



SIMbox Version 5.6 Release Notes

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Version Statement

SimiGon is proud to release SIMbox version 5.6.

This version continues to focus on creating a new benchmark for organizations seeking to increase training efficiencies, Operational Readiness and decrease costs.





1. What's New in Version 5.6

I am proud to announce the release of version 5.6. This version introduces new capabilities to enhance the overall training concept of SIMbox technology.

SIMbox is the technology that enables us to provide complete innovative training solutions; with this version, we offer a more powerful end-to-end comprehensive integrated advanced Simulation, Learning & Content Management System (LCMS) and Training Management System (TMS) to the entire organizational community.

We took upon ourselves one of the most ambitious missions and one never before accomplished in the training industry. The mission to bring a seamlessly integrated comprehensive training solution to the entire organization, to resolve the problem of a disconnected training sequence and to bring together all the training aspects into one complete solution in a simple cost-effective way.

Version 5.6 significantly reduces the required development time when compared to other development methods. With this reduced development time partners can develop complete training solutions, which in the past, were the domain of only large companies. Thus, SIMbox Toolkit empowers you to compete, win large projects, and deliver on time with controlled resources and budgets.

As SimiGon always looks to improve our services to our loyal community members and customers, I would like to understand your needs and challenges concerning SIMbox through our ongoing communication. I am eager to learn more about the business scenarios you were able to face and those you are still facing.

Of course we want to hear what you would like to see next as we evolve our product. If you feel there is anything we can do to improve the service, please, take a moment to let us know about it.



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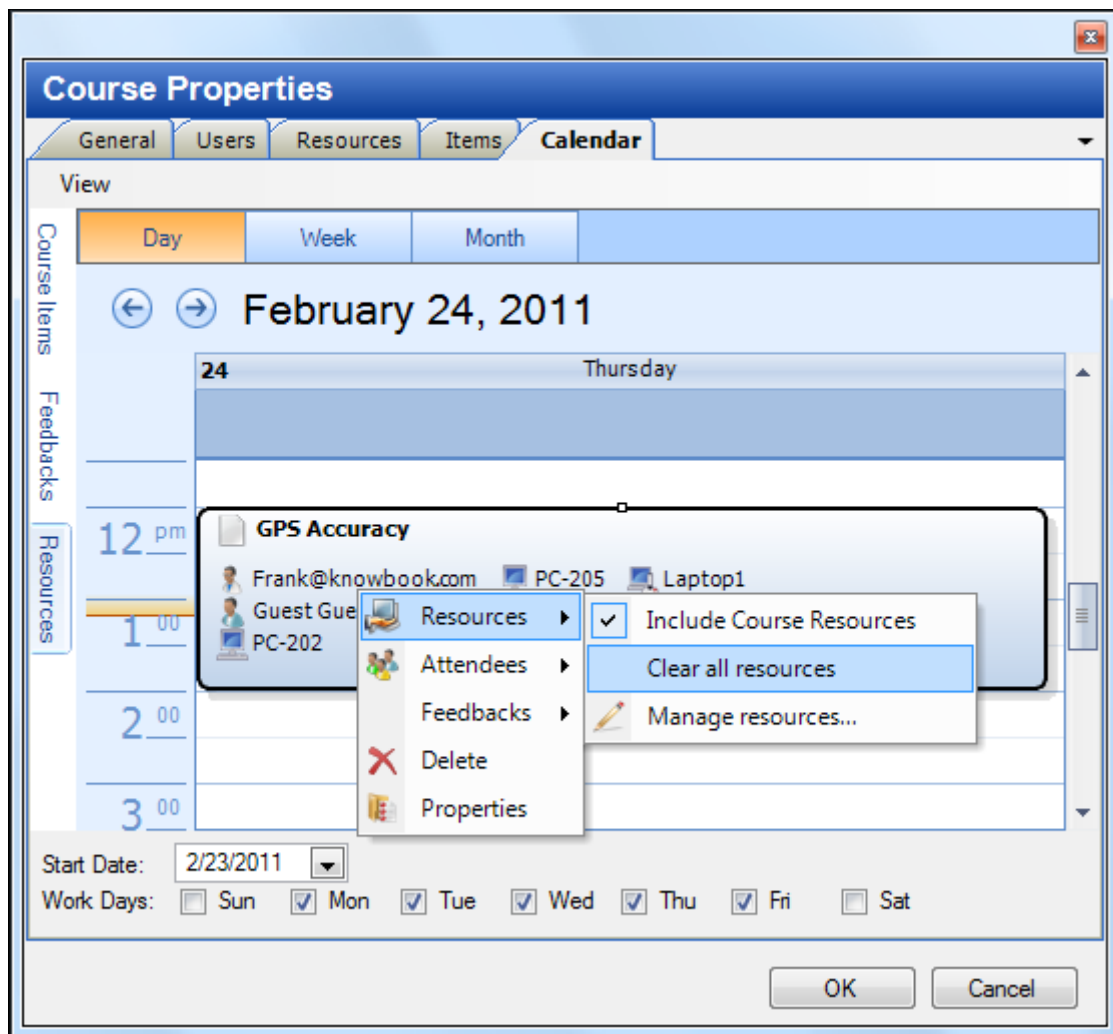


2. Training Management System (TMS)

2.1. Course Center

2.1.1. Clear All from Calendar Tab

Version 5.6 introduces improved efficiency in the Course Properties, calendar tab. Right-click on an item in the Calendar tab of the Course Properties to have the options for **Clear All Resources** and **Clear All Attendees** which would remove all resources and attendees respectively.

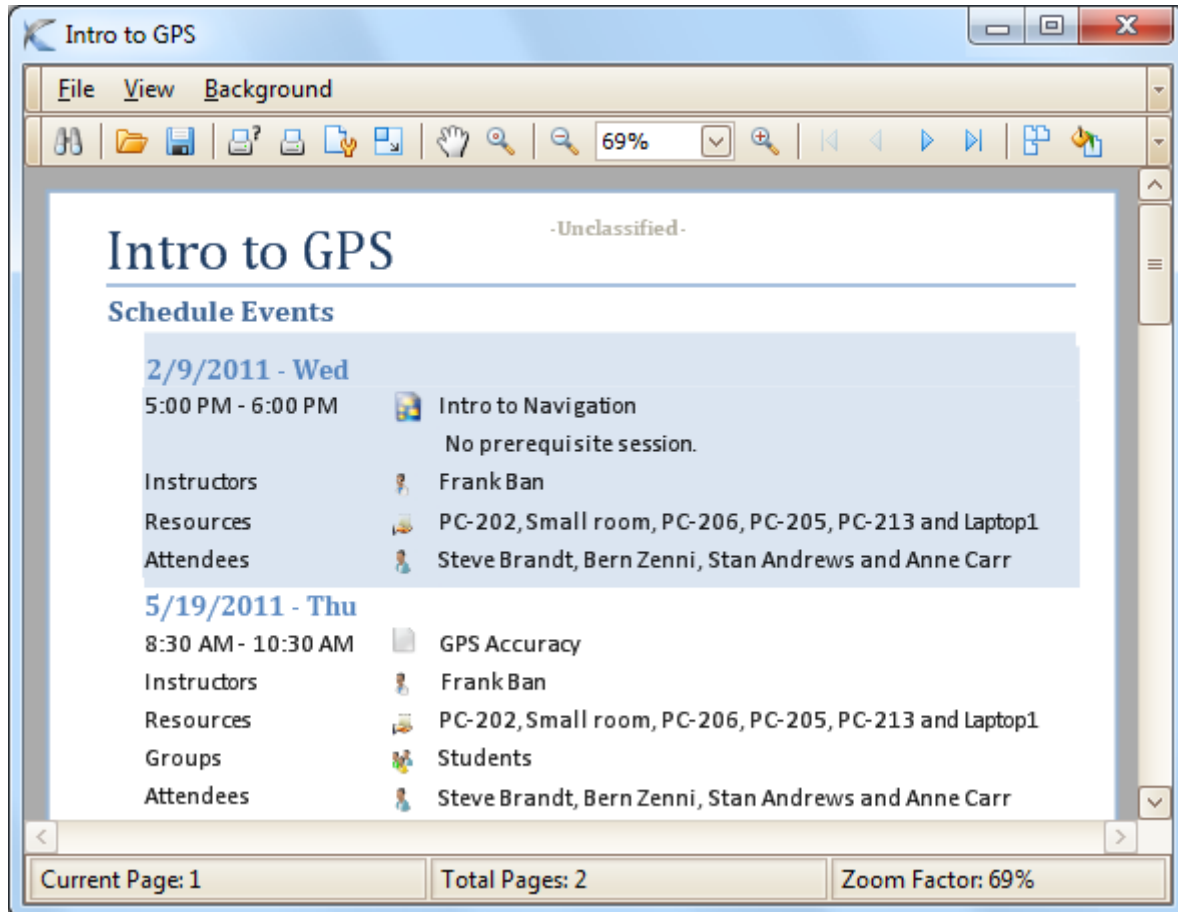


The Calendar Showing the Local Menu for a Course Item



2.1.2. Enhanced Course Preview Page

SIMbox version 5.6 provides an enhanced Course Preview Page. The Course Preview Page shows a list of attendees, instructors and groups for each event or activity.



The Full-Page Course Report in the Course Center



3. Learning Management System (LMS)

3.1. Reports

3.1.1. View Minimal Satisfaction Value in Report

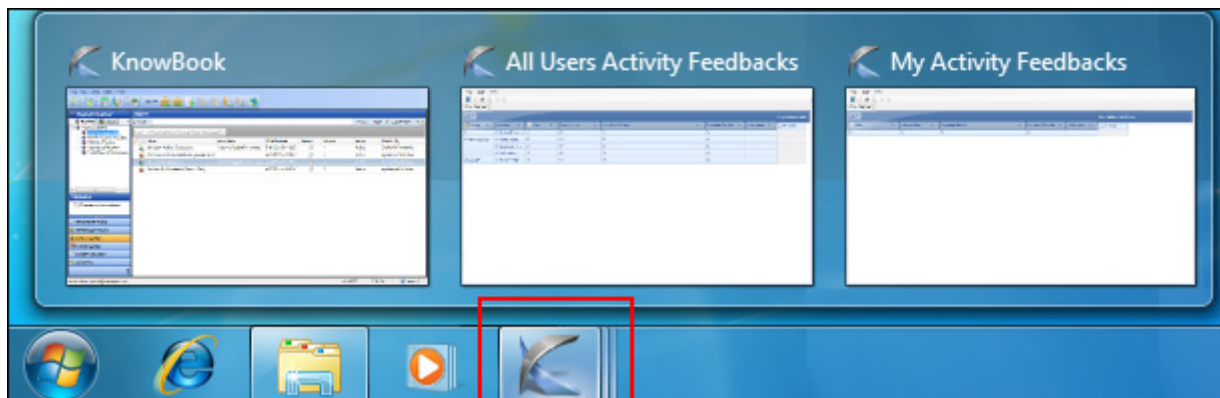
Version 5.6 provides the new ability to display the Minimal Satisfaction Value column that holds the minimum value required by a trainee to complete the task. The Minimal Satisfaction Value Field is not displayed in a report by default, and may be added from the Field Chooser.

Objective	Modified Date	Minimal Satisfaction Value	Students
Distinction	2/23/2011 11:12:02 AM	55	62.5
Excellent	3/4/2011 3:25:57 PM	Satisfactory	95
Pass	2/23/2011 11:12:02 AM	75	1
Passed	2/23/2011 11:12:02 AM	55	70.29
	2/23/2011 11:12:02 AM		66.5
Practical	2/23/2011 11:12:02 AM	Repeat Class	70
Satisfactory	2/23/2011 11:12:02 AM	65	2
Grand Total			61.25

New Objectives Report Showing Minimal Satisfaction Value Field Added to the Report

3.1.2. Open Multiple Reports

Version 5.6 allows multiple reports to be opened at the same time in KnowBook. Each report opens in a new window, with a corresponding task in the Window's Taskbar.



Multiple Reports Open in the Window's Taskbar



3.2. Feedback Forms

Version 5.6 introduces new flexibility to the instructor using feedback forms. The instructor can select which scale for the feedback, and hide the other scales available in the feedback form.

3.2.1. Ability to Hide a Scale in the Feedback Form

Version 5.6 provides more efficient method to set feedback values for objectives through radio button with 1 mouse-click. Use the local menu to toggle the scale from Visible to Hidden, or from Hidden to Visible. This ability provides an easy way to select the appropriate scale for the current feedback form, while hiding the un-wanted scales.

The screenshot shows the 'Feedback Customization Wizard - New Feedback Form' window. The main area is a table with columns for 'Event 1' and 'Event 2', and rows for various tasks. A local menu is open over the 'Written Exam' task, showing options to toggle the visibility of scales. The 'Default (Hidden)' option is selected, and 'Passing levels (Visible)' and 'Practice Scores (Visible)' are also checked.

Task	Event 1				Event 2		
	Passing levels	Good	Excellent	Repeat Class	Repeat Class	Average	Very Good
Written Exam							
Passed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distinction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical Skills							
Satisfactory							
Pass							
Passing Levels							
Excellent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Complete Practical							

Use the Local Menu to Toggle the Visibility of the Scale

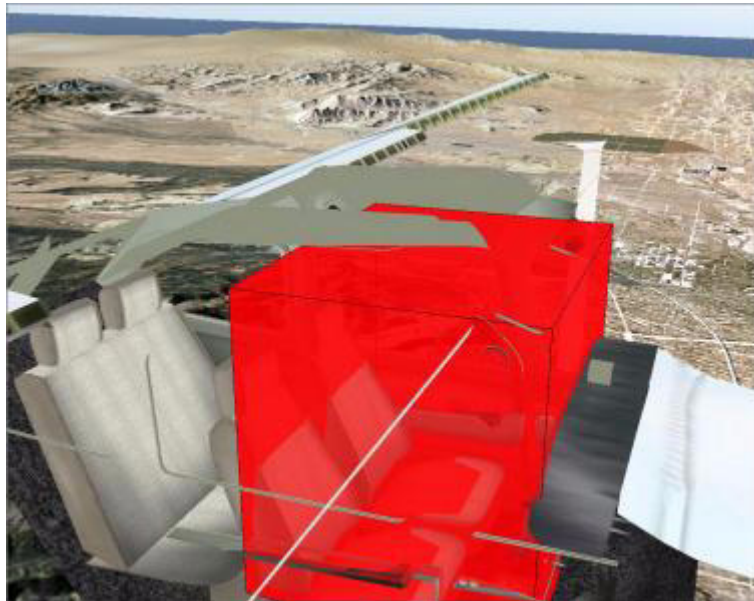


4. SIMbox Toolkit

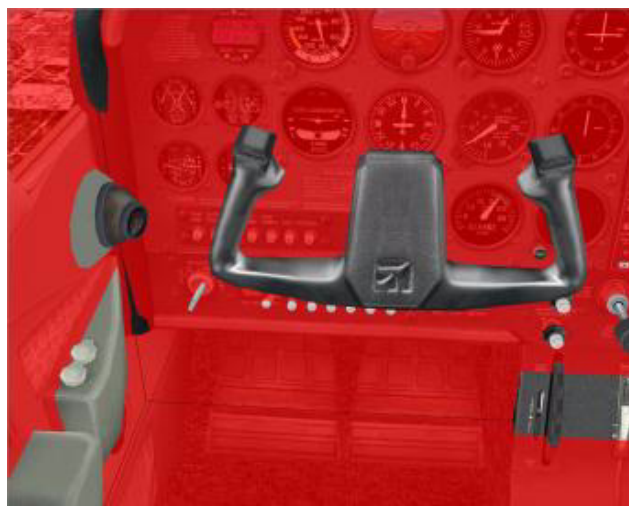
4.1. Console Editor

4.1.1. Bounding Box for Components in Console

Version 5.6 provides a new visualization of the console bounding box that simplifies the process of defining the bounding box and enables the user to quickly identify bounding box issues. The bounding box is displayed in red. This example shows the bounding box for the cockpit of a Cessna.



The Cessna Cockpit Bounding Box Showing the Outside Boundaries of the Console



The Cessna Cockpit Bounding Box as Seen Inside the Bounding Box



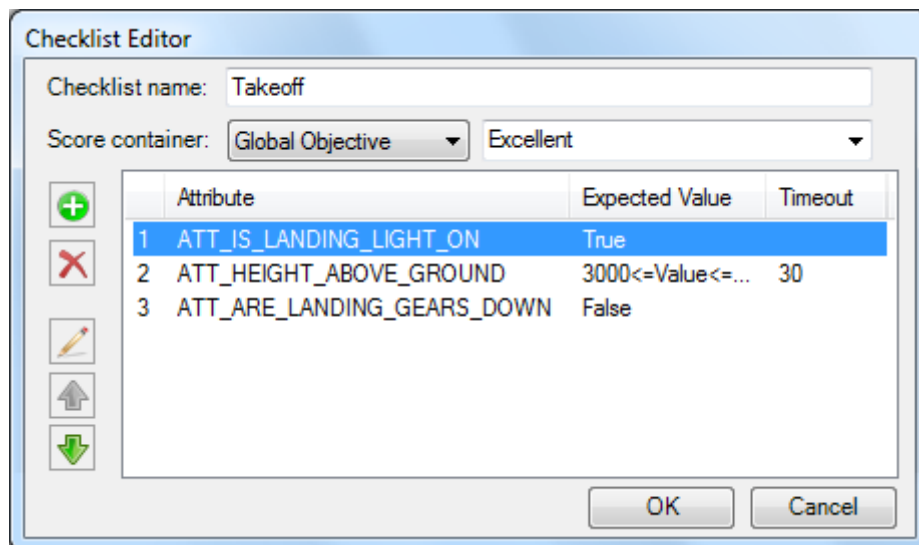
4.2. Agent Editor

4.2.1. Checklist Feature

Version 5.6 adds the ability for the Instructional Systems Designer (ISD) to create a checklist of simple sequences that the trainee must complete. This feature allows the ISD to define a sequence of expected attribute values (every action or interaction that the trainee performs is reflected through attribute values). The score awarded for completing the activity can be used to control the flow of the agent by storing it in a global objective or a local parameter.

The runtime engine starts the checklist at the first item and runs through all items in a sequential manner. One point is awarded for each successful item.

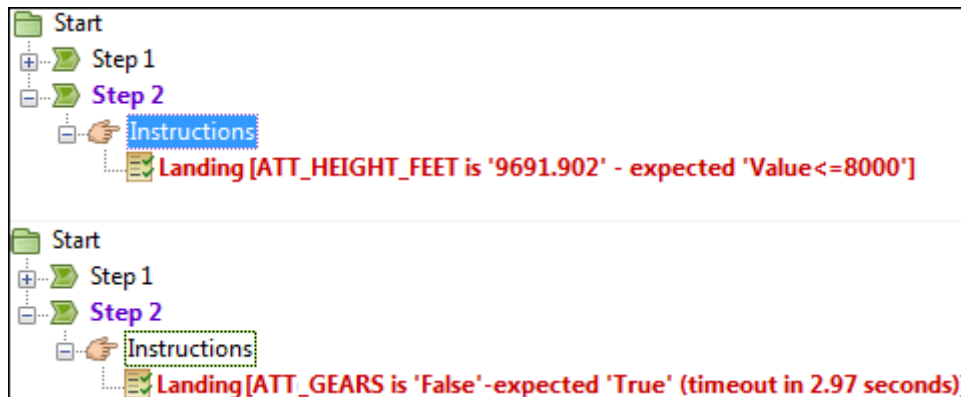
A checklist is added to the Instruction node of the agent. For each check define the attribute to test against, the expected value and a time-out for the activity. Hereunder is an example of the Checklist Editor showing a 3-steps checklist.



The Checklist Editor Showing 3 Steps



The ISD can view debug information in the Agent Editor while running in preview mode in the Scenario Editor. The information will display the actual values compared with the expected values. Here are 2 examples of checklist debug information shown in red.

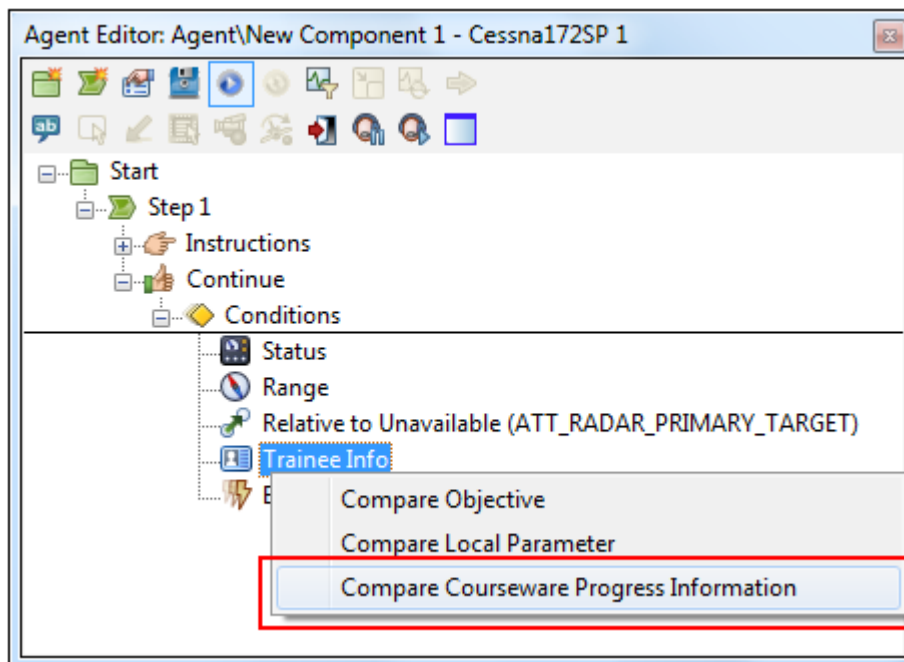


The Agent Showing Debug Information in Preview Mode

4.2.2. Comparing Courseware Progress Information

With this version, the Instructional System Designer (ISD) can query the result of any SCORM courseware during the simulation training session using the agent editor; these results reflect the trainee interaction with the courseware and include trainee and objectives progress information. With this information Instructional System Designers can personalized the training session according to the trainee real-time performance. The seamless integration between SCORM courseware and simulation sessions provides SCORM courseware real-time feedback to trainees during the simulation training.

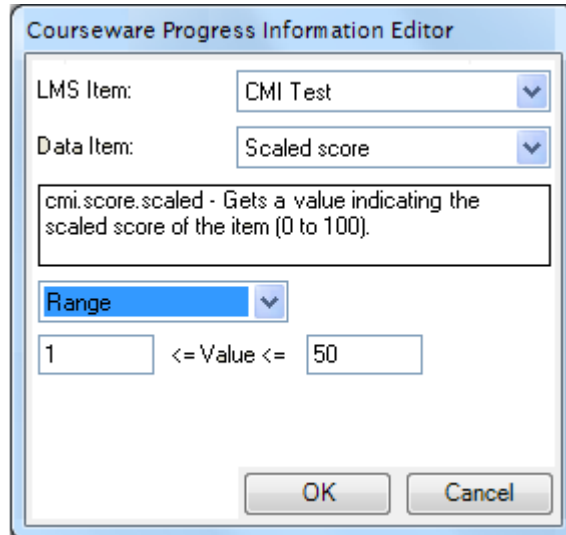
Add a Flow Control section to the step in the agent. In the Trainee Info node choose **Compare Courseware Progress Information**.



Selecting the Compare Courseware Progress Information Option

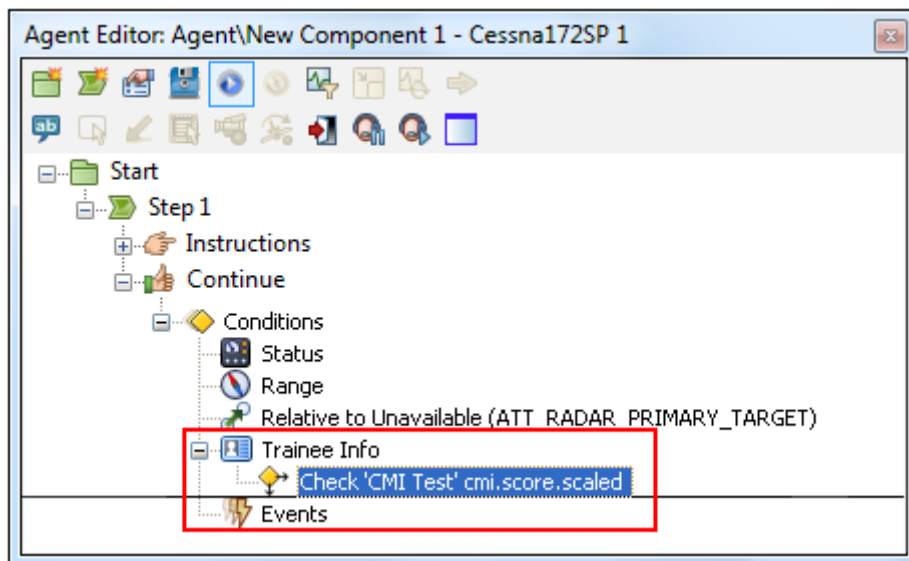


The Compare Courseware Progress Information dialog creates the link between the LMS item and the type of data resulting from the trainee's test.



Compare Courseware Progress Information Dialog

The Compare Courseware Progress Information node in the Agent Editor.



The Compare Courseware Progress Information Appears in the Trainee Info Node



5. SIMbox Graphic Engine

5.1. Support for 3D Ocean

The graphics engine in SIMbox Version 5.6 supports a 3-dimensional ocean. This effect can be controlled from the Environmental Settings in the scenario editor and from the Instructor Operator Station (IOS) during the simulation session by selecting the Sea State 13 levels (0-12). Sea-state levels 0 through 12 correspond to the Beaufort Scale and its associated wave height of a Calm through Hurricane sea state.

The sea-state generates realistic physical affect on maritime entities. A calm sea state will not rock the entity, while a storm sea state (Level 10) will simulate 29 to 41 foot waves that move the entity and occasionally wash over the decks.

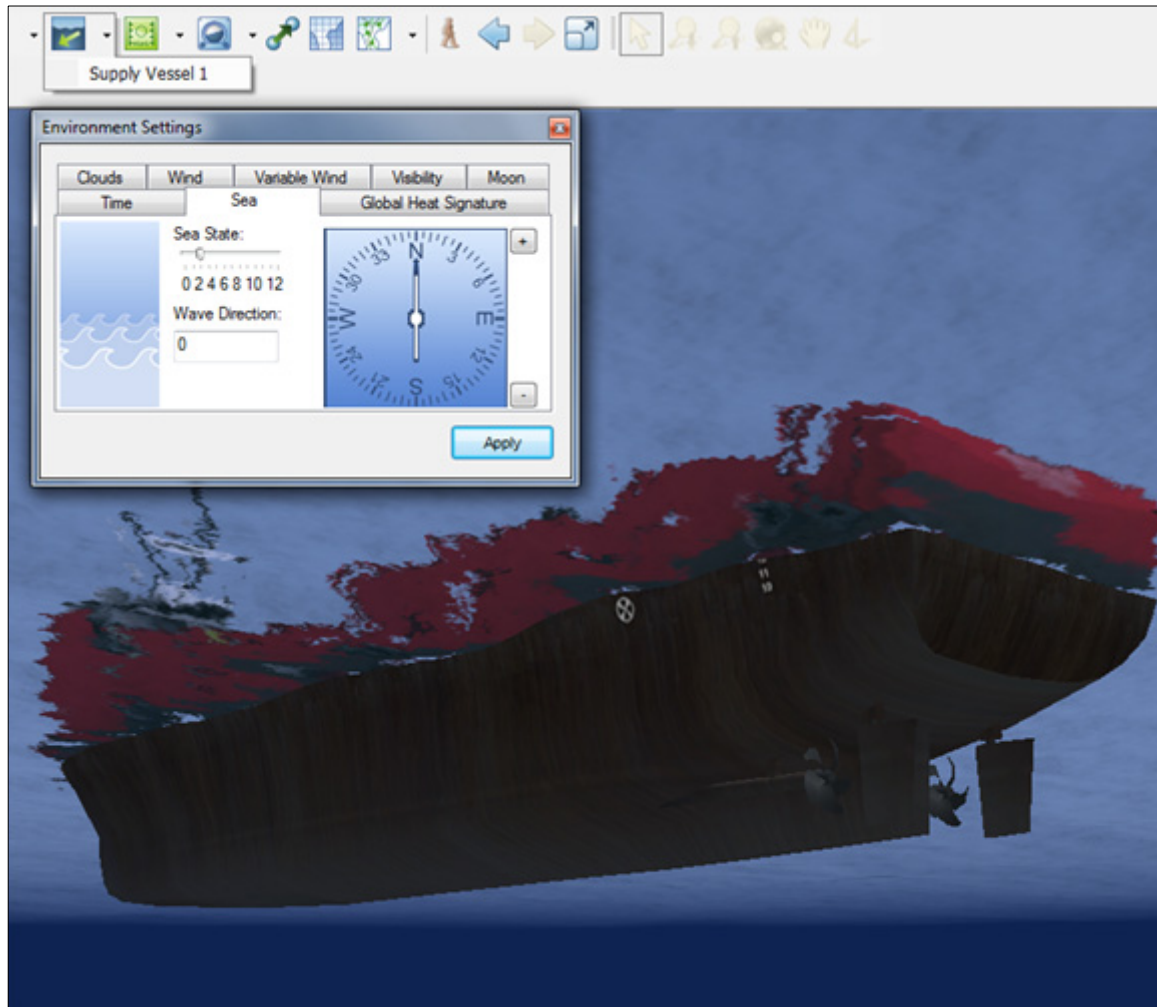


A Supply Ship Sailing in a Gale



5.2. Support for Underwater View

Version 5.6 supports an underwater view of an entity. Toggle the display of the underwater view of the entity by clicking the new Underwater View icon on the Display Toolbar.

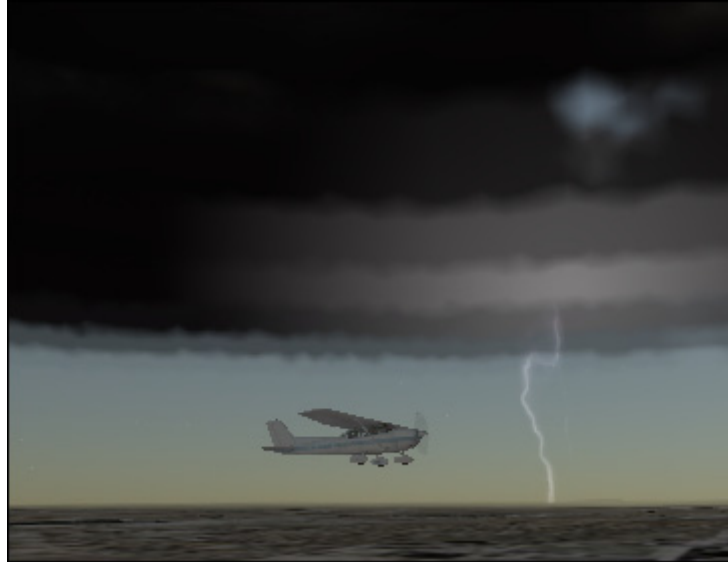


Underwater View of the Supply Vessel



5.3. Support for Lightning Effect

Version 5.6 supports a lightning effect in the simulation. This effect can be controlled from the Environmental Settings in the scenario editor and from the Instructor Operator Station (IOS) during the simulation session.



The New Lightning Effect Seen in this Simulation Session

5.4. Support for Infrared Camera

Version 5.6 supports high fidelity simulation of a Forward-Looking Infrared (FLIR) sensor. The new features renders the world according to various properties of heat emitted by different objects in the environment.



A Light Aircraft Showing the White-Hot Infrared Camera Effect



5.5. Particle-Effect System

Version 5.6 sees the introduction of 2 new effect systems to the SIMbox graphic engine. The first is a robust and sophisticated effect system designed to handle various particle effects. New effects for this system can be edited using a new visual editor program. The second effect system is designed to handle large amount of small indicator lights. This system is specifically tailored for night time simulation.



A Mid-Air Explosion Showing the Particle Effect



6. SIMbox Simulation

6.1. Microsoft Visual Studio 2010 Support

Version 5.6 supports Microsoft Visual Studio 2010 for software developers using the SIMbox Software Development Kit.

6.2. Embedding Playback Item in HTML Page

Version 5.6 provides the ability to embed a simulation-session playback item in a frame in an HTML page. The trainee can drift the mouse cursor over the playback frame to see the playback controls in the frame. The playback will be accessible to computers that are connected to the SIMbox LMS (Learning Management Server) and have an installed SIMbox Simulation Runtime environment.

This screen shows a sample HTML page with a simulation-playback item embedded into the bottom-left of the page.

All text is from Wikipedia (http://en.wikipedia.org/wiki/Cessna_172)

Measured by its longevity and popularity, the Cessna 172 is the most successful mass produced light aircraft in history. The first production models were delivered in 1955 and they are still in production. As of 2005, more than 43,000 had been built.^[1] The Skyhawk's main competitors have been the *Beechcraft Musketeer* and *Grunman AA-5 series* (neither in production), the *Piper Cherokee* and, more recently, the *Diamond DA40*.

The Cessna 172 started life as a tricycle landing gear variant of the *taildragger Cessna 170*, with a basic level of standard equipment. In January 1955 the company had flown an improved variant of the Cessna 170, a *Continental O-300-A* powered Cessna 170C with a larger elevator and more angular vertical tail.^[2] Although the variant was tested and certified, Cessna decided to modify it with a tricycle landing gear and the modified Cessna 170C flew again on 12 June 1955.^[3] To reduce the time and cost of certification the type was added on to the Cessna 170 type certificate as the Model 172.^[4] Later the 172 was given its own type certificate 3A12.^{[5][6]} The 172 became an overnight sales success and over 1,400 were built in 1956, its first full year of production.

Early 172s were similar in appearance to the 170, with the same straight aft fuselage and tall gear legs, although the 172 had a straight vertical tail while the 170 had a rounded fin and rudder. Later 172 versions incorporated revised landing gear and the sweptback tail which is still in use today. The final aesthetic development in the mid-1950s, was a lowered rear deck that allowed an aft window. Cessna advertised this added rear visibility as "Omni-Vision". This airframe configuration has remained almost unchanged since then, except for updates in *avionics* and *engines*, including the *Garmin G1000 glass cockpit* in 2005. Production had been halted in the mid-1960s, but was resumed in 1996 with the 160 hp (120 kW) Cessna 172R Skyhawk and was supplemented in 1996 by the 180 hp (136 kW) Cessna 172S Skyhawk SP.

On December 4, 1968 Robert Timm and John Cook took off from McCarran Airfield, Las Vegas, NV in N9172B. Sixty-four days, 22 hours, 19 minutes and 5 seconds later, they landed back at McCarran Airfield on February 4, 1959. The flight was part of a fund raising effort for the *Damon Runyon Cancer Fund*. Food and water were transferred by matching speeds with a chase car on a straight stretch of road in the desert, and hoisting the supplies aboard with a rope and bucket. Fuel was taken on by hoisting a hose from a fuel truck up to the aircraft, filling an auxiliary belly tank installed for the flight, pumping that fuel into the aircraft's regular tanks, and then filling the belly tank again. The drivers steered while a second person matched speeds with the aircraft with his foot on the vehicle's accelerator pedal.

Engine oil was added by means of a tube from the cabin that was fitted to pass through the firewall. Only the pilot's seat was installed. The remaining space was used for a pad on which the relief pilot slept. The right cabin door was replaced with an easy-opening, accordion-type door to allow supplies and fuel to be hoisted aboard. Early in the flight, the engine driven electric generator failed. A Champion wind driven generator (turned by a small propeller) was hoisted aboard, taped to the wing support strut, plugged into the cigarette lighter socket—and served as the aircraft's source of electricity for the rest of the flight. The pilots decided to end the marathon-flight because, with 1558 hours continuous running during the record-setting flight plus several hundred hours already on the engine beforehand (considerably in excess of its normal overhaul interval), the engine's power output had deteriorated to the point that they were barely able to climb away after refueling. The aircraft is on display in the passenger terminal at *McCarran International Airport*. Photos and details of the record flight can be seen in a small museum on the upper level of the baggage claim area.^[7]

An HTML Page with Embedded Playback Item



The controls appear at the bottom of the playback frame while the mouse cursor is over the playback frame.



The Controls Show at the Bottom of the Embedded Playback Frame



7. SIMbox LCMS Server

7.1. Server Operating System and Database Support

SIMbox version 5.6 offers support for the following operating system and SQL database versions.

Server Operating System
Windows Server 2008 (32-bit and 64-bit)
Windows Server 2008 R2 (32-bit and 64-bit)
Windows Server 2003 64-bit
Retaining support for Windows Server 2003 32-bit provided in a previous version.

Server Database
MS SQL Server 2008 (32-bit and 64-bit)
MS SQL Server 2008 R2 (32-bit and 64-bit)
MS SQL Server 2005 SP4
MS SQL Server 2005 64-bit
Retaining support for MS SQL Server 2005 32-bit provided in a previous version.

8. SIMbox Installation

8.1. Terrains

The Global World Terrain has been removed from the SIMbox installation to reduce the overall size of the installation. A separate Global World Terrain is available to customers on request. This terrain can be installed separately.



9. Additional Features

This list describes additional features that are added to version 5.6:

1. The ability to set the movement (speed and percentage) of Flaps and Air Brakes.
2. Landing lights are added to the McCarran Airport on the Vegas terrain.
3. New civilian bus is added to the base content.
4. The ability for students to see the instructor, classroom and students for each activity on the calendar.
5. Agents are available from the Knowledge Center to perform basic CMS operations
6. The ability to assign an instructor to multiple events at once.
7. Improve readability: It is easier to see who is assigned to what event, by displaying their names on the day view calendar.
8. The graphic engine supports the dash and solid AGI line style.
9. The graphic engine supports model skins. Several images can now be combined and layered on top of a 3-dimensional model. This lets you create a different look and feel for similar objects.
10. The graphic engine supports texture atlasing for terrain images, which combines multiple small images into a few big ones. This reduces the amount of materials used in the terrain, thereby lowering the batch count and improving frame-rate. This can be done independent of how the terrain was created.
11. The graphic engine supports UTM projection in terrains.
12. Improved performance of the Activity and Objectives information reports.