



Week 3: Development Phase II

Unit 2: Editor – Libraries

Editor – Libraries

Agenda

Introduction

- Library inclusion
- Excel library
 - Implementation
 - Example
 - Options
- Word library
- Outlook library
- FSO library
- WMI library
- Demo

Summary



Introduction

A set of libraries

- **Excel**: handling workbooks and worksheets
- **Word**: handling documents
- **Outlook**: handling emails and calendars
- **FSO**: file system object handling files and folders
- **WMI**: Windows management instrumentation handling

Using **ActiveX Objects**, example for Excel:

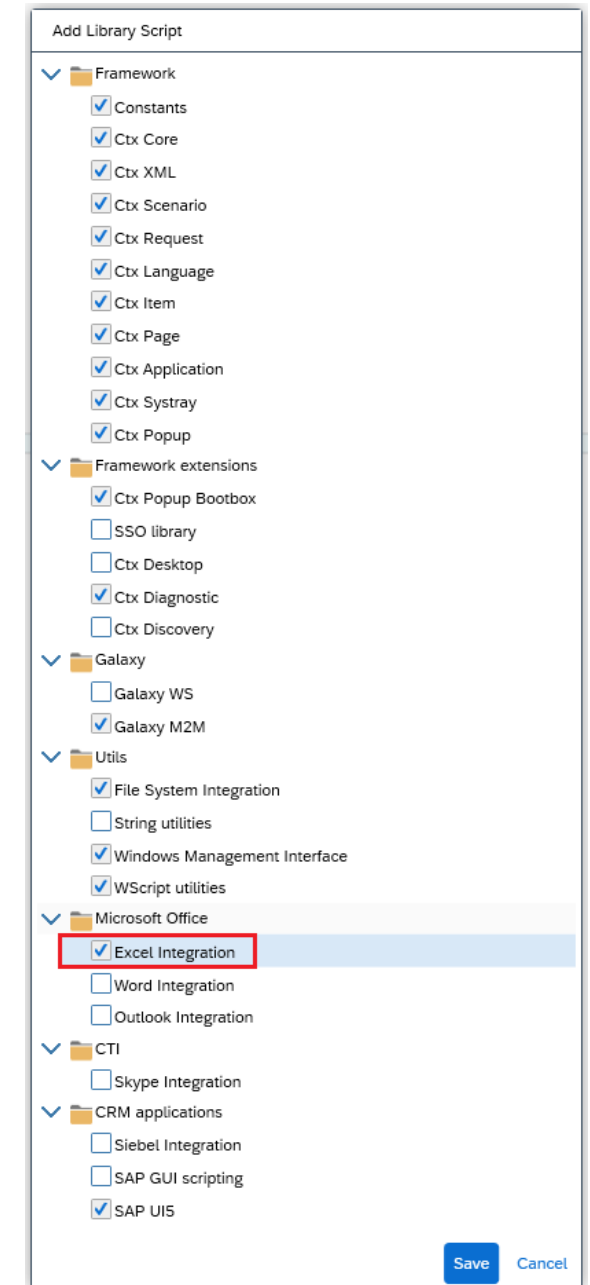
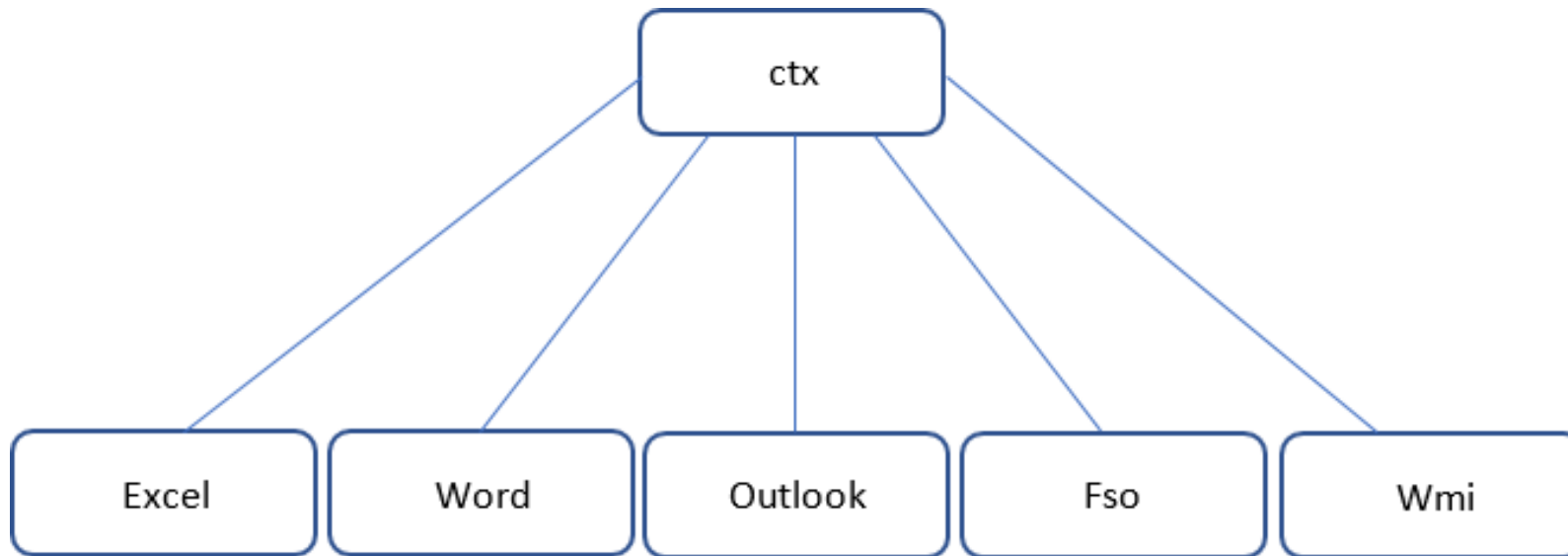
```
/**  
    in the initialization function of the Excel library  
*/  
  
// Reuse an existing instance of Excel.exe or create a new one  
if (!ctx.options.excel.newXlsInstance){  
    try{  
        _excelApp = GetObject('', "Excel.Application");  
    } catch(ex){  
        ctx.log('No excel found, create a new one');  
        _excelApp = new ActiveXObject("Excel.Application");  
    }  
} else {  
    _excelApp = new ActiveXObject("Excel.Application");  
}
```

Library inclusion

Presentation

The library included in the SDK implements a set of methods to facilitate accessing and manipulating applications.

Library inclusion



Implementation

■ methods

- grouped by modules, the methods are implemented in the `ctx.excel`

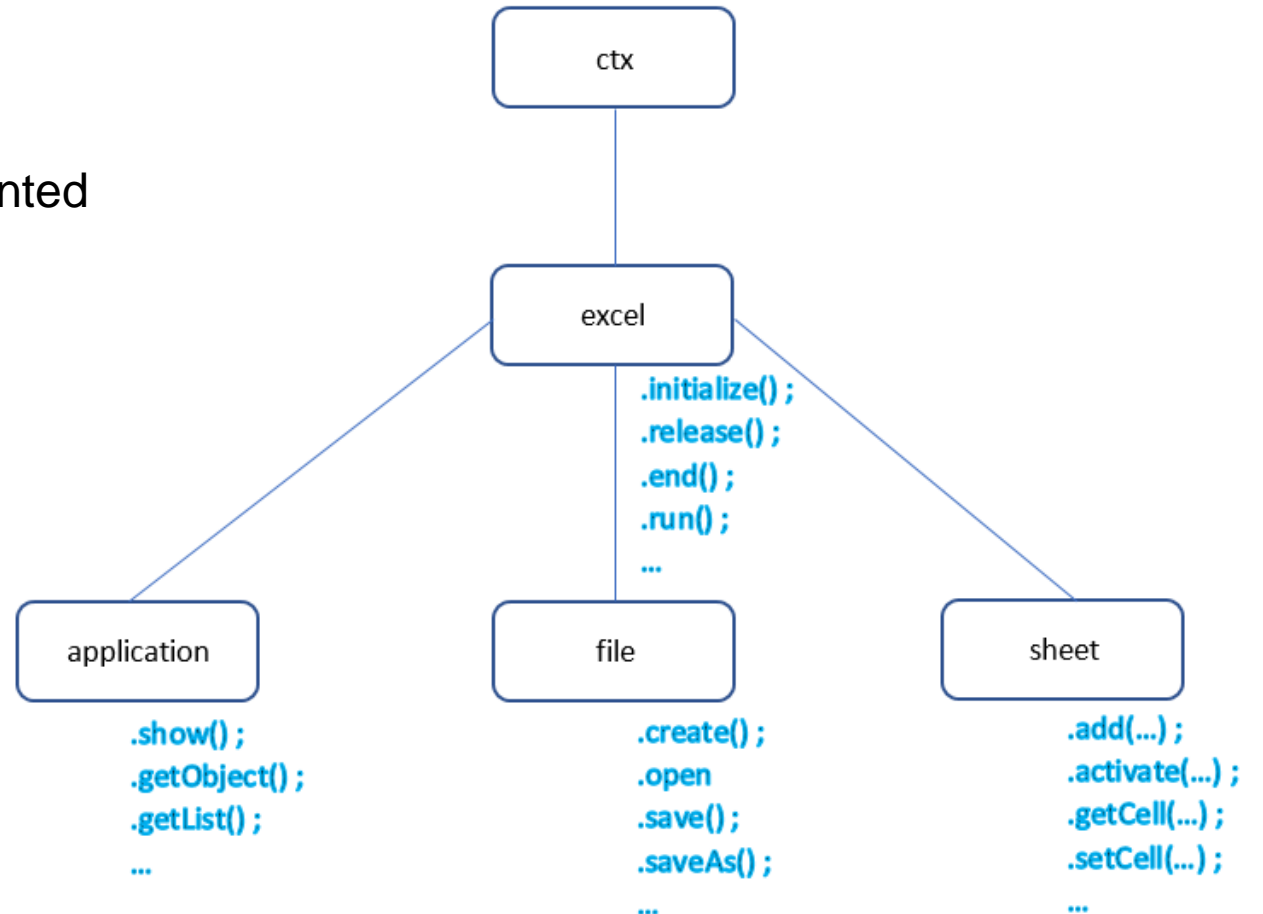
Lifecycle

■ Initialization

- `ctx.excel.initialize()` ;

■ Ending

- Release: releases the application for the user
 - `ctx.excel.release()` ;
- End: ends the application
 - `ctx.excel.end()` ;



Editor – Libraries

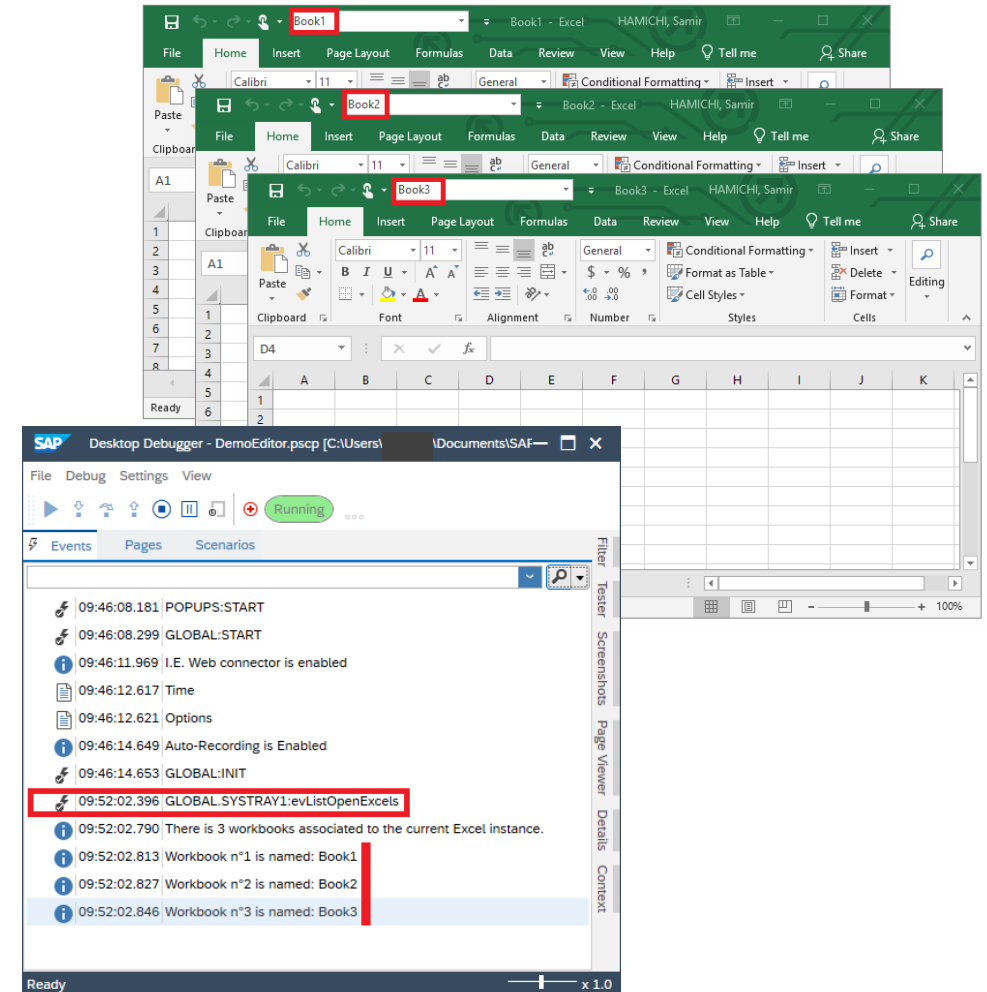
Excel library

Example:

- **Lanched from the Systray menu: « List open Excel files »**
 - Connect to the an existing Excel instance
 - Note the importance of the option
`ctx.options.excel.newXlsInstance`
 - List the open workbooks

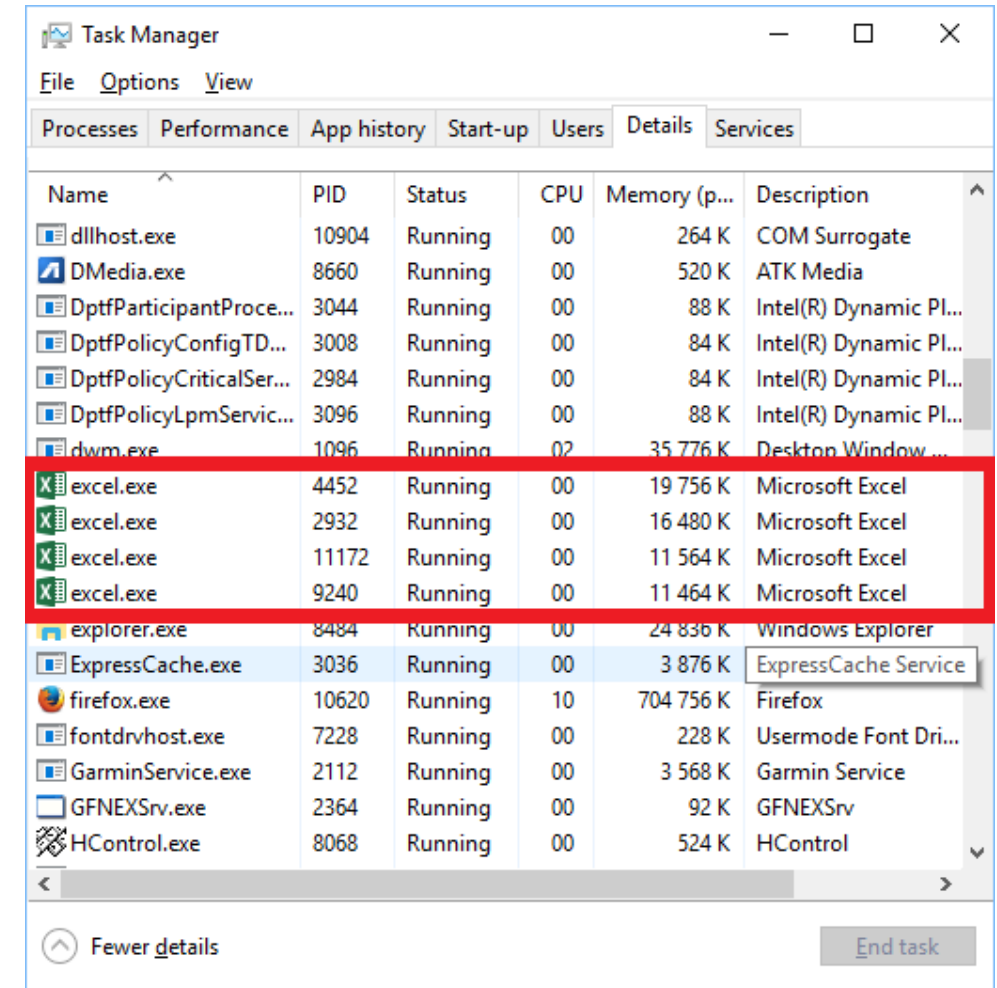
```
systray.addMenu('MainMenu', 'evListOpenExcels', 'List open excel files', '', function(ev) {  
  
    ctx.options.excel.newXlsInstance = false;  
    ctx.options.excel.visible = true;  
    ctx.options.excel.displayAlerts = false;  
  
    ctx.excel.initialize();  
    var list = ctx.excel.getWorkbooks();  
    var nbWB = ctx.excel.getWorkBooksLength();  
    ctx.log('There is '+nbWB+' workbooks associated to the current Excel instance.');
```

```
    for (var i=1; i<=nbWB;i++){  
        ctx.log('Workbook n°'+i+' is named: '+list[i-1]);  
    }  
});
```



Options:

- declared in `ctx.options`
- have an impact on the lifecycle of the Excel.exe
 - **newXlsInstance:**
 - **TRUE:** creates an independent new Excel application instance
 - **FALSE:** connects to an existing Excel application if already running
 - **displayAlerts:**
 - **TRUE:** allows displaying alerts
 - **FALSE:** avoids displaying alerts
 - **Visible:**
 - **TRUE:** shows the Excel application
 - **FALSE:** hides the Excel application



Word library

Implementation

■ Methods

- grouped by modules, the methods are implemented in the `ctx.word`

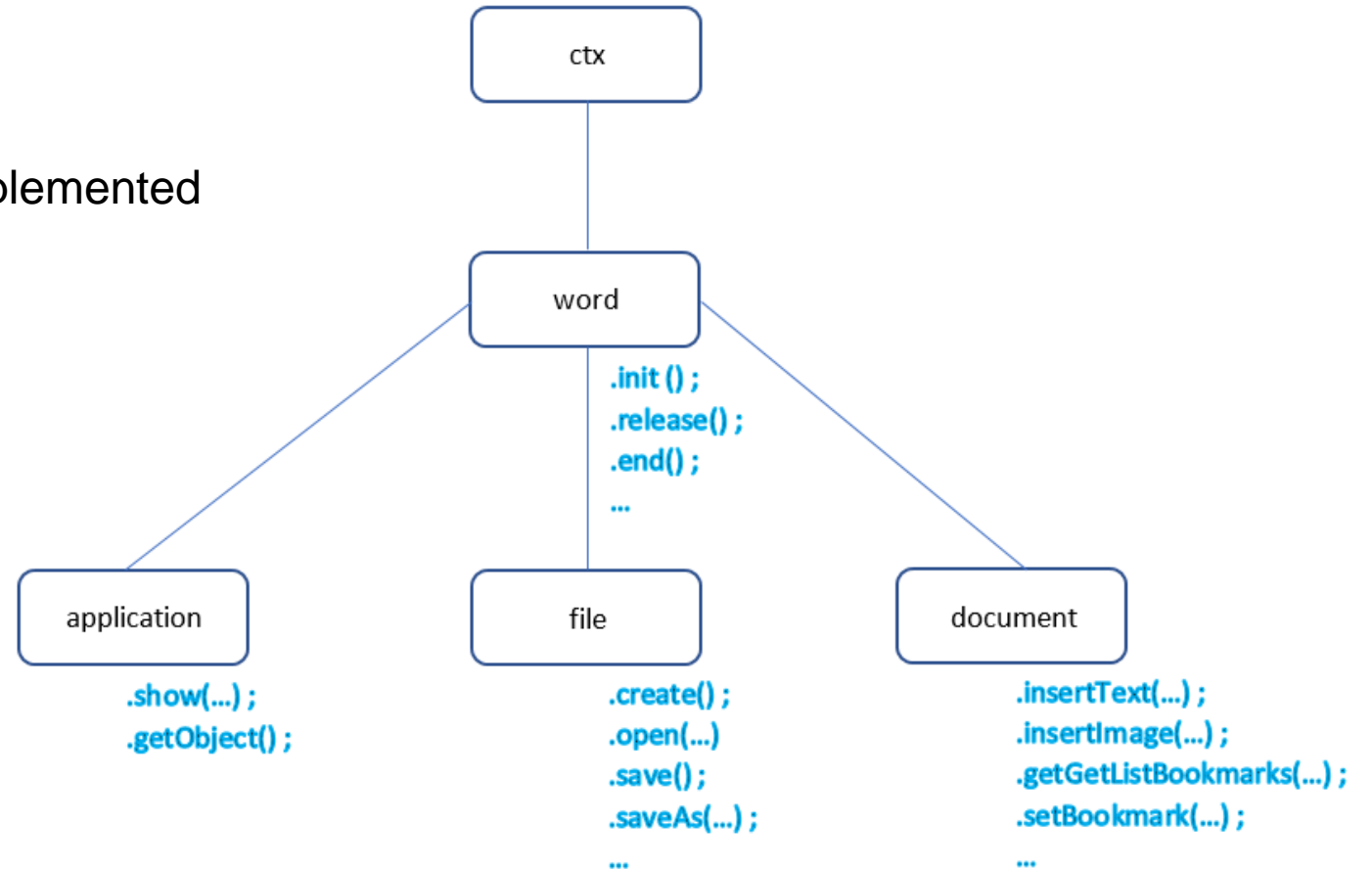
Lifecycle

■ Initialization

- `ctx.word.init()` ;

■ Ending

- Release: releases the application for the user
 - `ctx.word.release()` ;
- End: ends the application
 - `ctx.word.end()` ;



Implementation

■ Methods

- grouped: mail, folder, note, and task
- outlook methods are implemented in `ctx.outlook`

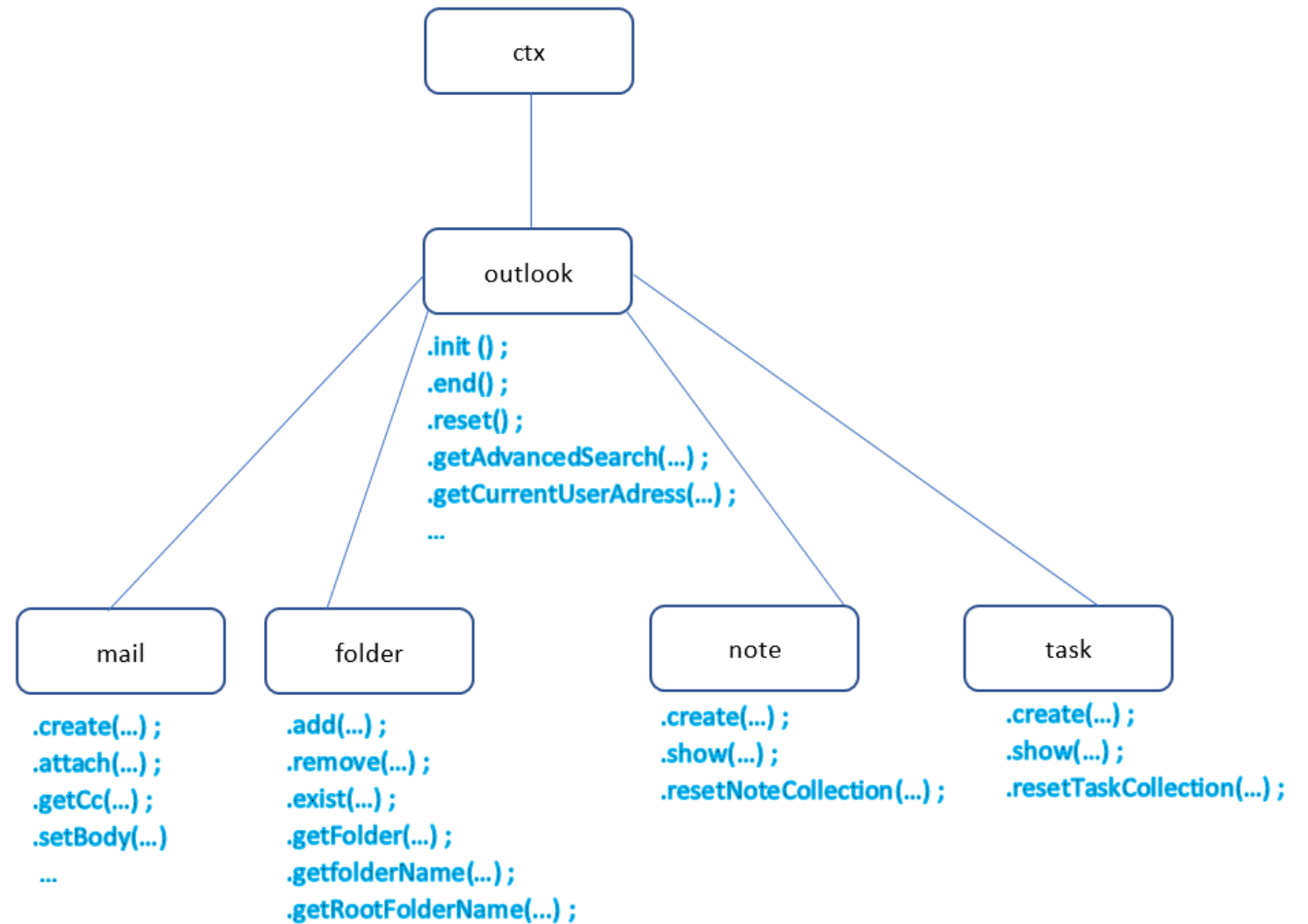
Lifecycle

■ Initialization

- `ctx.outlook.init()` ;

■ Ending

- End: ends the application
- `ctx.outlook.end()` ;



Implementation

■ Methods

- grouped by modules: drive, folder, file, and ftp
- fso methods are implemented in `ctx.fso`

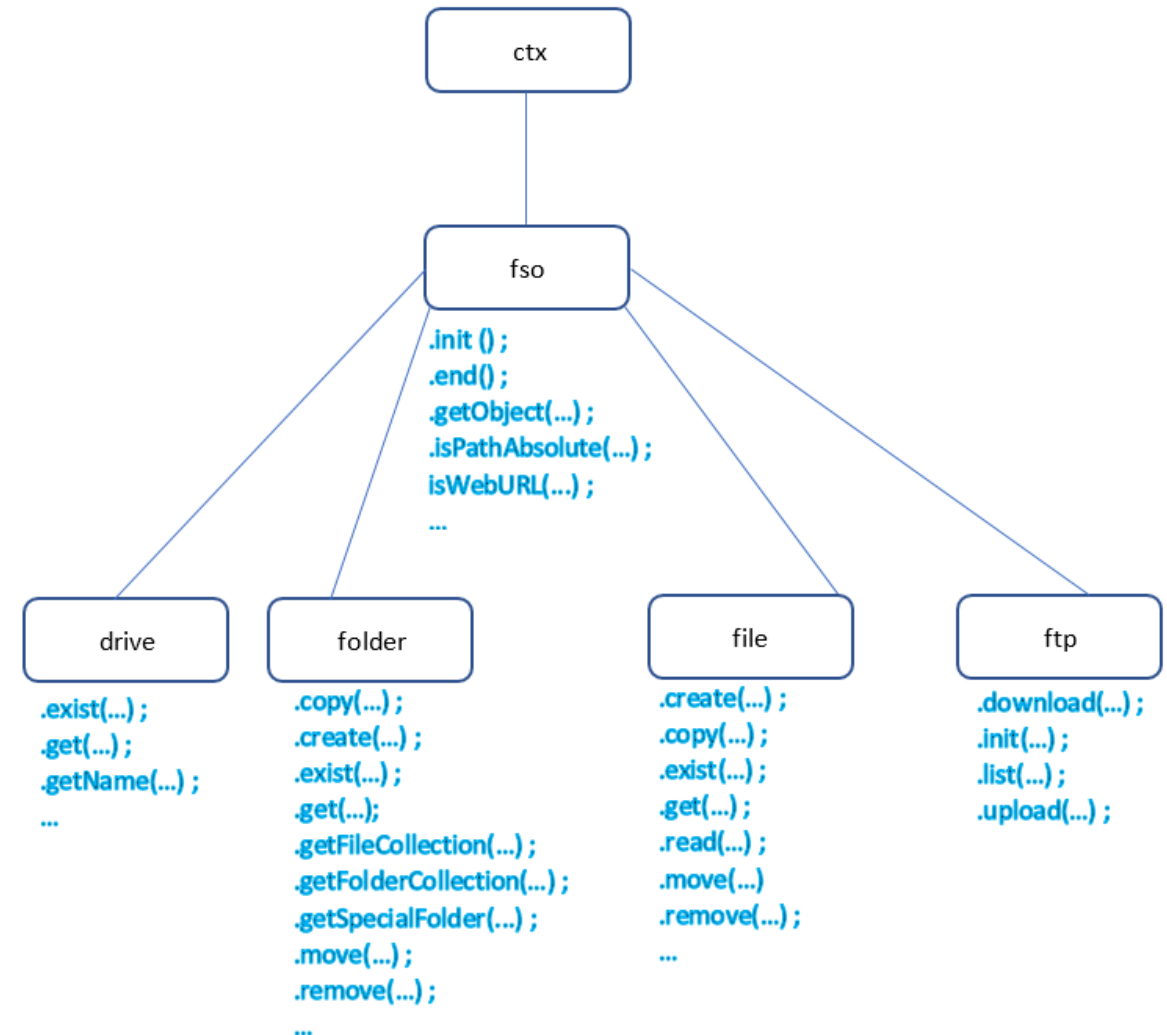
Lifecycle

■ Initialization

- `ctx.fso.init()` ;

■ Ending

- End: closes the application
- `ctx.fso.end()` ;



WMI library

Implementation

■ Methods

- grouped in one module: wmi
- WMI methods are implemented in `ctx.wmi`

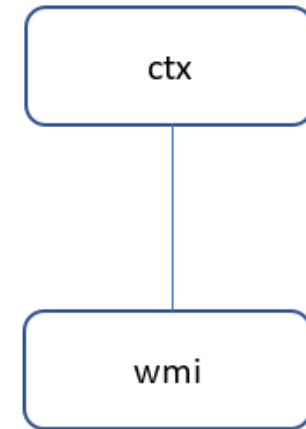
Lifecycle

■ Initialization

- `ctx.wmi.init()` ;

■ Ending

- End: closes the application
- `ctx.wmi.end()` ;

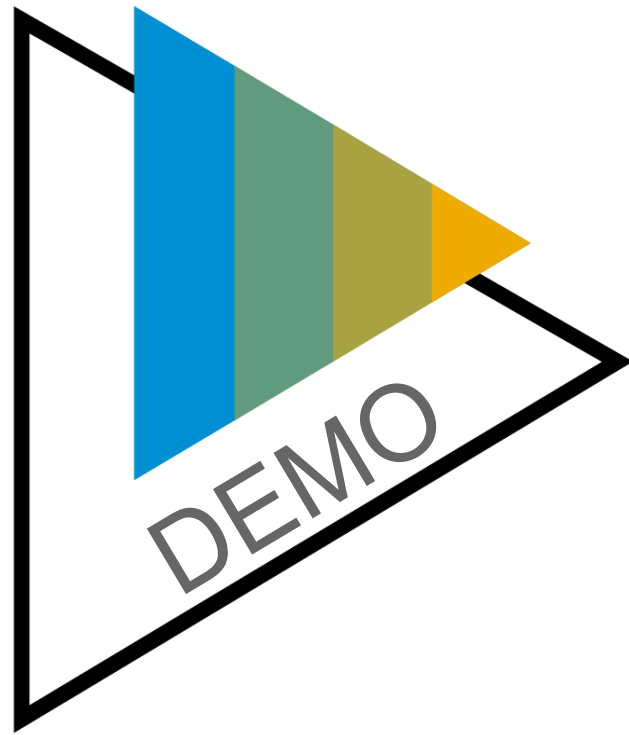


`.display(...)`
`.init()` ;
`.end()` ;
`.killProcess(...)` ;
`.log(...)` ;
`.query(...)` ;

Editor – Libraries

Demo

Libraries demo



Thank you.

Contact information:

open@sap.com

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