Lodging EPCs with JPA Designer

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June 14, 2011

Contents

1 Introduction

This manual explains how to prepare and lodge on-construction Energy Performance Certificates (EPCs) for new dwellings using JPA Designer. It covers England and Wales, and Northern Ireland: it does not address issuing EPCs in Scotland where there is no requirement for electronic lodgement.

The manual describes how to:

- prepare JPA Designer for lodging EPCs;

- lodge EPCs for dwellings in England and Wales using SAP 2009 (SAP 9.90);

- lodge EPCs for dwellings in Northern Ireland using SAP 2005 (9.81).

- lodge EPCs for dwellings where the original SAP calculation was carried out using SAP 2005 (SAP 9.81).

- identify and resolve common causes of lodgement failure.

This manual is not a guide to carrying out SAP calculations using JPA Designer: for that, you should consult the JPA Designer manual[1], the SAP 2009 document[2] and the SAP conventions document[3].

Lodging EPCs is, by and large, a straightforward process; however, setting up the software for the first time and making your first lodgement can take some time. We therefore recommend that you familiarise yourself with the process in good time, and don't set out to lodge your first EPC at 4:00 pm on a Friday afternoon.

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[1] http://www.techlit.co.uk/downloads/manual501.pdf
[2] http://www.bre.co.uk/filelibrary/SAP/2009/SAP-2009_9-90.pdf
[3] http://www.bre.co.uk/filelibrary/SAP/2009/SAP_Conventions.pdf

2 Setting up JPA Designer

2.1 Initial requirements

Before you can issue an EPC for a dwelling you must:

- have installed JPA Designer 5.02a1 or later and have a valid licence for the software.

- make sure your computer has an active internet connection so it can upload the EPC submission to Landmark[1].

- be registered with an On-construction EPC accreditation scheme and enter your accreditation details into JPA Designer (section 2.2).

- make sure JPA Designer is configured to use version 15 of the lodgement format.

  *the program is configured to use this version, known as XML v15: you can check this on the **Other** tab of the **Options** dialogue (Select **Options** from the **Project Manager** window to open the dialogue.)*

2.2 Entering your accreditation details

Before you can issue an EPC you must enter your accreditation scheme details into JPA Designer using the **Energy Assessor Accreditation Details** dialogue (Figure 2.1).
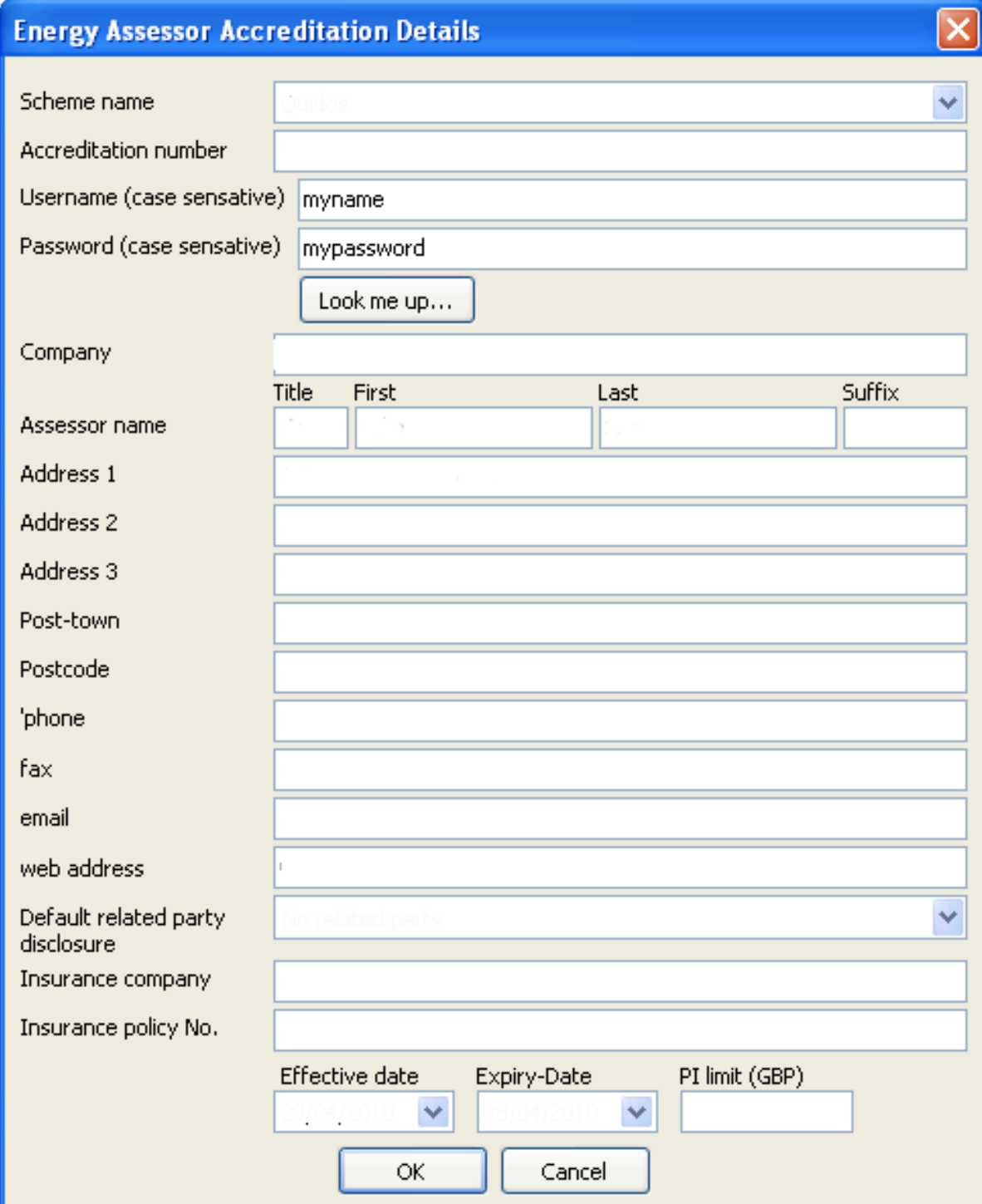
The **Energy Assessor Accreditation Details** dialogue holds the following information:

- **Scheme name**: the name of the On Construction EPC accreditation scheme of which you are a member.

- **Accreditation number**: Your unique accreditation number within the scheme.

- **Username** and **Password**: used to log on to the accreditation scheme's servers.

- **Contact details**: Your contact details, which are held by the accreditation scheme.

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[1]Landmark is the company the Government has chosen to maintain the central electronic register of EPCs.

Figure 2.1: Energy Assessor Accreditation Details

- **Default related party disclosure**: The regulations regarding EPCs require an assessor to declare any financial or family relationship with the party who is building or selling the dwelling. You would have to make a disclosure if, for example, you are issuing EPCs for houses built and sold by your employer, or for a house built by a member of your immediate family.

  You can change the default related party disclosure for individual calculations using the **Project Information** *dialogue within the SAP calculation.*

- Insurance details: The details of your public indemnity insurance policy.

To set your accreditation details:

1. From the menu bar select **EPC**>**Energy Assessor accreditation details**. The **Energy Assessor Accreditation Details** dialogue opens.

2. From the **Scheme name** dropdown select the scheme of which you are a member..

3. Enter the **Username** and **Password** supplied by the scheme and click **Look me up**. JPA Designer will complete the boxes using data from the accreditation scheme's systems.

4. Click **OK**.

If you find there is a mistake in the details you should contact your accreditation scheme to have it corrected: it is not possible to correct the information in JPA Designer.

3   Lodging an EPC

3.1   An overview of the lodgement process

The main steps for lodging an EPC are:

1. Revise the *as designed* SAP calculation to take account of any changes made during construction and to include the assessed air permeability.

   For England and Wales this should be a SAP 2009 (SAP 9.90) calculation, but for Northern Ireland it should be a SAP 2005 (9.81) calculation.

2. Obtain the UPRN (*Unique Property Reference Number*) for the dwelling.

3. Upload the draft EPC and accompanying data to Landmark.

   As the details of the process vary slightly, make sure you follow the appropriate sequence for England and Wales (section 3.3), or Northern Ireland (section 3.4).

4. Retrieve the lodged EPC from Landmark and issue it to your client.

3.2   Obtaining the UPRN for the dwelling

Before you can issue an EPC for a dwelling you must obtain its *Unique Property Reference Number* (UPRN) which identifies it on the Landmark database. JPA Designer uses the SAP module's **Project Information** dialogue to look up and store the UPRN for each property (Figure 3.1).

To look up a dwelling's UPRN:

1. Open the SAP calculation for the dwelling.

2. Open the **Project Information** dialogue from the menu bar or tool bar.

3. Enter the post code for the dwelling in the **Post Code** box of the **Project address** section.

4. Click the **get UPRN** button. The **UPRN Address** dialogue opens, with the post code from the **Project Information** dialogue in the **Postcode** box (Figure 3.2).

Figure 3.1: Project address

5. Click the **Look-up** button. The software displays the addresses which match that post code.

6. Click on the address of the dwelling for which you intend to produce an EPC, then click the **Look-up UPRN** button. The software requests the UPRN from the server and displays it.

   If there is no matching address it may well be that the dwelling does not yet have a UPRN. In that case you should contact Landmark and request a UPRN for the dwelling (see section 5.4).

7. If the address is correct click **Use this UPRN & address**. The **UPRN Address** dialogue closes, leaving the **Project Information** dialogue with the address and UPRN.

Once you have selected the UPRN the address details will be greyed out and you will not be able to edit them. If you need to change the address you must first click **Clear UPRN**.

3.3   Lodging an EPC – England and Wales

An EPC for a dwelling in England and Wales must be lodged to Landmark's national database. You should only lodge an EPC once the final *as-built* SAP calculation has been carried out.

The following instructions presume you have finalised the calculation and have obtained the UPRN for the dwelling. To lodge an EPC with Landmark:

1. Save the project file.

2. From the **Project Manager** menu bar select **EPC**>**Request V15 EPC for this dwelling**.

3. The software displays an information dialogue: *Submitting a request for an EPC will cause your account to be charged. Are you sure you want to continue?* To continue in order to issue an EPC click **Yes**.

Figure 3.2: Looking up the UPRN

4. JPA Designer now collates the data and generates a draft EPC which is displayed for approval in the **EPC Preview** dialogue. If you are happy with the EPC click **I approve this EPC, proceed with submission**.

5. JPA Designer prepares the final EPC and accompanying submission data, then tells you how much data will be uploaded. Click **OK** to start the upload.

6. JPA Designer notifies you when the submission is complete and whether or not it has been successful.

If the lodgement was successful you can now obtain the final EPC for distribution (section 3.5). If it failed you need to identify the problem in order to attempt the lodgement again (chapter 5).

3.4   Lodging an EPC – Northern Ireland

An EPC for a dwelling in Northern Ireland must be lodged to Landmark's national database. You should only lodge an EPC once the final *as-built* SAP calculation has been carried out.

*For Northern Ireland the SAP calculation must be a SAP 9.81 calculation **not** a SAP 9.90 calculation.*

The following instructions presume you have finalised the calculation and have obtained the UPRN for the dwelling. To lodge an EPC with Landmark:

1. Save the project file.

2. From the **Project Manager** menu bar select **EPC**>**Request V14 EPC for this dwelling**.

3. The software displays an information dialogue: *Submitting a request for an EPC will cause your account to be charged. Are you sure you want to continue?* To continue in order to issue an EPC click **Yes**.

4. JPA Designer now collates the data and generates a draft EPC which is displayed for approval in the **EPC Preview** dialogue. If you are happy with the EPC click **I approve this EPC, proceed with submission**.

5. JPA Designer prepares the final EPC and accompanying submission data, then tells you how much data will be uploaded. Click **OK** to start the upload.

6. JPA Designer notifies you when the submission is complete and whether or not it has been successful.

If the lodgement was successful you can now obtain the final EPC for distribution (section 3.5). If it failed you need to identify the problem in order to attempt the lodgement again (chapter 5).

3.5   Issuing EPCs

Once the EPC has been lodged successfully you have to go to the Landmark web site to download a PDF of the EPC which you can then issue to your client[1]. In order to download the EPC you will need to have the RRN, which is the unique reference number for the lodgement.

You can get the RRN for the lodgement using the **EPC Request Management** dialogue:

1. Once the EPC has been successfully lodged, select **EPC**>**EPC Request Management** from the **Project Manager** menu bar. The **EPC Request Management** dialogue opens.

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[1]This is a change from the previous arrangement and has been introduced following instructions from BRE that assessors are no longer allowed to obtain the final EPC from SAP software, but must download it from Landmark.

Figure 3.3: The Get RRN button at the bottom of the EPC Request Management dialogue
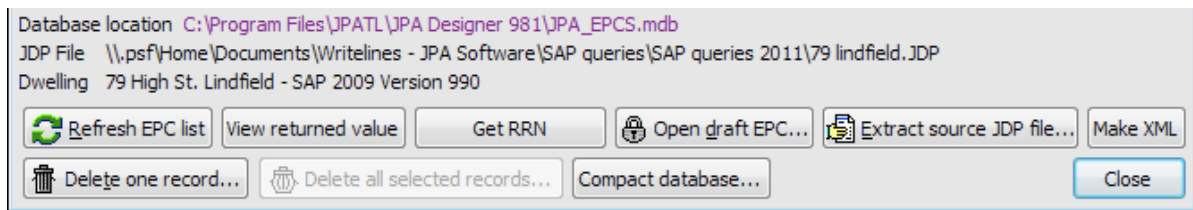
2. Select the lodgement by clicking on the row in the **EPC Submissions** table.

   This makes the first row of buttons active.

3. Click the **Get RRN** button (Figure 3.3). JPA Designer copies the RRN to the Windows clipboard.

4. Open your web browser and go to the Landmark web site.

   - For England and Wales: https://www.epcregister.com.
   - For Northern Ireland: https://www.epbniregister.com.

5. On the home page click the link below *Retrieve an Energy Performance Certificate*. The link is labelled **Click here**.

6. On the *Retrieve an Energy Performance Certificate* page click in the **RRN** box and paste the RRN from the Windows clipboard.

   *You can do this by right-clicking the mouse and selecting **Paste** from the pop-up menu, or you can press <Ctrl+P>*

7. Now type the distorted numbers in the image into the box immediately below.

   This is a security check to prevent computer programs logging into the system.

8. Click **Retrieve report**.

9. The site now displays a page setting out the conditions for retrieving the EPC. Near the bottom of the page click **Accept terms**.

10. At the next page leave *Retrieve the latest report* at **Yes** and the *Report retrieval format* as **PDF**. Then click **Retrieve report.**

11. The next page shows the summary data for the EPC lodgement. Click **Click here to view report (PDF)**.

12. The EPC will then be downloaded to your PC as PDF which you can then issue to your client.

4 EPCs for dwellings assessed with SAP 9.81

From 17th April 2011 EPCs for all new dwellings in England and Wales have to be lodged using SAP 2009 (SAP 9.90), even if the original, design stage, compliance calculations for Part L1a were carried out using SAP 2005 (either SAP 9.80 or 9.81)[1].

This means that the final submission for Part L1a compliance and the EPC have to be produced separately:

- The TER/DER outputs and the Regulations checklist must be produced from the SAP 9.80/9.81 calculation (revised, if necessary to take account of any changes since the design stage). Part L1a compliance will be based on these results.

- The EPC must be lodged from a SAP 9.90 calculation for the dwelling.

The simplest way of producing a SAP 9.90 calculation for the dwelling in JPA Designer is to use the **Copy SAP 2005 (9.8x) dwelling to SAP 2009 dwelling** option on the **Edit** menu in the **Project Manager** window. Of course, the SAP 9.90 TER and DER figures will show considerably worse performance than the comparable SAP 9.8x figures, and may even show a fail. However, the SAP 9.90 TER/DER are **not** used for compliance: the SAP 9.90 calculation is used **only** for producing the EPC.

4.1 Converting SAP 9.81 to SAP 9.90

To convert a SAP 9.81 calculation to SAP 9.90 in order to lodge an EPC:

1. Select the SAP 9.81 calculation in the **Project Manager** window by clicking on it *once*.

2. From the **Edit** menu select **Copy SAP 9.8x (SAP 2005) dwelling to SAP 9.90 (SAP 2009) dwelling**. This creates a SAP 9.90 version of the dwelling, but leaves the original calculation intact.

3. Open the new SAP 2009 calculation and check the data items listed in section 4.2.

4. Return to **Project Manager** and save the project.

You can now obtain the UPRN for the dwelling (section 3.2) and then lodge the EPC (section 3.3).

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[1]This does not apply to Northern Ireland, where EPCs are still based on SAP 9.81 calculations.

Figure 4.1: Setting the thermal bridging and thermal mass

4.2 Data to check

You must check the following items for all converted calculations

- *Thermal bridging*: if the thermal bridging in the SAP 9.81 calculation is set to *accredited construction details* it should become a user-defined y-value of 0.08 with the calculation reference *ACD, 2006 regulations* (Figure 4.1). There is no need to change settings it thermal bridging is set to *Not accredited construction details* or a manually calculated Htb value.

- *Thermal mass*: where thermal mass was not defined in the SAP calculation it should be set to $250\,kJ/m^2K$ (medium). To do that in JPA Designer:

    1. In the **Walls, roofs & floors** tab tick **User defined Thermal Mass Parameter** (Figure 4.1.

    2. Set the **Thermal mass** drop-down to **250**.

- *Air pressure test*: a design value for a SAP 9.81 dwelling which is not pressure tested should remain a design value for SAP 9.90, even though this is not a standard condition for SAP 9.90. For Scotland, if there has been no pressure test and the accredited construction details have been used, the air permeability should be set to *pressure test*, with a value of $10\,m^3/hm^2$.

- *Appendix Q*: any new technologies entered using the Appendix Q procedure should be left as they are.

- *Community heating:* where there are two boilers feeding one community heating scheme, or a boiler and a CHP unit the systems must be re-entered as two heat sources with the relevant characteristics: see section 22.3.6 of the JPA Designer manual.

- *Other items*: other items of data which are not set in the SAP 9.81 calculation can be ignored in the SAP 9.90 calculation.

There have been other changes in the EPC lodgement data set which affect mid floor and top floor flats (but not ground floor flats): you must now indicate if a flat has another occupancy beneath it and the floor is therefore a *party floor*. As this was not a requirement under SAP 9.81 you must add a party floor element to the SAP 9.90 calculation:

1. In the **Dimensions** tab tick the **party** box next to the storey which has the area assigned (e.g. first floor).

2. In the **Walls roofs & floors** tab create a new element:

   - Set the **Element** type to Party floor;
   - Pick a construction to set a heat capacity;
   - Set the **Storey** to the appropriate number;
   - Assign a **U-value** of zero;
   - Set the **Area** to the same size as the storey area in the **Dimensions** tab;
   - Click **OK**.

Note that this makes it important to enter the floor area of the flat against the correct row in the **Dimensions** tab.

5 Lodgement problems

This section describes how to identify and resolve data problems which result in EPC lodgements failing. It also describes how to get help for those problems, and how to request a UPRN for a dwelling which does not appear on the Landmark database.

5.1 Identifying the cause of a failed lodgement

Sometimes an EPC submission is unsuccessful and the EPC fails to lodge with Landmark. This usually happens because of inconsistencies in the data, which are caught by Landmark's checking systems. If a lodgement fails you can view the failure report from Landmark in JPA Designer and correct the problem before trying the lodgement again.

To view the report from a failed lodgement:

1. Open the **EPC Request Management** dialogue (Figure 5.1).

2. Click once on the failed lodgement, so it is highlighted.

3. Click **View returned value**. The **Lodgement Return Values** dialogue opens (Figure 5.2).

4. Scroll down the **Return XML** area to the *Exception List* section. The cause of the failure will be given here.

5. If the cause of failure is not clear (and the codes are not always helpful), use the **Copy to clipboard** button to copy the report. You can then paste it directly into an email and send it to your accreditation scheme or JPA TL for advice.

5.2 Common causes of failure

Lodgements generally fail because of mismatches between different items of data. The commonest ones are:

- *Dates*: the application date is found at the bottom of the **Dimensions** tab. This must not be:
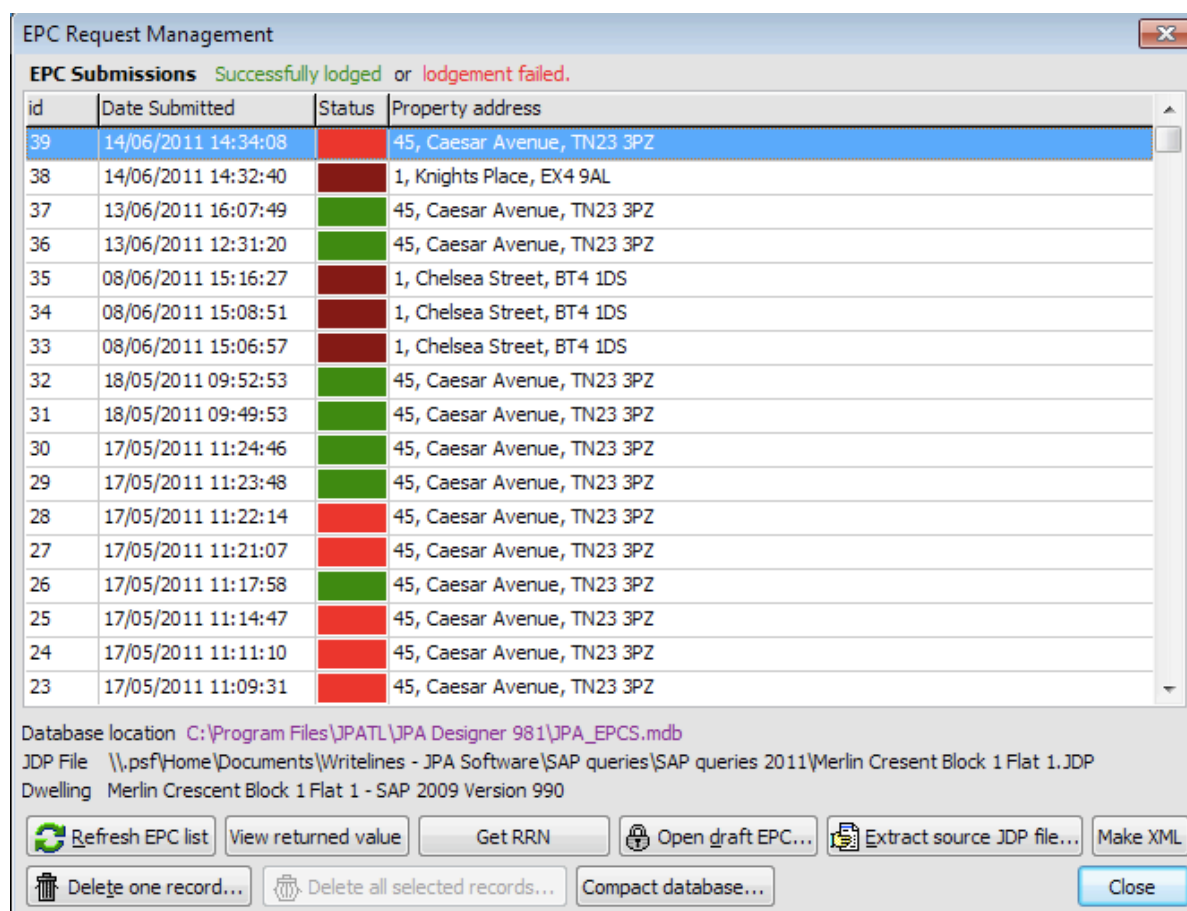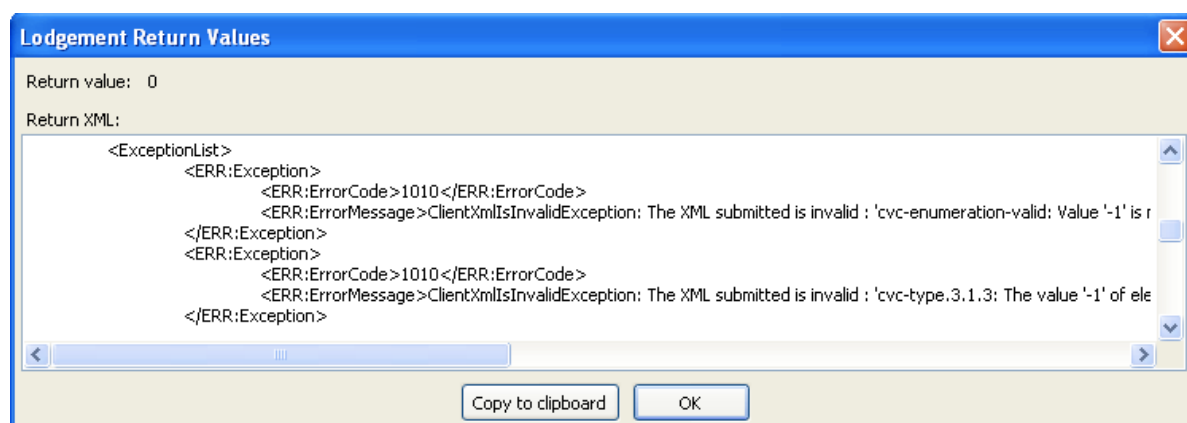
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Figure 5.1: The EPC Request Management Dialogue

Figure 5.2: Viewing the exception list for a failed lodgement

   – in the future[1];

   – more than two years in the past (this is more likely to be an issue with calculations converted from SAP 2005 to SAP 2009 than with calculations starting in SAP 2009);

   – earlier than the date on which you were registered as an assessor.

- *Dwelling type and dwelling dimensions:* if the dwelling type has been set as a mid-floor or top-floor flat or maisonette, the dwelling floor area in the **Dimensions** tab must be set to an appropriate story. Setting a mid-floor flat, but entering the floor area against *Ground floor* will result in a failure.

- *Dwelling type and elements:* a house must have a *ground floor* element in the **Walls, roofs & floors** tab. Defining that floor element as a *floor* rather than *ground floor* will result in a failure.

- *Flats and party floors*: Mid-floor and top-floor flats must now be marked as *party floors* in the **Dimensions** tab. They must then have a party floor element defined in the **Walls, roofs & floors** tab (for instructions see section 4.2).

5.3   Getting help

If you are unable to identify the cause of a failed lodgement you can ask the advice of your accreditation scheme, or contact us at JPA TL (email enquiries only to: support@techlit.co.uk).

When you are making an enquiry please ensure:

1. You are using the latest version of the program. You can get your version number by going to **About** on the **Help** menu, and can then compare that with the version number shown on the home page of our web site: http://www.techlit.co.uk. You can find more information on this in section 2.5 of the JPA Designer User Manual[2].

2. You have followed the recommendations for resolving problems in this manual, and have reviewed the common causes of failure (section 5.2).

3. In your email:

   - tell us which accreditation scheme you are with;

   - paste the **Lodgement Return Values** into the *body* of the email (there is no need to put it in a separate document).

   - attach the JPA Designer project file for the calculation. That will have the extension **JDP**.

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[1]There was at one stage an issue with the application date being set to the date of the lodgement, if the lodgement was made before noon. That does not seem to have been an issue recently.
[2]http://www.techlit.co.uk/downloads/manual501.pdf

5.4   Dwellings without a UPRN

There may be occasions when you cannot obtain a UPRN for a dwelling because it has not been added to the Landmark database. If that happens, you can request the property be added, using the Landmark web site.

Before you go to the web site you will need to install the digital security certificate provided by your accreditation scheme.

To request a property be added to the database:

1. In your web browser go to the Landmark web site.

   England and Wales: https://www.epcregister.com.

   Northern Ireland: https://www.epbniregister.com.

2. On the welcome page click *Authorised users*.

3. The site displays a **Client Authentication** dialogue. Select the digital certificate from your accreditation body and click **OK**.

4. The site shows a terms and conditions page. Click **Accept terms**.

5. On the *Address Services* page scroll down to **Request Property Address Addition** and follow the link to add an address (labelled *click here*).

6. On the *Request Property Address Addition* page enter the details of the property and your accreditation number then click **Request Address Addition**.

Landmark should process the request within 24 hours and should notify you by email once the URPN has been assigned. You can then try to get the UPRN in JPA Designer again.