



# **DATAFLEX 2026 STATUS & OVERVIEW**

**HARM WIBIER**

## DataFlex 2019 (19.1)

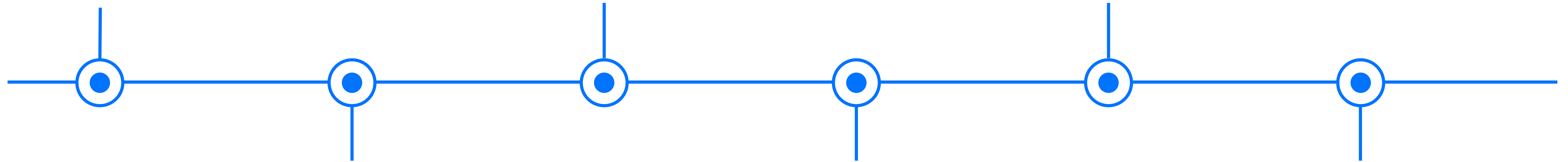
- cWebHttpHandler
- Enhanced DPI Awareness
- History Management

## DataFlex 2022 (20.1)

- Web drag 'n drop
- WebList column layout
- Improved restructuring
- WebView2 control

## DataFlex 2024 (24.0)

- SPLF Encryption
- Process pooling improvements
- Web drawing control



## DataFlex 2021 (20.0)

- Unicode
- 64-bit
- Studio Dark Theme
- Web dynamic objects

## DataFlex 2023 (23.0)

- FlexTron
- SQL Executor and tools
- Multiline strings & comments
- Web grid layout
- WebList Grouping
- WebApp server crash logging

## DataFlex 2025 (25.0)

- Dashboards
- Composite classes
- Navigation designer
- Regular expressions
- ECMAScript 6 Classes
- CSS Variables

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# DATAFLEX 2026 (26.0)

- Package Manager
- Web UI Framework as a Package
- New Dashboard Example
- Dark mode for Web UI
- Create New Dialog
- New documentation system
- Web Selection Form
- Excel Import
- Hardening of DataFlex Executables

# BOB WITH HIS EXCEL SHEET



# PACKAGE MANAGER

# PACKAGE MANAGER

## WHAT IS IT?

- Streamlined, modern handling of libraries and dependencies
- Retrieves and installs packages directly from <https://packages.dataflex.dev/> as well as Git repositories
- Oversees libraries stored locally
- Deploys files directly into your workspace
- Generates and maintains script includes
- Versioning and updates of packages
- Available through both the studio interface and a command line
- Built on top of the existing library logic

The screenshot displays the DataFlex Package Manager interface. At the top, the 'DataFlex' logo is followed by navigation links: 'BROWSE', 'INSTALLED' (with a '9' badge), and 'UPDATES' (with a '1' badge). A '+ ADD PACKAGE' button is on the right. Below the header, there is a 'SEARCH' section with a text input field containing 'Type to search..'. To the left of the main content is a 'CATEGORIES' sidebar with a '[ Clear ]' link and a list of categories: Development, Reporting, Security, Technology Stack, Utilities, Web Controls (checked), WebApp, and Windows. The main content area shows a package card for 'WEB UI SERVER' with a description 'Server Web UI Applications using Web Application Server.' Below the card, it shows 'DataFlex-dev' as the provider, version '1.0.45', and a status of 'Installed (1.0.44)' with a checkmark. An 'Upgrade' button is visible on the right side of the package card.

# PACKAGE MANAGER

## EMPTY PKG FOLDER

- Ship the studio with an empty pkg folder in the future
  - Move source files into installable packages
- Enables per-component updates
- Show only what matters to the developer in codesense / studio
- Clean up & archive old packages
  - 500+ source files
- Started with the Web UI Packages
  - Best learning ground and biggest gain from ability to push updates

- Kbdfix.pkg
- LanguageText.pkg
- LanguageTextWebApp.pkg
- List.pkg
- LoginEncryption.pkg
- MapiConstants.Pkg
- MapiDllCalls.Pkg
- MapiSession.Pkg
- Modal\_mx.pkg
- MsgBox.pkg
- MSSqldrv.pkg
- NameValuePairFunctions.pkg
- navigate.pkg
- nesting.pkg
- odbc\_drv.pkg
- oDEOEditContextMenu.pkg
- oDEOEditContextMenu17.pkg
- oEditContextMenu.pkg
- OldcJReportControl.pkg
- OldDfAllEnt.pkg
- OldFMACCommands.pkg
- OldStatPnl.pkg
- OldStatusPanel.pkg
- parsefn.pkg

# WEB UI AS A PACKAGE

## WEB UI IS NOW A PACKAGE!

- WebApp Framework has been moved into packages
  - JavaScript Engine is now installed by the package manager
  - DataFlex source files moved out of pkg folder into packages
- This allows us to push bugfixes and improvements more regularly
- Package manager will solve browser caching issues
- Hides Web classes and source files in Windows-only workspaces

# WEB UI AS A PACKAGE

## PACKAGE STRUCTURE



- Web UI
  - The base dependency installing the JavaScript Engine and Control Packages



- Web UI Server
  - The package to include in WebApps using the WebApp Framework
  - Contains cWebApp.pkg and friends
  - Depends on **Web UI**



- Web UI FlexTron
  - The package to include in Windows Applications using Web Controls
  - Contains cLocalWebControlHost.pkg and friends
  - Depends on **Web UI**



- Web UI ... Theme
  - Themes are in separate packages
  - Only include the themes you actually use
  - Depends on **Web UI**

## WEB UI AS A PACKAGE INCLUSION ORDER

- Package manager determines the order of the script includes based on the dependency tree
- Since JavaScript Engine should go first the Web UI should be the deepest dependency
- Custom Web Controls (like the WebToast control) will need to have Web UI as a dependency
- Use semver expression to be flexible in versions
  - Recommend to use '**Web UI#^1.0.0**'

## WEB UI AS A PACKAGE

### FLEXTRONSCRIPTINCLUDES.HTML

- To allow automatic insertion of script includes in FlexTron the package manager can generate script includes in multiple places
  - Add indexHtml to .sws to allow script inclusions in custom files
  - Default locations are
    - `${AppHtml}\Index.html`
    - `${AppSrc}\FlexTronScriptIncludes.html`
- `cLocalWebControlHost.pkg` includes `FlexTronScriptIncludes.html` when compiling
  - Empty file is in the package so it will always find something
  - Contents are inserted in the HTML

# WEB UI AS A PACKAGE MIGRATION

Migrate your (web) project to use the Web UI packages

The Package Manager is now responsible for installing the web controls via the new 'Web UI' packages. This means that cWebForm.pkg and cWebApp.pkg no longer live inside the pkg folder. The Package Manager will also install the JavaScript and CSS. This dialog will help you migrate your project / workspace.

**Install Package(s)**  
Choose the packages needed for this workspace. For WebApps pick the 'Web UI Server' package and for windows projects pick the 'Web UI FlexTron' package. Note that both packages can be attached to a single workspace.

Install 'Web UI Server'  Install 'Web UI FlexTron'

Install 'Web UI Material Theme'

**Remove Files from AppHtml**  
The JavaScript Engine and CSS Themes can be removed from your AppHtml folder. The Package Manager will place (and maintain) a new copy of them via the core Web UI package.

Remove 'AppHtml\DfEngine'  Remove 'AppHtml\CssThemes\Df\_\*

**Adjust Index.html**  
The Package Manager will maintain the include statements in index.html, which means we'll need to remove the include statements for the JavaScript Engine and add the insertion marker for the Package Manager in the right place.

Adjust 'AppHtml\Index.html' [Preview](#)

**Create FlexTronScriptIncludes.html**  
This new file inside AppSrc is where the Package Manager will maintain script includes for FlexTronScriptIncludes.html. We need to place a copy of it in your workspace so that cLocalWebControlHost.pkg can include it.

Create 'AppSrc\FlexTronScriptIncludes.html' [Preview](#)

**Adjust WebApp.src**  
AllWebAppClasses.pkg no longer contains all controls. For server apps we'll need to add AllWebUIServerClasses.pkg to WebApp.src. For FlexTron apps we'll need to add AllWebUIFlexTron.pkg.

Adjust active web project source [Preview](#)

# PACKAGE MANAGER MORE..

🕒 11:45 – 12:30 | HENRI RETERINK

## The New Standard for Managing your Workspace

With the release of DataFlex 26, the long-awaited Package Manager is here. In this session, Henri introduces how it works and why it matters—bringing structured dependency management, easier library distribution, and better version control to DataFlex development. Learn how it simplifies project setup, improves consistency across teams, and lays the foundation for a more modern development workflow.

# CSS VARIABLES AND DARK MODE

# CSS VARIABLES

## THEMES NOW USE CSS VARIABLES

- Use CSS Variables to customize standard themes
- Set variables from custom CSS
- All styler options are available

```
:root{
  --df-MainDark: #567d2e;
  --df-MainRegular: #7CB342;
  --df-MainMedium: #89ba54;
  --df-MainLight: #a3c97a;
  --df-MainLight2: #cae0b3;
  --df-MainLight3: #e4efd9;
  --df-MainLight4: #f1f7ec;
}
```

# CSS VARIABLES AND DARK MODE FRAMEWORK SUPPORT

- Properties at `cWebApp` / `cLocalWebControlHost` to control usage of dark mode
- `peSystemPreference`
  - Readonly indication of the user preference provided by the browser
- `peThemePreference`
  - Switch between dark, light and system preference

# CSS VARIABLES AND DARK MODE TECHNIQUE

- CSS Variables
- Framework sets df-Dark at body element

```
body.df-Dark {  
  /* Main Color = Blue */  
  --df-MainDark: #24282c;  
  --df-MainRegular: #343a40;  
  --df-MainMedium: #484d53;  
  --df-MainLight: #707579;  
  --df-MainLight2: #adb0b2;  
  --df-MainLight3: #d6d7d8;  
  --df-MainLight4: #eaebeb;  
  
  /* Error Color = Red */  
  --df-ErrorDark: #801619;  
  --df-ErrorRegular: #b72025;  
  
  /* Warning Color = Yellow */  
  --df-WarningDark: #aa7015;  
  --df-WarningRegular: #f4a11e;  
  
  /* Highlight Color = Yellow */  
  --df-Highlight: #F4A11E;  
}
```

# STUDIO IMPROVEMENTS

# STUDIO IMPROVEMENTS

## IMPROVED DOCUMENTATION

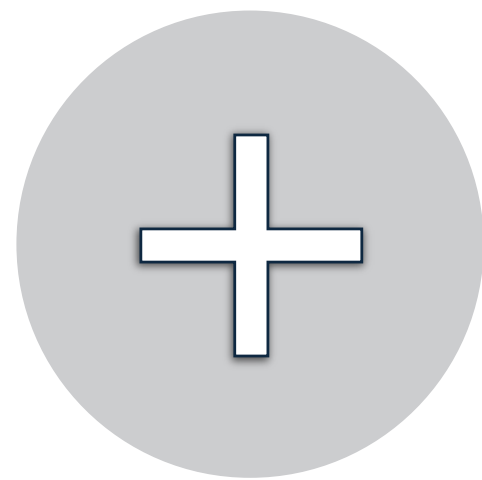
- Complete new system behind the documentation (no more RoboHelp!)
  - Maintained in markdown
  - Stored in git repositories
  - More people able to edit the docs
  - Pull requests for reviews
- New styling
- Syntax highlighting on code samples
- Complete new online environment
  - <https://docs.dataflex.dev/>

🕒 16:00 – 17:00 | KAI CHEN

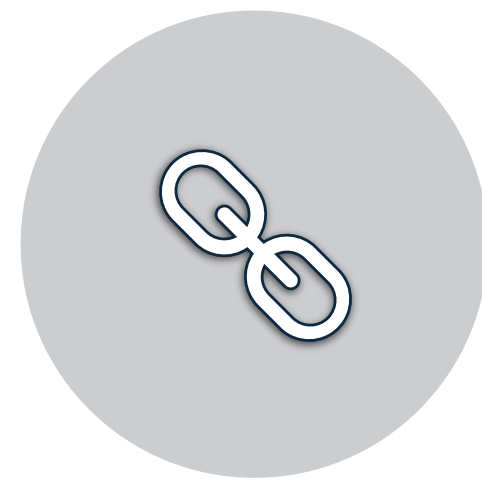
### DataFlex AI

DataFlex is evolving with AI at its core. Explore agentic coding in DataFlex Studio, enhanced AI-driven documentation and support, and how MCP integration enables a new generation of intelligent, connected applications. Make your DataFlex apps AI Aware!

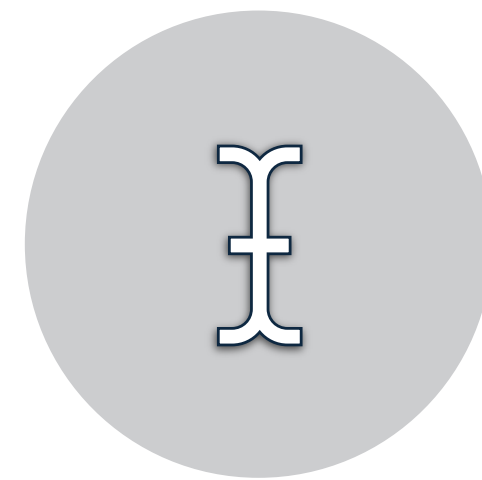
# STUDIO IMPROVEMENTS MORE...



CREATE NEW DIALOG



CTRL - CLICK



HIGHLIGHT  
OCCURRENCES



IMPORT PREFERENCES



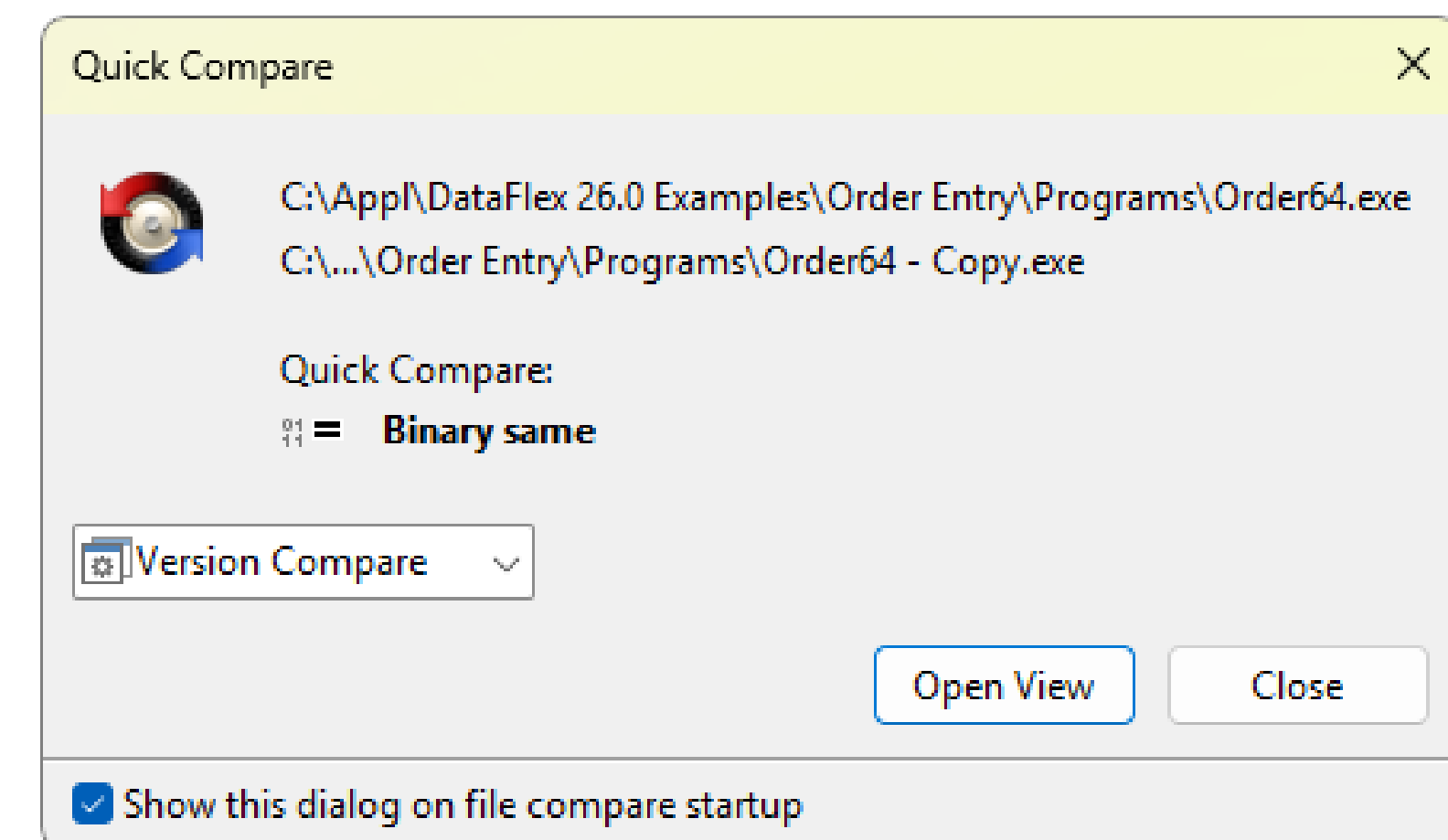
EXCEL IMPORT

# COMPILER IMPROVEMENTS

# COMPILER IMPROVEMENTS

## REPRODUCIBLE BUILDS

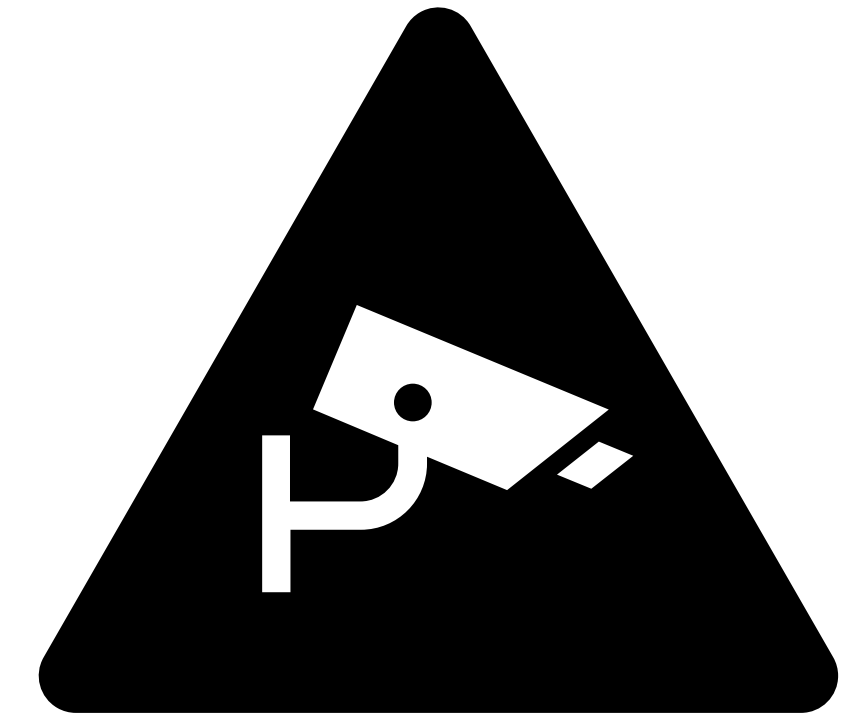
- Identical source now produces a bit-for-bit identical binary on every recompile
  - Eliminated embedded timestamps
  - Resolved alignment defects that introduced extraneous data into FLX output
- Reduces false positives from antivirus scanners
- Enables unit testing of the compiler itself



# COMPILER IMPROVEMENTS

## HARDENING OF DATAFLEX EXECUTABLES

- **Data Execution Prevention (DEP)**
  - OS-level safeguard that blocks code execution in memory regions reserved for data. Negligible runtime impact.
- **Control Flow Guard (CFG)**
  - Windows feature that validates indirect call targets, preventing memory corruption exploits from hijacking program control flow.
- **Address Space Layout Randomization (ASLR)**
  - Randomizes memory locations of stack, heap, libraries, and executables, defeating buffer overflows and similar exploits by making target addresses unpredictable.



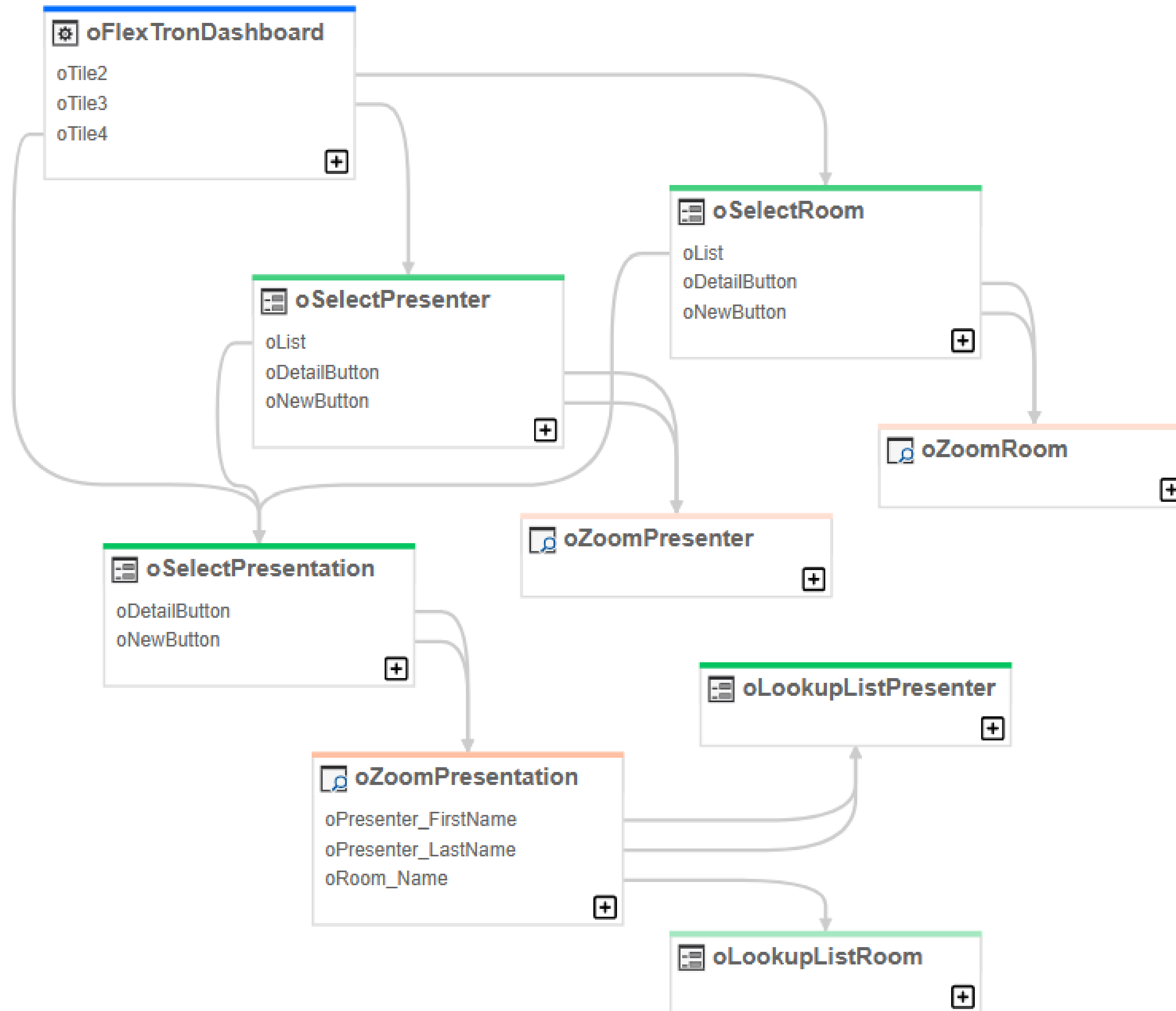
# COMPILER IMPROVEMENTS

## WARNING

- Increases the chance of 64-bit conversion issues to be exposed
  - We found cases where `External_Function` was still defined with an Integer where Pointer should have used that now caused issues.



# IMPROVED APPLICATION FLOW



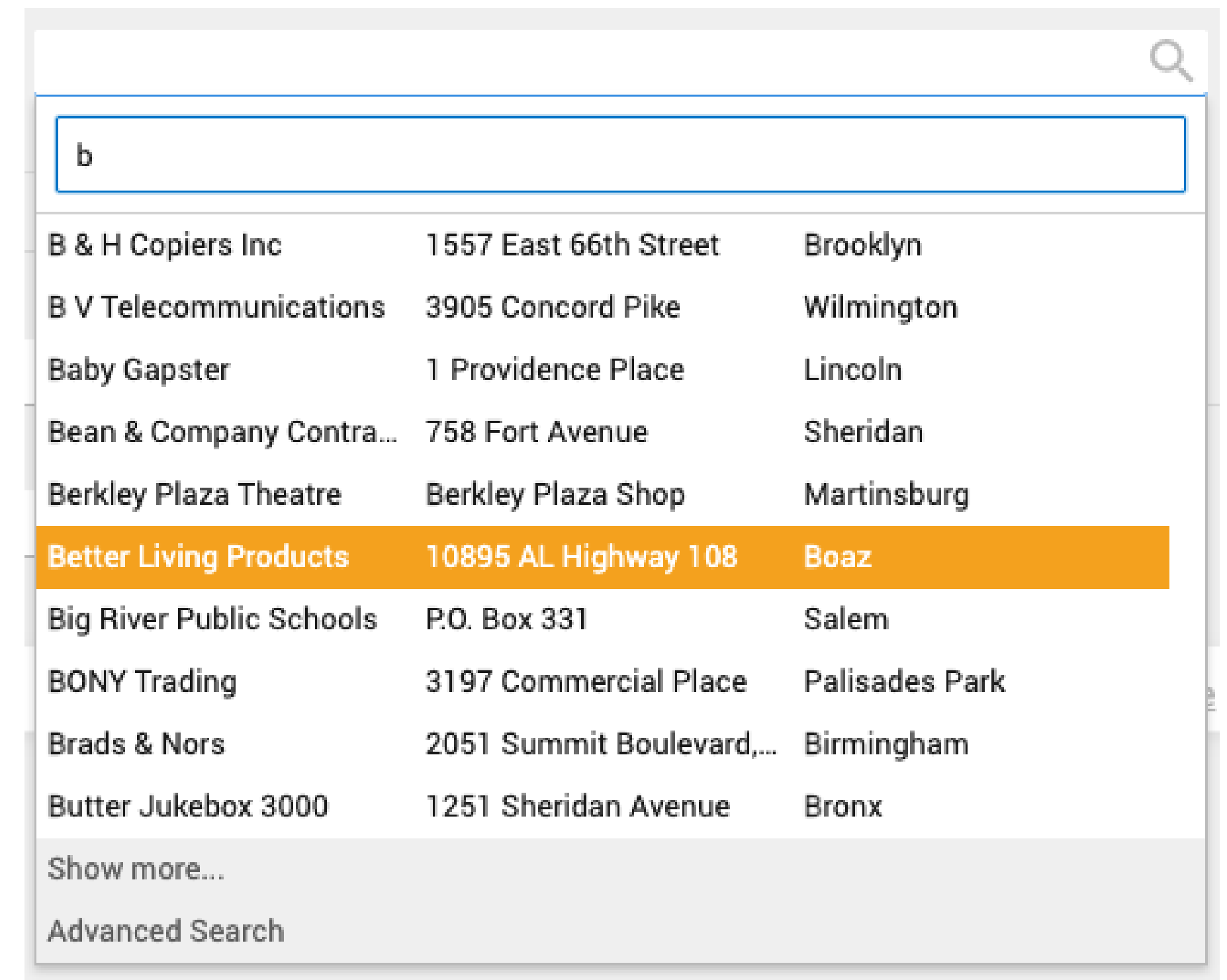
## IMPROVED APPLICATION FLOW MODAL DIALOGS IN DRILL-DOWN MODEL

- Drill-down model now supports dialogs
  - WebRegisterPath / NavigateForward
- Navigation designer can now generate lookups

# IMPROVED APPLICATION FLOW

## NEW CWEBSELECTIONFORM

- Improved suggestion form
- Alternative to cWebCombo / cWebParentCombo
- API comparable to cWebTagsForm
- Multi column suggestion list
- Customizable buttons
- Paged data loading
- Optionally open suggestion list on enter



The screenshot shows a search input field containing the letter 'b'. Below the input field is a dropdown list of suggestions, each consisting of three columns: company name, address, and city. The suggestion 'Better Living Products' is highlighted in orange. At the bottom of the dropdown, there are two buttons: 'Show more...' and 'Advanced Search'.

Company Name	Address	City
B & H Copiers Inc	1557 East 66th Street	Brooklyn
B V Telecommunications	3905 Concord Pike	Wilmington
Baby Gapster	1 Providence Place	Lincoln
Bean & Company Contra...	758 Fort Avenue	Sheridan
Berkley Plaza Theatre	Berkley Plaza Shop	Martinsburg
<b>Better Living Products</b>	<b>10895 AL Highway 108</b>	<b>Boaz</b>
Big River Public Schools	P.O. Box 331	Salem
BONY Trading	3197 Commercial Place	Palisades Park
Brads & Nors	2051 Summit Boulevard,...	Birmingham
Butter Jukebox 3000	1251 Sheridan Avenue	Bronx

# AND MORE..

# AND MORE... IMPROVED DASHBOARD SAMPLE

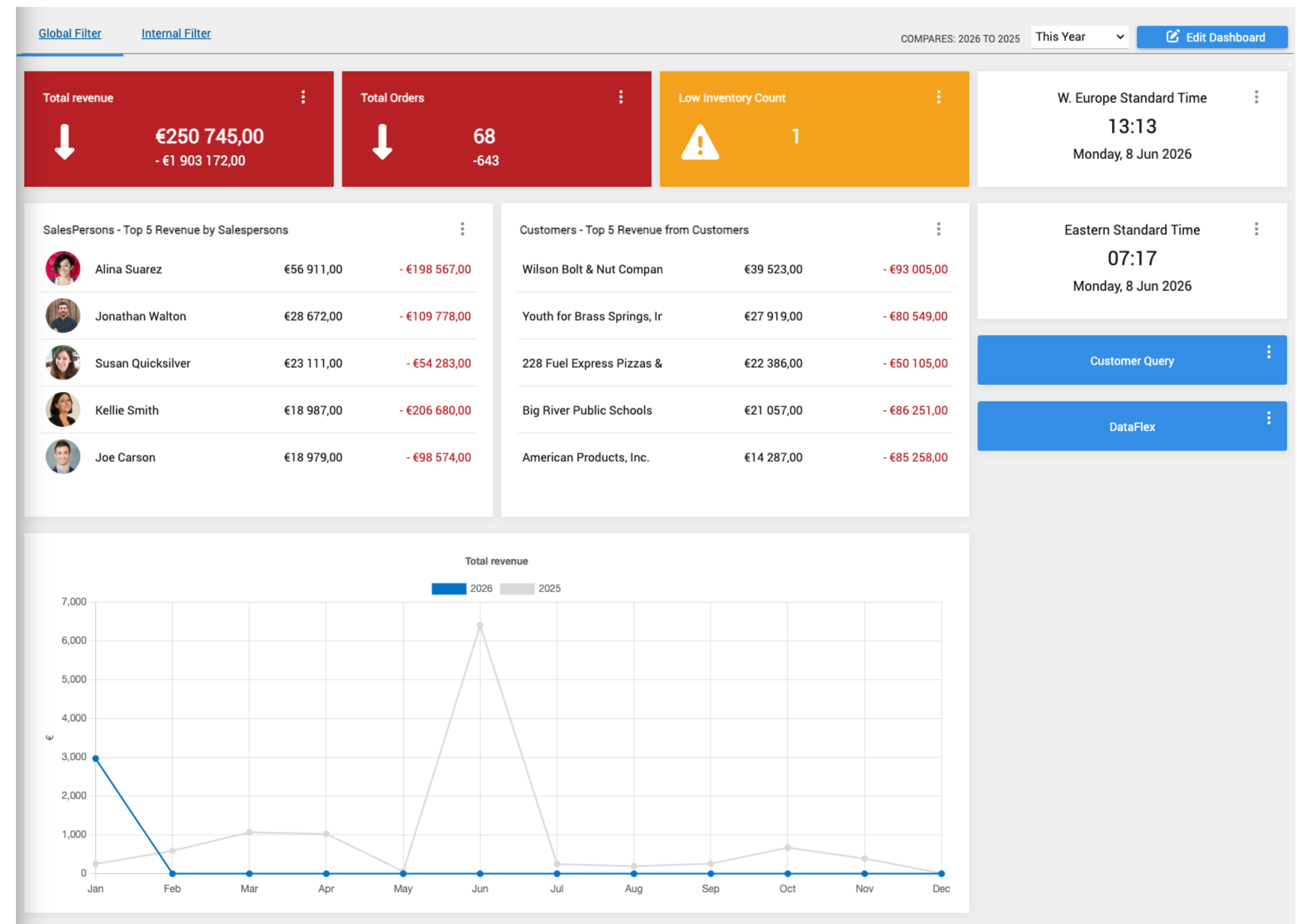
- Part of WebOrderMobile sample

🕒 15:30 – 16:00 | NIELS DE BOER

## Libraries and More



Turn your Excel sheets into meaningful dashboards by transforming raw data into clear, actionable insights using modern tools and libraries. This includes importing Excel data into database tables, building interactive dashboards, visualizing information through charts, and enhancing user experience with toast notifications. Together, these elements show how to create efficient, data-driven applications that are both functional and user-friendly.



# AND MORE...

## NEW COMMAND LINE COMPILER API

- df-cli is now responsible for compiling outside the studio
  - Can build all projects in a workspace
  - Chooses 32-bit vs 64-bit based on Project.cfg
  - Less output (only shows errors / warnings)
  - Error exit code when compile fails
- dfcompconsole.exe and dfcomp.exe will be removed
  - They do not understand the new SWS format

```
PS C:\Appl\DataFlex 26.0 Examples\Order Entry> df-cli.exe build '.\Order Entry.sws'  
Building Order (26.0.0+native-64)...  
    Successfully: C:\Appl\DataFlex 26.0 Examples\Order Entry\Programs\Order64.exe  
Building TabbedOrder (26.0.0+native-64)...  
    Successfully: C:\Appl\DataFlex 26.0 Examples\Order Entry\Programs\TabbedOrder64.exe  
PS C:\Appl\DataFlex 26.0 Examples\Order Entry> |
```

🕒 11:00 – 11:30 | BRAM NIJENKAMP

### The new DataFlex build system

DataFlex 26.0 brings more than a new Package Manager — it introduces df-cli, a new build system designed for the future.

As the engine behind package management, df-cli is essential for how modern DataFlex applications are built and maintained.

It establishes a shared foundation for new tooling and upcoming platform capabilities.

This is only the beginning of a larger shift in how DataFlex development will evolve.

# CURRENTLY IN BETA

Working towards a Release Candidate soon after the conference.

***/\* END \*/***

