

Teletext Cam

Instructions

1. Press Escape for default settings
2. Press Spacebar to start and stop video
3. Keyboard does other things listed below

ESC - Reset everything

SPACE - Start and stop video

F1 - "Normal" video mode

F5 - Enable all colour channels

F2 - "Eight Colour" video mode

F6 - Toggle red channel

F3 - "Fake Teletext" video mode

F7 - Toggle green channel

F4 - "True Teletext" video mode

F8 - Toggle blue channel

F9 - Flip video horizontally

ENTER - Toggle slow fading

F10 - Flip video vertically

T - Toggle threshold mode

B - Toggle background masking

C - Calibrate background mask

UP - Increase mask tolerance

DOWN - Reduce mask tolerance

Background masking is experimental. To use it:

- Position the camera, then stand outside the picture frame.
- Press C to capture the background reference image.
- Press B to toggle masking, UP and DOWN to tweak sensitivity.
- Use plain backgrounds with even lighting for best results.

Source code can be obtained from:

www.arbitraryfiles.com

How it works:

1. A normal camera image is captured and reduced to Teletext pixel resolution.
(Press F1 to view this stage.)
2. The image is reduced to eight-colour mode, using one bit per RGB per channel.
(Press F2 to view this stage.)
3. The image is split into 2x3 pixel blocks, which are adjusted so that each contains no more than two colours.
(Press F3 to view this stage.)
4. Teletext control codes are added to obtain "best match" foreground and background colours for the 2x3 pixel blocks. Each change needs at least one block, so detail is usually lost.
(Press F4 to view the final image.)