



MILO Range

Theater Script Quickstart Guide

Software Version 4.5

July 18, 2013

1229 Oak Valley Drive

Ann Arbor, MI

48108

1-800-344-1707

<http://www.milorange.com>

Overview

The MILO Range Theater system is a mode of the MILO Range ShootHouse software and is designed as a centralized-remote control station for a single instructor to control a multi-screen system comprised of 2, 3 or 5 MILO Range computers configured to provide an interactive coordinated encounter where actions on one screen can affect actions on another.

The MILO Range Theater software is designed to be operated by a single instructor and so the user interface is minimized to avoid unnecessary instructor input or action.

This document is intended as a practical guide for users who want the fastest method to lesson and script creation for Theater uses. The assumption for this guide is that the user has had MILO Range, Theater and Course Designer training and/or has previous experience with all of these software systems.

For further information regarding the MILO Range Theater system, please see the MILO Range ShootHouse software user manual.

IES Technical Support

IES Interactive Training offers 24/7 telephone technical support as well as email-based technical support. Please contact IES with any concerns or problems at:

Email: support@ies-usa.com

Phone: 1-800-344-1707

License & Copyright

This user manual is the property of IES Interactive Training and is licensed for use by IES customers solely under the End User License Agreement included with MILO Range system and/or software.

Copyright 2012 - FAAC Incorporated d/b/a IES Interactive Training

Contents

Overview	2
Theater System Terminology.....	4
MILO Range Theater System Overview.....	5
Theater Scenario Design Overview.....	5
Lesson Editing Tips for Theater Use.....	6
Branch Other ShootRoom Events	6
Common Lesson Mistakes for Theater.....	7
Theater Script Guidelines.....	8
OnStart	8
Tutorial: Theater 180 Script Example Using Same Lesson	9

Theater System Terminology

The Theater system and software are a mode of the MILO Range Shoothouse system and software. For that reason, terms you will find in this document are shared between the two systems - however they may have slight differences in application.

Shoot-Room – While in a shoot-house system “ShootRoom” refers to a room or a screen in a room. However, for the Theater system a “ShootRoom” refers to a **Screen** in the Theater setup. Remember that each screen in a Theater system is an individual MILO Range system. You must define the ShootRooms (screens) in the ShootHouse software Options screen. The order the ShootRooms are defined determines their order from left to right in the physical setup, starting with 1 and going up to 5 for Theater 300 systems, 3 for Theater 180 systems and only 2 for Theater 90 systems. The definition of the ShootRooms and the order they appear is critical because the key to the Theater system is the ability for a screen to cause things to happen on other screens, so we need the physical arrangement of the screens and the software definition of the systems that display on them to match up...because the scenarios will be designed for that setup/configuration.

Lesson – The Lesson file is the scenario file that runs on a ShootRoom or Theater screen. You design the lessons in the same way as standard MILO Range lessons, with a few exceptions noted in this guide.

Script – The script format and editing tool are used both for ShootHouse systems and for Theater systems interchangeably. The script simply tells the system the Lessons that will be played on each screen. It is the lesson files themselves that define the interactivity of the system. The final goal of the scripts is different between ShootHouse and Theater systems, since Theater scripts run with all screens at once (potentially) and ShootHouse scripts tend to be a linear progression of encounters from one system in one room to the next.

OnStart – This is a lesson property defined in the ShootHouse script to define which item within a lesson will be branched to once all lessons/screens have loaded at the beginning of a script. If one follows the lesson editing guidelines for scripts found in this guide, it is not required to use this property unless the user specifically needs it.

MILO Range Theater System Overview

A MILO Range Theater system is a simply collection of normal MILO Range systems (one system per screen) that are controlled by an instructor using master control software called MILO Range Theater. This is not a complicated system...this is simply several individual MILO Range systems arranged together, being controlled at the same time by a single control software. Note that the MILO Range Theater software is the same software as the MILO Range ShootHouse software, but its labeling is changed to MILO Range Theater.

Each MILO Range system (and therefore each screen) should be setup and configured like any other MILO Range system with computer, projector, detection, flashlight and TAC components as required by the user.

When the systems are setup in a Theater arrangement (90, 180, 300, etc.) they are intended to play what appears as a cohesive surround-type scenario that spans across all the screens of the system. This is just appearance, as in fact what is happening is that each system/screen is running its own lesson, possibly with a different video view/angle of the scene; unless you are using a repeating view such as the Broken Wall example in the Theater tutorial document. Those different views/angles could have been filmed at different times, all using a single camera or with multiple cameras filming all angles at once (more complicated to manage the recording process, but still the same method to capture and edit).

Because each system/screen is running its own lesson, and the system has its own detection, etc., any screen can have action or be interacted with by the trainee at any time, based on the lesson editing.

Side Note: Based on what was explained above, it should be understood that each system/screen could also be used as a normal MILO Range system, when separated from the other systems, when and if desired by the user.

Each system/screen must be defined in the Theater software so that it can be controlled properly. The order the screens ("ShootRooms") appear in the Options screen determines their number from left to right, starting with 1 and going up to 5 for Theater 300 systems, up to 3 for Theater 180 systems and up to 2 for Theater 90 systems. The definition of the ShootRooms and the order they appear is critical because the key to the Theater system is the ability for a screen to cause things to happen on other screens, and they need to know the number of the screen to be able to trigger it properly. So, we need the physical arrangement of the screens and the software definition of the systems that display on them to match up...because the scenarios will be designed for that setup/configuration. For example, a Theater 180 system will have 3 systems that are defined in order as 1,2 and 3.

Theater Scenario Design Overview

Just as the Theater system is just a collection of systems controlled by a master control software, the scenarios for the Theater system are just a collection of normal MILO Range lessons (one lesson playing on each system) that are controlled by a master script file. This script file is known as a Theater script (or ShootHouse script). The Theater script itself simply defines which lesson will be played on each system/screen.

When you run the Theater control software, it is the script file (instead of a lesson) that you see in the session setup screen and that you "click" on to Play; that in turn instructs each system/screen to load the appropriate lesson and start the session. When creating a script, you will add the same number of lessons that you have screens (2 for 90, 3 for 180, 5 for 300) and you will add the lessons to the script in the order that you expect to see them from left to right. This is the important order that we talked about earlier.

Lesson Editing Tips for Theater Use

1. If your system does not have the folder "C:\MILO\ShootHouse" then create that folder and make a copy of "C:\MILO\Lessons" under the ShootHouse folder. This way any editing you do to adapt the lessons for Theater use will only affect their use in Theater and not in the normal lessons folder that single-screen MILO Range systems would use.
2. Every lesson you use for Theater should start with an infinite slide or a scene loop.
 - a. You can right-click on any scene to show a context menu and select to "Create First-Frame slide" while it will automatically precede the scene you selected.
 - b. This will ensure the lesson is fully started, provide some content on the screen, and allow fast branching to the action sequence while all other systems are loading.
 - c. This slide or looping scene should be set as the "Starting Item" in the lesson.
 - d. You should create instructor branch pins (i.e. "Start action") on this slide/scene, so that the instructor has a way to indicate to the system to proceed from this slide to other items in the scenario.
3. End every possible lesson outcome with an indefinite slide with the last frame of the outcome scene.
 - a. This slide will ensure that a screen will not progress to the debrief screen until the instructor clicks the STOP button on the Theater software.
 - b. You can right-click on scenes to show a context menu and select to create a Last-Frame slide that will automatically use the last frame of the scene.
4. When editing lessons, make a habit of using common names for routine scenes such as "loop", "comply", "attack" and "die". This will simplify the task of branching one lesson from another later on when you are required to know the name of the scene or lesson item you want to branch to.
5. You can use the same lesson for all screens by creating different sequences of scenes without connecting them to each other. However, in this case, you cannot use Branch other ShootHouse events as they may conflict with each other. It is usually best to just "save as" and create a version of the lesson for each screen with "screen x" in the name so you know exactly what lesson will play on each screen.
6. If you want to be able to allow one screen to trigger a branch on another screen you must use the Branch Other ShootHouse events and you must use separate lesson files.
7. If you want all screens to begin something specific once all screens are loaded, without any instructor input, you can use the OnStart feature to define a specific item within the lesson to begin once all lessons are loaded. Note that each ShootRoom will branch to its OnStart item only after all ShootRooms have loaded their lesson files and are fully ready to begin the session.

Branch Other ShootRoom Events

These events will allow you to specify a point in time within a scene of one lesson to trigger a branch on a lesson running on another system.

To create a scene event that triggers a branch on another screen:

1. In the source lesson, open the scene where you want to place the event
2. Click on the events menu and choose "branch other ShootHouse room" event
3. Click and drag in the events area in the scene below to place the start of the event (the event is momentary, so there is no time span to set for the event)
4. In the event properties below, set either "All" (to cause all other system to branch) or "Specific" and then enter the number of the screen/system to trigger (from 1 to 5, screens from left to right) and the name of the lesson item in that lesson that should be branched to.
5. All: This will cause all screens to branch to the named lesson item. However, if the lessons on all other screens do not have a lesson item that matches the name entered, that screen will not branch.

6. Specific: You will also enter the screen number that you want to trigger the branch on. This will cause the specific screen to branch to the named lesson item. However, if the lesson does not have a lesson item that matches the name entered, the screen will not branch

Do not use Next and Previous branch options with Theater systems.

The "Room Complete" check box is not relevant to the Theater system.

Common Lesson Mistakes for Theater

- If there is no starting item in a lesson, the lesson will not play and the system will immediately go to debrief.
- If you don't start the lesson with a slide or video loop, the scenario will begin playing immediately when the script finishes loading all systems and you may have action on one screen while others appear to be delayed in relation to that screen.
- Be sure you specify the correct number of the screen/system for branch other shoothouse events...1 thru 5 for screens arranged from left most to right most.
- Be sure you have correctly typed the name of the item you want to branch to in the shoothouse event properties. If it is misspelled in any way, the branching may not occur as expected.

Theater Script Guidelines

Theater scripts use normal MILO Lessons. The Theater script allows you to play the lessons in sync and to potentially have each lesson affect the others. Generally, each lesson that will be used in a Theater script should be filmed/created/edited the same way that normal MILO lessons are. However, there are a few changes to the lesson editing that will ensure your lessons and overall Theater experience work as expected.

During a Theater script run-time, branching on each Screen can occur through either of the following:

- Instructor branch using the branch options available per lesson/screen
- Trainee action such as a shot or other weapon use
- A “Branch other ShootHouse Event” which allows one system/screen to branch another system/screen
- OnStart Properties – will force the system/screen to branch once all screens have loaded their lessons

OnStart

This is a lesson property defined in the ShootHouse script for each lesson you add to the script. It will tell the system which item within a lesson will be branched to once all lessons/screens have loaded at the beginning of a script.

If you follow the lesson editing guidelines on the previous pages, it is not required to use this property unless the user specifically needs to cause all systems to start playing something other than their starting item, at the same time, and without instructor input.

Tutorial: Theater 180 Script Example Using Same Lesson

Be sure that you have copied the C:\MILO\Lessons folder into the C:\MILO\ShootHouse folder so that you have a complete copy of the lessons now at C:\MILO\ShootHouse\Lessons.

1. Open the lesson at “C:\MILO\ShootHouse\Lessons\PMC and Military\Broken Wall.Lesson”
2. File -> Save As and save to “C:\MILO\ShootHouse” folder as file name “Broken Wall – Screen 1.Lesson”
3. File -> Save As and save to “C:\MILO\ShootHouse” folder as file name “Broken Wall – Screen 2.Lesson”
4. File -> Save As and save to “C:\MILO\ShootHouse” folder as file name “Broken Wall – Screen 3.Lesson”
5. Open C:\MILO\ShootHouse\Broken Wall – Screen 3.Lesson
 - a. We will use this lesson as an attack lesson.
 - b. Delete the Slide at the start of the lesson and the “start” scene.
 - c. Delete the debrief slide and the comply scene.
 - d. Right-click on the “shoots” scene and choose “add first-frame slide”
 - e. Right-click on the “slide-shoots” that was created and choose “set starting item”
 - f. Right-click on the “dies” scene and choose “add last-frame slide”
 - g. Click Save and close the lesson
6. Open C:\MILO\ShootHouse\Broken Wall – Screen 2.Lesson
 - a. We will use this lesson as an attack lesson that also triggers screen 3 to fire as well and screen 1 to comply.
 - b. Delete the Slide at the start of the lesson and the “start” scene.
 - c. Delete the debrief slide and the comply scene.
 - d. Right-click on the “shoots” scene and choose “add first-frame slide”
 - e. Right-click on the “slide-shoots” that was created and choose “set starting item”
 - f. Right-click on the “dies” scene and choose “add last-frame slide”
 - g. Click Save.
 - h. Double click the “shoots” scene.
 - i. Click on the Events menu and select “branch other shoothouse room event”
 - j. Left-click-hold and drag in the events list to place the event somewhere near the end of the scene
 - k. In the event properties, set the branch option to “specific” and set the specific room/wall branch to “3”.
 - l. Set the Branch item name to “shoots”. This will cause the screen 3 system to branch to and play the shoots scene.
 - m. Click save.
 - n. Double click the “dies” scene.
 - o. Click on the Events menu and select “branch other shoothouse room event”
 - p. Left-click-hold and drag in the events list to place the event somewhere near the beginning of the scene
 - q. In the event properties, set the branch option to “specific” and set the specific room/wall branch to “1”.
 - r. Set the Branch item name to “comply”. This will cause the screen 1 system to branch to and play the comply scene.
 - s. Click Save and close the scene and lesson.
7. Open C:\MILO\ShootHouse\Broken Wall – Screen 1.Lesson
 - a. We will use this lesson as a comply reaction that occurs after you shoot the person on screen 2.
 - b. Delete the “Slide” at the start of the lesson as well as the “start, “shoots” and “dies” scene and the debrief slide.
 - c. Right-click on the “comply” scene and choose “add first-frame slide”
 - d. Right-click on the “slide-comply” that was created and choose “set starting item”
 - e. Right-click on the “comply” scene and choose “add last-frame slide”

- f. Click Save and close the lesson.
8. Click File -> New. In the dialog that appears, choose Shoothouse script, and then click Create.
9. The Theater script editing view will appear.
10. Click the File menu and choose Save. When prompted to save the file, browse to "C:\MILO\Shoothouse" and then type a name in the window for this script such as "Broken Wall Theater 180".
11. Click in the Objective text box and type a brief description of the training objective for this script will be. For example: "Training objectives include proper discrimination of targets, use of force and defensive and offensive tactics."
12. Click on the "add" button and select the lesson files you just created earlier. Be sure to choose the lessons in the order they will appear from left to right...screen 1 then screen 2 then screen 3.
13. Click the "Get thumbnail from lesson" link to assign the thumbnail from the (first) lesson as the thumbnail for the script.
14. Save the script and close Course Designer
15. The script is now ready for running in Theater.
 - a. With v4.5.15 or later of Theater and MILO Range, all content will be copied from the main Theater control station (where you should be creating/editing your lessons) to all of the ShootRoom systems (screens), including lesson and videos.