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# Network Station Manager V2R1 Migration Utility

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# V2R1 NSM Migration Utility

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# V2R1 NSM Migration Utility - Overview

## ■ Background Information

- ▶ **Designed to help make a customer's transition from the V1R3 to V2R1 releases of the NSM product as smooth and painless as possible.**
- ▶ **Called directly from the Migration Utility. Integrated, not a separate step.**
- ▶ **Provides the end user the flexibility of being able to migrate at the following levels:**
  - System
  - User
  - Group
  - Terminal
- ▶ **Can be separated into two separate pieces**
  - Migration of the NSM managed preferences. These are preferences set through the NSM user interface
  - Migration of the NSM "backdoor" files. These files were "hand-edited" by users to: either configure preferences not supported through NSM or allow the configuration of preferences without going through the NSM user interface.



## V2R1 NSM Migration Utility- Overview (Continued)

### ■ Functions Provided:

- ▶ Handles the conversion of V1R3 preferences to the new V2R1 XML download profile format under the covers. Files will be encoded in UTF8.
- ▶ Handles the conversion of V1R3 NSM preferences found in "backdoor" files to a configuration script (\$USERBASEV2/profiles/migrate.scr). File will be encoded in UTF8.
- ▶ Preference changes for NC Communicator
- ▶ Conversion of configd preferences for NCI operating system
- ▶ Removal of Omron preferences
- ▶ Preference changes for NCI desktop
- ▶ Conversion of MENUITEM commands from V1R3 startup files to V2R1 desktop launch bar.
- ▶ Conversion of RUN commands from V1R3 startup files to V2R1 startup package.
- ▶ Update the paths of the emulator preferences dealing with keyboard mapping, color maps, etc. to refer to the new directory structure.



# V2R1 NSM Migration Utility- Overview (Continued)

## ■ Functions Provided (Continued)

- ▶ Update the RUN and MENUITEM commands for the terminal emulator to issue a new command and update parameters.
- ▶ Update any terminal emulator preferences found in the "backdoor" files to the new preference name.
- ▶ ICA/X11 programs defined through local/remote programs in V1R3 will need to be migrated from the V1R3 startup.nsm files to V2R1 desktop launch bar.
- ▶ Remove the setting of environment variables/preferences that are no longer used in V2R1.
- ▶ Move the GROUP environment variable set in user file to the \$USERBASEV2/profiles/allusers.nsm file



# V2R1 NSM Migration Utility - Components

- The V2R1 NSM Migration Utility can be broken up into six separate logical pieces.
- These groupings were arrived at since this was how the "Setup Tasks" portion of the V1R3 GUI was laid out.
- The six components are:
  - ▶ Hardware
  - ▶ Desktop
  - ▶ Navio
  - ▶ 3270/5250 Emulators
  - ▶ Startup
  - ▶ Environment Variable



# V2R1 NSM Migration Utility - Important Files

## ■ Important Files

### ▶ prelist.nsm(\$PRODBASEV2/nsm/defaults)

- File is broken up into six pieces, with each of the previously listed components having their own separate section.
- These blocks are a collection of all the **NSM managed preferences** which will be migrated forward for that portion of the migration process (i.e.. Hardware, Startup, Desktop)
- Only exceptions to this are:
  - *3270 Emulator migration - any preferences starting with the string "NS3270\*" within the ../NS3270/pref file will be migrated. The preferences listed require special processing. The rest migrate without change.*
  - *5250 Emulator migration - any preferences starting with the string "NS5250\*" within the ../NS5250/pref file will be migrated. The preferences listed require special processing. The rest migrate without changes.*
- Entry Format
  - *Preference name, containing RegistryCategory object, Preference type*
- Net: If a preference is not listed it is NOT migrated to V2R1.



# V2R1 NSM Migration Utility - Important Documentation

## ■ Important Documentation

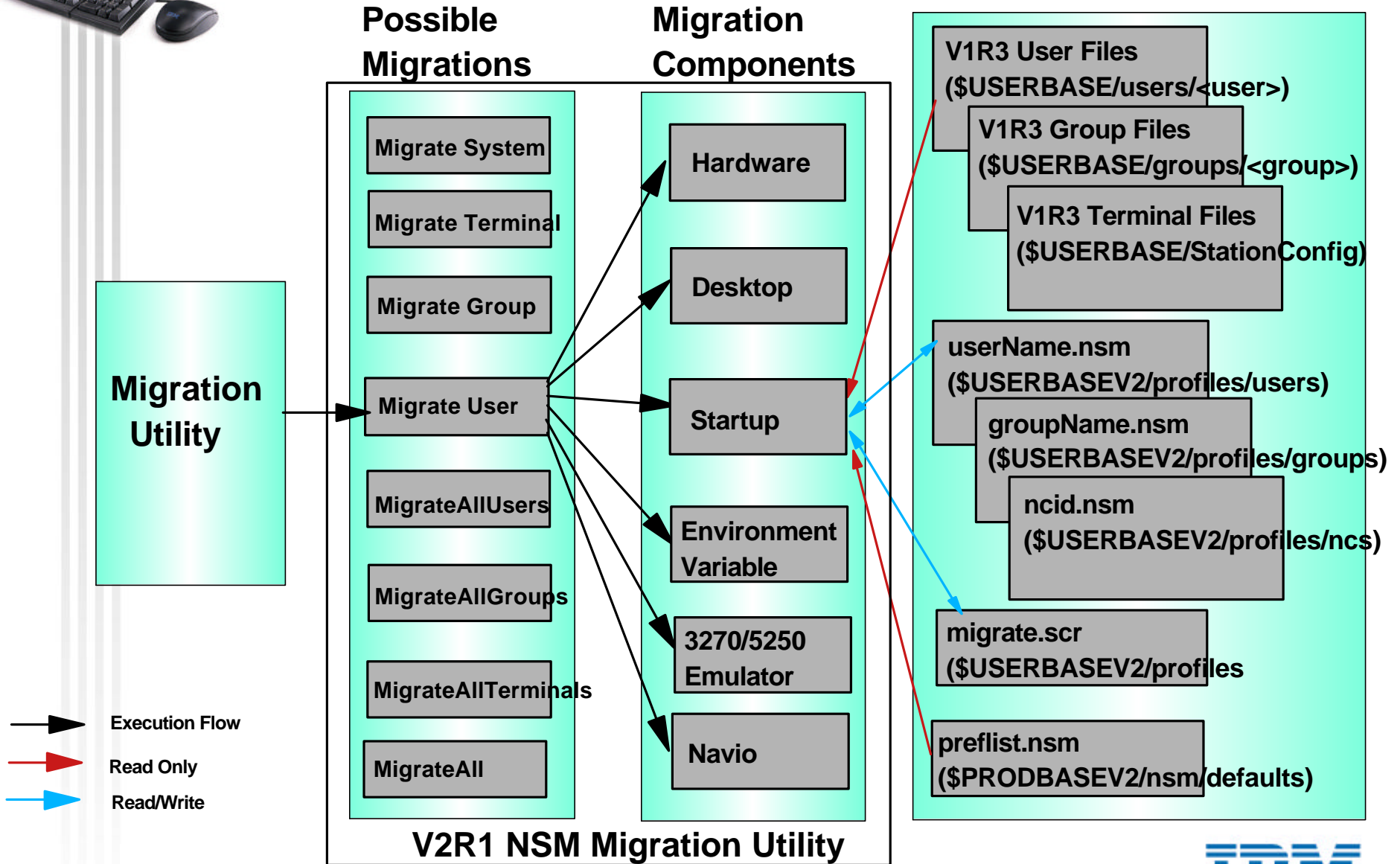
### ▶ NSM Migration Details

- Very detailed document
- For each of the various components of the NSM Migration Utility
  - *Lists out all of the preferences which will migrate, in fact the 'preflist.nsm' file was built off of this document.*
  - *Lists where each of these preferences will be stored physically within the registry. By listing which registry category will contain it.*
  - *Also includes the values which these preferences should be set to once the NSM Migration Utility has finished processing.*
  - *Covers all of this for System, User, Group, Terminal level*
- All of the various settings required for each of the MENUITEMS within the LaunchBar are also included.





# V2R1 NSM Migration Utility - Flow





# V2R1 NSM Migration Utility - Migrations Available to End Client

## ■ Migrate System

- ▶ Hardware, Desktop, 5250/3270 Emulators, Navio, Startup, and Environment Variable migrations are performed.

## ■ MigrateUser(userName)

- ▶ Hardware, Desktop, 5250/3270 Emulators, Navio, Startup, and Environment Variable migrations are performed.

## ■ Migrate Group(groupName)

- ▶ Hardware, Desktop, 5250/3270 Emulators, Navio, Startup, and Environment Variable migrations are performed.

## ■ Migrate Terminal (ncID)

- ▶ ONLY Hardware migration will be performed.



# V2R1 NSM Migration Utility - Migrations Available to End Client

## ■ Migrate All Users

- ▶ Hardware, Desktop, 5250/3270 Emulators, Navio, Startup, and Environment Variable migrations are performed for each valid NSM user defined on the server.

## ■ Migrate All Groups

- ▶ Hardware, Desktop, 5250/3270 Emulators, Navio, Startup, and Environment Variable migrations are performed for each valid NSM group defined on the server.

## ■ Migrate All Terminals

- ▶ Hardware migration will be performed for each valid NSM client defined on the server.

## ■ Migrate All

- ▶ ALL of the migrations previously listed are performed.



# V2R1 NSM Migration Utility - System Level Migration

- **\$USERBASEV2/profiles/allusers.nsm**
  - ▶ **After migration has completed this file will have all the supported preferences appended to it from the following files**
    - \$USERBASE/SysDef/NCDwm/pref
    - \$USERBASE/SysDef/NS5250/pref
    - \$USERBASE/SysDef/NS3270/pref
    - \$USERBASE/SysDef/NAV/pref
    - \$USERBASE/SysDef/envvars.nsm
    - \$USERBASE/SysDef/startup.nsm
  
- **\$USERBASEV2/profiles/allincs.nsm**
  - ▶ **After migration has completed this file will have all the supported preferences appended to it from the following file**
    - \$USERBASE/StationConfig/defaults.nsm



## V2R1 NSM Migration Utility - System Level (Continued)

- **\$USERBASEV2/profiles/migrate.scr**
  - ▶ After migration has completed this file will have Command Line Utility (SGCL) commands appended for all the supported preferences from the following files
    - \$USERBASE/StationConfig/defaults.dft
    - \$USERBASE/SysDef/pref.dft
      - Supported preferences starting with "Navio"
      - Supported preferences starting with "NS5250\*"
      - Supported preferences starting with "NS3270\*"
      - Supported preferences starting with "NCDterm"
      - Supported preferences starting with "NSTerm"
      - Supported preferences starting with "mwm"



# V2R1 NSM Migration Utility - Group Level

- **\$USERBASEV2/profiles/groups/<group>.nsm**
  - ▶ **After migration has completed this file will have all the supported preferences from the following files**
    - \$USERBASE/groups/<group>.nsg
    - \$USERBASE/groups/<group>/NCDwm/pref
    - \$USERBASE/groups/<group>/NS5250/pref
    - \$USERBASE/groups/<group>/NS3270/pref
    - \$USERBASE/groups/<group>/NAV/pref
    - \$USERBASE/groups/<group>/envvars.nsm
    - \$USERBASE/groups/<group>/startup.nsm
  
- **\$USERBASEV2/profiles/migrate.scr**
  - ▶ **After migration has completed this file will have Command Line Utility (SGCL) commands appended for all the supported preferences from the following file**
    - \$USERBASE/groups/<group>/<group>.grp



## V2R1 NSM Migration Utility - User Level

- **\$USERBASEV2/profiles/users/<user>.nsm**
  - ▶ After migration has completed this file will have all the supported preferences from the following files
    - \$USERBASE/users/<user>.nsu
    - \$USERBASE/users/<user>/NCDwm/pref
    - \$USERBASE/users/<user>/NS5250/pref
    - \$USERBASE/users/<user>/NS3270/pref
    - \$USERBASE/users/<user>/NAV/pref
    - \$USERBASE/users/<user>/envvars.nsm
    - \$USERBASE/users/<user>/startup.nsm
  
- **\$USERBASEV2/profiles/migrate.scr**
  - ▶ After migration has completed this file will have Command Line Utility (SGCL) commands appended for all the supported preferences from the following file
    - \$USERBASE/users/<user>/<user>.usr



## V2R1 NSM Migration Utility - Terminal Level

- **`$USERBASEV2/profiles/ncs/<ncid>.nsm`**
  - ▶ After migration has completed this file will have all the supported preferences from the following files
    - `$USERBASE/StationConfig/<ncid>.nst`
- **`$USERBASEV2/profiles/migrate.scr`**
  - ▶ After migration has completed this file will have Command Line Utility (SGCL) commands appended for all the supported preferences from the following file
    - `$USERBASE/StationConfig/<ncid>.trm`





# V2R1 NSM Migration Utility - Launchbar

## ■ MENUITEMs

- ▶ If any V1R3 MENUITEMs exist an "Old Applications" folder will be added following the last item on the launchbar.
- ▶ Each MENUITEM is added to the "Old Applications" folder.
- ▶ Each MENUITEM is placed at the tail end of the "Old Applications" folder.
- ▶ The "Old Applications" folder is cleared before each run of the NSM Migration Utility. So if re-migrating, any changes since the initial migration will be lost.
  - Group Level Migration
    - *All NSM users belonging to the migrated group will have their "Old Applications" folder cleared before the NSM Migration Utility is rerun.*
  - System Level Migration
    - *All NSM groups and NSM users will have their "Old Applications" folder cleared before the NSM Migration Utility is rerun.*



# V2R1 NSM Migration Utility - Launchbar (Continued)

## ■ RUN commands

- ▶ Added to the "Startup" folder
- ▶ Each RUN command is placed at the tail end of the "Startup" folder
- ▶ The "Startup" folder is cleared before each run of the NSM Migration Utility. So if re-migrating, any changes since the initial migration will be lost.
  - Group Level Migration
    - *All NSM users belonging to the migrated group will have their "Startup" folder cleared before the NSM Migration Utility is rerun.*
  - System Level Migration
    - *All NSM groups and NSM users will have their "Startup" folder cleared before the NSM Migration Utility is rerun.*



# V2R1 NSM Migration Utility - "Back Door"

## ■ Overview

- ▶ `migrate.scr` = `$USERBASEV2/profiles/migrate.scr`
- ▶ "Backdoor" files (those created outside of NSM by users) will be migrated, but in a slightly different manner than normal NSM files. They include the use of the Command Line Utility.
- ▶ Preferences contained in these files will be written as commands to update the download profiles in a single command script (`migrate.scr`)
- ▶ Administrator will then need to run the Command Line Utility against the script (`migrate.scr`) to get the changes to actually be made in the download profiles.
- ▶ Administrator should review the script (`migrate.scr`) created by the NSM Migration Utility before running the Command Line Utility to ensure that the updates he actually wants are being made.



# V2R1 NSM Migration Utility - "Back Door" (Continued)

## ■ Overview (Continued)

- ▶ The script (migrate.scr) is always appended to and not overwritten, so any new commands will be added to commands in the script from a previous migration.
- ▶ Since migration can be run on individual users, groups, and terminals we thought best to append. An administrator may not want to run the Command Line Utility after each migration. By appending we allow them to build one overall migration script that only needs to be executed once through the Command Line Utility.



## V2R1 NSM Migration Utility - "Back Door" (Continued)

- **"Gotchas" to look for if preference not in migrate.scr file:**
  - ▶ **All lines within "backdoor" files MUST end with a linefeed (either just LF or CRLF). If a line end with only a carriage return the file will not be parsed correctly.**
  - ▶ **Only "SET" commands will be processed, all other commands will be ignored. Includes "READ".**
  - ▶ **Preference names and values must in lower case. Values can be in mixed case if representing a string.**
  - ▶ **Comments will be ignored. If a comment appears on same line as preference it will be taken as part of the setting.**
  - ▶ **"nil" should be used to indicate a preference which has no value.**
  - ▶ **The value of "default" should not be used to set the preference to its default value.**
  - ▶ **Boolean values should be specified as true/false values, not on/off or yes/no.**



## V2R1 NSM Migration Utility - "Back Door" (Continued)

### ■ Tips

- ▶ If an administrator wants to have a migration script that only contains commands from a single run of the migration, they should delete the script (migrate.scr) before running the migration.
- ▶ The "backdoor" file \$USERBASE/SysDef/startup.dft is NOT migrated. Reason being its contents are a total replacement for the NSM managed files, instead of its preferences being collated with like preferences from the other NSM managed files.
- ▶ After writing out all the commands to the migration script the NSM Migration Utility appends a "COMMIT" command. This command ensures all the changes saved to the download profiles. If an administrator wants to run the migration script in a "test" state without saving the changes, they should remove or comment out the "COMMIT" command.
- ▶ There will be one "COMMIT" command added for each run of the migration that results in the migration script (migrate.scr) being updated. So these need to be commented out as well.



# V2R1 NSM Migration Utility - Error Messages

<b>NSM7007</b>	<b>Unable to access system settings</b>	<b>Error in accessing (opened, reading) the V2R1 system level download profile.</b>
<b>NSM7008</b>	<b>Unable to access user settings</b>	<b>Error in accessing (opening, reading) the V2R1 user level download profile.</b>
<b>NSM7009</b>	<b>Unable to update system settings</b>	<b>Error in updating (writing) the V2R1 system level download profile.</b>
<b>NSM7010</b>	<b>Unable to update user settings</b>	<b>Error in updating (writing) the V2R1 user level download profile.</b>
<b>NSM7014</b>	<b>Unable to access workstation settings.</b>	<b>Error in access (opening, reading) the V2R1 workstation level download profile.</b>
<b>NSM7015</b>	<b>Unable to update workstation settings.</b>	<b>Error in updating (writing) the V2R1 workstation level download profile.</b>
<b>NSM7036</b>	<b>Unable to access group settings</b>	<b>Error in accessing (opening, reading) the V2R1 group level download profile.</b>
<b>NSM7037</b>	<b>Unable to update group settings</b>	<b>Error in updating (writing) the V2R1 group level download profile.</b>



## V2R1 NSM Migration Utility - Error Message (Continued)

NSM7044	Unable to migrate file.	Error encountered that prevents the migration of a V1R3 file.
NSM7045	Unable to retrieve list of users	Error retrieving the list of NSM users to migrate (for migration of all preferences or all users)
NSM7052	Problem converting file to current CCSID.	Error in converting the contents of a file to the CCSID (codepage) used by the job.
NSM7058	Unable to access required file &1.	A file required by migration cannot be accessed (opened, read).
NSM7059	Unable to access script file &1.	Error in accessing or updating the migration command script file used to migrate "backdoor" files
NSM7060	Setting &1 no longer supported.	A V1R3 preference is no longer supported in V2R1.
NSM7061	Value for setting &1 no longer supported.	A value for a V1R3 preference is no longer supported in V2R1.







## V2R1 NSM Migration Utility - Error Messages (Continued)

<b>NSM7062</b>	<b>Parameter in application command no longer valid</b>	<b>A parameter (or its value) on a V1R3 startup command (RUN, MENUITEM) is no longer supported in V2R1.</b>
<b>NSM7063</b>	<b>Unable to retrieve list of groups.</b>	<b>Error retrieving the list of NSM groups to migrate (for migration of all preferences or all groups)</b>
<b>NSM7064</b>	<b>Unable to retrieve list of workstations.</b>	<b>Error retrieving the list of NSM workstations to migrate (for migration of all preferences or all workstations)</b>
<b>NSM7065</b>	<b>Not able to migrate setting &amp;1.</b>	<b>A preference was found in a "backdoor" file that is valid, but is not supported by the IBM Command Line Utility.</b>
<b>NSM7066</b>	<b>Migration command script created or updated.</b>	<b>Migration of "backdoor" file occurred so the migration command script was created or updated.</b>

