

## 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 NWSA 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 NWSA 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 NWSA. This handle will not be valid for any NWSA 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 NWSA.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 NWSA 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 NWSA 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. NWSA 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 NWSA 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

