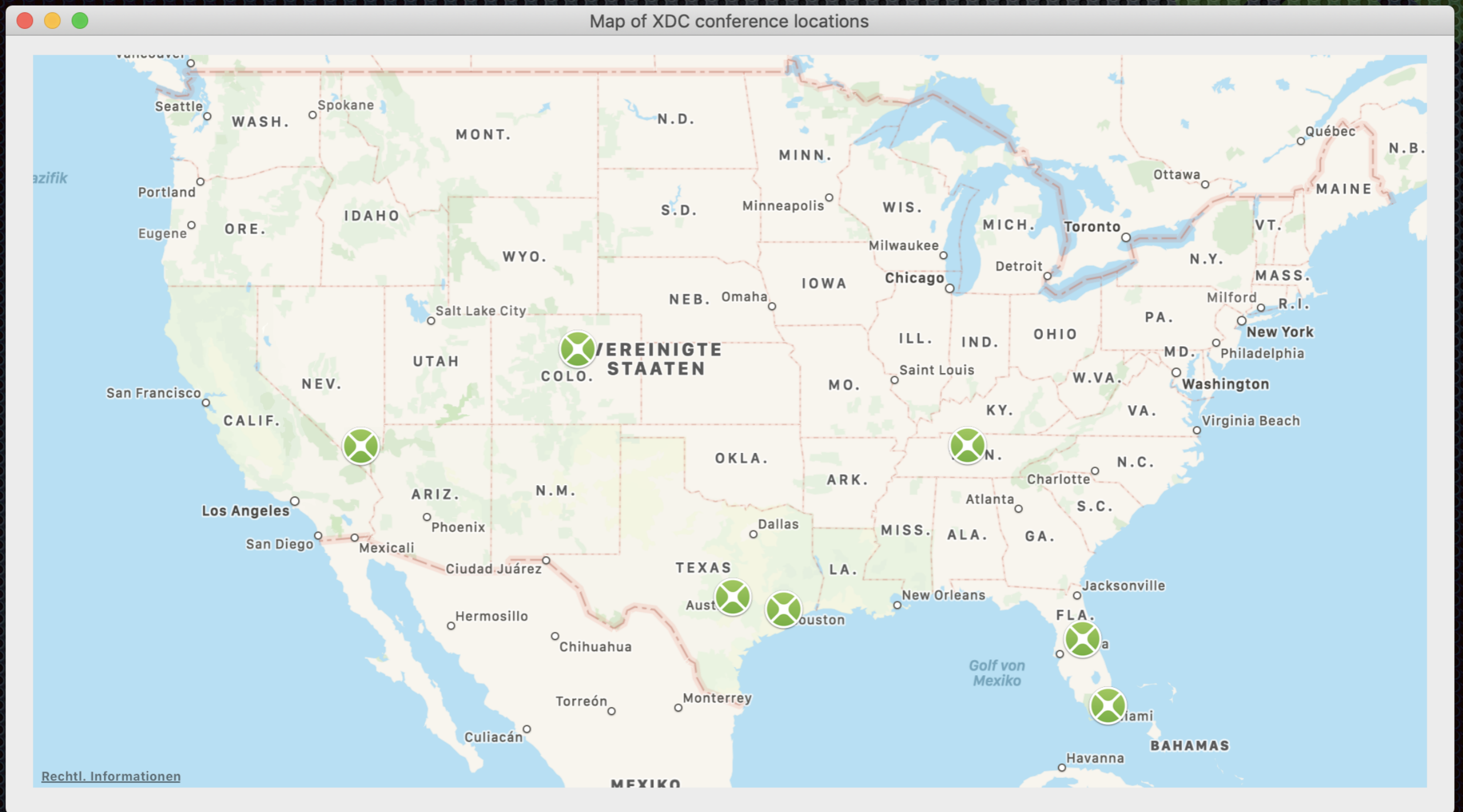
Map Kit



Map Kit

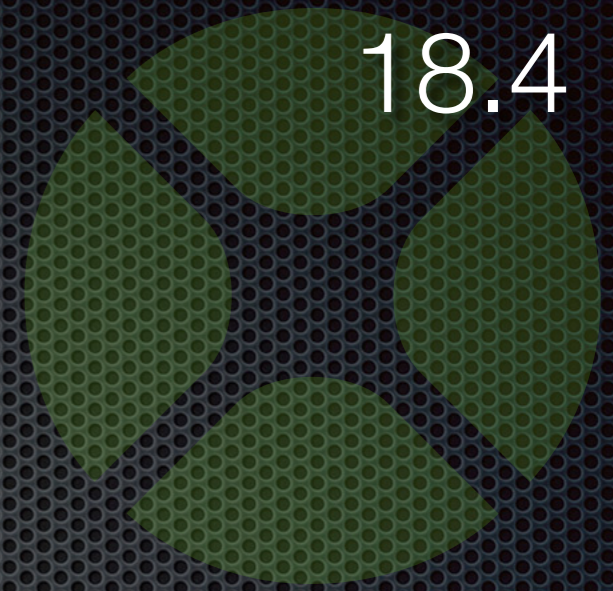


Mapview

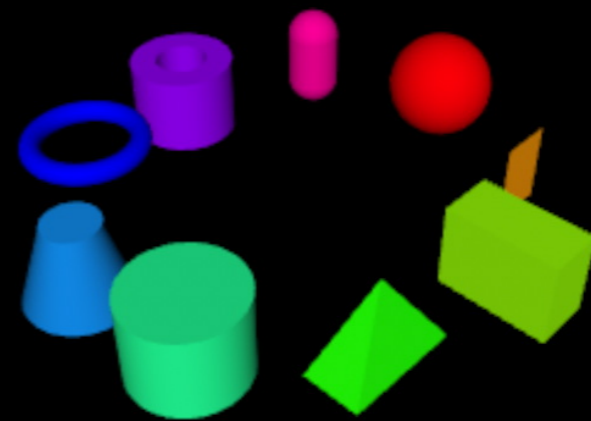
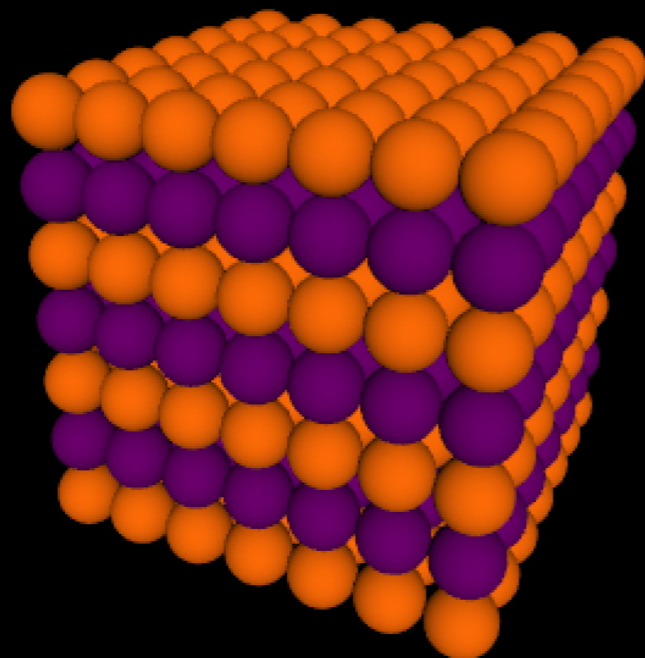
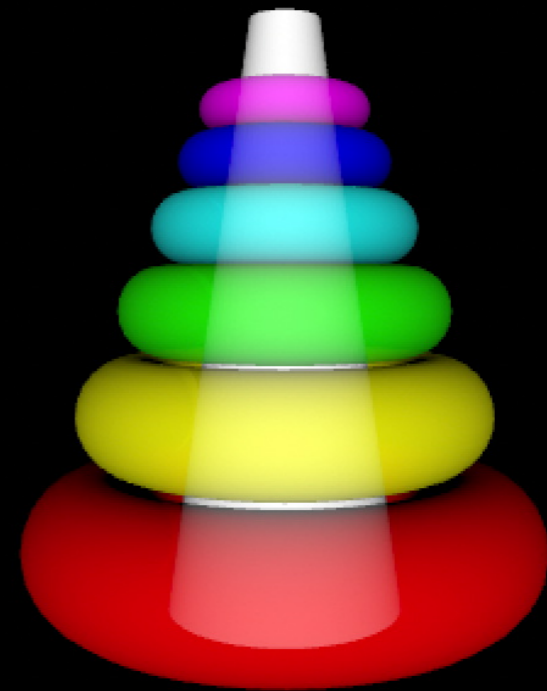
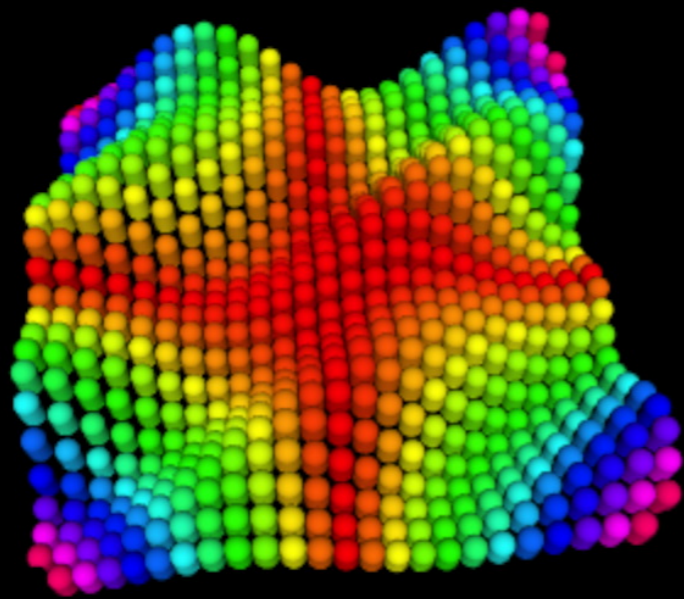
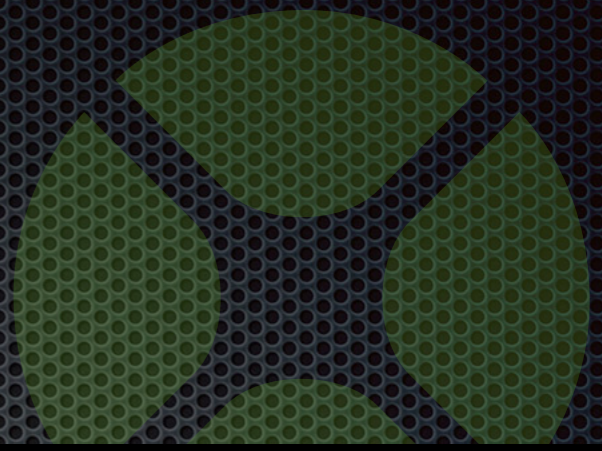


Scene Kit

- For MacOS 64-bit
- 3D graphics in a control
- Using Metal
- Primitive objects created at runtime
- Move camera around
- Render snapshots



Scene Kit



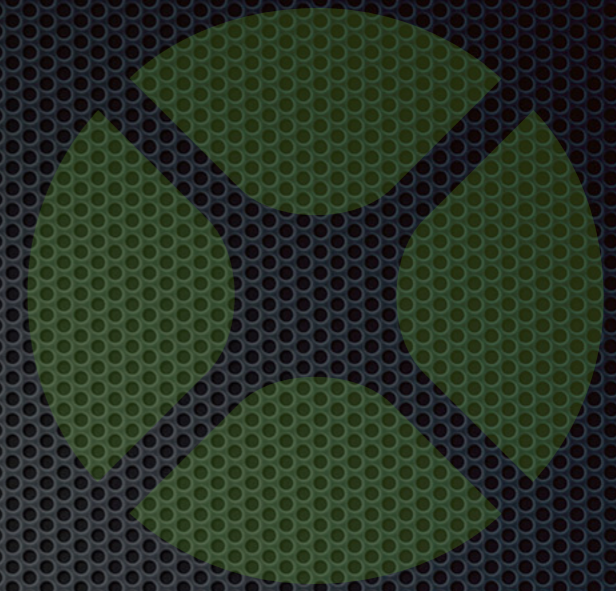


JSON Improvements



- JSON Sort method
- JSON parsing / generating
 - JSONMBS.Convert methods
 - Using Xojo dictionary, array & variant
- Better 64-bit handling
- Equals, FindValueInArray and FindValueInObjectArray
- JSON to HTML

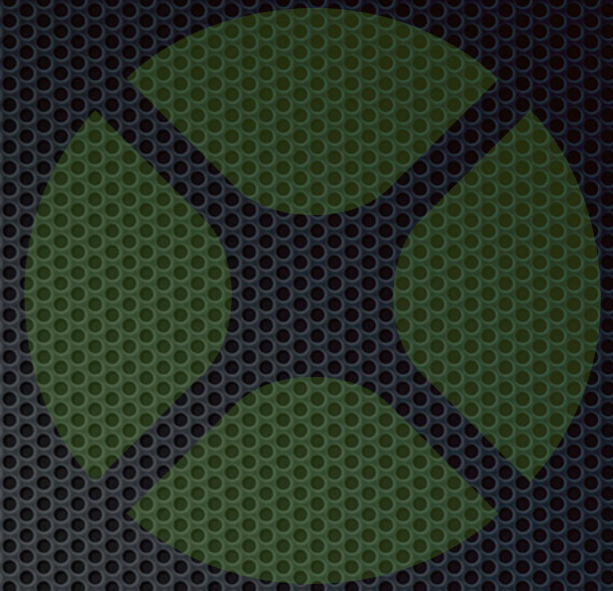
SQL Improvements



- Added CubeSQL client with SSL
 - InternalCubeSQLLibraryMBS module
- Better Int64 handling
- Rewrote caching
- Stream BLOB fields from/to folderItem
- Options, BoundValues and BoundTypes dictionaries
- Latest SQLite and SQLAPI libraries

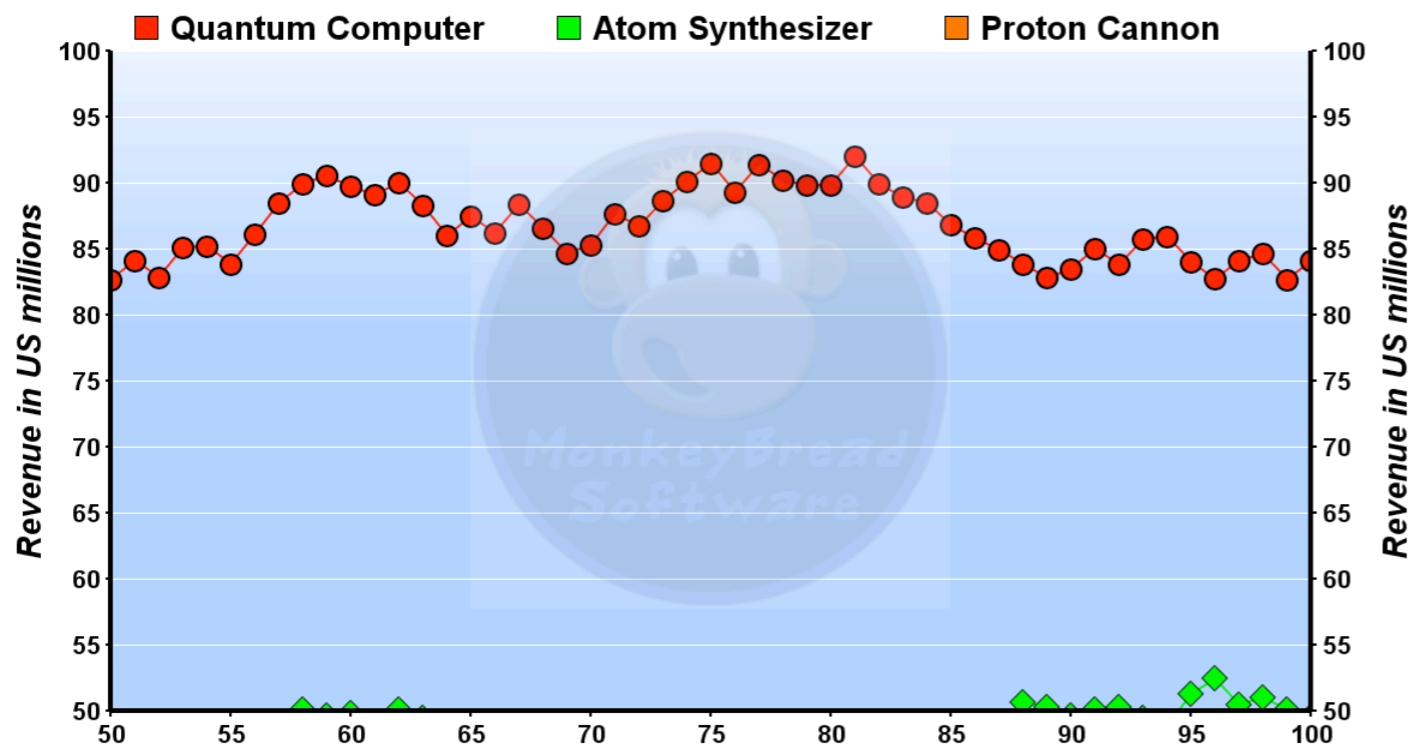
ChartDirector Improvements

- ChartDirector 6.3
- More examples updated for HiDPI & Xojo
- Pictures with resolution properties set
- Font handling updated for MacOS Catalina

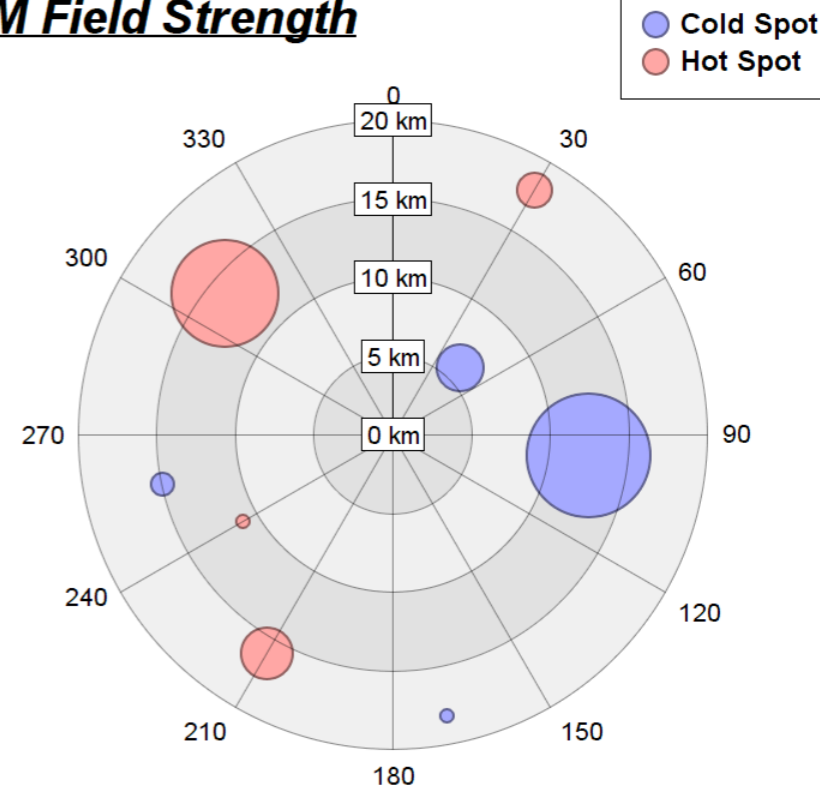


Click on values to change symbol color

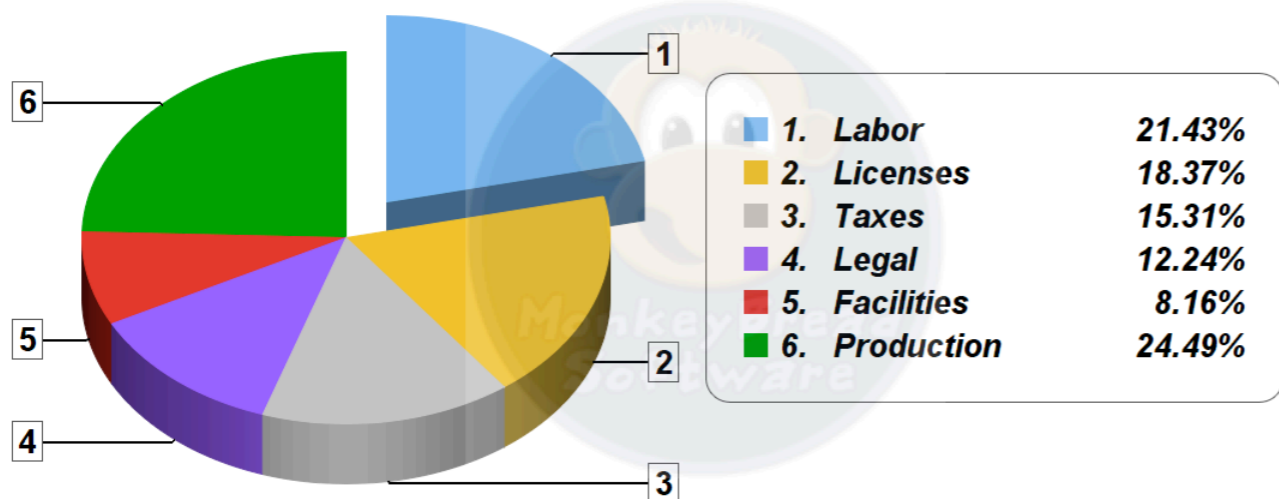
Product Line Global Revenue



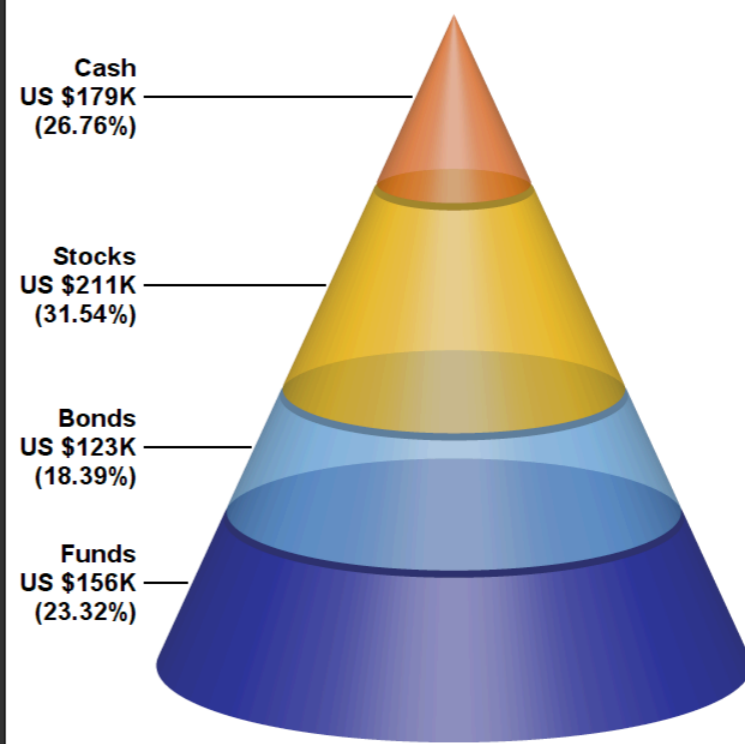
EM Field Strength



Pie Chart With Legend Demonstration



Click on sectors.



Text Conversion

- TextConverterMBS class
- One shot or continued stream
- 100+ encodings
 - UTF-7

Archive

- Read/Write archives
- Zip, tar, xar, cpio, 7Zip and many more formats
- Archive folder with files
- Expand archive to folder
- Supports metadata, e.g. file permissions

Encryption

- S/MIME functions
- CryptoTokenKit classes
 - Modern API for card readers
- SmartCardMBS for Mac, Win & Linux



Encryption

- PKCS7 Signed Data (P7M files)
 - For digitally signed e-invoices in CAdES format in Italy.
 - Embedded XML payload in a signed P7M file.

Files

- ReadFileMBS and WriteFileMBS functions for FolderItem class
- Avoids old APIs for APFS

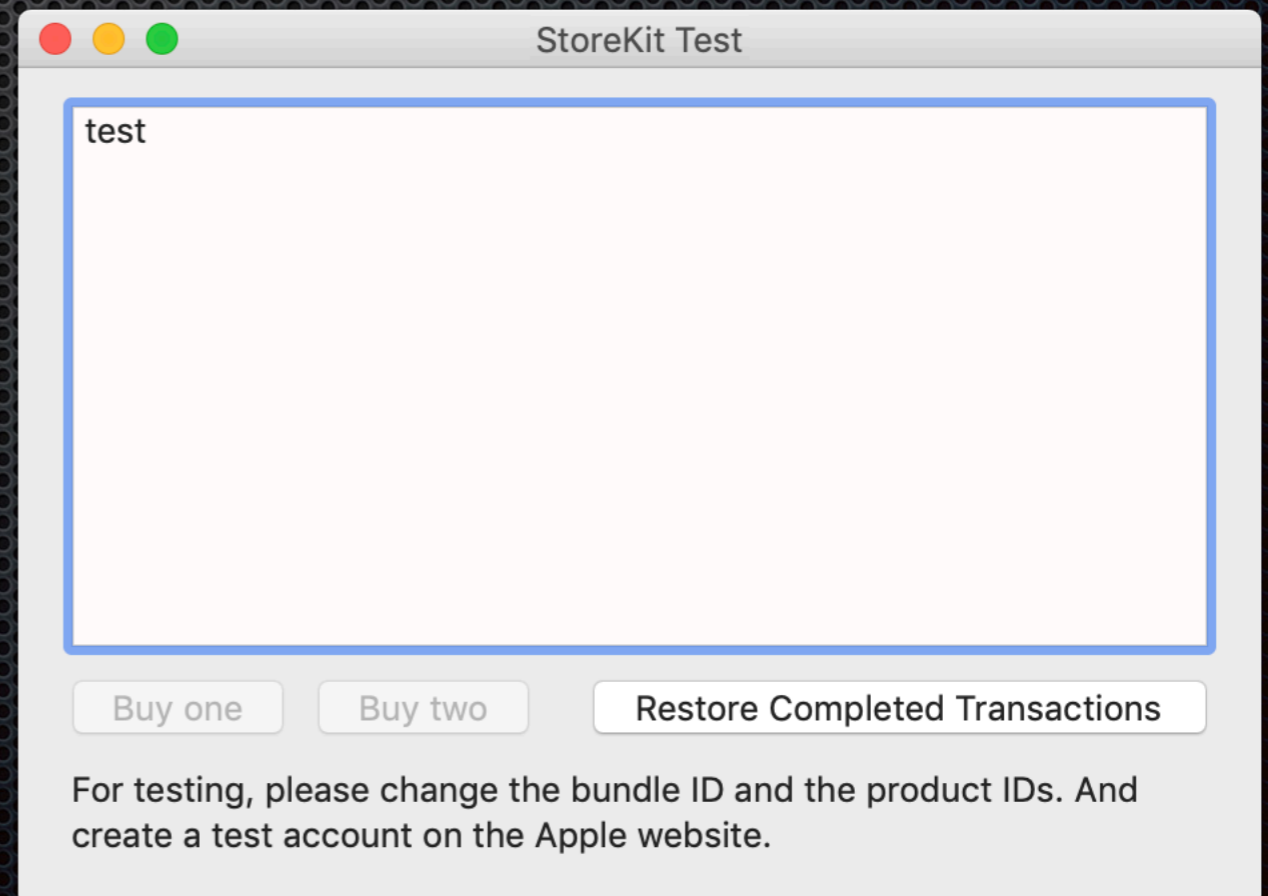
MacOS improvements



- Rewrote FileListMBS for APFS
- UNNotificationMBS classes
- DeterminePermissionToAutomateTarget for AppleScript

StoreKit improvements

- Mac App Store integration
- Request review
- `appStoreReceiptURL`
- Subscriptions
- Downloadable content

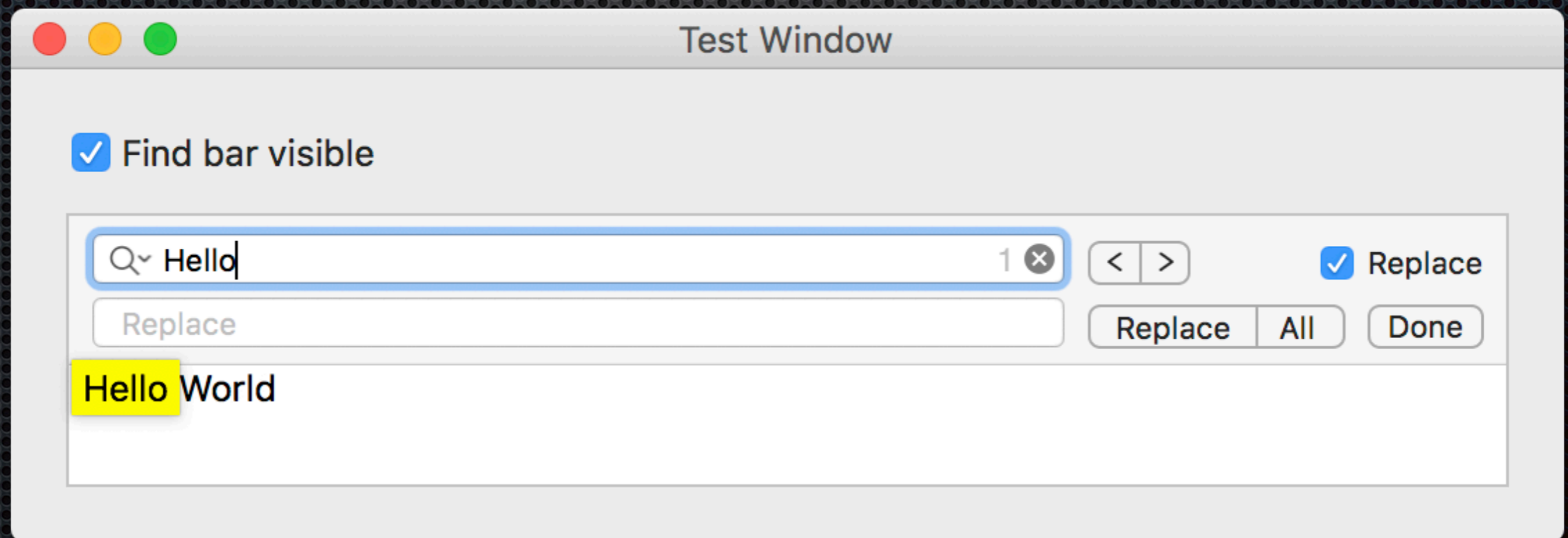


Web viewer

- WKWebViewControlMBS Control
 - ProgressChanged & TitleChanged events
 - Print methods
- WebUIDelegateMBS.ContextMenuItemsForElement
- NSURLCacheMBS class.

Find bar

- For NSTextViewMBS and TextArea



Windows improvements



- `Application.FrontmostMBS` for Windows
- `window.ActivateWindowMBS`
- `HardLinksForFile` function
- `WindowsSerialPortsMBS.QueryComDevices`
- `Graphics.DrawRotatedTextMBS` for HiDPI

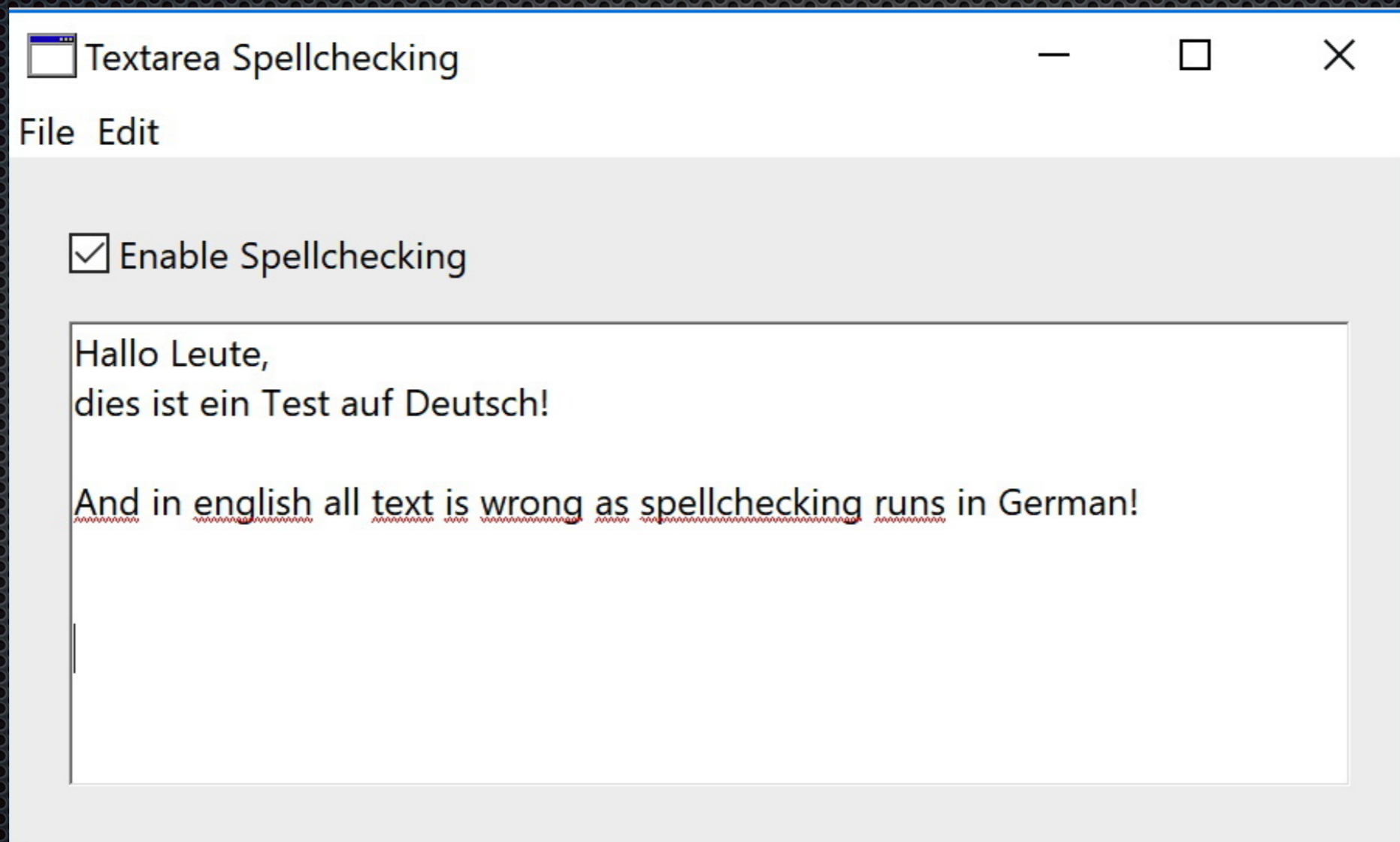
Windows improvements



- WindowsDisplayMBS class.
- WindowsFileInfoMBS class with dates
- IEClearBrowserSessionMBS

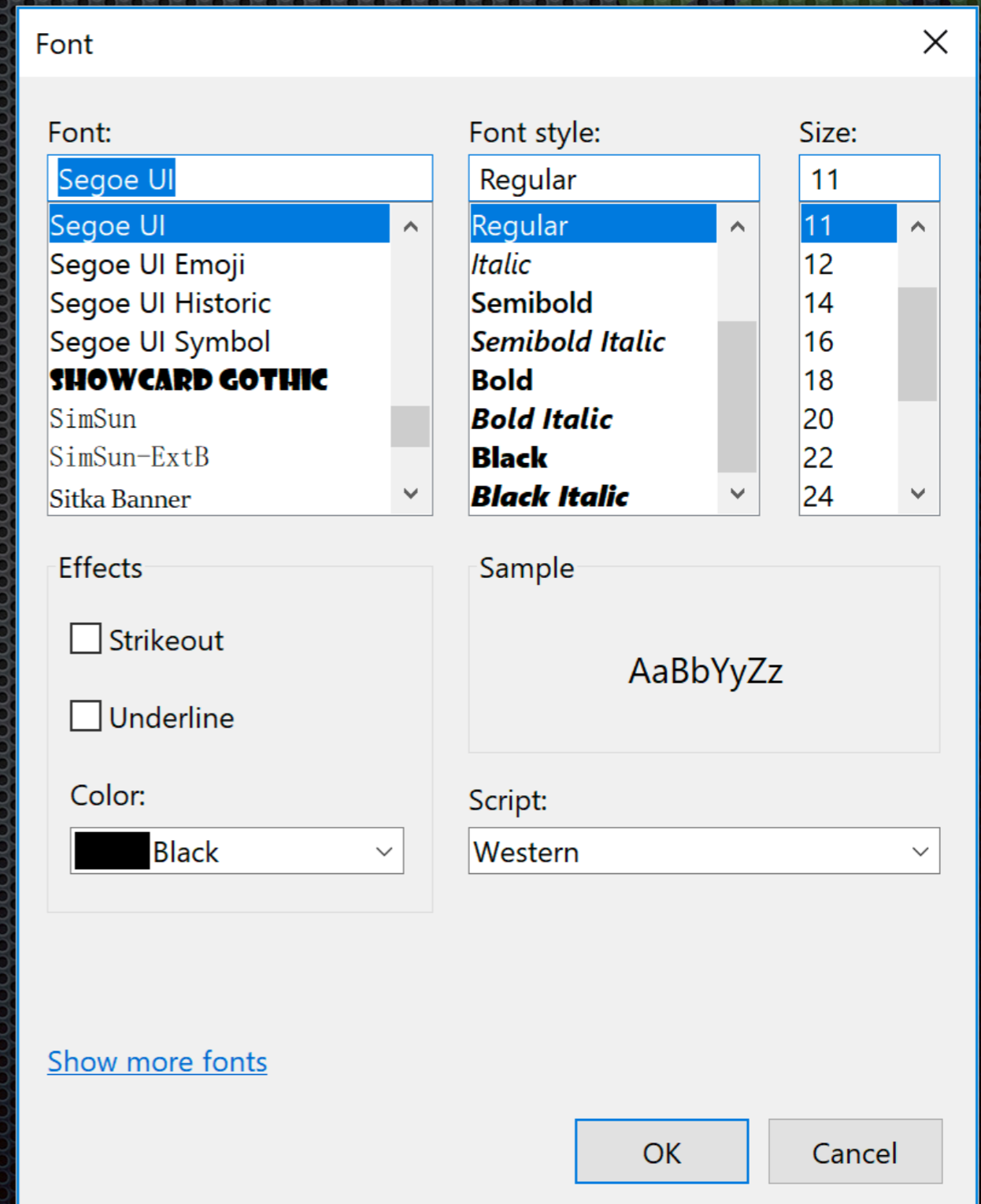
Windows improvements

- TextArea WinSpellcheckingMBS & WinAutoCorrectionMBS



Windows improvements

- Show font dialog
- WinShowFontPanelMBS



DirectShow

- Higher resolution for DirectShow cameras
- Compression settings
 - DirectShowAMVideoCompressionMBS class
- Properties dialogs for settings

Properties

Camera Control

Zoom Auto

Focus

Exposure

Aperture (Iris)

Pan

Tilt

Roll

Low Light Compensation

Default

OK Cancel Apply

Properties

Format

VideoFormat

NTSC

PAL

DVFormat

dvsd

dvhd

dvsd

Resolution

720

360

180

88

OK Cancel Apply

Properties

Stream Format

Video Format

Video Standard: None

Frame Rate: 30.000

Flip Horizontal: Snap Shot

Color Space / Compression: YUY2

Output Size: 640 x 480 (default)

Compression

I Frame Interval:

P Frame Interval:

Quality:

OK Cancel Apply

Properties

AudiInputMixer Properties

Master Input Mix

Enable

Loudness

Mono

Treble

Bass

Pin Line Input Mix

Enable

Loudness

Mono

Pin Line: Master Volume

OK Cancel Apply

Windows Pipe

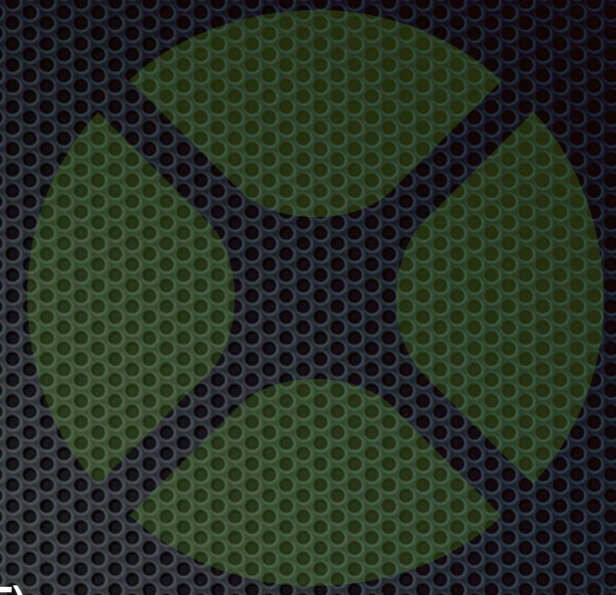
- WindowsPipeMBS class
- One to one IPC socket
- Message or Byte mode
- Works with system service ↔ user application

Linux improvements

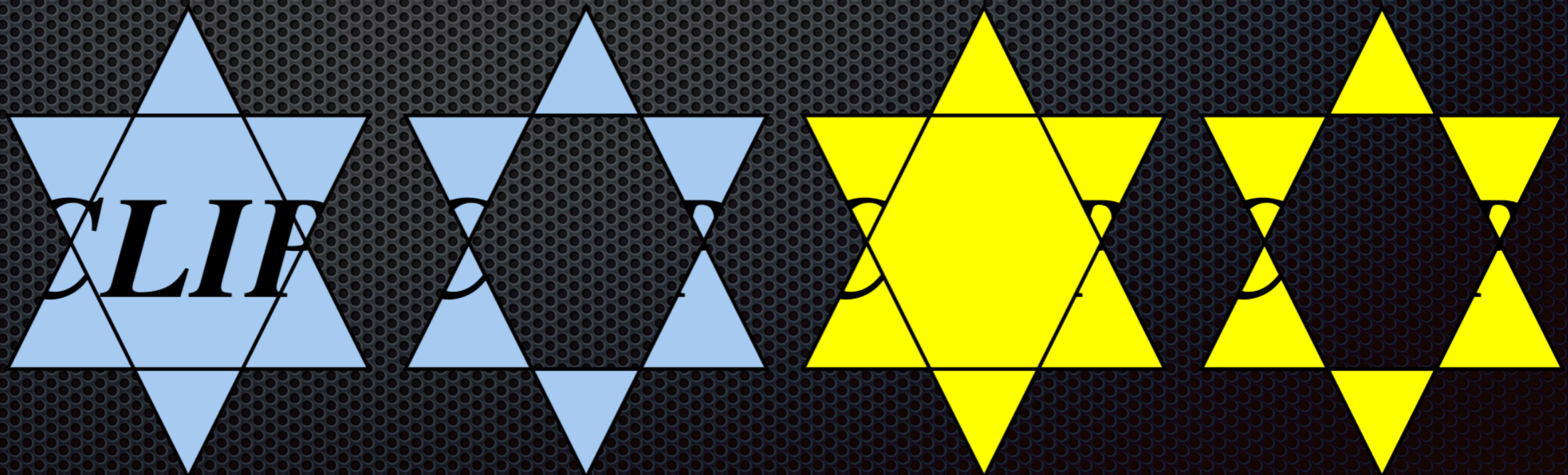
- All plugins built for Linux 32/64bit and ARM
- Including function names
- LinuxIconMBS module



DynaPDF

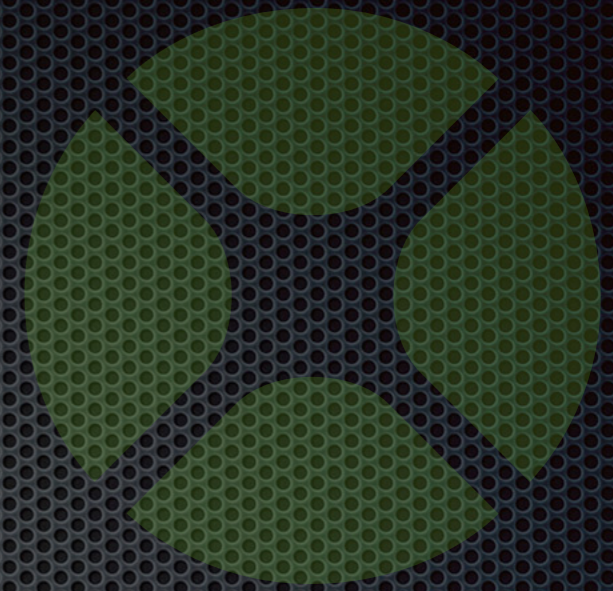


- ZUGFeRD 2.0 (standard for invoices as PDF)
- Optimize with image color space conversion
 - e.g. all images to grayscale
- DirectDraw support for DynaPDFRasterizerMBS class.



DynaPDF 5.0

- Coming later in 2020
- Full unicode support
- Automatic Font Substitution
- Verify digital signatures



but this is not of interest.

The text was output with the font Arial but this font does not support all these different scripts. What we see here in action is called Automatic Font Substitution. Automatic font substitution makes our life much easier if we must deal with different scripts and if we don't care whether the current font supports it.

DynaPDF 5.0

German

Es war einmal ein großer Krieg, und als der Krieg zu Ende war, bekamen viele Soldaten ihren Abschied. Nun bekam der Bruder Lustig auch seinen Abschied und sonst nichts als ein kleines Laibchen Kommißbrot und vier Kreuzer an Geld; damit zog er fort. Der heilige Petrus aber hatte sich als ein armer Bettler an den Weg gesetzt, und wie der Bruder Lustig daherkam, bat er ihn um ein Almosen. Er antwortete: "Lieber Bettelmann, was soll ich dir geben? Ich bin Soldat gewesen und habe meinen Abschied bekommen, und habe sonst nichts als das kleine Kommißbrot und vier Kreuzer Geld, wenn das all ist, muß ich betteln, so gut wie du. Doch geben will ich dir was." Darauf teilte er den Laib in vier Teile und gab davon dem Apostel einen und auch einen Kreuzer.

English

Once upon a time there was a big war, and when the war was over many soldiers said goodbye. Now his brother Lustig also got his farewell and nothing but a little loaf of commisson bread and four kreuzers of money; he moved away. But St. Peter had set himself up as a poor beggar, and as Brother Lustig came along, he asked for alms. He replied, "Dear Bettelmann, what shall I give you? I have been a soldier and have received my farewell, and have nothing else but the little bread and four kreuzer money, if that is all, I must beg, as well as you. But I want to give you something. " He then divided the loaf into four parts and gave one to the apostle and one cruiser.

Amharic

በአንድ ወቅት ታላቅ ጦርነት ነበር እናም ጦርነቱ በብዙ ወታደሮች ላይ ሲወርድ ተካሂዷል። ወንድሙ ሉዊስም ለመሰናበቻው አንድ ትንሽ ዳቦ ዳቦና አራት ድ ድቂቶች ብቻ ነበር። አሻፈረኝ አለ። ቅዱስ ጴጥሮስ ግን እንደ ድሆች ለማኝ ራሱን አዘጋጀና, ወንድም ሎስትስ እንደመጣም, ስለ ምጽዋት ጠየቀ። እርሱም እንዲህ መለሰ: - "ወድ ተወላጅን, የትኛው ምን እሰጥሻለሁ? እኔ ወታደር ሆኜ, እኔ ስደሬን ተቀብያለሁ, እንዲሁም ትንሽ ድንጋ እና አራት አራት ድሬ ገንዘቦች ብቻ ነው። ነገር ግን አንድ ነገር ልሰጥህ እፈልጋለሁ።" ከዚያም ዱቄቱን በአራት ክፍሎች ለመከፋፈል አንዱን ለሐዋርያውና አንድ አንድ ሾፒተር ሰጠ።

Bengali

একবার এক সময় একটা বড় যুদ্ধ ছিল, এবং যুদ্ধ শেষে হলে অনেক সৈন্য বদায় জানান। এখন তার ভাই লাস্‌টগিও বদায় নলিনে এবং কমশিন রুটির অল্প রুটি ছাড়া আর কিছুই নয়ট করলেন না; তিনি দূরে সরানো। কনিত সনেট পিটার নজিকে একজন দরদির ভিকিসক হিসেবে পরতর্ষিতি করছিলেন, এবং ভাই লস্‌টগি এসেছিলেন, তিনি ভিকিসা চয়েছিলেন। তিনি উততর দলিনে, "পরষি বটেলেমযান, আমা আপনাকে কাঁ দতি পারা? আমা একজন সৈনিকি হয়ছে এবং আমার বদায় পয়েছে, আর আমার কাছে আর কিছু নই, ছোটট রুটি এবং চারটা করেইজাররে টাকা, যদি সব কিছু হয় তবে আমারও আপনাকে অনুরোধ করত হবে। কনিতু আমা তে আমাকে কিছু দতি চাই।" তারপর তিনি রুটিটা চার ভাগে বিভক্ত করলেন এবং একজনকে পরেরতি ও একজন করুজারকে দলিনে।

Gurjarati

એકવાર એક સમયે એક મોટો યુદ્ધ થયો, અને જયારે યુદ્ધ સમાપ્ત થયું ત્યારે ઘણા સૈનિકોએ ગુડબાય કહ્યું. હવે તેના ભાઈ લુસ્ટગિને પણ તેના વદાય અને કમશિન બૂટની થોડી રોટલી અને પૈસાના ચાર ક્રૂઝરસ મળ્યાં હતાં; તેમણે દૂર ખસેડવામાં. પરંતુ સેન્ટ પીટર પોતે ગરીબ ભખિારી તરીકે ઊભા થયો હતો, અને ભાઈ લુસ્ટગિ સાથે આવીને તેણે ભક્ષ્તની માંગ કરી. તેણે જવાબ આપ્યો, "પરયિ બેટેલમેન, હું તમને શું આપીશો? હું એક સૈનિક રહ્યો છું અને મારા વદાય મેળવ્યા છે, અને બીજું કંઈ નથી સવાય કે બૂટ અને ચાર ક્રૂઝર પૈસા, જો તે બધું જ છે, તો તમારે પણ માગી લેવું જોઈએ. પણ હું તમને કંઈક આપવા માંગુ છું." પછી તેણે બૂટને ચાર ભાગમાં વહેંચી નાખ્યો અને એકને પૂરેતિ અને એક ક્રૂઝરને આપ્યો.

Hindi

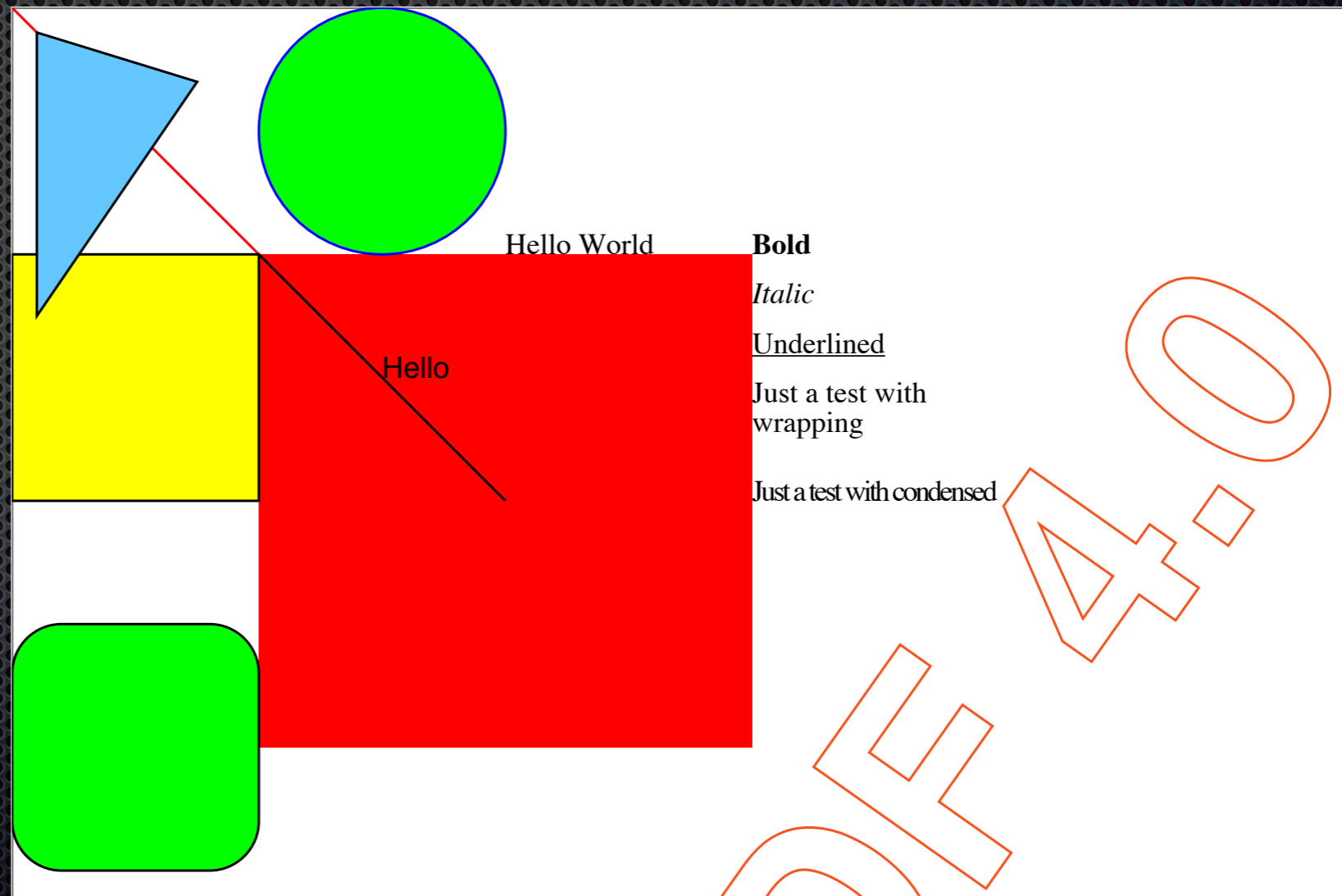
एक बार एक बड़ा युद्ध हुआ, और जब युद्ध खत्म हुआ तो कई सैनिकों ने अलवदा कहा। अब उनके भाई लसटगि को भी वदाई मलि गई और कुछ नहीं बलका कमसनि रोटी और चार पैसे का एक छोटा-सा ढाला; वह चला गया। लेकिन सेंट पीटर ने खुद को एक गरीब भखिारी के रुप में स्थापति किया था, और जैसे ही भाई लसटगि आए, उन्होंने भक्षिा मांगी। उसने उत्तर दिया, "परयि बेटेलमैन, मैं आपको क्या दूंगा? मैं एक सैनिकि हूं और मेरी वदाई हुई है, और थोड़ी सी

Graphics for DynaPDF

- New Graphics class integration
- Dim g as graphics = pdf.PageGraphics
- Graphics object from temporary picture
- Dim p as picture = pdf.PageGraphicsPicture
- All draws there duplicated to PDF page

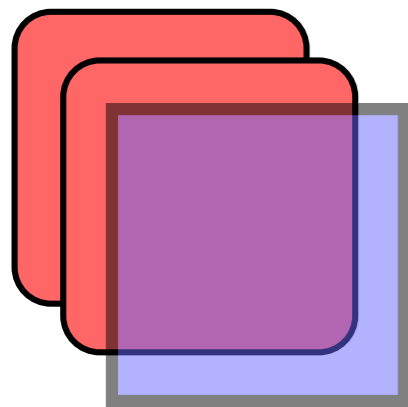
Graphics for DynaPDF

- Supports normal draw commands
 - Draw/Fill Oval/Rect/RoundRect/Line/Polygon
 - DrawString
 - StringHeight
 - StringWidth
 - DrawPicture
 - NextPage

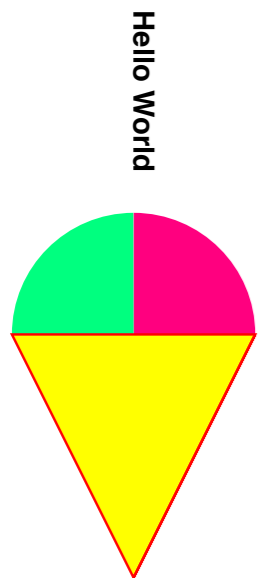


Graphics for DynaPDF

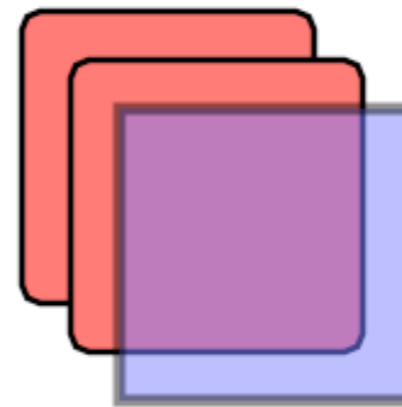
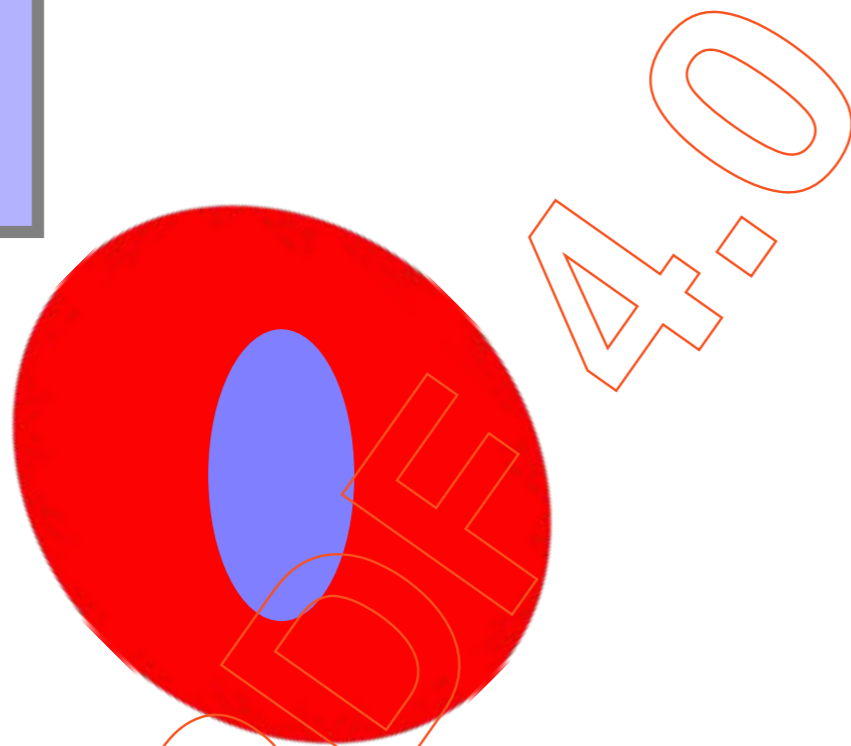
- Supports vector graphics classes (Object2D)



Hello World



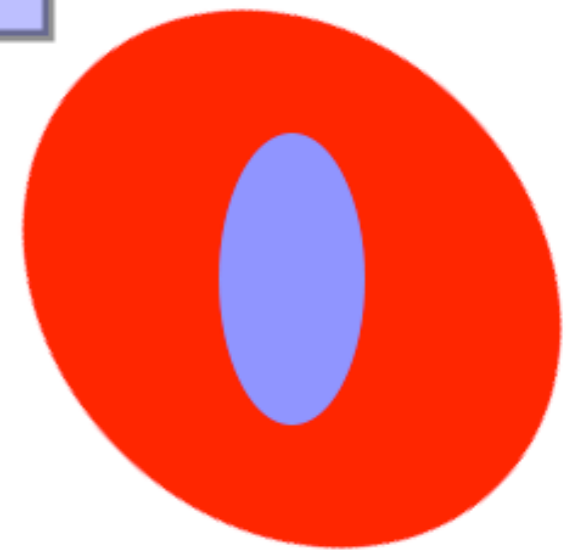
Hello World



Hello World



Hello World



Graphics for DynaPDF

- Supports report engine

Orders by company

Company	Order #	Total
BFF International	10023	249.99
	10036	1,498.98
	Total for company	1,748.97
Chameleon Industries	10026	3,999.00
	Total for company	3,999.00
Mantas Burgers	10021	1,499.00
	10030	749.97
	Total for company	2,248.97
Orange Stripes	10024	249.99
	10031	1,998.00
	10033	129.99
	Total for company	2,377.98
Second Thought Publications	10027	7,539.27
	10037	538.73
	Total for company	8,078.00
Snow West	10022	386.64
	10034	1,615.15
	Total for company	2,001.79
Two Palms	10028	4,378.98
	10035	179.00
	Total for company	4,557.98
Wideload Productions	10020	249.99

List Of Products

Name	Price	Part #
SlimBox 512MB - Silver	\$249.99	EMP3-0468-9712
MPIO FD100 256MB - Blue	\$249.99	EMP3-7354-6533
WeWa WMP6803FM Rigidity 128MB	\$129.99	EMP3-6534-9324
Palm Zire 71	\$249.99	EPDA-4656-3794
Canon Optura 300 Mini DV	\$999.00	EVID-6746-9721
Canon GL2 Mini DV	\$2,799.00	EVID-1234-7964
Canon XL-12 Mini DV	\$3,999.00	EVID-8915-9817
Sony Cybershot DSC-T1 5.0 Megapixel	\$1,299.00	ECAM-1879-2497
Nikon Coolpix 220 Digital Camera	\$179.00	ECAM-0174-9731
Canon EOS 10D 6.3 Megapixel	\$1,499.00	ECAM-1687-9776

Historical Gas Prices

Year: 1976			
January	0.605	May	0.600
February	0.600	June	0.616
March	0.594	July	0.623
April	0.592	August	0.628
September	0.630	October	0.629
November	0.629	December	0.626

Year: 1977			
January	0.627	May	0.659
February	0.637	June	0.665
March	0.643	July	0.667
April	0.651	August	0.667
September	0.666	October	0.665
November	0.664	December	0.665

Year: 1978			
January	0.648	May	0.655
February	0.647	June	0.665
March	0.647	July	0.674
April	0.649	August	0.682
September	0.688	October	0.690
November	0.695	December	0.705

Year: 1979			
January	0.716	May	0.844
February	0.730	June	0.901
March	0.755	July	0.949
April	0.802	August	0.988
September	1.020	October	1.028
November	1.041	December	1.065

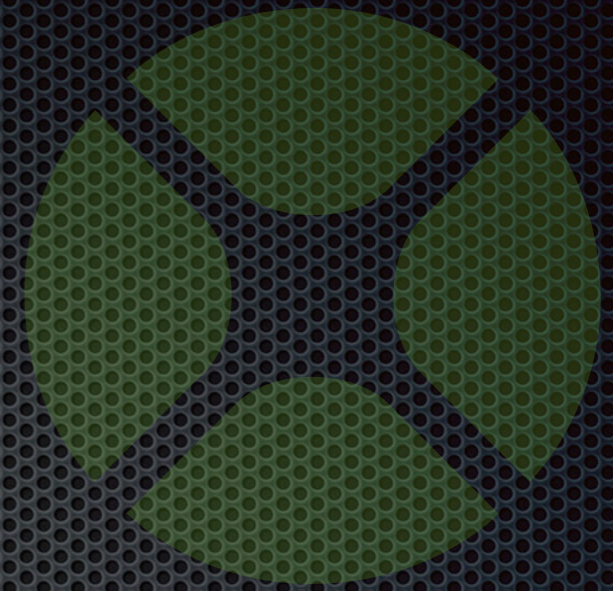
Year: 1980			
January	1.131	May	1.266
February	1.207	June	1.269
March	1.252	July	1.271
April	1.264	August	1.267
September	1.257	October	1.250
November	1.250	December	1.258

Year: 1981			
January	1.298	May	1.400
February	1.382	June	1.391
March	1.417	July	1.382
April	1.412	August	1.376
September	1.376	October	1.371
November	1.369	December	1.365

Year: 1982

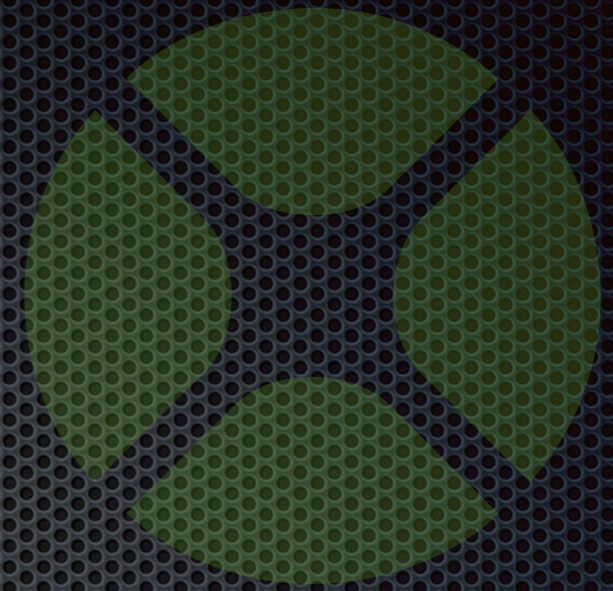
ShellMBS

- Shell class replacement
- Mac, Windows and Linux
- StdErr / StdOut
- StdIn



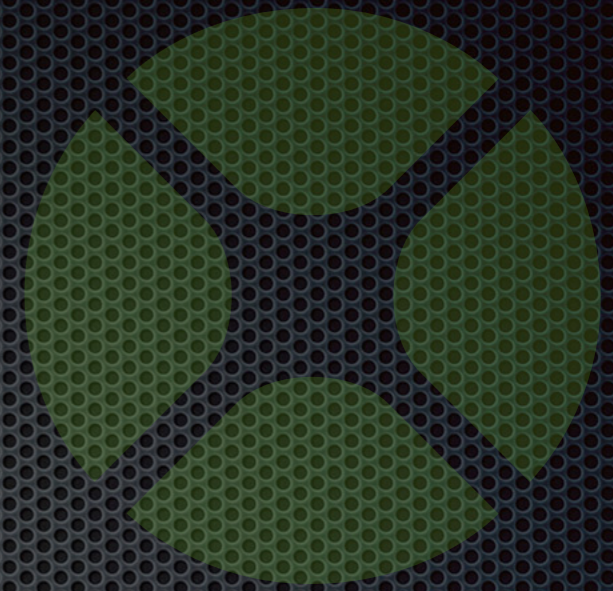
XML

- XMLValidatorMBS class



Changes

- Removed all MacOS Carbon only functions
 - All of QuickDraw
- Real Studio plugins on demand
- Socket classes got IPv6 support



Q & A

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