

New "Credit-Size" Cards And Card Dialer Telephones For Automatic Dialing

News of
Telephone
Apparatus
Development

A new plastic card, the size of a standard credit card, can now be used to dial telephone numbers automatically. Card-operated telephones, called card dialers, have been designed to accept the smaller sized cards, which meet the format and size standards proposed for credit cards by the American National Standards Institute.

The automatic dialing mechanism is a convenient and time-saving feature added to the TOUCH-TONE® telephone. The plastic dialing cards are inserted in a slot above the telephone keyboard. Holes punched into the dialing cards by users cause the automatic mechanism inside the telephone to perform the same function as manual dialing. Telephone numbers, however, can still be dialed manually without the cards.

The designers of the card and card dialer—Dan Miller and Terry Prince, Bell Laboratories engineers in Indianapolis—say that in addition to dialing telephone numbers automatically, the dialers will be used to transmit data to computers via telephone lines. Dialing cards or special cards made to Bell System specifications may be used to make credit transactions, provide production control, verify bank balances, order merchandise, or even pay bills.

To assure that the card dialers have long life reliability, the contacts in the

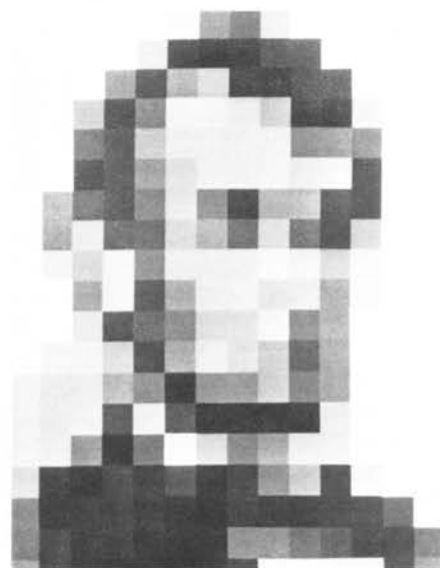
automatic dialing mechanism are encapsulated reed contacts to prevent deterioration or contamination from foreign matter.

The dialing cards, themselves, have been improved, too. Prior to the new design, only 12 different characters were available on a typical dialer card. Now, a number 14 digits long consisting of 16 different characters can be punched into the card. Additional space has been provided on the card to allow three rows of embossing or printing.



New plastic cards, the size of standard credit cards, and card dialer telephones have been designed by engineers at Bell Laboratories in Indianapolis. The cards can be used to dial telephone numbers automatically or transmit information over the telephone system to computers.

Computer Cubisms



The cubes of varying intensities make up a well-known face that has been precisely blurred by a computer. It's part of an experiment by Leon D. Harmon at Bell Laboratories to learn the least amount of visual information a picture may contain and still be recognizable. The picture is divided into about 200 squares, with each square rendered in an even tone from one of 16 intensities of gray. (If you still don't recognize the portrait, try looking at it from a greater distance, or while it's in motion, or while you're squinting, or with eyeglasses removed.) Studies of the "information content" of a picture may be useful for designing future PICTUREPHONE® systems, and for devising techniques for computer picture storage.

The Telephone Plant of the 1970's

Reprints of the article, *The Telephone Plant of the 1970's* by J. P. Molnar, Executive Vice President of Bell Laboratories, published in the January 1971 issue of the RECORD, may be obtained by writing to Circulation Manager, Bell Laboratories RECORD, Room 3C-115, Bell Telephone Laboratories, 600 Mountain Avenue, Murray Hill, New Jersey 07974. This article included a round-up of telephone technology and how it may progress during the decade to come.

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