



# MBS Plugins

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CEO  
**Monkeybread Software**

# MBS Xojo Plugins



- Since 2001 we got

51

Plugins

520

Plugin parts

80000

items in documentation

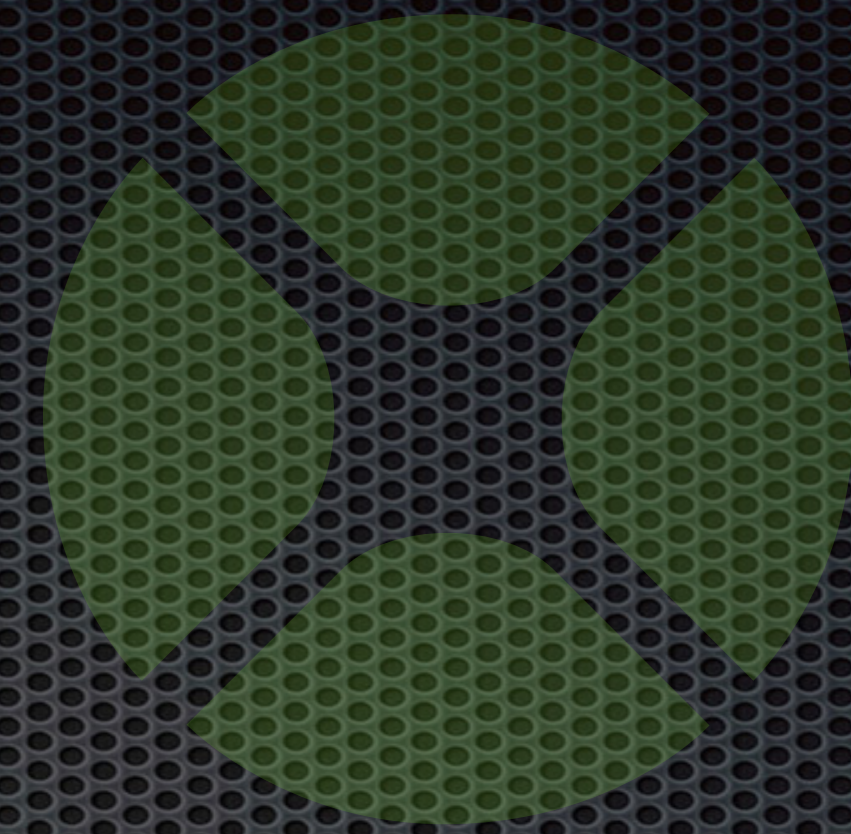
3000

classes

2300

example projects

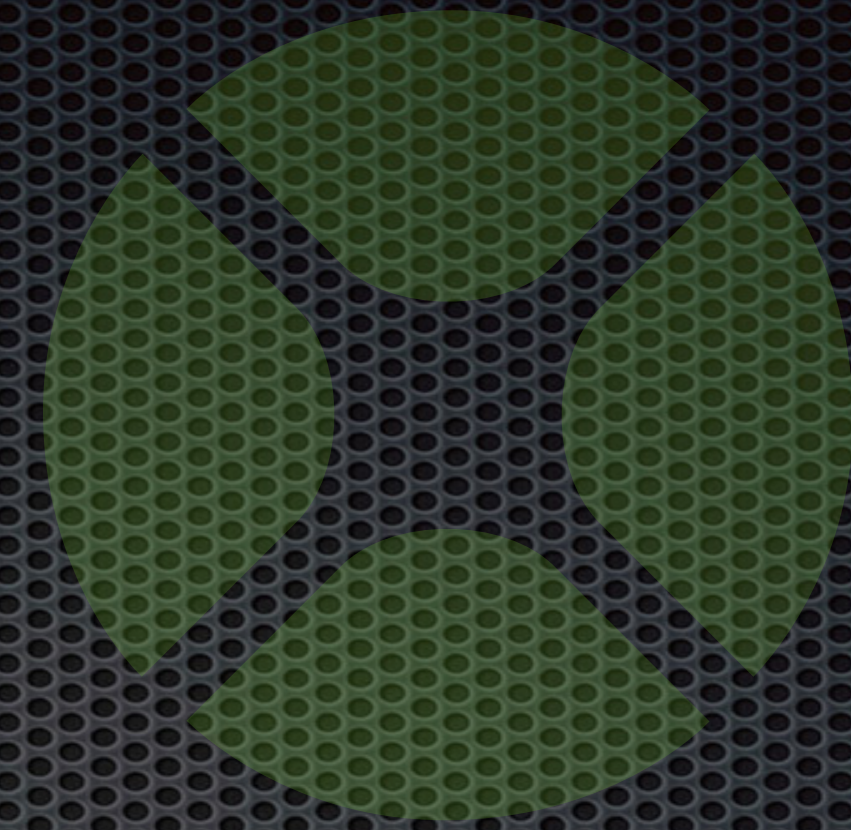
# Xojo Versions



- 2019r2: API 2.0 and FolderItem changes.  
Added ExecuteSQL and RowSet
- 2020r1: WebKit 2 for HTMLViewer
- 2020r2: Newer plugin SDK with Apple Silicon support
- 2021r3: Desktop Controls  
29 controls in MBS Plugins  
100+ methods
- 2022r1: Chromium version updated
- 2022r2: Windows for ARM support & Chromium

# News & Changes

- What's new since last conference?
- See also video from 2021 and 2022  
[mbsplugins.com/xojo](https://mbsplugins.com/xojo)



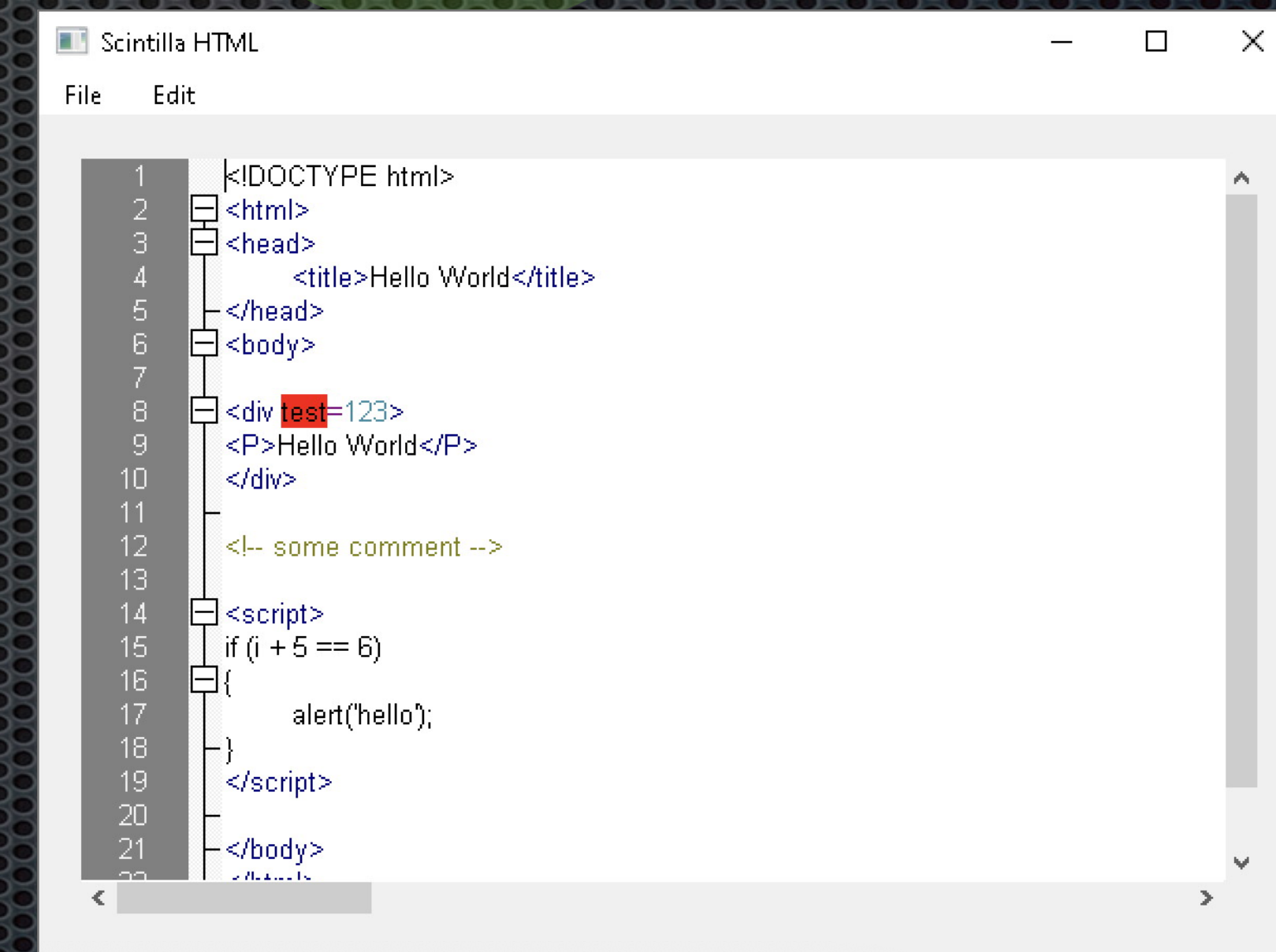
# Phidgets

- New classes for newer Phidget API v2.2
- Humidity, magnetic, light, gyroscope, PH, sound, temperature, capacitive touch or pressure sensors
- Analog and digital input/output
- macOS, Windows and Linux



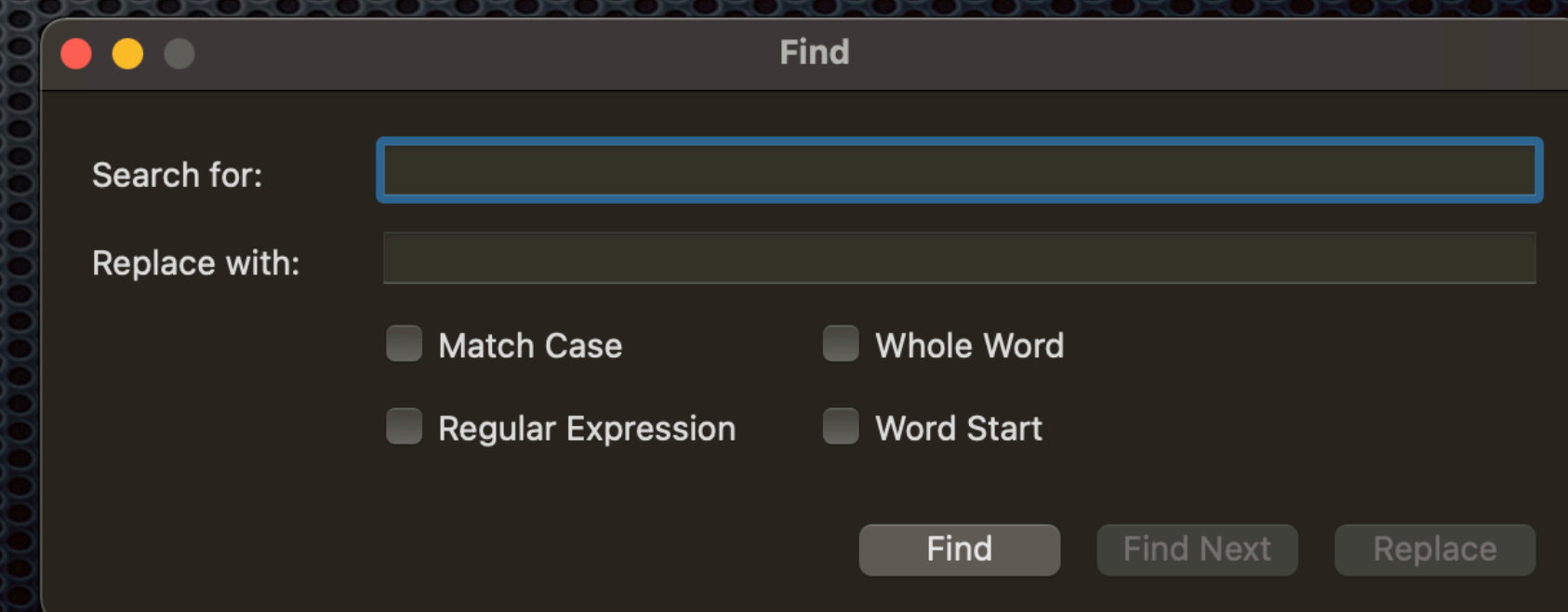
# Scintilla Control

- Advanced text editor for desktop projects
- Syntax highlighting in over 100 languages
- Code folding
- Auto Complete and call tips
- Error indicators, syntax styling
- Find & Replace
- macOS, Windows & Linux



```
Scintilla HTML
File Edit

1 | <!DOCTYPE html>
2 | <html>
3 | <head>
4 |   <title>Hello World</title>
5 | </head>
6 | <body>
7 |
8 |   <div test=123>
9 |     <P>Hello World</P>
10 |   </div>
11 |
12 |   <!-- some comment -->
13 |
14 |   <script>
15 |     if (1 + 5 == 6)
16 |     {
17 |       alert('hello');
18 |     }
19 |   </script>
20 |
21 | </body>
22 | </html>
```



Find

Search for:

Replace with:

Match Case       Whole Word

Regular Expression       Word Start

Find    Find Next    Replace

# Scintilla Control

```
Scintilla Xojo Example
1 // test function for Xojo
2
3
4 Private Function Count1(s as string) As Integer
5     'another comment
6     #Pragma BackgroundTasks False
7     #Pragma NilObjectChecking False
8
9     Dim l As Integer = s.Length-1
10    Dim c As Integer = 0
11    For i As Integer = 0 To l
12        If s.Middle(i, 1) = " " Then
13            c = c + 1
14        End If
15    Next
16    Return c
17
18    select case c
19        case 123
20            break
21        end select
22
23 End Fun
24 function
25 REM old fashion comment
26
27
```

100% 8:23 Operation complete

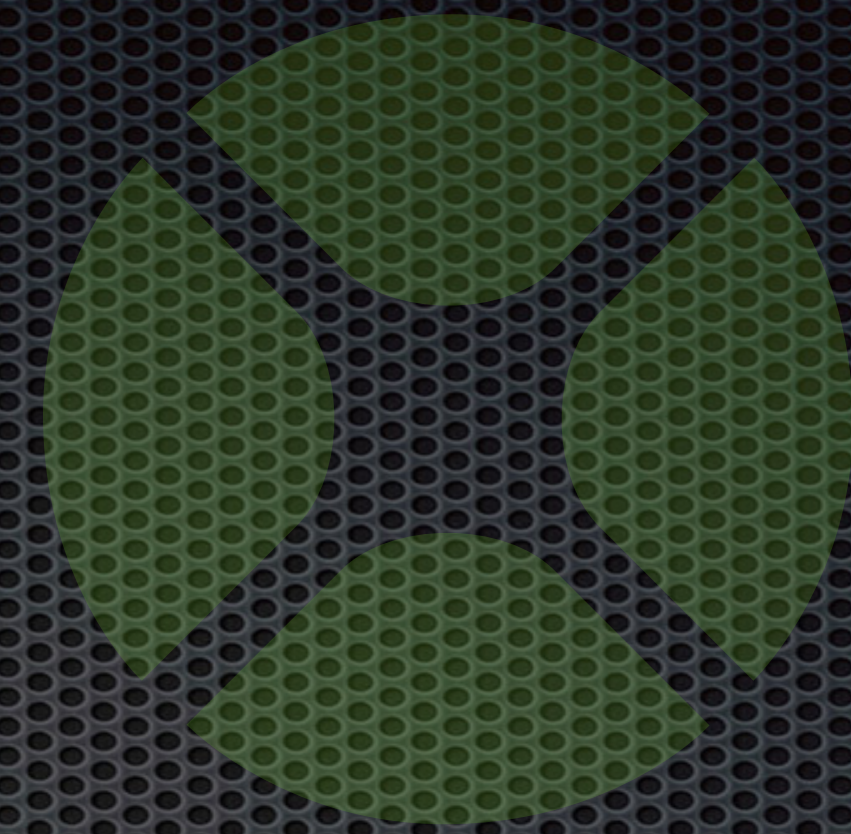
```
Scintilla HTML Example
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>Hello World</title>
5 </head>
6 <body>
7
8 <div test=123>
9 <P>Hello World</P>
10 </div>
11
12 <!-- some comment -->
13
14 <script>
15 if (i + 5 == 6)
16 {
17     alert('hello');
18 }
19 </script>
20
21 </body>
22 </html>
23
```

100% 7:10 Operation complete

```
Scintilla MySQL Example
20 --{
21 -- Create schema sakila
22 --}
23
24 CREATE DATABASE IF NOT EXISTS sakila;
25 USE sakila;
26 DROP TABLE IF EXISTS "sakila"."actor_info";
27 DROP VIEW IF EXISTS "sakila"."actor_info";
28 CREATE TABLE "sakila"."actor_info" (
29     "actor_id" smallint(5) unsigned,
30     "first_name" varchar(45),
31     "last_name" varchar(45),
32     "film_info" varchar(341)
33 );
34 DROP TABLE IF EXISTS "sakila"."actor";
35 CREATE TABLE "sakila"."actor" (
43 INSERT INTO "sakila"."actor" VALUES (1,'PENELOPE','GUINNESS','2006-02-15 04:34:33'),
44 (2,'NICK','WAHLBERG','2006-02-15 04:34:33'),
45 (3,'ED','CHASE','2006-02-15 04:34:33'),
46 (4,'JENNIFER','DAVIS','2006-02-15 04:34:33'),
47 (149,'RUSSELL','TEMPLE','2006-02-15 04:34:33'),
48 (150,'JAYNE','NOLTE','2006-02-15 04:34:33'),
49 (151,'GEOFFREY','HESTON','2006-02-15 04:34:33'),
50 (152,'BEN','HARRIS','2006-02-15 04:34:33'),
51 (153,'MINNIE','KILMER','2006-02-15 04:34:33'),
52 (154,'MERYL','GIBSON','2006-02-15 04:34:33'),
53 (155,'IAN','TANDY','2006-02-15 04:34:33'),
54 (156,'EAV','WOOD','2006-02-15 04:34:33')
```

100% 42:8 Operation complete

# DynaPDF

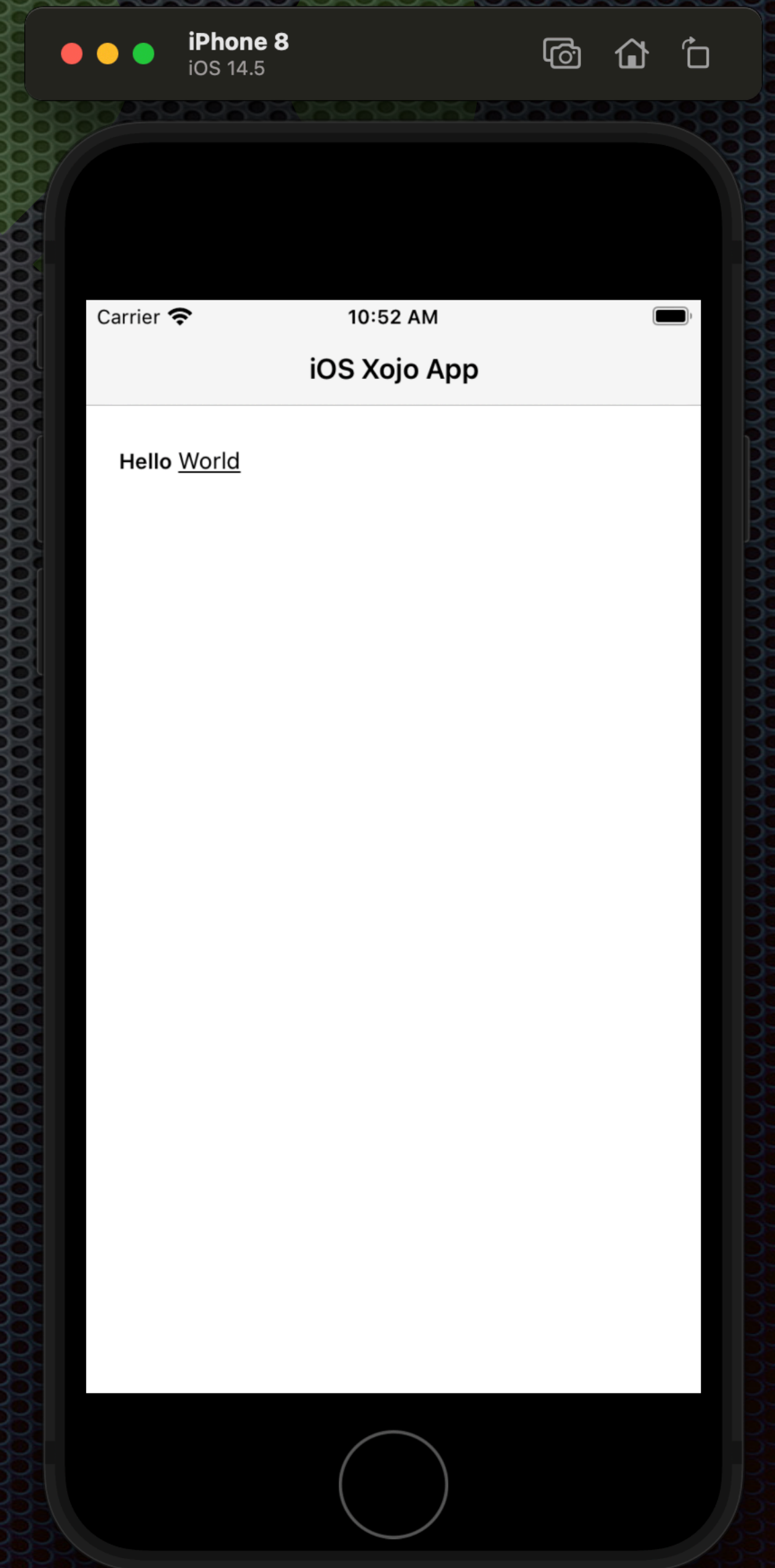
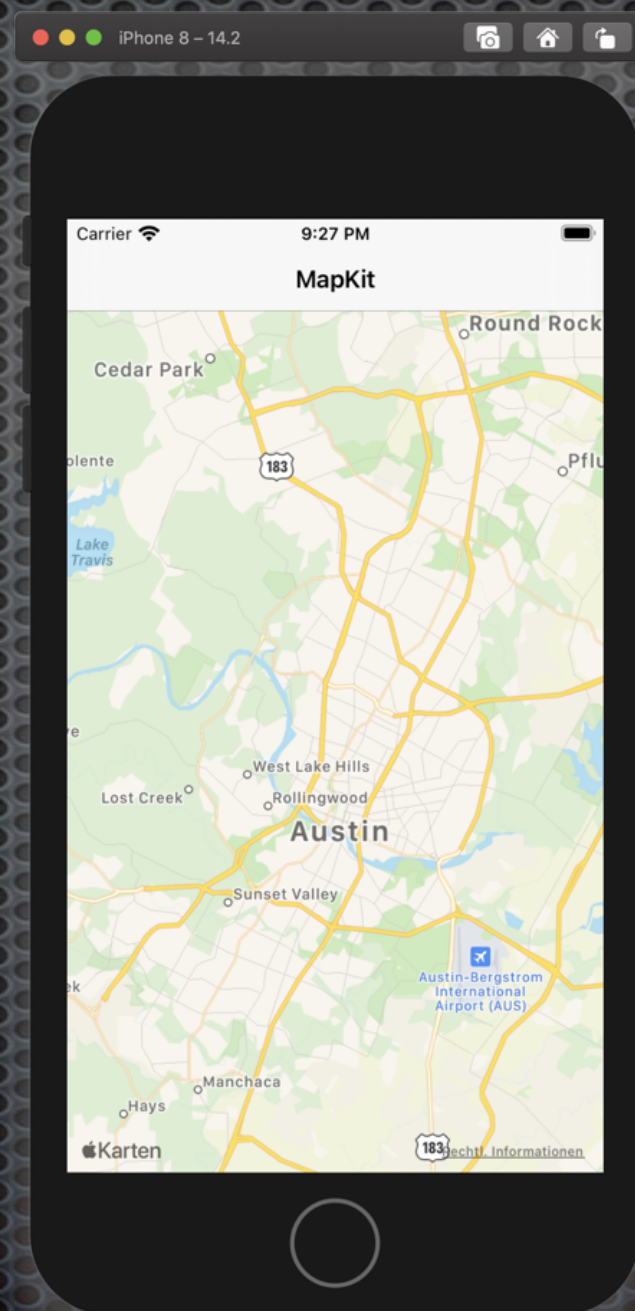
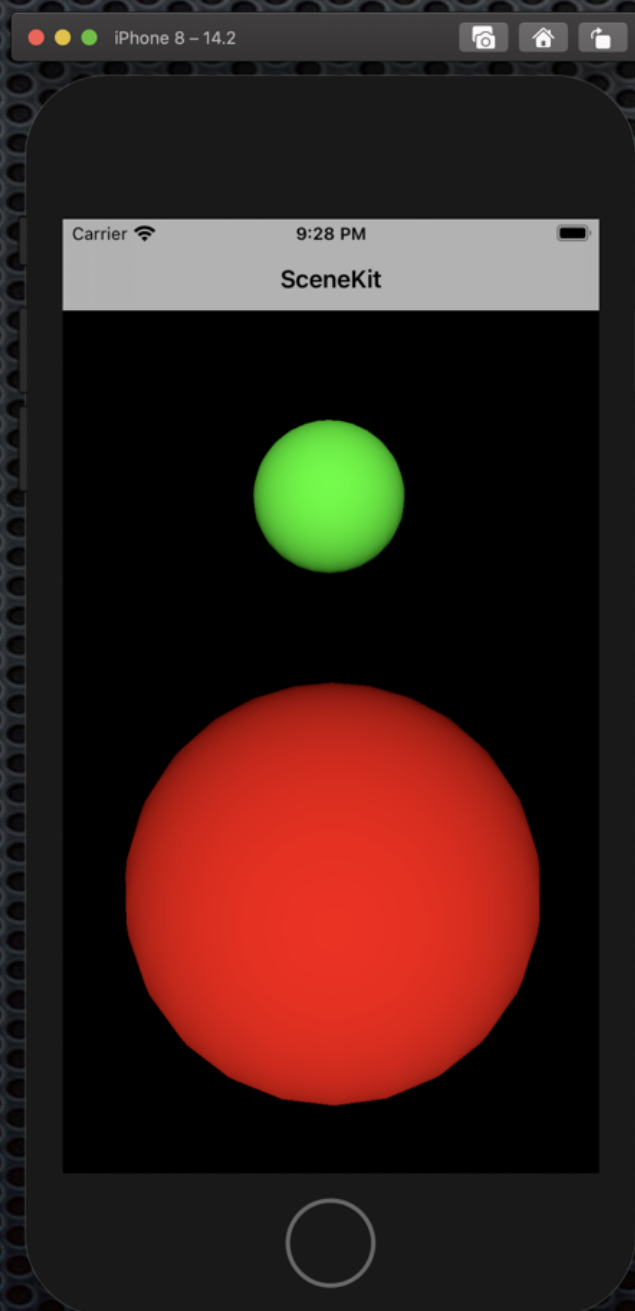


- CheckConformance with PDF/A 2u and 3u
- ZUGFeRD 2.2 & Factur-X 1.0.06
- Complex Text Layout on Windows
  - Automatic Font Substitution
  - Alternate font lists
- Object compression
- Version Info class
- ConvertStyledText improved with leading factor



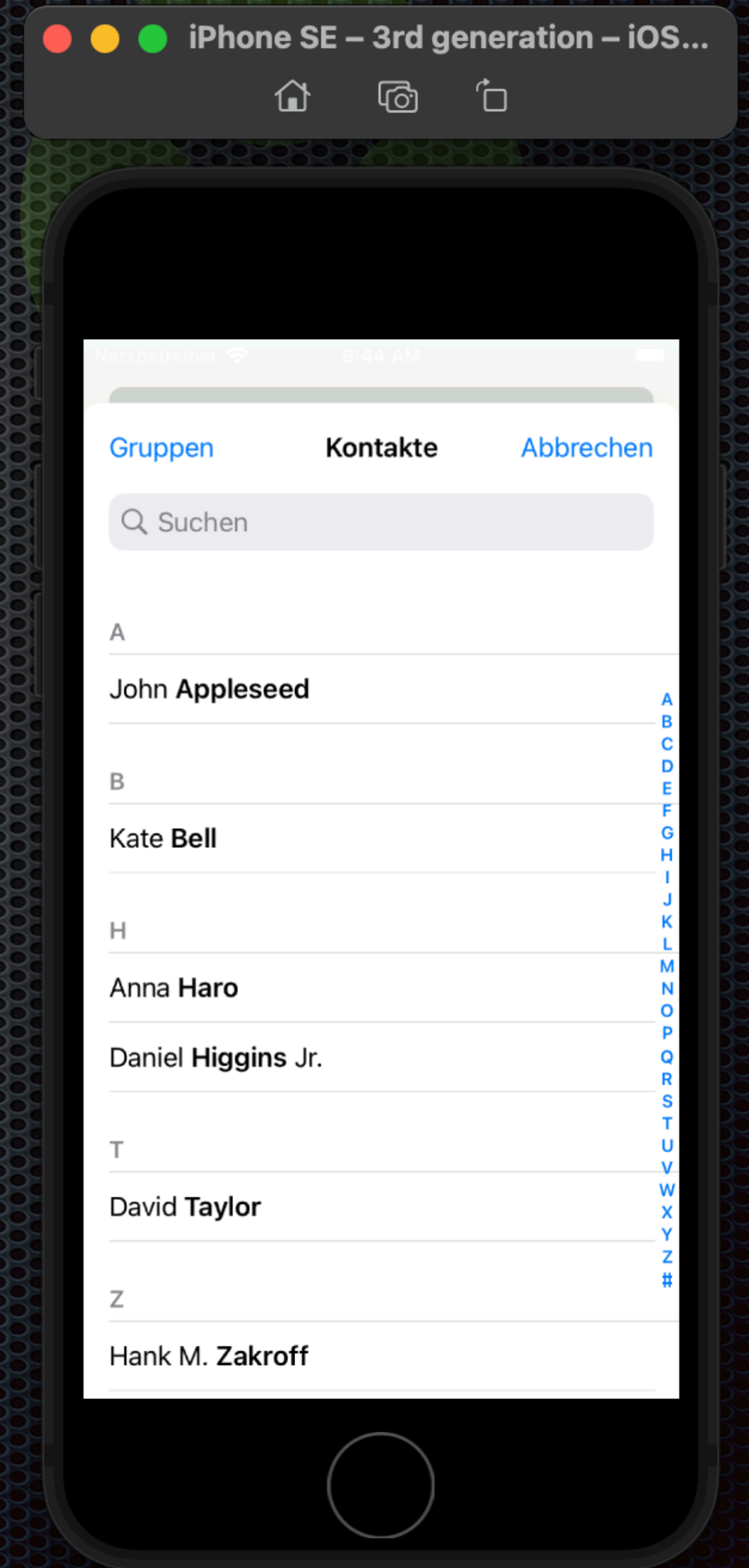
# iOS

- iOS controls for Web, Map and 3D Graphics
- Styled text for controls
- SharingPanelMBS



# iOS pickers

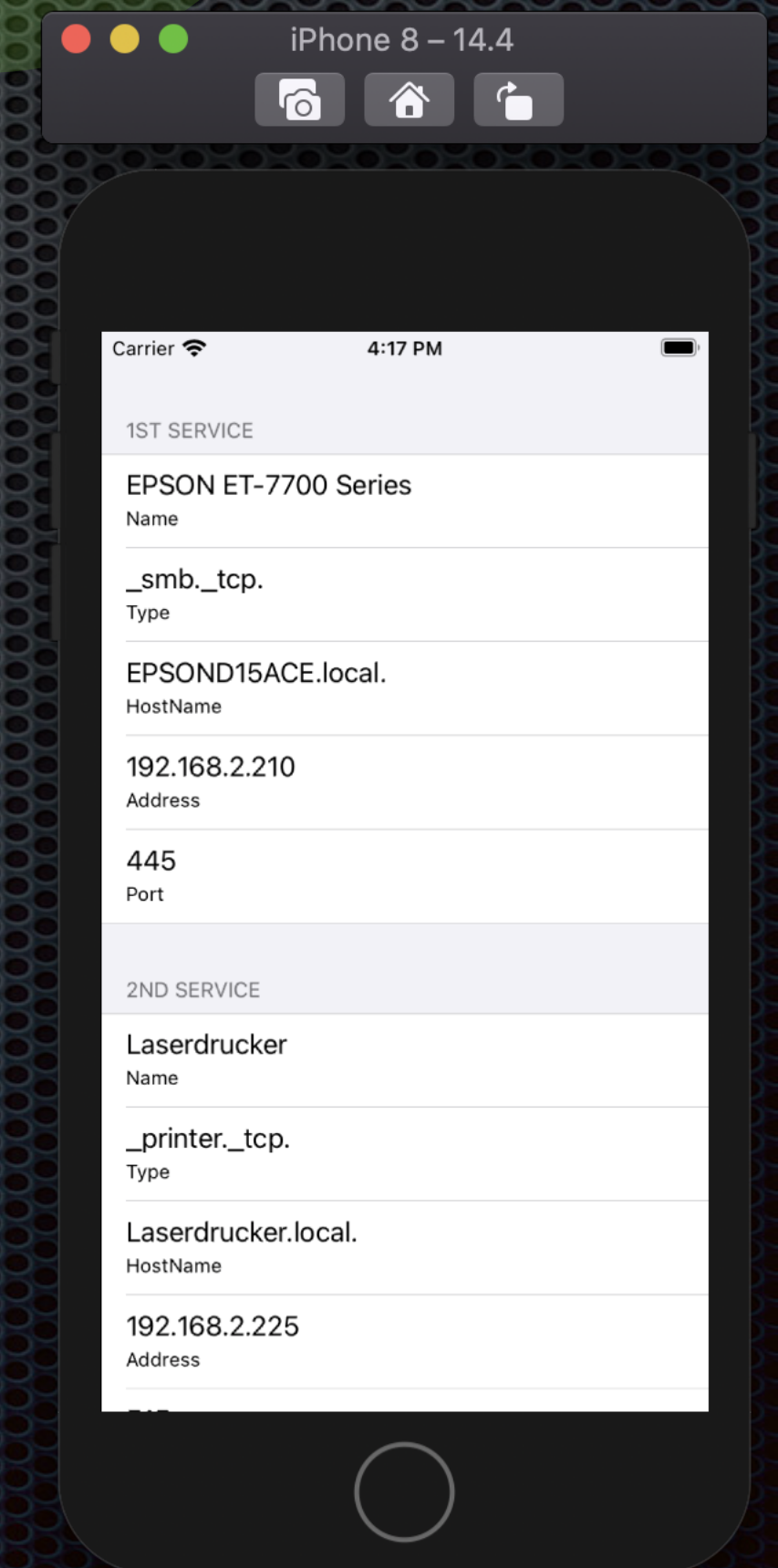
- Document Picker
  - UIDocumentPickerMBS
  - Load & Save
- Contact Picker
  - CNContactPickerViewControllerMBS
  - Pick contact(s) or contact values





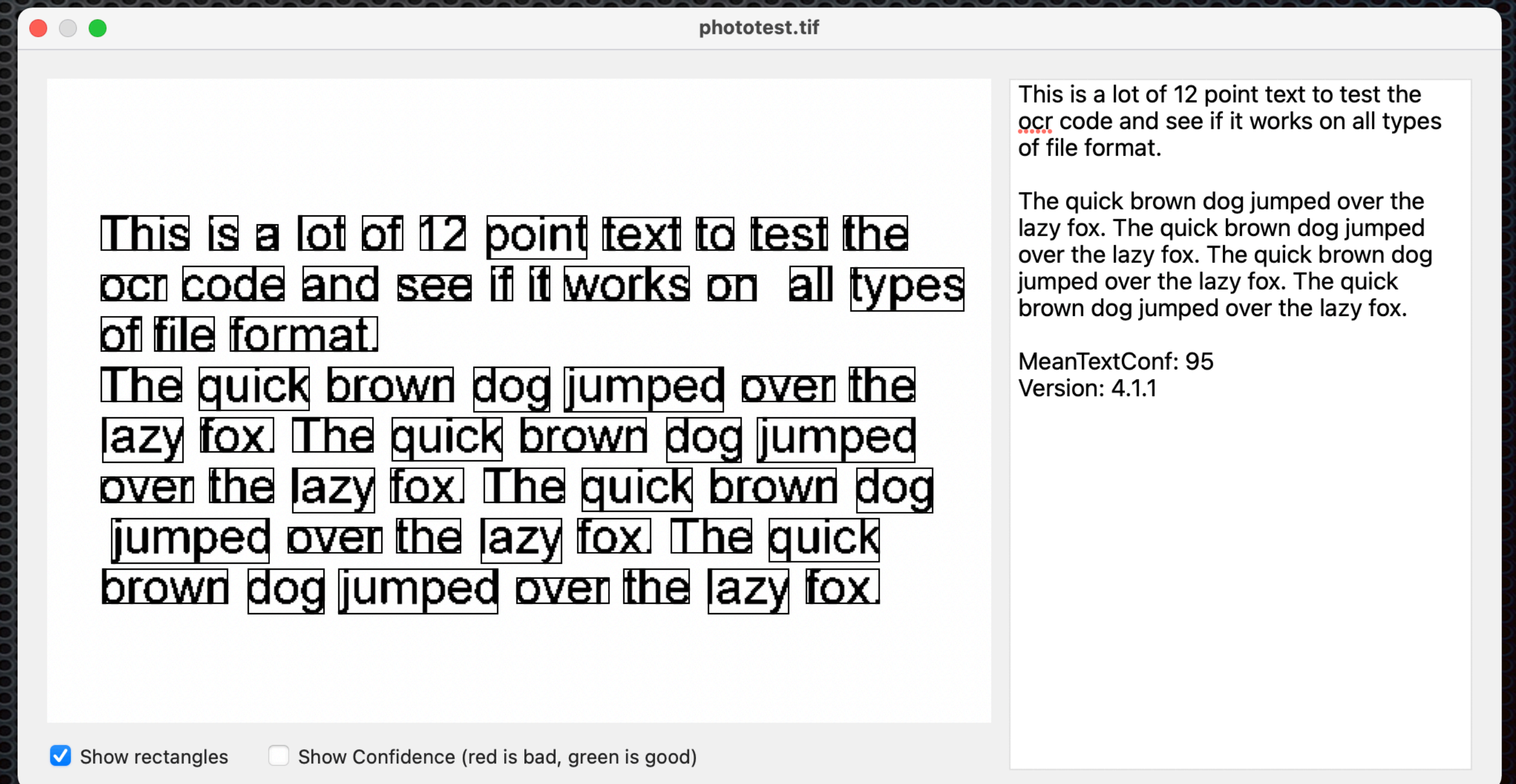
# NSNetService classes

- Bonjour classes for macOS & iOS
- Register a service in your app
- Find your Mac in iOS apps in local networks
- Asynchronous events



# Tesseract 5 for OCR

- Load Tesseract 4.x or 5.x library
- More languages
- Better quality



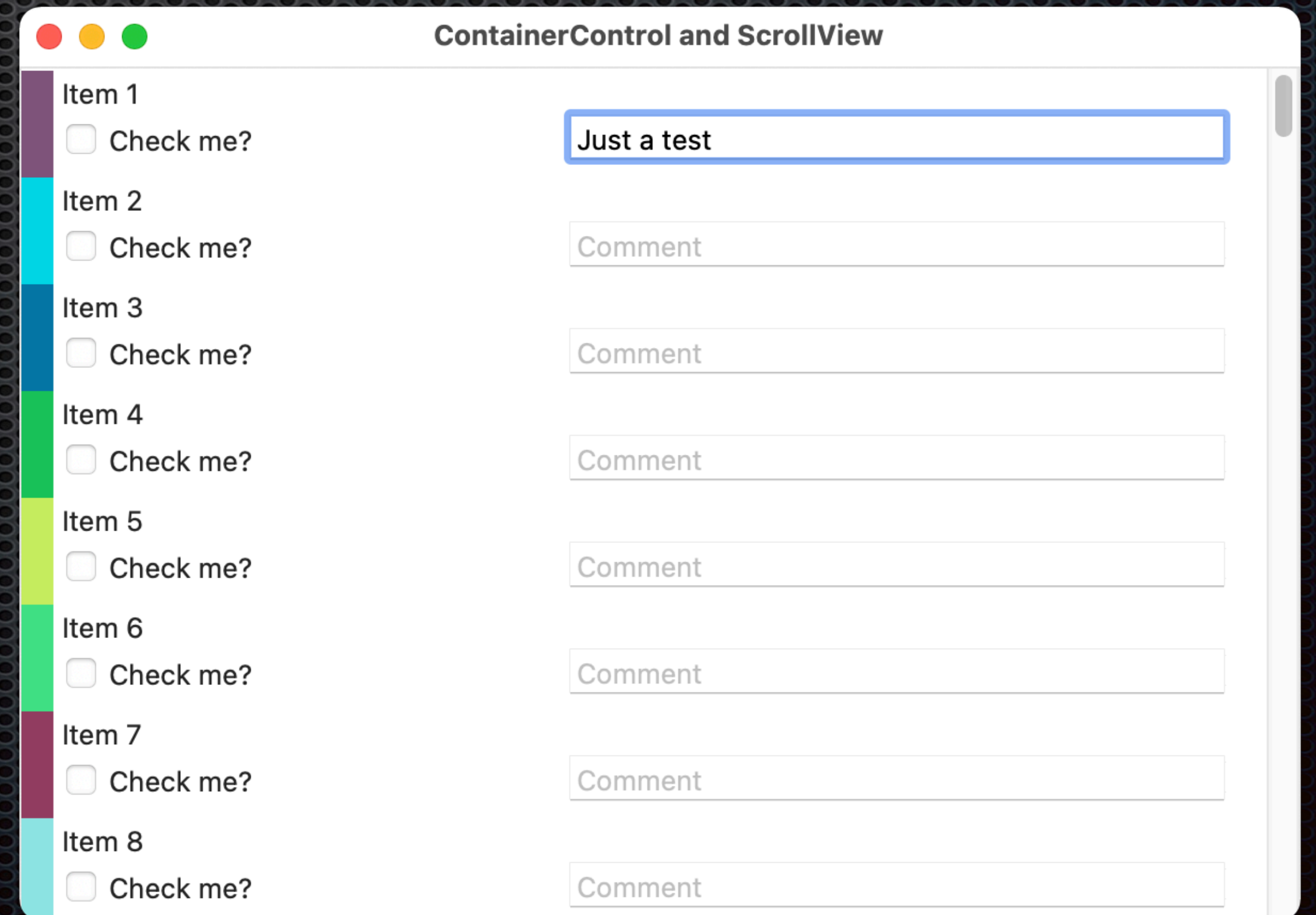
# Barcode

- Load zbar library
- EAN-13/UPC-A, UPC-E, EAN-8, Code 128, Code 39, Interleaved 2 of 5 and QR Code.
- Recognize multiple barcodes per image
- Combine with our camera classes!



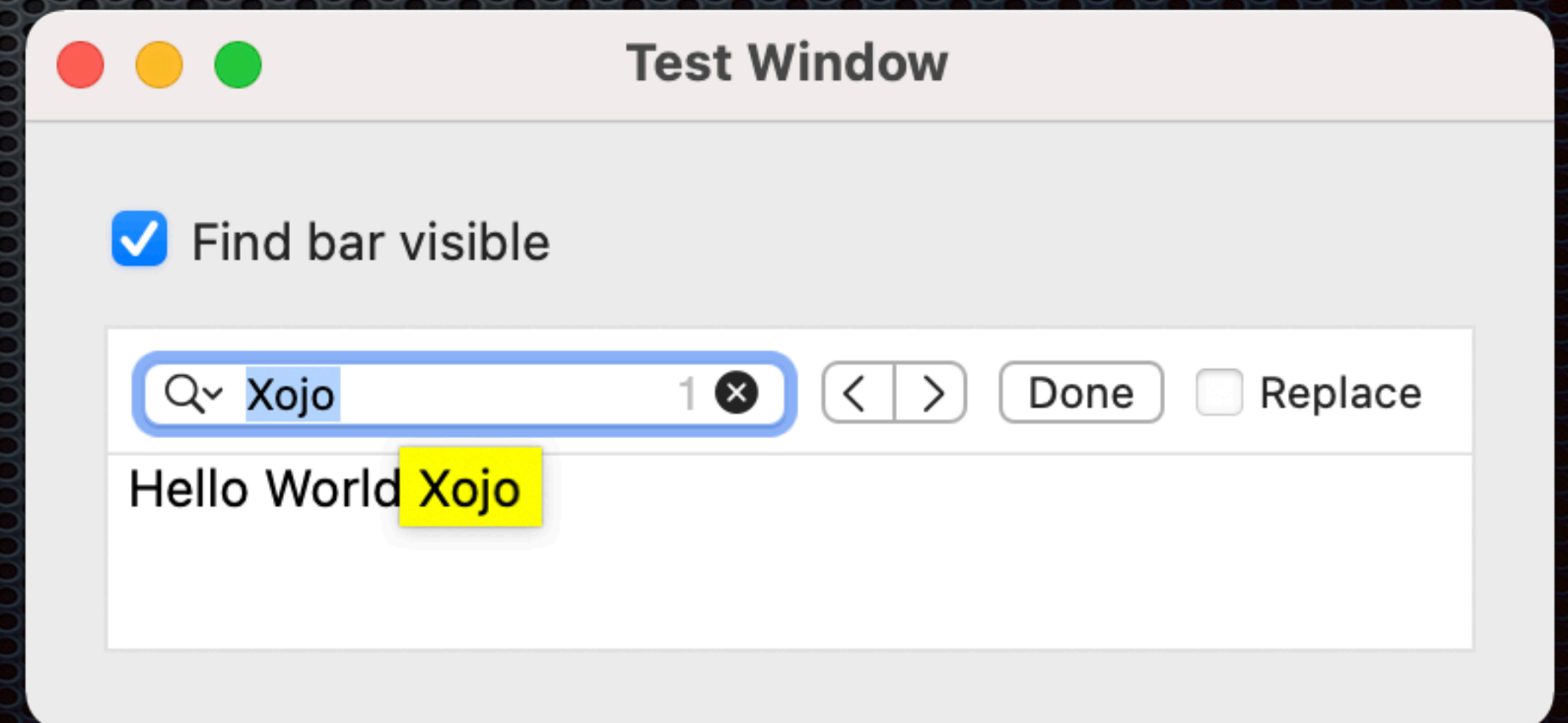
# Container List

- Example for container based list of containers
- MacOS and Windows
- Smooth scrolling on macOS using NSScrollView



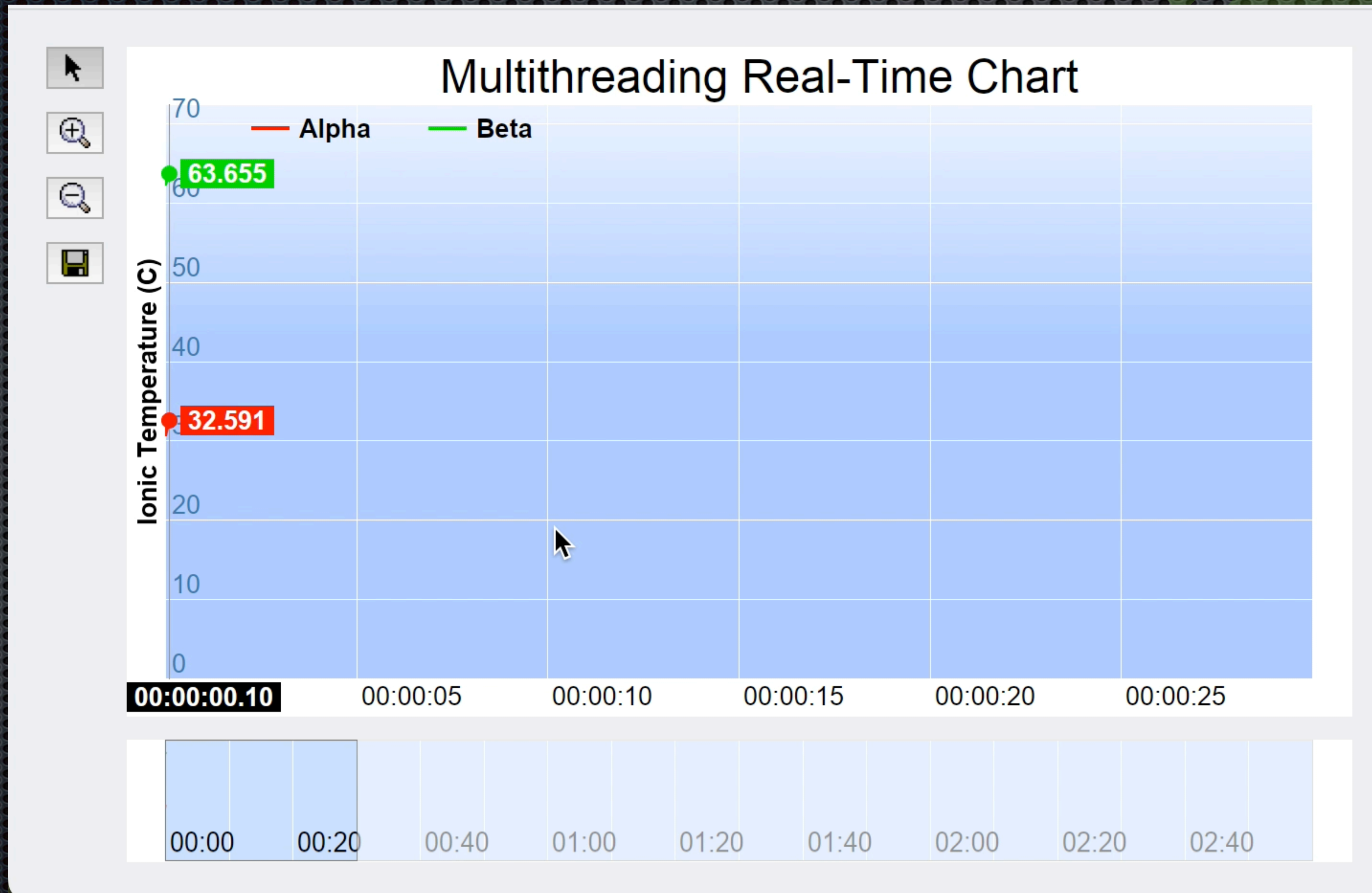
# Text Finder

- Use standard find control for TextArea on macOS
- Search & Replace
- Localized to application language.



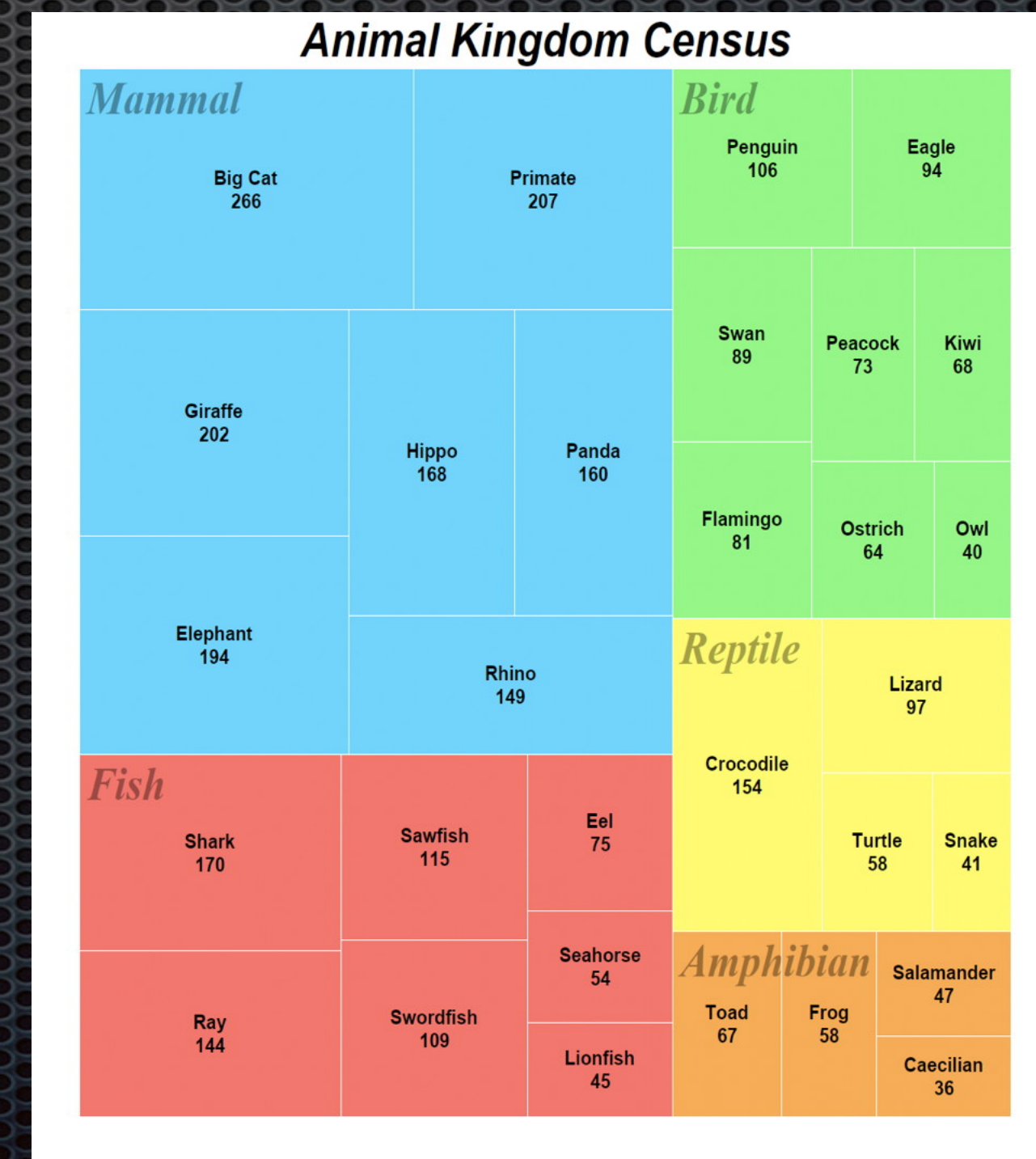
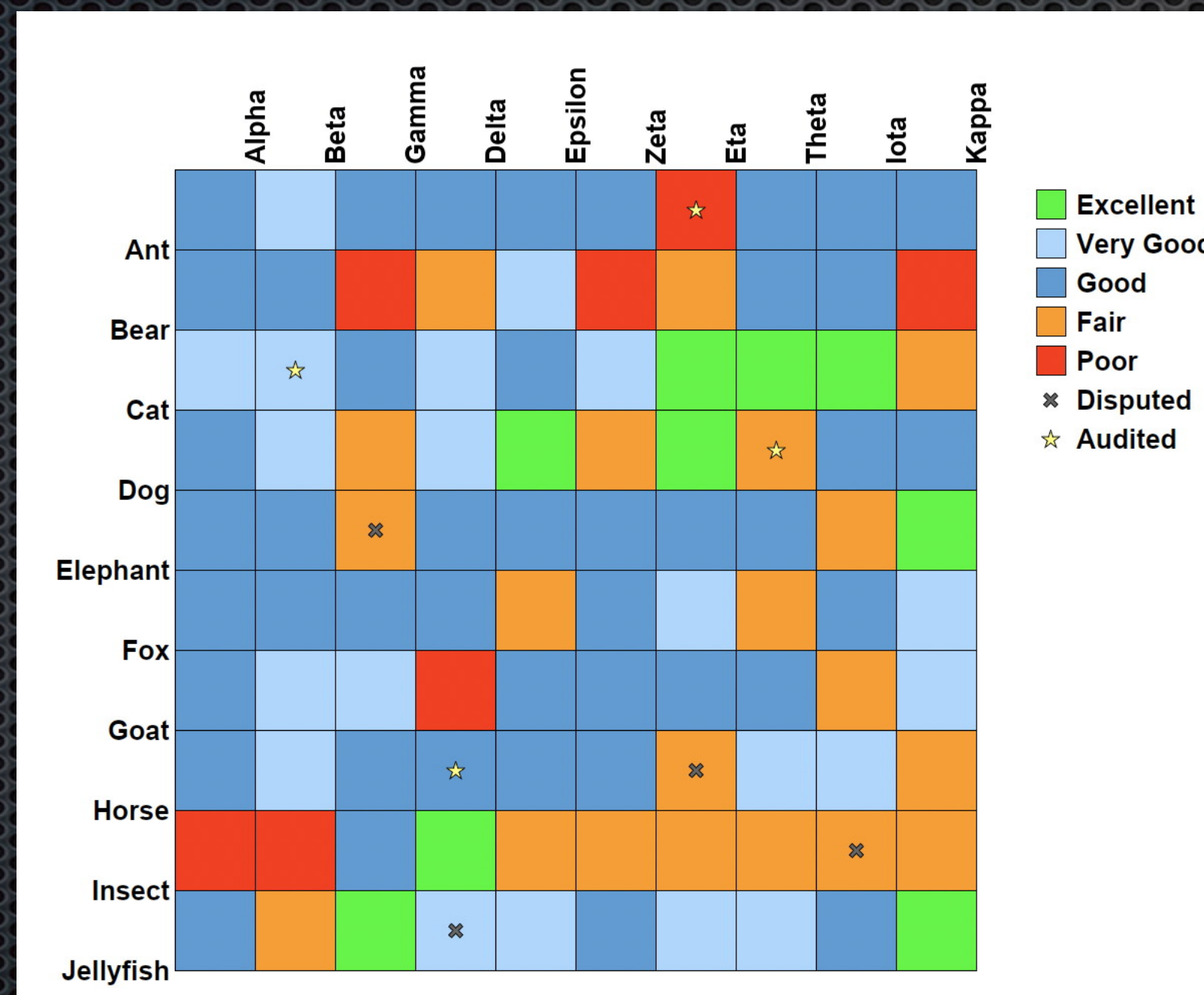


# ChartDirector: Real Time



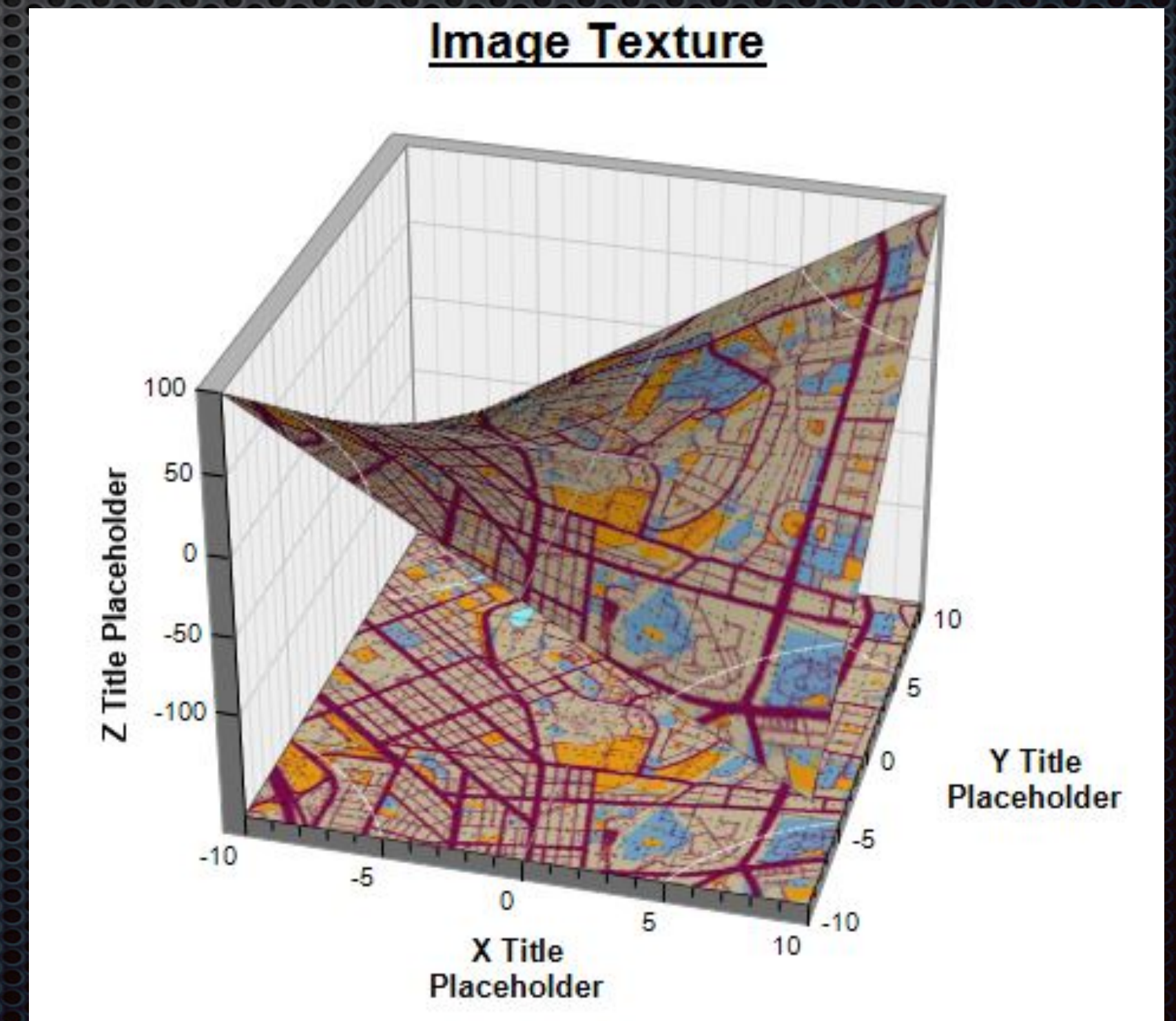
# ChartDirector

- Added DiscreteHeatMapLayer, CDTreeMapChart and CDTreeMapNode.



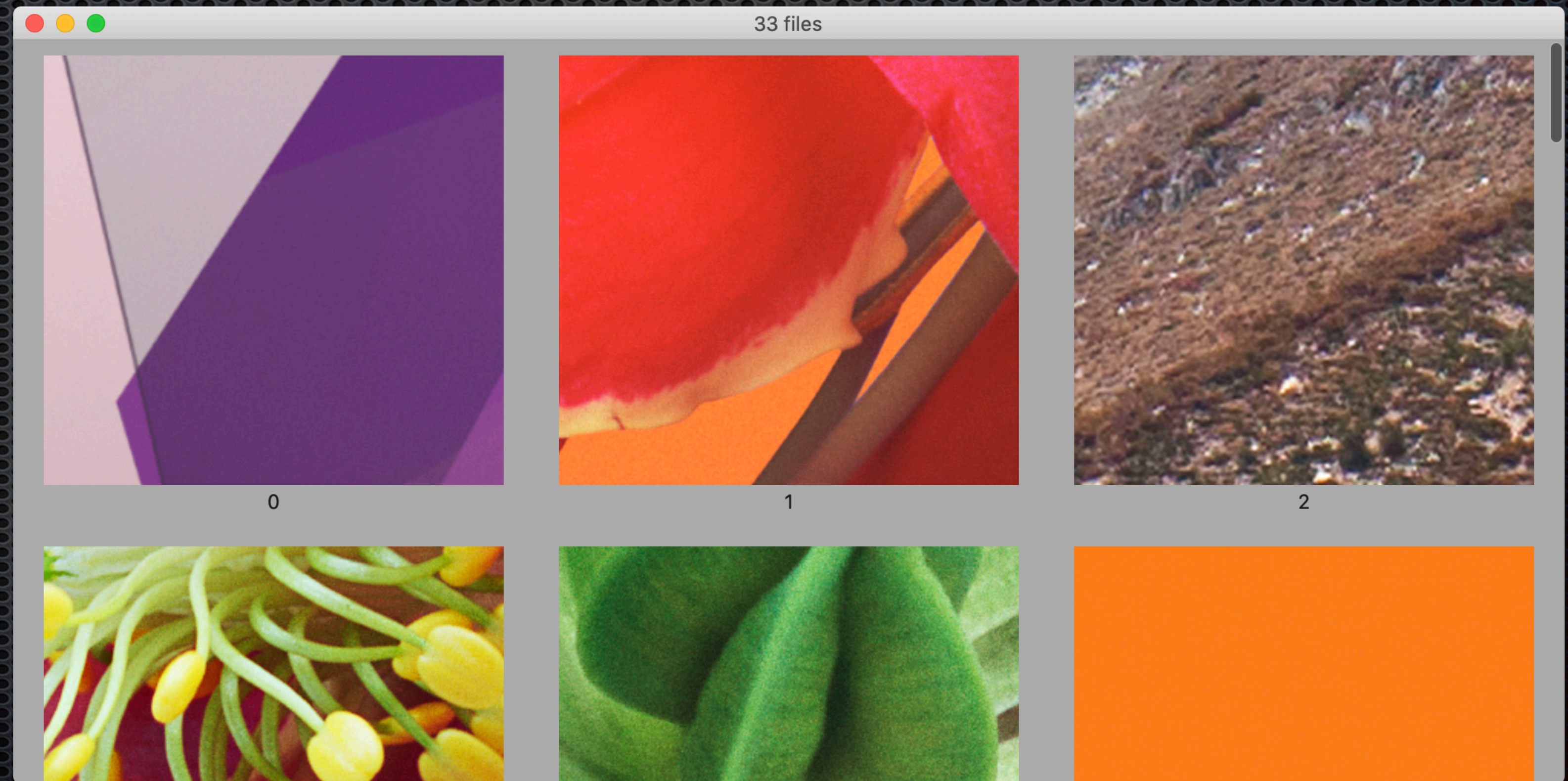
# ChartDirector 7

- TreeMap Chart and Discrete Heat Map
- Multi-Page PDF Output
- High DPI Support
- Surface XY Projection and Texture
- Surface Chart output in PDF/SVG



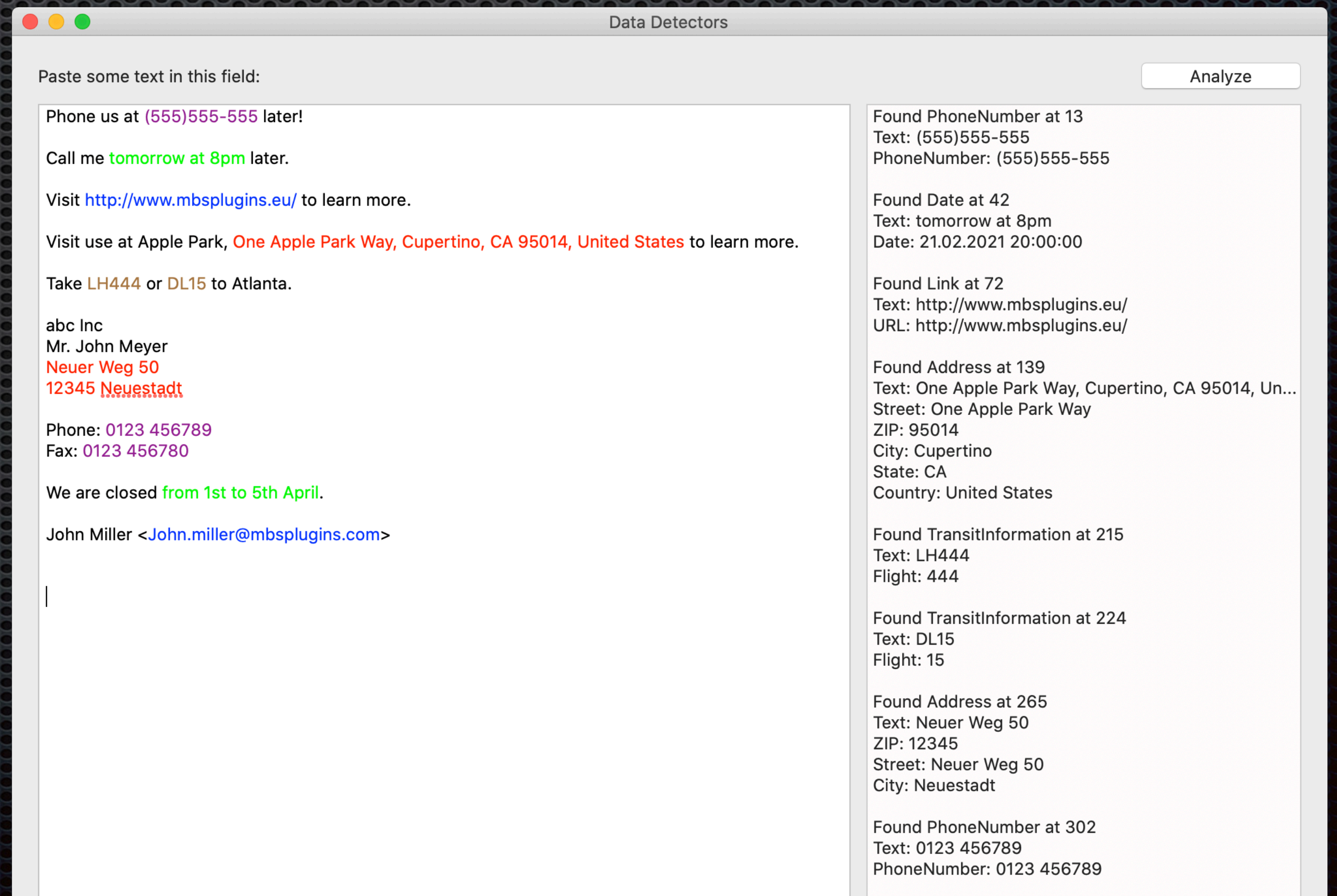
# NSCollectionView

- Collection View for macOS



# Data Detectors

- Use Apple Framework to recognize
  - Phone numbers
  - URLs
  - Emails
  - Flight number
  - Addresses



The screenshot shows a window titled "Data Detectors" with a text input field and an "Analyze" button. The input field contains the following text:

Paste some text in this field:

Phone us at (555)555-555 later!

Call me tomorrow at 8pm later.

Visit <http://www.mbsplugins.eu/> to learn more.

Visit use at Apple Park, One Apple Park Way, Cupertino, CA 95014, United States to learn more.

Take LH444 or DL15 to Atlanta.

abc Inc  
Mr. John Meyer  
Neuer Weg 50  
12345 Neustadt

Phone: 0123 456789  
Fax: 0123 456780

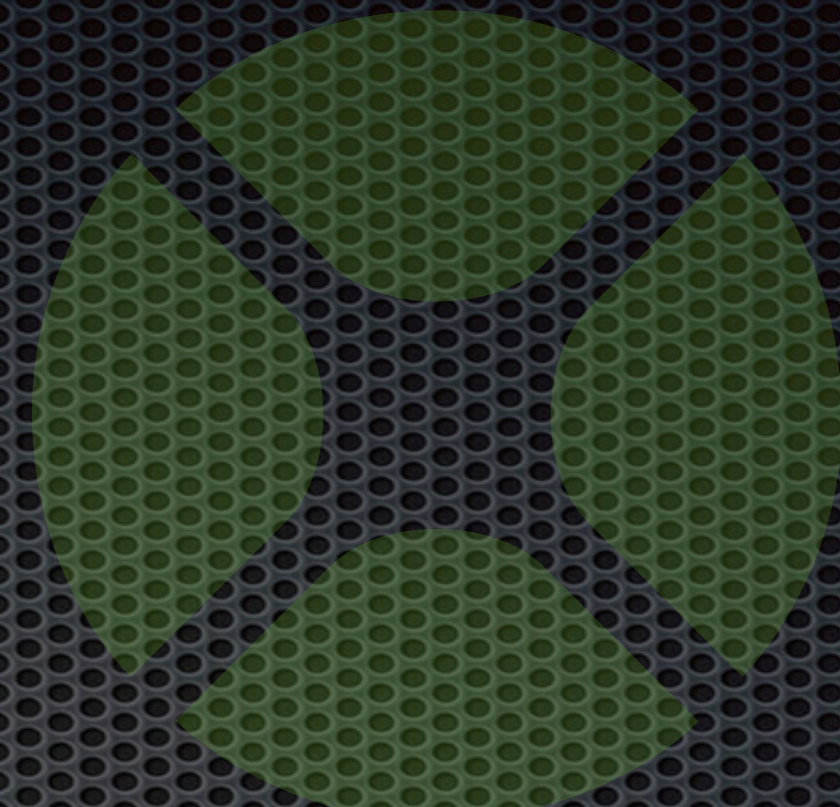
We are closed from 1st to 5th April.

John Miller <[John.miller@mbsplugins.com](mailto:John.miller@mbsplugins.com)>

The right side of the window displays the analysis results for each detected entity:

- Found PhoneNumber at 13**  
Text: (555)555-555  
PhoneNumber: (555)555-555
- Found Date at 42**  
Text: tomorrow at 8pm  
Date: 21.02.2021 20:00:00
- Found Link at 72**  
Text: <http://www.mbsplugins.eu/>  
URL: <http://www.mbsplugins.eu/>
- Found Address at 139**  
Text: One Apple Park Way, Cupertino, CA 95014, Un...  
Street: One Apple Park Way  
ZIP: 95014  
City: Cupertino  
State: CA  
Country: United States
- Found TransitInformation at 215**  
Text: LH444  
Flight: 444
- Found TransitInformation at 224**  
Text: DL15  
Flight: 15
- Found Address at 265**  
Text: Neuer Weg 50  
ZIP: 12345  
Street: Neuer Weg 50  
City: Neustadt
- Found PhoneNumber at 302**  
Text: 0123 456789  
PhoneNumber: 0123 456789

# SQL



- Supports CubeSQL, Centura SQLBase, DB2, DuckDB, Firebird, Informix, InterBase, MariaDB, Microsoft Access, Microsoft SQL Server, MySQL, ODBC, Oracle Database Server, PostgreSQL, SQL Anywhere, SQLite, SQLCipher and Sybase.
- Edit and Update for SQLiteDatabaseMBS class
- RowSet support
- Math, geopoly and ICU extension for SQLite
- DumpToFile and DumpToString for SQLite

# RabbitMQ

- OpenSource library for message queues
- Cross platform

The image displays a development environment with two main windows. On the left is the Xojo IDE, and on the right is Visual Studio.

**Xojo IDE (Left Window):** The title bar reads "Xojo - [RabbitMQTutorial.xojo\_binary\_project]". The interface includes a menu bar (File, Edit, View, Insert, Project, Window, Help), a toolbar with buttons for Insert, Back, Forward, Resume, Build, Help, and Feedback, and a project browser showing "RabbitMQTu...". The console window at the bottom displays the following text:

```
MBS Xojo RabbitMQ Plugin
*****
RabbitMQConnectionMBS.Version: 0.10.0

RabbitMQ Tutorials
-----
https://www.rabbitmq.com/getstarted.html

1 - Hello World - Receive
2 - Hello World - Send
3 - RPC          - Server
4 - RPC          - Client

Choice: 2
- conn.LoginPlain
- conn.ChannelOpen
- conn.BasicPublish: sent
- conn.ChannelClose
- conn.ConnectionClose
Press <enter> to exit.
```

**Visual Studio (Right Window):** The title bar reads "Rabb...ials". The interface includes a menu bar (File, Edit, View, Git, Project, Build, Debug, Test, Analyze, Tools, Extensions, Window), a toolbar with buttons for Application Insights, Live Share, and a search bar. The code editor shows the following C# code:

```
Program.cs
C# 1_Send Program Main()
1 using System;
2 using RabbitMQ.Client;
3 using System.Text;
4
5 class Program
6 {
7     public static void Main()
8     {
9         var factory = new ConnectionFactory() { HostName = "localhost"
```

The Solution Explorer on the right shows "Diagnostic Tools" with a "Diagnostics session: 53 seconds" and "Events" tab selected. The console window at the bottom shows the following output:

```
[*] Waiting for messages.
Press [enter] to exit.
[x] Received Hello RabbitMQ World from Xojo
```

# BigNumber



- BigNumberMBS
  - 320 bits floating point number with 77 digits
- BiggerNumberMBS
  - 2560 bits floating point number with 617 digits
- LargeNumberMBS
  - 4128 bit integer number with up to 1224 digits.



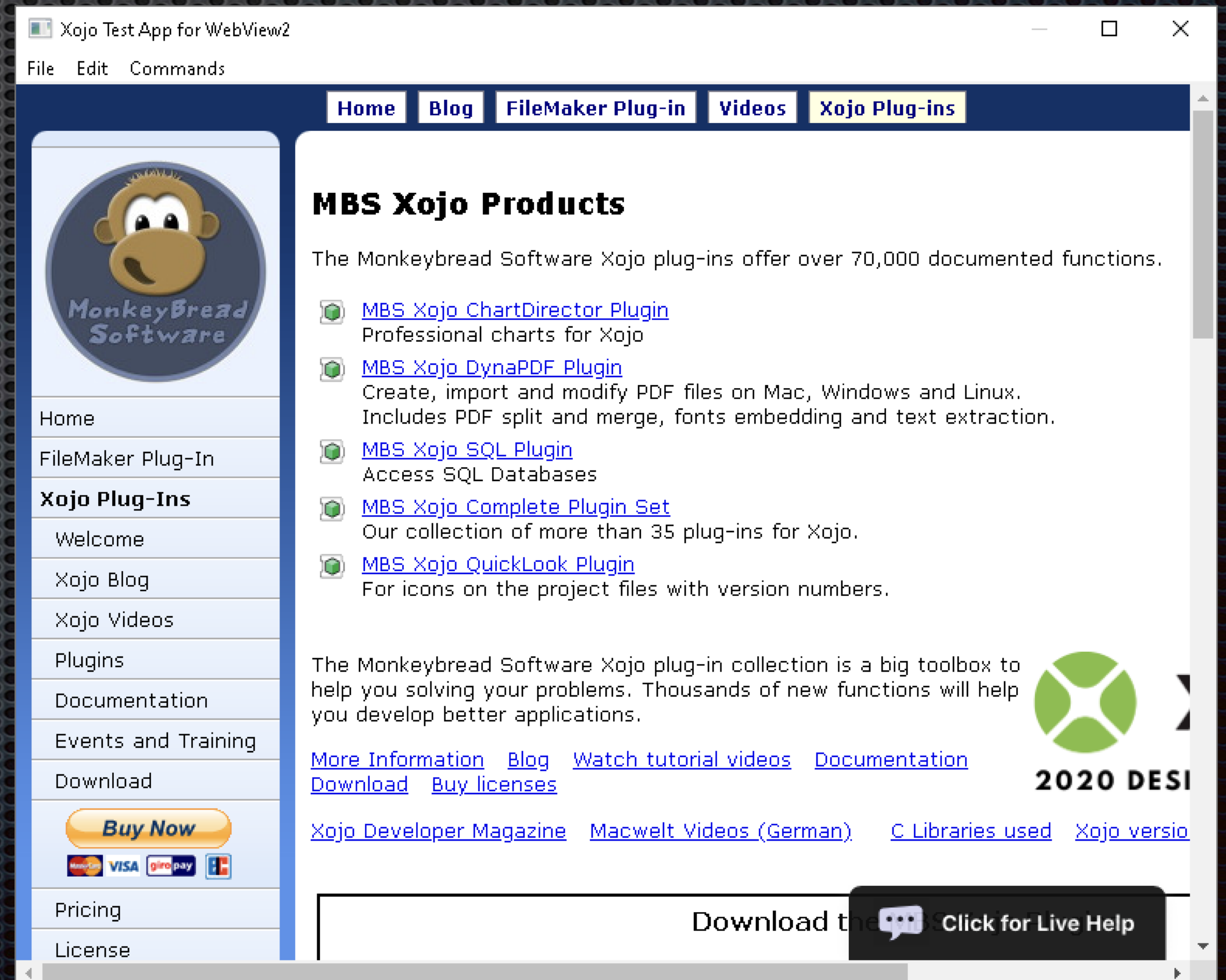
# Windows



- Visual Studio 2019 Runtimes
- Thread Pooling
- WinSpellCheckerMBS class
- WindowsReportErrorMBS class
- DirectShowPinMBS class
- Thread Pooling and WinThreadPoolMBS class

# WebView2 for Xojo

- WebView2 control from Microsoft
- Chrome / Edge
- Control for Xojo
- Run JavaScript
- Events for Xojo
- NewWindowRequested
- Cut, Copy, Paste & Select All



The screenshot shows a Xojo application window titled "Xojo Test App for WebView2". The application displays a web page for "MBS Xojo Products". The page features a navigation menu with links for Home, Blog, FileMaker Plug-in, Videos, and Xojo Plug-ins. The main content area lists several products, including MBS Xojo ChartDirector Plugin, MBS Xojo DynaPDF Plugin, MBS Xojo SQL Plugin, MBS Xojo Complete Plugin Set, and MBS Xojo QuickLook Plugin. A "Buy Now" button is visible in the sidebar, and a "Click for Live Help" button is in the footer.

Xojo Test App for WebView2  
File Edit Commands

Home Blog FileMaker Plug-in Videos Xojo Plug-ins

  
MonkeyBread Software

Home  
FileMaker Plug-In  
**Xojo Plug-Ins**  
Welcome  
Xojo Blog  
Xojo Videos  
Plugins  
Documentation  
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**MBS Xojo Products**

The Monkeybread Software Xojo plug-ins offer over 70,000 documented functions.


- [MBS Xojo ChartDirector Plugin](#)  
Professional charts for Xojo
- [MBS Xojo DynaPDF Plugin](#)  
Create, import and modify PDF files on Mac, Windows and Linux. Includes PDF split and merge, fonts embedding and text extraction.
- [MBS Xojo SQL Plugin](#)  
Access SQL Databases
- [MBS Xojo Complete Plugin Set](#)  
Our collection of more than 35 plug-ins for Xojo.
- [MBS Xojo QuickLook Plugin](#)  
For icons on the project files with version numbers.

The Monkeybread Software Xojo plug-in collection is a big toolbox to help you solving your problems. Thousands of new functions will help you develop better applications.

[More Information](#) [Blog](#) [Watch tutorial videos](#) [Documentation](#)  
[Download](#) [Buy licenses](#)

[Xojo Developer Magazine](#) [Macwelt Videos \(German\)](#) [C Libraries used](#) [Xojo version](#)

2020 DESI

Download t  Click for Live Help

# Events & Contacts

- Work with local database on macOS and iOS for contacts, reminders and events.
- Birthday and location for EKEEventMBS
- Link event participant with contact
- Link map location with event
- CNChangeHistoryEventMBS for history of contacts

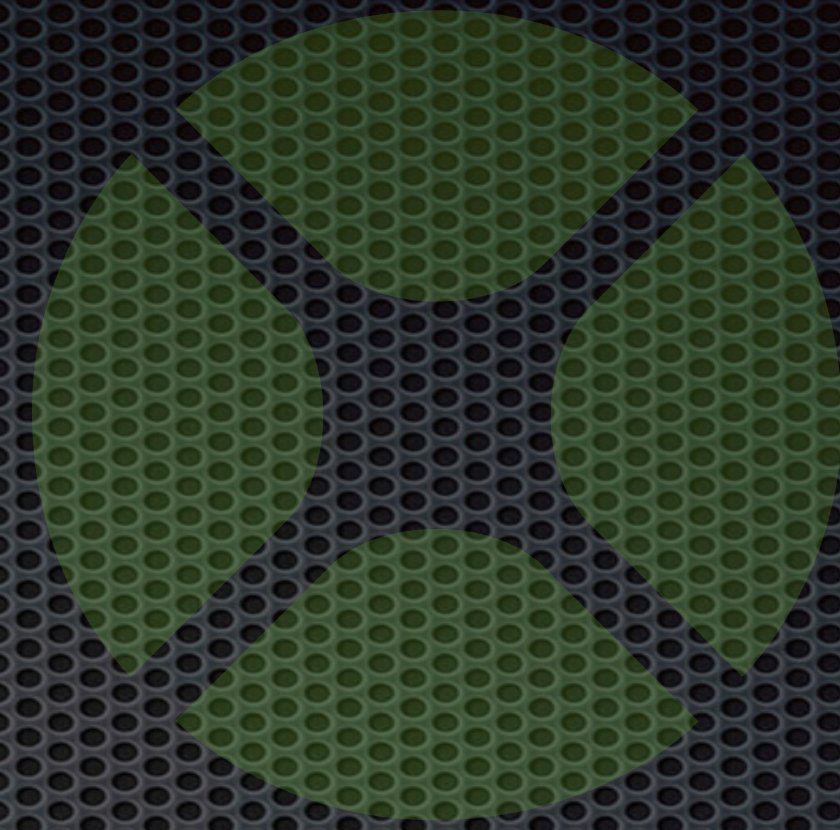
# WordFile

- Load, change and save Word documents (docx)
- Find & Replace Tags
- Contains function
- Substitute function



# Useful utilities

- StringHandleMBS class
- ReadFileMBS and WriteFileMBS
- FindByteMBS in MemoryBlock
- DeclareCallbackMBS thread safe cross-platform
- ZStdMBS class
- SerialPortMBS class
- CovertArt for TagLib



# Mac Features



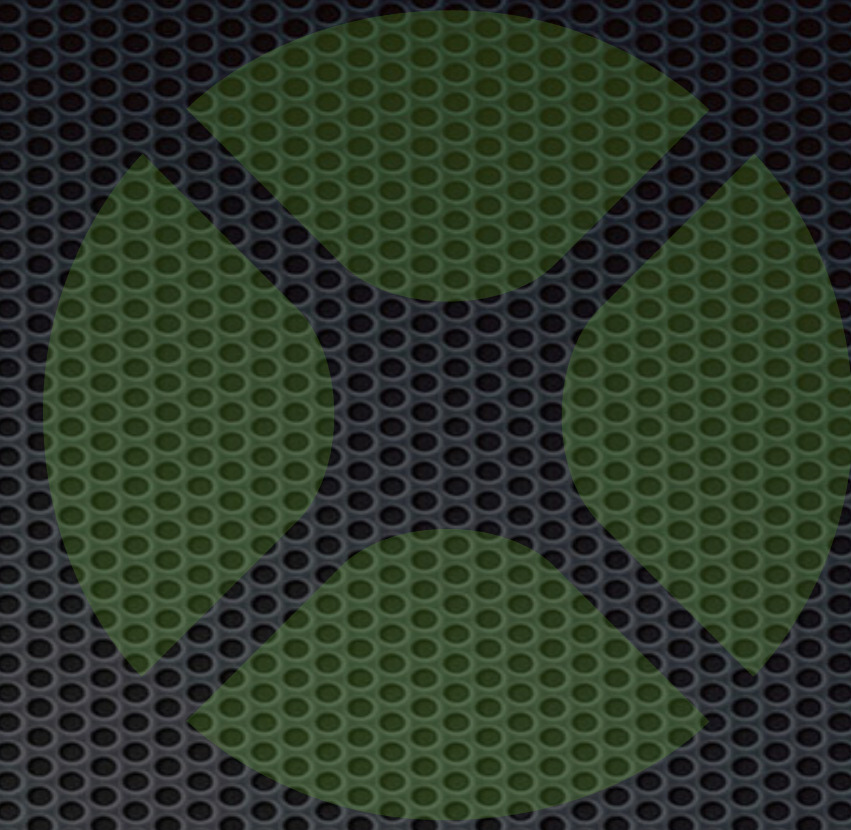
- More barcodes types for VNDetectBarcodesRequestMBS in macOS 12
- AV Foundation with metadata for recognized barcodes.
- AVPlayerLooperMBS class
- SCNAudioPlayerMBS and SCNAudioSourceMBS classes for audio in SceneKit.
- WebKit Downloads for macOS

# New XML Plugin



- Alternative to built-in XML classes
- Similar interfaces, full unicode and good performance
- Supports iterators and for each loops
- For all targets & platforms

# MongoDB



- Connect to MongoDB databases natively
- Select your database
- Select the collection (table)
- Add, update or delete one or many documents (records as JSON)
- Find documents
- Run commands like ping
- For all targets & platforms



# PCRE2

- New set of RegEx classes
- Very fast
- Full unicode aware
- Just-in-time compiler
- Supports iterators and for each loops
- Store & load compiled patterns



# Windows for ARM



- All plugins built for ARM 64-bit for Windows
- Not finished: ChartDirector & XL
- Look for issues now in Xojo & Plugins
  - Fix them before everyone starts shipping Windows ARM applications!
- Testing via Windows 11 in VM

# Roadmap

- XML Plugin enhancements.
- Web Sockets
- New macOS or iOS features
- We are ready for upcoming targets...
  - Linux 64-bit ARM
  - Android?
- Your wishes?



# Special Offer



- Use coupon code **XDCSale** to
- Save 20% on all new MBS Plugin licenses including DynaPDF, SQL and ChartDirector.
- Offer valid in September and October 2022.

# Special Offer



**OMEGABUNDLE for**  
**XOJO 2022**  
best developer tools bundle

   macOS

Ends 26th September 2022

# Q & A

Christian Schmitz

[support@monkeybreadsoftware.de](mailto:support@monkeybreadsoftware.de)

