

# Requirements Specification for XXX College Bespoke Integration Plugin (Capita Unit-e - CELCAT Timetabler 6)

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**Review Team:** [APC/JA]  
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## 1. Overview

XXX College uses Capita Unit-e software for student management. CELCAT *Timetabler 6* is to be used for timetabling. Resources (e.g. modules, staff and rooms) are created in Unit-e and must be transferred directly to *Timetabler* using the proposed Plugin. Events created in *Timetabler* must be made available to Unit-e using the Plugin.

Users will interact with the plugin from within the standard *Timetabler 6 Tools | Import* form. Execution of the plugin will be a manual operation and one that is easily and quickly set in motion (< 1 minute). The time taken to perform the data transfer operations depends upon a number of factors including the amount of data to process, contention for database and network resources, etc.

Where appropriate, each requirement is followed by a reference (in square brackets) showing the origin of the requirement.

### 1.1 Terminology

|            |   |
|------------|---|
| Unit-e     | The Capita Unit-e software.                               |
| Timetabler | The CELCAT <i>Timetabler 6</i> software.                  |
| Plugin     | The bespoke plugin to be developed.                       |
| User       | The user of the Plugin.                                   |
| Table      | A data table in the Unit-e or <i>Timetabler</i> database. |
| Column     | A Table column (sometimes referred to as a field).        |
| Row        | A Table row (sometimes referred to as a record).          |

### 1.2 Documentation & Sample Data

The customer-supplied documentation consists of the UNITE\_Data.doc file and associated email communication. Only core elements of the data schema are described, and ... notes “we will need to establish which additional fields may need to be exported from Unit-e to fulfil the reporting requirements of CELCAT”. This means that there may be many more entities involved in the process, and further customer input should be sought before the requirements are agreed. Where appropriate we have noted additional attributes and entities that may be considered for inclusion.

[..., email 25 Feb 2005]

The customer-supplied sample data consists of an Access database with 4 tables – StaffExtract, RoomExtract, ModExtract and ActExtract. It is understood that the Plugin should operate with an Oracle database and the table names referred to in Section 2 have been deduced from the SQL extracts in the customer’s documentation.

[... , email 25 Feb 2005]

No Activity intersect tables are specified because the Plugin is not required to directly modify activities in Unit-e. The Functional Requirements make assumptions regarding unique

constraints on some columns (e.g. it is assumed that CAPD\_STAFF.s\_staffreference has a unique constraint). This is because details are not provided in the sample data.

ID fields in the Unit-e database are a maximum of 40 characters in length. The equivalent 'original\_id' field in *Timetabler* is only 32 characters in length. This is not a problem since in the College's implementation the values are always 15 characters in length.

[... , email 17 Mar 2005]

## 2. Functional Requirements

In all cases, the Plugin should record the origin of the *Timetabler* data, i.e. it should use the *Timetabler* CT\_ORIGIN table and associated origin\_id columns to store details of the Unit-e database used.

The Plugin should communicate with the Unit-e database using an ADO connection and the MS Ole DB Oracle Driver, and should require the User to login. The Plugin should not store login information (e.g. user name/password).

Unit-e is always considered to be the 'master' source of staff, room and module data. When the Plugin runs, the relevant *Timetabler* database tables should always be overwritten regardless of whether changes have been made within *Timetabler*.

[..., email 25 Feb 2005]

CELCAT *Timetabler* is considered 'master' source for events. When the Plugin runs, *Timetabler* should produce a text file of inserted, updated and deleted events that can be subsequently imported into Unit-e. The format of this file should be agreed with the customer during the design phase.

[..., email 25 Feb 2005]

### 2.1 Unit-e to CELCAT Timetabler

The Plugin should extract the following data from Unit-e, observing the specified column mappings.

#### Staff

The Unit-e CAPD\_PERSON table (when joined to the CAPD\_STAFF table on CAPD\_STAFF.s\_id = CAPD\_PERSON.p\_id and CAPD\_STAFF.s\_staff = -1) should be used as data source for the *Timetabler* CT\_STAFF table. The column mapping is shown below.

| Unit-e Columns   | Timetabler Columns   |
|--|----------------------|
| CAPD_PERSON.p_id   | CT_STAFF.original_id |
| CAPD_STAFF.s_staffreference (this is a code such as 'A1759')                       | CT_STAFF.unique_name |
| CAPD_PERSON.p_forenames + CAPD_PERSON.p_surname (concatenation style to be agreed) | CT_STAFF.name        |

Additional attributes may include staff *title* and *department*.

#### Rooms

The Unit-e CAPD\_ROOM table should be used as data source for the *Timetabler* CT\_ROOM table. The column mapping is shown below.

| Unit-e Columns        | Timetabler Columns  |
|-----------------------|---------------------|
| CAPD_ROOM.r_id        | CT_ROOM.original_id |
| CAPD_ROOM.r_reference | CT_ROOM.unique_name |

CAPD\_ROOM.r\_name removed from the specification [email ... , 9 May 05]

Additional attributes may include room *site*, *fixtures*, *department*, *layouts* and associated *seating capacities*.

## Modules

A module is the curriculum element within Unit-e. XXX College use a three-layered structure where a module is used at each of three levels; Course, Course Period and Class.  
[UNITe\_Data.doc]

The Unit-e CAPD\_MODULE table (where CAPD\_MODULE.m\_type='CL' and CAPD\_MODULE.m\_start > a user-defined value) should be used as data source for the *Timetabler* CT\_MODULE table. The column mapping is shown below.

| Unit-e Columns          | Timetabler Columns    |
|-------------------------|-----------------------|
| CAPD_MODULE.m_id        | CT_MODULE.original_id |
| CAPD_MODULE.m_name      | CT_MODULE.name        |
| CAPD_MODULE.m_reference | CT_MODULE.unique_name |

Additional attributes may include module *department*.

## 2.2 CELCAT Timetabler to Unit-e

CELCAT *Timetabler* is considered 'master' source for events. When the Plugin runs, *Timetabler* should produce a text file of inserted, updated and deleted events that can be subsequently imported into Unit-e.

The following event attributes should be included:

1. Unique Event ID
2. Day of week
3. Weeks
4. Start and End times
5. Module assignments
6. Staff assignments
7. Room assignments

## 3. Phasing

To be decided.