

Date Control

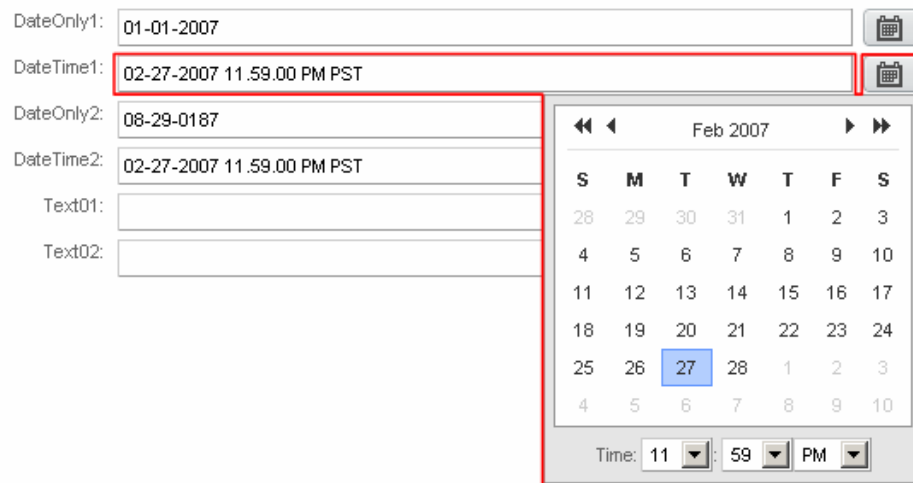
Entry of a date and time value, or modification of an existing value is a common operation in the Agile user interface.

The Date Control provides a Type-In Completion Aid to assist in the manual entry of date and time as well as a familiar calendar based tool to assist in this process.

In prior releases, most dates in the agile system have been long dates (i.e. dates with time) although there are a few hard coded short dates (no time). With this release, the Administrator may choose (through an administrative property) to define a field as a Date Only or as a Date and Time.

Element Specification

Date Control in Forms



The screenshot shows a form with the following elements:

- DateOnly1:** 01-01-2007
- DateTime1:** 02-27-2007 11.59.00 PM PST (highlighted with a red box)
- DateOnly2:** 08-29-0187
- DateTime2:** 02-27-2007 11.59.00 PM PST
- Text01:** (empty)
- Text02:** (empty)

A calendar pop-up is displayed for the DateTime1 field, showing the month of February 2007. The date 27 is selected. The time is set to 11:59 PM PST.

A Date Control can appear in a form in three different ways:

- 1) As a display of information (read-only).
- 2) As a disabled data entry field.
- 3) As an editable data entry field. Editable data entry fields may or may not have focus.

This specification focuses on the Date Control during the process of editing its value.

The Date Control is fully language localizable.



Date Entry Field

The Date Entry Field conforms to the generic specification of *Text Control* UI specification except where otherwise noted.

Behavior

The Date Only version of this field will display the same date to every user around the globe.

The Date and Time version of this field will display the date and time in the user's preferred time zone. When a user changes the value, it will be set based on this time zone. When a user in a different time zone views the value, it will show a different time and may show a different date.

Common Date Entry Field Behaviors

Type-in Completion Aid

- 1) If the user types in only two parts of the date, then the year is assumed.

| <u>Date/Time Format</u> | <u>Type-in</u> | <u>Result</u> |
|-------------------------|----------------|---------------|
| MM/dd/yyyy | 05/01 | 05/01/2007 |
| dd-MM-yyyy | 1-5 | 01-05-2007 |
| yyyy.MM.dd | 5.01 | 2007.05.01 |

- 2) When the year is assumed and the user types in the current month or later, the current year is filled in. If the user types a past month, the next year is filled in. If today's date is May 4, 2007.

| <u>Date/Time Format</u> | <u>Type-in</u> | <u>Result</u> |
|-------------------------|----------------|---------------|
| MM/dd/yyyy | 05/1 | 05/01/2007 |
| MM/dd/yyyy | 6/20 | 06/20/2007 |
| MM/dd/yyyy | 4/30 | 04/30/2008 |

- 3) The user can type in a 2-digit year and 20xx will be assumed.

| <u>Date/Time Format</u> | <u>Type-in</u> | <u>Result</u> |
|-------------------------|----------------|---------------|
| MM/dd/yyyy | 5/1/08 | 05/01/2008 |
| dd-MM-yyyy | 1-5-08 | 01-05-2008 |
| yyyy.MM.dd | 08.5.1 | 2008.05.01 |

- 4) For the time, both minutes and seconds are optional.

| <u>Date/Time Format</u> | <u>Type-in</u> | <u>Result</u> |
|-------------------------|----------------|----------------|
| hh:mm:ss aaa z | 5 pm | 5:00:00 PM PDT |
| hh.mm.ss aaa z | 5.30 pm | 5.30.00 PM PDT |
| hh.mm.ss z | 5 | 5.00.00 PDT |

If the preferred time format includes AM/PM, then AM or PM is required in the typed-in value.

The time must be entered following a date. It cannot be entered by itself.

- 5) If the user only enters a date, midnight is assumed.

| <u>Date/Time Format</u> | <u>Type-in</u> | <u>Result</u> |
|---------------------------|----------------|-------------------------------|
| MM/dd/yyyy hh:mm:ss aaa z | 5/1 | 05/01/2007 12:00:00 AM PDT |
| dd-MM-yyyy hh.mm.ss aaa z | 1-5 | 01-05-2007 12.00.00 AM PDT |
| yyyy.MM.dd hh.mm.ss z | 5.1 | 2007.05.01 00.00.00 PDT |

- 6) The user must enter a date (which could be just the month and day). He cannot enter only a time and assume today.
- 7) A time zone is not required and will be ignored if it is typed in. The user's preferred time zone is used.
- 8) The correct delimiters must be used, based on the date and time formats selected by the user in during User Preferences configuration. If the date format uses "/" as a delimiter, then "5-1" is not a valid date.

Validate the Date

- If the Date Entry Field yields a valid value, display the value in the normal font. If the value is invalid, display the field in the error font (red). See the [Fonts](#) UI Specification for more details.
- If the user tries to save the form with an invalid value, the application will report the error as outlined in the [Forms](#) UI Specification and leave the form in edit mode so that the user can correct the outstanding errors.

Loses Focus

- Apply the Type-in Completion Aid to the characters typed by the user.
- Set the Date Entry Field to the result.
- *Validate the Date.*

Keyboard Data Entry

- | | | | |
|-----------|--|---|--|
| • allowed | 0123456789 | | |
| | / - . | Date Delimiter (During data entry any legal delimiter is allowed and delimiters may be mixed. The date will be displayed in the user's preferred format.) | |
| | [space] | Separator (between date and time) | |
| | : . | Time Delimiter (During data entry any legal delimiter is allowed and delimiters may be mixed. The time will be displayed in the user's preferred format.) | |
| | Alphabetic | If time is expressed in 12-hour format, then the letters AM and PM* may be used. If the user's preferred date format specifies the month as MMM, then Jan, Feb, ...* may be used. * Actual characters depend on language localization to the user's preferred (Latin character set based - e.g. Western European) language. * Entry of these characters is case insensitive. | |
| • ignored | Other Alphabetic | Specifically, the acronyms for time zones will be ignored. The user's time zone preference (as adjusted for Daylight Savings Time) will always be used. | |
| • | Please note the <i>Type-in Completion Aid</i> section above. | | |

Keyboard Controls and Shortcuts

- Tab (Shift-Tab) Move the focus to the next (previous) UI element in the form's tab order. The next element is the launch button for the Calendar Pop-up.
- Ctrl-L *Launch the Calendar Pop-up* (see below).

Launch Button

The Launch Button conforms to the Buttons UI specification except as otherwise noted.

Behavior

Keyboard Controls and Shortcuts

- Enter *Launch the Calendar Pop-up* (see below).
- Ctrl-L *Launch the Calendar Pop-up* (see below).

Mouse Over

- Tooltip "Launch Calendar (Ctrl-L)"

Layout, Appearance and Styling

- Launch button icon ico_calendar.png

Calendar Pop-up



Behavior

Common Calendar Pop-up Behaviors

Launch the Calendar Pop-up

- If there is sufficient space below the Date Entry Field for the pop-up without scrolling, open the Calendar Pop-up with its top edge adjacent to the bottom edge of the Date Entry Field and its right edge flush with the right edge of the Launch Button.
- If there is insufficient space below the Date Entry Field, open the Calendar Pop-up with its bottom edge adjacent to the top edge of the Date Entry Field and its right edge flush with the right edge of the Launch Button.

Set the Date

- Update the Date Entry Field to reflect Date Selection and any time modifications (Date and Time fields only).
- Close the Calendar Pop-up.
- *Validate the Date.*

Do NOT Set the Date

- Abandon all changes and close the Calendar Pop-up.

Select the Date

- Set the Date Selection to the selected date.
- *Change the Month* (as needed to keep the Date Selection within the Displayed Month's Dates).
- Keep the Calendar Pop-up open with the focus on the Date Selection.

Change the Month

- Update the Calendar Section to the new month.
- If the new Date Selection is known (by click or arrow key)
 - The Date Selection will be the known date.
- If the new Date Selection is not known (by Previous Month or Next Month button)
 - The Date Selection will be the same day number in the new month.
 - If the new month does not have that day, the Date Selection will be the last day of the month.
 - The Date Control will not try to recover the best fit to the original day number.
 - For example, if the Date Selection is May 31st, clicking on the Previous Month button will change the Date Selection to April 30th. Hitting the Next Month button will change the Date Selection back to May 30th.

Note:

If the date (and time) have not been defined, the Calendar Pop-up defaults to the current date at 12:00:00 AM based on the user's locale.

Gains Focus (on launch)

- Set internal focus to the Date Selection in the Calendar Area.

Loses Focus

- *Set the Date.*

Keyboard Controls and Shortcuts

- Esc
- t

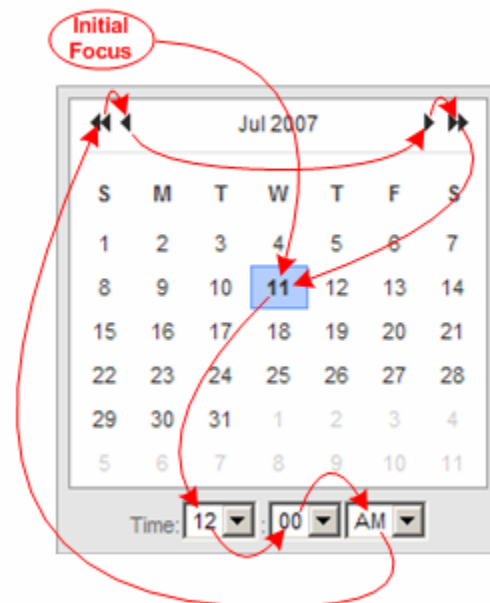
Do NOT Set the Date.

Select the Date (to today's date). Do not modify the time.

Shift the focus to the Date Selection.

- Tab (Shift-Tab)

Move the internal focus to the next (previous) element in the pop-up's internal tab order. As long as the Calendar Pop-up is open, Tab and Shift Tab will remain inside the pop-up's internal tab order.



Arrows illustrate tab order. Shift-tab order is the reverse.

Mouse Buttons

- Click (away)

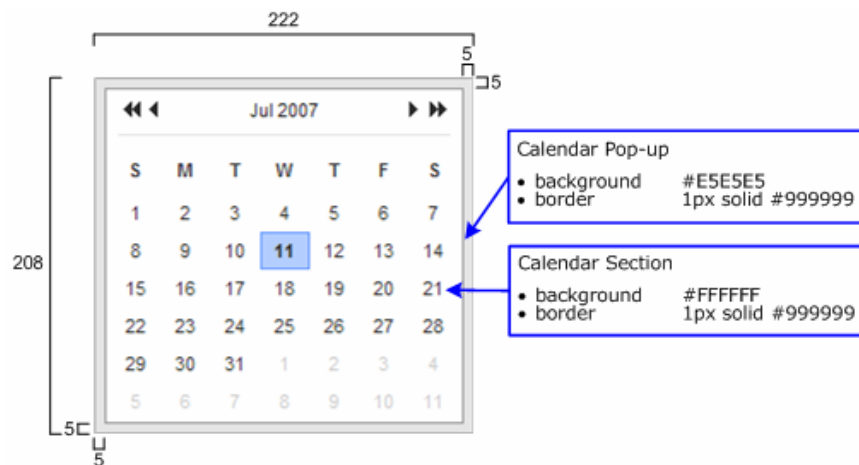
Set the Date.

Layout, Appearance and Styling

Conventions

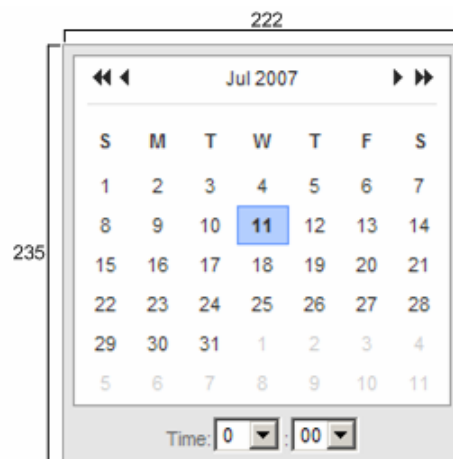
- All dimensions are in pixels unless otherwise noted.
- Borders, unless otherwise noted, are 1px wide.
- Dimensions of the components illustrated below include the border (if any).
- Dimensions of the space between components do not include the borders of the components.

Date Only

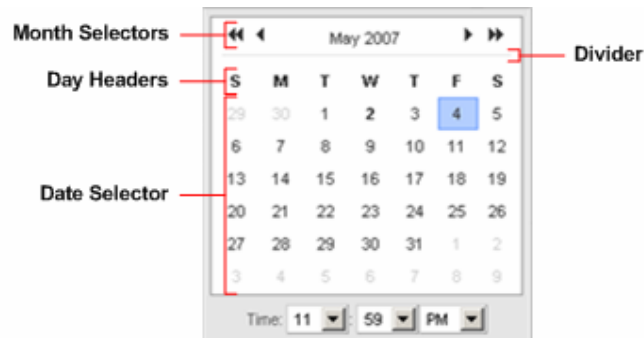


Date and Time

As defined in Date Only above except as noted below.



Calendar Section



Behavior

Gains Focus

- Date Selection

Arrow keys will move the Date Selection indicator.

Loses (Internal) Focus

- Date Selection

Arrow keys no longer operate on the Date Selection.

Keyboard Controls and Shortcuts

- Enter

Set the Date.

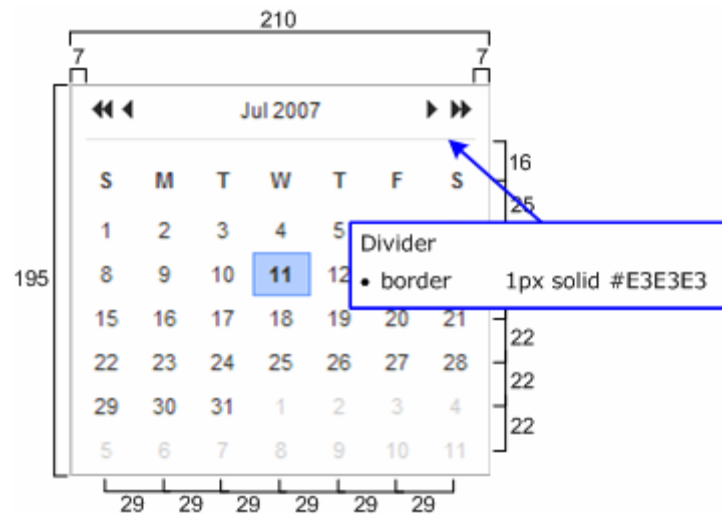
Mouse Buttons

- Click (on a date)
- Double-Click (on a date)

Select the Date.

Set the Date.

Layout, Appearance and Styling



Month Selectors



Behavior

Keyboard Controls and Shortcuts

- Enter
Perform the action of the button that has the focus.
- Arrow Keys
Shift the internal focus to the Date Selection and then process the arrow key.

Mouse Buttons

- Click

| | |
|---------|----------------|
| ◀◀ | Previous Year |
| ◀ | Previous Month |
| on text | no effect |
| ▶ | Next Month |
| ▶▶ | Next Year |

Mouse Over (button)

- Cursor
pointer
- Tool Tip

| | |
|----|------------------|
| ◀◀ | "Previous Year" |
| ◀ | "Previous Month" |
| ▶ | "Next Month" |
| ▶▶ | "Next Year" |

Mouse Over (text)

- Cursor
I Beam

Copy

- The text from the Month and Year may be selected in whole or in part and copied to the clipboard.

Layout, Appearance and Styling



Button Icons

- dimensions 10 x 10 (px)
- alignment
 - left for previous year and month buttons
 - right for next month and year buttons

Text

- font Agile Normal Font
- alignment centered

Previous Year

- background-image ◀◀ ico_calendar_year_prev.png

Previous Month

- background-image ◀ ico_calendar_month_prev.png

Current Month & Year

- color #333333

Next Month

- background-image ▶ ico_calendar_month_next.png

Next Year

- background-image ▶▶ ico_calendar_year_next.png

Day Headers



Behavior

Mouse Over

- Cursor I Beam

Copy

- The text of the day of the week column headers may be selected and copied.

Layout, Appearance and Styling



- font Agile Capital Font
* All caps with no descenders – text appears to be 8 px high
- font-weight bold
- color #333333

Date Selector



Behavior

Keyboard Controls and Shortcuts

- Arrow Keys**

Move the Date Selection up, down, left or right within the set of numbers visible on the face of the Date Selector.

If move is onto an Other Month's Date (grayed out), *Change the Month and Select the Date.*

Behavior that is specific to each key is described below.
- Up-Arrow**

If the attempted move is off the top edge of the Date Selector, do nothing.
- Down-Arrow**

If the attempted move is off the bottom edge of the Date Selector, do nothing.
- Left-Arrow**

If the attempted move is off the left edge of the Date Selector, wrap around to the right-most element in the row above. If there is no row above, do nothing.
- Right-Arrow**

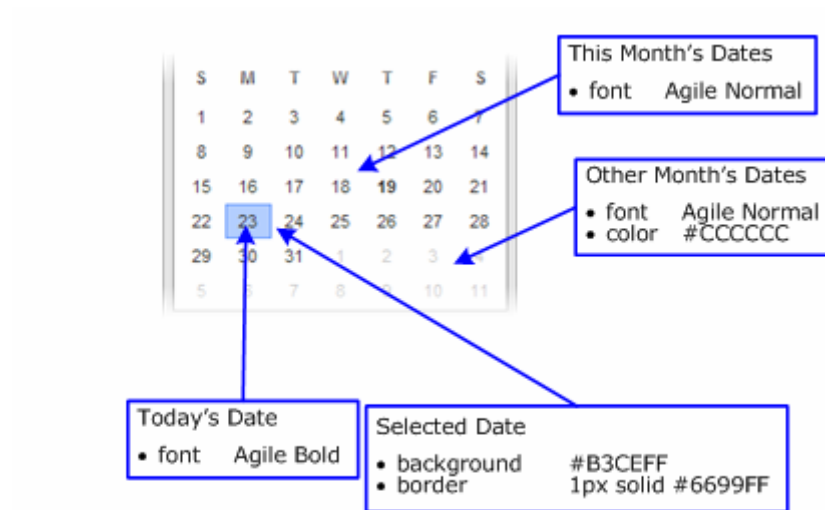
If the attempted move is off the right edge of the Date Selector, wrap around to the left-most element in the row below. If there is no row below, do nothing.

Mouse Over

- Cursor:**

pointer;

Layout, Appearance and Styling



Time Selectors



The separator between the Hour Selector and the Minute Selector (a colon in these examples) is modifiable by user preference.

The labels within the Time Selectors ("Time:" and ":" or their equivalents) comply with the Labels UI Specification.

The Time Selectors comply with the Drop-Down List UI Specification except as noted below.

Behavior

Keyboard Controls and Shortcuts

- Up-Arrow / Left-Arrow Select the value above the current value in the drop-down list (whether or not the drop-down is displayed).
- Right-Arrow / Down-Arrow Select the value below the current value in the drop-down list (whether or not the drop-down is displayed).

If one of the Time Selector drop-down lists is open

- Enter Select the highlighted value from the drop-down list.
Close the drop-down list.

If all of the Time Selector drop-down lists are closed

- Enter Set the Date (see Calendar Pop-up above).

Keyboard Data Entry

For minutes only:

- The user can type-in any value between 0 and 59 inclusive for a minute value in the Date Entry Field.
- When the Calendar Pop-up is launched, the current minute value in this field will be included in the list if it is not one of the standard values (00, 15, 30, 45).

For example, if the user typed 5:20 PM into the Date Entry Field, the minute options in the drop-down list would become 00, 15, 20 (selected by default), 30, and 45.

- The list of selectable values will only contain the 4 standard values **or** the 4 standard values and one non-standard value.
- The extra minute option is only available and applicable to the Calendar Pop-up for the field being edited (even when there are multiple date attributes on a page).

Mouse Buttons

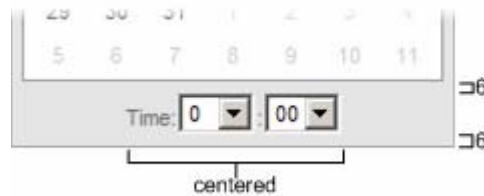
- Click
 - on drop-down list Open (or close if open) the drop-down list.
 - on list entry Update the time value to reflect selection and close drop-down list.

Mouse Over

- Cursor Arrow

Layout, Appearance and Styling

24 Hour Time



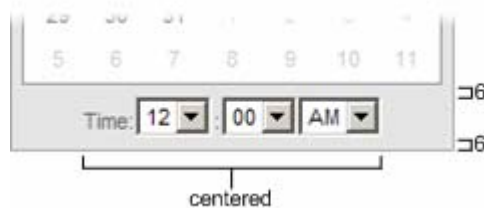
Please see the [Drop-down list](#) UI Specification for further details.

Within the Date Control, drop-down lists are used as follows:

- | | | |
|---------------------|------------|--------------------|
| Hour (24 Hour Time) | Values | 00, 01, 02, ... 23 |
| | Scroll Bar | Yes |
- | | | |
|--------|--------|---|
| Minute | Values | 00, 15, 30, 45 |
| | | plus current minute value if different. |

12 Hour Time

As defined in 24 Hour Time above except as noted



Within the Date Control, drop-down lists are used as follows:

- | | | |
|---------------------|------------|--------------------|
| Hour (12 Hour Time) | Values | 01, 02, 03, ... 12 |
| | Scroll Bar | No |
- | | | |
|-------|--------|--|
| AM/PM | Values | Varies with language localization: |
| | | English*: AM/PM |
| | | * and other Latin character set based (e.g. Western European) languages. |

Issues

- 1) The Admin Guide should include documentation to explain the effects of switching from Date and Time to Date Only format or switching from Date Only format to Date and Time.

Change History

| | | |
|-------------------|---------------|---|
| November 20, 2007 | Vern McGeorge | Revised to comply with image file naming convention. |
| October 30, 2007 | Vern McGeorge | Revised to include change – less restrictive input of dates and times using alternate delimiters – and revision of some diagrams to use callout boxes for attribute values. |
| August 21, 2007 | Vern McGeorge | Complete. |
| July 27, 2007 | Vern McGeorge | Final review comments in. |
| July 17, 2007 | Vern McGeorge | Joel's comments in for final review. |
| July 11, 2007 | Vern McGeorge | All layout moved from bullets to diagrams. |
| July 10, 2007 | Vern McGeorge | Reorganized in new structural format. |
| June 26, 2007 | Vern McGeorge | Published for review. |
| June 15, 2007 | Vern McGeorge | Joel's inputs in, complexity out, all table stuff out. |
| June 4, 2007 | Vern McGeorge | Behavior notes removed. |
| May 25, 2007 | Vern McGeorge | Compliance with behavior notes verified. |
| May 24, 2007 | Vern McGeorge | Published into Sprint 2 superseding behavior notes (cycle1_ui_elements_notes.doc and sprint0_ui_elements_notes.doc) |
| May 9, 2007 | Vern McGeorge | Feedback in. Appearance, Styling and Behavior is done for forms. Layout needs new screenshots. Tables needs everything. |
| May 4, 2007 | Vern McGeorge | Feedback in. Keyboard navigation in. Published for Michele. |
| April 13, 2007 | Vern McGeorge | Published for first review. |
| April 12, 2007 | Vern McGeorge | Almost ready for first review. |
| April 10, 2007 | Vern McGeorge | Reconstructed from file system corruption |
| March 21, 2007 | Vern McGeorge | First draft |