

HOW TO MAP DIGITAL OUTPUTS FOR A RDIO MODULE ON A DCS800

Description:

This document describes how to map the digital outputs for a RDIO module on a DCS800.

Solution:

The digital outputs DO9, DO10, DO11, and DO12 for the RDIO module on a DCS800 require adaptive programming to map. The digital outputs for the RDIO are available through parameter 7.05, DO Control Word, bits 8, 9, 10, and 11. In the example shown below, DO9 is mapped to DI1.

In the DriveAP program attached below, an OR block is used in conjunction with a BITSET block. The OR block takes in the trigger or event for activating the digital output. In this example, DI1 is used as the trigger. On pin IN1 of the OR block, parameter 8.05 (DI Status Word) bit 0, which corresponds to DI1 is programmed. When DI1 is high, the output of the OR block is "1." This output connects to IN3 of a BITSET block; this becomes the desired bit value of the word programmed on IN1 and IN2 of the BITSET block. The word programmed in the BITSET block is 7.05, DO Control Word, bit 8 (IN1 = 7.05 and IN2 = constant of 8), which corresponds to DO9. The output of the BITSET block feeds to 8602, Block 2 Output, which is programmed 7.05, Control Word. Verification of the activation of the desired digital output is done by looking at the value of parameter 7.05, DO ControlWord. When DI1 is switched to ON, bit 8 (DO9) is high; the value in 7.05 is 090B hex or 100100001011 binary. When DI1 is switched to OFF, bit 8 (DO9) is low; the value in 7.05 is 080B hex or 100000001011.

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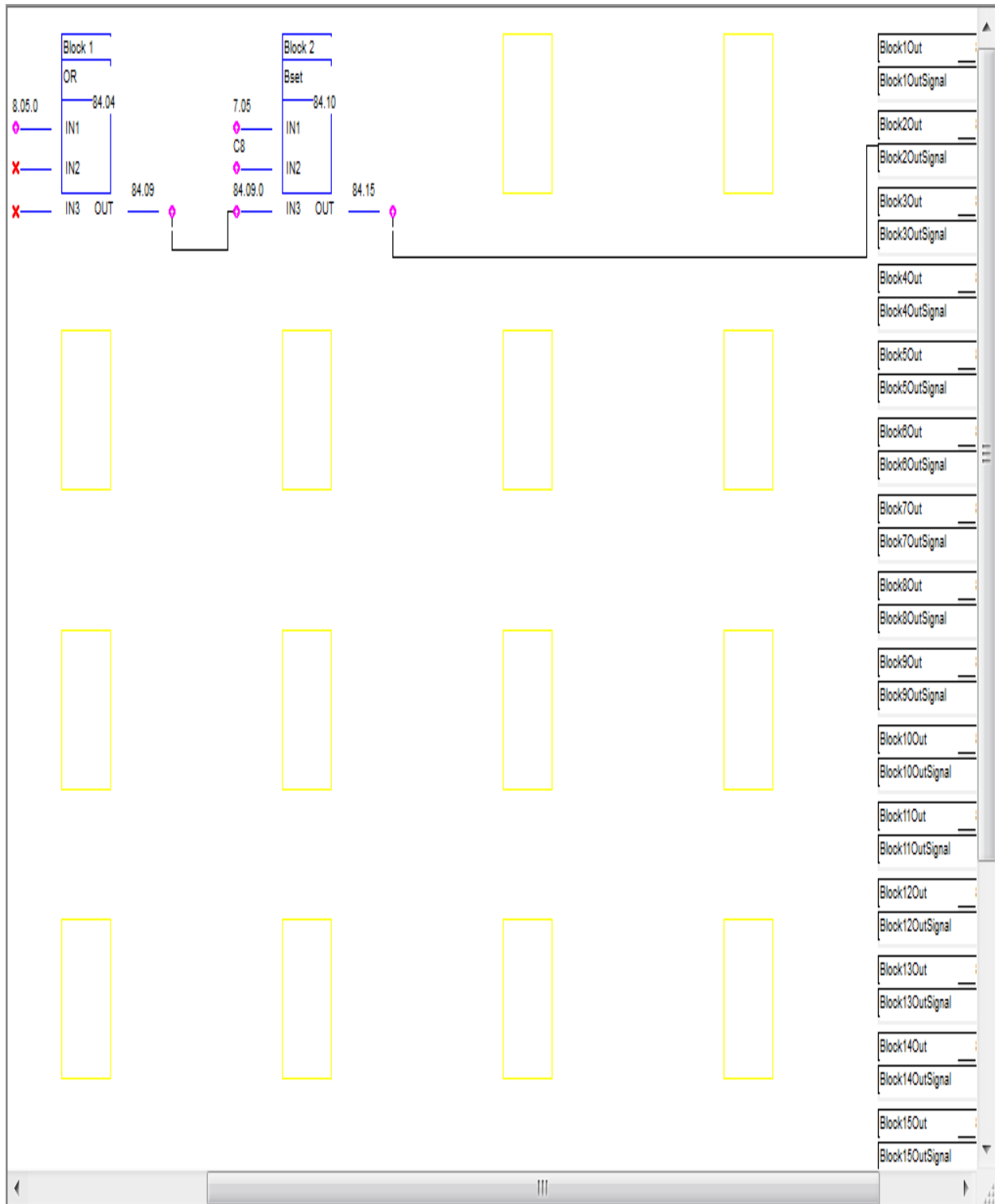


Figure 1: Adaptive Program for Mapping Digital Outputs

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Documents or other reference material:

DCS800 Firmware Manual Document 3ADW000193 R0701, REV G

Corrective Actions:

None

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