

# Version History

## 2.2.10

January 17, 2024

- Added [SRP\\_Get\\_Clipboard](#) and [SRP\\_Set\\_Clipboard](#)
- Updated [SRP\\_COM](#) to use 32-bit integers when possible to satisfy some COM servers that don't like 64-bit integers

## 2.2.9

September 21, 2023

- Added [HANDLES](#) service to [SRP\\_COM](#)

## 2.2.8

August 17, 2023

- Updated [SRP\\_Com](#) to better sanitize object handles with null characters
- Updated [SRP\\_Com ADDPARAM](#) service to allow passing null objects

## 2.2.7

May 15, 2023

- Fixed bug in [SRP\\_JsonX\\_Get](#) that would crash on certain paths in OI 10

## 2.2.6

March 27, 2023

- Added [Compare](#), [EQ](#), [EQC](#), [NE](#), [NEC](#), [LT](#), [LTC](#), [LE](#), [LEC](#), [GT](#), [GTC](#), [GE](#), and [GEC](#) services to [SRP\\_String](#)
- Added [StripRtf](#) service to [SRP\\_String](#)
- Added [GetTempPath](#) and [GetTempFilename](#) services to [SRP\\_Path](#)
- Added [BEGINCALL](#), [ENDCALL](#), and [ADDPARAM](#) services to [SRP\\_Com](#)
- Added [SRP\\_Is64Bit](#)
- Updated [SRP\\_Date](#), [SRP\\_Time](#), and [SRP\\_DateTime](#) IConv services to set Status() when validation fails
- Updated URL algorithm in [SRP\\_Encode/SRP\\_Decode](#).
- Updated [SRP\\_Show\\_Window](#) to respect DPI in OI 10
- Fixed bug in [SRP\\_JsonX](#) and [SRP\\_JsonX\\_Set](#) where passing number with leading zeroes with no hint produces invalid Json numbers
- Fixed bug in [SRP\\_JsonX](#) and [SRP\\_JsonX\\_Set](#) where setting Hint to "" set the value to null
- Fixed bug in [SRP\\_JsonX](#) and [SRP\\_JsonX\\_Set](#) where setting Hint to "Bool" would break to debugger if non-numerical value was passed
- Fixed bug in [SRP\\_JsonX\\_Members](#) where passing path to non-existing element would crash
- Fixed bug in [SRP\\_Time](#) and [SRP\\_DateTime](#) where "i" or "it" format would use pm instead of am for the noon hour
- Fixed bug in [SRP\\_Path](#) where [MakeRelative](#) service would crash in OI10
- Fixed bug in [SRP\\_Registry](#) where it would break to debugger on a READ
- Fixed bug in [SRP\\_Com](#) where creating new objects would return handles with null characters
- Fixed bug in [SRP\\_Com](#) where passing -1 for a boolean would be understood as TRUE
- Fixed bug in [SRP\\_PreCompiler](#) not removing #pre and #endpre directives before compilation
- Fixed bug in [SRP\\_Get\\_Uilities\\_Version](#) where it would crash in OI10

## 2.2.5

February 17, 2022

- Updated [SRP\\_PreCompiler](#) FOR EACH loop to be faster and correctly handle trailing ""
- Updated [SRP\\_PreCompiler](#) to use variables instead dimmed arrays for more performance
- Updated [SRP\\_PreCompiler](#) to case-insensitively parse unpacking statements
- Fixed bug where [SRP\\_Get\\_Window\\_Rect](#) wouldn't work on OI10 due to WinAPI name changes

## 2.2.4

January 19, 2022

- Added "ARRAY" hint to [SRP\\_JsonX](#) routine

## 2.2.3

December 22, 2021

- Added [SRP\\_Regex](#)
- Fixed [SRP\\_Run\\_Command](#) failing on commands when using the "DOS" or "DOSOPEN" output directives.

## 2.2.2

November 15, 2021

- Updated [SRP\\_Run\\_Command](#) to better handle Unicode and UTF8 output
- Fixed bug in [SRP\\_Time Parse/Iconv](#) that would not handle missing hour component correctly

## 2.2.1

October 18, 2021

- Added [Validate](#) service to [SRP\\_Json](#)
- Fixed bug in [SRP\\_Time](#) and [SRP\\_DateTime](#) when formatting times with AM/PM
- Fixed bug in [SRP\\_Run\\_Command](#) where utf8 was not being handled correctly for some commands

## 2.2

August 16, 2021

- Added [SRP\\_JsonX](#).
- Fixed bug where UTF8 data would get truncated when using [SRP\\_HashTable](#).
  - Updated all routines to use GetByteSize instead of Len where appropriate to avoid future UTF8 truncations.
- Fixed bug where [SRP\\_Array Rotate](#) service would skip last element if it was 1 character wide.

## 2.1.11

April 28, 2021

- Fixed bug in [SRP\\_PreCompiler](#) where For Each loops would break early if calling gosubs that had other For Each loops in them.

## 2.1.10

April 21, 2021

- Added [SRP\\_Get\\_FileVersion](#)
- Added [SRP\\_Get\\_Uilities\\_Version](#)
- Added [SRP\\_Stack](#)
- Added [SRP\\_Get\\_Fonts](#)
- Added [Clear](#) service to [SRP\\_List](#)
- Added [Clear](#) service to [SRP\\_FastArray](#)
- Updated [SRP\\_PreCompiler](#) to no longer use labelled commons
- Updated [SRP\\_Get\\_Printers](#) to treat "" as "Local"
- Updated [SRP\\_Get\\_Printers](#) with service module metadata (for SRP Editor hints and dropdowns)
- Fixed bug in [SRP\\_Date](#) where using negative numbers in [AddMonths](#) returned wrong results

## 2.1.9

- Fixed bug where [SRP\\_List Locate](#) service would not return first item if there were duplicates

## 2.1.8

- Fixed bug where [SRP\\_List\\_Create](#) would not initialize correctly
- Fixed missing metadata for [SRP\\_HashTable](#)

## 2.1.7

- Updated [SRP\\_PreCompiler](#) to support unlimited Events, Services, etc.
- Fixed bug where [SRP\\_JSON](#) member keys would not escape

## 2.1.6

- Fixed bug in [SRP\\_Run\\_Command](#) where output would not go into variable if it was too long

## 2.1.5

- Added BASE64URL algorithm to [SRP\\_Encode](#) and [SRP\\_Decode](#)
- Added URL algorithm to [SRP\\_Encode](#) and [SRP\\_Decode](#)
- Added [AddSeconds](#), [AddMinutes](#), [AddHours](#), [AddDays](#), [AddMonths](#), and [AddYears](#) to [SRP\\_DateTime](#)
- Added [SecondSpan](#), [MinuteSpan](#), [HourSpan](#), [DaySpan](#), [MonthSpan](#), [YearSpan](#), and [Span](#) to [SRP\\_DateTime](#)
- Added [Split](#) service to [SRP\\_DateTime](#)
- Added [AddSeconds](#), [AddMinutes](#), and [AddHours](#) to [SRP\\_Time](#)
- Added [SecondSpan](#), [MinuteSpan](#), [HourSpan](#), and [Span](#) to [SRP\\_Time](#)
- Added [AddDays](#), [AddMonths](#), and [AddYears](#) to [SRP\\_Date](#)
- Added [DaySpan](#), [MonthSpan](#), [YearSpan](#), and [Span](#) to [SRP\\_Date](#)
- Updated [SRP\\_Run\\_Command](#) to support both OI 9 and OI 10

## 2.1.4

- Fixed bug in [SRP\\_Array](#) where [Join](#) and [Reorder](#) services truncated results if it contained UTF8.

## 2.1.3

- Fixed bug in [SRP\\_Array](#) where [Rotate](#) service truncated results if it contained UTF8.

## 2.1.2

- Added [IsDaylightSavings](#) to [SRP\\_Time](#) service.
- Fixed bug in [SRP\\_String](#) where [GetWidth](#) and [GetHeight](#) returned incorrect values.

## 2.1.1

- Updated [SRP\\_PreCompiler](#) with new Extended BASIC+ syntax: Unpacking
- Updated [SRP\\_JSON](#) with two new services: [AddValueArray](#) and [SetValueArray](#)
- Updated [SRP\\_JSON](#) New service to allow initialization of new ARRAY type node
- Fixed bug in [SRP\\_String TokenizeCode](#) service that was not detecting end of comment block correctly
- Fixed bug in [SRP\\_JSON](#) where [SetValue](#) would not work with ARRAYS.
- Fixed bug in [SRP\\_PreCompiler](#) where Service module with no services would not compile correctly

## 2.1

- Added [SRP\\_Date](#)
- Added [SRP\\_DateTime](#)
- Added [SRP\\_Num](#)
- Added [SRP\\_Time](#)
- Updated [SRP\\_StopWatch](#) to use more accurate TimeGetTime instead of GetTickCount.
- Updated [SRP\\_String TokenizeCode](#) service to include new State parameter to preserve parser state between calls.
- Updated [SRP\\_PreCompiler](#) to properly ignore /\* Comment Blocks \*/

## 2.0.6

- Added [Reverse](#) service to [SRP\\_Array](#)
- Fixed bug where UTF-8 strings would get truncated during [SRP\\_Array CLEAN](#)

## 2.0.5

- Added ReportErrors parameter to the [SRP\\_Json PARSE](#) service.

## 2.0.4

- Fixed [SRP\\_List ADD](#) service to correctly return the newly added item's index

## 2.0.3

- Updated [SRP\\_Sort\\_Array](#) and [SRP\\_Array's SortRows](#) and [SortSimpleList](#) services to support true numerical sorting
- Fixed [SRP\\_Json](#) outputting Unicode characters as \uFFFFxxxx sequences instead of as UTF-8.

## 2.0.2

- Updated [SRP\\_Com](#) to better handle properties and methods that return SAFEARRAY types
- Updated [SRP\\_Json](#) to only escape solidus when requested
- Updated [SRP\\_Json](#) to escape all control characters (not just the major ones) as unicode sequences
- Fixed bug in [SRP\\_Json](#) where reserved characters were not escaped
- Fixed bug in [SRP\\_Com](#) where property and method names were case-sensitive instead of case-insensitive
- Fixed bug in the [SRP\\_Array ROTATE](#) service where results were getting truncated
- Fixed bug in the [SRP\\_Array CLEAN](#) service where process would sometimes hang
- Fixed bug in [SRP\\_Encode](#) where encoding large amounts of data with BASE64 could take minutes to complete
- Fixed bug in [SRP\\_Math](#) where [RANDOM](#) would return "" instead of 0
- Fixed bug in [SRP\\_Math](#) where significant zeros would get truncated

## 2.0.1

- Updated [SRP\\_Json GET](#) and [GETVALUE](#) services to support escaped operators '[', ']', '<', '>', and '.' by repeating them twice
- Fixed bug where [SRP\\_Array CLEAN](#) service would hang if the array contained only delimiters
- Fixed bug where [SRP\\_String GETWIDTH](#) service would not correctly calculate width
- Fixed [SRP\\_Com](#) not returning 1-byte safe arrays correctly
- Fixed [SRP\\_Path COMBINE](#) service mangling UNC paths

## 2.0

- Added [GETELEMENTS](#) service to [SRP\\_Json](#).
- Updated [GETMEMBERS](#) and [STRINGIFY](#) services of [SRP\\_Json](#) to include Sorted parameter.
- Updated [SEND](#) and [SEND\\_SES](#) services of [SRP\\_TcpClient](#) to return 0 if send fails.
- Rewrote DLL so it can be compiled in 64-bit. Made other improvements in the process.

## 1.6

- Fixed missing DLL stubs for [SRP\\_FastArray](#).
- Fixed rounding bug in [SRP\\_Math ROUND](#) service.

## 1.5.9

- Updated [SRP\\_Json STRINGIFY](#) service to no longer append trailing Line Feed character.
- Updated [SRP\\_Stopwatch ShowAll](#) service to automatically display total time if there are more than one times.
- Updated [SRP\\_Stopwatch](#) to allow Name parameter to be omitted for quick single timers.
- Fixed [SRP\\_Stopwatch](#) bug where single character names would fail to work correctly.

## 1.5.8

- Added [RECEIVE](#) service to [SRP\\_TcpClient](#).
- Fixed bug in [SRP\\_TcpClient SEND](#) service triggering VNAV errors.
- Fixed [SRP\\_Encode](#) regression where Option parameter went missing.

## 1.5.7

- Added [SRP\\_String](#).
- Added [SRP\\_Array](#), [SRP\\_List](#), [SRP\\_FastArray](#), and [SRP\\_HashTable](#), which are all service oriented wrappers around existing SRP Utilities methods.
- Added inserts for convenience: SRPARRAY, SRPLIST, SRPFASTARRAY, and SRPHASHTABLE
- Fixed bug in several routine where UTF8 encoded Unicode characters would not decode properly.

## 1.5.6

- Add [PathToUnc](#) service to [SRP\\_Path](#).
- Fixed bug in [SRP\\_Json](#) where return values would sometimes return question marks.

## 1.5.5

- Added [SRP\\_Path](#).
- Updated [SRP\\_Json GETVALUE](#) to support default value to be returned when <null> would be returned.
- Updated [SRP\\_Extract\\_XML](#) to return just the value of attributes instead of 'Attribute="value"'.
- Fixed bug in [SRP\\_List](#), [SRP\\_FastArray](#), and [SRP\\_HashTable](#) where GetVariable would return question marks.
- Various bug fixes.

## 1.5.2

- Added support for "NULL" type in [SRP\\_Json](#).

- Updated [SRP\\_Json](#) to automatically determine type based on value when type is not specified.
- Updated [SRP\\_Com](#) to support the SAFEARRAY type.
- Fixed bug in [SRP\\_Com](#) where some COM objects whose type libraries were unavailable wouldn't work.

## 1.5.1

- Fixed bug in [SRP\\_Json](#) where extracting numeric values was causing a crash.

## 1.5

- Added [SRP\\_Json](#) and [SRP\\_Stopwatch](#) stored procedures.

## 1.4.8

- Added [SRP\\_Get\\_Printers](#) and [SRP\\_Get\\_PrinterInfo](#) stored procedures.
- Fixed [SRP\\_Run\\_Command](#) bug where calling built-in DOS commands wouldn't work if parameters were included.

## 1.4.7

- Added Options parameter to [SRP\\_Encode](#).
- Fixed [SRP\\_Encode](#) bug where encoding would not work correctly in some cases when UTF8 mode was enabled.

## 1.4.6

- Fixed [SRP\\_Extract\\_Xml](#) bug where escaped sequences, such as "%amp;" were not being decoded when accessing the "text()" of an element.

## 1.4.5

- Added [SRP\\_Trim](#) function for more advanced string trimming.

## 1.4.4

- Fixed [SRP\\_Math](#) bug where the [RANDOM](#) operation would produce the same number if called too quickly.
- Updated [SRP\\_Math](#)'s [RANDOM](#) operation to allow caller to pass a minimum and maximum value.

## 1.4.3

- Fixed [SRP\\_Hash](#) bug where it still would not return a hash value for empty input strings.

## 1.4.2

- Added [SRP Hash Table](#) methods for high performance in-memory tables.
- Fixed [SRP\\_Hash](#) bug where it would not return a hash value for empty input strings.

## 1.4.1

- Added [SRP\\_OI\\_To\\_Win32](#) method for easily converting BASIC+ values into Win32 datatypes.
- Added [SRP\\_Win32\\_To\\_OI](#) method for easily converting Win32 datatypes into BASIC+ values.
- Added [SRP\\_Get\\_IdleTime](#) method for easily detecting lack of user input.

## 1.4

- Added [SRP FastArray](#) methods for high performance dynamic array manipulation.
- Added [SRP List](#) methods for high performance single-dimensioned dynamic array manipulation.

## 1.3

- Added [SRP\\_Taskbar](#) to perform operations against the windows taskbar, such as altering the text that appears when taskbar buttons are grouped.
- Added [SRP\\_TcpClient](#) to communicate to TCP/IP socket servers.
- Updated [SRP\\_Join\\_Arrays](#) to perform a total of four operations: AND (Intersection), OR (Union), NOT, and XOR.
- Updated [SRP\\_Sort\\_Array](#) to use true right-aligned alphabetic sorting for columns that cannot be converted into floating point numbers. This causes Right sorting to work with columns that contain number preceded by text.

### 1.2.3

- Added SRP\_Join\_Arrays to quickly return the union or intersection of two arrays.
- Fixed SRP\_Clean\_Array bug in which the TRIM option was removing blanks everywhere instead of just at the end as is documented.

### 1.2.2

- Fixed SRP\_Hash bug caused by changes to SRP\_Encode from previous releases not being included in SRP\_Hash.

### 1.2.1

- Fixed SRP\_Sort\_Array bug to account for fields with differing number of values.

## 1.2

- Added SRP\_Extract\_Xml to allow developers to easily extract XML data using XPath queries.
- Added SRP\_Com to allow developers to use COM components from any version of OpenInsight.
- Added SRP\_Save\_Screenshot to programmatically save screenshots of windows to bitmap files.
- Fixed small memory leak when using SRP\_Encode or SRP\_Decode.

### 1.1.3

- Fixed SRP\_Math bug in which POWER operation would not allow first value to be negative
- Fixed SRP\_Registry bug in which DELETE operation failed to delete values due to lack of requesting deletion access

### 1.1.2

- Fixed SRP\_Math memory leaks
- Fixed SRP\_Math bug where operations resulting in very large negative exponents could result in a crash

### 1.1.1

- Fixed SRP\_Math bug where "SUBTRACT" was doing a square root operation due to bad parsing of the instruction

## 1.1

- Added SRP\_Math function

### 1.0.3

- SRP\_Run\_Command now supports the DOSOPEN output option, allowing output to appear within a DOS window while also keeping the DOS window opened
- Updated SRP\_Run\_Command to handle built in DOS commands

### 1.0.2

- Updated SRP\_Run\_Command to return Output via return value so SRP Editor can display results
- Fixed SRP\_Run\_Command bug where DOS option did nothing
- Fixed SRP\_Run\_Command bug where command would not execute if called outside of an event context
- Fixed SRP\_Run\_Command bug where output would always be prepended with VAR
- Added missing structures to RDK required by SRP\_Run\_Command

### 1.0.1

- Updated SRP\_Sort\_Array to preserve original positions for rows that are equal. This matches the behavior of V119

## 1.0

- Initial Release