

RootJS: Node.js Bindings for ROOT 6

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We present rootJS, an interface making it possible to seamlessly integrate ROOT 6 into applications written for Node.js, the JavaScript runtime platform increasingly commonly used to create high-performance Web applications. ROOT features can be called both directly from Node.js code and by JIT-compiling C++ macros. All rootJS methods are invoked asynchronously and support callback functions, allowing non-blocking operation of Node.js applications using them. Last but not least, our bindings have been designed to platform-independent and should therefore work on all systems supporting both ROOT 6 and Node.js.

Thanks to rootJS it is now possible to create ROOT-aware Web applications taking full advantage of the high performance and extensive capabilities of Node.js. Examples include platforms for the quality assurance of acquired, reconstructed or simulated data, book-keeping and e-log systems, and even Web browser-based data visualisation and analysis.

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Data processing workflows and frameworks/pipelines

Secondary Keyword (Optional)

Software development process and tools

Tertiary Keyword (Optional)

Network systems and solutions

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