Topic 060

Multi source methods:

Multi -fixture lighting

Today most stage and entertainment lighting design uses multi-fixture lighting methods as opposed to single or point source methods. This allows the designer to have full control over the lighting, anywhere on stage, in respect to intensity, direction, distribution, color and movement.

Multi-fixture methods use a wide range of fixture types and a wide variety of lighting techniques. Today, most fixtures use the 'dimmable' tungsten-halogen lamp as a source. Increasingly however new H.I.D, (high intensity discharge) sources are finding their way into stage lighting applications. It is common today to integrate both conventional lighting fixtures with the new generation of automated fixtures, resulting in both a sophistication and simplicity of lighting design, never before possible.

It is not unusual for a modern theatre or concert hall to use 400-500 lighting fixtures for a single production. Ideally each lighting fixture will have it's own dimmer control. In older facilities with a limited number of dimmers, it is sometimes necessary to physically plug (or 'patch') several fixtures onto one dimmer.

Many lighting designers will often try to use only specific fixtures for specific scenes. Some designers may design a 'general plot' that is intended to work equally well with all scenes. Still other designers will use a combination of 'general' and 'scene specific' fixtures. The exact approach will usually be dictated by the available equipment, mounting positions, time and budget.

Usually the designer that has done his homework will only hang the number of fixtures that are required for his design, and a few spares. Other designers, not really sure of what there doing may use a 'cover your tail' approach and hang a fixture in every possible mounting position that the theatre will allow. (Just in case.) These designers can make a 400 fixture design look like a 120 fixture design, with ease.

Conventional lighting fixtures are always hung on 18 inch centers (or more). A typical 30 foot long pipe will accommodate 20 fixtures total.