Memo on string and DFL wiring
AK, October 27, 2003

Drawings on string architecture and suggestions on DFL wiring.
Schematic diagram of string cable:

Each line corresponds to a twisted pair. Colors between breakouts correspond to a specific quad. The rectangular boxes correspond to a 6-pin DOM connector.
Possible structure the cabling in the dark room similar to real case.
Schematics on real string:

Each line represents a twisted pair. Each color is associated with a quad.

Practical structure in the darkroom:

Distribution box for 4 DOMs
Distribution box for DOMs in darkroom using quads:

Distribution box:
- 6 pin receiving sockets for the 6 pin DOM connectors: 4
- 2 pin sockets for signal twisted pair: 2
- 2 pin sockets for custom made LC cables: 2

Cables:
- One twisted quad cable for signal and power to DOMs
- One LC cable with 2 pin LC connectors at both ends
Distribution box for DOMs in darkroom using twisted pairs:

Distribution box:
6 pin receiving sockets for the 6 pin DOM connectors: 4
2 pin sockets for signal twisted pair: 2
2 pin sockets for custom made LC cables: 2

Cables:
- One twisted quad cable for signal and power to DOMs
- One LC cable with 2 pin LC connectors at both ends
Parts (UW only):

Distribution boxes: 75
LC twisted pairs: 75
Twisted quads: 75 (or 150 twisted pairs)

Estimated number of parts in collaboration needed in 2004:

Distribution boxes: 200 (including 800 6-pin connector sockets and other)
LC twisted pairs, several meters: 200 pieces
Twisted quads, 20 to 40m: 200 pieces (or 400 twisted pairs)

Suggestion: Prepare to buy sufficient material for 20 to 40 boxes plus wiring immediately.