



## ***Embedding an ICC.2 (iccMAX) profile in an ICC.1 profile***

### **Introduction**

The iccMAX specification provides capabilities that are not available in ICC.1. It is expected that support for iccMAX (ICC.2) profiles will initially be limited to certain applications, and there may be some situations where it is desirable to utilize iccMAX capabilities, yet at the same time provide a solution for workflows where only version 2 and version 4 (hereafter referred to as ICC.1) profiles are supported. One way to achieve this is to embed the ICC.2 profile containing the desired transform into a profile which is constructed according to the ICC.1 specification and which will provide acceptable results when the embedded ICC.2 profile is not supported. When this is done as described below, a CMM supporting only ICC.1 profiles will see the embedded ICC.2 profile as a private tag and proceed to only apply the transform elements from the ICC.1 profile.

To avoid ambiguity and confusion, a CMM control option should be used with the supporting CMM to specifically enable the application of embedded ICC.2 processing elements within an ICC.1 profile.

### **Embedding**

The binary ICC.2 profile shall be embedded in its entirety in the ICC.1 profile.

### **Embedded profile tag**

The embedded tag in the ICC.1 profile shall use the signature 'ICC5' (49434335h) and have a tag type signature of 'ICCP' ((49434370h).

### **Embedded profile tag type encoding**

The encoding of the embedded ICC.2 profile as a tag in the ICC.1 profile shall use the tag type encoding found in the following table:

**Table 1 — embeddedProfileType encoding**

<b>Byte position</b>	<b>Field length (bytes)</b>	<b>Content</b>
0 to 3	4	'ICCP' (49434370h) type signature
4 to 7	4	Reserved, shall be 0
8 to end		ICC.2 Profile contents (in its entirety)

### **ICC.2 Profile header requirements**

The profile flags fields (bytes 44-47) of the embedded ICC.2 profile should be as follows.

- Bit position 0 should be set to 1 to indicate that the profile is embedded in another file.
- Only ICC.2 profiles containing 0 in bit position 1 should be embedded in other profiles.

The embedded ICC.2 profile shall be considered a logical replacement for the profile that it is embedded into. Therefore it shall be of the same profile class, and have the same device space.

### **Processing**

An ICC.2 capable CMM can try to read and process an embedded ICC.2 profile when instructed to do so using CMM control options provided by the calling application.

If the CMM is unable to read and process the tags in the embedded ICC.2 profile, it should treat it as an unknown private tag and process using the ICC.1 profile transforms. When this happens the CMM may optionally return a special status indicating that an embedded ICC.2 profile is present but not supported.

If the CMM is able to read and process the tags in the embedded ICC.2 profile, it should apply these tags in place of those in the ICC.1 profile using CMM control options appropriate for the embedded profile as defined by its ICS. Optionally the CMM may return a special status indicating that an embedded ICC.2 profile is present and used.