

CATCenter – Communication modules



Activation & Operating Instructions

- PUSH/GET Function
- TS Function
- IP Switching

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1 Introduction

1.1 General

This manual describes optional functions that expand the standard functionality of the **CATCenter system**. In general, these functions apply to all **CATCenter systems**. Exceptions are noted separately within the applicable chapters.

All functions described in this manual must be activated using an activation code. This procedure is described once in [Chapter 1.2](#).

The functions to be activated are described in [Chapter 2](#) and up.

The functions are explained in the following order:

- [Chapter 2](#): PUSH/GET Function
- [Chapter 3](#): TS Function
- [Chapter 4](#): IP Switching

These chapters describe both the setup and the operating steps.

1.2 Activating New Functions

The CATCenter system can be adapted using functions, which are available at an additional charge. Currently, three moduls are available to you:

- Push/Get function: Function modul for 1 CATCenter cluster to push your own or to get other screen contents
- TradeSwitching function: Function modul for 1 CATCenter cluster to operate several UCON (screens / targets) with only 1 keyboard and mouse.
- IP switching: Function modul for client-side integration of the IP operation of a CATCenter X8 system (a system can consist of one or more clusters). This function includes the TradeSwitching function.

2 PUSH/GET Function

2.1 Description

Using the **CATCenter**, you have the option of accessing the screen contents of a console on one or more additional consoles via **AdonIS** by using keyboard commands. The following variations are available:

- Access the screen contents including the keyboard and mouse of your own console from another console.
- Access the screen contents of another console on your own console.

2.2 Prerequisites

To carry out the procedures described in this chapter, you have to log on as **Administrator** or as a **user with PUSH/GET rights** (corresponding configuration in **AdonIS**, see [Chapter 2.3](#)).

2.3 Assigning PUSH/GET Rights

You can assign **PUSH/GET rights** to users and user groups of this system in addition to the administrator.

2.3.1 Assigning PUSH/GET Rights to Users

To assign **PUSH/GET rights** to a user, proceed as follows:

1. Open **AdonIS** using the hotkey combination **CTRL + NUM** (default).
2. Press the **F11** key; the **Configuration** menu opens.
3. Move to the entry **User** with the mouse or the cursor keys on your keyboard and press **ENTER**.
4. In the open **USER CONFIG** submenu, use the mouse or the cursor keys on your keyboard to move to a user to which you want to assign **PUSH/GET rights**.
5. Then press the **F5** or the **ENTER** key; the **Edit User** submenu opens.

Edit User		User 1
Username		
User Password		
Group membership		
Edit Config rights...		
Edit Operation rights...		
Edit target access rights...		
Edit Personal Profile...		
New target rights	full	no
Edit Push/Get rights		
ESC	TAB	F2: Save

6. Move to the entry **Edit Push/Get rights** with the mouse or the cursor keys on your keyboard and press **ENTER**. The **Push/Get rights** submenu opens.

Push/Get Right		User 2
Set all consoles		no
CON 00001047	yes	no
CON 00001840	yes	no
CON 00004667	yes	no
CON 00012747	yes	no
SPACE: Toggle		
Esc	TAB	F2 Save

In this menu, you will see two values in the right column:

- The individual rights of the selected user are displayed in a yellow font. These can be edited within this menu.
- The effective rights of the selected user are displayed in a green font. These cannot be edited within this menu. These entries represent the maximum rights (effective rights) composed of the individual rights and the group rights.

For additional information regarding "Individual, Group, and Effective Rights", please see the "CCX8 Operation Guide", [Chapter 5.1.1.2 and the following](#).

The left column of this submenu displays the consoles for which the **PUSH/GET function** is available.

In this window, you can use "**Set all consoles**" to set all entries to one of the following values:

- **Yes** (Push/Get rights assigned to the console) or
- **No** (Push/Get rights to the console withdrawn)

Use the **TAB** key to access this pre-select field. Use the **Space** bar (toggle) to change the values within the "**Set all consoles**" field.

You can also assign **Push/Get rights** to the user selectively for each console displayed in this list. To do so, select the desired entry and then change it to either "Yes" or "No".

Use the **ESC** key to exit the **Push/Get rights** submenu. If you have made any changes up to this point but wish to exit the **Push/Get rights** submenu without saving your changes, a notification message to that effect will be displayed.

To save the changes you have made, press the **F2** key and return to the **EDIT USER** submenu.

Default setting: No

2.3.2 Assigning PUSH/GET Rights to User Groups

To assign **Push/Get rights** to a user group, proceed as follows:

1. Open **Adonis** using the hotkey combination **CTRL + NUM** (default).
2. Press the **F11** key; the **Configuration** menu opens.
3. Move to the entry **User Group** with the mouse or the cursor keys on your keyboard and press **ENTER**.
4. In the open **USER GROUP CONFIG** submenu, use the mouse or the cursor keys on your keyboard to move to a user group to which you want to assign **PUSH/GET rights**.
5. Then press the **F5** or the **ENTER** key; the **Edit User Group** submenu opens:

Edit User Group		Office
Group name		
Member Management		
Edit Config rights...		
Edit Operation rights...		
Edit target access rights...		
New target rights		full no
Edit Push/Get rights		
ESC	TAB	F2: Save

6. Move to the entry **Edit Push/Get rights** with the mouse or the cursor keys on your keyboard and press **ENTER**.

The **Push/Get rights** submenu opens.

Push/Get Right		Office
Set all consoles		no
CON 00001047		no
CON 00001840		no
CON 00004667		no
CON 00012747		no
SPACE: Toggle		
Esc	TAB	F2: Save

The left column of this submenu displays the consoles for which the **Push/Get function** is available.

In this window, you can use **"Set all consoles"** to set all entries to one of the following values:

- **Yes** (Push/Get rights assigned to the console) or
- **No** (Push/Get rights to the console withdrawn)

Use the **TAB** key to access this pre-select field. Use the **Space** bar (toggle) to change the values within the **"Set all consoles"** field.

You can also assign **Push/Get rights** to the user group selectively for each console displayed in this list. To do so, select the desired entry and then change it to either "Yes" or "No".

Use the **ESC** key to exit the **Push/Get rights** submenu. If you have made any changes up to this point but wish to exit the **Push/Get rights** submenu without saving your changes, a notification message to that effect will be displayed.

To save the changes you have made, press the **F2** key and return to the **EDIT USER GROUP** submenu.

Default setting: No

2.3.3 Differing Rights of the Source and Target Console -PUSH

Within the framework of the "**PUSH**" function, there can be two different states for the target console (the console receiving the image). Either the console is logged on (that is, it is in use by a user) or the console is logged off.

Console logged on:

If the target console is in use by a user then all effective access rights for this user are assigned to the available targets. The effective access rights can be viewed in the corresponding column of the **Edit Target Access Rights** menu (see [Chapter 5.1.1.5 of the CCX8 Operation Guide – Edit Target Access Rights](#)).

If screen contents are now assigned to this user, then all settings from the **Edit Target Access Rights** menu are adopted.

- If this user has "**Full**" access rights to the assigned target then he or she has complete keyboard and mouse control. All **Adonis** rights assigned to him or her also continue to be available.
- If this user has "**View**" access rights, then he or she can only look at the assigned display; keyboard and mouse access are not possible.

- If you should attempt to assign your screen contents to a user on his or her console but this user does not have access rights ("**No**"), then the following message is displayed:

Confirm
User Mueller has no right to access target CPU-ID 0000029
Do you want to temp. override?
ESC: Cancel Enter: OK

You can choose to grant the user temporary full access rights to the target by pressing **ENTER**, or to cancel the "**PUSH**" process by pressing **ESC**.

Console logged off:

If the target console to which you want to assign the screen contents is logged off, you can still carry out the push process.

In this case, a virtual user is created for the push process. In this instance, the virtual user receives the user rights of the source console user. However, active access to the OSD is not possible within the **PUSH** process on the target console. To receive this access, the virtual user has to terminate the **PUSH** process. To terminate the push process, the target console user has to press **CTRL + NUM**. The following message is displayed on the screen:

Confirm
This user has been temporarily created by the Push-function.
AdonIS cannot be operated. Do you want to logout?
ESC: Cancel Enter: OK

If you press the **ENTER** key, the virtual user exits the **PUSH** function and the login dialogue is displayed.

Pressing the **ESC** key returns the user to the "pushed" display of the source console.

2.3.4 Differing Rights of the Source and Target Console - GET

To carry out the "GET" function, you first have to log on to a console. Therefore, your rights are also applied to a connection within the GET function.

2.3.5 Special Case "OpenAccess Console" and "Video Console"

There are three different console types in **CATCenter**. Currently, these are:

- Standard console (for the standard console, the access rights are derived from the login of the respective user as described in [Chapters 2.3.1 – 2.3.4](#))
- Video console
- OpenAccess console

For a video console, you are also unable to edit **Push/Get rights**. For this type of console, all you can do is assign display contents using "PUSH" or access the display contents on other consoles using the "Get" function. The entry in the **Edit Console** submenu (see [Chapter 5.6.1 of the CCX Operation Guide](#)) cannot be selected.

On the other hand, **Push/Get rights** have to be assigned for an **OpenAccess** console. With OpenAccess, it is possible to enable system access to the CATCenter individually for every console without entering a login name and password. The system does not know which user is currently working on such a console. To assign **Push/Get rights**, proceed as follows:

1. Open **Adonis** using the hotkey combination **CTRL + NUM** (default).
2. Press the **F11** key; the **Configuration** menu opens.
3. Move to the entry **Console** with the mouse or the cursor keys on your keyboard and press **ENTER**.
4. In the open **CONSOLE CONFIG** submenu, use the mouse or the cursor keys on your keyboard to move to an OpenAccess console to which you want to assign **PUSH/GET rights**.

5. Then press the F5 or the **ENTER** key; the **Edit Console** submenu opens.

Edit Console	
Console name	CON00001245
Edit Config rights...	
Edit Operation rights...	
Edit target access rights...	
Edit Personal Profile	
New target rights	full
Edit Push/Get rights...	
Auto Logout	00 off
Screensaver time	00 off
Scancode set	2
OSD keyboard layout	German
OSD by mouse	no
Remember last user name	yes
Numlock emulation	no
Keyboard required	no
OSD blocked	no
Multi LED keyboard	no
Reset console video data	
Video	
ESC	TAB: Edit Name F2: Save

6. Move to the entry **Edit Push/Get rights** with the mouse or the cursor keys on your keyboard and press **ENTER**. The **Push/Get rights** submenu opens.

Push/Get Right	
Set all consoles	no
CON 00001047	no
CON 00001840	no
CON 00004667	no
CON 00012747	no
SPACE: Toggle	
Esc	TAB F2 Save

The left column of this submenu displays the consoles for which the **Push/Get function** is available.

In this window, you can use "**Set all consoles**" to set all entries to one of the following values:

- **Yes** (Push/Get rights assigned to the console) or
- **No** (Push/Get rights to the console withdrawn)

Use the **TAB** key to access this pre-select field. Use the **Spacebar** (toggle) to change the values within the "**Set all consoles**" field.

You can also assign **PUSH/GET rights** to the OpenAccess console selectively for each console displayed in this list. To do so, select the desired entry and then change it to either "Yes" or "No".

Use the **ESC** key to exit the **Push/Get rights** submenu. If you have made any changes up to this point but wish to exit the **Push/Get rights** submenu without saving your changes, a notification message to that effect will be displayed.

To save the changes you have made, press the **F2** key, and return to the **EDIT CONSOLE** submenu.

Default setting: No

2.4 Pushing the Screen Contents

To carry out the functions described in **Chapter 2**, you first have to access the **SELECT** menu with the key combination **CTRL + NUM** (default).

You can also push screen contents without being connected to a computer. To do so, you have to mark a target in the **SELECT** menu (black bar) and then press the hotkey used for pushing.

The following keys are available to you in the **SELECT** menu to push the screen contents.

F7 Calls the **PUSH** function

F8 Calls the **GET** function

Changing the hotkeys as described in Chapter 5.8.1 of the CCX Operation Guide has no effect on this hotkey combination!

2.4.1 PUSH Function

2.4.1.1 Pushing the Screen Contents

Access the **Push target submenu** by pressing the key **F7** in the **SELECT** menu. The consoles you can push to are displayed here. Your own console is not included in this list.

Push target: CPU-ID 0000209	
Console	Target
CON 00303047	CPU-ID 00007159
CON 00056940	not connected
F3: Refresh ESC : Select	F4: Disconnect ENTER: Push

The CPU ID of the target being pushed is displayed in the header next to the "Push target" field. The following keys are available to you in this menu:

- **F3** key: Refresh the contents of this window
- **F4** key: Disconnects the current target allocation of the console selected in this list
- **ESC** key: Returns to the **SELECT** menu
- **ENTER** key: Select a console as the target of the push function and initiate the **Push** function

This menu displays the following information:

CON 00303047	CPU-ID 0000209
Console you can push to (the name can be edited, see Chapter 5.6.1 of the CCX Operation Guide)	Physical name of a target being accessed from this console (the name can be edited, see Chapter 5.3.1.1 of the CCX Operation Guide).
CON 00056940	Not connected
Console you can push to (the name can be edited, see Chapter 5.6.1 of the CCX Operation Guide)	The console is not connected to a target

In this function, it is possible to push the screen contents of your console or those of another computer (can be selected from the **SELECT** menu by marking with the cursor) to another screen, either for further processing or to

view the contents. The target console you are pushing to can also be a projection device (video console) connected there.

Use the keyboard or the mouse to place the cursor on the console to which you want to push your screen contents. Confirm your selection with **ENTER** (or click the left mouse button).

The screen contents from your own console now appear on the selected target console. In addition, **MULTIUSER** mode has been temporarily activated and is shown on the display of your own console and the target console.

CON 00001492	(Console name, editable)
CPU-ID 00000209	(Target name, editable)
MULTIUSER	Note regarding shared access

The "**MULTIUSER**" label (see [Chapter 5.8.4 of the CCX Operation Guide](#)) is displayed only after you have closed all menu windows.

2.4.1.2 Pulling New Screen Contents

During an active push function, you also have the ability to connect to another target in the **SELECT** menu. In order to also push the screen contents of the new target you are connected to, repeat the steps described in [chapter 2.6.1.1](#).

2.4.1.3 Canceling the Push Function

If you wish to cancel the console-target assignment, you first have to open the **SELECT** menu at your own console by pressing the key combination **CTRL + NUM**. Subsequently, activate the **PUSH** function with the key **F7**.

Use the cursor to select the console entry to which you have pushed the screen contents. Now press **F4**. This deactivates the target assignment on the other console, and the other console is automatically disconnected from this target (**DISCONNECT** see [Chapter 3.4 of the CCX Operation Guide](#)). The **SELECT** menu appears on this console immediately.

In addition, the **MULTIUSER** label disappears from your own console.

2.4.1.4 Access without Push Rights

If push rights to other consoles have not been assigned to a user or an OpenAccess console, the following note appears in pink in the footer of the **SELECT** menu after the push function is called with the key **F7**:



Please ensure if you have get rights as a user. In case of doubt, please contact your system administrator.

Default: Push function is denied for all users except for the **ADMINISTRATOR**.

2.4.2 GET Function

2.4.2.1 Getting Screen Contents

Access the **GET** submenu by pressing the key **F8** in the **SELECT** menu. The consoles (source consoles) from which you can pull the screen contents to your own console (target console) are shown here. Your own console is not included in this list.

Get target Console	Target
CON 00303047	CPU-ID 00000209
CON 00001047	not connected
CON 00007477	no target right
CON 00056940	CPU-ID 00020685
F3: Refresh ESC : Select	
ENTER: Get	

The following keys are available to you in this menu:

- **F3** key: Refresh the contents of this window
- **ESC** key: Returns to the **SELECT** menu
- **ENTER** key: Manually select the console as the source of the get function and initiate the **Get** function

This menu displays the following information:

CON 00303047	CPU-ID 00000209
Console you can pull screen contents from (the name can be edited, see Chapter 5.6.1 of the CCX Operation Guide)	Physical name of a target being accessed from this console.

CON 00001047	not connected
Console you can pull screen contents from (the name can be edited, see Chapter 5.6.1 of the CCX Operation Guide)	The console is not connected to a target

CON 00007477	no target right
Console you can pull screen contents from (the name can be edited, see Chapter 5.6.1 of the CCX Operation Guide)	The console does not possess rights to access the target.

In this function, you have the ability to pull screen contents from another console (source console) to your own screen, either for further processing or to view the contents.

You can also pull screen contents from a projection device (video console) connected to a console to your own console.

Use the keyboard or the mouse to place the cursor onto the source console from which you want to pull the screen contents onto the screen of your own console. Confirm your selection with **ENTER** (or click the left mouse button).

The screen contents of the source console now appear on your own console. In addition, **Multiuser** mode has been temporarily activated and is shown on the display of your own console and the source console.

CON 00001492 (Console name, editable)
CPU-ID 00000209 (Target name, editable)
MULTIUSER Note regarding shared access

2.4.2.2 Getting New Screen Contents

During an active get function, you also have the ability to get the screen contents of another target to your own console.

To do so, repeat the steps described in [Chapter 2.4.2.1](#).

2.4.2.3 Terminating GET Mode

If you wish to deactivate this mode, you first have to open the **SELECT** menu on the local console by pressing the key combination **CTRL + NUM (default)**.

To deactivate **GET** mode, simply select another target here.

After you select another target using the cursor, the **MULTIUSER** mode label disappears from the screen immediately and the screen contents of the selected target are displayed on your local console.

2.4.2.4 Access without Get Rights

If you try to use the **GET** function without get rights or if the get function is not enabled on your console, you will receive the following warning message:



The **SELECT** menu is displayed once again after pressing any key.

Please ensure if you have get rights as a user. In case of doubt, please contact your system administrator.

Default: Get function is denied for all users except for the **ADMINISTRATOR**.

3 TS Function

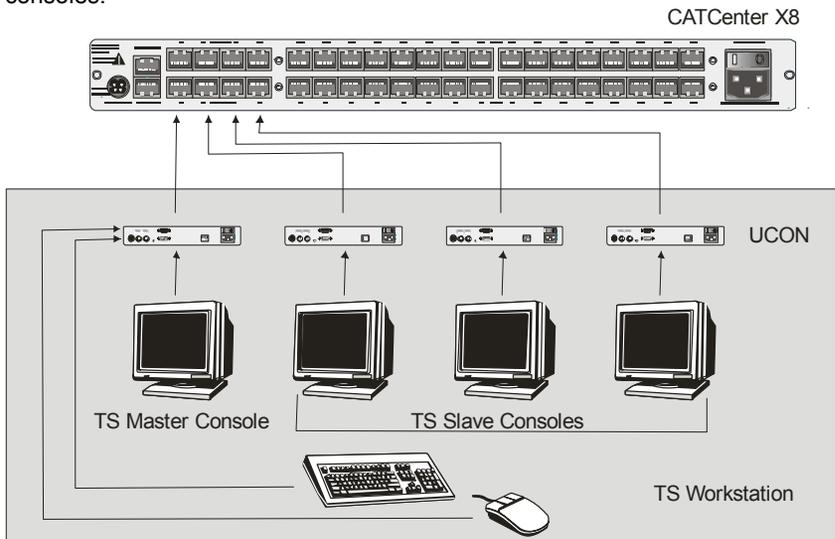
3.1 Description

With the TS function, you can combine up to 8 UCONs into a TS workstation.

The special feature is that a keyboard and mouse have to be connected to just one of the 8 UCONs (TS master console).

The operation of the other consoles (TS slave consoles) takes place by switching the keyboard and mouse inputs of the TS master console to each of the TS slave consoles.

Each UCON has a monitor connected to it. Example of a workstation with 4 consoles:



For example, when four consoles form a workstation, this workstation consists of:

- 1 keyboard
- 1 mouse
- 4 monitors
- 4 UCONs (1 with K/M connection, 3 without K/M connection)

Within this workstation (grey background), there is one TS master console. You can configure this console as a master console (see [Chapter 3.5.2.4](#)). Within the TS workstation, the TS master console is the only one that has a keyboard and mouse connected. Furthermore, this console displays information that identifies which TS console within the workstation currently has the keyboard and mouse assigned to it.

Each UCON can become the TS master console or a TS slave console.

On the other hand, the remaining consoles are informed that the keyboard and mouse has been assigned to this console. This display option can also be activated (see [Chapter 3.4](#)). The keyboard and mouse assignment identifies the console in the TS workstation to which the keyboard and mouse connected to the TS master console are currently assigned.

Switching either takes place via hotkeys or it can be combined with the optional **IP switching** function. These hotkeys can be configured (see [Chapter 3.3](#)). To provide visual feedback regarding the monitor to which the keyboard and mouse are currently assigned, it is also possible to attach LEDs connected to a **UCON** to the respective monitors.

3.2 Rights

Every user logged on to the system has the rights required to carry out the functions described in this chapter.

3.3 Assigning Hotkeys to the TS Function

A switching process must be carried out in order to change the keyboard and mouse assignment to another console within a TS workstation. This switching process takes place via hotkeys. The hotkeys for the TS function are deactivated by default. Therefore, you should define the desired hotkeys before configuring the workstation. To do so, proceed as follows:

1. Open **AdonIS** using the hotkey combination **CTRL + NUM** (default).
2. Press the **F11** key; the **Configuration** menu opens.
3. Move to the entry **System** with the mouse or the cursor keys on your keyboard and press **ENTER**.
4. In the open **System Menu**, select the entry **TradeSwitch Key** with the mouse or the arrow keys on your keyboard.

System Config	
HotKey	STRG
Double Hotkey	no
Selectkey	0...9
Tradeswitch Key	off
Multi User Display	off
RS232 Service	HardBoot
RS232 Baudrate	9600
System Name	CCX
Features	0000123c
Set Systems Defaults	
Reset Netfilter Configuration	
ESC	F2: Save

By pressing the **SPACE** bar, you can select between the following alternatives:

- **NUM0 .. NUM9**
- **F1 .. F10**
- **A..K**

The menu entry OFF turns the TS hotkeys off.

To save the settings, exit the menu with **F2**.

3.4 Activating / Deactivating the TS Display

In addition to switching the keyboard and mouse assignment, you can activate the TS display for additional information. This is deactivated by default.

The TS display provides you with the following information:

- If you are working on the *TS master console*, the display shows to which console within the TS workstation the keyboard and mouse are currently assigned. This is shown in red on the display:

CON 00001492 (Your own console name, editable)
Forwarding to (Note regarding keyboard and mouse assignment)
CON 00001556 (Target console name, editable)

- If you are working on a *TS slave console*, the display indicates that the keyboard and mouse have been assigned to this console. This is shown in green on the display:

CON 00001492 (Your own console name, editable)
CPU-ID 00000309 (Target currently being accessed)
FORWARDED (Note that the keyboard and mouse have been assigned to this console)

- If you use this function to access a target, which is already being used by another user, you are notified of this fact by a multi-user display. This is also shown in green on the display:

CON 00001492 (Your own console name, editable)
CPU-ID 00000309 (Target currently being accessed)
MULTIUSER FORWARDED (Note that the keyboard and mouse have been assigned to this console, including multi-user notification)

To activate the TS display, proceed as follows:

1. Open **AdonIS** using the hotkey combination **CTRL + NUM** (default).
2. Press the **F11** key; the **Configuration** menu opens.
3. Move to the entry **Console** with the mouse or the cursor keys on your keyboard and press **ENTER**.
4. In the open **Console Config** submenu, select the console entry you want to modify with the mouse or the arrow keys on your keyboard.

Console Config		
CON 0000028		Standard
CON 0000029		Standard
CON 0000030		OpenAccess
CON 00000138		Standard
F4: Delete	F5 Edit	SPACE: Toggle type
F6 Enable / Disable		F2: Save

Open the following submenu by pressing the **F5** key or the **ENTER** key:

Edit Console	
Console name	CON00001245
Edit Config rights...	
Edit Operation rights...	
Edit target access rights...	
New target rights	full
Auto Logout	00 off
Screensaver time	00 off
Scancode set	2
OSD keyboard layout	German
OSD by mouse	no
Remember last user name	yes
Numlock emulation	no
Keyboard required	no
Display Tradeswitching	no
OSD blocked	no
Reset console video data	
Video	
ESC	TAB: Edit Name F2: Save

The **Display Tradeswitching** line allows you to set the display for the tradeswitch function to one of the following values:

- Temporary => **Yes** (disappears approx. 5 seconds after switching)
- Off => **No** (display is not shown)

This setting can be established for the TS slave consoles. On the TS master console, the display is permanently visible.

After you move the cursor to the **Display Tradeswitching** field, you can use the **SPACEBAR** (toggle) to select the desired option (**Yes/No**).

Note:

You have to establish these settings for every console you wish to integrate into a tradeswitching workstation.

Default setting: Yes

3.5 Configuring a Workstation

Create and configure a workstation after carrying out the steps in [Chapter 3.3](#) and [3.4](#).

3.5.1 Creating a Workstation

To use the tradeswitch function, you must first define a workstation.

To do so, proceed as follows:

1. Open **AdonIS** using the hotkey combination **CTRL + NUM**
2. Press the **F11** key; the **Configuration** menu opens.
3. Move to the entry **Tradeswitch function** with the mouse or the cursor keys on your keyboard and press **ENTER**.

G & D Configuration	
User	
User Group	
Target	
Target Group	
Video	
Console	
Cascade	
System	
Power	
Network	
Tradeswitch function	
Esc: Select	F9: Operation
F10: Pers. Profile	F12: Info

The **Tradeswitch Function Config** submenu opens:

Tradeswitch Function Config	
F3: Add	F4: Delete
F5: Edit	ESC

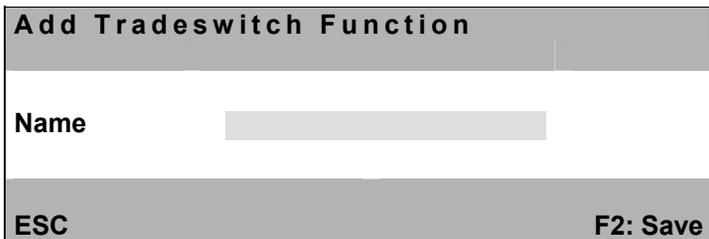
Three different **F**-keys are available to you for editing tasks in the footer of the **Tradeswitch Function Config** submenu.

In particular, these are:

- **F3**: Add Use this key to add a new TS workstation (see [Chapter 3.5.1.1](#))
- **F4**: Delete Use this key to delete an existing TS workstation (see [Chapter 3.5.1.2](#))
- **F5**: Edit Use this key to edit an existing TS workstation (see [Chapter 3.5.2](#))
- **ESC**: Use this key to exit the current menu and return to the **Configuration** menu

3.5.1.1 Creating a TS Workstation

If you want to create a new TS workstation, press the **F3** key in the **Tradeswitch Function Config** submenu. The following window is opened:



The screenshot shows a dialog box titled "Add Tradeswitch Function". It contains a text input field labeled "Name". At the bottom left of the dialog, the text "ESC" is displayed, and at the bottom right, the text "F2: Save" is displayed.

Assign a unique name for this TS workstation in the **NAME** field. A maximum of 14 alphanumeric characters is available to you for this purpose.

To save the changes you have made, press the **F2** key. Subsequently, you are returned to the **Tradeswitch Function Edit** submenu.

Press **ESC** to exit the menu without saving the changes you have made.

3.5.1.2 Deleting a TS Workstation

You can remove a TS workstation from the CATCenter system within the **Tradeswitch Function Config** submenu by pressing the **F4** key. The following confirmation message is displayed:

Confirm	
Do you really want to delete Workplace Control Desk 1?	
ESC : Cancel Enter: OK	

Press **ESC** to cancel the deletion.

Press **ENTER** to confirm deletion.

3.5.2 TS Workstation Settings

As the next configuration step, you have to establish settings – according to your preferences - for the TS workstation you have created.

In the **Tradeswitch Function Config** submenu, select the TS workstation you have created and press either the **F5** key or **ENTER**.

The following menu opens:

Tradeswitch Function Edit			
Name	Key	Master	Control Desk 2 Channel
1	A	X	CPU-ID 0000209
2	B	-	
3	C	-	
4	D	-	
5	E	-	
6	F	-	
7	G	-	
8	H	-	
9	I	-	
10	K	-	
F9: Console		TAB	F10 : CPU
F4: Delete			F6 : Edit Master

You can use the **Name** field to edit a workstation you have already created, via the keyboard. Use the **TAB** key to move to this field. After you have moved to this field using the **TAB** key, edit mode is immediately active and the blinking

cursor is positioned at the first edit position. Complete your entry by pressing **ENTER**. The cursor moves to the first position within the list box.

The meaning of the columns within this window is as follows:

- Column 1 **Key**: This column lists the tradeswitch keys set to carry out the tradeswitch function (see [Chapter 3.3](#))
- Column 2 **Master**: The UCON (to which the physical keyboard and mouse are connected) which acts as the TS master console within the workstation is identified in this column (see [Chapter 3.5.2.4](#))
- Column 3 **Channel**: This column shows whether a console or a target has been assigned to this channel. Access this channel using the tradeswitch keys you have defined (see column 1).

Four different **F** keys are available to you for editing tasks in the footer of the **Tradeswitch Function Edit** submenu.

In particular, these are:

- F9**: Console Use this key to assign a console to this TS workstation (see [Chapter 3.5.2.1](#))
- F4**: Delete Use this key to remove a console or target from a TS workstation (see [Chapter 3.5.2.2](#))
- F10**: CPU Use this key to assign a target to this TS workstation (see [Chapter 3.5.2.3](#))
- F6**: Edit Master Use this key to define a console as the TS master console (see [Chapter 3.5.2.4](#))

These editing functions are explained in more detail in the following chapters.

All editing tasks carried out up to this point can be saved by pressing the **F2** key.

Press **ESC** to exit the **Tradeswitch Function Edit submenu**. If you have made any changes up to this point but wish to exit the **Tradeswitch Function Edit** submenu without saving your changes, a warning message to that effect will be displayed.

3.5.2.1 Adding a Console to a TS Workstation

To add a console to a TS workstation you have created, first use the cursor keys on your keyboard to select the position in the **Tradeswitch Function Edit** submenu where you wish to insert the console. A black bar within the list box identifies the row, which is currently selected. Subsequently, press the **F9** key in the **Tradeswitch Function Edit** submenu.

The following window is opened:

Console Select	
▶ CON 00001047	Standard
CON 00001003	Standard
CON 00120330	Standard
ESC	Enter

Now select a console you wish to add from this list.

Your own console is identified by a red triangle in front of the console name.

To add a console to the workstation, press **ENTER**. Subsequently, you are returned to the **Tradeswitch Function Edit** submenu.

Press **ESC** to exit the menu without saving the changes you have made.

After you select a console, it is entered in the **Tradeswitch Function Edit** submenu in the row you selected.

3.5.2.2 Removing a Console or Target from a Workstation

To remove a console or target from a TS workstation you have created, first use the cursor keys on your keyboard to select the corresponding entry you wish to delete. Subsequently, press the **F4** key in the **Tradeswitch Function Edit** submenu.

The entry in the selected row is deleted.

3.5.2.3 Adding a Target to a Workstation

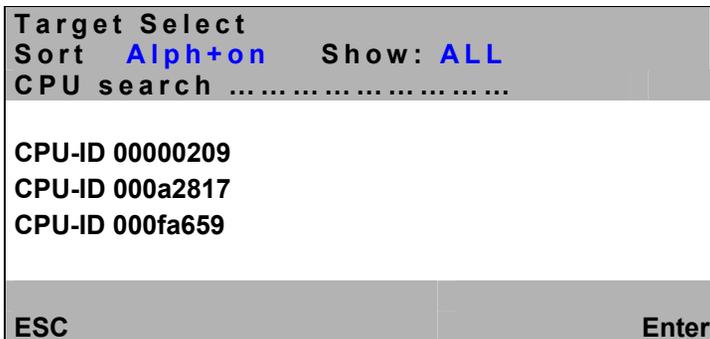
A target can only be connected to the CATCenter system with its keyboard and mouse interfaces using a **CATPRO2**. The VGA interface of the target is connected directly to a projection device. Therefore, you can connect to the target via the **SELECT** menu but you do not see a video signal.

This type of setup could be used, for example, in a control room where a computer is connected to the CATCenter with its keyboard and mouse interfaces but the video signals are transmitted from the computer directly to a projection device.

You can use the tradeswitch function to integrate this target into your TS workstation.

To add a target to a TS workstation you have created, first use the cursor keys on your keyboard to select the position in the **Tradeswitch Function Edit** submenu where you wish to insert the target. A black bar within the list box identifies the row, which is currently selected. Subsequently, press the **F10** key in the **Tradeswitch Function Edit** submenu.

The following window is opened:



The elements in the header of this submenu have the following meaning:

TAB / Change Sort Criteria (Sort Mode ► Alph+ ◀)

Press **TAB** in the **Target Select** submenu to move to the **sort field**. Change the sort criteria by pressing **SPACE** bar (toggle).

The following sort options are available:

- Alph+:** Ascending alphabetic sort of the targets
- Alph+on:**
 1. Ascending alphabetic sort of the connected (default) targets and subsequently
 2. Ascending alphabetic sort of the unconnected targets
- Alph-:** Descending alphabetic sort of the targets
- Alph-on:**
 1. Descending alphabetic sort of the connected targets and subsequently
 2. Descending alphabetic sort of the unconnected targets
- ID:** Displays the physical name of the CATPRO2

CPU Search Function



The **Tradeswitch Function Edit** submenu has a search function to find the desired target quickly. Enter the name of the desired target. The search is carried out as soon as you start entering characters.

Now select a target you wish to add from this list.

To add a target to the workstation, press **ENTER**. Subsequently, you are returned to the **Tradeswitch Function Edit** submenu.

Press **ESC** to exit the menu without saving the changes you have made.

After you select a target, it is entered in the **Tradeswitch Function Edit** submenu in the row you selected.

3.5.2.4 Defining the TS Master Console

A TS workstation must have a TS master console. The keyboard and mouse are connected to this console. Furthermore, this console displays information that identifies which TS console within the workstation currently has the keyboard and mouse assigned to it.

To establish which console within the TS workstation configuration is the TS master console, proceed as follows:

Open the **Tradeswitch Function Edit** submenu:

Tradeswitch Function Edit			
Name	Key	Master	Control Desk 2 Channel
1	A		CPU-ID 0000209
2	B	-	CON 00001047
3	C	-	CON 00001003
4	D	-	CON 00120330
5	E	-	
6	F	-	
7	G	-	
8	H	-	
9	I	-	
10	K	-	
F9: Console		TAB	F10 : CPU
F4: Delete			F6 : Edit Master

To establish a console as the TS master console, first select the row containing the desired console by using the cursor keys on your keyboard. A black bar within the list box identifies the row, which is currently selected. Subsequently, press the **F6** key in the **Tradeswitch Function Edit** submenu. An "X" appears in the column "Master". This "X" identifies the master console. To undo this assignment, press the **F6** key again.

Note:

This assignment will only work if the selected row contains a console. If the selected row contains a target, then the assignment cannot be made.

Please note that more than one TS workstation can be created on a CATCenter system. It is possible for some consoles to be included in several TS workstations. This configuration does not cause any problems. However, a console can be defined as a master console **only once** (that is, the same console cannot be the master console in more than one TS workstation).

3.6 Keyboard / Mouse Assignment

Once the workstation has been configured according to the instructions in [Chapter 3.3](#) to [3.5](#), the TS function can be used to switch the keyboard / mouse assignment.

AdonIS must not be opened during the switching process.

To switch the keyboard / mouse assignment, enter the following hotkey combination:

CTRL (default) + **TS function hotkey** (for the corresponding console)
e.g. **CTRL + F1**

If you have attached the optional tradeswitch LED to the monitor of the selected console then the LED is illuminated after the switching function has been carried out successfully.

Use the **Tradeswitch Function Edit** submenu to see which hotkey has been assigned to each console. Please note that this hotkey combination also depends on the system-wide hotkeys (see [Chapter 5.8.1](#) of the CATCenter Operation Guide) that have been established.

Note:

The hotkeys selected for the TS function may collide with the target switching hotkeys. You should definitely consider this when you configure the TS hotkeys; otherwise, reliable switching of the keyboard / mouse assignment cannot be guaranteed.

3.7 Resetting the Keyboard / Mouse Assignment

If you have switched the keyboard / mouse assignment from your own console to another console within your workstation and now wish to work with your own console again, you can switch back to your own console by entering the hotkey defined for your console in the **Tradeswitch Function Edit** submenu.

If you have attached the optional tradeswitch LED to the monitor of the selected console then the LED is illuminated after the switching function has been carried out successfully.

4 IP Switching

4.1 Description

This function is only available for the CATCenter X8.

The "**IP Switching**" add-on function makes it possible to operate a **CATCenter X8** using an external control unit (e.g. touch panel). In particular, the following operating elements are available to you:

- Connecting an attached console to a target via TCP/IP
- Disconnecting an attached console from a target via TCP/IP
- Viewing the status of the attached consoles
- Viewing a list of the attached targets
- Switching the keyboard / mouse assignment to another console (TS function); in order to do so, the TS function must be enabled (see [Chapter 3](#))

G&D supplies you with the following information for this purpose:

- Activation code to activate the "**IP Switching**" function in AdonIS
- A command line tool which can be used to carry out the above-mentioned functions
- A library you can use to carry out the above-mentioned operating elements within your own interface (e.g. touch panel)
- API documentation, including source code of the command line program

Both the command line tool and the library are available for both Windows and Linux. You will also find an API description in the folder (for Windows) "**catcenterclient_X_Y_Z.zip**" or (for Linux) "**catcenterclient_X_Y_Z.tgz**". **X_Y_Z** are placeholders for the version numbers.

Note:

By activating the "IP Switching" function, you have only prepared the CATCenter system for this add-on. You must program the respective functions supported by IP switching yourself.

You will also find an API description in the folder (for Windows) "**catcenterclient_X_Y_Z.zip**" or (for Linux) "**catcenterclient_X_Y_Z.tgz**".

4.2 Functionality of the "IP Switching" Function

In principle, the following moduls are available to you when you use the "IP Switching" function:

- **Connect CPU:** Connects a console to a target.

Prerequisite: A user with the corresponding rights (ViewOnly or FullAccess) is logged on to this console or it is an OpenAccess console with the required rights.

- **Disconnect CPU:** Disconnects a target from a console.
- **Get Connections:** View the connection data of the connected consoles.

The following information is returned for every connected console:

- Console ID
- Console name
- CPU ID (0 = not connected)
- CPU name
- User ID (0xFFFFFFFF = none logged on)
- User name
- ViewOnly

- **Get CPUs:** Lists the known CPUs. For every connected console, the following information is returned:
 - CPU ID (0 = not connected)
 - CPU name
- **Redirection : (TS Function)** Switching the keyboard and mouse assignment to another console within the a TS workstation:

This function corresponds to the application described in [Chapter 3](#). No configurations are required in the CATCenter for the function mentioned here.

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