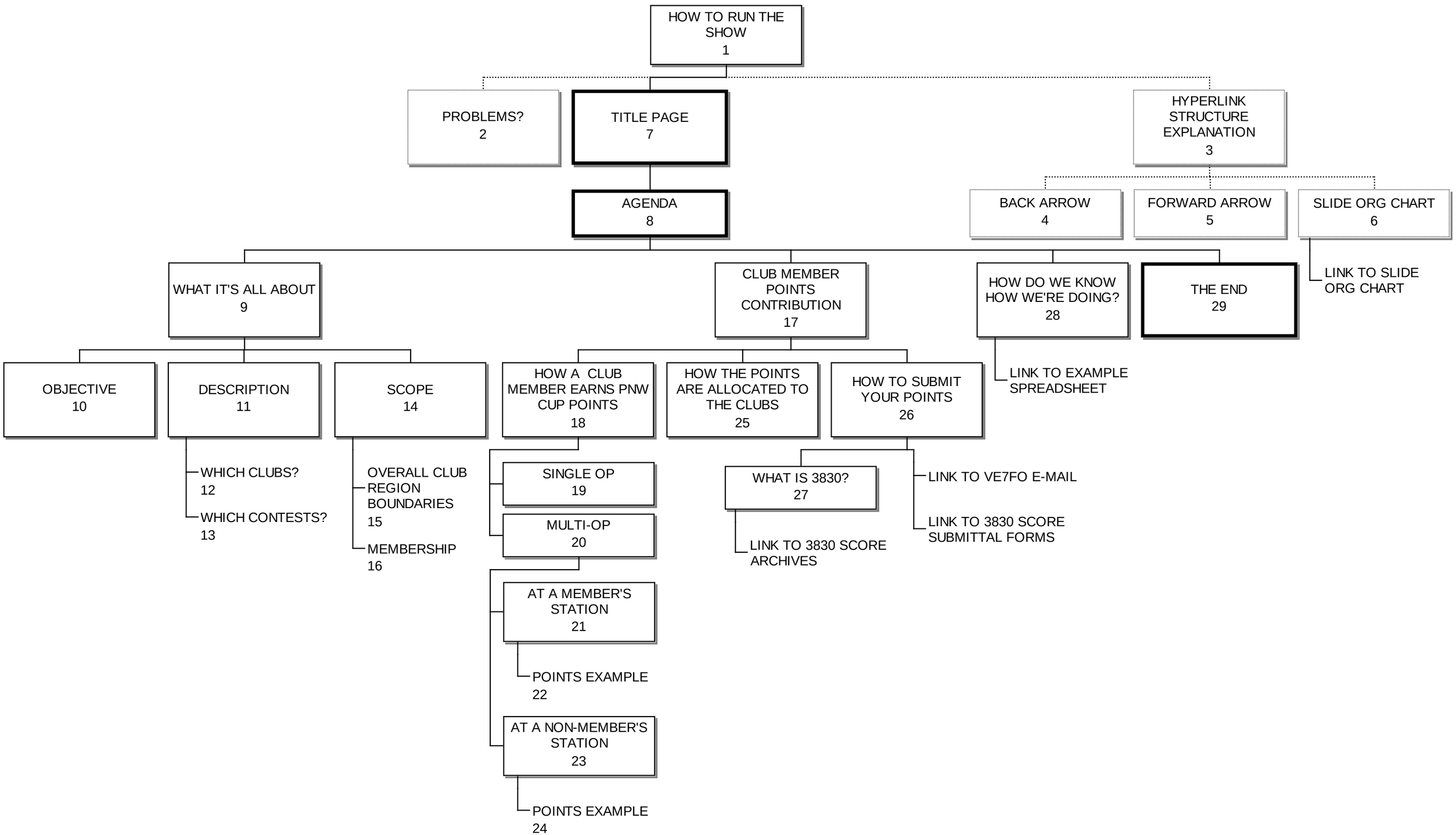by Jim Smith VE7FO