Model Report

common

Version 1.0 ● Proposed

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Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

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Version 1.0
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
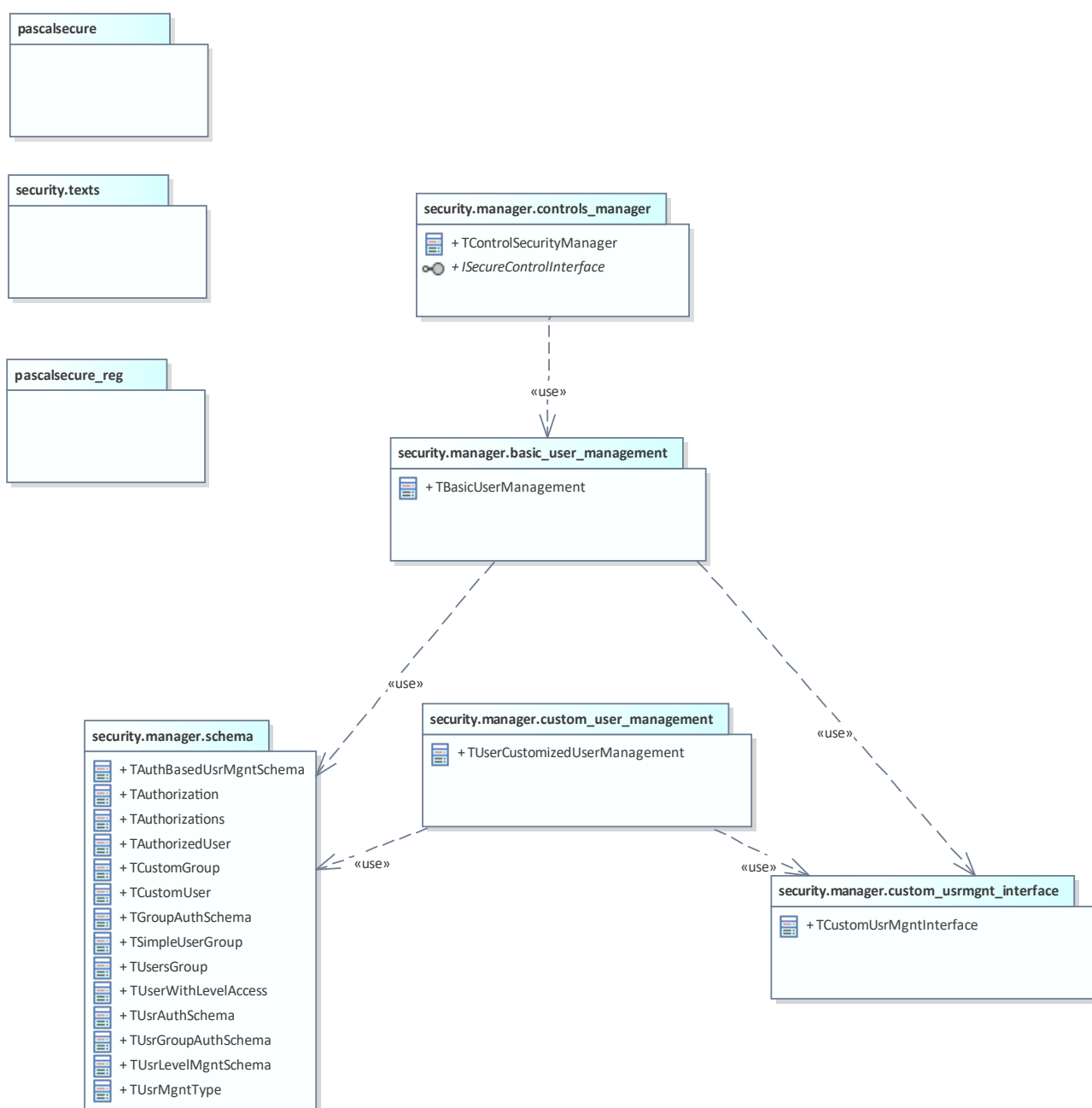
Figure 1: common

pascalsecure

Package in package 'common'

<div align="right">

pascalsecure
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

</div>

pascalsecure_reg

Package in package 'common'

<div align="right">

pascalsecure_reg
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

</div>

security.manager.basic_user_management

Package in package 'common'

<div align="right">

security.manager.basic_user_management
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

</div>

ASSOCIATED FILES

📁 Local File. C:\data\Pascal\pascalsecure\src\common\security.manager.basic_user_management.pas

[Size of 8 k.]

CONNECTORS

Dependency «use»   Source -> Destination
From: security.manager.basic_user_management : Package, Public
To: security.manager.custom_usrmgnt_interface : Package, Public

Usage   Source -> Destination
From: security.manager.basic_user_management : Package, Public
To: security.manager.schema : Package, Public

Usage   Source -> Destination
From: security.manager.controls_manager : Package, Public
To: security.manager.basic_user_management : Package, Public

security.manager.controls_manager

Package in package 'common'

<div align="right">

security.manager.controls_manager
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

</div>

CONNECTORS

↗ **Usage**   Source -> Destination
From: security.manager.controls_manager : Package, Public
To: security.manager.basic_user_management : Package, Public

security.manager.custom_user_management

Package in package 'common'

security.manager.custom_user_management
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

CONNECTORS

↗ **Dependency** «use»   Source -> Destination
From: security.manager.custom_user_management : Package, Public
To: security.manager.custom_usrmgnt_interface : Package, Public

↗ **Dependency** «use»   Source -> Destination
From: security.manager.custom_user_management : Package, Public
To: security.manager.schema : Package, Public

security.manager.custom_usrmgnt_interface

Package in package 'common'

security.manager.custom_usrmgnt_interface
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

CONNECTORS

↗ **Dependency** «use»   Source -> Destination
From: security.manager.basic_user_management : Package, Public
To: security.manager.custom_usrmgnt_interface : Package, Public

↗ **Dependency** «use»   Source -> Destination
From: security.manager.custom_user_management : Package, Public
To: security.manager.custom_usrmgnt_interface : Package, Public

security.manager.schema

Package in package 'common'

security.manager.schema
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

CONNECTORS

CONNECTORS

↗ **Usage**   Source -> Destination
From: security.manager.basic_user_management : Package, Public
To: security.manager.schema : Package, Public

↗ **Dependency** «use»   Source -> Destination
From: security.manager.custom_user_management : Package, Public
To: security.manager.schema : Package, Public

security.texts

Package in package 'common'

security.texts
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

pascalsecure

Package in package 'common'

pascalsecure
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

pascalsecure diagram

Class diagram in package 'pascalsecure'

pascalsecure
Version 1.0
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

Figure 2: pascalsecure

pascalsecure_reg

Package in package 'common'

pascalsecure_reg diagram

Class diagram in package 'pascalsecure_reg'

Figure 3: pascalsecure_reg

pascalsecure_reg

Package in package 'common'

security.exceptions

Package in package 'common'

security.exceptions
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

security.exceptions diagram

Class diagram in package 'security.exceptions'

security.exceptions
Version 1.0
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

ESecurityException	*ESecurityException*	*ESecurityException*	*ESecurityException*	*ESecurityException*
ESecuritySystemAccessDenied	**ESecurityMangerAlreadySet**	**EControlSecurityManagerStillBeingUsed**	**EInvalidUserManagementComponent**	**EUserManagementIsSet**
+ Create(Token: UTF8String)	+ Create()	+ Create()	+ Create()	+ Create()

ESecurityException	*ESecurityException*	*ESecurityException*
ESecurityCodeIsInUseYet	**EInvalidLevelRanges**	**EUnassignedUsrMgntIntf**
+ Create()	+ Create(aMinLevel: Integer, aMaxLevel: Integer)	+ Create()

Figure 4: security.exceptions

EControlSecurityManagerStillBeingUsed

Class in package 'security.exceptions'

ESecurityManagerStillBeingUsed

EControlSecurityManagerStillBeingUsed
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

OPERATIONS
◆ Create () : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

EInvalidLevelRanges

Class in package 'security.exceptions'

EInvalidLevelRanges
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

OPERATIONS

OPERATIONS
◆ Create (aMinLevel : Integer , aMaxLevel : Integer) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

EInvalidUserManagementComponent

Class in package 'security.exceptions'

EInvalidUserManagementComponent

EInvalidUserManagementComponent
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

OPERATIONS
◆ Create () : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

ESecurityCodeIsInUseYet

Class in package 'security.exceptions'

ESecurityCodeIsInUseYet

ESecurityCodeIsInUseYet
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

OPERATIONS
◆ Create () : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

ESecurityMangerAlreadySet

Class in package 'security.exceptions'

ESecurityMangerAlreadySet

ESecurityMangerAlreadySet
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

OPERATIONS
◆ Create () : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

ESecuritySystemAccessDenied

Class in package 'security.exceptions'

ESecuritySystemAccessDenied

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ESecuritySystemAccessDenied
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

</div>

OPERATIONS
◆ Create (Token : UTF8String) : Public   [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

EUnassignedUsrMgntIntf

Class in package 'security.exceptions'

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EUnassignedUsrMgntIntf
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

</div>

OPERATIONS
◆ Create () : Public   [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

EUserManagementIsSet

Class in package 'security.exceptions'

EUserManagementIsSet

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EUserManagementIsSet
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends ESecurityException

</div>

OPERATIONS
◆ Create () : Public   [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

security.manager.basic_user_management

Package in package 'common'

security.manager.basic_user_management
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

ASSOCIATED FILES

📂 Local File. C:\data\Pascal\pascalsecure\src\common\security.manager.basic_user_management.pas

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LINKS TO OTHER PACKAGES

⬅ Dependency from 'security.manager.basic_user_management' Package to 'security.manager.custom_usrmgnt_interface' Package	Direction: Source -> Destination
⬅ Usage from 'security.manager.basic_user_management' Package to 'security.manager.schema' Package	Direction: Source -> Destination
⬅ Usage from 'security.manager.controls_manager' Package to 'security.manager.basic_user_management' Package	Direction: Source -> Destination

security.manager.basic_user_management diagram

Class diagram in package 'security.manager.basic_user_management'

security.manager.basic_user_management
Version 1.0
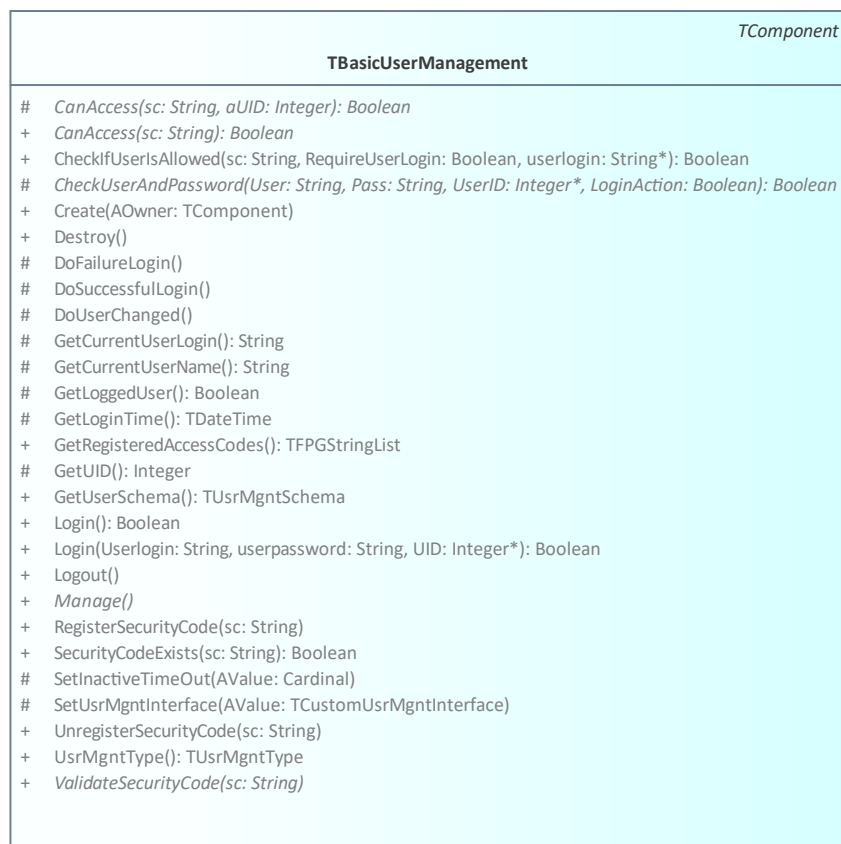Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

<table>
<tr><td colspan="2" align="right">TComponent</td></tr>
<tr><td colspan="2" align="center">TBasicUserManagement</td></tr>
</table>

#	*CanAccess(sc: String, aUID: Integer): Boolean*
+	*CanAccess(sc: String): Boolean*
+	CheckIfUserIsAllowed(sc: String, RequireUserLogin: Boolean, userlogin: String*): Boolean
#	*CheckUserAndPassword(User: String, Pass: String, UserID: Integer*, LoginAction: Boolean): Boolean*
+	Create(AOwner: TComponent)
+	Destroy()
#	DoFailureLogin()
#	DoSuccessfulLogin()
#	DoUserChanged()
#	GetCurrentUserLogin(): String
#	GetCurrentUserName(): String
#	GetLoggedUser(): Boolean
#	GetLoginTime(): TDateTime
+	GetRegisteredAccessCodes(): TFPGStringList
#	GetUID(): Integer
+	GetUserSchema(): TUsrMgntSchema
+	Login(): Boolean
+	Login(Userlogin: String, userpassword: String, UID: Integer*): Boolean
+	Logout()
+	*Manage()*
+	RegisterSecurityCode(sc: String)
+	SecurityCodeExists(sc: String): Boolean
#	SetInactiveTimeOut(AValue: Cardinal)
#	SetUsrMgntInterface(AValue: TCustomUsrMgntInterface)
+	UnregisterSecurityCode(sc: String)
+	UsrMgntType(): TUsrMgntType
+	*ValidateSecurityCode(sc: String)*

Figure 5: security.manager.basic_user_management

TBasicUserManagement

Class in package 'security.manager.basic_user_management'

TpSCADABasicUserManagement

TBasicUserManagement
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TComponent

INCOMING STRUCTURAL RELATIONSHIPS

➡ Generalization from TUserCustomizedUserManagement to TBasicUserManagement

[Direction is 'Source -> Destination'.]

ASSOCIATIONS

✏ Association (direction: Source -> Destination)

Source: Public (Class) TBasicUserManagement   Target: Protected FUsrMgntInterface (Class)
                                                                    TCustomUsrMgntInterface

✏ Association (direction: Source -> Destination)

Source: Public (Class) TControlSecurityManager   Target: Private FUserManagement (Class)
                                                                    TBasicUserManagement

OPERATIONS

🔶 CanAccess (sc : String , aUID : Integer) : Boolean Protected

　　Properties:
　　　overload = true
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 CanAccess (sc : String) : Boolean Public
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 CheckIfUserIsAllowed (sc : String , RequireUserLogin : Boolean , userlogin : String) : Boolean Public
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 CheckUserAndPassword (User : String , Pass : String , UserID : Integer , LoginAction : Boolean) : Boolean Protected
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 Create (AOwner : TComponent) : Public

　　Properties:
　　　override = true
　　　　　　　[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

🔶 Destroy () : Public

　　Properties:
　　　override = true
　　　　　　　[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

🔶 DoFailureLogin () : Protected
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 DoSuccessfulLogin () : Protected
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 DoUserChanged () : Protected
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 GetCurrentUserLogin () : String Protected
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 GetCurrentUserName () : String Protected
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 GetLoggedUser () : Boolean Protected
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

🔶 GetLoginTime () : TDateTime Protected
　　　　　　　[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

🔶 GetRegisteredAccessCodes () : TFPGStringList Public
　　　　　　　[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

OPERATIONS

◆ GetUID () : Integer Protected

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ GetUserSchema () : TUsrMgntSchema Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ Login () : Boolean Public

Properties:
   overload = true

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ Login (Userlogin : String , userpassword : String , UID : Integer) : Boolean Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ Logout () : Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ Manage () : Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ RegisterSecurityCode (sc : String) : Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ SecurityCodeExists (sc : String) : Boolean Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ SetInactiveTimeOut (AValue : Cardinal) : Protected

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ SetUsrMgntInterface (AValue : TCustomUsrMgntInterface) : Protected

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ UnregisterSecurityCode (sc : String) : Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ UsrMgntType () : TUsrMgntType Public

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ ValidateSecurityCode (sc : String) : Public

Security codes management

[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

security.manager.controls_manager

Package in package 'common'

security.manager.controls_manager
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

LINKS TO OTHER PACKAGES	
⬅ Usage from 'security.manager.controls_manager' Package to 'security.manager.basic_user_management' Package	Direction: Source -> Destination

security.manager.controls_manager diagram

Class diagram in package 'security.manager.controls_manager'

security.manager.controls_manager
Version 1.0
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
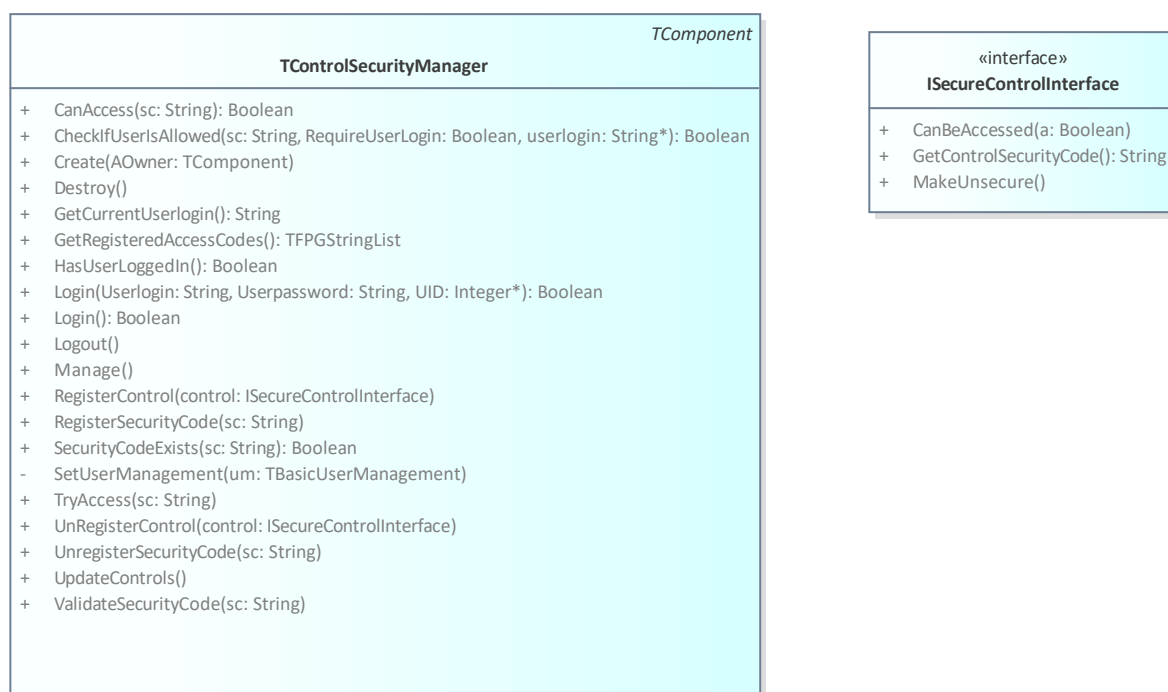
Figure 6: security.manager.controls_manager

ISecureControlInterface

Interface in package 'security.manager.controls_manager'

ISecureControlInterface
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

OPERATIONS

OPERATIONS

◆ CanBeAccessed (a : Boolean) : Public
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ GetControlSecurityCode () : String Public
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ MakeUnsecure () : Public
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TControlSecurityManager

Class in package 'security.manager.controls_manager'

TControlSecurityManager

> TControlSecurityManager
> Version 1.0 Phase 1.0 Proposed
> Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
> Extends TComponent

ASSOCIATIONS

✎ Association (direction: Source -> Destination)

Source: Public (Class) TControlSecurityManager					Target: Private FUserManagement (Class)
															TBasicUserManagement

OPERATIONS

◆ CanAccess (sc : String) : Boolean Public
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ CheckIfUserIsAllowed (sc : String , RequireUserLogin : Boolean , userlogin : String) : Boolean Public
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Create (AOwner : TComponent) : Public

> Properties:
> override = true
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Destroy () : Public

> Properties:
> override = true
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ GetCurrentUserlogin () : String Public
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ GetRegisteredAccessCodes () : TFPGStringList Public
> [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

OPERATIONS

◆ HasUserLoggedIn () : Boolean Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Login (Userlogin : String , Userpassword : String , UID : Integer) : Boolean Public

Properties:
 overload = true
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Login () : Boolean Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Logout () : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Manage () : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ RegisterControl (control : ISecureControlInterface) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ RegisterSecurityCode (sc : String) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ SecurityCodeExists (sc : String) : Boolean Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ SetUserManagement (um : TBasicUserManagement) : Private
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ TryAccess (sc : String) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ UnRegisterControl (control : ISecureControlInterface) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ UnregisterSecurityCode (sc : String) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ UpdateControls () : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ ValidateSecurityCode (sc : String) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

security.manager.custom_user_management

Package in package 'common'

<div align="right">

security.manager.custom_user_management
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

</div>

LINKS TO OTHER PACKAGES	
⬅ Dependency from 'security.manager.custom_user_management' Package to 'security.manager.custom_usrmgnt_interface' Package	Direction: Source -> Destination
⬅ Dependency from 'security.manager.custom_user_management' Package to 'security.manager.schema' Package	Direction: Source -> Destination

security.manager.custom_user_management diagram

Class diagram in package 'security.manager.custom_user_management'

<div align="right">

security.manager.custom_user_management
Version 1.0
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

</div>

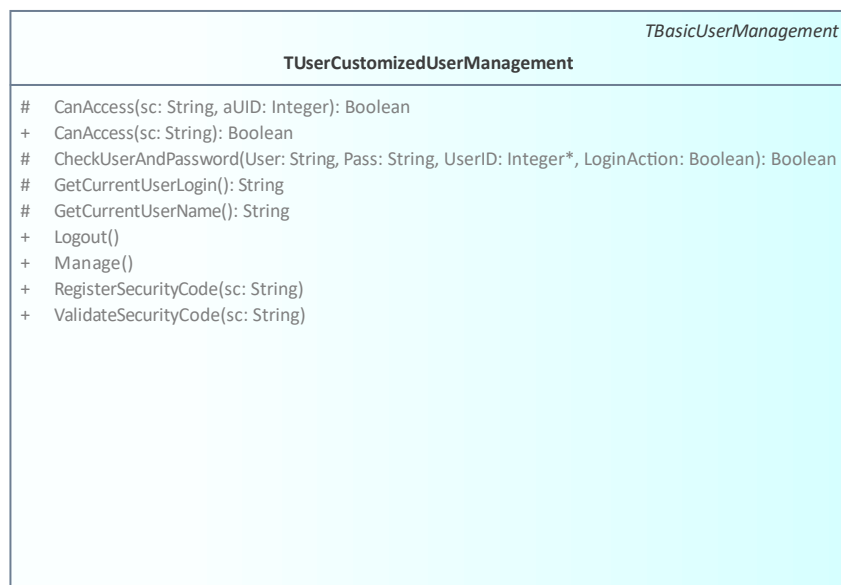| *TBasicUserManagement* |
|---|
| **TUserCustomizedUserManagement** |
| # CanAccess(sc: String, aUID: Integer): Boolean |
| + CanAccess(sc: String): Boolean |
| # CheckUserAndPassword(User: String, Pass: String, UserID: Integer*, LoginAction: Boolean): Boolean |
| # GetCurrentUserLogin(): String |
| # GetCurrentUserName(): String |
| + Logout() |
| + Manage() |
| + RegisterSecurityCode(sc: String) |
| + ValidateSecurityCode(sc: String) |

Figure 7: security.manager.custom_user_management

TUserCustomizedUserManagement

Class in package 'security.manager.custom_user_management'

TpSCADACustomizedUserManagement

<div align="right">

TUserCustomizedUserManagement
Version 1.0 Phase 1.0 Proposed

</div>

Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TBasicUserManagement

OUTGOING STRUCTURAL RELATIONSHIPS

⬅ Generalization from TUserCustomizedUserManagement to TBasicUserManagement

[Direction is 'Source -> Destination'.]

OPERATIONS

◆ CanAccess (sc : String , aUID : Integer) : Boolean Protected

Properties:
    override = true
    overload = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ CanAccess (sc : String) : Boolean Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ CheckUserAndPassword (User : String , Pass : String , UserID : Integer , LoginAction : Boolean) : Boolean Protected

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ GetCurrentUserLogin () : String Protected

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ GetCurrentUserName () : String Protected

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Logout () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Manage () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ RegisterSecurityCode (sc : String) : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

OPERATIONS

◆ ValidateSecurityCode (sc : String) : Public

Security codes management

    Properties:
      override = true

                    [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

OPERATIONS

◆ ValidateSecurityCode (sc : String) : Public

Security codes management

security.manager.custom_usrmgnt_interface

Package in package 'common'

security.manager.custom_usrmgnt_interface
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

LINKS TO OTHER PACKAGES	
⬅ Dependency from 'security.manager.basic_user_management' Package to 'security.manager.custom_usrmgnt_interface' Package	Direction: Source -> Destination
⬅ Dependency from 'security.manager.custom_user_management' Package to 'security.manager.custom_usrmgnt_interface' Package	Direction: Source -> Destination

security.manager.custom_usrmgnt_interface diagram

Class diagram in package 'security.manager.custom_usrmgnt_interface'

security.manager.custom_usrmgnt_interface
Version 1.0
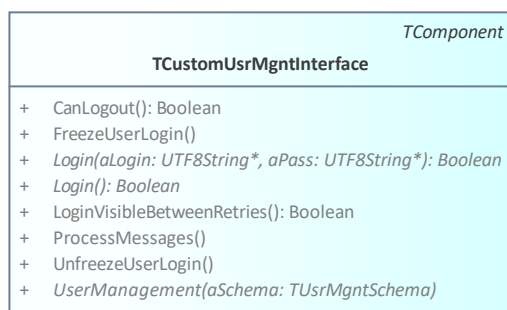Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

Figure 8: security.manager.custom_usrmgnt_interface

TCustomUsrMgntInterface

Class in package 'security.manager.custom_usrmgnt_interface'

TCustomUsrMgntInterface
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TComponent

ASSOCIATIONS	
✏ Association (direction: Source -> Destination)	
Source: Public (Class) TBasicUserManagement	Target: Protected FUsrMgntInterface (Class) TCustomUsrMgntInterface

OPERATIONS

◆ CanLogout () : Boolean Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ FreezeUserLogin () : Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ Login (aLogin : UTF8String , aPass : UTF8String) : Boolean Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ Login () : Boolean Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ LoginVisibleBetweenRetries () : Boolean Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ ProcessMessages () : Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ UnfreezeUserLogin () : Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ UserManagement (aSchema : TUsrMgntSchema) : Public
> [Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

security.manager.schema

Package in package 'common'

LINKS TO OTHER PACKAGES	
⬅ Usage from 'security.manager.basic_user_management' Package to 'security.manager.schema' Package	Direction: Source -> Destination
⬅ Dependency from 'security.manager.custom_user_management' Package to 'security.manager.schema' Package	Direction: Source -> Destination

security.manager.schema diagram

Class diagram in package 'security.manager.schema'

Figure 9: security.manager.schema

TAuthBasedUsrMgntSchema
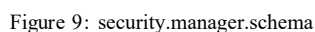
Class in package 'security.manager.schema'

: Implements a user management that uses authorizations to allow/deny access. This serve as base for TUsrAuthSchema, TGroupAuthSchema and TUsrGroupAuthSchema.

<div align="right">

TAuthBasedUsrMgntSchema
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TUsrMgntSchema

</div>

INCOMING STRUCTURAL RELATIONSHIPS

➡ Generalization from TGroupAuthSchema to TAuthBasedUsrMgntSchema

[Direction is 'Source -> Destination'.]

➡ Generalization from TUsrAuthSchema to TAuthBasedUsrMgntSchema

[Direction is 'Source -> Destination'.]

ASSOCIATIONS

✏ Association (direction: Source -> Destination)

Source: Public (Class) TAuthBasedUsrMgntSchema   Target: Protected FAuthorizations (Class) TAuthorizations

---

OPERATIONS

◆ Autorizations () : TAuthorizations Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Create () : Public
[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ Destroy () : Public

Properties:
    override = true
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TAuthorization

Class in package 'security.manager.schema'

: Implements a simple authorization code

<div align="right">

TAuthorization
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TObject

</div>

OPERATIONS

◆ Create (aAuthID : Integer , aDescription : UTF8String) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TAuthorizations

Class in package 'security.manager.schema'

: Implements a list with all authorization codes

TAuthorizations
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TAuthorizationList

ASSOCIATIONS

✎ Association (direction: Source -> Destination)

Source: Public (Class) TAuthBasedUsrMgntSchema   Target: Protected FAuthorizations (Class)
                                                        TAuthorizations

OPERATIONS

◆ AddAuthorization (aAuthID : Integer , aDescription : UTF8String) : TAuthorization Public
          [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TAuthorizedUser

Class in package 'security.manager.schema'

: Implements a user with user allowed authorizations

TAuthorizedUser
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TCustomUser

OUTGOING STRUCTURAL RELATIONSHIPS

⬅ Generalization from TAuthorizedUser to TCustomUser

                                              [Direction is 'Source -> Destination'.]

OPERATIONS

◆ AuthorizationList () : TAuthorizationList Public
          [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Create (aUID : Integer , aUserLogin : UTF8String , aUserDescription : UTF8String , aBlockedUser : Boolean) : Public
          [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Destroy () : Public

   Properties:
      override = true

          [Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TCustomGroup

Class in package 'security.manager.schema'

: Implements a simple usergroup with group-authorizations

<div align="right">

TCustomGroup
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TObject

</div>

INCOMING STRUCTURAL RELATIONSHIPS
⇒ Generalization from TSimpleUserGroup to TCustomGroup
[Direction is 'Source -> Destination'.]
⇒ Generalization from TUsersGroup to TCustomGroup
[Direction is 'Source -> Destination'.]

OPERATIONS
◆ Create (aGID : Integer , aGroupName : UTF8String) : Public
[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]
◆ Destroy () : Public
Properties: override = true
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]
◆ GroupAuthorizations () : TAuthorizationList Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TCustomUser

Class in package 'security.manager.schema'

: Implements a simple user, with UID, Login, Description and enable/disable option.

<div align="right">

TCustomUser
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TObject

</div>

INCOMING STRUCTURAL RELATIONSHIPS
⇒ Generalization from TAuthorizedUser to TCustomUser
[Direction is 'Source -> Destination'.]
⇒ Generalization from TUserWithLevelAccess to TCustomUser
[Direction is 'Source -> Destination'.]

OPERATIONS

OPERATIONS

◆ Create (aUID : Integer , aUserLogin : UTF8String , aUserDescription : UTF8String , aBlockedUser : Boolean) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Modified () : Boolean Public
[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ ResetModified () : Public
[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ SetBlockedUser (AValue : Boolean) : Protected
[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

◆ SetUserDescription (AValue : UTF8String) : Protected
[Is static False. Is abstract True. Is return array False. Is query False. Is synchronized False.]

TGroupAuthSchema

Class in package 'security.manager.schema'

: Implements a user management that uses authorizations to allow/deny access, where each user inherits the authorizations assigned to the group which it belongs. On this model, users CAN NOT HAVE SPECIFIC PERMISSIONS. This schema consists in: A list of simple users. A list of groups, where each group has a list of allowed authorizations, where the users of each group will inherit the authorizations assigned to the group. A list with all authorizations available on the security manager.

TGroupAuthSchema
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TAuthBasedUsrMgntSchema

OUTGOING STRUCTURAL RELATIONSHIPS

⬅ Generalization from TGroupAuthSchema to TAuthBasedUsrMgntSchema
[Direction is 'Source -> Destination'.]

OPERATIONS

◆ Create () : Public

Properties:
override = true
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Destroy () : Public

Properties:
override = true
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ GroupList () : TSimpleUserGroupList Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

OPERATIONS
◆ UserList () : TUserList Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TSimpleUserGroup

Class in package 'security.manager.schema'

: Implements a group were users hence the group authorizations, without user specific authorizations.

TSimpleUserGroup
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TCustomGroup

OUTGOING STRUCTURAL RELATIONSHIPS
⬅ Generalization from TSimpleUserGroup to TCustomGroup
[Direction is 'Source -> Destination'.]

OPERATIONS
◆ Create (aGID : Integer , aGroupName : UTF8String) : Public
Properties: override = true
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]
◆ Destroy () : Public
Properties: override = true
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]
◆ UsersList () : TUserList Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TUserWithLevelAccess

Class in package 'security.manager.schema'

: Implements a user with access level.

TUserWithLevelAccess
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TCustomUser

OUTGOING STRUCTURAL RELATIONSHIPS
⬅ Generalization from TUserWithLevelAccess to TCustomUser
[Direction is 'Source -> Destination'.]

OPERATIONS

◆ Create (aUID : Integer , aUserLogin : UTF8String , aUserDescription : UTF8String , aBlockedUser : Boolean , aUserLevel : Integer) : Public

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Modified () : Boolean Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ ResetModified () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ SetUserLevel (AValue : Integer) : Protected

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TUsersGroup

Class in package 'security.manager.schema'

: Implements a group where users inherit the group authorizations, adding it with user specific authorizations.

TUsersGroup
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TCustomGroup

OUTGOING STRUCTURAL RELATIONSHIPS

← Generalization from TUsersGroup to TCustomGroup

[Direction is 'Source -> Destination'.]

OPERATIONS

◆ Create (aGID : Integer , aGroupName : UTF8String) : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Destroy () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ UsersList () : TAuthorizedUserList Public

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TUsrAuthSchema

Class in package 'security.manager.schema'

: Implements a user management that uses authorizations to allow/deny access, where each user has a list of allowed authorizations. This schema consists in: A user list where each user has a list of allowed authorizations. A list with all authorizations available on the security manager. This schema is similar to the securty system used in Siemens WinCC.

<div align="right">

TUsrAuthSchema
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TAuthBasedUsrMgntSchema

</div>

OUTGOING STRUCTURAL RELATIONSHIPS

⬅ Generalization from TUsrAuthSchema to TAuthBasedUsrMgntSchema

[Direction is 'Source -> Destination'.]

INCOMING STRUCTURAL RELATIONSHIPS

➡ Generalization from TUsrGroupAuthSchema to TUsrAuthSchema

[Direction is 'Source -> Destination'.]

OPERATIONS

◆ Create () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ Destroy () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

◆ UserList () : TAuthorizedUserList Public

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TUsrGroupAuthSchema

Class in package 'security.manager.schema'

: Implements a user management that uses authorizations to allow/deny access, where each user has a list of allowed authorizations and inherits the authorizations assigned to the group which it belongs. This schema consists in: A list of users, where each user has a list of specific allowed authorizations. A list of groups, where each group has a list of allowed authorizations, where the users of each group will inherit the group authorizations. A list with all authorizations available on the security manager. This schema is similar to the securty system used in Rockwell FactoryTalk.

<div align="right">

TUsrGroupAuthSchema
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TUsrAuthSchema

</div>

OUTGOING STRUCTURAL RELATIONSHIPS

⬅ Generalization from TUsrGroupAuthSchema to TUsrAuthSchema

[Direction is 'Source -> Destination'.]

OPERATIONS

🔶 Create () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

🔶 Destroy () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

🔶 GroupList () : TUsrGroupList Public

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TUsrLevelMgntSchema

Class in package 'security.manager.schema'

: Implements a user level based schema. This schema consists in: A user list where each user has a access leve. Level limits (Min and Max). The level that makes a user admin. This schema is similar to the security system used in Elipse SCADA and in Wonderware Intouch.

TUsrLevelMgntSchema
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017
Extends TUsrMgntSchema

OPERATIONS

🔶 Create (aMinLevel : Integer , aMaxLevel : Integer , aAdminLevel : Integer) : Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

🔶 Destroy () : Public

Properties:
    override = true

[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

🔶 UserList () : TUserLevelList Public
[Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.]

TUsrMgntType

Enumeration «enumeration» in package 'security.manager.schema'

TUsrMgntType
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

ATTRIBUTES

◆ umtUnknown :   Public

[Is static False. Containment is Not Specified.]

◆ umtLevel :   Public

[Is static False. Containment is Not Specified.]

◆ umtAuthorizationByUser :   Public

[Is static False. Containment is Not Specified.]

◆ umtAuthorizationByGroup :   Public

[Is static False. Containment is Not Specified.]

◆ umtAuthorizationByUserAndGroup :   Public

[Is static False. Containment is Not Specified.]

security.texts

Package in package 'common'

security.texts
Version 1.0 Phase 1.0 Proposed
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

security.texts diagram

Class diagram in package 'security.texts'

security.texts
Version 1.0
Andreas Frieß created on 29.07.2017. Last modified 29.07.2017

Figure 10: security.texts

security.texts

Package in package 'common'