

Updated on 12/02/2025

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# **PixiJS training**

3 days (21 hours)

### Presentation

PixiJS is a WebGL-accelerated 2D rendering JavaScript library. It is mainly used to create interactive applications, games and high-performance animations on the browser, naturally guaranteeing compatibility with the latest technologies. multi-platform.

Our training course will teach you how to master PixiJS, to bring your ideas to life, design dynamic visuals and develop high-performance interactive projects for the modern web.

With our PixiJS training course, you'll be able to create and manage graphic scenes, animate objects and integrate complex interactions, while optimizing performance for a smooth experience on desktop and mobile.

During this training course, you will be guided step by step, from the discovery of fundamental concepts (sprites, textures, interactions) to the application advanced effects (particles, filters, shaders).

On the training date, we'll introduce you to the latest version of PixiJS 8.8.

# Objectives

- Understanding the fundamental concepts of PixiJS
- Create interactive animations and 2D games
- Optimize performance for smooth rendering on all platforms.
- Learn to implement real-life events

# Target audience

- Web and video game developers
- Front-end developers

# Prerequisites

• Basic knowledge of HTML5 and JavaScript

# PixiJS training program

#### Introducing PixiJS and its ecosystem

- Discover PixiJS: its use cases and benefits
- Project setup and configuration
- Introduction to key concepts: Stage, Container, Renderer, Sprites

#### Exploring the basics of PixiJS

- Creating a simple scene
- Texture management
- Manipulation of element positions, scales and rotations
- Setting up a first interactive project

#### Creating and managing animations

- Introduction to animation loops and PixiJS ticker
- Animation of sprite properties (positions, opacity, etc.)
- Synchronizing animations with time

#### Interactivity and events

- User interaction management (clicks, hovers, scrolls)
- Organizing infrastructure services with tags and metadata

#### Customization and scalability

- User event detection
- · Creating interactive buttons and animations
- Interactive zone management

#### Advanced graphic effects

- Introduction to filters and shaders
- Creating effects with plug-ins
- Dynamic backgrounds and parallax effects

#### Performance optimization

- Best practices for managing resources and optimizing rendering
- Techniques for smooth performance on mobile and desktop
- Texture compression and optimization

# Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

# Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

# **Teaching methods**

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

# Organization

The course alternates theoretical input from the trainer, supported by examples, brainstorming sessions and group work.

# Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

# Sanction

A certificate will be issued to each trainee who completes the course.

Training Program Web page - Appendix 1 - Training sheet Training organization registered under number 11 75 54743 75. This registration does not imply government approval. Ambient IT 2015-2025. All rights reserved. Paris, France - Switzerland - Belgium - Luxembourg