FROM: Stuart Goodnick, INTERNET:stuartg@cmotor.com
TO: Dave Brown, 72103,2235
DATE: 9/8/94 8:59 PM

Re: Spec Review

Sender: stuartg@cmotor.com
Received: from flash.cmotor.com by dub-img-2.compuserve.com (8.6.4/5.940406sam)
id UAA03165; Thu, 8 Sep 1994 20:57:08 -0400
Received: by flash.cmotor.com id AA06423
(5.65c/IDA-1.5 for 72103.2235@CompuServe.com); Thu, 8 Sep 1994 17:49:42 -0700
Date: Thu, 8 Sep 1994 17:49:42 -0700
From: Stuart Goodnick <stuartg@cmotor.com>
Message-Id: <199409090049.AA06423@flash.cmotor.com>
To: 72103.2235@CompuServe.com
Subject: Spec Review
Cc: stuartg@cmotor.com

Dear Dave,

Below is a text rendition of some minutes of our review meeting today. The comments are somewhat brief and the formatting is poor, but you should get the idea. If you want a fax copy let me know. The Spec looks good in the sense that it is heading in the right direction. Marc McClung appreciated that you reorganized the interfaces to better conform to typical motion programming usage. He also indicated that some of the particular functions (or methods) should be modified somewhat to better reflect how a programmer like himself would set up a motion application. He suggests that you look at what we did with our Motion Toolbox functions to get an idea of what he means.

Marc plans to spend some focussed time very shortly going over in detail your proposed function definitions, and then providing you with more meaningful feedback. Feel free to start the discussion with him over Compuserv as soon as you

want.

We have reviewed your request for equipment, and we are happy to provide you with these products. For what you are doing, I don't think you need the various motor sizes. The controllers and drives behave the same regardless of the motor. The larger motors are somewhat expensive. We will provide motors with encoders. What will make most sense, I think, is:

- AT6400 w/ AUX1
- Model 6000 Joystick
- Motion Architect
- SX indexer/drive
- 2 23 frame size motors
- encoders for two motors
- 6000 Demo box

The demo box contains I/O and two motors and drive for use with 6000 products. It will simplify your work in setup. The SX indexer/drive uses a different motion language than the 6000 controllers. The 6000 joystick is not a catalog item but is built by our sister division, Daedal, in Penn. I don't know when I can get this all out to you, but it should be within a few weeks. Please confirm what address you want this stuff shipped to.

Finally, feel free to build a demo for a trade show. We would like to see a spec or preview it to make sure we are comfortable with how our equipment is being presented, but it sounds like a good idea. When you get to that point, we can discuss equipment for stages et al. Also, since we have given the okay for you to discuss Compumotor's involvement with this product, we would like to know what other motion vendors you have approached and who has expressed interest. This is more out of curiosity than anything else at this point. I am particularly interested if these vendors share the vision we have discussed.

I will be out of the office next week, but feel free to EMAIL

[redacted]

me tomorrow or leave voice mails next week if you have any questions.

All is well,

Stuart

ROY-G-BIV Spec 2.0 Meeting Minutes

September 8, 1994 3:30 AM

I. Major Differences

Mark happy that they reorganized document along the lines of motion objects

They decided on a separate 16 bit version and 32 bit version

They are fully committing to OLE protocol

We are concerned that we will have a ton of extended interfeces

II. Issues

Should we have more core functions rather than extended?

- We review the relationship between the core, ext, and stub

Are the functions what we want?

III. Comments

Pg. 8, Why is the term G-Code used? Is this referring to another vendor

Code Generation uses our DEF mode?

Our initialization for AT6000 products requires the downloading of the operating system

- Could this be done by the Driver Administrated at SPI loading

We have various error levels and error prompts that need to be cleared out periodically of the buffer gets clogged (cf. Mark McClung)

Pg. 10: Need more tuning than PID

- Drop use of term PID and use term Servo Tuning

We need a way that the Application can query the Driver Administrator so that the Application knows what features are explicitly implemented as stub, extended, and core for a given hardware card

If someone purchases your development kit, do you provide hardware

drivers for variety of companies

What are you planning to do with the Dadvise data links

- What DDE features are you planning to exploit

Need clarification on Attach() methods

- Who has to obey these interfaces and at what level
- Shouldn t a developer be able to use any interface as needed?
- Is it like a pipeline functionality

8.3.3: What are the Ex functions?

- E.g. InitializeEx() vs. Initialize()

8.3.6: Our AT6000 products allow interrupts to be generated based on a variety of events. Do you have ways of bringing this functionality to the API level?

8.3.8: Need to set acceleration for joystick

- Instead of SetVelocityHigh or SetAccelerationHigh, have a motion structure defining all motion parameters, and pass the pointer to a generic routine like SetMotionHigh
- We have done some things like this in Motion Architect and Labview

Next step: at Function level we need to give more feedback to help refine the function definitions

Mark would like a hand in defining these functions

8.4.1: What do IfOpen() and IfClose() do?

Rename Iconditional Interface IProgramFlow Interface

- Add gotos

8.4.2: What does Bit() do?