

*Pedigree*  
*Explorer*<sup>TM</sup>  
V6.0

**DESIGN MANUAL**

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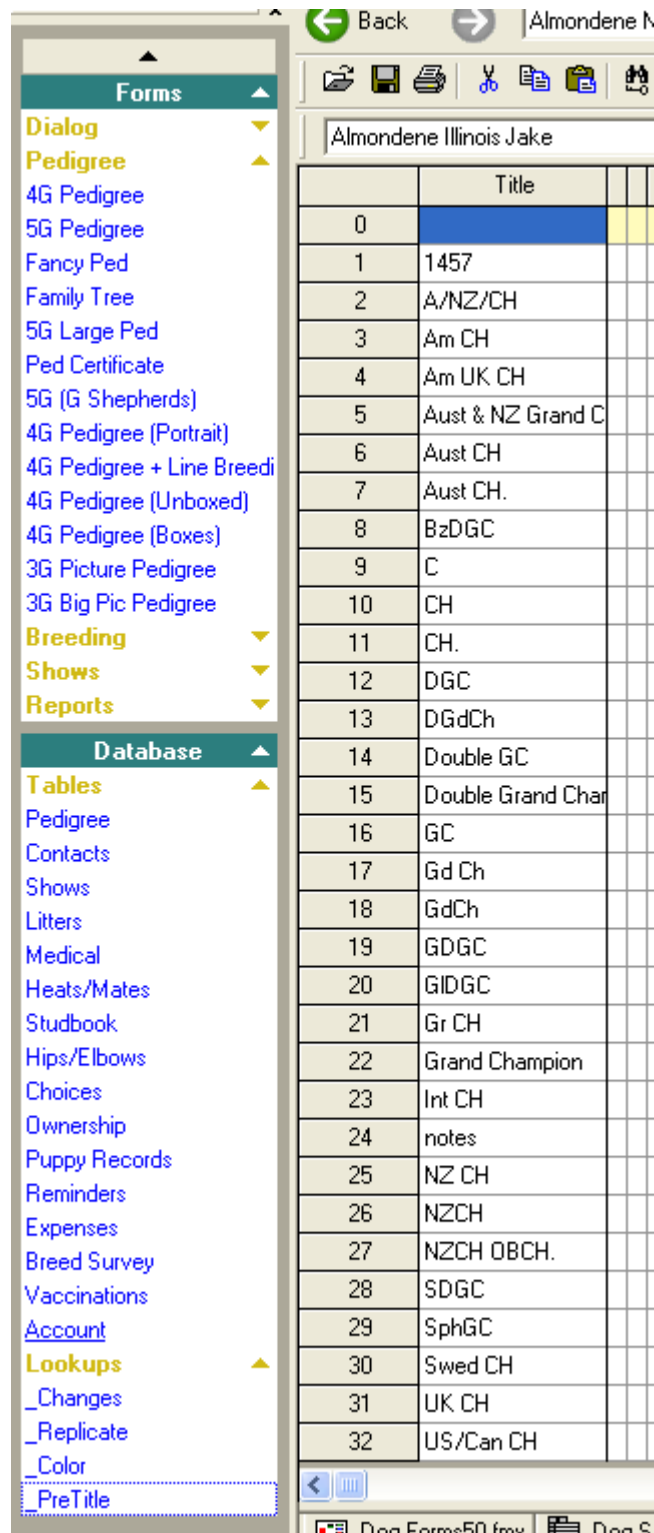
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# **1 Database Design**

## **1.1 New Categories of Choices**

Choices are a list of values you can choose from when entering data into a field via the Navigator or via the drop down lists in the dialogs. Lets say you want to add not just more choices but a completely different category of choice for another field. As an example consider the Contacts table, you could add a list of choices for suburbs or states or postcodes and in the Show table you could create a list of frequently used judges and clubs.

Many of the choices which exist are in the “Lookup” tables located in the Chooser bar under Lookups. They are no different from any other table, but were created for the express purpose of storing lookups. The relevant lookup table can be viewed by right clicking on a cell in the Grid view and selecting View Lookups.



The example above shows how to add another choice for Titles.

You can manually add another record and then add some more choices in any of the existing fields but as described earlier this is done for you automatically whenever you put data in a linked field for which a matching choice does not exist.

If you wish to create a totally new category of choices for a particular field by simply adding a new column to the Choices table then linking to it from another field by setting the “Foreign Key Table” to Choices and the “Foreign Key Field” to the field you created.

To create a column first go into Design view by clicking on the design button then just select the next empty column name as shown in Figure 1.1 where we have added the “CLUBS” field.

**Figure 1.1**

	Field Name	Type	Format	Foreign Table	Foreign Field	Width	Fore Color	Back Color	XML Field	Index
0	Show Titles	String	Normal			136	0	FFFFFF	Nil	None
1	Obedience Titles	String	Normal			76	0	FFFFFF	Nil	None
2	Colours	String	Normal			112	0	FFFFFF	Nil	None
3	Sexes	String	Normal			69	0	FFFFFF	Nil	None
4	Countries	String	Normal			84	0	FFFFFF	Nil	None
5	Primary Source	String	Normal			130	0	FFFFFF	Nil	None
6	Secondary Source	String	Normal			131	0	FFFFFF	Nil	None
7	Field Titles	String	Normal			87	0	FFFFFF	Nil	None
8	Awards/Notes	String	Normal			107	0	FFFFFF	Nil	None
9	URLs	String	Normal			82	0	FFFFFF	Nil	None
10	CLUBS	String	Normal			10	0	FFFFFF	Nil	None
11		String	Normal			10	0	FFFFFF	Nil	None


You can also set the data type of the field and its background and foreground colors. Click on the Design button again to return to normal Grid view.

**Figure 1.2**

	Show Titles	URLs	CLUBS
447			
448	AUSGr Ch	<a href="http://www.iwpedigrees.com/">http://www.iwpedigrees.com/</a>	Alice Springs Hound Club
449	CDN Ch		All Englands Breed Club
450	CDN OTCh Ch	<a href="http://www.iwpedigrees.com/">http://www.iwpedigrees.com/</a>	Canowindra Beagles Assoc
451	CS Ch	<a href="http://www.iwpedigrees.com/">http://www.iwpedigrees.com/</a>	
452	CZ SK WDK CZJr Ch		
453	CZJr Ch		
454	DK S FIN Ch		
455	F Ch		

Now that we have created a category for a list of clubs, we can create a list by adding new records and putting information in the newly created “Clubs” field as shown in Figure 1.2 where we have added three entries.

Having created the category and then filled it up with a list of choices we can now use this in any other field in our database. Of course the most useful field would be the Sponsoring Club field in the Show Table. So to set this up first go to the Show table using the Chooser bar on the left and click on Shows.

Next click on the Design button . In the row for “Sponsoring Club” set the “Foreign Table” to Choices and set the Foreign Field to CLUBS as shown in Figure 1.3.

**Figure 1.3**

	Field Name	Type	Format	Foreign Table	Foreign Field	Wid
0	Name	String	Normal	Pedigree	Name	120
1	Show Date	Date	Auto			100
2	Sponsoring Club	String	Normal	Choices	Show Titles	140
3	Show Name	String	Normal		Show Titles	140
4	Entry Fees	Currency	0		Obedience Titles	70
5	Cheque No.	String	Normal		Colours	70
6	Breed Class	String	Normal		Sexes	70
7	Special Class	String	Normal		Countries	70
8	Trial Class	String	Normal		Secondary Source	73
9	Class Judge's Name	String	Normal	Conta	Field Titles	70
10	Result	String	Normal		Awards/Notes	120
11	1st	String	Normal	Pedig	URLs	70
12	2nd	String	Normal	Pedig	CLUBS	70
13	3rd	String	Normal	Pedigree	Primary Source	70
14	Winners	String	Normal	Pedigree	Name	140

Having completed our setup we can now use it by adding another show record and clicking in the Sponsoring Club field with the right mouse button. Now when the Navigator appears it will list the choices we have created for clubs. To enter one of these choices just click on it then click on Insert. Note that you don't have to use the choices offered and you can enter any value in the Navigator's edit box then hit Insert. If it doesn't match an existing choice then you will be asked if you want to "create a matching record" or in our case add another choice in our category.



## 2 Forms Basics

### 2.1 Entities

A form file contains many templates or forms. Each of these forms corresponds to one or more sheets of paper and a form is a graphical description of how you want to present database data.

Forms contain drawing entities which can be classified as either static or dynamic. Static entities never change regardless of the data, while dynamic entities are dependent on the data from the database.


#### The static entities are:

- |            |  |
|------------|--|
| Text       | This does not change when a different entry is selected (unlike fields). Static text is shown in a black colour only.  |
| Logos      | This is a fixed picture (i.e. not linked to the database). Only the file's location is stored in this entity (not the actual picture). Whenever the entity is drawn the file will be read in from the file location and drawn. |
| Lines      | Lines are coloured in black only. They may have a width.   |
| Rectangles | As for lines.  |

#### The dynamic entities are:

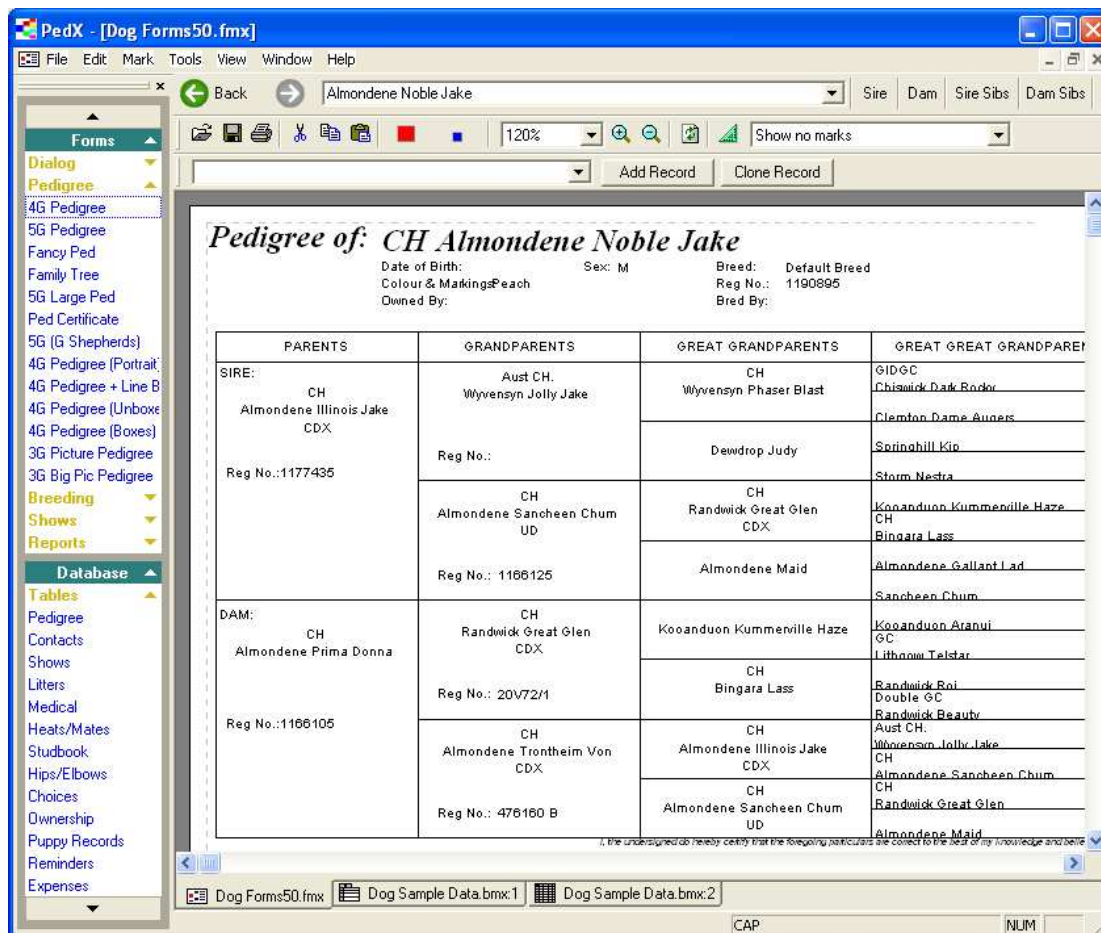
- |          |  |
|----------|--|
| Records  | These appear as green rectangles in the form edit view but will appear as black rectangles in the form view (or not appear at all if their line width is set to invisible).                                  |
| Fields   | These appear as blue rectangles in the form edit view. Fields should always be contained within records.   |
| Pictures | These are just one type of field but with a special picture capability. They are similar to logos, but instead of the picture file name being stored in the picture it is stored in a field of the database. |
| Links    | These appear as red lines with a black blob at one end in the form edit view. Links are used to join records (green rectangles). A link should always start in one record and end in another.                |

The size of the form, i.e. the size of the paper is set via the **File-Print Setup** command.

To edit a form first go to the form view and select the form you wish to edit from the Form menu. Next select the edit mode by clicking on the  edit button.

An example of a form in form view is shown in Figure 2.1.

Figure 2.1



The form view shown above is of a four generation pedigree certificate. Items such as “Date of Birth” and “GRANDPARENTS” are examples of text. These are of course static and do not change when different data is selected to be displayed.

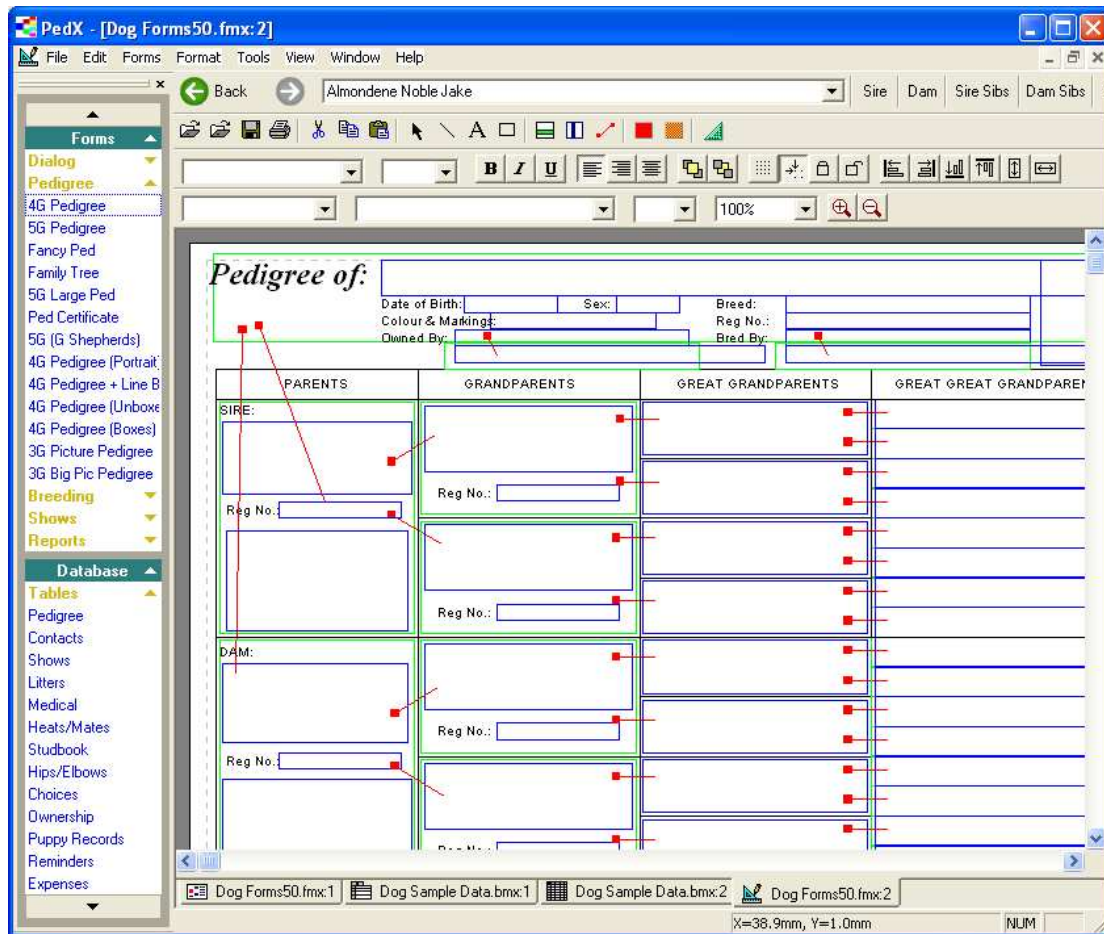
The large rectangle enclosing the four generations is an example of a rectangle. Again it is static.

The lines which divide up the pedigree are an example of lines, which again are static.

The name of the entry “Almondene Beautys Lass” is an example of a field. It will change with the data. Other fields can also be seen, e.g. DOB, “Colour & Markings”, “Reg No.” etc.

The records and links cannot be seen in the forms view but if we switch to design view as shown in Figure 2.2, then they would appear as green rectangles and red lines respectively.

Figure 2.2



## 2.2 Text Properties

Text and field entities as described above both have text properties as described in the following subsections.

**Font** The font is the character font and it may be any of the TrueType fonts installed on your machine. Note that if you design a form using a TrueType font that exists on your machine and then supply your form to someone else who doesn't have that font, then a substitute font will be supplied - it may not appear exactly as intended.

**Size** This is the font size in units of 0.1mm. A normal size to use in most forms is 28. Large text could be 36, or 48. The user is free to set any integer font size up to the Windows maximum.

**Style** This is either, regular, bold, italic or bold italic.

**Colour** This can be any of the following - black, red, yellow, blue, cyan, magenta.

## 2.3 Line Properties



Line properties apply to all links, records, fields, lines and rectangles.

Width        The line width may be set to the value in millimeters shown in the pop up menu under **Format-Line Width**.

## 2.4 Display Order

When PedX displays or prints a form, it will draw the static component of all entities first, then it will draw the dynamic text from the database. Entities which are drawn last will appear on top of entities which are drawn earlier, hence they may obliterate some parts of those entities.

In addition, when drawing the static and dynamic components, it will draw entities in the order in which they appear in the display list. Every entity is stored in the display list and when a new entity is added to the drawing it is added to the end of the display list, i.e. it is drawn last.

Usually the display order will not be significant, but it can be extremely important when calculating links as described in *Section 4*. The display order can be changed using the Display Order buttons Send to Front  and Send to Back .

## 2.5 Dynamic Entities

The dynamic entities, i.e. records, fields and links are simply a graphical means of performing database queries.

Here are some simple rules which will assist in understanding these concepts:

- A record appears as a green rectangle in edit mode. It corresponds to one record in the database in one particular table.
- The table which each record belongs to is set and can be changed, via the edit box.
- Every form has one and only one root record. It is distinguished by being the only record which is not the target of a link. The actual record that a root record points to is always the current record in that table. The current record is simply the record that is currently highlighted in the database view.
- Every record except the root record is back to the root record either directly or through intermediate records which are themselves linked to the root record.
- Records are linked together by links. A link is directional, it has a source and a destination. The source has a square solid blob on it, the destination end does not.
- Each link has one and only one field set for it. The action of a link is to look up the nominated field from the source record, in the primary field of the destination record.
- There is a maximum of four links out of any one record.
- Fields appear as blue rectangles in edit mode. A record can contain any number of fields. The fields are simply set to a particular field within the record in which they are contained.

## 2.6 Creating Forms Files

A forms file is a collection of forms. You may wish to create your own forms file to collect together all the forms that you normally use and also to add your own forms.

The steps in creating a forms file are:

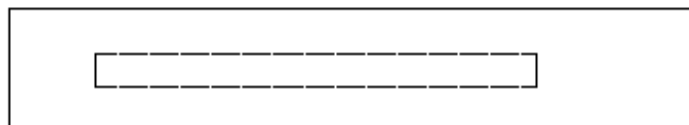
- Select ***File-New Form File***.
- The view will initially be blank because there are no forms within the forms file. To create a new form within your file, select ***Forms-New***. A dialog box will appear - enter an appropriate name for your form and click OK.
- Use ***File-Print Setup*** to set the correct paper size.

## 3 Forms Tutorial



### 3.1 Designing The Simplest Form

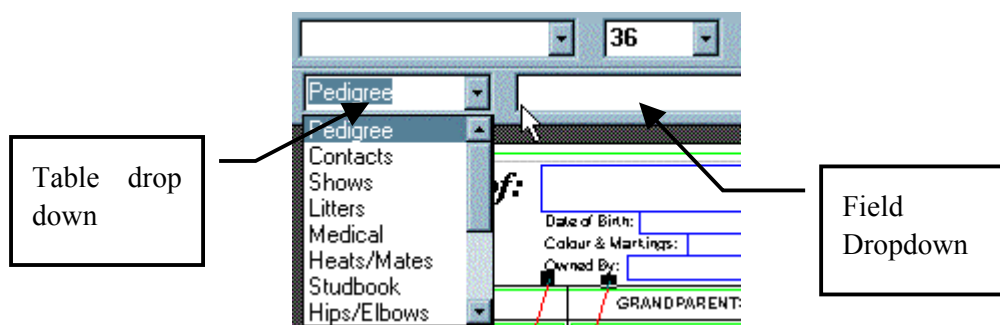
The simplest possible form is shown in Figure 3.1 where the outer rectangle is a record (green color) and the inner rectangle is a field (blue color).

**Figure 3.1**




To create this form follow the following steps:

- Create a new form using **Form-New** and set the name to “test”.
- Use **File-Print Setup** to change the paper size to A4 Landscape.
- Select the record tool  then draw its rectangle shape by clicking at its top left corner then dragging down to its bottom right corner. A green rectangle will appear - this is a record.
- Select the field tool and draw its rectangle within the record.
- Click on the Select tool , then select the record by clicking on it.
- The table to which this records belongs has to be set. We want to set it to the Pedigree table so click on the Table drop down list and select pedigree.



- Use the select tool to select the field. Use the field drop down to select “Name”.
- Use Font drop down list box to change its font to Arial and use the font size drop down list box to set the size to 28. See Figure 3.4 for location of these drop down list boxes.

### 3.2 Displaying The Simplest Form

Having completed the forms design, we switch to forms mode by clicking on  then the form we created would appear as below:

**Figure 3.2**

Almondene Beautys Lass

The record we added to the form was a **root record** because it was the only record and there were no links into it. Note every form must have one and only one root record - every other record hangs off that record either directly or indirectly.

Because the record was set to the Pedigree table, the form will display the current record in the Pedigree table, which happened to be “Almondene Beauty’s Lass”.

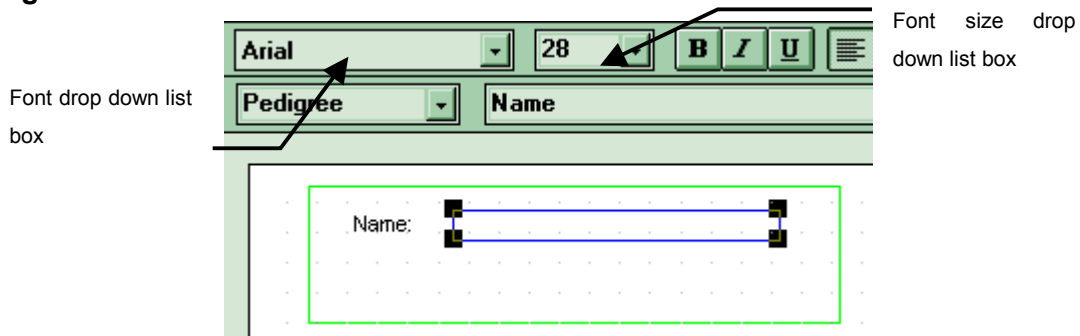
The field was set to a value of “Name”, hence in forms view it was replaced with the contents of the name field from the current record.



We can change the data that is being displayed by double clicking on any entry in the Navigator list which will take us respectively to the first, previous, next and last records in the current table.

### 3.3 Adding Static Text

So far we are only displaying dynamic text from the database. We will now add some static text in front of the dynamic data to act as a label. Since the field we are displaying is the name field, the text we will insert is “Name:”.

To add the text we will first set the default font and text size using the drop down list boxes shown in Figure 3.3. Click on the down arrows to see a list of available fonts and also sizes. In the case of font sizes you can also just type the size - it doesn’t have to be one of the sizes listed.

**Figure 3.3**

Now that the defaults are set, select the text tool  and draw the outer rectangle of where you want the text to appear. Click in the top left of the rectangle and, dragging the mouse to the bottom right corner, release the mouse button. Now type in “Name:” and then reselect the Select tool .

### 3.4 Adding More Fields

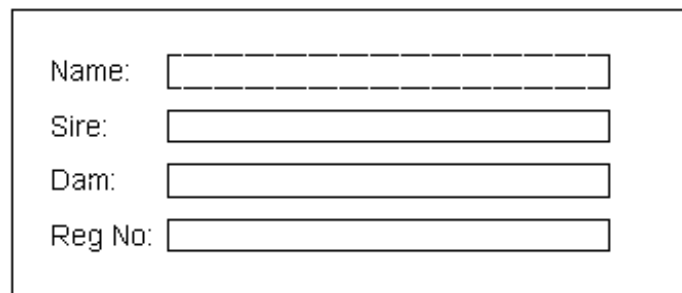
We could keep adding more fields and text as we did previously but there is a faster way. We can simply take what we have done and duplicate it.

In this example we will select the static text “Name:” and the field, the select **Edit-Duplicate** (or Ctrl-D). This will cause a copy of the selected items to appear 1mm to the left and bottom of the original. The copy will be selected so click on it to move it to directly underneath. Now when we hit Ctr-D again the second copy will appear with the same offset we have just set.

The next step is to change the static text and field values. To change the static text, select the text toll and click into the text and start typing. To change the fields simply select the fields one by one and using the field drop down list box change their values.

The result is shown in Figure 3.4.

**Figure 3.4**





A rectangular box containing four vertically stacked input fields. Each field is preceded by a label: "Name:", "Sire:", "Dam:", and "Reg No:". Each label and its corresponding input field are aligned to the left. The input fields are empty text boxes.

If the users were to click on the record, then “Pedigree” would appear in the edit box, indicating it is set to the Pedigree table. If the top field was clicked on then it would show “Name”. If the second field was clicked on it would show “Sire”..

After all that work it should appear as shown below in the forms view.

**Figure 3.5**

Name: Almondene Beautys Lass  
Sire: Almondene Noble Jake  
Dam: Almondene Celtic Beauty  
Reg No: 1177415

By clicking on the  or the  you can select the previous or next records and display their data in your form.

### **3.5 Adding Links**

The form we have created is “flat”, ie it doesn’t have data from any record except the current record. By using links we can create complex forms which show data related to the current record such as ancestors in a pedigree.

In this example our intention is to add a sire and dam record that will also show the registration number of the sire and dam.



Figure 3.6

The diagram illustrates the layout of three stacked form boxes. The top box contains two input fields: 'Name:' and 'Reg No:'. Below these fields are two black squares. The middle box contains two input fields: 'Sire:' and 'Reg No:'. A vertical line connects the left square to the 'Sire:' field, and another vertical line connects the right square to the 'Sire:' field. The bottom box contains two input fields: 'Dam:' and 'Reg No:'. A vertical line connects the left square to the 'Dam:' field.

The steps for creating this new form are as follows:

- Delete the sire and dam text and fields - we won't need them.
- Move the Reg. No. text and field up below the name text and field.
- Readjust the size of the record to neatly enclose the two fields.
- Select all of this (use an area selection) then **Edit-Duplicate**.
- Adjust the position of the copy below the original then **Edit-Duplicate** again to produce a second copy. We now have three records (green rectangles) each with a Name and Reg No. field in them.
- Use the text tool to change the text in the 2nd and 3rd copies to Sire and Dam.
- Use the link tool to add two links and make sure that the blob ends of the links start in the top record (our root record) and the non blob ends finish in the two copied records.
- Using the select tool, select the first link (Leftmost) and change it to Sire via the field box drop down list, then change the 2nd link to Dam.

Your form is now complete and in forms mode will appear as show in Figure 3.7:

**Figure 3.7**

Name: Almondene Beautys Lass  
Reg No: 1177415

Sire: Almondene Noble Jake  
Reg No: 1190895

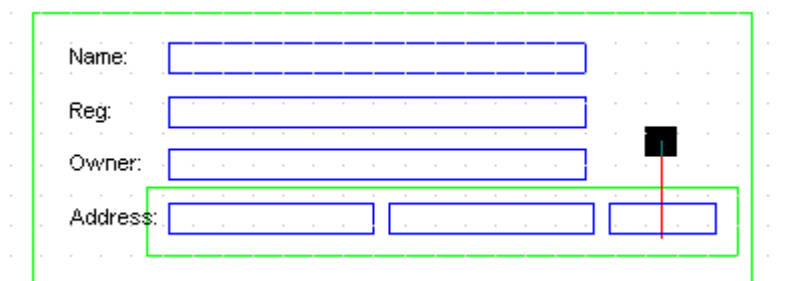
Dam: Almondene Celtic Beauty  
Reg No: 1163625

The techniques described above are sufficient to design 90% of forms but there are still some more advanced techniques which must be mastered for the more difficult forms.

### 3.6 Records Inside Records

Some forms will require the designer to locate one record inside of another record. For example if we took the previous sample and wished to show the address of the owner as shown in design view (Figure 3.8) and forms view (Figure 3.9).

**Figure 3.8**




**Figure 3.9**

Name: Almondene Barandale Heather  
Reg: 1116725  
Owner: Barry Tanwell  
Address: RMB 233 North Rd    Mt Providence    TAS

The steps in designing this new form are as follows:

- Delete the sire and dam records from the previous sample.
- Extend the record to be large enough to include the owner and address fields.

- Select the Reg. No. text and field and duplicate them using Ctrl-D (or **Edit-Duplicate**) and position the duplicate below the original with sufficient vertical space.
- Create another duplicate using Ctrl-D. Note the second duplicate has the same spacing from its original as you set for the first.
- Change the first copy's text to Owner and field to Owned.
- Add a new record enclosing the last field and set it to Contacts table.
- Select the record and use **Send To Back** toolbar button . This step is crucial, since when determining which record encloses a field, it is the record which is first in the display order (i.e. sent to the back) which will be chosen.
- Select the Owner record then select the field inside it and set it to "Street Address" via the field combo box.
- Resize that field and make two duplicates and set them to "Suburb" and "State" and position them horizontally.
- Add a link as shown and set it to Owner.

Your form is now ready to test by switching back to forms view. This example has shown the following important concepts:

- Display order of records affects which record a field and link belongs to
- Use of tables other than Pedigree table.

### 3.7 Using Expressions

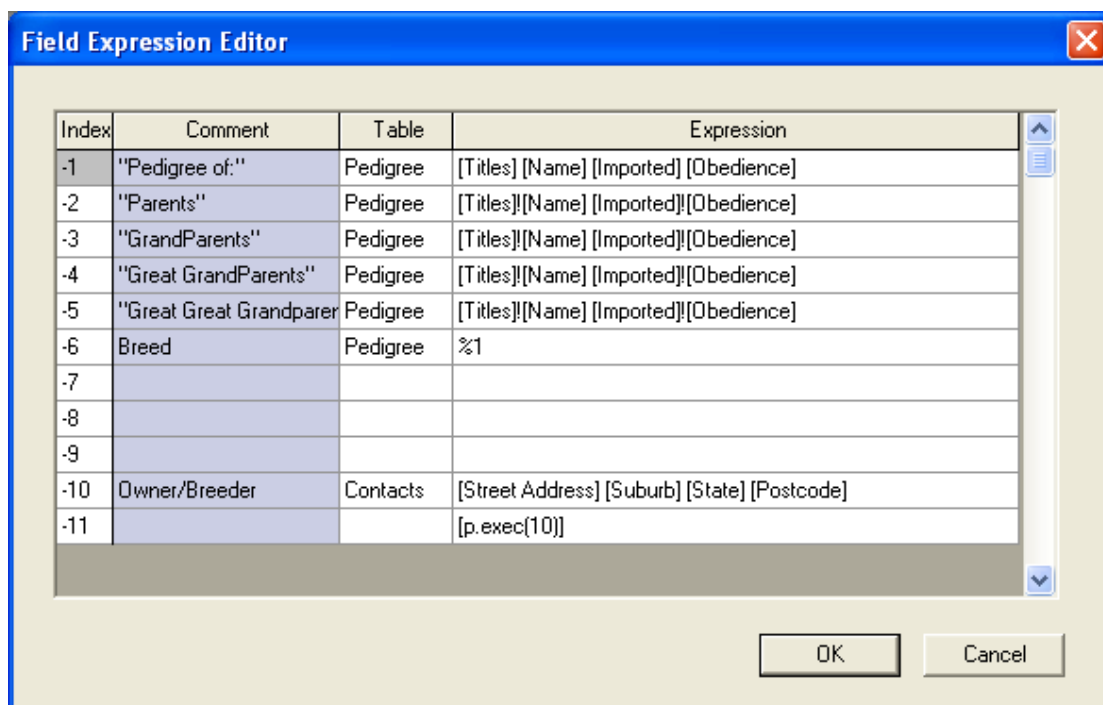
The example above shows that an owners address can be constructed by placing the three address fields, viz "Street Address", "Suburb" and "State" in a horizontal line. The main problem with this is that we have to fix the position of these fields, ie we can't just string the three fields together into one big field. Well actually you can and the way it is done is to use Expressions.

An expression is really just a compound field, ie it consists of one or more fields strung together.

To show the use of expressions in our example, follow these steps.

- Delete the "Suburb" and "State" fields then resize the "Street Address" field to extend the full length of the record.
- Next select the "Street Address" field and change it to "Expr1".
- We now have to define what is in Expression 1. Select **Edit-Expressions...**
- This will bring up a dialog box as shown in Figure 3.10.

**Figure 3.10**



- First change the name of “Expr1” to “Address” then set the Table to “Contacts”. Note this also causes the “Insert Field” combo to be loaded with the list of available fields from that table.
- Next select the “Street Address” field from the field combo. It will now appear in the Expression edit box enclosed in square brackets. Type a space character - it will appear after the “[Street Address]” in the Code edit box.
- Now select the “Suburb”, type space, then select the “State” fields. The result is shown in Figure 3.11. Note the spaces between fields which you typed.
- Click the OK button.

The result will be as shown in Figure 3.12.

**Figure 3.12**


Name: Almondene Barandale Heather  
 Reg: 1116725  
 Owner: Barry Tanwell  
 Address: RMB 233 North Rd Mt Providence TAS

## 4 Editing Forms

This section describes how to edit your own forms.

### 4.1 Selecting Objects

Entities can be selected as follows:

- Always ensure that the select tool  is selected (it will appear pressed).
- Select a single entry by clicking on it with the mouse.
- Select a group of entities within an area by clicking at the top left of the area, dragging the mouse down to the bottom right of the area and releasing the mouse button.
- You can keep selecting more entries by pressing the Shift key down while performing either of the previous selects.
- Deselect entities in the same way as above, i.e. hold the shift key down when selecting - if an entry is already selected it will be deselected, if it is not selected then it will become selected.

Entities which are selected are displayed as have four handles or solid black squares, one in each corner.

### 4.2 Adding Entities

Any entity can be added by selecting the appropriate tool, e.g. text, line, rectangle as described in Section 5.

### 4.3 Moving Entities

First select the entities to be moved as described in Section 6.1 then click on any of the selected entities (but not in a blob) then drag the mouse to the desired position and release.

When moving entities ensure that the original relationships between the records, fields and links is maintained, i.e. that fields remain within their records and that links start and end within their original records.

### 4.4 Resizing Entities

Just as objects (like text or lines) can be moved, they can also be resized. In the case of text this only changes the area in which they are bounded it does not change their font size.

To resize, first select an object by clicking on it. Four 'handles' should appear as square black blobs. Click in one of the blobs and drag then release the mouse button when the correct size is achieved.

### 4.5 Deleting Objects

Any object can be deleted - note that it cannot then be recovered, except by either not saving the form file or if the file has been saved, then copying the forms file from a backup.

To delete an object or objects simply select them and then hit the Delete key. This can be useful for removing fields from the standard pedigree forms if they are not required, eg remove registration numbers.

## **4.6 Changing Text**

Simply select the text tool and click the cursor at the point at which you wish to add text or delete text. You can use the left and right cursor keys to move the insertion point. Use the backspace key to delete text.

To change the size or typeface of text, use the drop down list boxes for font and font size located in the design view's toolbar.

## **4.7 Changing Records**

A record has only one value and that is the table it belongs to.

To change the table which the record belongs to first select it. Its table value will be shown in the Table drop down list box. Simply click on the list box and select a different table. Note you may need to scroll the list to see all available tables.

## **4.8 Changing Fields**

- A field also has only one value and that is one of the available fields of the record it belongs to. For example, if a field was contained in a record which was set to the Entry table, then it could be set to any field in the table.

The available fields also include a list of expressions, viz “Expr1”, “Expr2” up to “Expr11”:

To change a field, go to design view then first select the enclosing record - this will enable the list of fields to be loaded. Next select the field by clicking on it and click on the list box to display the available fields, select the field.

If you set the field value to one of the table names then no more need be done. If however you set a field to one of the expressions then you will need to define the expression if it hasn't already been done as shown in the next section.

## **4.9 Defining Expressions**

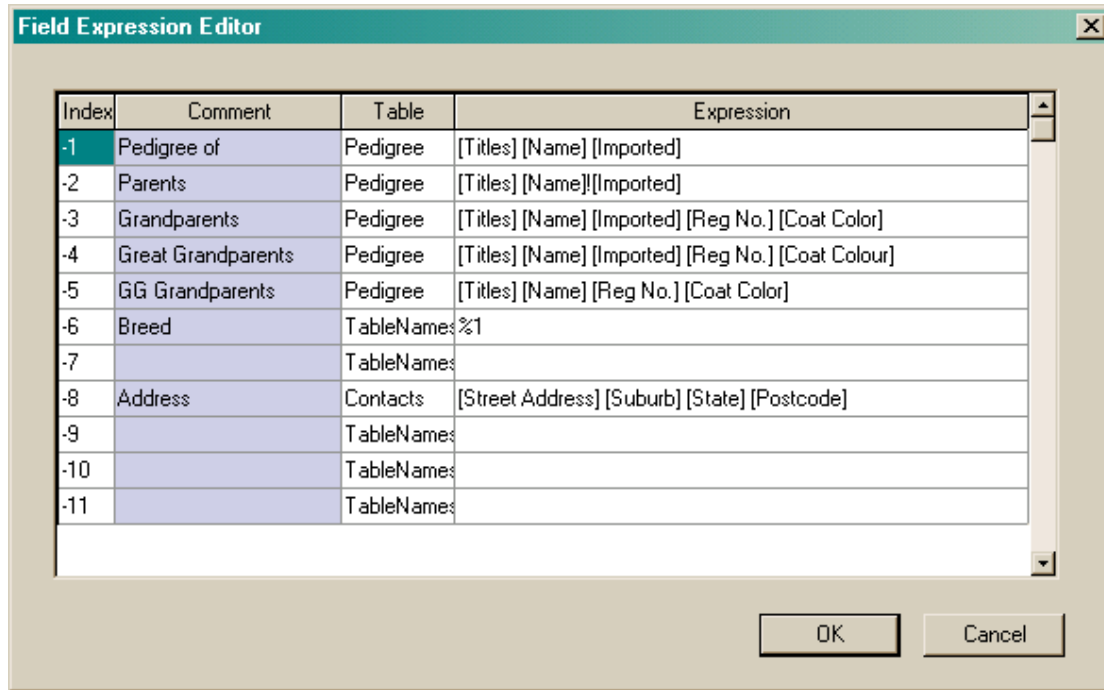
The fields used in designing forms can be either:

- a field value - eg “Name”, or “Colour” or “Sire”;
- an expression value, eg Expr1, Expr2

If a field refers to an expression then, when the form is being displayed, the field will be replaced by the expression. An expression is actually just a compound field, ie it consists of one or more fields strung together, eg the large compound field which appears at the top of most pedigrees is “title name imported obedience”.

Up to 10 field expressions are allowed per form and they are referred to as Expr1, Expr2... Expr10 – although the user can alter these names to something more descriptive like “Parents” – which implies that expression is used in the Parents fields. The ***Edit-Expressions*** command allows these Expressions to be edited or new ones to be created.

After selecting ***Edit-Expressions***, a dialog box appears as shown below.



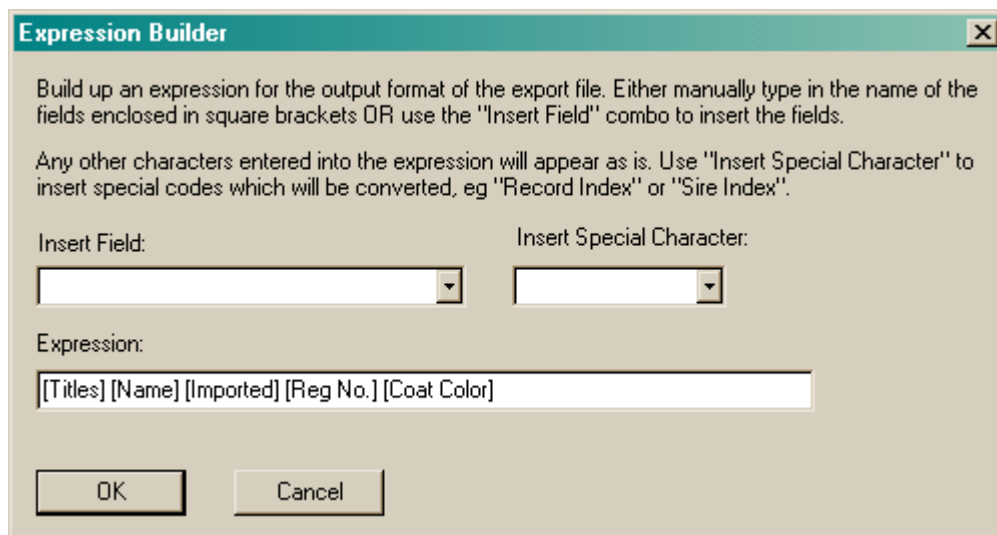
Firstly determine the expression you wish to edit by clicking on the Expression cell that corresponds to the index or where the Comment field indicates it applies to the fields of interest.

Usually you won't need to change the table if its an existing expression, but if you are creating a new expression then select the table the expression belongs to. Now all that remains is to enter the expression in the field labelled "Expression".

Any characters you type in the edit box will appear as is in the form except for the following special characters (which can be inserted via the "Insert Special Character" drop down):

- The '!' will be replaced by a new line.
- The '%' character followed by a single digit refers to a calculated field. There are only two calculated fields, viz 0 is for percentage of an ancestor in the final dog, and 1 is for the Breed field. Hence "%0" in the expression would get replaced with the percentage.
- The '[' character followed by a field name and then a closing ']' means "replace this with the contents of this field". Hence is "[name]" wa in the expression then it would be replaced with the value from the Name field.

A fast way of putting in fields (ie those enclosed in '[' and ']') is to click on the drop arrow in the edit box. This will bring up another dialog as shown below:



To insert a field in the expression select the field from the field combo box. Every time you select a field it will appear in the expression. Click on OK to return to the previous dialog.

## 4.10 Changing Links

A link is set identically to a field. Each end of the link must also be contained within a record. The record which controls which values a link may have is the one which contains the source end of the link (has a large rectangular blob on it).

Links may have the values as listed above for fields except for the special calculated values. In addition though it has two possible special values as listed below:

- “Expr1”. When this value is selected, then the linked records are merely copies of each other. This is used in some of the show entry forms to extend a record to isolated islands of fields.
- “Expr2”. When this value is selected then the destination record is duplicated for every record in the table. It is a very special case that is used only for the Litter Records form.

Note while the two special links listed above are referred to be names as Expr1 and Expr2, they have no relationship at all with expressions -they’re just convenient names!

## 4.11 Units of Measurement

The base unit of measurement used in forms is 0.1mm (one tenth of a millimeter). Normally the Snap To Grid option is set (it has a tick next to it) on the View menu, which means that the grid is 1mm. To use a 0.1mm grid, simply unset that option.

When moving entities or resizing, the status bar will show either position or dimension.

## 4.12 Aligning Entities

Aligning entities is the process of moving them so that either their, left, right, top or bottom extents are the same or their height or width are the same.

The toolbar actually contains buttons to perform all these alignment functions. First select the entities to be aligned then the relevant button. Note by hovering the cursor above the button its command function will be displayed in a “tool tip”



## 5 Worked Examples

This section describes some simple modifications that could be performed on any of the standard forms.

You may wish to save any changes to forms in a different form file and thus leave your standard form files in tact. Use the **File-Save Forms File As** command to make a copy of the current form file and save the file with a different name, eg BREED.FRM.

### 5.1 Deleting Unwanted Fields

Some of the standard pedigrees may be just what you want except they may have some fields that you don't need. As an example take the "4G Pedigree (A4 Fancy)". It has colour in the parents, grandparents and great grandparents and apart from this unwanted field is perfect for the user's requirements. A sample of one part of the pedigree is shown in Figure 5.1.

**Figure 5.1**

PARENTS	GRANDPARENTS	
SIRE:	COLLYDALE RINGO	E
ALMONDENE DIGGER	Colour: Lilac Reg.No.: 1256575	P
Colour: Blue Reg.No.: 1264535	ALMONDENE BEAUTY	L
	Colour: Blue Reg.No.: 1116715	E

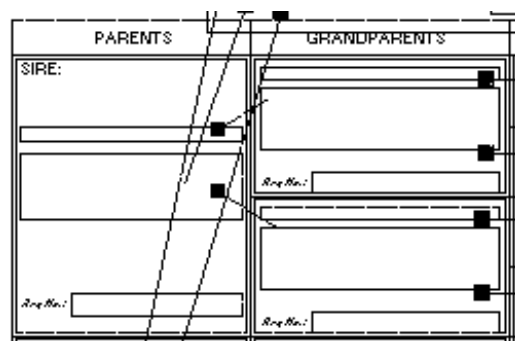
To change this, first enter edit mode, and the pedigree will change as shown below. Then just select the text "Colour:" wherever it appears holding the shift key down after selecting the first entity so that the selections keep accumulating. All of the "Color:" text will now be selected so just hit the Delete key to remove them.

**Figure 5.2**

PARENTS	GRANDPARENTS	
SIRE:		E
	Colour: <input type="text"/> Reg.No.: <input type="text"/>	P
Colour: <input type="text"/> Reg.No.: <input type="text"/>		L
	Colour: <input type="text"/> Reg.No.: <input type="text"/>	E

The only items to remove now are the fields. As for color, select the first color field and, holding the shift key down, keep selecting the others, then hit Delete. The resultant form should appear as shown in Figure 5.3.

**Figure 5.3**

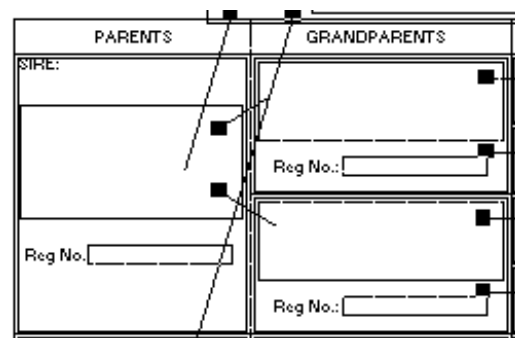


Exit design view and view the results. Remember to Save Form, otherwise your changes will not be permanent.

## 5.2 Adding Extra Fields

Let us assume that the 4G Pedigree is just what you want except that it doesn't show hip scores. Again we will work through the changes required showing just a portion of the pedigree as shown in Figure 5.4.

**Figure 5.4**



Rather than creating the text and field from scratch it is always easiest to copy one that is similar. So first step is to select the "Reg. No." text and the field to the right of it. Next do **Edit-Copy**, then **Edit-Paste**. The copy which was pasted will appear selected. Click on it and drag it so that it appears positioned directly below the original as shown below.

## 5.3 Changing Fields

Some pedigrees may be close to what is desired except that a field may need to be changed. As an example take the 5G A4 Pedigree. It has colour and Reg. No. in the first two generations. Lets say we wish to change colour to hip score. Just follow these steps.

Select the text tool and click in the static text "Colour". Use the arrow keys to navigate to the end of the text and hit backspace to delete all of it then type in "Hip Score:", then select the field next to it. Its field will appear in the edit box as "Colour" - hit the drop down button and select the "Hip Score" field then hit Enter.

So far we have changed just one copy of this. Rather than repeat this for all fields and text, we will just select all of the other text, then delete it. Next we will select the text and field, hit **Edit-Copy** to copy this pair to the clipboard then we paste copies to replace the ones we deleted.

Figure 5.5

The result of these changes will be as shown in Figure 5.6:

Figure 5.6

## 5.4 Copying Forms

There may be situations where the user wants to keep a form but also use a modified version of that form. This can be accomplished as follows:

- Select **Form-New**. A dialog box will appear. Enter the name of your new form and hit OK.
- Select the form you wish to copy from and select all the entities in that form by using **Edit-Select All**.
- Copy the entities to the clipboard using **Edit-Copy** and view your new form by selecting it from the Forms menu.
- Click the mouse in the top left corner (this establishes where the top left corner of the pasted copy will appear). Paste the copy in using **Edit-Copy**.
- Adjust the position of the forms entities by clicking on any one of the selected entities and dragging all the entities to the correct position.

## 6 Reports

Reports are listed under the “Report” button on the toolbar. Some examples of reports are: “List of Ancestors”, “2G Text Pedigree”, “3G Text Pedigree”.

Reports are completely different from the other forms because reports are purely text based. As such they have the advantage of being able to be copied directly into any text based application such as email. In fact all reports are emailable. Some reports have special codes in them for HTML or web formatting. These can be directly saved into application sliet Notepad and then saved as HTML files.

- when designing, the text you put in will come out in the report as is - unless its a variable;

### 6.1 Variables

- variables are enclosed in square brackets [ ];
- there are only two types of variable - records and fields;

#### 6.1.1 Records

- records are always numbered starting from 0;
- 0 is the root record - every report has one and it is by default the current record in that table;
- record format is [rNN=TT,RR,FF] where NN is the record number , TT is the table that record belongs to (1 is Pedigree table, 2 is Contacts etc), FF is the field in record RR to take and look up against the primary key in table TT, eg if I want to create a record corresponding to the sire of record 0 then [R1=1,0,3].
- records never get printed, only fields

#### 6.1.2 Fields

- field format is [F=RR,FF,WW] where RR is the record, FF is the field in that record and WW is the fixed field width (pads the result out to the number of characters and also limits characters - usefull if you want text on the same lien to appear in the same column regardless of the data). If WW is 0 then no padding or limiting is applied.

## 6.2 Expressions

Reports also have expressions just like other forms - the main difference being that instead of having to set expressions via the Edit-Expression dialog box, you can define them within your text report. This makes it easy to copy and paste your source code and share it with other people.

The format for an expression is [eNN=TT, “normal expression”] where NN is the expression number and TT is the table the expression belongs to and “normal expression” is the same as for normal expressions.

Once you have defined an expression you can use it just like any normal field within a field statement. Hence [F=RR,FF,WW] can have FF set to a negative number where the number is

the expression number - so to have your field use expression 2, with record 3 you would right [F=3,-2,0].

## 6.3 Macros

Macros make it easy to very complicated text reports. For example you can do a 9 generation pedigree in one line.

### 6.3.1 Siblings

The format for the siblings macro is [s=f/s/d,-1], where the first argument is f or s or d for full/sire/dam and the last argument is the expression to use when printing the siblings.

### 6.3.2 Pedigree

The format for the pedigree macro is [p=-1,-2,-3,-4,-5] where each item in the list is the expression you want to use for each respective generation. Hence in the example just listed we have selected expression -1 to use in the first generation, -2 in the second and -3 in the third and so on. More typically we would use the same expression for all generations hence to produce a 5 generation pedigree (plus original) we would use the expression [p=-1,-1,-1,-1,-1].

### 6.3.3 Line

The format for the line macro is [l=s,-1,40] where the first argument is either s or d for sire or dam, the next is the expression to use and third is the width to pad the first column out to.

### 6.3.4 Offspring

The format for the offspring macro is [b=-1] where the first argument is the expression to use when printing an offspring or mate.

The format for the report is a list of offspring grouped according to the mate. This grouping is regardless of when the mating occurred, hence offspring from the same mate but at different times will be listed together.

### 6.3.5 Reverse Pedigree

The format of the reverse pedigree macro is [v=n,-1] where n is number of generations and -1 is the expression to use.

### 6.3.6 HTML Pedigree

The format of the HTML pedigree macro is [h=n,-1] where n is number of generations and -1 is the expression to use.

## 6.4 Examples

### 6.4.1 Simple

Lets start with a simple text report which just prints the name of the currently select record. It would look like:

[r0=1]

[f=0,0,0]

The result would look like:

**Almondene Barandale Heather**

What we did was define a root record (r0) and set it to table 1 (Pedigree table). Then we placed a field which was from roecord 0, was field 0 within that record and had a width of 0 (means don't pad out).

Now lets expand or that simple report by including a few more fields.

```
[r0=1]
Pedigree of: [f=0,0,0]
DOB: [f=0,2,0]
Sire: [f=0,3,0]
Dam: [f=0,4,0]
```

The result would look like:

```
Pedigree of: Almondene Barandale Heather
DOB: 5/6/1994
Sire: Almondene Digger
Dam: Almondene Dell
```

What did was put in some static text (that's text not inside square brackets) for "Pedigree of: " etc. We also added three more fields, being fields 2, 3 and 4 which corresponds to the DOB, sire and dam fields.

So far that was pretty simple Now we get to an example which defines extra records. In this example we will display the sire and dam along with their titles.

```
[r0=1][r1=1,0,3][r2=1,0,4]
Pedigree of: [f=0,0,0]
DOB: [f=0,2,0]
Sire: [f=1,6,0][f=1,0,0][f=1,7,0]
Dam: [f=2,6,0][f=2,0,0][f=2,7,0]
```

The result would look like:

```
Pedigree of:Almondene Barandale Lassie
DOB: 5/6/1994
Sire: CH Almondene Illinois Jake CDX
Dam: CH Almondene Barandale Heather
```

The result is that the sire and dam have titles added before the name and obedience titles after the name.

The way we did it was to create two more records, one for the sire and one for the dam. The sire record is [r1=1,0,3] - which means r1 (1 being the next free record number - remember they must be in order) is in table 1, look up record 0 field 3 (in table 1) - in other words take the sire field from record 0 and look it up in the Pedigree table. This means record 1 will now be set to the record for the sire.

Beyond that all we have done is put in three fields for each sire and dam record. Field 6 is the show title and 7 is the obedience title.

## 6.4.2 Modifying Expressions

The previous example was file for a simple pedigree but if you want to display show title, name, obedience title for every dog/cat in you pedigree it gets too complicated.

Expressions simplify the above example as follows:

```
[r0=1][r1=1,0,3] [r2=1,0,4]
[e1=1,"[Titles] [Name] [Obedience]" ]
Pedigree of: [f=0,0,0]
DOB: [f=0,2,0]
Sire: [f=1,-1,0]
Dam: [f=2,-1,0]
```

The result would look like the following (which is exactly the same as the previous example):

```
Pedigree of: Almondene Barandale Lassie
DOB: 5/6/1994
Sire: CH Almondene Illinois Jake CDX
Dam: CH Almondene Barandale Heather
```

### 6.4.3 Pedigree

Using the Pedigree variable its possible to construct pedigrees up to 9 generations corresponding to 1023 ancestors. The typical design text for a 4G pedigree is as follows:

```
[r0=1][r1=1,0,3][r2=1,0,4][e1=1,"[Titles] [Name] [Obedience]
[Reg No.]" ]
Pedigree of: [f=0,-1,0]
Date of Birth: [f=0,2,0]
Colour & Markings: [f=0,8,0]
Owner: [f=0,10,0]
```

```
[p=-1,-1,-1,-1,-1]
```

And the result of running that design is shown below:

```
Pedigree of: CH Almondene Barandale Heather CDX. 1116725
Date of Birth: 5/6/1994
Colour & Markings: Black & White
Owner: Barry Tanwell
```

```

          +--Gr CH Villawood Whisky CDX UD TD
        +---Grand Champion Villawood Collingwood
          |   +--DGC Flockella Lassie AOC CDX 1043304
        +---Aust & NZ Grand Champion Collydale Ringo 1256575
          |   |   +-- Flockella Speedy Bill 15451
          |   +-- Collydale Dell 1254366
          |       +-- Ennisdale Sue 13722
    +---CH Almondene Digger 1264535
      |   |       +--CH Almondene Charger N1264555
      |   |   +---CH Aurella Sanjay Sarson 1105715
      |   |   |   +---CH Almondene Barandale Lassie 1116675
      |   +--- Almondene Celtic Beauty 1163625
      |       |   +---CH Randwick Thunder 23V70
      |       +--- Odensholm Coquette 15V74/2
      |           +--- Odensholm Gillian Gypsy 5V73
```

```

+--CH Almondene Barandale Heather CDX. 1116725
|           +-- Kerrilee Toss  1204186
|           +-- Wyena King
|           |   +-- Gargarin Meg UD 12732
|           +-- Almondene Gallant Lad  1244716
|           |   +-- Yellig Hemp
|           +-- Almondene Gazelle  1163645
|           |   +-- Yellig Nymph
+--NZCH OBCH. Almondene Dell  14702
|           +-- Ken A Millar  W 89T3786
|           +--US/Can CH Kilton Toss UD
|           |   +-- Cameron Kilt  1204986
+--NZ Ch Collydale Toss  12301
|           +--CH Almondene Illinois Jake CDX 1177435
+--CH Almondene Charger  N1264555
+-- Biddy Bereft  Q93635/99A
    
```

#### 6.4.4 Line

The line reports will go back an unlimited number of generations. The typical design text for a line report is as follows:

```

[r0=1][r1=1,0,3][r2=1,0,4][e1=1,"[Titles] [Name] [Obedience]
[Reg No.]"
SIRE LINE for: [f=0,-1,0]
Date of Birth: [f=0,2,0]
Colour & Markings: [f=0,8,0]
Owner: [f=0,10,0]
    
```

SIRE LINE

```

SIRE                                     DAM
[l=s,-1,50]
    
```

A typical result for the above report is shown below. Note that the text is folded over because the line length is too long.

```

SIRE LINE for: Almondene Gallant Lad  1244716
Date of Birth: 3/4/1978
Colour & Markings: Brown
Owner: Justine Fabre
    
```

SIRE LINE

```

SIRE                                     DAM
Wyena King .....Almondene
Gazelle 1163645
Kerrilee Toss 1204186.....Gargarin Meg
UD 12732
Stan of Berwickshire .....Tulagi Spark
    
```



Virginia Cap 3036.....Watsons Bess  
1909-54  
Cullens Sam 17992.....Cullens Pen  
1263216

#### 6.4.5 Siblings

The typical design text for a siblings report is shown below. It incorporates the three different sibling types in the one report.

```
[r0=1][r1=1,0,3][r2=1,0,4][e1=1,"[Titles] [Name] [Obedience]
[Reg No.]"]
SIBLINGS of: [f=0,-1,0]
Date of Birth: [f=0,2,0]
Colour & Markings: [f=0,8,0]
Owner: [f=0,10,0]
```

```
FULL SIBLINGS ([f=1,-1,0], [f=2,-1,0])
[s=f,-1]
```

```
SIRE SIBLINGS ([f=1,-1,0])
[s=s,-1]
```

```
DAM SIBLINGS ([f=2,-1,0])
[s=d,-1]
```

A typical result for the above report is shown below:

```
SIBLINGS of: Almondene Gallant Lad 1244716
Date of Birth: 3/4/1978
Colour & Markings: Brown
Owner: Justine Fabre
```

```
FULL SIBLINGS ( Wyena King , Almondene Gazelle 1163645)
Almondene Black Beauty 1131195
```

```
SIRE SIBLINGS ( Wyena King )
Almondene Black Beauty 1131195
Glenarvon Karing 1051554
Hollywood Christeena 13442
Hollywood King CD 1043324
```

```
DAM SIBLINGS ( Almondene Gazelle 1163645)
Almondene Black Beauty 1131195
```

#### 6.4.6 Offspring

The typical design text for an offspring report is as follows:

[r0=1][r1=1,0,3][r2=1,0,4][e1=1,"[Titles] [Name] [Obedience]  
[Reg No.]"]  
OFFSPRING of: [f=0,-1,0]  
Date of Birth: [f=0,2,0]  
Colour & Markings: [f=0,8,0]  
Owner: [f=0,10,0]

**BREEDINGS**

[b=-1]

A typical result for the above report is shown below:

OFFSPRING of: Almondene Gallant Lad 1244716  
Date of Birth: 3/4/1978  
Colour & Markings: Brown  
Owner: Justine Fabre

**BREEDINGS**

1. Breeding - NZ Ch Collydale Toss 12301
  1. NZCH OBCH. Almondene Dell 14702
  
2. Breeding - Sancheen Chum PDX
  1. Almondene Maid 1260436
  
3. Breeding - Almondene Black Beauty 1131195
  1. Almondene Meg Cn 1201024