

## Case Study

# Need custom functionality for your FieldServer / QuickServer Gateway?

Chipkin is authorized to perform custom development for FieldServer and QuickServer products. Most often this is to develop a new driver. However, from time to time a customer needs a special conversion or data manipulation function to be added to the gateway. For example to handle 64-bit floating-point numbers. This need arose from the requirement to have double precision floating point data for irrigation monitoring.

Example – Handle grey code values

**Gray code**

The reflected binary code, also known just as reflected binary or Gray code after Frank Gray, is an ordering of the binary numeral system such that two successive values differ in only one bit. [Wikipedia](#)

## Introduction

FieldServer products have a built-in set of data extraction, conversion tools. Sometimes customers need something special. As Chipkin has access to the FieldServer toolchain and as we are authorized to do so, we are able to add new functions and conversions to the gateway.

For example: FieldServers only support 32-bit integers and floating-point numbers. What happens if you need something different.

## Some Details

Lookup Tables – Takes a string, finds matching value in the lookup table, returns index number. Useful for converting alarm messages into multi-state variables.

Lookup Tables – Takes an index number and returns the matching string. Useful for SNMP trap messages.

Text to Number – useful for extracting numeric values from strings. Converts to floats and other formats.

Delayed Move – A task which when a condition becomes true, starts a timer and then takes an action.

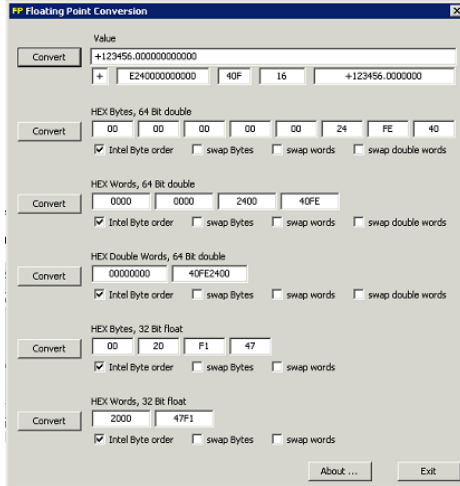
Grey Code Converter – Converts to regular integer values.

Effect Multipliers – When you need lots of actions to be taken when a condition evaluates true.

Hexadecimal Numbers - Converters

Big Numbers – 64-bit floating points and integers. Enron floating-point encoding ... and more.

One-Shot actions – action executes when the condition is true – once. Requires condition to toggle to re-execute.



## Logging Functions

Functions to log data to file at custom intervals

Functions to log data to file when a condition evaluates true – conditional logging

Function to push log files to servers

Function to serve log files.

## File Save and Load Functions

Functions to allow a gateway to save values to a file and to reload those values when the gateway restarts.

## Bit, Byte, Word order conversions

Functions to change the order of bits, bytes and words in evaluating their values.

## About Chipkin Automation Systems

Protocol to protocol – Enabling the IOT Internet of Things

Products that support approx.. 140 major protocols. If we don't have a solution for you we will make you one. More than a dozen customers a year have a custom driver developed for them.

Chipkin is highly regarded for its outstanding support. System integration isn't always trivial even if that is what they tell you.

The Chipkin BACnet stack comes with a 100% copyright infringement indemnity to make corporate lawyers happy. Customers get direct access to the stack developers for coaching and problem-solving.

### Keywords

FieldServer custom

QuickServer custom

FieldServer 64 bit

QuickServer 64 bits

QuickServer special function

FieldServer special function

Quickserver special conversion

FieldServer special conversion

Custom driver development

System integration

Custom protocol development