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(54) Title: PROGRAMMABLE RADIO

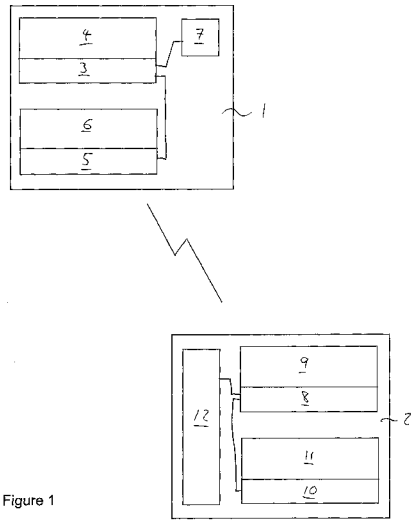

Figure 1

(57) Abstract: A programmable radio communication system comprises a transmitter (1) and a receiver (2). The transmitter comprises radio transmitting means (5) and processing means (3). The processing means is configured to: execute transmitter firmware (6); execute a transmitter software application (4); and operate an interface between the transmitter firmware (6) and the transmitter software application (4), wherein the interface supports one or more operators, each operator acting on one or more elements, wherein the transmitter firmware (6) comprises instructions for: receiving across the interface from the transmitter software application (4), an operator and an element, associated with a virtual pipe; encoding the operator and the element; and using the radio transmitting means (5) to transmit the encoded operator and element by radio, and wherein the receiver (2) comprises radio receiving means (10) and processing means (8), the processing means being configured to: execute receiver firmware (11); execute a receiver software application (9); and operate an interface between the receiver firmware (11) and the receiver software application (9), wherein the receiver firmware (11) comprises instructions for: using the radio receiving means (10) to receive the encoded operator and element; decoding the operator and element; and sending the operator and the element across the interface to the receiver software application (9), thereby creating the virtual pipe between the transmitter software application (4) and the receiver software application (9).

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