

INSTRUCTIONAL MANUAL FOR COMPONENT NAMING

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PURPOSE OF DOCUMENT

This document provides instruction in equipment, device, and signal naming and numbering conventions to be used for the SNS systems.

SCOPE

These requirements apply to all devices (beam instrumentation, sensors, actuators, etc.), equipment (power supplies, magnets, RF cavities, targets, moderators, instruments, etc.) and signals in technical systems and conventional facilities. These requirements do not apply to cable numbering, pipe numbering, or location designations throughout the facility.

The designations listed are to be used on operator screens, drawings, schematics, computer software, project databases, equipment name tags, test procedures, and other sources of information.

SECTION I REQUIREMENTS FOR COMPONENT NAMING

Requirements for specific naming elements are listed in Figure 1 below (spaces between words and on either side of colons are added for clarity and should not be included in component names).

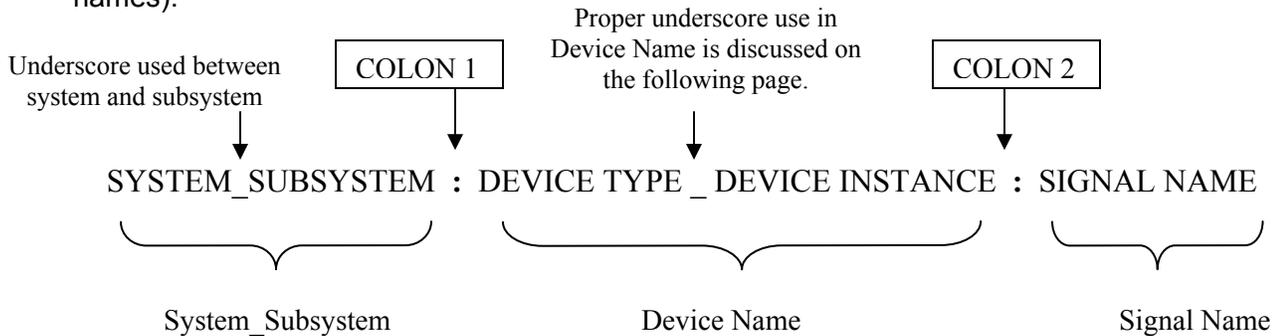


Figure 1: Component Name Format and Syntax

- System names are required.
- Subsystem names are optional.
- Device names are required.
- Device instances are optional.
Underscore is used between device type and alpha instance.
- Two colons are required. No more than two may be used.

Below are links to lists of current, acceptable names. The database is updated regularly. Please check these lists to see the correct name for your system, subsystem, device, and signal names. If the name is not included in this list, it must be submitted to the naming committee listed at the end of this document.

LINK TO VIEW SYSTEM NAMES:

http://snsapp1.sns.ornl.gov/discoverer4i/viewer?eul=DISC_ADMIN&pw=sns&ac=sns_reports~40snsdb1prod&_but=Connect&db=snsdb1prod&nlsI=en-us&wb=DISC_ADMIN.Controls&us=sns_reports&wsk=8

LINK TO VIEW SUBSYSTEM NAMES:

http://snsapp1.sns.ornl.gov/discoverer4i/viewer?eul=DISC_ADMIN&pw=sns&ac=sns_reports~40snsdb1prod&_but=Connect&db=snsdb1prod&nlsI=en-us&wb=DISC_ADMIN.Controls&us=sns_reports&wsk=11

LINK TO VIEW DEVICE NAMES:

http://snsapp1.sns.ornl.gov/discoverer4i/viewer?eul=DISC_ADMIN&pw=sns&ac=sns_reports~40snsdb1prod&_but=Connect&db=snsdb1prod&nlsI=en-us&wb=DISC_ADMIN.Controls&us=sns_reports&wsk=160

LINK TO VIEW SIGNAL NAMES:

http://snsapp1.sns.ornl.gov/discoverer4i/viewer?ac=sns_reports~40snsdb1prod&eul=DISC_ADMIN&wbk=CONTROLS&nlsI=en-us&wsk=727

Following are examples of acceptable component names, including examples of device instance. In order to determine whether a proposed name for a new device will meet the requirements for the Oracle database, use the JERI application available on [ics-srv02](#) or [accl1](#). Instructions for using JERI are included in this document in SECTION II. Acceptable new device names must be properly submitted to the naming committee before use in order to be reviewed by a representative at each lab to make sure there are no name conflicts. See SECTION III for further information.

EXAMPLES OF ACCEPTABLE COMPONENT NAMES

Signals with System, Subsystem, Device and Instance in their name:

CHL_GM:PSH20103:PAIarm
ICS_MPS:MIOC1B:FPAR_Src

Note: Because the instance starts with a number, no underscore is needed.

* * * * *

ICS_MPS:PS_65KV:CmdOff

Note: While the standard allows it, this signal did not require the "_" delimiter because its instance started with a number.

* * * * *

MEBT_Mag:PS_DCH01:I

Note: Because the instance starts with a character, the "_" delimiter is required.

* * * * *

ICS_MPS:PS_FE65KV:IlkEcho

Note: The instance is being used to indicate that this is an MPS ICS system device located in the Front End.

* * * * *

MEBT_Mag:PS_QH05a10:I_Set

Note: The application physics group has a special naming convention that they use in the instance field to indicate that a signal is being sent to more than one device. In this case the signal is being sent to MEBT_Mag:PS_QH05 and MEBT_Mag:PS_QH10. The devices are marked in the RDB as virtual devices.

The following codes are used in the instance field:

a - and

t - through

Device with System, Device and Instance in their name:

FE: Cab_FER02

Note: There are devices such as cabinets which will not have a subsystem in the name. While subsystem is optional in the naming standard, its use is encouraged in naming, especially when the name will include both a device and a signal.

SECTION II USING JERI TO CHECK FOR NAME CORRECTNESS

DESCRIPTION OF JERI

JERI - Java Epics Relational database Interface

Jeri is an integrated software application with functions to interface EPICS to the Oracle relational database.

Among JERI's functions:

- Import capabilities to parse and import .db files, dbd files, templates and the LIBOBS into the Rdb.
- Export capabilities to create .db files, template/substitution files, MPS startup files, MPS mask files and MPS alarm configuration files from the Rdb.
- Device and signal naming wizards that will auto generate devices and signals that comply with the naming standard.
- Device and signal creation and editing capabilities.
- Full Machine Protection System configuration capabilities.
- Report generation.
- Other features in development, such as ability to view archived data.

Inclusion of your PVs in the Oracle Relational Database (RDB) will allow you to take advantage of the above-listed features.

USING JERI TO CHECK FOR NAME CORRECTNESS

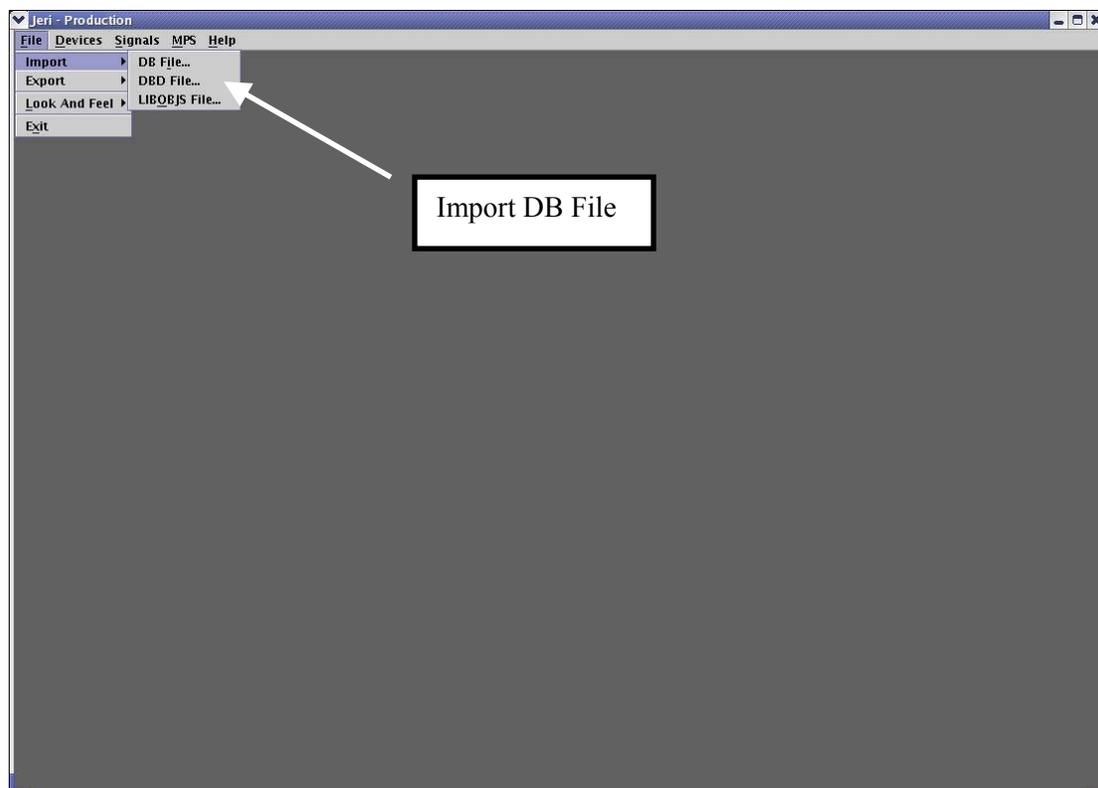
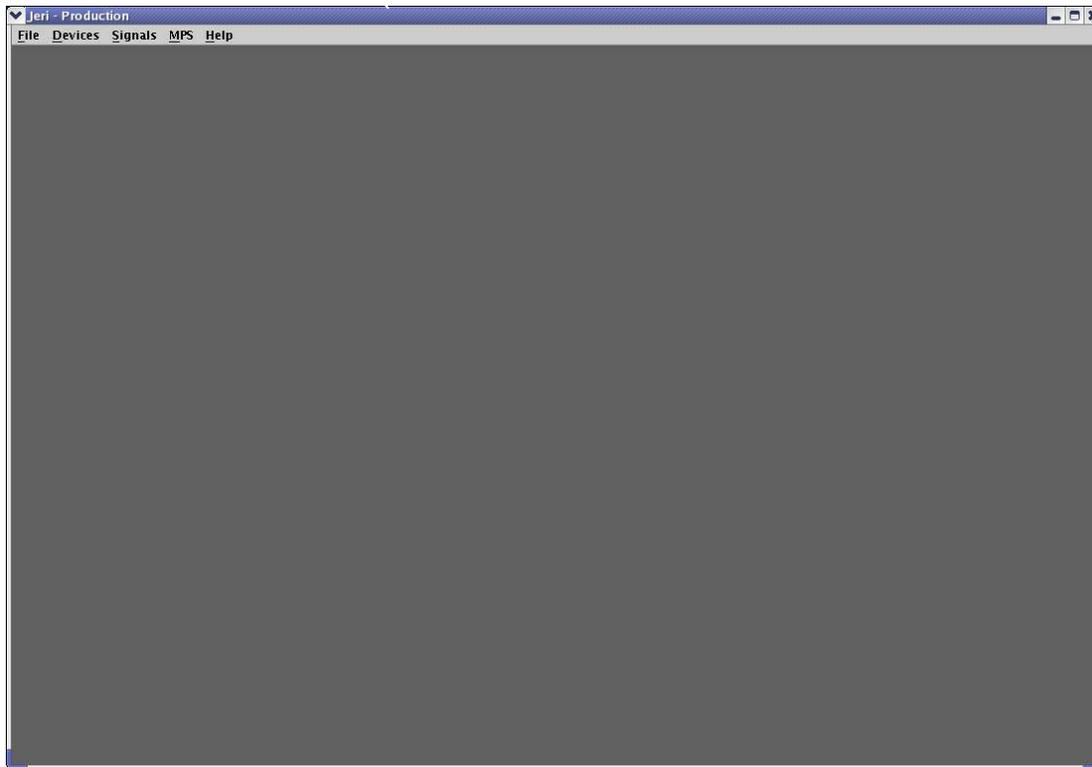


Jeri Login Screen

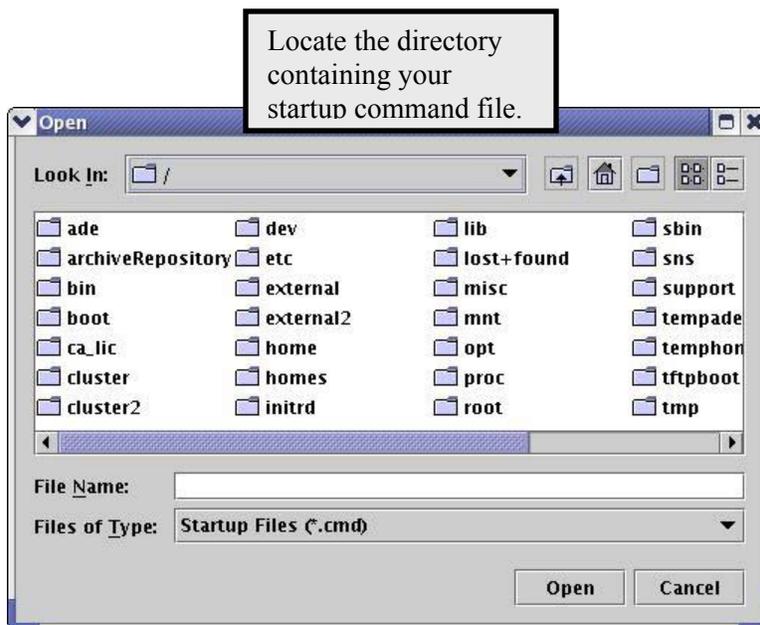
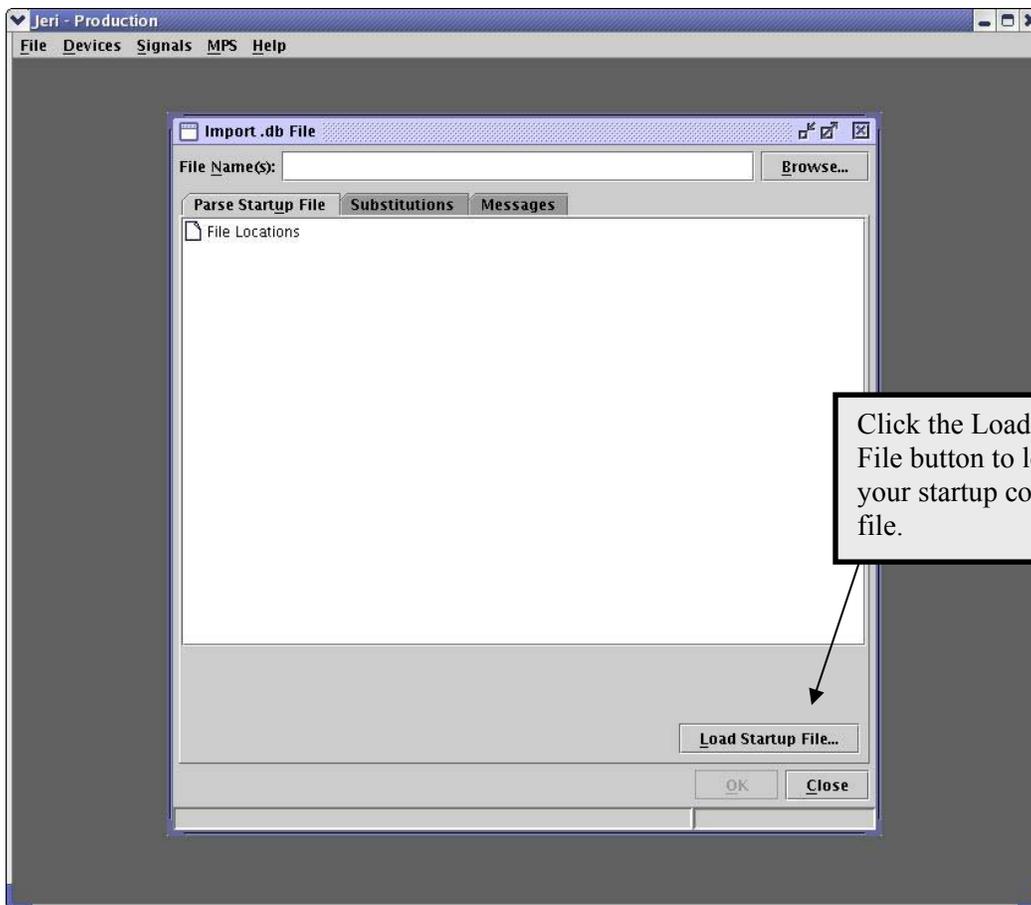
A screenshot of a Java-based login window titled 'Jeri Login'. The window has a standard title bar with minimize, maximize, and close buttons. Inside the window, there are three input fields: 'User ID' with the text 'g9s', 'Password' with masked characters '*****', and 'RDB' with a dropdown menu showing 'Development'. At the bottom of the window are two buttons: 'Login' and 'Cancel'.

Use your UCAMS User ID and Password to log in. Development is used for a testing environment. Use Production to make real-world changes. Either can be used to check for name correctness.

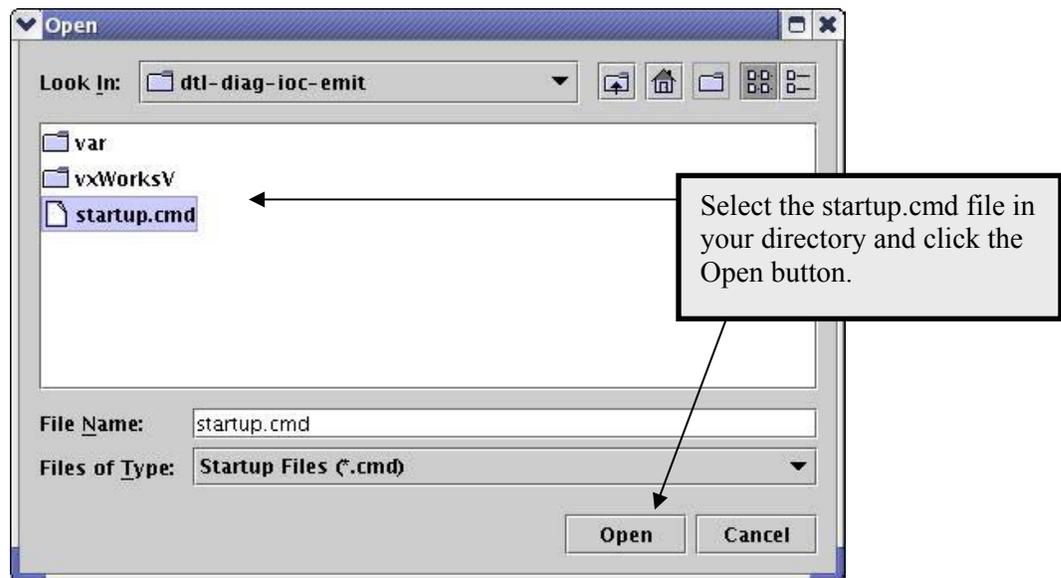
JERI Opening Screen



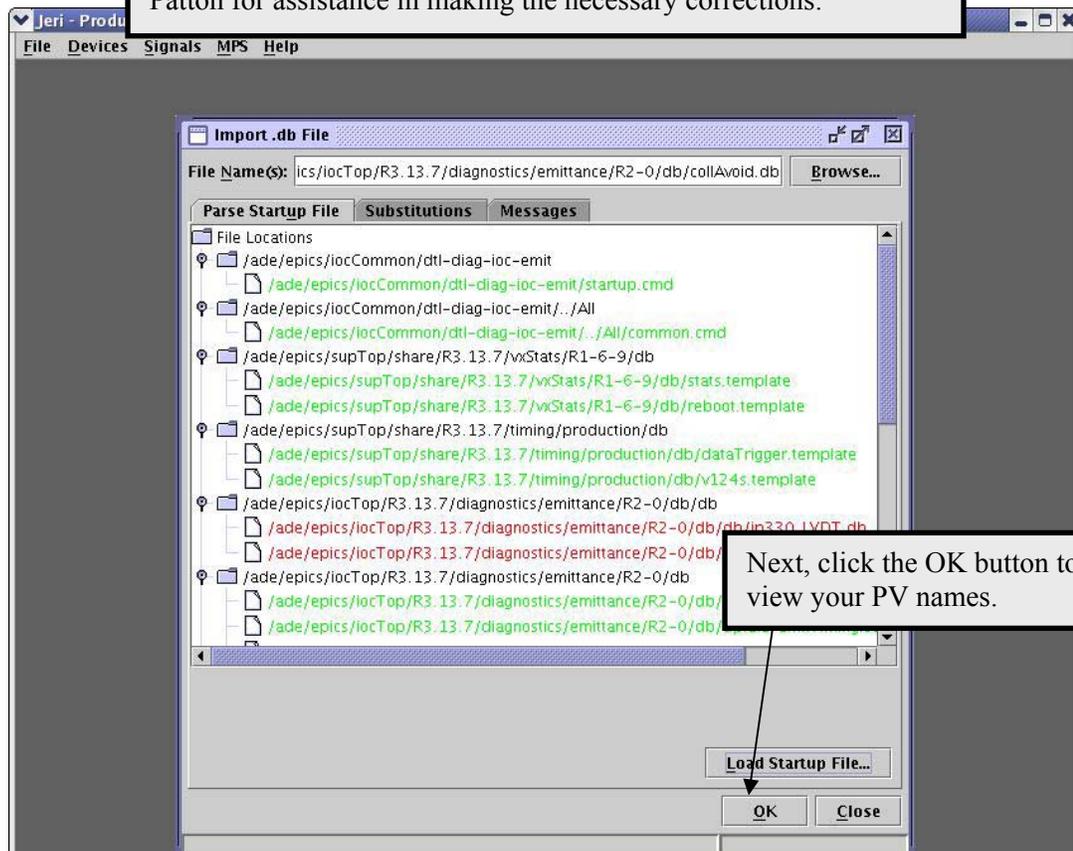
Importing Database Files



Opening a Startup Command File



The file locations of your database files will be displayed. Green indicates everything is acceptable. Red indicates the existence of something unresolved or unacceptable. If you see red, call Jeff Patton for assistance in making the necessary corrections.



Import Results Showing Error Information

PVs located in your database files.

PVs located in Oracle Relational Database (RDB) File.

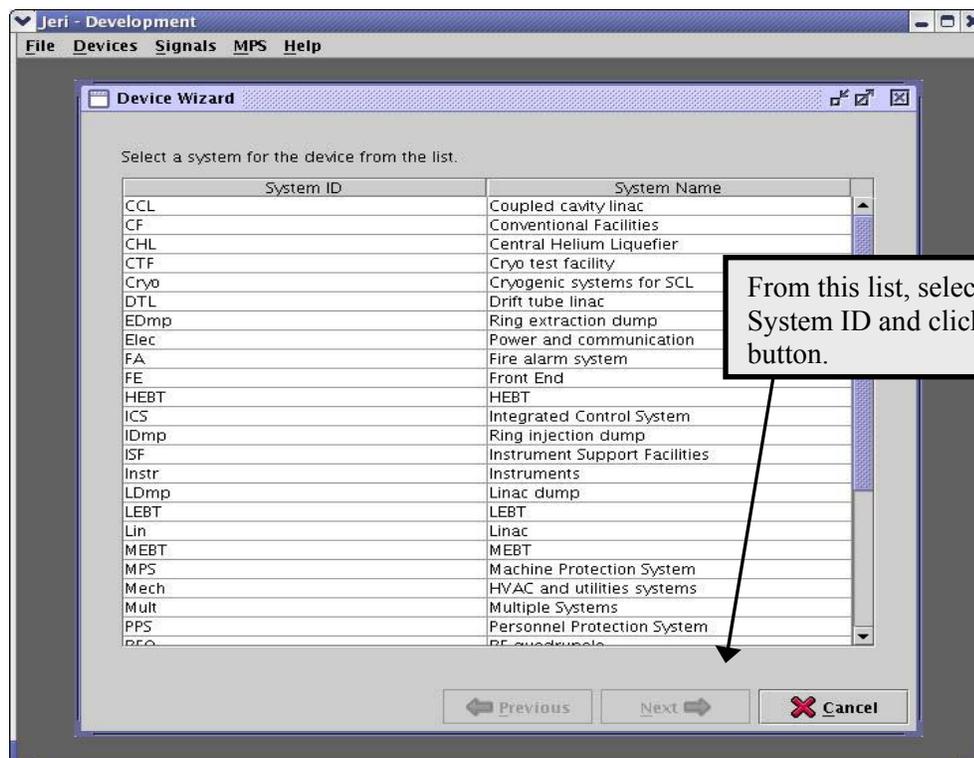
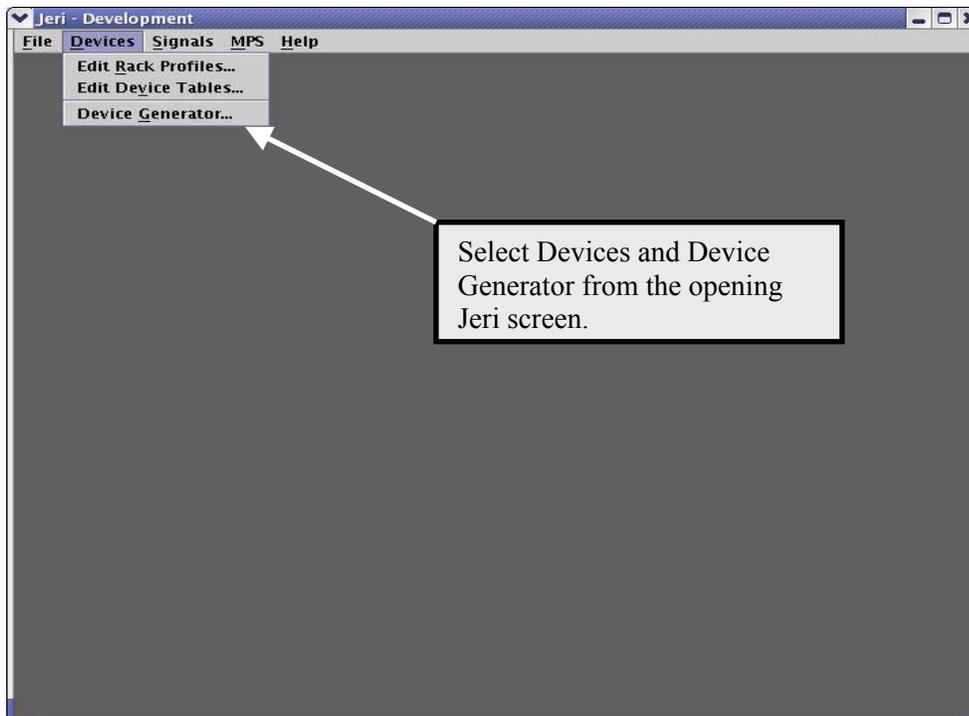
Red names indicate a problem.

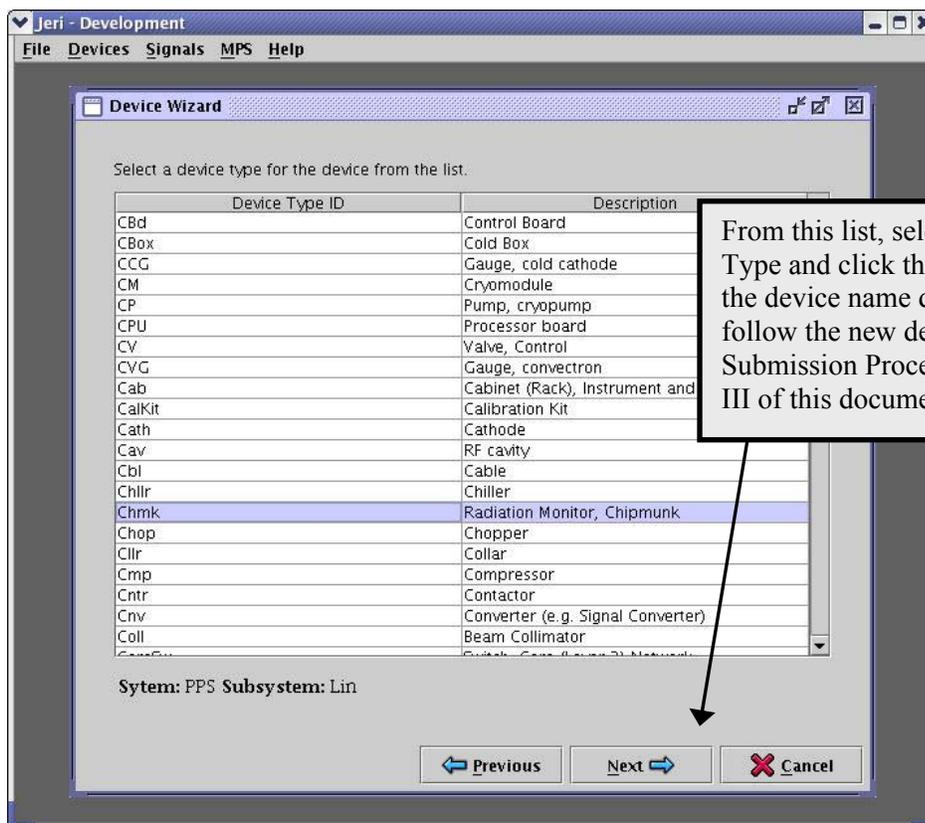
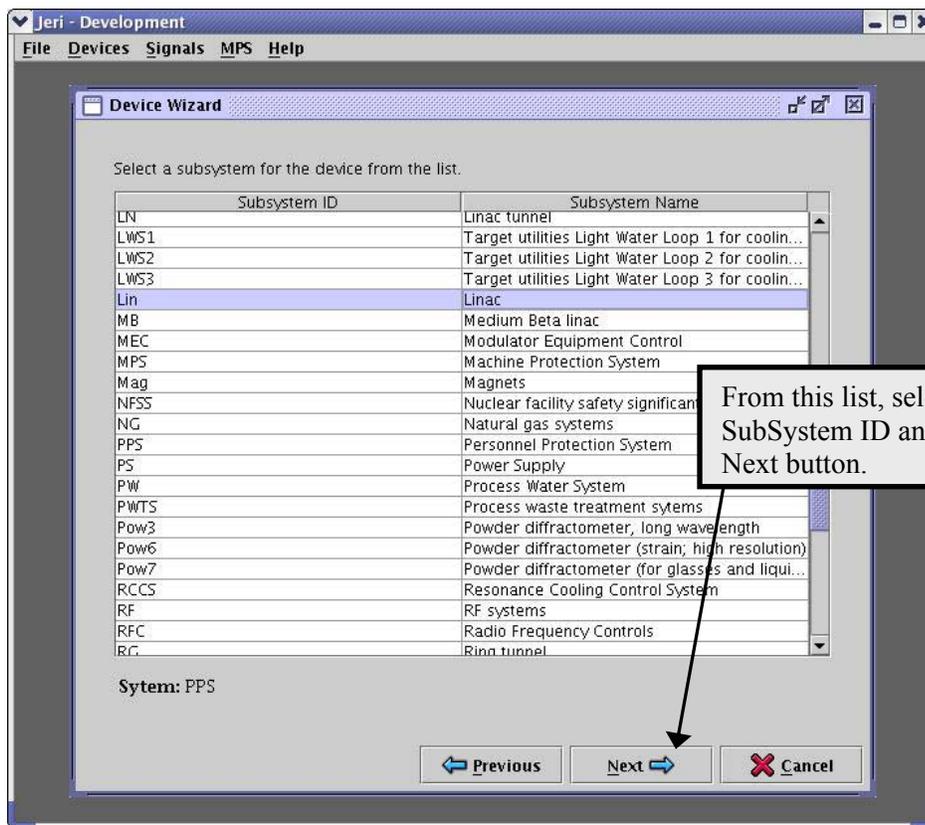
triggerControl.db: Device 'ICS_MPS:Gate_SourceEnable' has an invalid device type: 'Gate'

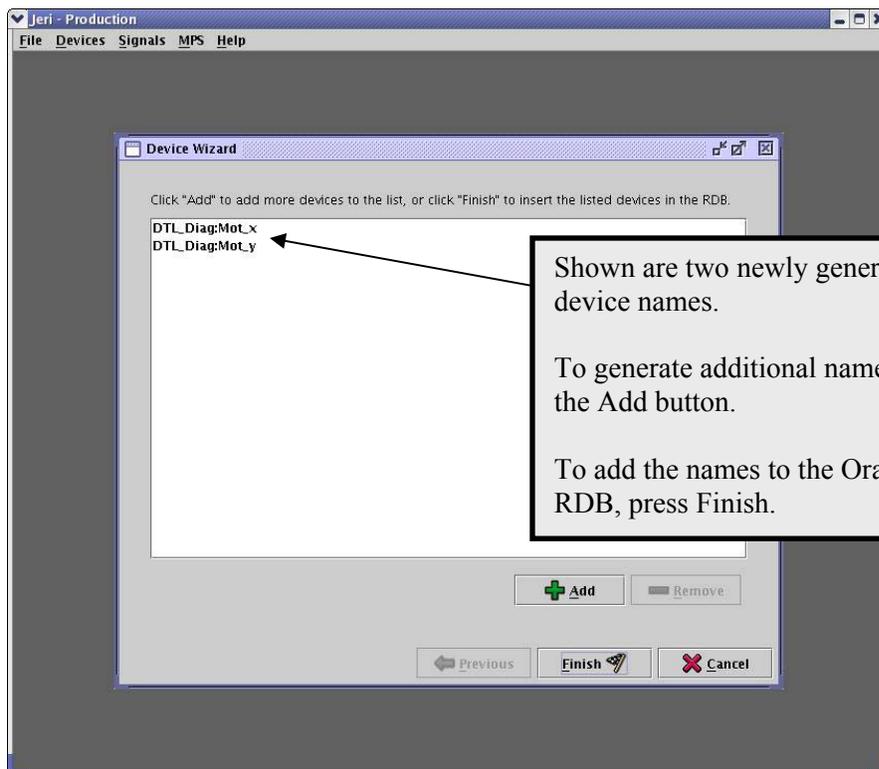
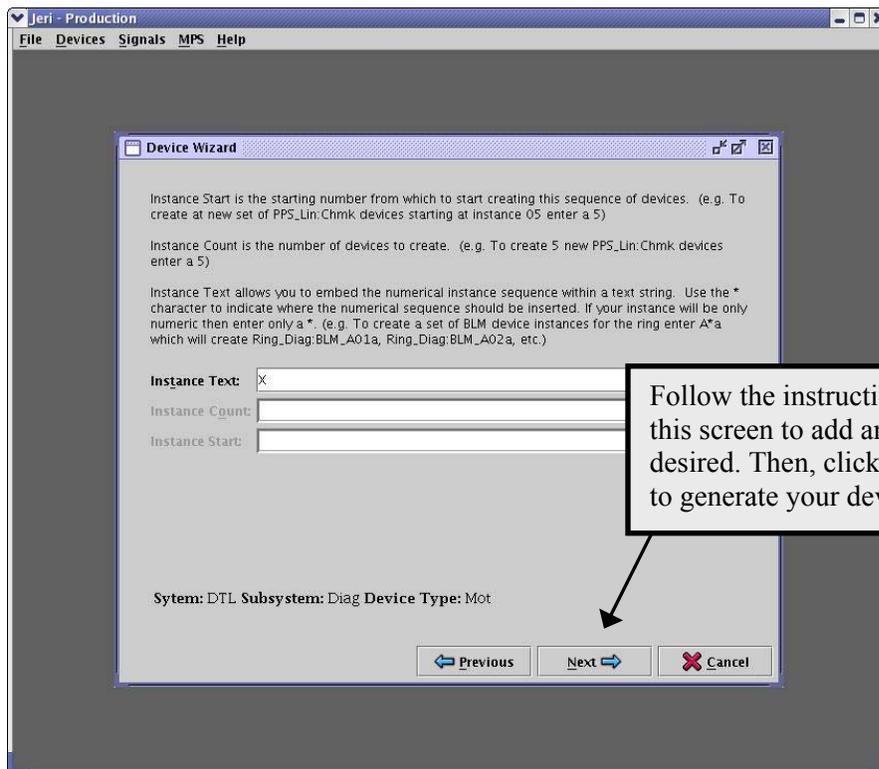
Selecting an invalid PV name will display a message below the first column regarding the problem found. In this example “Gate” has been flagged as an invalid device type because it does not exist in the RDB.

The previous procedure can aid in the location of invalid PV names. Names flagged as invalid may contain component names that were never submitted to the Naming Committee for approval and, therefore, have not been added to the RDB. If a PV name containing approved components is flagged as invalid, it may need to be corrected to follow the naming standard. In order to make corrections to these names, acceptable names will need to be generated. The following procedure utilizes Jeri to generate acceptable device names. In the event that a new device needs to be created and added to the Oracle RDB, please follow the Name Submission Procedure in Section III of this document. For further help using the Jeri program, please contact Jeff Patton at ORNL-SNS.

USING JERI TO GENERATE CORRECT DEVICE NAMES







SECTION III NAME SUBMISSION PROCEDURE

New name components must be reviewed by a representative at each lab to make sure there aren't any conflicts. Naming committee members are:

Bill DeVan, ORNL (Committee Chair)	devanwr@ornl.gov
Mario Giannella, ORNL SNS Ops	giannella@ornl.gov
Jack Gioia, LANL	gioiaj@lanl.gov
Tom Nepsee, BNL	nepsee@bnl.gov
Herb Strong, ORNL (representing JLab)	hstrong@ornl.gov

Submit new name components to Bill DeVan (devanwr@ornl.gov) to initiate the approval process. Please use the following link to the Name Component Request form to submit your request:

<[nameComponentRequestForm](#)> [Note: Form has been changed from Word format to Excel format to make it easier for our database people to add the final names to our database.]