

Project Plan 2015-002

25Live

Snippet Only of 25Live Interface

Contents

Description.....	2
(Bellevue) Universal Interface	2
usp_25LiveDataInFiles.sql	2
Web Server to host 25Live Interface	2
CollegeNet Series25 UCP Interfaces (upload)	4
Interface Steps (from page 10)	4
Interface Modes (from page 12)	5
Pre-Installation Tasks (from page 19)	5
Interface input file (from page 19)	6
File Record Standards.....	6
datain<term>.dat	6
ctrl.dat	7
phys.dat	7
headcount<term>.data.....	7
Suggestions	7
Suggestion 1	7
Suggestion 2	7
Suggestion 3	7
Suggestion 5	7
Suggestion 6	8
Suggestion 7	8
Suggestion 8	8
Errors	8
Error 1.....	8
Error 2.....	8
Error 3.....	8

Error 4.....	8
Error 5.....	9
Error 6.....	9
Definitions	9
Modifications	9

Description

This document describes the Project Plan for 25Live, containing only the snippet for 25Live Interface.

(Bellevue) Universal Interface

usp_25LiveDataInFiles.sql

Update: newer version available, use latest with parameter logic included.

Change line:

```
ALTER PROCEDURE [dbo].[usp_25LiveDataInFile] WITH RECOMPILE  
to  
CREATE PROCEDURE [dbo].[usp_25LiveDataInFile] WITH RECOMPILE
```

Web Server to host 25Live Interface

[installing .NET 4.5, if not already installed]

- at command prompt: `dism /online /enable-feature /all /featurename:IIS-ASPNET45`

[Visual Studio Solution-->25Live]

(see Error 1)

(see Error 2)

- click: [Tools](#)
- choose: [Nuget Package Manager](#)
- choose: [Package Manager Console](#)
- if you see: Some NuGet packages are missing from this solution. Click to restore from your online package sources.
 - click: [Restore](#)

[Visual Studio Solution-->25Live]

- edit: [Web.config](#)
- edit line: `<add key="FilePath" value="C:\dev\" />`
Change C:\dev\ to path that will store output (file)
- edit line: `<add key="ArchivePath" value="C:\dev\Archive\" />`
Change C:\dev\Archive\ to path that will store output archives

- edit line: <add name="ClassDal" connectionString="Data Source='Server Name';Initial Catalog=ODS;Integrated Security=True" providerName="System.Data.SqlClient" />
Change 'Server' Name' to the SQL server hosting ODS. Change the 'ODS' to the name of the database for ODS.
- (optional) change the previous line to User authentication, not 'Integrated' if the App Pool isn't running with credentials to access ODS.
- compile project

[Solution Explorer]

- right-click: 25Live
- choose: Publish

[Publish Web-->Select or import a publish profile]

- click: (drop down to left of Import button)
- choose: New Profile
- type: (profile name, ex: ourWebServer)
- click: OK

[Publish method]

- choose: File System

[Target location]

- type: (server path, ex: \\ourServer\share\$)
- click: Next

[Settings]

- click: Next

[Preview]

- click: Publish

[Web Server-->IIS]

- expand: Sites
- right-click: (Web Site, ex: Default Web Site)
- choose: Add Application

[Add Application]

- type: (Alias, ex: 25Live)
- choose: (Application Pool desired, recommend creating one for 25Live)
- choose: (Physical path)
- click: OK

[Website/URL for 25Live]

- test URL: https://yourserver.edu/(your path) (ex: /25Live)
- should see: Please click here to create a new Datain file
(see Error 3)
- test URL: https://yourserver.edu/(your path)/Views/CreateDatain/CreateNewFile/B561

[Visual Studio-->Controllers-->CreateDataInController.cs]

- fix line: string exception = dict["exception"];

- to: `string` exception = dict["message"];

[Visual Studio-->Controllers-->CreateDataInController.cs]

- fix line: `Console.WriteLine("Exception", ex);`
- to: `return "[getData] ERROR: [" + ex.Message + "];`

[Visual Studio-->Models-->ctrl.cs]

- fix line: `Console.WriteLine("Exception", ex);`
- to lines: `dict["message"] = "[createDataInFile] ERROR [" + ex.Message.ToString() + "];`
`dict["status"] = "failure";`

[Website]

- Access website.
- Click 'here' to generate Datain file.
(see Error 4)

[SQL-->ODS-->usp_25LiveDataInFile]

- give Execute permission to the user accessing

(deprecated) [Website]

~~- Access website.~~
~~- Click 'here' to generate Datain file.~~
(see Error 5)

(deprecated) [Website]

~~- Access website.~~
~~- Click 'here' to generate Datain file.~~
(see Error 6)

[Website]

ex: <https://yoursite.edu/25Live/CreateDatain/CreateNewFile/B562>

Should receive a message like:

A new file named datainB562.dat is created at location [location].

[Visual Studio-->25Live-->Web.config]

- created line: `<add key="25LiveUSP" value="usp_25LiveDataInFile" />`
- to lines: `dict["message"] = "[createDataInFile] ERROR [" + ex.Message.ToString() + "];`
`dict["status"] = "failure";`

[Visual Studio-->25Live-->ctrl.cs]

- changed line: `SqlCommand com = new SqlCommand("usp_25LiveDataInFile", con);`
- to line: `SqlCommand com = new SqlCommand(allConfigurations["ColRoomName"], con);`

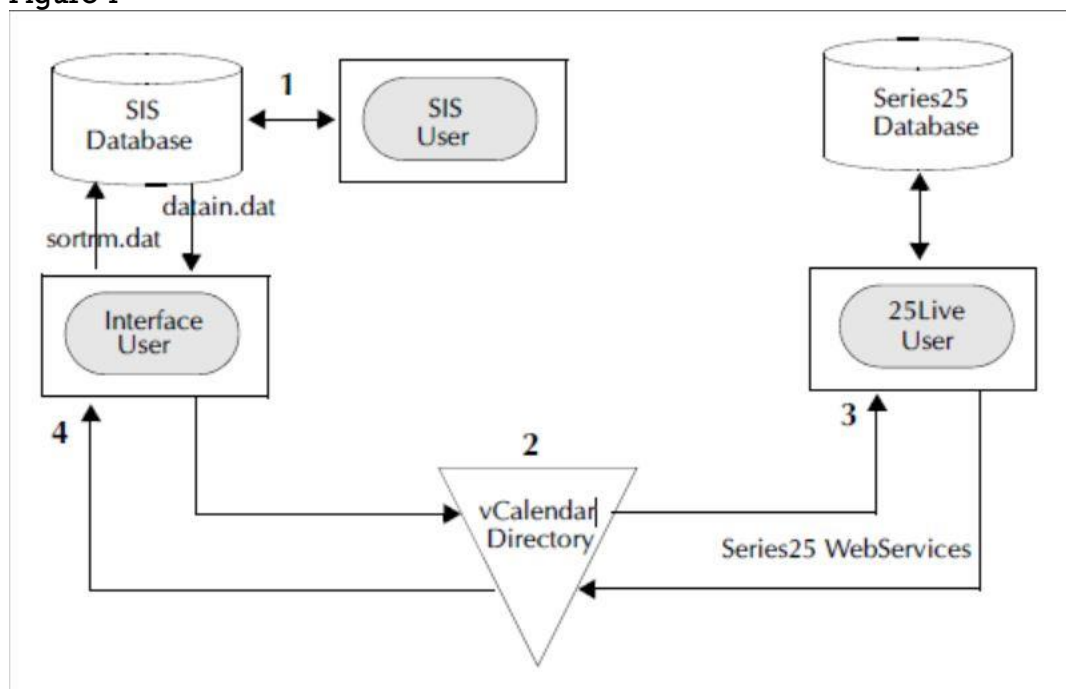
CollegeNet Series25 UCP Interfaces (upload)

Interface Steps (from page 10)

(see Figure 1 below)

1. SIS users create and maintain the course schedule.
2. The Interface user runs the Interface which does the following:
 - a. Reads the class file—datain.dat—generated by your school's SIS class extract program.
 - b. Creates vCalendar files of the class data.
 - c. Places the files in the shared vCalendar directory.
 - d. Calls the Series25 WebServices vCalendar import which updates 25Live with the vEvent information.
3. 25Live users assign rooms to imported classes needing rooms and initiate the generation of vCalendar files for those classes (unless you have specified in 25Live that you don't want classes of their event type to make a return journey to your SIS; see "Processing options" on page 11).
4. The Interface user runs the Interface which requests vCalendar counter files from Series25 WebServices, then generates a class output file—sortrm.dat—containing the room assignments and places it in the Interface text_data subdirectory, ready for use by your school's SIS class upload program.

Figure 1



Interface Modes (from page 12)

Batch mode

In batch mode, the Interface is used to send a large group of classes from your SIS to 25Live, usually in preparation for a future term.

Scheduled mode

In scheduled mode, the Interface is used to keep your SIS and 25Live data synchronized on an ongoing basis.

Pre-Installation Tasks (from page 19)

Task

Page

Prepare Interface input files.	19
Develop SIS class extract and upload programs.	32
Complete other pre-installation tasks.	40

Interface input file (from page 19)

The Interface uses data from up to three input files to generate appropriate vCalendar files:

- Class file (datain.dat)—contains the classes you want the Interface to process
- Control file (ctrl.dat)—defines the format of your datain.dat file records
- Physical Features file (phys.dat)—defines physical attributes and amenities of rooms; used in conjunction with the datain.dat file to represent the room feature preferences of classes

The Class and Control files are required. The Physical Features file is optional.

You also have the option of creating a Headcount Update file (headcount<term>.data) that is used by the Interface to directly update the Registered Headcount field in 25Live, either manually as needed or automatically once each day.

File Record Standards

datain<term>.dat

(fixed width columns)

POS	NAME	LENGTH
1	department	6
2	catalog	6
3	section	5
4	days	11
5	startHours	2
6	startMinutes	3
7	finishHours	2
8	finishMinutes	3
9	AP designator	2
10	enrollment	5
11	roomName	9
12	start week	9
13	finish week	9
14	meeting	5
15	asm	4
16	event	6
17	instructor	60
18	course	25
19	term id	6
20	crn	16

ctrl.dat

(fixed width columns)

Record Length: 80

Record Syntax

COLUMN POSITION	LENGTH	PURPOSE
1	30	Value
31	48	Name
79	2	Index

phys.dat

n/a

headcount<term>.data

(comma delimited columns)

Record Syntax: [CLASS CRN],[HEAD COUNT]

Suggestions

Suggestion 1

[Website]

Change: Add 'progress' feedback so that the viewer knows it is working on the procedure 'usp_25LiveDataInFile', our currently takes 25 seconds)

Reason: more user friendly.

Suggestion 2

[Visual Studio-->25Live-->Models-->ctrl.cs--> createDataInFile]

Change: Move (string) line to outside of foreach loop, only initialize once at top of function 'createDataInFile'.

Reason: reduce memory reallocation on each loop.

Suggestion 3

[Visual Studio-->25Live-->Models-->ctrl.cs--> createDataInFile]

Change: Create (StringBuilder) lccAllLines to contain all lines.

String line = new StringBuilder();

Reason: reduce memory reallocation.

Suggestion 5

[Visual Studio-->25Live-->Models-->ctrl.cs--> createDataInFile]

Change: Change logic to not create/append file on each line from JSON, but, write entire 'lccAllLines' (StringBuilder) after loop if Length > 0.

Reason: single open/close for file.

Suggestion 6

[Visual Studio-->25Live-->Models-->ctrl.cs--> createDataInFile]

Change: Add NewLine to 'line' at end of each record.

Reason: single open/close for file, instead of at each JSON record/line.

Suggestion 7

[Visual Studio-->25Live-->Models-->ctrl.cs--> createDataInFile]

Change: Move 'filename' and 'path' to top of function, build value after first record

Reason: reduce memory reallocation

Suggestion 8

[Visual Studio-->25Live]

Change: Logging module to allow both debugging for new installations, and monitoring later for performance/etc.

Reason: help debugging, monitoring

Errors

Error 1

Error: [Visual Studio-->Solution-->25Live-->Properties-->PublishProfiles] Dev.pubxml missing.

Solution: Build new Publish Profile, delete this one.

Error 2

Error: [Visual Studio-->Solution-->25Live] Web.config missing.

Solution: [Visual Studio-->Solution] Right-click 25Live, choose Add-->New Item. Choose 'Web Configuration File', name 'Web.config'. Copy web.config-template contents into Web.config.

Error 3

Error: [Website] Blank page received after click create datain file.

Solution: check SQL credentials, or add User credentials if IIS App Pool user has no right on SQL.

Error 4

Error: [Website] The EXECUTE permission was denied on the object 'usp_25LiveDataInFile', database 'ODS', schema 'dbo'.

Solution: [SQL-->ODS-->Stored Procedures] Give 'execute' rights to SQL Connection User for procedure 'dbo.usp_25LiveDataInFile'.

Error 5

Error: [Website] Procedure usp_25LiveDataInFile has no parameters and arguments were supplied..

Solution: [SQL-->ODS-->Stored Procedures] Replace USP 'dbo.usp_25LiveDataInFile' with latest version.

Error 6

Error: [Website] Procedure or function 'usp_25LiveDataInFile' expects parameter '@DataInYearQuarter', which was not supplied.

Solution: [Visual Studio-->25Live-->Views-->CreateDataIn-->Index.cshtml] Upgrade code to add quarter code to URL.

Definitions

25Live- Event scheduling software

ADFS - Active Directory Federation Services

DBCS - DataBase Customer Site

HPUX - Hewlett Packard UniX environment

IdP - Identity Provider (college)

LCC - Lower Columbia College

Lingua Franca - protocol language

SAAS - Software As A Service

SAML - Security Assertion Markup Language (protocol)

SBCTC - State Board for Community and Technical Colleges

SP - Service Provider (CollegeNet, 25Live)

SSO - Single-Sign On

Modifications

NAME	DATE	MODIFICATION
David Mielcarek	8/5/2015	Created
David Mielcarek	8/17/2015	Added steps/notes, File Standards, UCP sections.

End of document