Appendix A

Planning your Form

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A well-known expression is "People don't plan to fail; they fail to plan." This is especially true for the form designer. The usability and success of your form is directly related to how well you research and plan the form before drawing. This section contains a list of ten steps designed to help you plan and implement a successful electronic form.

The following information was generously provided by Mr. Robert Barnett of Robert Barnett and Associates Pty. Ltd.

Step 1 - Establish the primary purpose of the form

You'll design a better form if you have a clear idea of the form's purpose and understand what you are trying to achieve.

Step 2 - Find out who will use the form

Find out who will *fill out* the form, who will *process* the form when it is received, and who will need to *reference* the form at a later date.

It's also worthwhile to consider the following questions:

- Will the form be filled out internally, or will people outside your organization use it too?
- Will the users fill out the form regularly, or will they be "once only" form fillers?
- Have the intended users ever filled out an electronic form before?
- What equipment do the users have? What fonts do they use--a significant problem if the forms are used across various platforms. Even some common TrueType fonts differ between Windows 95 and Windows 3.x, so you might need to conduct careful tests.

Step 3 - Analyze the data needs

The data entered on the form can come from the person filling out the form, or it might be "looked up" in an existing database file. Make sure you understand:

- What data does each user need?
- Where does that data come from? Will all the users have access to the data they have to put on the form? For public-use forms and those filled out by people outside your organization, this can be a very important question.

If the data from the completed form will be submitted to a database, here are some typical questions you should ask:

◻ Is it always numeric or could there be alpha characters? Is there a fixed or maximum size?

◻ Do some fields need special or consistent formatting? Do date fields need to be structured to take care of the year 2000 and beyond?

◻ How will you handle very long text fields such as descriptions? Will they need scroll bars or a maximum size?

Step 4 - Decide which intelligence features are needed

Electronic forms can eliminate many of the problems caused by user error. For example, one of the biggest problems form fillers have is their inability to carry out basic arithmetic functions such as addition and subtraction. By building automatic calculations into your form, you'll greatly reduce errors of this type.

Make sure you understand the intelligence features that are available and use them to your advantage. Consider how you can implement features such as help messages, choice lists, conditional tabbing, and check formulas.

Step 5 - Determine the form filling process

If possible, try to determine how the users will process the form. This information can have an impact on the design and features of your form. For example, do users fill out the entire form at one sitting? If not, and your from contains mandatory fields, they won't be able to save and close their work over night.

Step 6 - Determine the form handling process

Filling out a form is only the beginning of a process.Think about what happens *after* the form is filled out.

◻ Do users need to print out a copy of the form? This can seriously affect the design style. If your organization has many users and different computer printers, you may have to design around the limitations of the poorest printer.

◻ Will the form fillers use e-mail? Are there standard addresses that can be built-in to the form?

◻ If e-mail is used, do all the users have the e-mail application installed on their computers?

◻ Will all users have access to the template?

Step 7 - Find out how the form interacts with other forms and systems

Electronic forms can be designed to stand alone or to link to other data sources for retrieval and submission of data.

☐ Does data come from other forms or databases?

☐ Do you need to update external databases automatically from within the form?

Step 8 - Find out about legal and other usage matters

☐ Will an electronic form satisfy legal requirements, or are paper copies needed?

☐ Are electronic signatures acceptable?

☐ How long do you need to store copies of the form--both template and data? Does every user have to retain a copy? If long term, what processes will you have to put in place to ensure that the forms can be read many years down the line?

Step 9 - Design the form

Once you've done your homework—and ONLY then—you should draw the layout and add the intelligence features. In some cases this will be in two sequential steps while in others you will add the intelligence (and even work out the formulas) as you go.

Step 10 - Test the form

This is one of the most important steps and is far more critical for electronic forms than it is for paper forms. You are not only dealing with issues of language and comprehension, but with people's work methods.

Testing of electronic forms typically involves the following. This is only a summary of the more important issues.

☐ User comprehension: do people understand the form, its questions, instructions and purpose?

☐ User needs: does the form suit the way people work?

☐ Field intelligence: does it apply in all situations? Does it actually work? Does it have side effects? Be sure to check the following:

  • field formatting
  • field calculations
  • macros
  • edit checks / field validations
  • tabbing (including conditional tabbing)
  • database lookups

☐ Help messages: are they correct and do people understand them? Do they provide the help that people need and want?

- Choice lists: are they comprehensive and appropriate for all users?
- Database updating: does it work as it is supposed to and does it work for all users?
- Buttons: are they appropriate and do they work for all users?
- E-mail and routing: is predetermined routing correct and does it cover all situations?
- Custom menus: do they cover all user needs and is the language clear?
- Form tracking: does it work and does it provide the information users need?

Conclusion

In spite of all the preliminary planning and testing, there is nothing like the real world to find out how a form *really* behaves. Even modern testing methods such as observational usability studies only provide information about the form's *potential* success. Once it is running live, you will need to carefully review the design and its usage.

About the Author

Robert Barnett is an internationally known expert on forms design and information management. Information about his books and courses on forms management and design can be found on his company's web site at <**http://www.ozemail.com.au/~forms**>. The site also has free papers available on various aspects of forms management and design.