Entering EFI "MFG" mode and modifying SYSSET parameters to resolve field/customer issues on rx1600 and rx4640* systems:

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Step 1:

First, check the current sysset parameter status via the SYSSET command. A "normal" sysset output should look like *this*. If there are any problems with the sysset parameters the command output should show which parameters are improperly set.

Step 2:

If it is necessary to correct one or more improper sysset parameters, it will be necessary to get into system MFG mode to correct them. This can be accomplished by entering the "SYSMODE MFG" command at EFI as shown *here*. Note that you are provided with a rather large "Lockword" (32 Hex characters). Fortunately, you only need the 1st 8 characters. Take the 1st 8 characters ("BCC693EB" in this example) and add a "Z" character in front of these characters to create a Lockword of "ZBCC693EB". Then, using the appropriate SSKEYGEN decoder tool (e.g. the SSKEY CE tool), obtain the proper "Keyword" for this Lockword and enter it at the "password" prompt.

Once you are in System MFG mode, you should be able to correct any sysset parameter problems via one or more of the commands below:

- sysset mfg
- sysset prodname
- sysset prodnum
- sysset serial
- sysset uuid

Step 3:

Once the SYSSET command output is proper for the system in question, you should leave System MFG mode. The easiest way to do this is to execute the SYSMODE ADMIN command. The output should look like *this*.

Step 4:

Reset the system and ensure that there are no POST or EFI boot messages. Then check the SYSSET parameters once more to ensure they are properly set.

Below is the "sysset" output from my rx1600 with proper sysset parameters:

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1600
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108
Return

Here is how to enter system MFG mode:

fs0:\EfiUtilities\McKinley> *sysmode mfg*
Current System Mode: SERVICE
Lockword is: BCC693EB674DD811881BE20562B8C81F
Please, enter the password: ********
You are now in MFG mode.
Return

Here is were I modified the "Manufacturer" parameter (changed it to "jt" instead of "hp")

fs0:\EfiUtilities\McKinley> *sysset mfg jt*
System Information:
  Manufacturer: hp
Updating manufacturer string
  Manufacturer string set to: *jt*

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: *jt*   *<< note that the "Manufacturer" value is now improper:*
  Product Name: server rx1600
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108

Here is where I correct the improper "Manufacturer" value:

fs0:\EfiUtilities\McKinley> *sysset mfg hp*
System Information:
  Manufacturer: jt *<< improper "Manufacturer" value*
Updating manufacturer string
  Manufacturer string set to: hp

fs0:\EfiUtilities\McKinley> sysset
System Information:
  Manufacturer: hp *<<now it is "proper" value of "hp"*
  Product Name: server rx1600
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108
<u>Return</u>

Here is were I modified the proper "Product Name" parameter (changed it to "server rx1500" instead of "server rx1600")

fs0:\EfiUtilities\McKinley> *sysset prodname "server rx1500"*
System Information:
  Product Name: server rx1600
Updating product name
  Product name set to: server rx1500

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1500 *<< note that the "Product Name" value is now improper:*
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108

Here is where I correct the improper "Product Name" value:

fs0:\EfiUtilities\McKinley> *sysset prodname "server rx1600"*
System Information:
  Product Name: server rx1500
Updating product name
  Product name set to: server rx1600

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1600 *<<now it is proper value of "server rx1600"*
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108
Return

Here is were I modified the proper "Product Number" parameter (changed it to "A9902A" instead of "A9901A")

fs0:\EfiUtilities\McKinley> *sysset prodnum A9902A*
System Information:
  Product Number: A9901A
  Secondary Product Number is Identical
Updating product number
  Product number set to: A9902A
  Secondary Product Number is Identical

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1600
  Product Number: A9902A *<< note that the "Product Number" value is now improper:*
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108

Here is where I correct the improper "Product Number" value:

fs0:\EfiUtilities\McKinley> **sysset prodnum** A9901A
System Information:
  Product Number: A9902A
  Secondary Product Number is Identical
Updating product number
  Product number set to: A9901A
  Secondary Product Number is Identical

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1600
  Product Number: A9901A *<<now it is proper value of "A9901A"*
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108

[Return](#)

Here is were I modified the proper "Serial Number" parameter (changed it to "USE4351192" instead of "USE4351191")

fs0:\EfiUtilities\McKinley> *sysset serial USE4351192*
System Information:
  Serial number: USE4351191
  Secondary Serial Number is Identical
Updating serial number
  Serial number set to: USE4351192
  Secondary Serial Number is Identical

fs0:\EfiUtilities\McKinley> sysset
System Information:
  Manufacturer: hp
  Product Name: server rx1600
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351192 *<< note that the "Serial Number" value is now improper:*
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108

Here is where I correct the improper "Serial Number" value:

fs0:\EfiUtilities\McKinley> *sysset serial USE4351191*
System Information:
  Serial number: USE4351192
  Secondary Serial Number is Identical
Updating serial number
  Serial number set to: USE4351191
  Secondary Serial Number is Identical

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1600
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191 *<<now it is proper value of "USE4351191"*
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
  Product ID: 0x108
[Return](#)

Here is were I modified the proper "UUID" parameter (changed it to "MAGIC" instead of proper value)

fs0:\EfiUtilities\McKinley> *sysset uuid magic*
System Information:
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical
Updating UUID
  UUID set to: FFFFFFFF-FFFF-FFFF-FFFF-FFFFFFFFFFFF (Magic)
  Secondary UUID is Identical

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1600
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: FFFFFFFF-FFFF-FFFF-FFFF-FFFFFFFFFFFF (Magic) *<< note that the "UUID" value is now improper:*

Secondary UUID is Identical
Product ID: 0x108

Here is where I correct the improper "UUID" value:

fs0:\EfiUtilities\McKinley> **sysset uuid** 162D4BA1-4D67-11D8-881B-E20562B8C81F
System Information:
  UUID: FFFFFFFF-FFFF-FFFF-FFFF-FFFFFFFFFFFF (Magic)
  Secondary UUID is Identical
Updating UUID
  UUID set to: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid)
  Secondary UUID is Identical

fs0:\EfiUtilities\McKinley> *sysset*
System Information:
  Manufacturer: hp
  Product Name: server rx1600
  Product Number: A9901A
  Secondary Product Number is Identical
  Serial number: USE4351191
  Secondary Serial Number is Identical
  UUID: 162D4BA1-4D67-11D8-881B-E20562B8C81F (Valid) *<<now it is the proper UUID value:*
  Secondary UUID is Identical
  Product ID: 0x108
Return

Shell> **sysmode admin**
Current System Mode: MFG

You are now in ADMIN mode.

Shell>
Return

* Note that this mechanism of protecting MFG Mode will be introduced on the rx4640 with the 2.13 version of system firmware.