

Design Patterns

A large number of examples drawn from:

<http://ui-patterns.com/>

Design Pattern

- Similar to a recipe for how to handle common user interface design issues
- When facing a design problem it can be useful to look at several patterns and see if they help you solve the problem
- Pros
 - Good way to not reinvent the wheel
 - Learn from others' mistakes
- Cons
 - Only common things have patterns
 - Patterns are not one-size-fits-all, what works in one situation may not work in another

Common elements of design patterns

- Name
- Description
- Problem Statement
- Use When
- Solution
- Rationale
- Examples
- Comments

List of different design patterns for helping the user enter input

Getting input

Getting the user to input data is a task that should be tailored to the context of use.

Forms	Explaining the process
<ul style="list-style-type: none">Password Strength MeterWYSIWYGInput FeedbackCaptchaCalendar PickerStructured FormatInplace EditorFill in the BlanksPreviewSettingsKeyboard ShortcutsExpandable InputUndoAutosaveDrag and dropForgiving Format	<ul style="list-style-type: none">WizardCompleteness meterSteps LeftInline Help Box
	Community driven
	<ul style="list-style-type: none">Vote To PromotePay To PromoteWikiFlagging & ReportingRate Content

Structured Format (ui-patterns.com)

Problem summary

The user needs to quickly enter data into the system but the format of the data must adhere to a predefined structure.

Example

The image shows three variations of a flight booking form, illustrating the structured format for date input. Each form includes fields for 'Depart' and 'Return' dates, a 'Class' dropdown menu, and 'Ticket type' options (Lowest, Flexible) and passenger counts (Adults, Children, Infants).

- Left Form:** Shows empty date input fields with the format 'DD/MM/YY'. The 'Depart' field has a 'One way only' checkbox, and the 'Return' field has a 'My dates are fixed' checkbox. The 'Class' dropdown is set to 'Economy'. The 'Ticket type' is 'Lowest'. Passenger counts are 1 Adult, 0 Children, and 0 Infants.
- Middle Form:** Shows a calendar pop-up for 'SEPTEMBER 2007' over the date input fields. The calendar has days of the week (M, T, W, T, F, S, S) and dates from 1 to 30. The date '20' is selected.
- Right Form:** Shows the date input fields pre-filled with '20/09/07'. The 'Class' dropdown is set to 'Economy'. The 'Ticket type' is 'Lowest'. Passenger counts are 1 Adult, 0 Children, and 0 Infants.

Arrows indicate the flow from the empty form to the calendar form, and then to the pre-filled form. A small 'From ba.com' watermark is visible in the bottom right corner of the rightmost form.

Usage

- Use when the more explicit form elements like select boxes, radio buttons, and checkboxes make entering data for everyday tasks a too complicated process
- Use when the time it takes to complete a task proportional exceeds the importance of the goal the user wants to accomplish.
- Use when the input you want to collect is a specific data type. For instance a zip code, a date or time, a phone number.
- Use when the expected user input follows a specific format which can readily be interpreted by a computer program.

Structured Format (ui-patterns.com)

Solution

Represent input fields in a way that clearly guides or limits the user as to what input format to use.

An input field is presented with an accompanying label describing the input that is expected in the field. The label describes a specific structure the user must follow to input a valid value.

In some cases the user is presented with the possibility to use helping mechanisms such as a date selection calendar to fill out the input box in the correct way. When the user has done this multiple times, they slowly learn how the input is formatted, so that they can copy the same format on their own.

Rationale

Set clear expectations by ordering input fields in a Structured Format: clue users as to what kind of input is being requested. By chunking large input fields into smaller bits, data entry errors can be decreased dramatically. It is easier to transcribe or memorize a long number when it is broken up into chunks. Where the Structured Format is well suited for predictable input, the Forgiving Format is well suited for open-ended input.

Using a structured format in an input field saves time for the user, when they are required to fill out the same input field repeatedly as a part of a frequent task. The structured data pattern aids the user through streamlined and controlled inputs, which in turn speeds up data capturing tasks and reduces the garbage in, garbage out problem.


Getting input

- Flexible format
- Fill in the blank
- Structured format



Add an event

"6pm Dinner" ([Enter dates and times](#))



Maximum page size: Show conversations per page

Keyboard shortcuts: Keyboard shortcuts off Keyboard shortcuts on

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Depart
 One way only

Return
 My dates are fixed

Class > what's this?

Ticket type > what's this?
 Lowest Flexible

Adults (12+)	Children (2-11)	Infants (0-2)
<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

UI Pattern card deck

- <http://ui-patterns.com/>
- Set of ideation cards used to help designers think through what kind of UI elements might be needed
- Helps designers think about all the options and how they match the needs



Questions?