

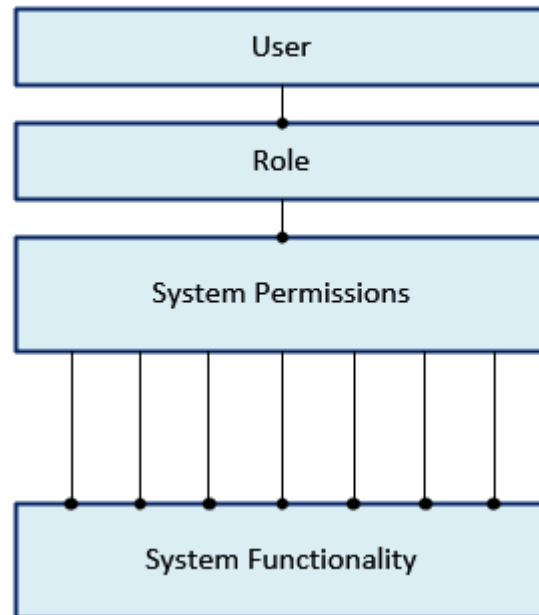
Multi-Team Environment Implementation Overview

Blue Prism – Multi-Team Environment

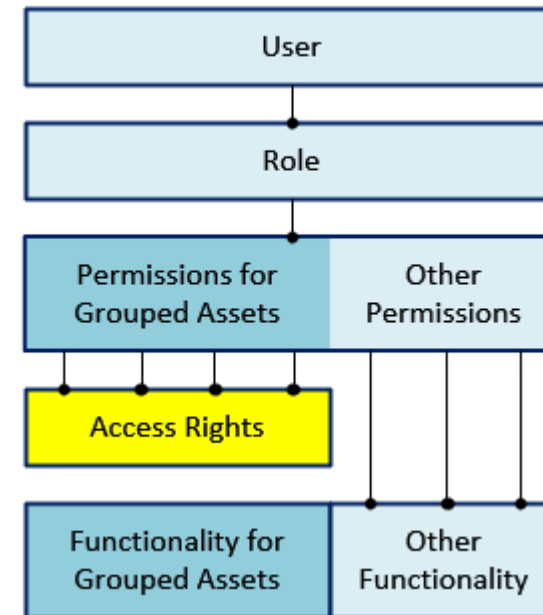
Introduction

- The **Multi-Team Environment** concept of Blue Prism version 6.3 brings a greater level of access control
- In previous versions, roles defined **system-wide** permissions for users
- In version 6.3, all Processes, Objects and Resources reside in groups, and **Access Rights** can refine permissions for groups
- For other functionality unrelated to groups, role permissions continue to define access

V6.2 Role-based permissions



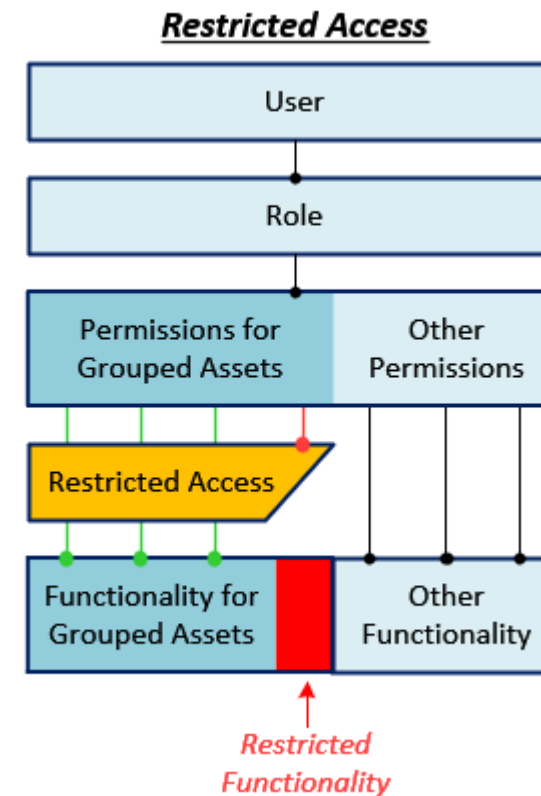
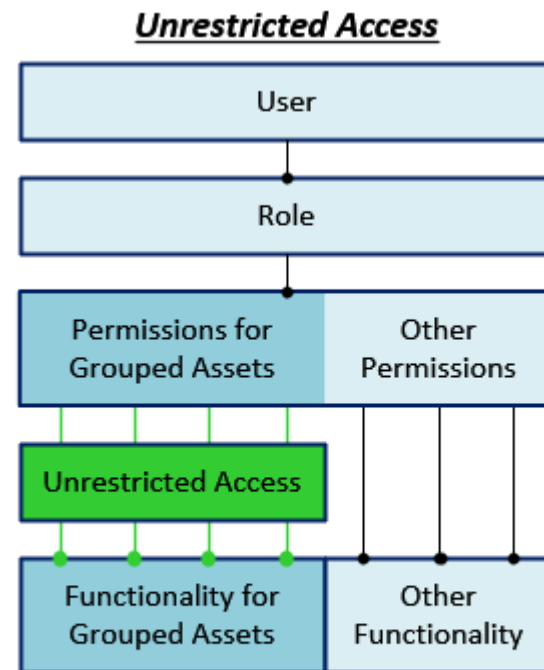
V6.3 Access Rights to Grouped Assets



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Access Right Restriction

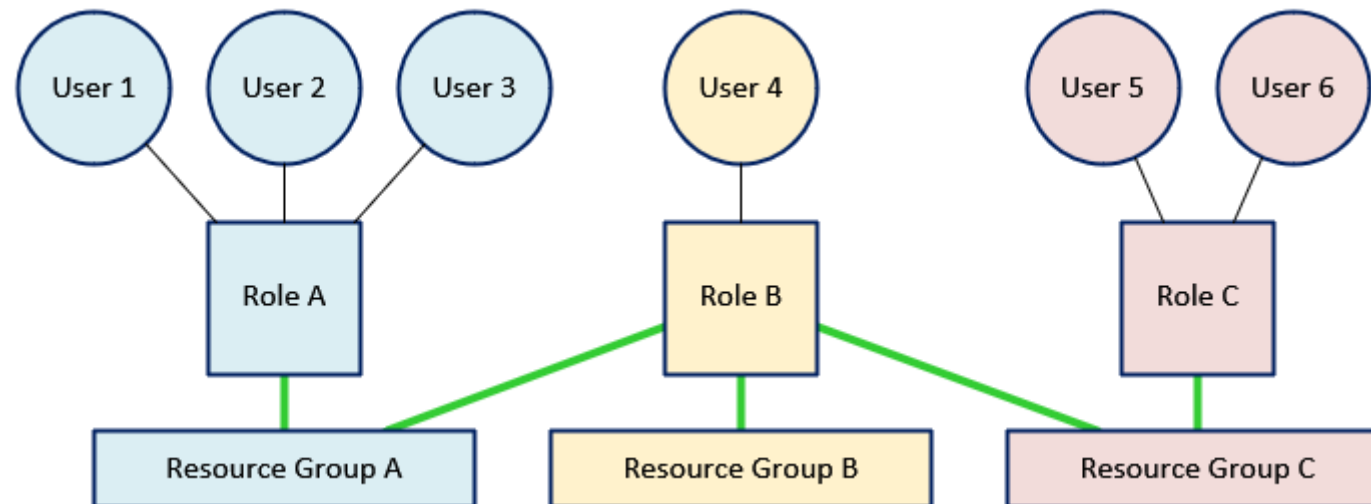
- Access Rights are an additional level of permission control for Process, Object and Resource groups
- With ***unrestricted*** rights, group access is defined by the permissions of the user role, much like versions before 6.3
- However ***restricted*** means although access is based on a role, some of the permissions are disabled for that group
- By applying Access Rights, different users can have different levels of permission to the same group



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Simple Use Case #1

- Resources are arranged into groups A, B and C
- Roles are assigned varying levels of access rights to groups A, B and C
- Users 1, 2, and 3 have full access to group A but no visibility of any other group
- User 4 has full access to all groups
- Users 5 and 6 have full access to group C but no visibility of any other group



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Simple Use Case #1 - Screenshot

- In Control Room users with role A will only be aware of their own Resources
- Role B users however will see all Resource groups

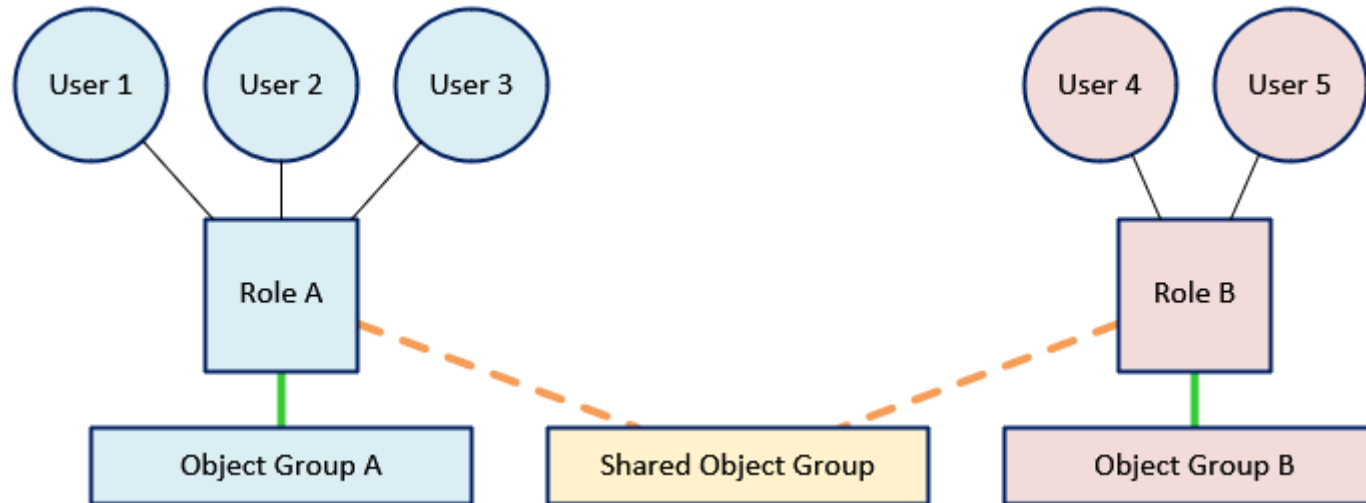
Resources		
Name	State	Session Info
Group A		
BP0124:8101	Idle	No sessions
BP0124:8102	Idle	No sessions
BP0124:8103	Idle	No sessions
BP0124:8104	Idle	No sessions

Resources		
Name	State	Session Info
Group A		
BP0124:8101	Idle	No sessions
BP0124:8102	Idle	No sessions
BP0124:8103	Idle	No sessions
BP0124:8104	Idle	No sessions
Group B		
BP0124:8105	Idle	No sessions
BP0124:8106	Idle	No sessions
Group C		
BP0124:8107	Idle	No sessions
BP0124:8108	Idle	No sessions

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Simple Use Case #2

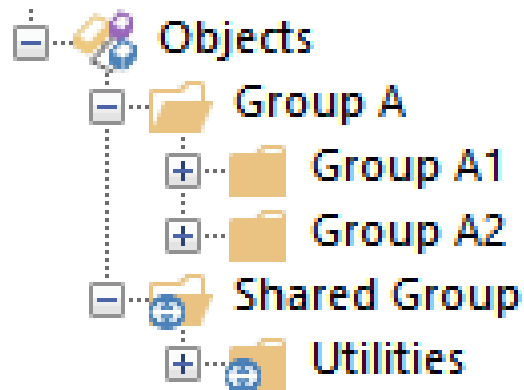
- Users are assigned roles to split them into teams A and B
- Business Objects are arranged into groups A, B and Shared
- Each role has restricted access to the shared group and full access to its own group
- As a result, team A has full access to group A, read-only access to the shared group and no visibility of group B
- Similarly, team B has full access to its own group, read-only access to the shared objects and cannot see group A



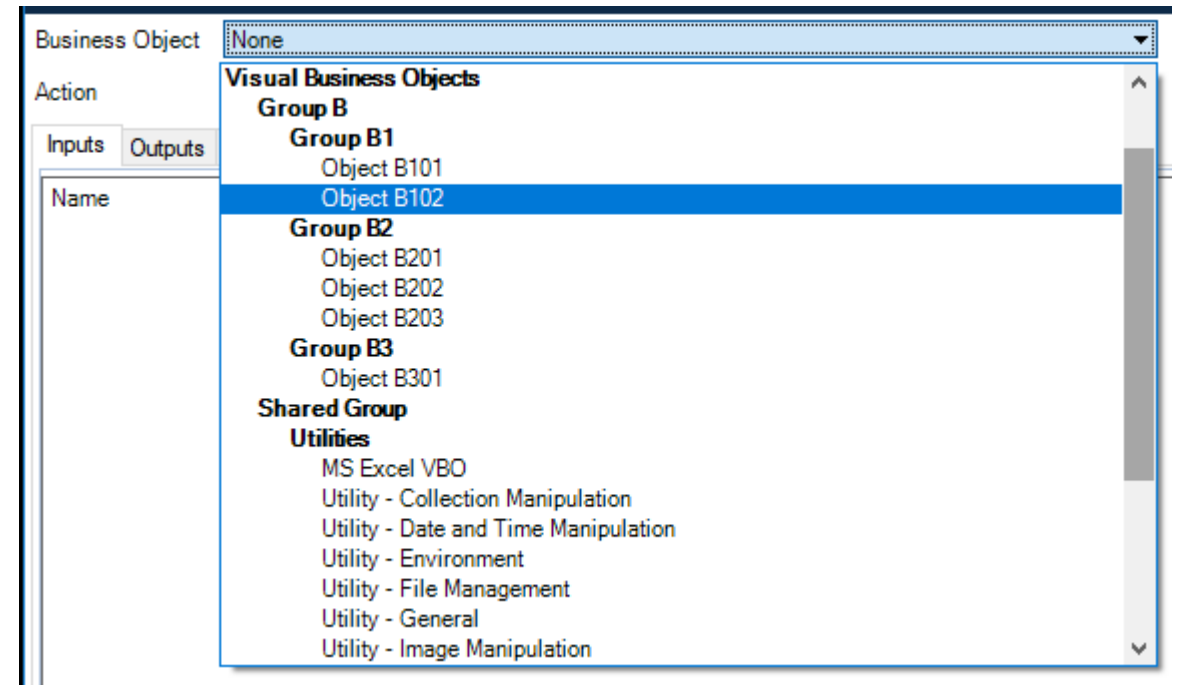
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Simple Use Case #2 - Screenshot

- In Studio, users with role A will only see their own group and the shared Business Objects



- From a process diagram Team B will only be able to select their own Objects or those in the shared group



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Group Access Types

- There are 3 possible types of access for groups
- ***Unrestricted***
 - Access to an unrestricted group is defined by the permissions of the user role
- ***Restricted***
 - Access to a restricted group is based on the role but with some permissions revoked
- ***Inherited***
 - Inherited means the group is the child of a restricted group and it assumes the access level of the parent

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Manage Access Rights

- The **Manage Access Rights** window is new to version 6.3
 - On the left are the roles that have permission to access the group
 - At the bottom are the users with the selected role
 - To the right are the selected role's permissions for the group and its contents
- The user adjusts access rights by ticking and unticking the permissions
 - Note that access defined at role level **cannot be increased** by applying access rights, only decreased by revoking individual permissions

Manage Access Rights

Access rights for group 'Utilites'
Applies to 24 Objects

☒ Unrestricted ☐ Restricted ☐ Inherited

User Role

- Developers
- Process Administrators
- Testers
- Runtime Resources

Select All Deselect All

Permissions on the items

☒ Select / Deselect All

Permission
☒ Delete Business Object
☒ Edit Business Object
☒ Execute Business Object
☒ Export Business Object
☒ View Business Object Definition

Permissions on the group

☒ Select / Deselect All

Permission
☒ Create Business Object
☒ Edit Object Groups
☒ Import Business Object
Manage Business Object Access Ri...

Users in Role

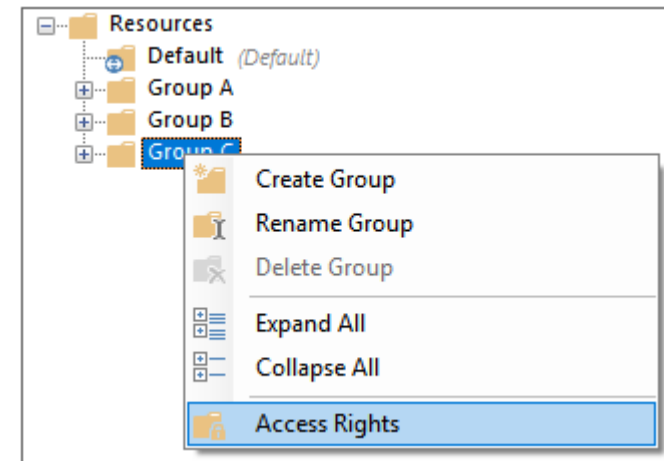
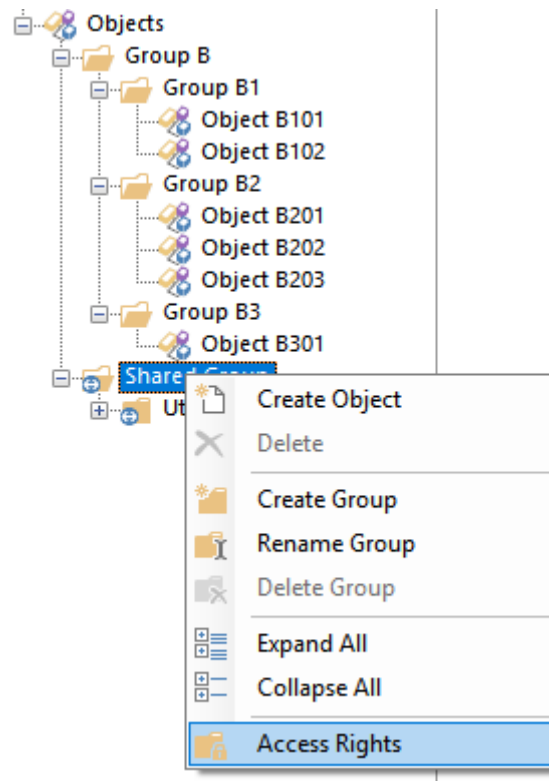
User Name

OK Cancel

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Manage Access Rights

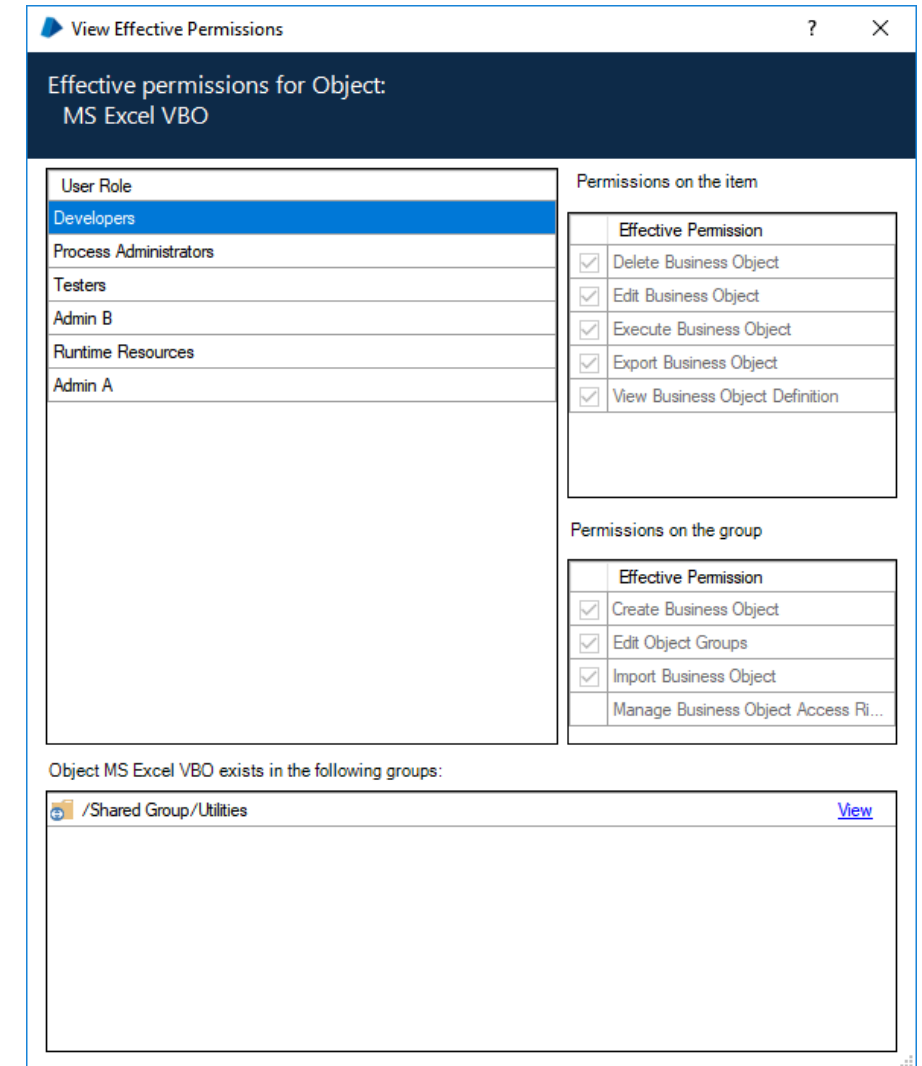
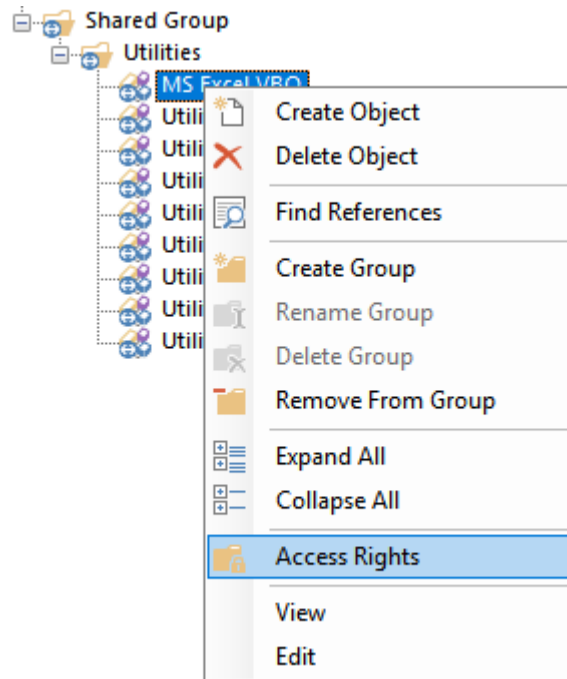
- There are 2 ways to open the Manage Access Rights window
- Right-click on a Process or Object group in Studio
- Or right-click on a Resource group in System > Resources > Management



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View Effective Permissions

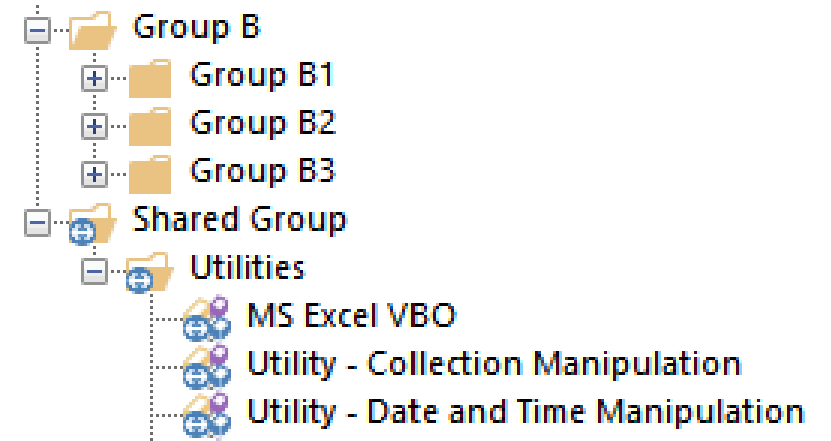
- This window enables inspection of the access rights applied to a grouped item
- It provides a read-only view similar to the Manage Access Rights window
- The window is opened by right clicking on a grouped item



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Group Hierarchy and Inherited Access Rights

- As with earlier versions of Blue Prism, groups can contain other groups
- By default, a child group will assume the **same access rights** as its parent
- If the parent group is unrestricted, then the child group will also be unrestricted by default
 - However, access rights could be applied to the child group to make it a restricted group
- If the parent group is restricted, then the child group will inherit the restrictions of the parent
 - Inherited access rights **cannot be modified**
 - If the parent group inherits its access rights then its children will also inherit the same restrictions



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Key Considerations

- Access rights can only be applied to groups of Processes, Objects and Resources
 - Permissions for other entities such as Work Queues and Environment Variables continue to be set at role level
- Users can have more than one role
 - If this is the case then the user's permissions will **accumulate**
- A group can be moved to another group
 - The group's access rights will be changed automatically according to the hierarchy of its new position
- A Process, Object or Resource can be moved to another group
 - The item's access rights will be changed automatically according to the hierarchy of its new group
- Processes, Objects and Resources can belong to more than one group
 - A group member is a really just a **reference** to the actual Process, Object or Resource
 - A Process, Object or Resource will adopt the **least restrictive** access rights of all its parent groups
- Permissions have changed slightly in version 6.3
 - Some permissions have been added whilst others have been updated or reassigned
- Access rights cannot be included as part of a Release

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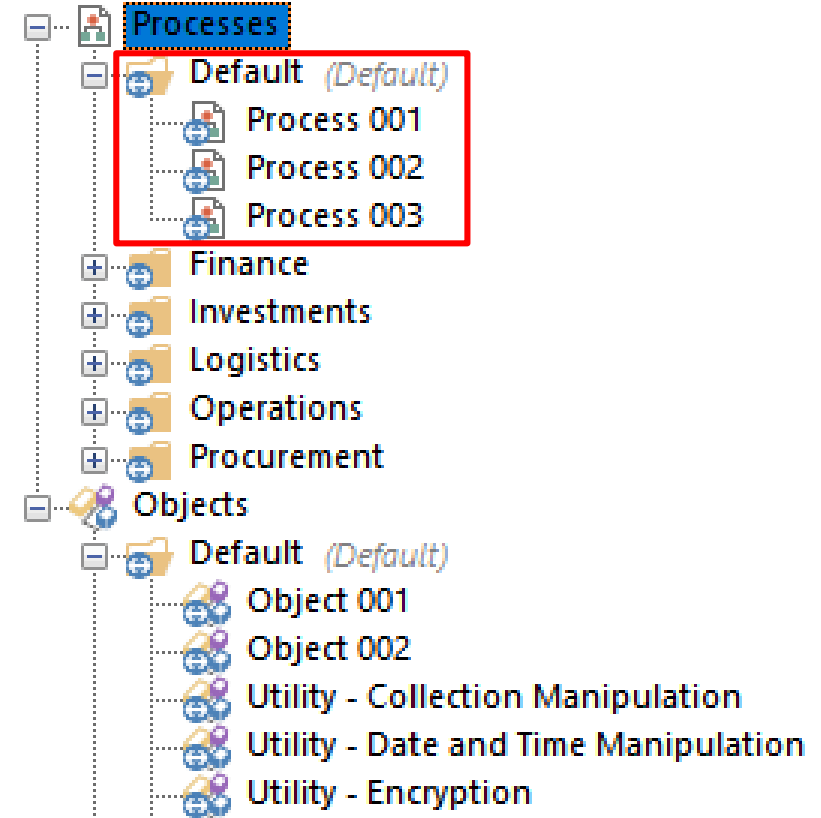
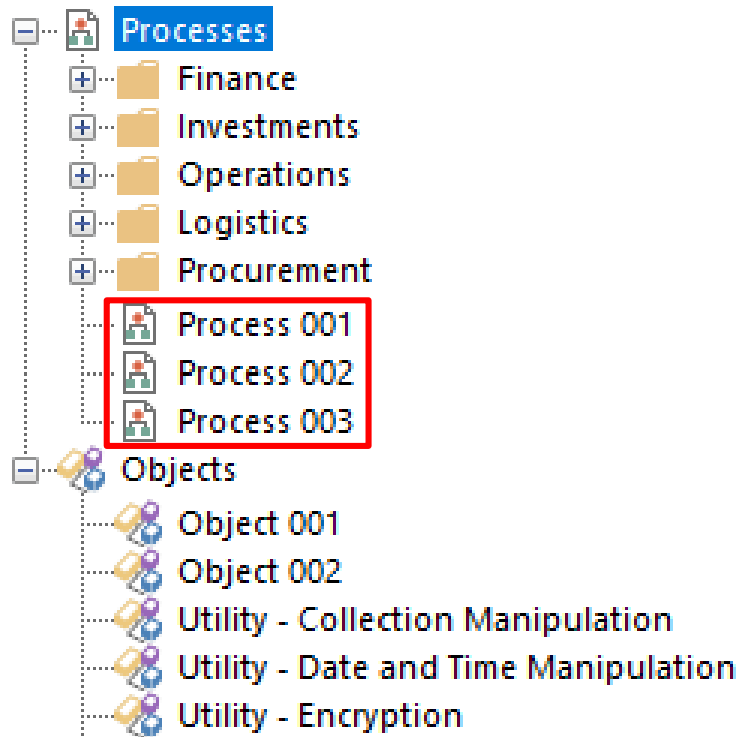
Upgrading

- It is no longer possible for a Process, Object or Resource to be at the **root** (top) of the group hierarchy
 - In version 6.3 all items must belong to a group
 - **Default** groups are provided for Processes, Objects and Resources that are not in any other group
 - After an upgrade, all items previously at root-level will be put into the default groups
 - The default groups start with unrestricted access rights
- Permissions have changed slightly to facilitate a finer level of granularity
 - All existing users will maintain the access rights that their role currently provides
 - A post-upgrade review is recommended to ensure users have only the permissions they need
 - Please refer to the in-product Help for further details on individual permissions

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Upgrading Example – Part 1/4

- Prior to upgrading, 3 teams live side by side in the same environment
- Naming conventions are used to demarcate team assets but everything is accessible to all
- Immediately after upgrade, any entities that were at root-level are automatically added to a **Default** group
- All existing groups start with unrestricted access rights

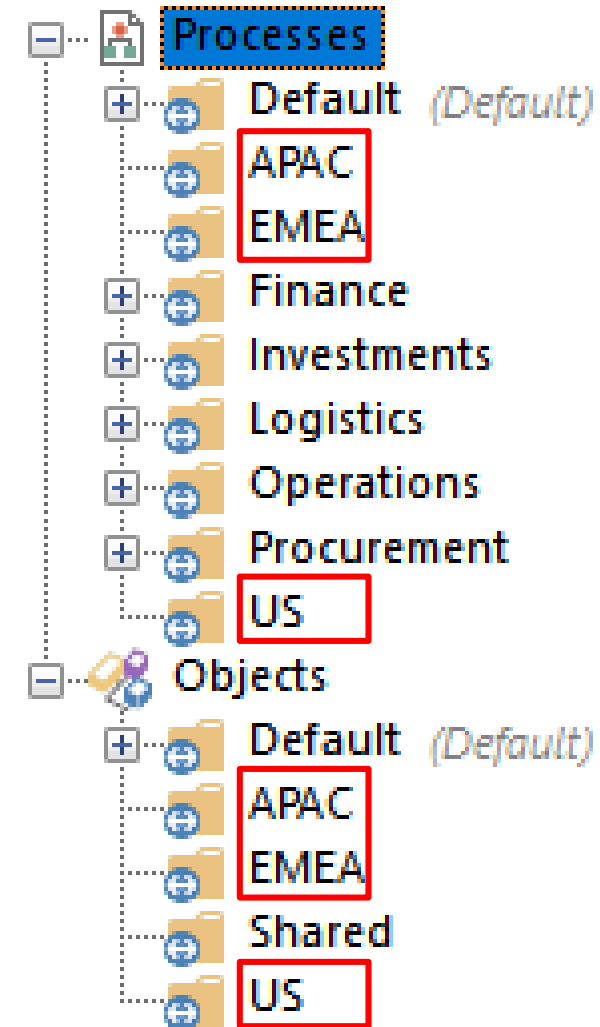


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Upgrading Example – Part 2/4

- Teams are made by creating duplicate roles for APAC, EMEA and US
- Users are then given the appropriate role
- New APAC, EMEA and US groups are created for Processes, Objects and Resources
- An additional group is created for sharing Objects
- Here the **System Administrator** and **Runtime Resource** roles sit outside all teams

Security - User Roles	
Roles	Permissions
APAC Developer	☐ Analytics
APAC Tester	☐ Control Room
EMEA Developer	☒ Object Studio
EMEA Tester	☐ Process Alerts
Runtime Resources	☒ Process Studio
System Administrators	☐ Release Manager
US Developer	☒ Resources
US Tester	☐ Scheduler
	☐ System Manager



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Upgrading Example – Part 3/4

- Restricted access rights are applied to the APAC group
- All the permissions of EMEA and US roles are revoked
- The EMEA group is also set up to restrict APAC and US roles
- The US group is also set up to restrict EMEA and APAC roles
- Access rights to the Shared folder are set to provide read-only access to all but the System Administrator role

Manage Access Rights

Access rights for group 'APAC'
Applies to 0 Processes

☐ Unrestricted ☒ **Restricted** ☐ Inherited

User Role
APAC Developer
US Developer
EMEA Developer
APAC Tester
EMEA Tester
US Tester

Permissions on the items

☐ **Select / Deselect All**

Permission
☒ Delete Process
☐ Edit Process
☐ Execute Process
☐ Export Process
☐ View Process Definition

Permissions on the group

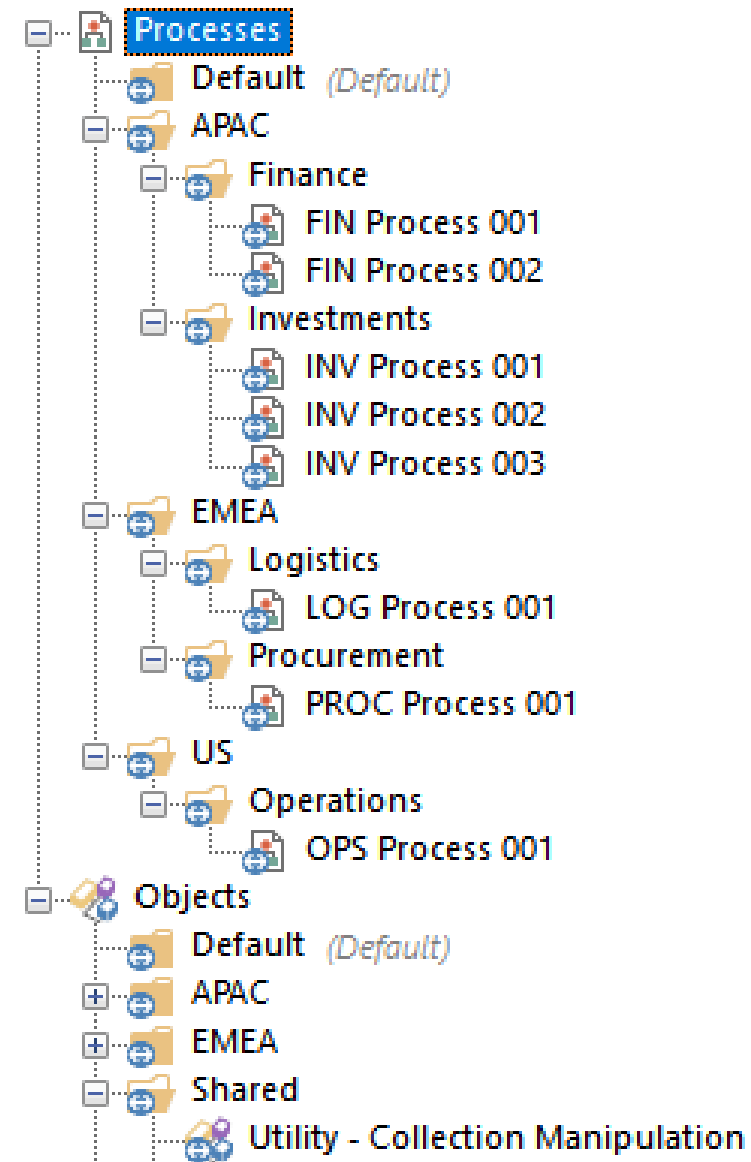
☐ **Select / Deselect All**

Permission
☒ Create Process
☐ Edit Process Groups
☐ Import Process
☐ Manage Process Access Rights

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Upgrading Example – Part 4/4

- Finally, the original pre-upgrade folders are dragged into their associated parent groups
- As children of restricted groups, they will inherit the access rights of the parent



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Best Practice

- Keep it simple and avoid an over complicated hierarchy
 - Start by creating a Logical Access Model (LAM)
 - Define best practice and delivery methodology standards
- Think carefully before assigning multiple roles to users
 - Remember permissions **accumulate** - this may complicate the administration of users
- Think carefully before adding the same Process, Object or Resource to more than one group
 - Remember the **least restrictive** permissions will apply - this may lead to users having more access than intended
- Think carefully about the effect of moving a group or a grouped item
 - Remember access rights will **automatically change** to fit the new position - this may result in an undesired change of access rights
 - Use a LAM to limit the ability to move groups and grouped items

Further information

Please contact your Blue Prism® Account Manager
if additional information is required

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