

Nils' Holiday Package and GitHub Adventures

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Presentation Steps:

- Review the **Holiday FuncLib Demo** program.
- Examine the underlying code of the program, showcasing some creative logic for utilizing meta-tags to load a cCJGrid object.
- Change workspace to DRefactor.
- Explore a more sophisticated usage of meta-tags by updating a database table and load data in a cDbCJGrid.
- Present Nils' GitHub repositories along with tips and tricks available at <https://github.com/NilsSve>.

HolidayFuncLib Demo Program

Holidays and Other Special Dates Library

File View Navigate Window Help

Clear/Add Clear all Save Delete Cut Copy Paste Undo Redo Info Help Print

Nations Data Calendar Test **Dates Functions Test**

Function List:

- 'Holiday and Other Special Dates' Library Functions:

#	FUNCTION NAME	HELP TEXT
1	Advent1	1st Sunday after FeastChristKing. Falls Between november 27 and december 3. Four Sundays before ChristmasDay.
2	Advent2	Falls one week after 1st Advent
3	Advent3	Falls two weeks after 1st Advent
4	Advent4	Falls three weeks after 1st Advent (last Sunday before ChristmasDay, can ultimately fall on Christmas Eve)
5	AgongBirthDay	Agong's Birthday is the first Saturday in June
6	AllSaintsDay	All Saints Day is a feast celebrated on November 1 in Western Christianity, and on the first Sunday after Pentecost in Eastern Christianity in honour of All the saints, known and unknown. In Sweden it is a moving holiday and is the Saturday that falls Between 31st of October and 6th of November. See also the Halloween Function. Returns: The Date of All Saints Day, according to the Gregorian calendar.
7	AllSaintsDayEve	The day before AllSaintsDay.
8	AprilFoolsDay	AprilFoolsDay always falls on April 1.
9	AscensionDay	Ascension Day is the Christian celebration of Christ's ascension to heaven. It is celebrated 40 days after Easter Sunday on a Thursday. In some countries (e.g. Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Iceland,
# of Functions 74		

Test Function Call:

- Enter Function Parameters and click 'Call Function':

Note: Results according your computer's local settings.

Type 1: Integer Name 1: iYear Enter Value 1: 2025

Type 2: String Name 2: siSO_Short Enter Value 2: GB

Existing Country packages (CountryPackages.pkg):

ISO Short	Official_Short
ES	Spain
GB	United Kingdom
NL	Netherlands
NO	Norway
SE	Sweden
US	United States of America

Call Function!

Function Name: AllSaintsDay

Date: 2025-11-01 >>

Year: 2025

Month: November

Week Day: Lördag

Days in Month: 30 Week #: 44

DateFormat: Lördag 1 november

☐ Is Holiday

(From Country packages) Day Name: All Saints Day <<

Reciprocal Function 'IsDateAHoliday' Test:

Enter a Date:
2025-11-01

ISO Short:
GB

Call Function IsDateAHoliday

AllSaintsDay

☐ Is Holiday

Holiday Name:
All Saints Day

Calls the selected function from the grid with the entered values to the left.

Dates Functions Test

HolidayFuncLibDemo...

Function Library: oCalendarHolidays.pkg

Object oCalendarHolidays is a cCalendarHolidays

```
Move Self to ghoCalendarHolidays
```

```
#Include CountryPackages.pkg
```

```
{ Published = True }
```

```
{ Description = ""
```

```
1:st Sunday after FeastChristKing.
```

```
Falls Between november 27 and december 3.
```

```
Four Sundays before ChristmasDay.
```

```
"" }
```

```
Function Advent1 Integer iYear Returns Date
```

```
Date dReturn
```

```
Get FeastOfChristTheKing iYear to dReturn
```

```
Move (dReturn + 7) to dReturn
```

```
Function_Return dReturn
```

```
End_Function
```

...

Function Library Class: cCalendarHolidays.pkg

```
Struct tHolidayFuncVar
  String sType
  String sVarName
End_Struct

Struct tHolidayFunc
  String sName
  String sHelp
  tHolidayFuncVar[] HolidayFuncVarArray
  String sReturnType
End_Struct

Class cCalendarHolidays is a cObject
  Procedure Construct_Object
    Forward Send Construct_Object
    { Visibility = Public MethodType = Property }
    { Description = "Struct array with all function names and other info associated with those functions." }
    Property tHolidayFunc[] pHolidayFunctions
    { Visibility = Public MethodType = Property }
    { Description = "Handle array with all registered cNationalHolidays objects. } }
    { Description += "These packages/objects can be found in 'CountryPackages.pkg'" }
    Property Handle[] phoNationalHolidaysArray
  End_Procedure

  { Visibility = Private }
  { Description = "Collects data from all functions of the oCalendarHolidays object. } }
  { Description += "Saves the data in the pHolidayFunctions struct array property." }
  Procedure RegisterInterface Handle hMsg String sMsgName String sParams String sComment
    tHolidayFunc[] HolidayFuncArray
    Get pHolidayFunctions to HolidayFuncArray
    ...Here goes code to parse input to the struct array
    Set pHolidayFunctions to HolidayFuncArray
  End_Procedure
```

DFRefactor Demo

TEST BENCH - DfRefactor

Clear/Add Refresh Save Delete Undo Redo Cut Copy Paste Run Unit Tests Run DfRefactor

Start Refactoring Compare Code Test Compile Compile Errors LOG Select Functions Test Bench

Function List

- Space to select. Click to Edit, right-click for grid options.

Select All Select None Invert Selections Constrain by Type: No Constrains - Show All

ID	Function Name (Suggestion list)	Help Text	Type	Parameter	Select
12	ChangeSysdate4	Changes legacy Sysdate4 command to Sysdate command. Example: Sysdate4 dDate -> Sysdate dDate	eStandardFunction - Line-by-line		☐
15	ChangeUClassToRefClass	Changes legacy Get Create U_Class to: Get Create (RefClass(Class))	eStandardFunction - Line-by-line		☐
14	ChangeZeroStringCommandToFunction	Changes legacy ZeroString command with function ZeroString. Example: ZeroString iLength to sParameter --> Move (ZeroString(iLength)) to sParameter	eStandardFunction - Line-by-line		☐
16	EditorNormalizeCase	Adjusts the casing of all scopes and keywords to match the casing as defined in the language configuration. This is a wrapper function for the cScintillaEdit editor. A visible (paged) instantiation of the cScintillaEdit class is needed for this function to operate properly. The DfRefactor program's 'Editor' view is used for this.	eEditorFunction - One File		☒
17	EditorReindent	Reindents the source code with the number of spaces specified in the sParameter variable. This is a wrapper function for the cScintillaEdit editor. A visible (paged) instantiation of the cScintillaEdit class is needed for this function to operate properly. The DfRefactor program's 'Editor' view is used for this.	eEditorFunction - One File	4 ▼	☒
23	RemoveEndComments	Removes end of line comments for: End_Class, End_Object, End_Function & End_Procedure.	eStandardFunction - Line-by-line	1	☐
20	RemoveLocalKeyword	Removes 'Local' keyword if present from procedures and functions variable declaration lines.	eStandardFunction - Line-by-line	2 3	☐
19	RemoveMultipleBlankLines	Removes blank lines if more than xx 'Max blank lines' Removes consecutive empty blank lines if more than sParameter value. Takes a source file as a string array as a parameter. Returns the passed string array with removed duplicated empty lines.	eOtherFunction - One File	4 5 6 7 8	☐
24	RemoveOldStudioMarkers	Removes legacy IDE markers '//AB-Store' etc. Returns True if at least one legacy IDE (Studio) source code marker was found.	eRemoveFunction - Line-by-line		☐
30	RemoveProjectObjectStructure	Removes legacy Register_Object structures on top of e.g. view files. It removes old style Studio 'Project Object Structures' It does not do so for WebApp (*.wo) files.	eRemoveFunction - Line-by-line		☐
21	RemovePropertyPrivate	Removes 'Private' keyword from Property declaration lines.	eStandardFunction - Line-by-line		☐
22	RemovePropertyPublic	Removes 'Public' property members from property declaration lines.	eStandardFunction - Line-by-line		☐
25	RemoveSansSerif	Removes 'MS Sans Serif' font source lines.	eStandardFunction - Line-by-line		☐
7	RemoveStudioGeneratedComments	Removes old Studio generated comments lines. Examples: // fires when the button is clicked //OnChange is called on every changed character // Visual DataFlex xxx Client Size Adjuster // Visual DataFlex xxx Migration Utility ...and so on	eRemoveFunction - Line-by-line		☐
26	RemoveTrailingSpaces	Removes spaces at the end of lines (trailing spaces).	eStandardFunction - Line-by-line		☐
27	RemoveUnusedLocals	Removes variables from functions and procedures that aren't used. A limitation is that it does not remove unused *struct* variables. Pass a source file as a string array. Removes all unused locally defined, in Procedures & Functions, for the passed string array. Returns number of removed unused local variables.	eOtherFunction - One File		☐
# 31	Selected: 8 of 31				# 8

Click for dropdown choices when there is a value. For some functions an extra parameter is passed. You can only change existing values. Hover the mouse over a value to see valid values to be selected from.

Select Functions length: 16 174 lines: 578 UTF-8-BOM CAP NUM

DFRefactor – Function Library

Object oRefactorFuncLib is a cRefactorFuncLib

Move Self to ghoRefactorFuncLib

#Include UserDefinedRefactorFunctions.pkg

{ Published = True }

{ Description = ""

Changes legacy Calc/MoveInt/MoveStr/MoveNum commands with a 'Move' command.

The legacy commands compiles but does not work with the Studio's statement completion.

{ MethodType = eStandardFunction }

{ SummaryText = Changed: Calc/MoveInt/MoveStr -> Move }

"" }

Function ChangeCalcToMoveStatement String ByRef sLine String sParameter Returns Boolean

Boolean bChanged bFound

Get FeastOfChristTheKing iYear to dReturn

tTokenizer TokenizerData

Get pTokenizer to TokenizerData

If (TokenizerData.bLineIsReady or TokenizerData.bIsInCommand or TokenizerData.bIsInImage ;
or TokenizerData.bIsVariableDeclaration) Begin

Function_Return False

End

...

Function_Return dReturn

End_Function

Function Library Class: cRefactorFuncLib

```
Struct tFuncEnumList
    String[] asEnumList      // String array with enumerations values
    String sInitialValue    // Default value for the enumeration list
    String sParamHelp       // Help text that is displayed when user sets param values.
End_Struct

Struct tFuncParam
    Boolean bByRef          // If parameter is called with a "ByRef"
    String sType            // Variable type.
    String sVarName         // Variable name.
End_Struct

Struct tFuncLib
    String sName            // Function Name
    tFuncParam[] FuncParamArray // Function parameter types and variable names.
    String sReturnType      // Function return type.
    Integer eFunctionType   // The type of function.
    String sSummary        // Summary text.
    String sHelp           // Function help text
    Boolean bFuncEnumList   // True if the FuncEnumList struct contains data.
    tFuncEnumList FuncEnumList
End_Struct

Class cRefactorFuncLib is a cBaseFuncLib
    Procedure Construct_Object
        Forward Send Construct_Object
        { Visibility = Public MethodType = Property }
        { Description = "Struct array with all function names and other info associated with those functions." }
        Property tHolidayFunc[] pHolidayFunctions
        { Visibility = Public MethodType = Property }
        { Description = "Handle array with all registered cNationalHolidays objects. }" }
        { Description += "These packages/objects can be found in 'CountryPackages.pkg'" }
        Property Handle[] phoNationalHolidaysArray
    End_Procedure

    { Visibility = Private }
    { Description = "Collects data from all functions of the oCalendarHolddays object. }" }
    { Description += "Saves the data in the pHolidayFunctions struct array property." }
    Procedure RegisterInterface Handle hMsg String sMsgName String sParams String sComment
        tHolidayFunc[] HolidayFuncArray
        Get pHolidayFunctions to HolidayFuncArray
        ...Here goes code to parse input to the struct array
        Set pHolidayFunctions to HolidayFuncArray
    End_Procedure
```


Exploring NilsSve Repositories - Tips

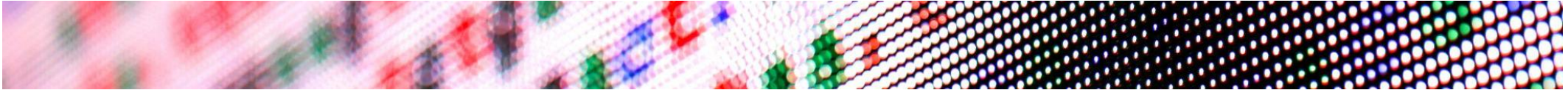
- Download GitHub Desktop <https://desktop.github.com/download/>
- Clone a `https://github.com/NilsSve` repository
 - Nils library repositories contra forked repositories
- Readme.md file, how to embed an image:
 - `![Sample: Repo short discreption](Bitmaps/MyImageName.png)`
- Clone a local repository with GitHub Desktop.
- Content of .gitattributes file;
 - Define the workspace as a DataFlex language project:
 - `*.src linguist-language=DataFlex`
 - `*.pkg linguist-language=DataFlex`
 - `*.vw linguist-language=DataFlex`
 - `*.dg linguist-language=DataFlex`
 - `*.sl linguist-language=DataFlex`
 - `*.bp linguist-language=DataFlex`
 - `*.wo linguist-language=DataFlex`
- What is the .gitmodules file?
- .github\Funding.yml

Exploring NilsSve Repositories - Tips

What is in the .gitmodules file?

```
[submodule "Libraries/cFilesystem"]
    path = Libraries/cFilesystem
    url = https://github.com/NilsSve/Library-cFilesystem
    branch = develop
[submodule "Libraries/DFUnit"]
    path = Libraries/DFUnit
    url = https://github.com/NilsSve/Library-DFUnit.git
    branch = release
[submodule "Libraries/DUF"]
    path = Libraries/DUF
    url = https://github.com/NilsSve/DbUpdateFramework.git
    branch = main
[submodule "Libraries/SciControlLib"]
    path = Libraries/SciControlLib
    url = https://github.com/NilsSve/Library-SciControlLib.git
    branch = main
```

Exploring: GitHub NilsSve Repositories



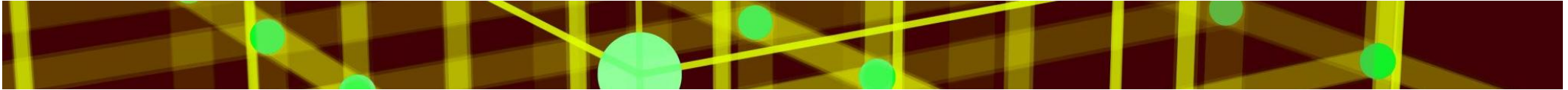
GitHub Submodules are the same as Libraries in DataFlex.
Differentiate between Library-xxx and applications.

Libraries

Show the repository Readme.md file:

<https://github.com/NilsSve/DfRefactor/blob/master/README.md>

Git Geeks Question



Show the Library-DUF repo structure.

<https://github.com/NilsSve?tab=repositories>

Challenges with using the same libraries across repos.

Thank you!

Are there any questions?