



Abstract

ELEVATOR SPEED DICTATION SYSTEM

An elevator speed dictation system for controlling the elevator velocity from zero to a maximum
5 velocity and back to zero, illustrated in functional
block form in Fig. 1. Velocity profiles over eight
regions (Regions 0-7) are provided for zero speed (0),
low level phase plane (1), constant jerk to prescribed
acceleration (2), prescribed acceleration (3), constant
10 jerk down to constant velocity (4), jerk level after
generation of Stop Control Command (SCC; 5), constant
speed (6), and phase plane (7), respectively. Velocity
profiles for Regions 0-7, including traces of velocity
(10), velocity dictated (20), acceleration (30), dictated
15 acceleration (40) and distance to go (50) versus time are
graphically illustrated in Fig. 2 & Figs. 4-6 for a long
elevator car run, Intermediate II (transition to Region
5 occurs after SSC), Intermediate I (transition occurs
from Regions 3 to 5), and a short elevator car run,
20 respectively; while Fig. 7 illustrate velocity and
acceleration curves used to find the stopping distance.
Fig. 3 provides a flow chart for the transitions between
the various regions (0-7) of the profiles.