



- ▶ Graphical User Interface
- ▶ Simplified Event Handling

Event Handling

Event handling is often seen as one of the more difficult aspects of GUI programming. In Dyalog it couldn't be easier. This is because APL manages its own separate event queue so that events get processed in an orderly and **controllable** fashion.

Event management is provided by the system function `□DQ` which handles all interaction with the user. All of the routine tasks such as repainting exposed areas, clipboard operations and so forth are automatically taken care of by this function.

To make something special happen, you attach either an expression or a callback function to a particular event in a particular object. You can attach different callbacks to different events or use the same callback for a range of things; the choice is yours.

When an event occurs to which code is attached, `□DQ` either executes the expression or runs the callback function for you. If other events occur during the execution of the expression or the callback function, they are either taken care of immediately, or, if code is attached, queued to be processed when the current expression or callback has finished.

A callback is a more powerful mechanism than a simple expression because, through its result, it can tell `□DQ` what to do after it (the callback) has finished processing. For example, a callback on a KeyPress event can dynamically tell the system to ignore a particular key according to the circumstances when it was pressed.

In addition to standard Windows events such as MouseDown, MouseUp and so forth, Dyalog permits custom events to be defined.

The system function `□NQ` (enqueue) allows you to generate both standard and custom events under program control. In addition, you may invoke most events directly as if they were methods.

Dyalog Ltd
South Barn
Minchens Court
Minchens Lane
Bramley
Hampshire
RG26 5BH
United Kingdom

Phone:
+ 44 (0) 1256 830 030

Fax:
+ 44 (0) 1256 830 031

e-mail:
sales@dyalog.com