Automation Professionals Integration Toolkit Module

The Integration Toolkit module, formerly known as the Simulation Aids module1, supplies a variety of expression functions and other general utilities that are particularly useful when developing projects, optimizing projects, and dealing with equipment or data sources that don't yet exist.

It provides advanced functions useful in many applications, particularly when attempting to improve performance by trading out jython scripting in favor of iterating expression functions.

This module provides no drivers, nor any extension point implementations, nor any user interface components. It only provides expression functions, scripting functions, scripting data types, and simple tag actors.

This module also provides alternatives for, and expansion of, the features of Automation Professionals' Life Cycle module. The Life Cycle module will receive no further updates.

[Original Manual](#)

- [Example Uses](#)

    - [Perspective Table Data and Columns Config from Datasets](#)

- [Debugging](#)
- [Scripting](#)
- [Iteration](#)
- [Datasets](#)
- [Utilities](#)
- [Reflection](#)

- [Tag Actors](#)

Example Uses

Perspective Table Data and Columns Config from Datasets

When using the JSON return format in a Named Query, the column order and original column datatypes are lost. You can move a Named Query binding to a custom property of the component or view, then use this simple iteration expression to deliver the jsonified content to the table:

Binding on props.data

```
forEach(
 {path.to.source.dataset.prop},
 asMap(it())
)
```

Features Employed

- **Iterables** General behavior of all iterators.
- **forEach()** Loops through the dataset, calling the nested expression with one row at a time.
- **it()** Delivers the one row in dataset format (same column names and types as the source).
- **asMap()** Converts the first row of the dataset it is given into a mapping (dictionary) of key-value pairs.

Debugging

Scripting

Iteration

Datasets

Utilities

Reflection

Tag Actors