RDFIRST.WPD

How Device Drivers (.HAMs, .CDMs or .DSKs) must be modified to support Auto Detect requirements

1. If you are modifying an existing . DSK to provide Auto Detect capabilities:
   a. If the existing .DSK controls a PCI adapter card:
      i. Modify the DSKs .DDI file to add the PROD: label as defined in the Draft section of Appendix C in the NWPA Specification under the heading "DDI and LDI Specification Changes for Autodetection".

      ii. Modify the .DSK to support the SLOT= command line option if necessary.

      iii. Modify the .DSK to include NPAB_ functions (defined in the NWPA Specification in Chapter 7) to provide the NBI interface. .DSKs must use the ASCII value of .DSK (2E44534B) for the *npaHandle* parameter, since the .DSK will not be registered with the NWPA. This handle will not be valid for any NWPA functions except the NPAB_ set. When INSTALL autoloads the .DSK, INSTALL will pass a slot value to the .DSK, and the .DSK will then need to use the appropriate NPAB_ functions to derive the specific information needed to call **NPAB_Get_Card_Config_Info()** (e.g. *busTag*, *uniqueID*).

      iv. Modify the .DSK to load all required support modules for this .DSK, including NWPA.NLM.

   b. If the existing .DSK controls a non-Plug and Play ISA card:
      i. Auto Detect is not supported for non-Plug and Play ISA cards. The existing .DSK may be used with no modifications, but it will have to be manually loaded.

   c. If the existing .DSK controls an EISA or MCA adapter card:
      i. Modify the DSKs .DDI file to add the PROD: label as defined in the Draft section of Appendix C in the NWPA Specification under the heading "DDI and LDI Specification Changes for Autodetection".

   d. If the existing .DSK is intended to control a device:
      i. Modify the DSKs .DDI file to add the PROD: label as defined in "Custom Device Driver Module Support" in the Draft section of Appendix C in the NWPA Specification.

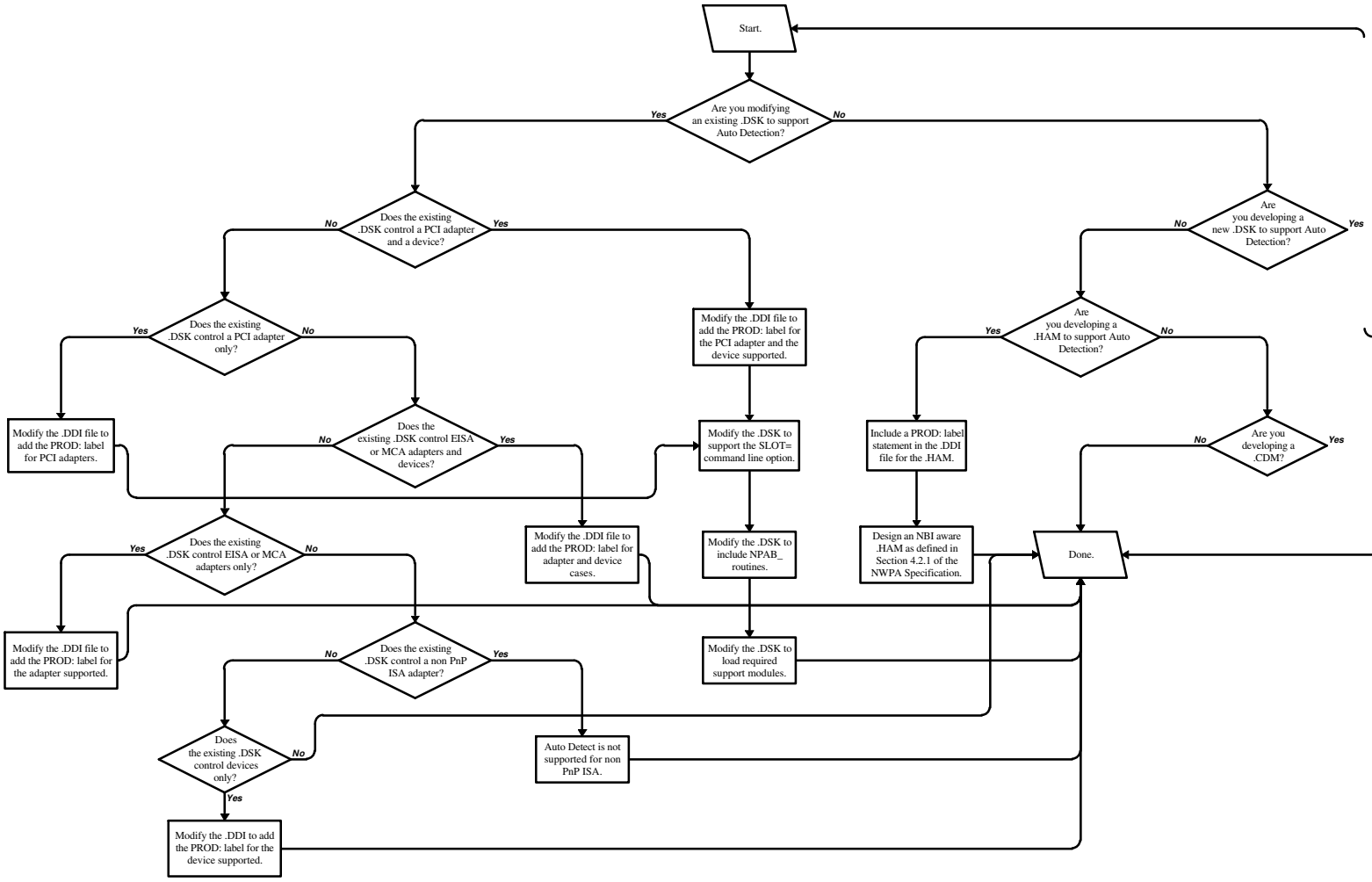
   e. If the existing .DSK provides both adapter and device control features:
      i. Modify the .DSKs DDI file to provide both of the above PROD: labels (adapter and device). The .DDI file allows multiple PROD: label definitions.

      ii. If the adapter card architecture is PCI, follow the requirements under 1.a. ii and iii.

2. If you are developing a new .DSK, regardless of architecture type:
   a. Follow the requirements for developing a HAM and/or CDM instead. NWPA is NetWare's driver architecture standard.

3. If you are developing an autoloadable .HAM:
   a. Modify the .HAMs .DDI file to add the PROD: label as defined in the Draft section of Appendix C in the NWPA Specification under the heading "DDI and LDI Specification Changes for Autodetection".

b. Follow the steps defined in the NWPA specification in section 4.2.1 to initialize and register the HAM as NBI aware. This includes importing the NPAB_routines in the HAMs link.def file as shown in Appendix A of the NWPA Specification.

4. If you are developing an autoloadable .CDM:
   a. Modify the DSKs .DDI file to add the PROD: label as defined in "Custom Device Driver Module Support" in the Draft section of Appendix C in the NWPA Specification.

How Device Drivers are Modified to Support Auto Detect Requirements