

# VBS3 Scripting

## Level Two Course



A course that provides students with the ability to enhance scenarios further through the use of external files, responding to user input and game events, automated activities, and an understanding of optimizing script processing.

```
//if Class
if (isClass(_type)) then
{
    //get the class data and start the string
    _parent = str inheritsFrom _type;
    if (_parent != "" && _parent != "''''''") then
    {
        _parent = ([_parent, "/"] call fn_trimLeft);
        _html = _html + format["%1class %2 : <a href=\"%3\">%3</a><br>", _tab, _strType, _parent];
        g_arrayOutputText = g_arrayOutputText + [format["%1class %2 : %3", _tab, _strType, _parent]];
    }
    else
    {
        _html = _html + format["%1class %2<br>", _tab, _strType];
        g_arrayOutputText = g_arrayOutputText + [format["%1class %2", _tab, _strType]];
    };

    _html = _html + format["%1{<br>", _tab];
    g_arrayOutputText = g_arrayOutputText + [format["%1{", _tab]];

    //if the class has children, recurse over each child
    if ( count(_type) > 0 ) then
    {
        private ["_recArray"];
    }
}
```

Course Syllabus

“My powers are ordinary.  
Only my application brings me success.”  
– Sir Isaac Newton

## Welcome to the Course

### Aim

The aim of this syllabus is to detail the training, administrative, and logistic requirements for the course.

Training is at the heart of Bohemia Interactive Simulations. Our products are developed to enable the most effective training of our military and professional industry customers worldwide. In support of our simulation and development products, and in response to consultation with our customers, we are proud to deliver training courses of the highest caliber.

### Course Description

This course is designed to open the VBS simulation for manipulation by scenario administrators and designers through use of the in-built VBS Scripting functionality. While the Offline Mission Editor provides a simple and powerful GUI for mission design, the addition of VBS Scripting capability allows for greater control and flexibility in your scenarios and content.

The ability to create lengthy, detailed and articulate scenarios allows for a predictable outcome for those wishing to use the VBS engine for analytical purposes. You will find our scripting course unlocks the other 80% of the VBS engine that the Scripting Level One Course introduced you to.

### Course Prerequisites

The Scripting Level One Course is the prerequisite for this course.

Students will be required to load, modify and create new scenarios in VBS.

Student will be required to copy and paste or type scripting statements into VBS or a text editor.

Knowledge of basic Windows file structure and short cut keys are recommended (folder paths, copy and paste).

Knowledge of basic programming (data types, variables, logic) is not required but recommended.

### Course Objectives

At the end of this course, students will be able to create and execute external script files, demonstrate how to debug and troubleshoot scripts, control the flow of execution using control structures, and capture and respond to user input and events.





## Requires Texts and Resources

- Scripting Level Two Student Guide
- VBS3 Editor Manuals
- VBS3 Command Reference (Offline or Online Wiki)

## Instructional Methods

This course will use the following methods of instruction: Direct Teaching, Lecture, Presentation, Demonstration, Discussion, Cooperative Learning, Step-by-Step Activities, Small Group Activities, Hands-on Practical Application, Reading Assignments, and Simulation.

## Course Policies and Requirements

### Attendance and Participation

It is required that you attend at least 90% of this course (36 hours) in order to receive the course certificate. Punctuality is necessary to achieve success in this course. Participation in activities and discussion is required.

### Grading

This is a Pass / Fail course. If you are unable to complete at least 90% of the lessons successfully, the instructor will meet with you and determine if it is appropriate for you to receive a Course Certificate.

### Teamwork

This course depends upon teamwork and cooperation. You will be working with other students to create and modify scenarios, host and join sessions, and troubleshoot items as they may arise. If you have difficulty working in teams, please speak with the instructor. Although you will work in teams, your work must be produced independently.

### Professionalism Policy

In order to maintain the optimal learning environment, mobile phones, pagers, tablets **must be silenced** during all classroom activities. Those individuals who do not comply with this policy will be asked to leave the classroom so as not to interfere with other students' learning. Please arrive on time for all class sessions. Students who habitually disturb the class by talking, arriving late, leaving early, etc., and have been warned by the instructor may not receive a Course Certificate.

### Indemnity Clause

The instructor reserves the right to modify any and all portions of this syllabus in any way he or she sees fit while maintaining the academic integrity of this course.





## Tentative Course Schedule

The times and dates listed are tentative and subject to change.

<b>Monday:</b>	0900 – 1700
<b>Tuesday – Friday:</b>	0800 – 1700
<b>Lunch:</b>	1100 – 1230
<b>Breaks:</b>	15 Minutes between lesson blocks
<b>Preview/Review:</b>	15 Minutes at start and end of class day



## Course Topics

The course will introduce students to developing scripts using external files, and reinforce techniques by having students create practical script-enhanced scenarios covering the following topics:

- Creating and controlling units and vehicles
- Providing scripted responses to user input and events
- Optimizing scripts to make them reusable
- Design considerations for vignette/video production
- Reading and writing to external files



## More Information

Complete details for our primary training sites can be found at: <https://www.bisimulations.com/company/contact-us>




- Farnborough Aerospace Center, UK
- Orlando, Florida, USA
- Williamtown, Australia

Contact our Training Department directly via email at: [training@bisimulations.com](mailto:training@bisimulations.com)

You can find more information on other courses at our website via: <https://www.bisimulations.com/training>

## Which Courses Do You Need?



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VBS3 terrain development is a very important skill set for a VBS user developer, as it provides the developer with the ability to create sensitive terrain areas with restricted source data, within the security of your own organization. Combined with the VBS3 Rigging and Import Course, the developer is armed with a very powerful skill set which will, with the necessary source data, enable high detail replication of real world terrain locations.



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Three courses are designed to support learners at any level, and provide a pathway towards more advanced scenario and content development in support of training. Courses start at Level One, for those who are unfamiliar with scripting concepts and builds upon lessons learned in the Administrator Course, and end at Level Three for those who want to tap into basic Designer-level tasks.



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The VBS3 Administrator Course is the foundation course for all Bohemia Interactive Simulations-developed training. This course introduces instructors and training facilitators to VBS3. This course covers the following topics: VBS3 capabilities, administrator functions, scenario design, and lesson design.



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The Rigging and Import Course is specifically aimed at model development within the VBS3 Developer Suite, provided with the purchase of a VBS3 license. And in particular to Bohemia Interactive Simulation's proprietary modelling software "Oxygen2." You may already be an experienced 3D artist in Maya, 3DSmax, Modo or any number of other modelling packages, but to import your model into VBS3 requires an understanding of the proprietary tools, workflow and techniques required to set up and rig a model for use in VBS3.