

# Commonly made mistakes

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# Commonly made mistakes

- › Objects destruction
- › Lengthy processes
- › HTML charset
- › Web properties
- › Rebuilding constraints
- › Debugger while testing/developing
- › Table Character Format
- › Use DDOs
- › WebApp Server & Users



# Objects destruction

# Objects destruction

- › Dynamically created objects may require manual destroy
  - › Objects created in a procedure / function will stay until the parent object is destroyed
    - › Not destroyed at the end of the procedure / function
  - › Objects created with the Create() function too
  - › XML interface handles are not freed until the cXMLDomDocument object gets destroyed
  - › COM Dispatch IDs assigned to an object property causes the COM object / module active / in use
  - › JSON objects are also easily forgotten

# Objects destruction

- › While documentation shows that you need to close a statement when ready with the statement forgetting to close/destroy leads to performance decrease and increased resource usage
- › Note: A `cSQLStatement` cannot be re-used for a different SQL operation. The statement can be re-executed again



Lengthy processes

# Lengthy processes

- › Webapp.exe should not run a lengthy process as it will be locked and is not accessible for other incoming requests
- › Users are usually very impatient and expect a web action to go quickly
  - › Do not send the 5000+ page report to the client
- › WebApp Server checks whether a webapp still responds and when not it will be killed causing errors at client side not understood by the user

# Lengthy process

## › Solutions

- › Spawn to a different application
- › Write a request in a database and process the queue by
  - › Creating a program started periodically from a scheduler
  - › Creating a program using interval checks





# HTML Character set

# Meta tag in index.html

- › Don't set the charset meta tag to something different than UTF-8
  - › When omitted most browsers now assume UTF-8



# Web Properties

# Web properties

- › Version 17.1 introduced web properties
- › Synchronized between server and client
- › Needed for proper process pooling actions
- › Access to standard DataFlex properties goes via GET/SET
- › Access to COM properties with methods defined in the COM interface
- › Access to WEB properties goes via WEBGET/WEBSET

# What happens when

- › I use SET instead of WEBSET ?
  - › When the browser already retrieved to object information
    - › You see no change in the browser
    - › But a new request from a different client to the webapp sees the change
- › The same applies to GET

# Webproperty and expressions

- › Where the expression evaluator can handle
  - › Move (psValue (Self)) to sValue
- › It cannot handle web properties this way
  - › You need to use WebGet
  - › Else you get the designtime value of the property or the value last set via the SET command

# Webproperty types

- › In 17.1 there was only 

```
{ WebProperty = True }  
Property String psSerial
```
- › Web properties were used for
  - › Transferring states/values needed by the JavaScript Framework
  - › Remembering values between processes at the server

# Webproperty types

- › DataFlex 19 removed the true option and introduced Client, Server and ServerSession web property types
  - › Client is the old True
  - › True generates warnings in 19.1
- › If the setting is not needed by the JavaScript Framework there is no need to use Client and choose between Server and ServerSession
  - › Server and ServerSession store the property value in a database table at the server





# Rebuilding constraints

# Rebuilding constraints

- › Rebuild\_Constraints works on ONE DDO only
- › Needs to be send in the right order
  - › Start with the parent DDOs
    - › when filter changed
  - › Work your way down
- › RebuildAllConstraints was added to overcome this “problem” and takes care of the right order
  - › And you only need to send one message to one of the connected DDOs



# Use of HTTP

# HTTP vs HTTPS

- › Browsers are more and more blocking or restricting websites that do not use the HTTPS protocol
- › Get your own certificate or use letsencrypt

A night photograph of a traditional Chinese temple with intricate architecture and lights. The temple features a large, ornate archway with a circular decorative element and a balcony with a railing. The roof is decorated with traditional Chinese motifs, including a dragon. The scene is illuminated by warm lights, and the ground is covered in snow. The text "Debugger test" is overlaid in the center of the image.

# Debugger test

# Debugger test

- › When you develop a webapplication you better use the debugger only when you need to debug a problem or find out where messages are going
- › Reason: While debugging the debugger plays the role of webappserver and the application is run as if there is only one process at the server
  - › You won't see the typical process pooling issues
- › So learn to press F8 to compile and refresh the application from the browser
  - › Only needed when the object structure or properties changed

# WebAppServer & Users

- › Your development and debugging work is done under your own logged in user account
  - › WebAppServer runs on the more limited system account
    - › In DataFlex v20 you can let webapp.exe run with a different user account

# Use of MSSQL & Users

- › When your web application uses MSSQL and won't start the following things can be the case
  - › The connection information in dfconnid.ini is set to trusted connection and the NT AUTHORITY user is not allowed to access the database
  - › The dfconnid uses a real MSSQL user and the PWD setting in dfconnid.ini is still based on your development environment
- › Also check if you changed the connection string for a DataFlex Report from report integration





# Table Character Format

# Table Character Format

- › When creating a new SQL table
- › In 19.x and before default was OEM
  - › In MSSQLDRV.INT
- › In 20.x the default is ANSI
  - › When you don't have a local instance of the INT file
  - › ANSI in v20 means ANSI or Unicode
- › It happened – a lot – that systems had a mix between OEM and ANSI tables in one system
  - › Asking for trouble of course



Use DDOs

# Use DDOs

- › Use DDOs in a DataFlex application and not the global table buffers
- › With global buffers you bypass the business rules
  - › Filters
  - › Validations
- › Forgetting to call Request\_Validate when accessing the DDO directly

A night photograph of a traditional Chinese temple complex. The scene is illuminated by warm, golden lights, highlighting the intricate details of the architecture. The main building features a large, ornate archway with a circular decorative element. To the right, a smaller structure with a multi-tiered, golden roof is visible, adorned with lights. The foreground shows a snow-covered ground with some small, snow-laden trees. The overall atmosphere is serene and majestic.

# Learning center

# 5 Common Web mistakes

- › <https://learning.dataaccess.com/courses/5-common-webapp-mistakes/>
- › But please check all other video's there!

**Thank you!**  
**Are there any questions?**

