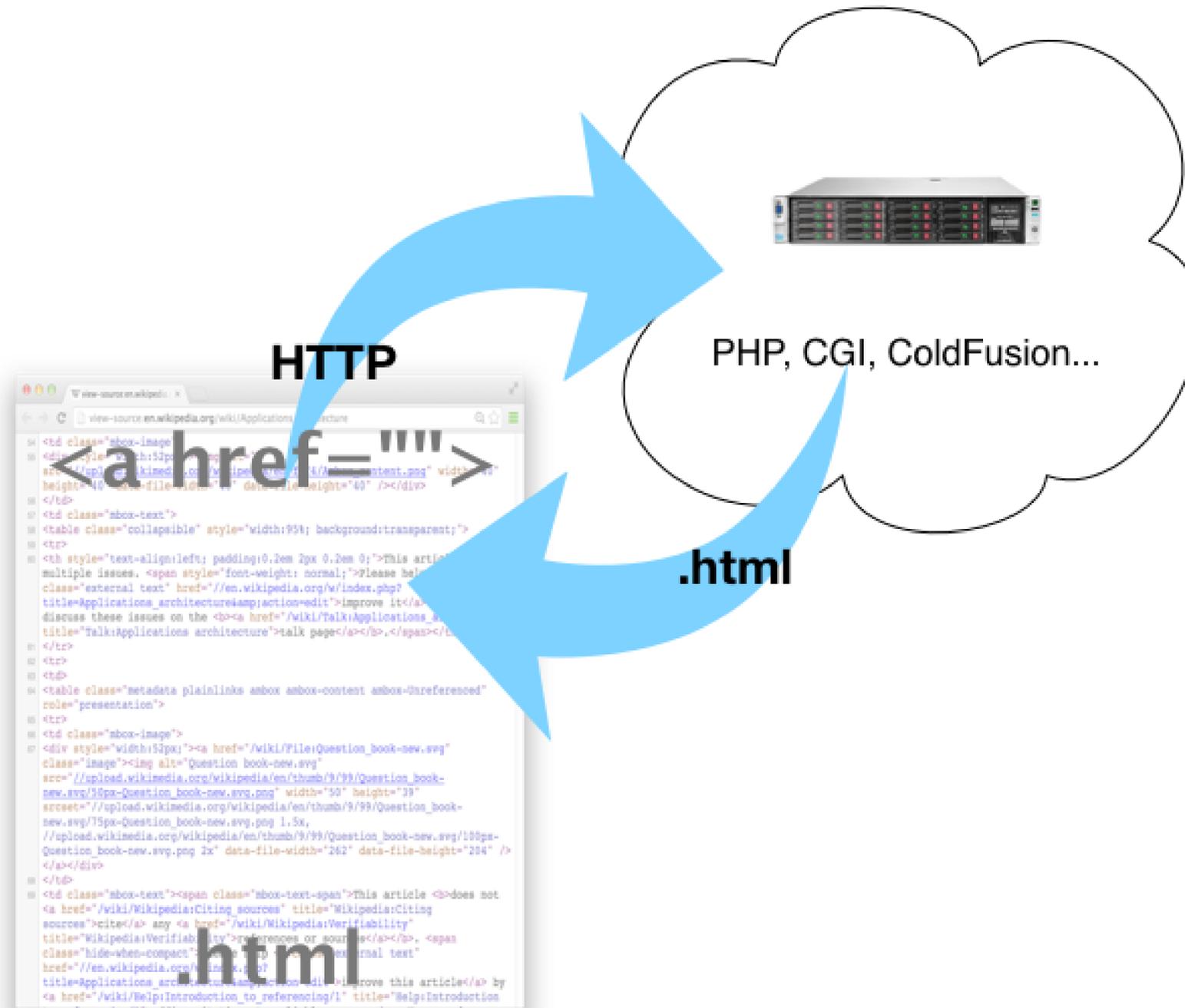


C++ Builder/Delphi 和網頁應用程式開發

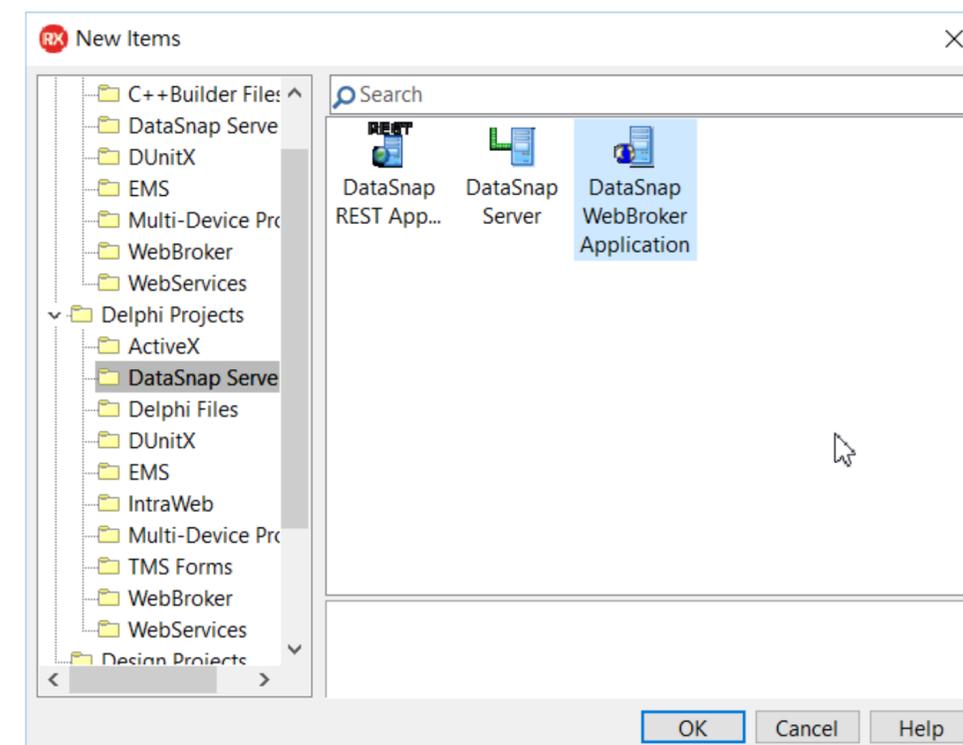
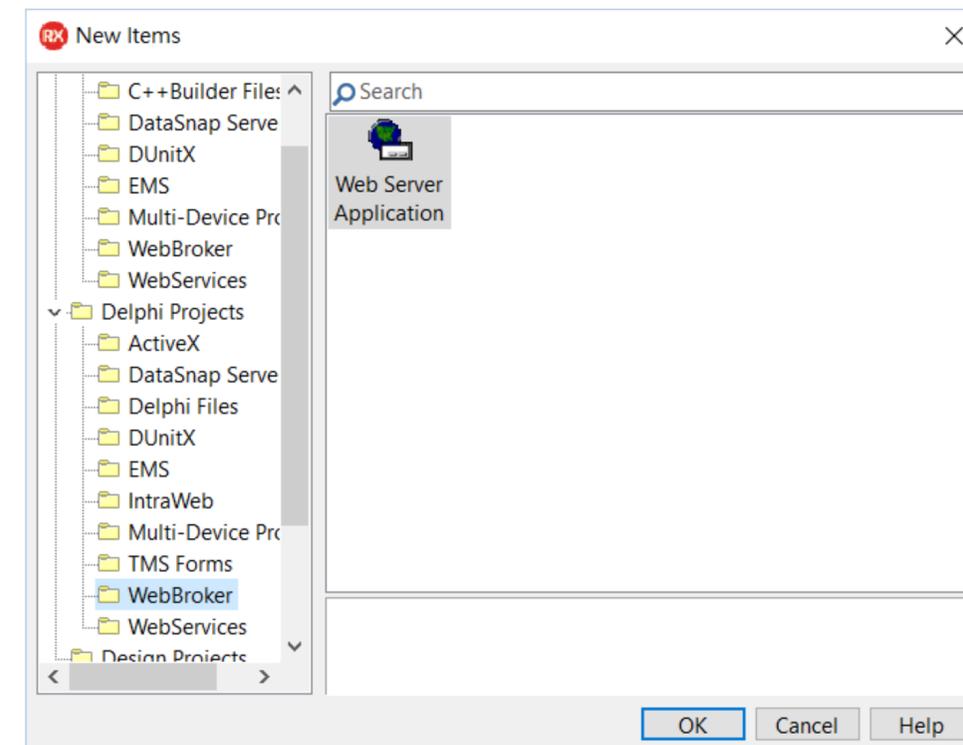
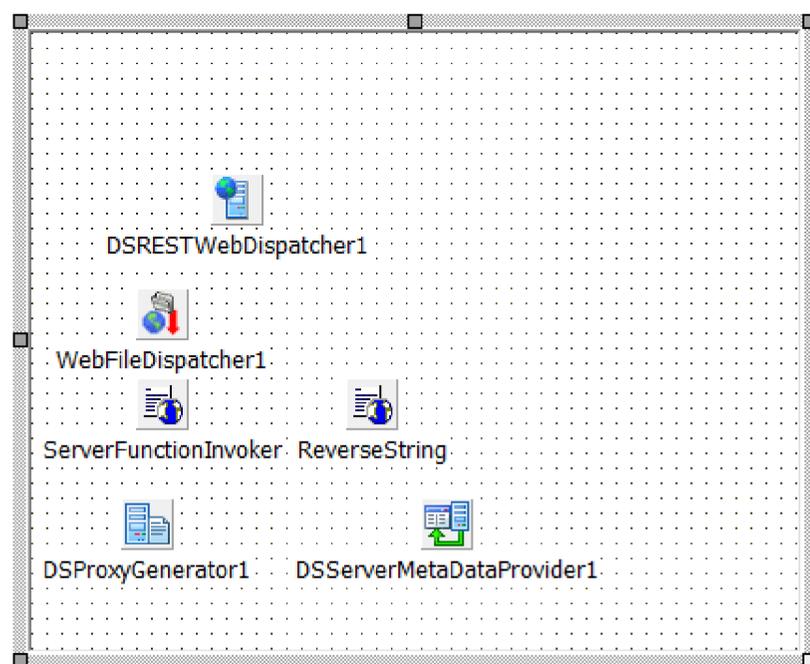
Agenda

- Webroker
- VCL For Web
- REST/JSON
- 第3方解決方案
- 未來的發展

1990年代的Web應用程式: 主從架構

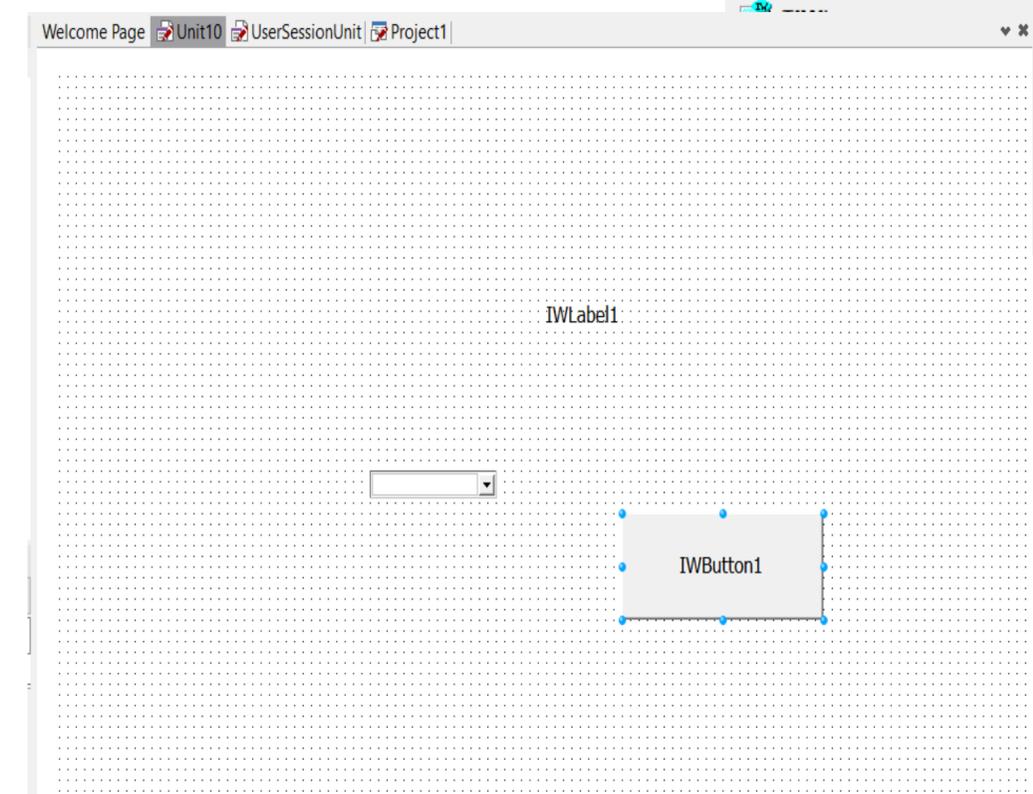
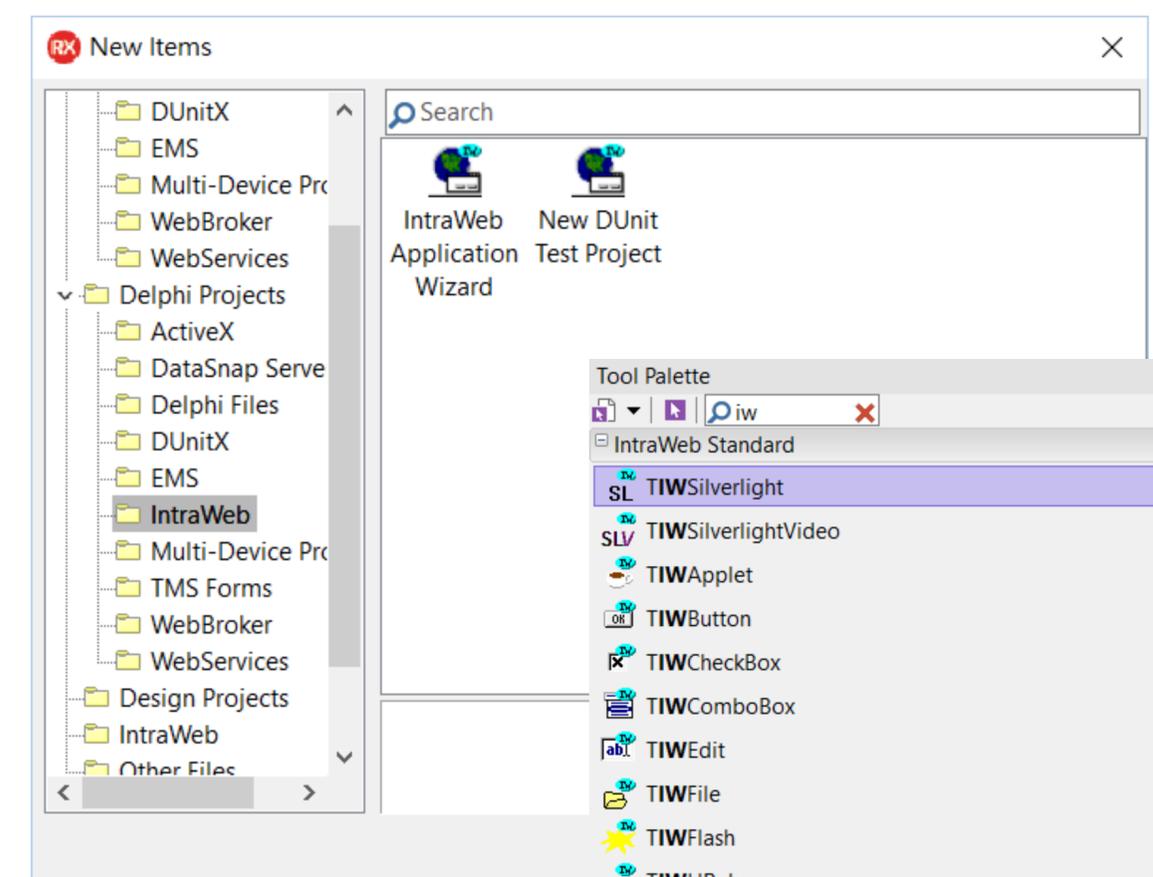


- Webroker從Delphi 3便開始出現, 最早是提供Delphi/C++ Builder開發Web應用程式的技術
- 隨後可和Midas/DataSnap技術合用, 從傳統Web技術進化成分散式Web應用系統技術
- 近年來再和REST/JSON技術結合, 可使用於RESTful架構

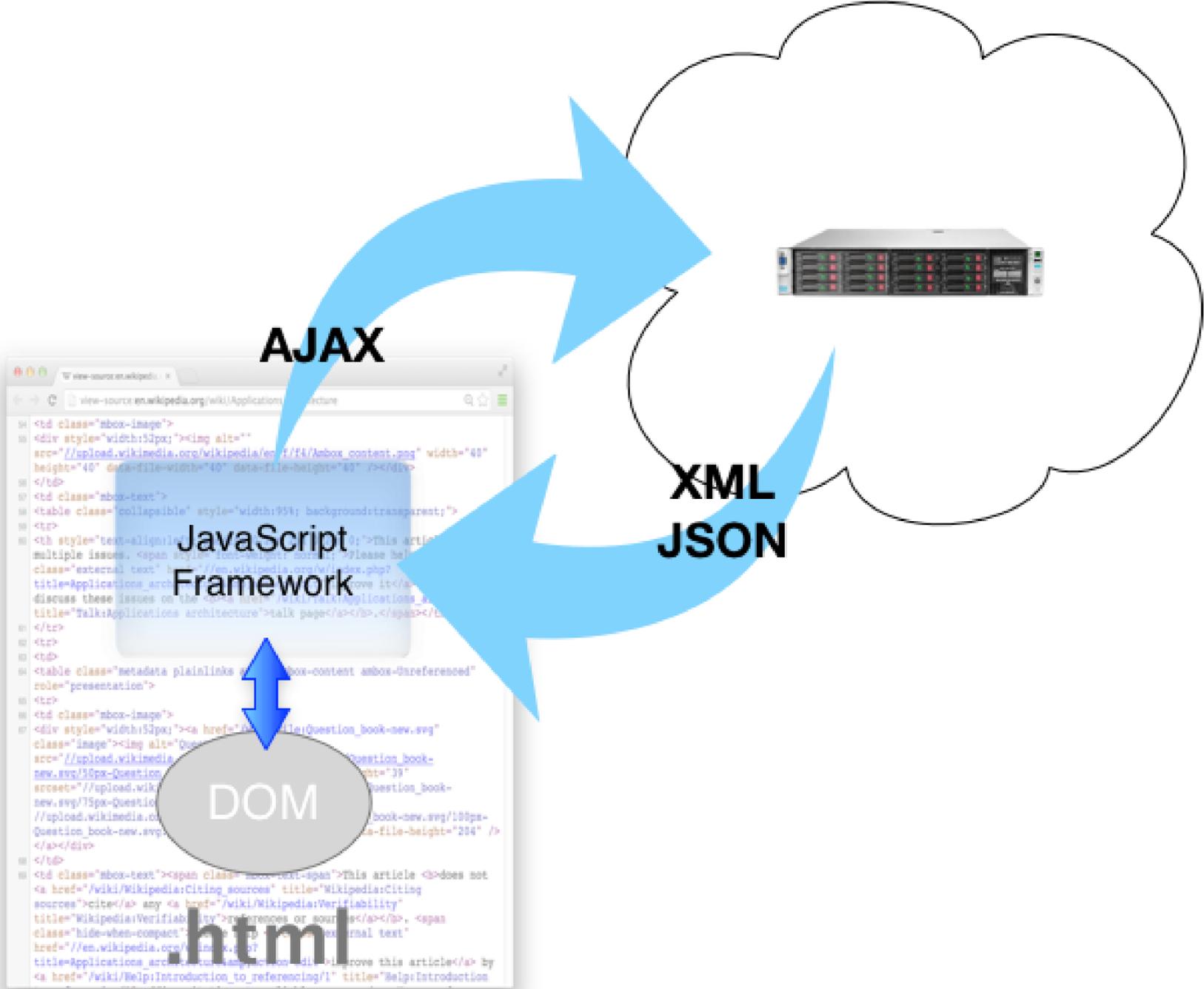


- Webroker主要是使用靜態技術, 開發人員使用程式碼在後端執行企業邏輯, 再使用程式碼組成HTMT/CSS/JavaScript送到前端瀏覽器
- Webroker的好處是成熟, 簡單, 執行快速
- Webroker的缺點是需要撰寫大量的程式碼且不易支援最新的Web技術

- VCL for Web是Delphi第3方控件, 提供Delphi/C++Builder開發人員以類似使用VCL拖拉元件的方式, 以視覺化開發加上撰寫程式碼的方式開發網頁應用程式
- VCL for Web的元件會在執行時自動轉為HTML的元件
- VCL for Web也支援內建JavaScript程式碼, jQuery, AJAX等較新的Web技術, 也在持續的發展中
- VCL for Web也可和DataSnap/RAD Server和JSON等技術整合使用



現代化Web應用程式：主從架構

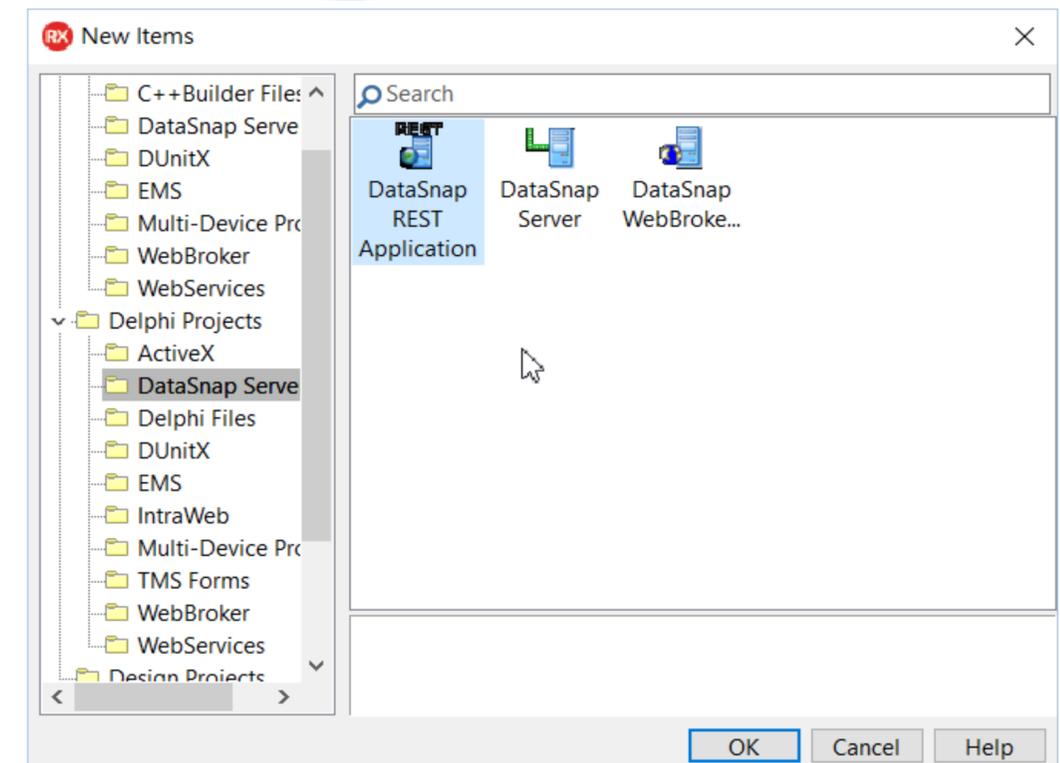
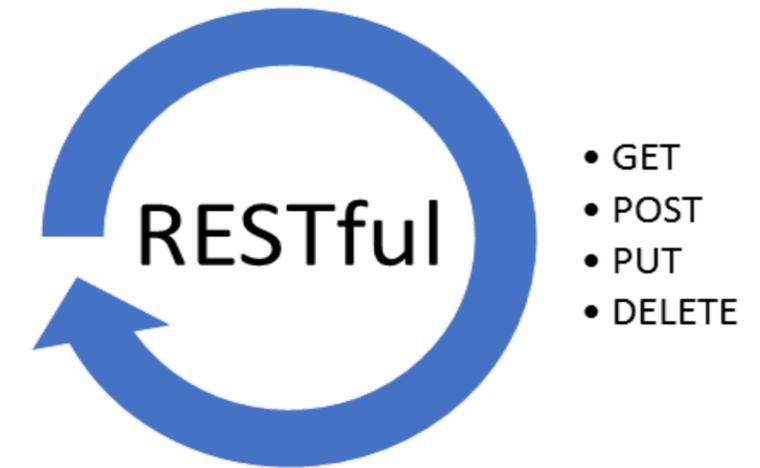
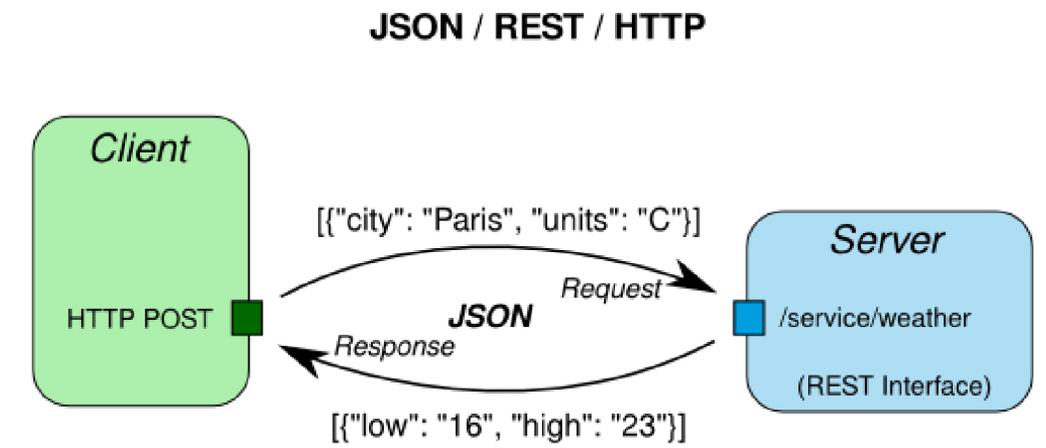


■ 目前流行的Web技術大都是使用JSON交換資料

■ 使用RESTful架構

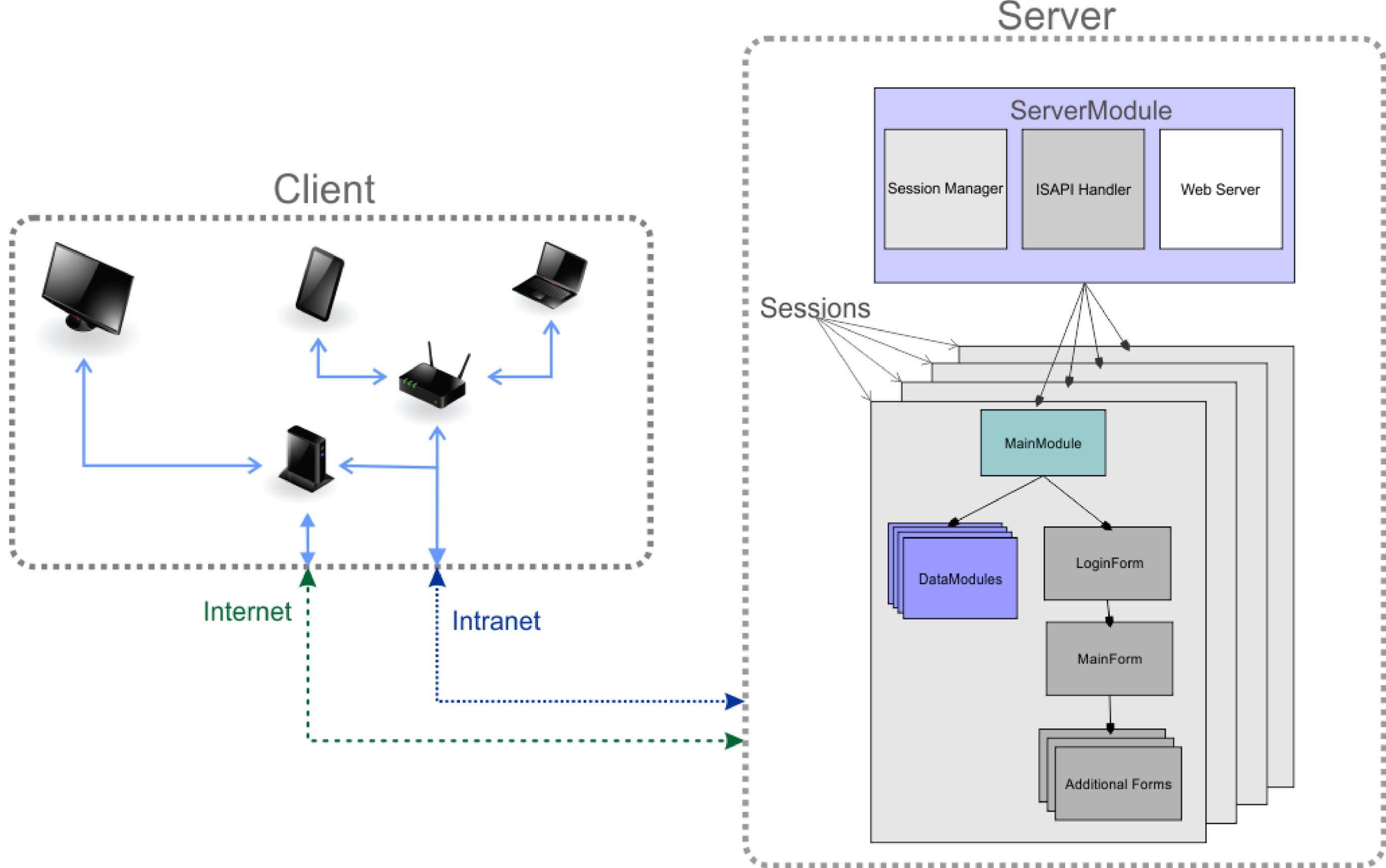
■ 前端使用AJAX/JavaScript

■ Delphi/C++ Builder直接支援JSON/REST和RESTful架構





- HTML 5流行之後許多網頁應用程式藉由HTML 5 + CSS + AJAX進入移動平台以及平板/智慧型設備



- 新一代的Delphi網頁框架是讓開發人員使用視覺化的方式在Web表單中使用VCL元件設計UI
- 然後在執行時期把Delphi元件轉換為JavaScript框架的元件於瀏覽器中執行
- 其中發展最好的框架是uniGUI : <http://www.unigui.com/>

Structure

- UniFishFacts
 - ClientDataSet1
 - UniBitBtn1
 - UniBitBtn2
 - UniDBComboBox1
 - UniDBEdit1
 - UniDBEdit2
 - UniDBEdit3
 - UniDBEdit4
 - UniDBGrid1
 - UniDBImage1
 - UniDBMemo1
 - UniDBNavigator1
 - UniDBNumberEdit1
 - UniDBRadioGroup1
 - UniDBText1

Design View

Category: UniDBEdit1, UniDBEdit2, Length (cm): UniDBEdit3, Length (in): UniDBEdit4, UniDBNumberEdit1, UniDBComboBox1

Picture: [Image Placeholder]

Notes: UniDBMemo1

Category:

- Triggerfish
- Snapper
- Wrasse
- Angelfish
- Cod
- Scorpionfish
- Shark
- Ray
- Grouper
- Cyprinidae

UniDBText1, Append, Edit Picture

Species No	Category	Common Name	Species Name	Length (cm)	Length (In)	Notes

Object Inspector

UniFishFacts TUniFishFacts

Properties Events

Search

- Anchor: [akLeft,akTop]
- AutoScroll: False
- Color: [cBtnFace]
- Constraints: (TSizeConstraints)
- Cursor: crDefault
- CustomHint: [TUniFont]
- Font: (TUniFont)
- Height: 627
- HelpContext: 0
- HelpKeyword: [TUniFont]

Design View

ClientDataSet1, DataSource1, UniFileUpload1

mdemo.dproj - Project Manager

File

- delayedsearch.pas
- dialog.pas
- dialoganonymouscallback.pas
- download.pas
- dynamicform.pas
- editmethods.pas
- edittypes.pas
- fishfacts.pas
- formattededit.pas
- formnavigation.pas

C:\Program Files (x86)\FMSoft\Framework\uniGUI

mdemo.... Model V... Data Ex... Multi-De...

Tool Palette

Search

- TUniCheckBox
- TUniContainerPanel
- TUniComboBox
- TUniEdit
- TUniNumberEdit
- TUniLabel
- TUniMemo
- TUniFormattedNumberEdit
- TUniPanel
- TUniTabControl
- TUniToolBar
- TUniTreeView
- TUniStatusBar
- TUniTimer

Add To Palette Bind Visually...

All shown

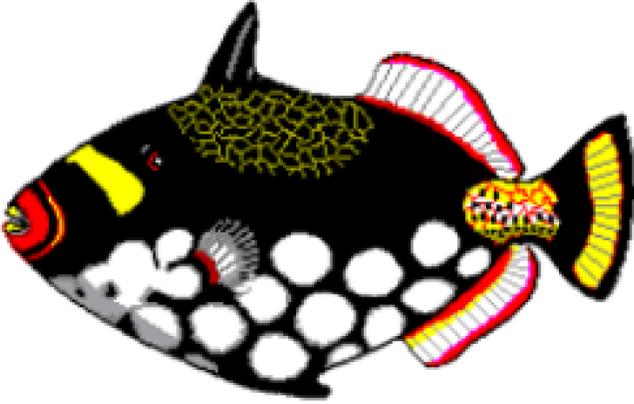
1: 1 Insert Code Design History

Navigate

- Icon Buttons
- Menu Button
- Simple Buttons
- Speed Button
- Charts
 - Area Chart
 - Bar Chart
 - Gauge Chart
 - Horizontal Bar Chart
 - Line Chart
 - Pie Chart
 - Radar Chart
 - Scatter Chart
 - Various Charts
- Client Events
 - Ajax Calls
 - Button Click
 - Dynamic Client
 - Edit Client Events
 - Mouse Events
 - Pinpon!
- Cookies
 - Get-Set Cookies
- Database
 - Delayed Search
 - Employee Data
 - Fish Facts**
 - Live Combo
 - Lookup
 - Master Detail

Show Source Files

Home Fish Facts Line Chart Horizontal Bar Chart File Upload CharEOL SQL Query

Category: Triggerfish
 Common Name: Clown Triggerfish
 Length (cm): 50
 Length (In): 19.6850393700787
 Picture: 
 Notes: Also known as the big spotted triggerfish. Inhabits outer reef areas and feeds upon crustaceans and mollusks by crushing them with powerful teeth. They are voracious eaters, and divers report seeing the clown triggerfish devour beds of pearl oysters. Do not eat this fish. According to an 1878 account, "the poisonous flesh acts primarily upon the nervous tissue of the stomach, occasioning violent spasms of that organ, and shortly afterwards all the muscles of the body. The frame becomes rocked with spasms, the tongue thickened, the eye fixed, the breathing laborious, and the patient expires in a paroxysm of extreme suffering." Not edible. Range is Indo-Pacific and East Africa to Somoa.

Category: Triggerfish, Snapper, Wrasse, Angelfish, Cod, Scorpionfish, Shark, Ray, Grouper, Cyprinidae

Clown Triggerfish

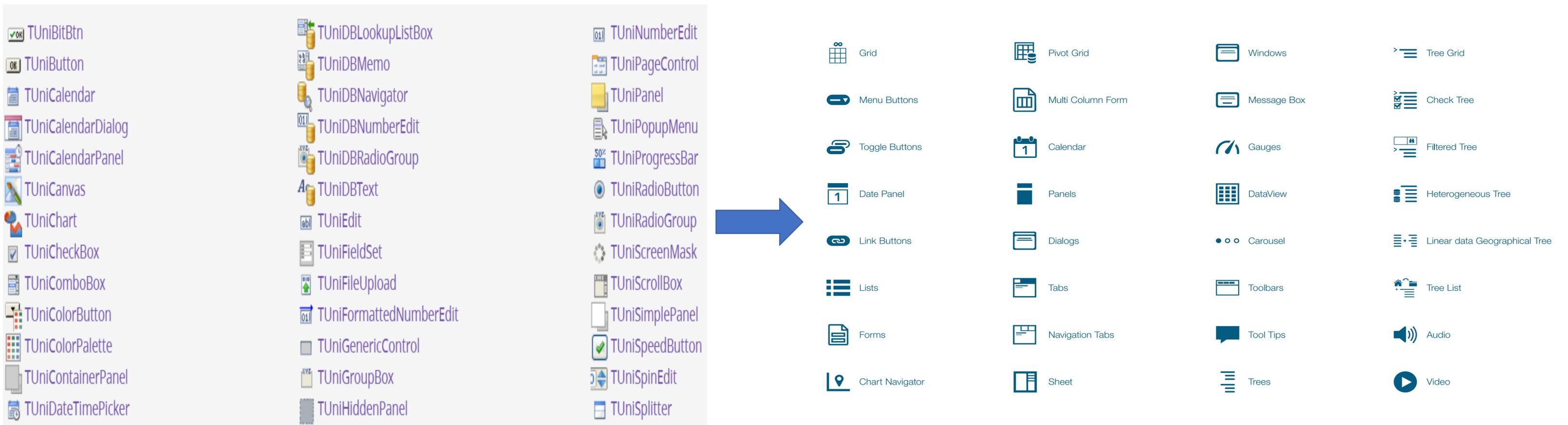
Append Edit Picture

Species No	Category	Common Name	Species Name	Length (cm)	Length (In)	Notes	Picture
90020	Triggerfish	Clown Triggerfish	Ballistoides conspicillum	50	19.6850393...	(MEMO)	(GRAPHIC)
90030	Snapper	Red Emperor	Lutjanus sebae	60	23.6220472...	(MEMO)	(GRAPHIC)
90050	Wrasse	Giant Maori Wrasse	Cheilinus undulatus	229	90.1574803...	(MEMO)	(GRAPHIC)
90070	Angelfish	Blue Angelfish	Pomacanthus nauarchus	30	11.8110236...	(MEMO)	(GRAPHIC)
90080	Cod	Lunartail Rockcod	Variola louti	80	31.4960629...	(MEMO)	(GRAPHIC)
90090	Scorpionfish	Firefish	Pterois volitans	38	14.9606299...	(MEMO)	(GRAPHIC)
90100	Butterflyfish	Ornate Butterflyfish	Chaetodon Ornatissimus	19	7.48031496...	(MEMO)	(GRAPHIC)
90110	Shark	Swell Shark	Cephaloscyllium ventriosum	102	40.1574803...	(MEMO)	(GRAPHIC)
90120	Ray	Bat Ray	Myliobatis californica	56	22.0472440...	(MEMO)	(GRAPHIC)
90130	Eel	California Moray	Gymnothorax mordax	150	59.0551181...	(MEMO)	(GRAPHIC)
90140	Cod	Lingcod	Ophiodon elongatus	150	59.0551181...	(MEMO)	(GRAPHIC)
90150	Sculpin	Cabezon	Scorpaenichthys marmoratus	99	38.9763779...	(MEMO)	(GRAPHIC)
90160	Spadefish	Atlantic Spadefish	Chaetodiperus faber	90	35.4330708...	(MEMO)	(GRAPHIC)

Page 1 of 2

- uniGUI把Delphi元件於執行時期轉為 Sencha Ext JS元件

- 而最新的 Sencha Ext JS框架亦支持 Web Touch功能



- 2017年8月Idera買下Sencha並宣佈將把Sencha產品線併入Embarcadero
- <https://www.sencha.com/blog/exciting-news-sencha-acquired-by-idera-inc/>



Sencha Ext JS

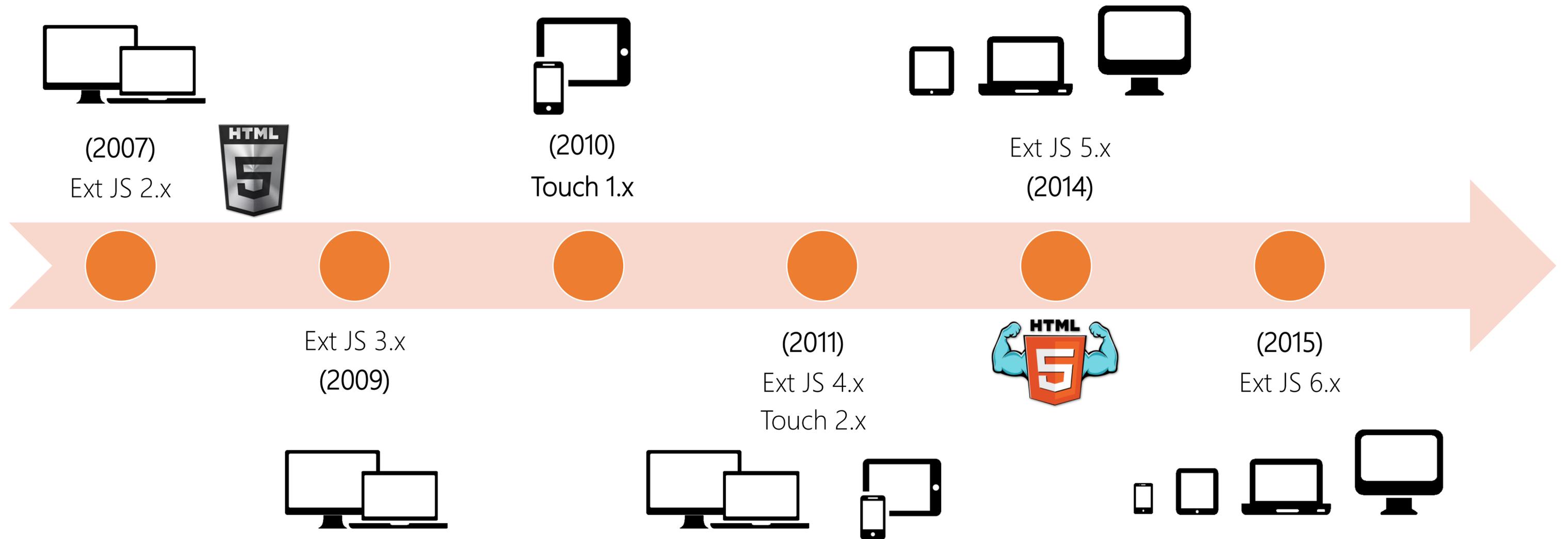
- robust components
- advanced data package
- cross-platform
- architectural patterns
- theming
- tooling
- modern web features



Used technologies



Sencha Ext JS – A History of Innovation





Research Areas**

Getting ready for future platforms and technologies

- Platforms
 - BitCode support and other LLVM-related improvements
 - Target ARM IoT platforms (Raspberry PI, Windows IoT)
 - Delphi ARC model on Windows
- Under Consideration
 - Linux GUI support
 - Further FMX native controls (additional controls and platforms)
 - Unified installation experience with combined Web and offline installer
 - 64-bit tooling and/or IDE
 - Tools for building Web clients

- ↳ Toxicity Metrics
- ↳ Delphi Options
 - ↳ Library
 - ↳ Library - Translated
 - ↳ Type Library
- ↳ Form Designer
 - ↳ Device Manager
 - ↳ FireUI Live Preview
- ↳ SDK Manager
- ↳ Customer Experience
- ↳ C++ Options
 - ↳ Type Library
 - ↳ Paths and Director
 - ↳ Project Properties
 - ↳ Class Explorer
- ↳ Editor Options
 - Source Options**
 - ↳ Color
 - ↳ Structural Highlight
 - ↳ Display
 - ↳ Key Mappings
 - ↳ Code Insight
- ↳ LiveBindings
- ↳ Version Control
 - ↳ Git
 - ↳ Mercurial
 - ↳ Subversion
- ↳ Formatter
 - ↳ C++
 - ↳ Indentation
 - ↳ Spaces
 - ↳ Line breaks
 - ↳ Align
 - ↳ Delphi
 - ↳ Indentation

Source file type:

Java Script

Java Script

Objective C++

Pascal

PHP

SQL

Style Sheet

Visual Basic .NET

XML

New... Delete

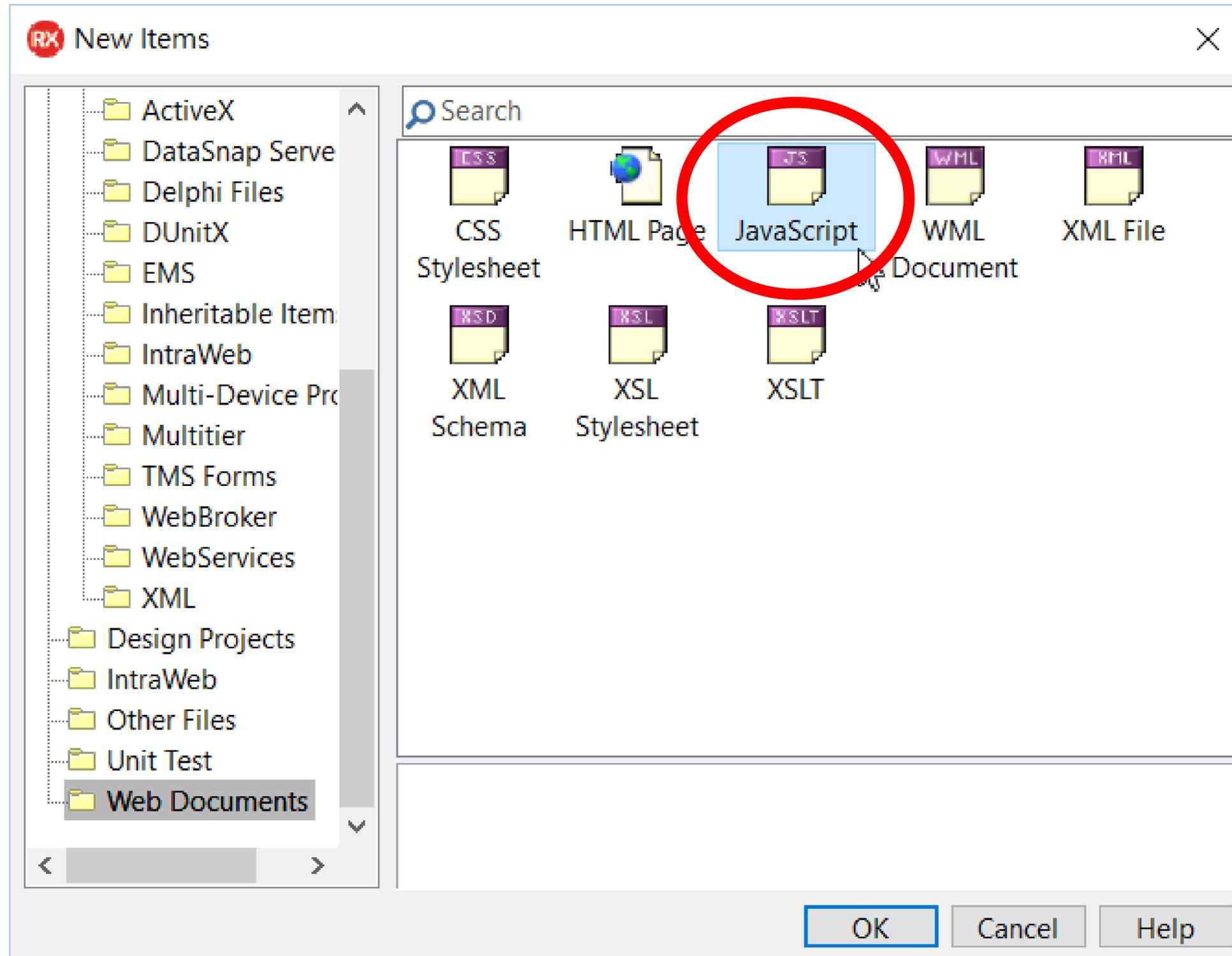
- Cursor through tabs
- Use syntax highlight
- Optimal fill
- Show line breaks
- Backspace unindents
- Highlight current line

Syntax highlighter: Java Script

Block indent: 4

Tab stops: 4

OK Cancel Help



- 一個最簡單的範例, 證明可行

- <http://localhost:81/IWTest/pWBExtJSDemo1.dll/ExtJS1>



Thank you!

Questions and Answers

