SONY

Training of Data Manager

February, 2017

CCS/Display Design Dept. Sec.2
Software Technology Div.2
Professional Products Group
Imaging Products and Solutions Sector

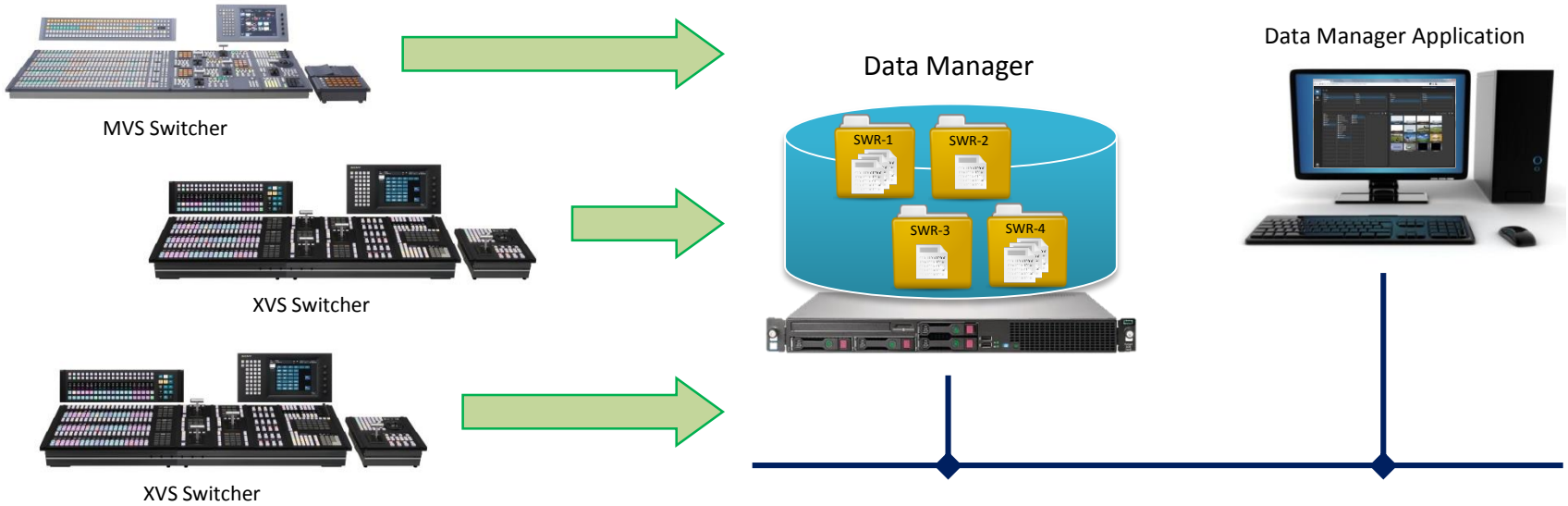
Agenda

- Specification
- Installation
- Setup
- Operation

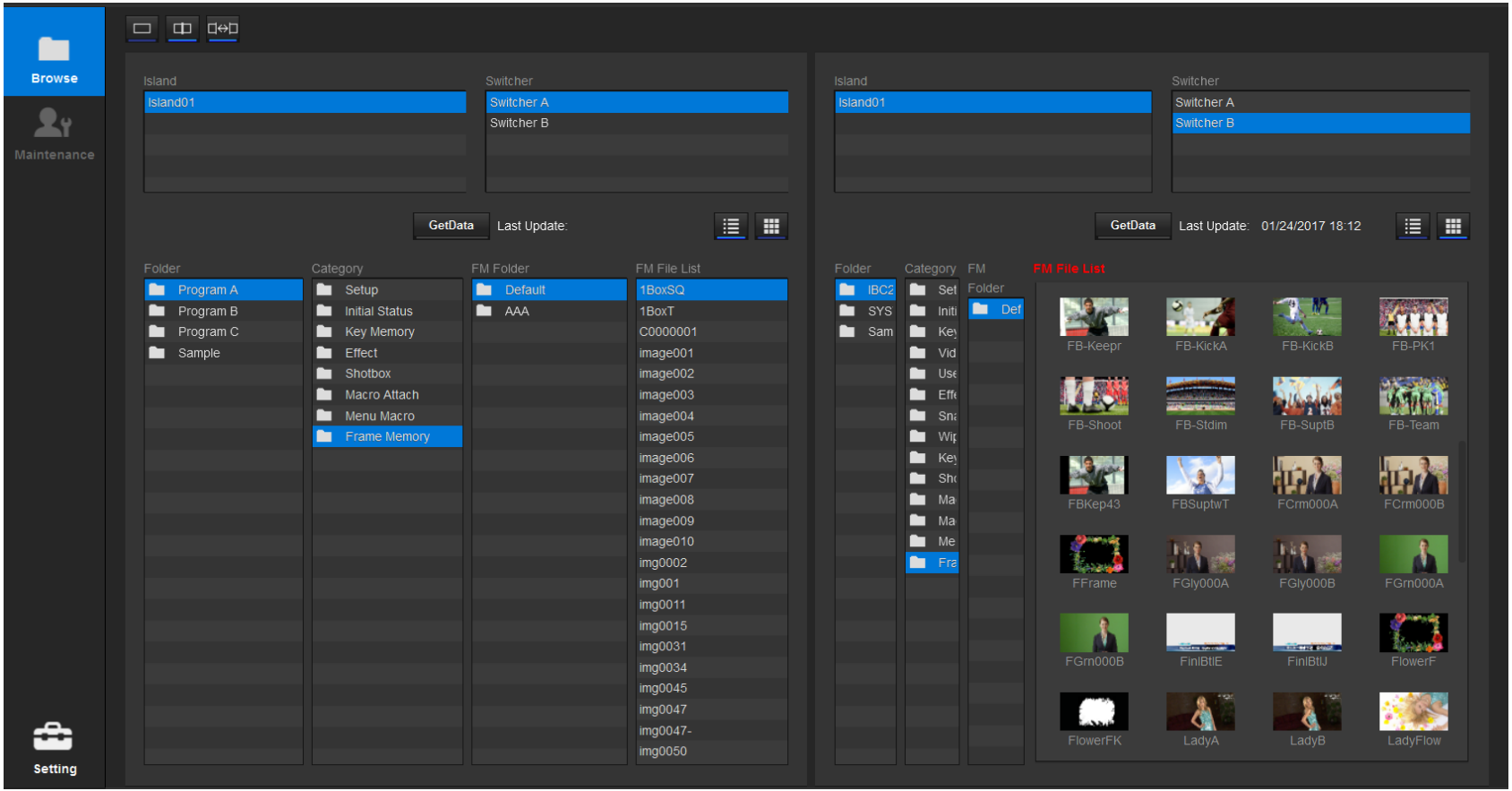
Specification

Overview of Data Manager

- What's Data Manager
  - Data Manager is the web application by which all the data in XVS/MVS switchers can be saved and restored from/to switchers and can manage data in the folders for switchers on the Data Manager server.



GUI of Data Manager



Switchers Connectable from Data Manager

- The following switchers can be connected from Data Manager.
  - XVS-8000
  - XVS-7000
  - XVS-6000
  - MVS-8000X
  - MVS-7000X
  - MVS-6530
  - MVS-3000A

- Max. # of switcher connection to Data Manager
  - Up to 15 switcher groups can be connected to Data Manager.
    - Up to 8 switcher groups with ICP or ICP-X panel can be connected.
    - Up to 15 switcher groups with CCP panel can be connected.

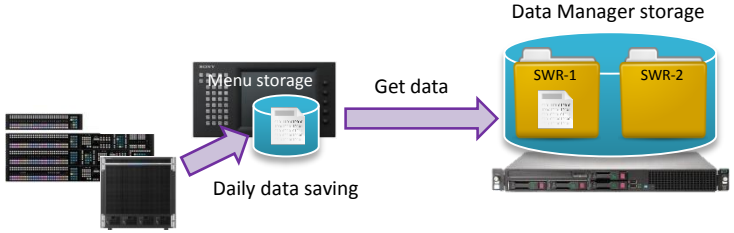
Data Manageable by Data Manager

- The following data can be managed on the Data Manager server.
  - Setup
  - Initial Status
  - Key Memory
  - Video Proc Memory
  - Effect
  - Snapshot
  - Shotbox
  - Macro
  - Frame Memory (SFM/SFA/SFH)

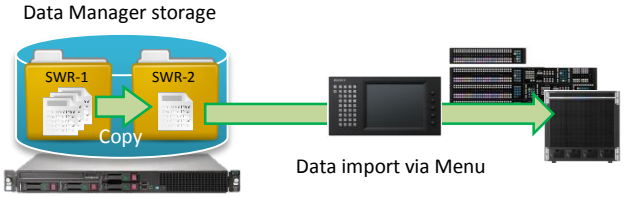
- Storage for data on Data Manager
  - All data managed by Data Manager are stored in the folders on the Data Manager server.

Data Transfer from/to Data Manager

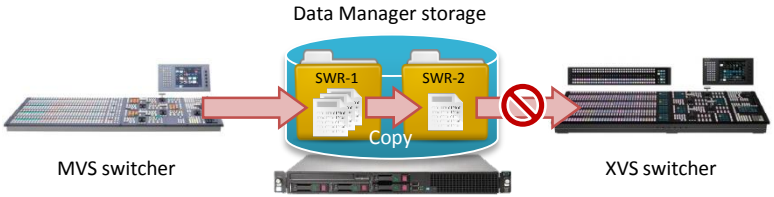
- Data transfer from switchers to Data Manager (Pull-type data transfer)
  - The data on the switchers which are saved on the storage of the menu panel can be transferred to its folder on the Data Manager server.



- Data transfer from Data Manager to switcher (Push-type data transfer)
  - All the data or a part of the data for a certain switcher managed by Data Manager can be copied from its folder to the folder of another switcher over Data Manager.
  - The switcher can import any data from folder on the Data Manager server in menu operation.

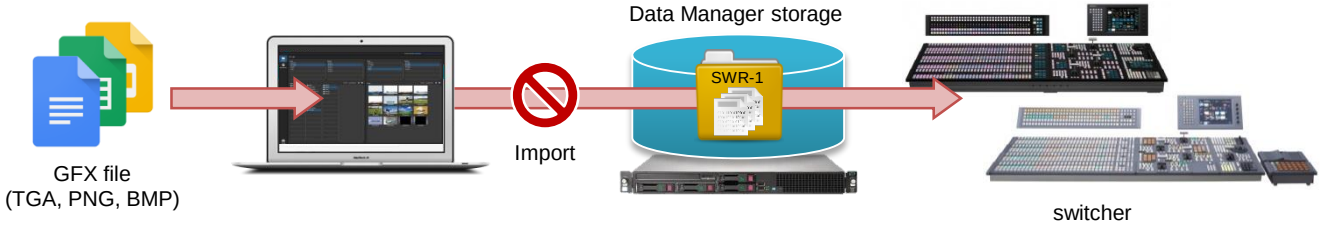


- Note
  - There is no compatibility of data between XVS and MVS.
  - Therefore, any data of XVS cannot be transferred and imported to MVS and even though Data Manager manages all data of switchers.

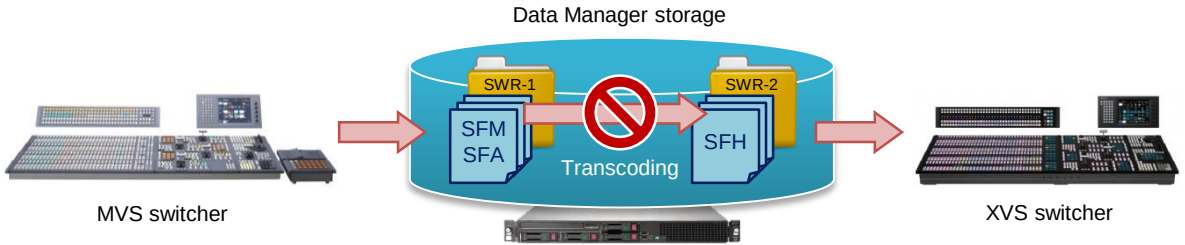


Frame Memory Handled by Data Manager

- GFX file import and export from Data Manager to switchers
  - In Ver.1.0, no import and export of GFX files from Data Manager will be available.

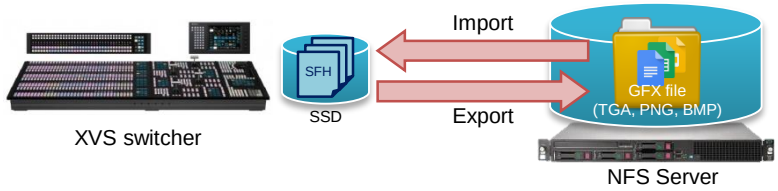


- Frame Memory native file transcoding between MVS and XVS
  - In Ver.1.0, no transcoding of Frame Memory native files between MVS (SFM and SFA) and XVS (SFH) will be available.

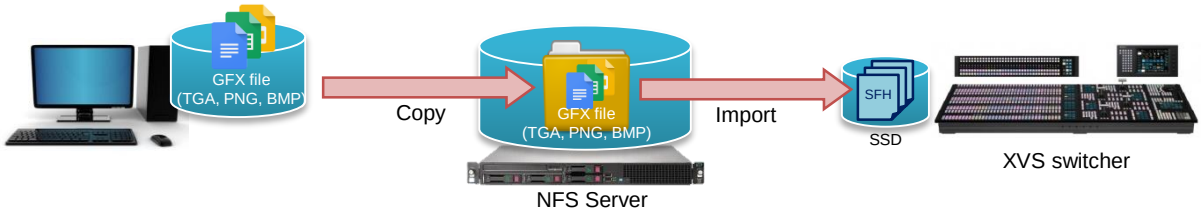


Frame Memory Handled by NFS server

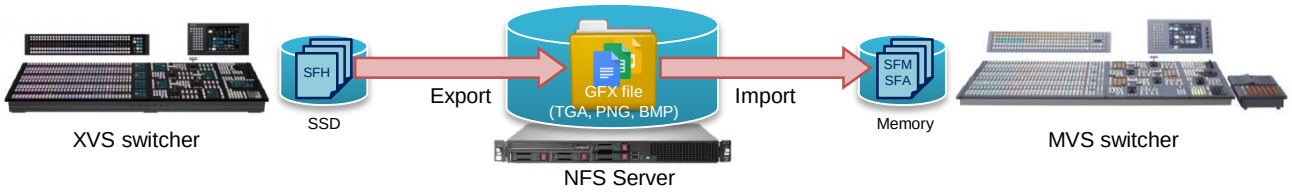
- GFX files can be imported and exported from NFS server with switcher function.



  - By using this function, GFX files can be imported from PC to switcher via NFS server.



  - And Frame Memory native files can be transcoded via NFS server.



Client Devices Accessible to Data Manager

- Client devices accessible to Data Manager
  - PC with mouse and keyboard is only supported.

- Max. # of mobile device connection to Data Manager
  - No limitation of concurrent users enabling to access Data Manager.

Server and OS for Data Manager

- The minimum hardware requirements for Data Manager server

CPU	:	Intel Core i7-4770 3.40GHz
Memory	:	8.00GB
Storage	:	1TB

- The OS on which the Data Manager application will be installed
  - Windows Server 2012R2

Installation

Installation of Data Manager

1. Windows Server Installation
2. NFS Server Setup
3. JRE Installation
4. Tomcat Installation
5. Data Manager Application Installation

1. Windows Server Installation

1. Insert an install disk (DVD) of “Windows Server 2012 R2”, and boot the PC.
2. Press “Next” after entering necessary information such as Time Zone, Keyboard Type.
3. Press "Install now".
4. Enter “Product key”.
5. Check at "I accept the license terms", and press “Next”.
6. Select "Custom: Install Windows only (advanced)“.
7. Set partition and press “Next”.
   - It is recommend having two partitions, one for OS and the other for User Data.
     - Delete all regions, and create two New regions.
     - Set the 1st region as “C:” for Windows install area with 64000MB or larger.
     - Set the 2nd region as “D:” for User area with all the remaining capacity.
8. Wait for about 15 minutes until the installation is finished.
9. After finishing installation, the PC automatically reboot twice.

1. Windows Server Installation (Cont.)

10. In the Settings window, set a password.
11. Sign in.
12. Press “No” if Networks setting appears.
13. Cancel “Configure Windows Server Essentials”.

2. NFS Server Setup

1. Launch “Server Manager”.
2. Click “Manage” in the top menu, and select “Add roles and Features”.
   - “Add Roles and Features Wizard” window appears.
3. Click “Next”.
4. Select “Role-based or feature-based” radio button, and click “Next”.
5. Select “Select a server from the server pool” radio button, and click “Next”.
6. Check “File and Storage Services” ⇒ “File and iSCSI Services” ⇒ “Server for NFS”, and click “Next”.
7. If an Add features that are required for Server NFS dialog box appears, click “Add Features”.
8. Click “Next”.
9. Confirm the installation details, and then click ”Install”.
   - NFS Server is installed.

2. NFS Server Setup (Cont.)

10. Check if "Services for Network File System (NFS)" is added to “Administrative Tools”.
    - By using this tool, NFS Server can be started and stopped.
11. Select “File and Storage Services” in the left side list of Server Manager.
12. Right click at the Server in the “SERVERS” list, and select “NFS Setting”.
13. Uncheck “Version3” and “Version 4.1” from “Specify the NFS protocol versions... “. Leave “Version 2” as checked.
14. Restart NFS Server
    I. Open Administrative Tools > Services for Network File System (NFS).
    II. In the right side list, right click on “Server for NFS” and execute “Stop Service”, then “Start Service”.

3. JRE Installation

1. Download the latest JRE 8 installer from the official web site.
   - http://www.oracle.com/technetwork/java/javase/downloads/index.html

2. Run the installer and install JRE 8 according to the instructions.

4. Tomcat Installation

1. Install Tomcat 8.0.x.
   I. Download the latest Tomcat 8.0.x installer from the official web site.
      - http://tomcat.apache.org/download-80.cgi
   II. Run the installer and install Tomcat according to the instructions.
2. Configure Tomcat.
   I. From the Apps list in Start menu, run “Configure Tomcat” tool.
   II. In “General” tab, set “Startup type” to “Automatic”.
      - This is to auto start Tomcat.

4. Tomcat Installation (Cont.)

3. Configure Windows Firewall to open port for Tomcat.
   I. From the Start menu, run “Windows Firewall with Advances Security” tool.
   II. Select ”Inbound Rules” in the left menu.
   III. Click ”New Rule” in the ”Actions” menu.
      - “New Inbound Rule Wizard” window appears.
   IV. Select ”Port” radio button and click ”Next”.
   V. Select ”TCP” radio button.
   VI. Select ”Specific local ports” radio button and enter ”8080” in the associated text box.
   VII. Click “Next”.
   VIII. Select ”Allow the connection” radio button and click “Next”.
   IX. Click the “Next”.
   X. Enter “Tomcat” in the ”Name” text box and click ”Finish”.
      - New rule “Tomcat” is added to the “Inbound Rules” list.

5. Data Manager Application Installation

1. Download the Data Manager software package from LPS site and extract it.
2. Copy **mdm.war** to “C:\Program Files\Apache Software Foundation\Tomcat 8.0\webapps\”.
3. Copy **config.xml** to “C:\Users\Administrator\”.
4. Unzip **MDM.zip** and copy to “D:\” as follows.

   D:\MDM\Island01\Archives\

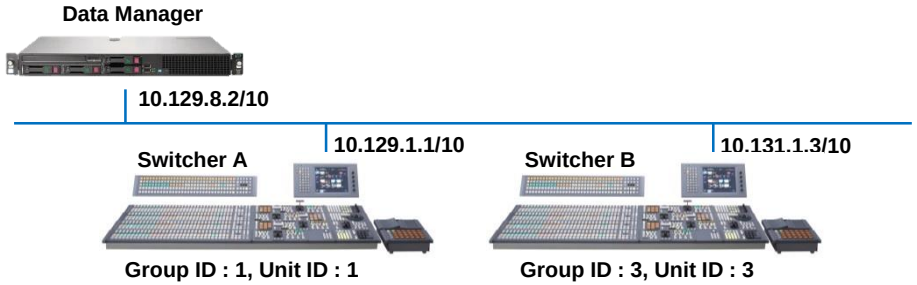
   \config.xml
5. Now Data Manager can be accessed from a Web Browser.
   - http://localhost:8080/mdm/

Setup

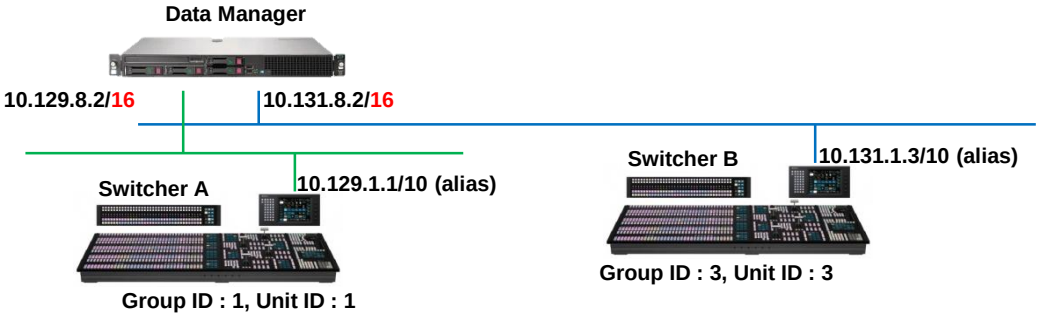
Setup of Data Manager

- Setup for connecting with switchers and transferring data

  – Case 1: Connect with two MVS groups.

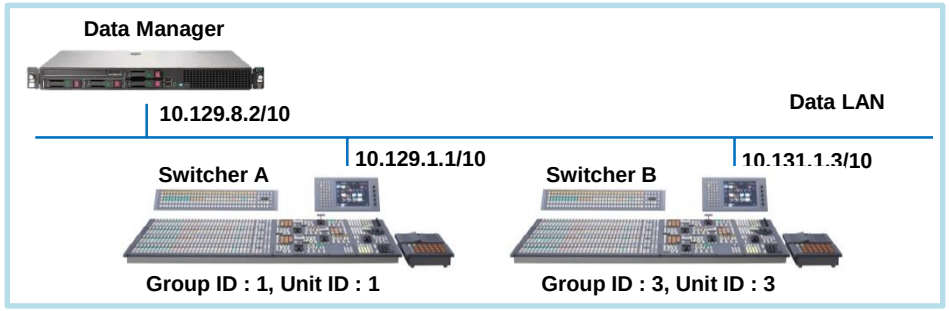


  – Case 2: Connect with two XVS groups.



Case 1: Connect with two MVS groups.

- Case 1: Connect with two MVS groups.



– Data Manager should be connected to the menu via Data LAN when connecting with MVS switchers.

Case 1: Connect with two MVS groups. (cont.)

1. Set IP address to the NIC which connect to the Data LAN network.
   I. Right click on Network Icon which is located right bottom, and select "Open Network and Sharing Center".
   II. Click “Change adapter settings” in the left menu.
   III. Right click Ethernet which connect to the network, and select “Properties”.
   IV. Select “Internet Protocol Version4 (TCP/IPv4)” and click “Properties”.
   V. Select “Use the following IP address” radio button, and input “IP address” and “Subnet mask”.
      - IP address : 10.129.8.2
      - Subnet mask : 255.192.0.0

Case 1: Connect with two MVS groups. (cont.)

2. Register switchers and create shared folder on Data Manager.
   I. Access to the Data Manager on web browser.
   II. Click “Setting” which is located left bottom.
   III. Click “Add” which is located right bottom.
   IV. Fill “SWITCHER NAME”, “SWITCHER IP” and “FOLDER” as follows.
      - “SWITCHER NAME” : “Switcher A”
        - Display name of this switcher system.
      - “SWITCHER IP” : “10.129.1.1”
        - IP address of the menu to connect with. (10. <128 + Group ID>.1.<Unit ID>)
      - “FOLDER” : “switcher_a”
        - The folder name for this switcher. The folder “D:\MDM\Island01\Archives\<FOLDER>” will be created.
   V. Click “Save” which is located right bottom.

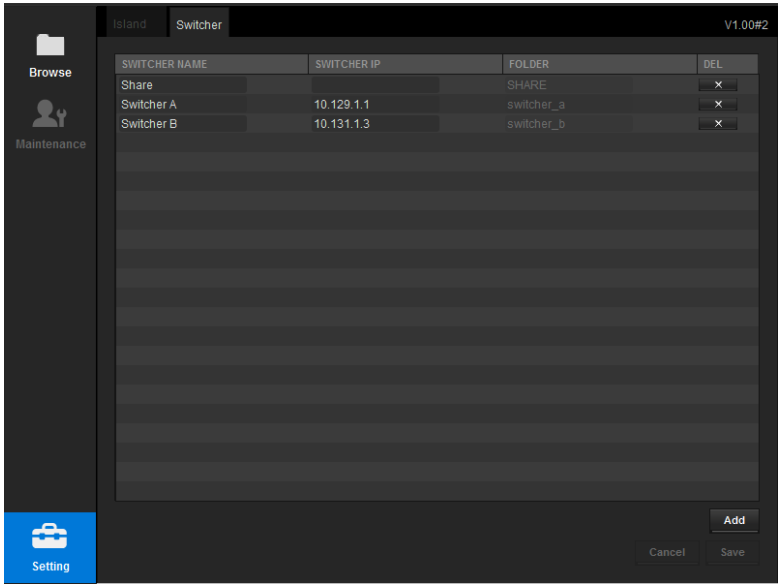
Case 1: Connect with two MVS groups. (cont.)

VI. Repeat steps III to V to register **Switcher B** with Data Manager.

- At step IV, input as follows.
  - “SWITCHER NAME” : “Switcher B”
  - “SWITCHER IP” : “10.131.1.3”
  - “FOLDER” : “switcher_b”

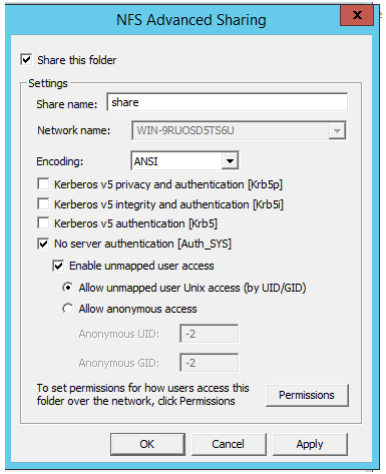
VII. Repeat steps III to V to create shared folder on Data Manager.

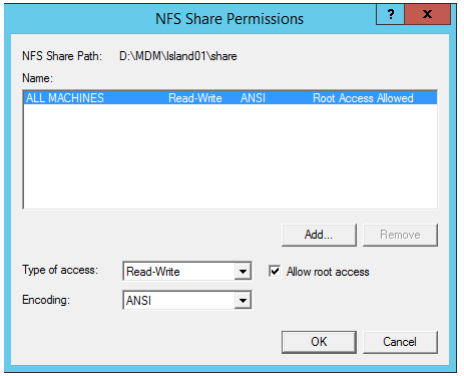
- At step IV, input as follows.
  - “SWITCHER NAME” : “Shared”
  - “SWITCHER IP” : “” (Leave blank)
  - “FOLDER” : “shared”



Case 1: Connect with two MVS groups. (cont.)

3. Change Authority of shared folder created in Step 2.
   - I. Access the “D:\MDM\Island01\Archives” with explorer on the Data Manager server.
   - II. Right click the folder “shared”, and select “Properties”.
   - III. Select “NFS Sharing” tab and click “Manage NFS Sharing”.
   - IV. Check “Share this folder”.
   - V. Uncheck “Kerberos v5 ***” （3 places）.
   - VI. Click “Permissions”.
   - VII. Select “Read-Write” for “Type of access”, check “Allow root access” and click “OK”.
   - VIII. Click “Apply”.



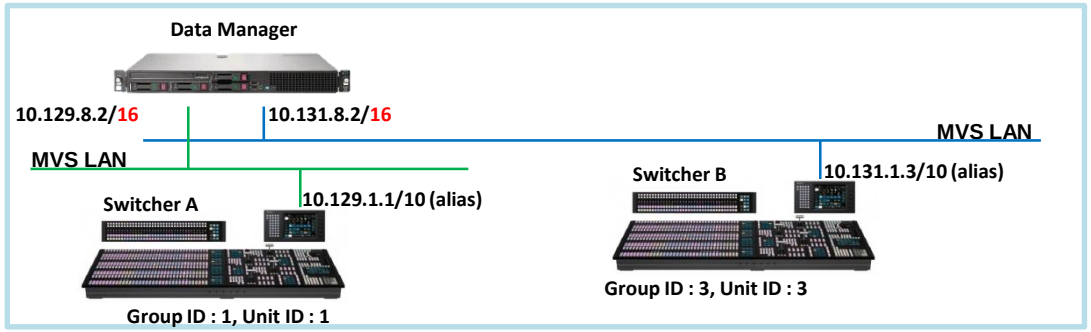


Case 1: Connect with two MVS groups. (cont.)

4. Configure NFS on the menu of Switcher A and Switcher B.
   - I. Configure NFS Server.
     - i. Go to Menu 7311.98
     - ii. Perform the following setting.
       - Server Address : “10.129.8.2”
       - Shared Directory : “shared”
       - Mount Option : Leave as it is.
     - iii. After finishing the setup, press [Define].
   - II. Enable NFS.
     - i. Go to Menu 7311
     - ii. Select [NFS Mount] to enable.

Case 2: Connect with two XVS groups.

- Case 2: Connect with two XVS groups.



– Data Manager should be connected to the menu via MVS LAN when connecting with XVS switchers.

Case 2: Connect with two XVS groups. (cont.)

1. Set IP address to the NICs which connect to the MVS LAN network.
   I. Right click on Network Icon which is located right bottom, and select "Open Network and Sharing Center".
   II. Click “Change adapter settings” in the left menu.
   III. Right click Ethernet which connect to the **Switcher A**, and select “Properties”.
   IV. Select “Internet Protocol Version4 (TCP/IPv4)” and click “Properties”.
   V. Select “Use the following IP address” radio button, and input “IP address” and “Subnet mask”.
      - IP address : 10.129.8.2
      - Subnet mask : 255.255.0.0
   VI. Right click Ethernet which connect to the **Switcher B**, and select “Properties”.
   VII. Select “Internet Protocol Version4 (TCP/IPv4)” and click “Properties”.
   VIII. Select “Use the following IP address” radio button, and input “IP address” and “Subnet mask”.
      - IP address : 10.131.8.2
      - Subnet mask : 255.255.0.0

Case 2: Connect with two XVS groups. (cont.)

2. Register switchers and create shared folder on Data Manager.
   I. Access to the Data Manager on web browser.
   II. Click “Setting” which is located left bottom.
   III. Click “Add” which is located right bottom.
   IV. Fill “SWITCHER NAME”, “SWITCHER IP” and “FOLDER” as follows.
      - “SWITCHER NAME” : “Switcher A”
        - Display name of this switcher system.
      - “SWITCHER IP” : “10.129.1.1”
        - IP address of the menu to connect with. (10. <128 + Group ID>.1.<Unit ID>)
      - “FOLDER” : “switcher_a”
        - The folder name for this switcher. The folder “D:\MDM\Island01\Archives\<FOLDER>” will be created.
   V. Click “Save” which is located right bottom.

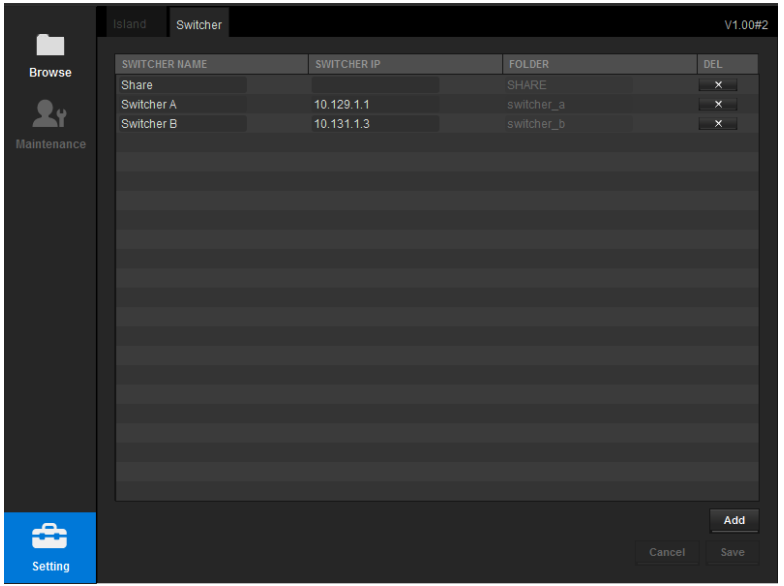
Case 2: Connect with two XVS groups. (cont.)

VI. Repeat steps III to V to register **Switcher B** with Data Manager.

- At step IV, input as follows.
  - “SWITCHER NAME” : “Switcher B”
  - “SWITCHER IP” : “10.131.1.3”
  - “FOLDER” : “switcher_b”

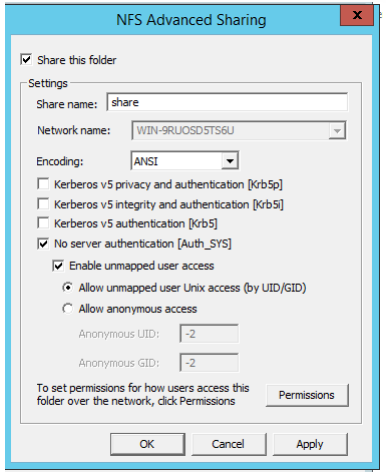
VII. Repeat steps III to V to create shared folder on Data Manager.

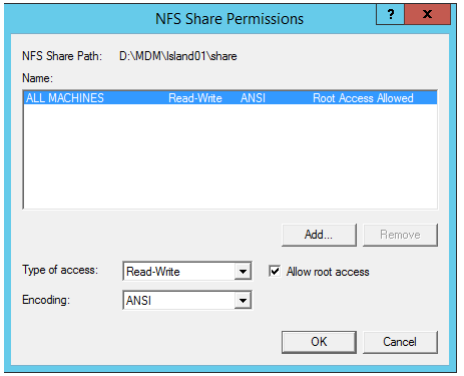
- At step IV, input as follows.
  - “SWITCHER NAME” : “Shared”
  - “SWITCHER IP” : “” (Leave blank)
  - “FOLDER” : “shared”



Case 2: Connect with two XVS groups. (cont.)

3. Change Authority of shared folder created in Step 2.
   - I. Access the “D:\MDM\Island01\Archives” with explorer on the Data Manager server.
   - II. Right click the folder “shared”, and select “Properties”.
   - III. Select “NFS Sharing” tab and click “Manage NFS Sharing”.
   - IV. Check “Share this folder”.
   - V. Uncheck “Kerberos v5 ***” （3 places）.
   - VI. Click “Permissions”.
   - VII. Select “Read-Write” for “Type of access”, check “Allow root access” and click “OK”.
   - VIII. Click “Apply”.





Case 2: Connect with two XVS groups. (cont.)

4. Configure NFS on the menu of Switcher A and Switcher B.
   I. Configure NFS Server.
      i. Go to Menu 7311.98
      ii. Perform the following setting.
         – Server Address : “10.129.8.2” (Switcher A) / “10.131.8.2” (Switcher B)
         – Shared Directory : “shared”
         – Mount Option : Leave as it is.
      iii. After finishing the setup, press [Define].
   II. Enable NFS.
      i. Go to Menu 7311
      ii. Select [NFS Mount] to enable.
5. Add IP address alias to the menu of Switcher A and Switcher B.
   I. Go to Menu 7311.99
   II. Select [Data LAN] to enable.

Operation

Operation of Data Manager

- Get data from the switcher.
- Manage data on the Data Manager.
  - Copy data.
  - Create new folder.
  - Delete data.
- Configure switchers.