



# MBS Xojo Plugins

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# Ongoing development



- a new prerelease version of plugins about every week
- Releases every 2 months
- Please keep up to date
  - so you don't run into fixed bugs
  - your app is not vulnerable due to old libraries
  - 16.2 has updated SSL/SSH/CURL
  - 16.2 release next week



# New in MBS World



- New Kits
  - MBS Xojo Event Kit
  - MBS Xojo Network Kit
  - MBS Xojo AudioPlayer Kit
  - MBS Xojo AddressBook Kit
  - MBS Xojo Encryption Kit



# MBS Xojo Event Kit



- Complete wrapper of EventKit for OS X and iOS
- 18 classes
- Written in Xojo with declares
- Full source code included



# MBS Xojo Event Kit



- Query/Get access to the internal calendar and reminder database
- Create, modify and delete reminders and events
- Handle multiple sources of calendar data
- Query participants for events
- Asynchronously fetch events or reminders
- Build search parameters using predicates
- Handle recurrence rules in various aspects



# Kit features



- For new Xojo framework
- Using exception handling to track error
- Using enums for saver constant passing
- Test code included
- All classes with MB postfix to avoid name conflicts.
- All module definitions are protected to avoid conflicts
- Inline documentation
- Full Source code, no encrypted code.
- Works for 32bit and 64bit targets on iOS. 64-bit Mac, too.



# MBS Xojo Network Kit



- Two parts:
  - Bonjour classes for network discovery
  - NSConnection for download/upload



# MBS Xojo Network Kit



- Bonjour classes for network discovery
  - Asynchronously browses for domains to use
  - Asynchronously browses for services with given type
  - Asynchronously publishes services
  - Query/publish TXT Record data.
  - Function to check for events on console projects.
  - Parse code for IP addresses, supporting IPv4 and IPv6



# MBS Xojo Network Kit



- HTTP and HTTPS support.
- FTP download support.
- Synchronously and asynchronously transfers
- Load to memory or file
- Supply HTTP Header fields
- Supply HTTP Body for upload
- Supply HTTP Method like GET, PUT, POST or others.
- Control about cache handling
- Can use pipelining with HTTP 1.1
- Define if to use cellular network or not.



# MBS Xojo AudioPlayer Kit



- Play sounds loaded from memory and file
- Events like DidFinishPlaying
- Audio Channel assignment
- Average and peak power per channel
- Volume, pan and rate controls
- Play, pause and stop methods
- Query/set current position



# MBS Xojo Addressbook Kit



- Complete Wrapper for iOS Addressbook framework.
- Query sources, groups and people
- Read/modify/delete values
- Get/set images for persons.



# MBS Xojo Encryption Kit



- Three parts
  - Wrapper for OS X and iOS CommonCrypto framework.
  - Compression/Decompression functions using zlib.
  - Database Connector for encrypted database queries from iOS to server app.



# MBS Xojo Encryption Kit



- Wrapper for OS X and iOS CommonCrypto framework.
  - Hashes with various algorithms: MD2, MD4, MD5, SHA1, SHA224, SHA384, SHA256 and SHA512
  - Key derivation with PBKDF2
  - Encryption with AES, Blowfish, DES and others
  - Hardware accelerated
  - Key wrapping with AES
- Projects for Desktop, iOS, Web and Console using our classes.



# MBS Xojo Encryption Kit



- Compression/Decompression functions using zlib.
  - Zlib wrapper for Compression and Decompression of memory blocks in memory.
  - For Win/Linux with MBS Compression Plugin



# MBS Xojo Encryption Kit



- Database Connector for iOS
- Encrypted connection to server app
- over TCP/IP sockets
- Any database type, example with SQLite
- Desktop Client with synchronous functions
- iOS Client with asynchronous functions



# New in MBS World



- New Plugins
  - DynaPDF 4.0
  - ChartDirector 6.0
  - New 64-bit targets and Linux ARM 32-bit



# DynaPDF 4.0



- DynaPDF 3 is finished.
- DynaPDF 4 development started
  - working on editor features
    - edit any part in PDF, e.g. replace images
  - working on optimizer features
    - reduce image quality for smaller PDFs



# DynaPDF News



- ExtractPageTextRect → Left column, Right Column
- DynaPDF Trace to log all function calls.
  - for debugging
- Better font enumeration functions



# DynaPDF Convenience



- Easier ColorSpace queries
  - all from current page
  - all from document
- Colorspaces with ICC Profile based properties
- More default parameters
- ImportPDFPage function



# DynaPDF Show Difference

Urna Semper

Name des Lehrers

22. September 2015

## Geologischer Bericht

Sed et lacus quis enim mattis nonummy

Urna Semper

Name des Lehrers

22. September 2015

## Geologischer Bericht

Sed et lacus quis enim mattis nonummy

Urna Semper

Instructor's Name

22 Sep 2015

## Geology 101 Report

Sed et lacus quis enim mattis nonummy

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# ChartDirector Plugin



- using ChartDirector 6.0
  - Output Charts as PDF
  - Relative Gradients
  - New Glare Effects
  - Improved SVG support
- ScaleFactor for easier Retina/HiDPI support



# SQL Plugin



- Updated regularly to latest SQLAPI version.
  - Added SQL Anywhere
  - Regular bug fixes from huge community
- We licensed SQLAPI for all SQL Plugin users.
- Now serving: Oracle, MS SQL Server, DB2, Sybase, SQL Anywhere, Firebird, Informix, InterBase, SQLBase, MySQL, PostgreSQL, ODBC and SQLite



# SQL Plugin: News



- Optional caching of recordsets locally.
  - allows MovePrev, MoveFirst & MoveLast for all DBs
- Prepared Statement with ? for compatibility
- Option passing from connection to command.
- DidConnect event



# SQL Plugin: Threading



- SQLDataProviderMBS and SQLDataConsumerMBS yield time for other threads.
- SQL Parsing now threaded
- ConnectMT: connect and not block User Interface
- Auto retry for MySQL with deadlocks



# SQL Plugin: Debugging



- LastStatment property
- Trace Events
- See Parameters and Fields in Debugger



# SQL Plugin: SQLite



- Internal SQLite library
- Supports AES128, AES256 and RC4 encryption.
- Updated regularly to latest SQLite +SEE version.
- SetBusyTimeout and SetBusyHandler
- Added FTS5 and JSON extensions.



# SQL Plugin: PostgreSQL



- Internal PostgreSQL library available for Mac/Linux
- PostgresNotification event
- Listen method



# CURL Plugin



- Email attachments from folderitem
- Inline attachments
- Wild Card support for FTP downloads
- CURLSFileInfoMBS class for directory listings



# CURL Plugin Convenience



- Verbose on by default
- VerifyHost and VerifyPeer off if no certificates
- Collect debug, result and header automatically in memory if not streaming or event writing.
- Now using 64-bit integers for file offsets by default



# CURL Plugin Email



- Parse Emails
- Extract content
  - with right text encoding
- Email reader example project
- IMAP and POP3 email clients
- Converts HTML to plain text if needed



# AVFoundation Plugin



- Audio Node classes
- Audio Unit classes
- AVMediaPlayer class
- AVMovie classes



# Other plugins



- FileListMBS for ultra fast cross platform file listings
- WindowsPlayerMBS
- HIDAPI classes
- HotkeyMBS
- Sign and Verify with RSA & Elliptic Curve Signatures
- WordFile functions



# Features in development



- Archive Classes
  - ar, tar, pax, zip, 7zip and more
  - bzip2, GZip, LZMA, UUEncode, LZip and more
  - Read/Write archives
  - File attributes and permissions preserved



# Features in development



- Contacts Framework for Mac
  - Edit/Create/Delete contacts in Addressbook
  - New API for 64-bit and iOS
  - Replacement for Addressbook framework
  - Asynchronous API
  - see also EventKit for events & reminders



# Things we do

- Support new targets
- Get more functions cross platform
- Keep things working for you!





# Q & A

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