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HyperCard: Phone Dialer Doesn't Dial Modem (7/92)

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Revised:        4/6/94
Security:       Everyone
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Article Created: 17 January 1992
Article Reviewed/Updated: 6 April 1994

TOPIC ---

The Dialer generates tones, but the modem either:
• Doesn't dial.
• Hangs up too quickly.
• Doesn't hang up at all (line is faint, or conversation comes through modem
  speaker).

DISCUSSION --

Doesn't Dial

The most common cause is that the modem is waiting for a DTR (Data Terminal
Ready) signal from the computer host, which is interrupted when HyperCard
closes the serial connection. Modem manufacturers typically do not
construct their own chip sets, but use one of about five that are made by
OEMs. So various modems will share this problem, by sharing a chip set.
We have observed that Zoom SupraModems, Abaton InterFax modems, and
Prometheus fax modems all wait for DTR.

The solution to the DTR problem is normally to tell the modem not to bother
looking at DTR. The Phone Dialer provided with HyperCard 2.1 has a
ready-made option to do that. Simply open the Phone Dialer, click on the
modem options button, and select the SupraModem setting. What we call the
SupraModem setting will work with most of the modem types described above.

What this does is send a Hayes modem command to the modem with an
instruction to ignore DTR. The command is "&D" (without quotes), and is
incorporated as part of an ATD dial sequence, in the following form
normally: AT&DS0=0DT. For Phone Dialers provided with versions of
HyperCard BEFORE 2.1, the dial scripts themselves must modified to add the
"&D" command.

Hangs Up Too Fast, or Not Fast Enough

The most common cause is that HyperCard is holding the serial connection
open for an improper amount of time -- either too long or too short. This
has been a longstanding problem with HyperCard, because it needed to be
able to hold the serial connection open long enough to dial lengthy
international numbers from the Portable, making it hang on after a regular
local call has been dialed.

Finally, HyperCard 2.1 was introduced, and while it is set by default to
hold the serial connection for 3 seconds, this amount of time can be
modified through the use of the new dialingTime property. So a script can
be written using the dialingTime to find a length congenial to the user's
particular needs.

We have found that the TelePort modems require some modification of the
dialingTime normally.

Different versions of HyperCard attempted different strategies with this --
some tried to send ATH commands (a Hayes modem command to hang up), or set
certain registers in the modem to differing values, or change the amount of
time they held the serial connection open. HyperCard 2.0v2 held the serial
connection for 10 seconds; 2.0v1 held it for 3 seconds; versions of
HyperCard before 2.0 held it open for differing amounts of time. None of
these schemes was very successful.

This article is adapted from the Claris Tech Info database.

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Tech Info Library Article Number:14521