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Contributions to the theory of ordinary differential equations with discontinuous right sides were made as early as the late twenties (M. Nagumo (1927) and A. Rosenthal (1929)). In 1967 V. Matrosov summarized much of what has been done in the area of such equations with special emphasis on the quasisolution of T. Wazewski introduced in 1963. In this talk we define generalized quasisolutions and discuss certain of their properties, including necessary and sufficient conditions for the existence of a generalized quasisolution of the system  $dx/dt = f(t,x)$ . We discuss also the existence of periodic generalized quasisolutions of the system  $du/dt = v$ ,  $dv/dt = -f(u,v)u - g(u)$ , where  $f$  and  $g$  are measurable bounded functions. (Received September 23, 2010)