

.title
NeWS Extensions to PostScript

.synonyms
NeWS extensions

.definition
NeWS window system extensions to the PostScript language.

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NeWS window system extensions to the PostScript language.
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=> Lightweight Processes .nl

==> NeWS schedules many lightweight PostScript processes. .nl
==> They all live together in the NeWS server's address space. .nl
==> They're cheap! .nl
==> Scheduling is non-preemptive. .nl

==> A lightweight process consists of: .nl
===> Graphics context .nl
===> Execution stack .nl
===> Dictionary stack .nl
===> Operand stack .nl

==> Lightweight processes are good for: .nl
===> Servicing events. .nl
===> Managing interactive objects. .nl
===> Pre-processing local input on behalf of the client. .nl
===> Performing background processing. .nl
===> Building interactive graphical user interface toolkits. .nl
===> Interactive animation. .nl
===> And many other thinks too kinky to go into here. .nl

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=> Events .nl
==> NeWS has an event queue, and a clean virtual event mechanism. .nl
==> Input from hardware devices generates events. .nl
==> NeWS processes can generate events. .nl
==> It's easy to simulated input from virtual devices. .nl
==> Coordinates of events reported in the current coordinate system. .nl
==> NeWS processes express interest in events they want to get. .nl
==> Then they loop waiting for and processing such events. .nl
==> NeWS processes can communicate with each other by sending events back and forth. .nl

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=> Canvases .nl
==> Drawing surface. .nl
==> Its own coordinate system. .nl
==> Arbitrarily shaped!!! .nl
==> Shape defined by a PostScript path. .nl
==> Lines, arcs, bezier curves, and conic splines as edges. .nl
==> Holes, and disconnected regions! .nl
==> Shape influences the clipping of graphical output, and the distribution

of input events. .nl
==> Useful as arbitrarily shaped targets. .nl
==> NeWS processes can receive input events whenever the mouse enters,
leaves, clicks, or moves around in a canvas. .nl
==> Natural to use as animated "sprites", using NeWS processes to
periodically blink, move, or paint them. .nl