IEEE1212r-FDS update

98/03/24

Atsushi Nakamura
Canon Inc.

This document is a report on the official IEEEp1212r WG meeting held place in San Jose on January 30,1998 and will explain the current status of the proposed FDS work.
The next meeting will take place in Tokyo, Japan on April 20-21,1998 at Canon Inc 's Kosugi-office.

SUMMARY :

The objectives, structure, and necessary entries of FDS were discussed in detail, based on the PWG/PWG-C FDS proposal version 0.7. A vote was taken to stabilize the basic structure of FDS and most of the currently proposed entries, which passed unanimously. (It will take a 2/3 vote of WG attendees to " un "-stabilize a voted item)
The diagram below is from the p1212r draft document d0.01(p1212.pdf)and shows that the FDS structure and entries are nearly identical to what PWG/PWG-C had proposed.

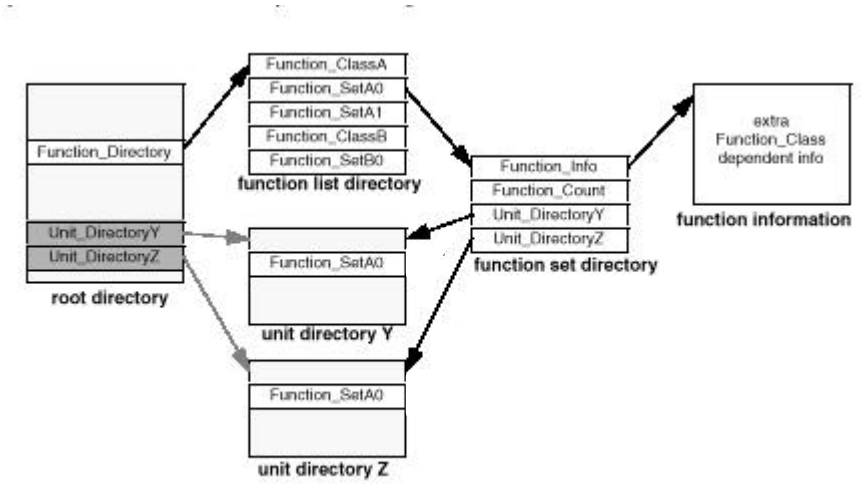

Figure 7—FDS structure

DETAILS :

There are a few changes made from the original FDS proposal version 0.7 (FDSprop07.pdf)

Please refer to the revised FDS document (98-002r0.pdf) and the p1212 draft document (p1212.pdf) for further details. They are available from the p1212 FTP site.

CHANGES

1. The function class entry will NOT use the extended key value format.
2. A unique function class will be represented by a unique 48 bit value consisting of a "current spec id" and the function_class entry value (=uniqueID).

   > *CURRENT SPEC ID.....Several of the ROM entries (such as Extended_Key_Version, Model_Id, and Function_Class) specify the less significant half of a globally unique 48-bit uniqueId value. The more significant half of that uniqueId value is implied by the affiliated 24-bit currentSpecId value, and the less significant half of that uniqueId value is provided by the entry's immediate version_id field, as illustrated in figure 1. The currentSpecId value depends on the entry's context. The currentSpecId is equal to one of the following,where the first through last entries have the highest through lowest precedence respectively:*
   >
   > *a. Local context. The currentSpecId equals the preceding Module_Spec_Id value (the entry with the largest, but still smaller ROM address) in the current directory.*
   > *b. Root specifier. The currentSpecId is equal to first Module_Spec_Id value (the entry with the small-est ROM address) in the root directory.*
   > *c. Root vendor. The currentSpecId is equal to first Module_Vendor_Id value (the entry with the smallest ROM address) in the root directory.*
   > *d. Default value. The currentSpecId is equal to $FFFFFF_{16}$, a value that is reserved for future use by this standard.*
   >
   > *.....from p1212 draft document*

   Module_Spec_ID has been re-named Current_Spec_ID and was given a "global" scope meaning that this entry is allowed to appear anywhere in the ROM (not just the Root directory) This entry will be used to a inform the specifier of a range in the ROM (ex. PWG, 1394TA etc.)

3. Some entries have changed names.
4. A new entry, INSTANCE_COUNT was added to provide information about how many instances of a given function_class grouping exists.

The table below shows the FDS entries and their current status as of Jan 30.

Root Directory entries

Entry	key value	scope	key_type
Function_list_directory	**18**	**global**	**directory(3)**

Function_Directory entries

Entry	key value	scope	key_type
Function_Class	**18**	**local**	**immediate(0)**
Instance_Count	-?1A?-	local	immediate(0)
Function._Set(Affiinity) Directory	-?1B?-	local	directory(3)

Function_Affinity(Set) Directory entries

Entry	key value		key_type
Unit_directory	***11***	***global***	***directory(3)***
Function_Info	-?19?-	global	directory(3)

XX ***: Values and entries are defined in IEEE1212-1994***

XX **: Key Values and entry definition stable**

-?XX?- : Entry defined. Values subject to change

....Tentative values as of Jan 30, 1998

NEXT STEPS :

- Currently proposed FDS entries seem well defined (98-002r0.pdf), so the key values will need to be stabilized.(19h,1Ah,1Bh) -> Propose voting at Tokyo meeting ?
- Function_class listing....A universal list (IEEE or 1394TA level) is required to fully utilize the benifits of FDS. A proposal is needed. Who do we take it to ?

SDD

A Model_Directory has been defined for a place to include Model-dependent information. Refer to p1212 draft for details.

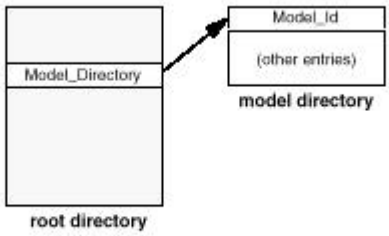

Figure 4—Model directory structure