Industry-Standard Wiring Plans

When you install more than a few computer terminals, you face the problem of organizing the wiring. AT&T has devised, for the telephone industry, a uniform scheme for dealing with large numbers of wires. The scheme uses two color codes: one for large numbers of wires organized in pairs and the other for smaller numbers of wires; which may also be organized in pairs. We recommend the use of this wiring scheme whenever possible.

For large numbers of wires, each pair is assigned a two-color code. The colors are selected from two groups of five, resulting in what is called a binder-group of 25 pairs. The colors used for a group are white, red, black, yellow, and violet. The colors used for "pair within group" are blue, orange, green, brown, and slate.

Each pair must have a unique color combination. One wire within each pair has a solid background of its group color and stripes of the "pair within group" color, and the second wire has the colors reversed. Table C-1 lists the sequences. Note that red-brown and red-orange wires can be easily confused.

Table C-1 Telephone Industry 25-Pair Color Code and Pin Numbers

| Pair No. | Wire No. | Solid Color | Stripe Color | Pin No. |
|----------|----------|-------------|--------------|---------|
| 1 | 1 | White | Blue | 26 |
| 1 | 2 | Blue | White | 1 |
| 2 | 1 | White | Orange | 27 |
| 2 | 2 | Orange | White | 2 |
| 3 | 1 | White | Green | 28 |
| 3 | 2 | Green | White | 3 |
| 4 | 1 | White | Brown | 29 |
| 4 | 2 | Brown | White | 4 |
| 5 | 1 | White | Slate | 30 |
| 5 | 2 | Slate | White | 5 |
| 6 | 1 | Red | Blue | 31 |
| 6 | 2 | Blue | Red | 6 |
| 7 | 1 | Red | Orange | 32 |
| 7 | 2 | Orange | Red | 7 |
| 8 | 1 | Red | Green | 33 |
| 8 | 2 | Green | Red | 8 |
| 9 | 1 | Red | Brown | 34 |

| Pair No. | Wire No. | Solid Color | Stripe Color | Pin No. |
|---------------------------------------|----------|-------------|---------------------------------------|---------|
| 9 | 2 | Brown Red | | 9 |
| 10 | 1 | Red | Slate | 35 |
| 10 | 2 | Slate | Red | 10 |
| 11 | 1 | Black | Blue | 36 |
| 11 | 2 | Blue | Black | 11 |
| 12 | 1 | Black | Orange | 37 |
| 12 | 2 | Orange | Black | 12 |
| 13 | 1 | Black | Green | 38 |
| 13 | 2 | Green | Black | 13 |
| 14 | 1 | Black | Brown | 39 |
| 14 | 2 | Brown | Black | 14 |
| 15 | 1 | Black | Slate | 40 |
| 15 | 2 | Slate Black | | 15 |
| 16 | 1 | Yellow | Blue | 41 |
| 16 | 2 | Blue | Yellow | 16 |
| 17 | 1 | Yellow | Orange | 42 |
| 17 | 2 | Orange | Yellow | 17 |
| 18 | 1 | Yellow | Green | 43 |
| 18 | 2 | Green | Yellow | 18 |
| 19 | 1 | Yellow | Brown | 44 |
| 19 | 2 | Brown | Yellow | 19 |
| 20 | 1 | Yellow | Slate | 45 |
| 20 | 2 | Slate | Yellow | 20 |
| 21 | 1 | Violet | Blue | 46 |
| 21 | 2 | Blue | Violet | 21 |
| 22 | 1 | Violet | Orange | 47 |
| 22 | 2 | Orange | Violet | 22 |
| 23 | 1 | Violet | Green | 48 |
| 23 | 2 | Green | Violet | 23 |
| 24 | 1 | Violet | Brown | 49 |
| 24 | 2 | Brown | Violet | 24 |
| 25 | 1 | Violet | Slate | 50 |
| 25 | 2 | Slate | Violet | 25 |
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Cables with more than 25 pairs of wires are constructed from 25-pair groups. Very large cables have other variations generally not encountered inside terminal wire plants.

For smaller numbers of wires, such as wires for an individual telephone station or terminal, you can use a second color-code scheme. Table C-2 shows this color code and the usual correspondence with the paired-wire color code. The alternate color code is included because sometimes the station wire uses the first three pairs of the standard color code (white-blue, blue-white, and so forth), while other times it uses the six alternate colored wires.

Table C-2 Second Color Code Scheme for Smaller Numbers of Wires

| Pair No. | Wire No. | Solid Color | Stripe Color | Alternate Color | Pin No. |
|----------|----------|-------------|--------------|-----------------|---------|
| 1 | 1 | White | Blue | Green | 4 |
| 1 | 2 | Blue | White | Red | 3 |
| 2 | 1 | White | Orange | Black | 2 |
| 2 | 2 | Orange | White | Yellow | 5 |
| 3 | 1 | White | Green | White | 1 |
| 3 | 2 | Green | White | Blue | 6 |