

# Unit Schemes in RiverWare 6.1

---

**Author: Phil Weinstein**

This document describes a new architecture for control of the units and precision with which numeric slot values are displayed in RiverWare.

## **0.1 Document Status**

5-24-2011: Initial writing in progress

## **0.2 Contents**

## **0.3 Other Relevant Documents**

- RiverWare Technical Documentation: “Units” Section.  
The RiverWare 6.0 edition (11-22-2010) is available at this URL:  
<http://cadswes.colorado.edu/PDF/RiverWare/documentation/Units.pdf>

## **0.4 Special Unresolved Issue (5-24-2011)**

Our initial discussions have focused on display “units” configurations. Display precision and display type (“Float”, “Integer”, or “Scientific”) configurations are currently maintained in parallel with units configurations on slots. We need to clarify the extent to which the new display configuration architecture addresses all of these settings. In particular:

- Display Precision (fractional decimal digits) is very closely related to “unit scale” and “unit” when the “Float” display type is selected (which is the usual case).
- We should consider removing the “Integer” display type. That is redundant with configuring a “Precision” of zero, and is a source of confusion.

## **1.0 Overview**

Currently, in RiverWare 6.0 and earlier versions of RiverWare, display units and “precision” (fractional decimal digits) with which numeric slot values are displayed are configured individually on each slot or slot column instance. Series slots for “flow” (volume per time) entities on accounts support distinct configurations for flow and volume units. There are tools within RiverWare for reassigning the display units and precision on multiple slots in a single operation.

There is a fixed “standard unit” specified for each unit type (e.g. “m3” for volume). Generally, slots on newly created objects (including supplies and exchanges) are initialized to use the standard unit for the slot’s unit type -- or, if defined, to the unit specified for the slot’s unit type or slot entity in the external “riverwareDB” file (see the referenced online help document). Slots on newly created accounts are initialized with the unit settings specified in the Accounting System Configuration dialog.

This document describes an alternative to this way of specifying slot display units and precision. Multiple named “Unit Schemes” will be stored within the RiverWare model, but not directly associated with slot instances. Initially,

---

---

this will be used in conjunction with the current slot / slot column instance configurations (in one of several possible ways, explored in this document). Probably, when sufficiently comprehensive capabilities are implemented with the Unit Schemes architecture, the older instance configurations mechanism will be removed.

## **2.0 Fundamental capabilities of the existing slot / slot column instance configuration mechanism**

...

--- (end) ---