



AJAX Toolkit Developer Guide

Version 56.0, Spring '23



CONTENTS

Chapter 1: AJAX Toolkit Developer Guide	1
When to Use the AJAX Toolkit	1
AJAX Toolkit Support Policy	2
Other Resources	2
AJAX Typographical Conventions	2
Sample Visualforce Page Using the AJAX Toolkit	2
Working with the AJAX Toolkit	4
Connecting to the API	4
Embedding API Calls in JavaScript	5
Processing Results	7
API Calls and the AJAX Toolkit	8
Synchronous and Asynchronous Calls with the AJAX Toolkit	8
Object Functions	9
Data Types in AJAX Toolkit	9
source Context Variable	10
Debugging with the AJAX Toolkit	10
Example Calls Using the Ajax Toolkit	10
SOAP Header Options with the AJAX Toolkit	23
Error Handling with the AJAX Toolkit	25
Advanced Topics	26
QueryResultIterator	27
Differences in Escaping Reserved Characters	27
Working with Base64 Binary Encoded Strings	27
Timeout Parameter for Asynchronous Calls	29
AJAX Proxy	29
Glossary	31
Index	43

CHAPTER 1 AJAX Toolkit Developer Guide

Embed API calls in Visualforce pages, buttons, and links with AJAX Toolkit — a JavaScript wrapper around SOAP API.

The AJAX Toolkit supports Microsoft® Internet Explorer® versions 9, 10, and 11 with the latest Microsoft hot fixes applied, and Mozilla® Firefox®, most recent stable version. The AJAX Toolkit is based on the partner WSDL. Because there's no type checking in JavaScript, the type information available in the enterprise WSDL isn't needed.

 **Note:** Before you use the AJAX Toolkit, familiarize yourself with JavaScript and with the information about SOAP API in the [SOAP API Developer Guide](#).

[When to Use the AJAX Toolkit](#)

For best performance, use the AJAX Toolkit when working with small amounts of data.

[Working with the AJAX Toolkit](#)

[API Calls and the AJAX Toolkit](#)

This toolkit supports all SOAP API calls, as well as `runTests()` from Apex.

[SOAP Header Options with the AJAX Toolkit](#)

All header options in the SOAP API are supported in the toolkit, but they are specified differently than in the API.

[Error Handling with the AJAX Toolkit](#)

The AJAX Toolkit provides the ability to handle errors for synchronous and asynchronous calls.

[Advanced Topics](#)

[Glossary](#)

When to Use the AJAX Toolkit

For best performance, use the AJAX Toolkit when working with small amounts of data.

Because information is delivered via a browser, AJAX works best with relatively small amounts of data (up to 200 records, approximately six fields with 50 characters of data each). The larger the data set returned, the more time it will take to construct and deconstruct a SOAP message, and as the size of an individual record gets larger, the impact on performance becomes greater. Also, as more HTML nodes are created from the data, the potential for poor performance increases. Because browsers are not efficient, careful consideration needs to be given to browser memory management if you intend to display a large amount of data.

The following are examples of appropriate uses:

- Display or modify a single record.
- Display two or three fields from many records.
- Perform one or more simple calculations, then update a record.

The following are examples of scenarios that require case-by-case analysis:

- Update more than 200 records.
- Update records that are unusually large. For example, what happens if the user clicks the browser stop button?
- Recalculate a complex value for more than 200 records.

[Click here to download full PDF material](#)