

Custom scripts samples

Custom scripts samples

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Sample scripts

Note that Soffid supports different scripting languages, you can configure it in the [Smart engine settings screen](#).

Additionally, in the initial configuration of the container, we can configure the SOFFID_TRUSTED_SCRIPTS environment variable to allow the use of insecure classes. You can find this information visiting [the Installing IAM Console page](#).

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1. Agent scripts

User full name

```
return firstName + lastName;
```

Create mainDomain if it doesn't exit

```
String mailDomain = null;
if (email != void && email != null && email.contains("@")) {
    String[] mailTokens = email.split("@");
    mailDomain = mailTokens[1];
}
com.soffid.iam.service.MailListsService service = com.soffid.iam.ServiceLocator.instance().getMailListsService();
com.soffid.iam.api.MailDomain domain = service.findMailDomainByName(mailDomain);
if (domain==null) {
    domain = new com.soffid.iam.api.MailDomain();
    domain.setCode(mailDomain);
    domain.setDescription(mailDomain);
    domain.setObsolete(new Boolean(false));
    domain = service.create(domain);
}
return mailDomain;
```

Recover active agents

```
llistaAgents = serviceLocator.getDispatcherService().findAllActiveDispatchers();
for(agent:llistaAgents) {
    out.println("Nom: " + agent.name);
    out.println("Class Name: " + agent.className + "\n");
}
```

Show by a user the agents that have associates

```
llistaUsuaris = serviceLocator.getUserService().findUserByJsonQuery("userName eq \"Ivan\" ");
for(usuari:llistaUsuaris) {
    out.println("Usuario: " + usuari.userName);

    llistacuentas = serviceLocator.getAccountService().findAccountByJsonQuery("users.user.userName eq 
\""+usuari.userName+"\" ");

    for(cuenta:llistacuentas){
        out.print("  Cuenta : " + cuenta.name);
        out.println("  ID: " + cuenta.id);
        llistaRole = serviceLocator.getApplicationService().findRoleAccountByAccount(cuenta.id);

        for(role:llistaRole){
            out.print("    Role: " + role.roleName + "\n");
            out.println("      Aplicacion: " + role.informationSystemName);
            out.println("      Agente: " + role.system);
        }
    }
}
```

2. Identity scripts

Recover a user for userName

```
u = serviceLocator.getUserService().findUserByUserName("Ivan");
out.print("Usuari: " + u.firstName);
```

Recover a users from a JQuery

```
llistaUsuari = serviceLocator.getUserService().findUserByJsonQuery("firstName sw \"A\" AND lastName sw \"V\"");  
for (usuari:llistaUsuari){  
    out.println("Usuari: " + usuari.userName);  
}
```

Print some attributes

```
u = serviceLocator.getUserService().findUserByUserName("02");  
out.println("UserName: " + u.userName);  
out.println("Name: " + u.firstName);  
out.println("LastName: " + u.lastName);
```

Print by user the email

```
u = serviceLocator.getUserService().findUserByUserName("02");  
out.print("Email: " + u.shortName + "@" + u.mailDomain);
```

Print by user some additional data

```
llistaDadesUsuari = serviceLocator.getUserService().findUserDataByUserName("18008366X");  
for(dadaUsuari:llistaDadesUsuari){  
    out.println("Atributs " + dadaUsuari.attribute + " = " + dadaUsuari.value);  
}
```

Create a new identity

```
try {  
    newUser = new com.soffid.iam.api.User();  
    //Instanciar un nuevo objeto de tipo usuario  
  
    newUser.userName = "IvanVis"; //Faltan 6 parametres  
    newUser.firstName = "Ivannn";  
    newUser.lastName = "Visarttt";  
    newUser.userType = "I";  
    newUser.profileServer = "null" ;  
    newUser.homeServer = "null" ;  
    newUser.mailServer = "null" ;
```

```
newUser.primaryGroup = "world";
newUser.active = true;

serviceLocator.getUserService().create(newUser);
}catch(Exception e){
    e.printStackTrace(out);
}
```

Update an identity

```
u = serviceLocator.getUserService().findUserByUserName("Ivan");
u.firstName = "Ivaan1";
u = serviceLocator.getUserService().update(u);
out.print(u.firstName);
out.print(u.userName);
```

Delete an identity

```
try {
    u = serviceLocator.getUserService().findUserByUserName("02");
    serviceLocator.getUserService().delete(u);
} catch(Exception e) {
    e.printStackTrace(out);
}
```

3. Account scripts

Recover accounts of user

```
la = serviceLocator.getAccountService().findAccountByJsonQuery("users.user.userName eq \"02\" ");
for(a:la) {
    out.println("Cuenta: " + a.name);
    out.println("ID: " + a.id);
    out.println("System: " + a.system + "\n");
}
```

Remove attribute values of a metadata

```

public void removeUnAttributeValues(String attribute, String system) {
    la = serviceLocator.getAccountService().findAccountByJsonQuery("system eq \""+system+"\"");
    for (a : la) {
        laa = serviceLocator.getAccountService().getAccountAttributes(a);
        for (aa : laa) {
            if (aa.attribute.equals(attribute)) {
                if (aa.value!=null) {
                    out.print("accountName: "+accountName+", attribute.value: "+aa.value);
                    serviceLocator.getAccountService().removeAccountAttribute(aa);
                    out.println(" ---> removed");
                }
            }
        }
    }
}

removeUnAttributeValues("manager","OSCM");

```

4. Role scripts

Recover roles of a user

```

user = serviceLocator.getUserService().findUserByUserName("Ivan");
out.println("Usuari: " + user.userName + "\n");
rolsUser = serviceLocator.getUserService().findUserRolesHierachyByUserName(user.userName);
for(listrRolsUser:rolsUser){
    out.println("Nombre: " + listrRolsUser.name);
    out.println("Descripcion: " + listrRolsUser.description);
    out.println();
}

```

Print the associated roles for each account

```

llistaUsuaris = serviceLocator.getUserService().findUserByJsonQuery("userName eq \"Ivan\" ");
for(usuari:llistaUsuaris){

    llisstacuentas = serviceLocator.getAccountService().findAccountByJsonQuery("users.user.userName eq
\"" + usuari.userName + "\" ");
}

```

```

for(cuenta:Ilistacuentas){
    out.print("  Cuenta : " + cuenta.name);

    IlistaRole = serviceLocator.getApplicationService().findRoleAccountByAccount(cuenta.id);

    for(role:IlistaRole){
        out.print("    Role: " + role.roleName + "\n");
    }
}
}

```

Print for an account the roles and applications for each of them

```

IlistaUsuaris = serviceLocator.getUserService().findUserByJsonQuery("userName eq \"Ivan\" ");
for(usuari:IlistaUsuaris){

    Ilistacuentas = serviceLocator.getAccountService().findAccountByJsonQuery("users.user.userName eq \""+usuari.userName+"\" ");

    for(cuenta:Ilistacuentas){
        out.print("  Cuenta : " + cuenta.name);
        out.println("  ID: " + cuenta.id);
        IlistaRole = serviceLocator.getApplicationService().findRoleAccountByAccount(cuenta.id);

        for(role:IlistaRole){
            out.print("    Role: " + role.roleName + "\n");
            out.println("      Aplicacion: " + role.informationSystemName);
        }
    }
}

```

Print the roles associated with each account

```

usuCuenta = serviceLocator.getUserService().findUserByJsonQuery("");
for(listaUsuCuenta:usuCuenta) {

    out.println("Usuario: " + listaUsuCuenta.userName);
    out.println("Nombre: " + listaUsuCuenta.firstName);
}

```



```
rolsUser = serviceLocator.getUserService().findUserRolesHierachyByUserName(listaUsuCuenta.userName);

for(listaRolsUser:rolsUser){
    out.println("Nombre del Rol: " + listaRolsUser.name);
    out.println("Descripcion: " + listaRolsUser.description);
    out.println();
}
}
}
```

Create a new role

```
try {
    newRol = new com.soffid.iam.api.Role();
    newRol.name = "Rol_New_Script";
    newRol.description = "Rol Script";
    newRol.informationSystemName = "SOFFID";
    newRol.system = "APLICACION01";
    serviceLocator.getApplicationService().create(newRol);

} catch (Exception e){
    e.printStackTrace(out);
}
```

Update a role

```
editRole = serviceLocator.getApplicationService().findRoleByJsonQuery("name eq \"Rol editado por script\" and
informationSystemName eq \"APLICACION01\" ");
for (role:editRole){

    out.println(role.name);
    role.name = "ROL01";

    role = serviceLocator.getApplicationService().update(role);
    out.print(role.name);
}
```

Delete a role

```
try {
    editRole = serviceLocator.getApplicationService().findRoleById(232734);
    serviceLocator.getApplicationService().delete(editRole);
} catch (Exception e) {
    e.printStackTrace(out);
}
```

List the roles of an application

```
list = serviceLocator.getApplicationService().findRoleByJsonQuery("informationSystemName eq \"SOFFID\"");
for (role : list) {
    out.println(role.name);
}
```

5. Mail scripts

Send email

```
import javax.mail.BodyPart;
import javax.mail.internet.MimeBodyPart;
import javax.activation.DataHandler;
import javax.activation.FileDataSource;
import java.util.ArrayList;

path = "/tmp/";
name = "file.txt";
BodyPart att = new MimeBodyPart();
att.setDataHandler(new DataHandler(new FileDataSource(path+name)));
att.setFileName(name);
to = "aretha@soffid.com";
cc = "etaylor@soffid.com";
subject = "This is an email with attachment ";
body = "In this email you can see an attachment.";
mimeBodyParts = new ArrayList();
mimeBodyParts.add(att);

serviceLocator.getMailService().sendHtmlMail(to, subject, body, mimeBodyParts);
serviceLocator.getMailService().sendHtmlMail(to, cc, subject, body, mimeBodyParts);
```

```
serviceLocator.getMailService().sendTextMailToActors(new String[]{"aretha"}, subject, body, mimeBodyParts);  
serviceLocator.getMailService().sendTextMailToActors(new String[]{"aretha"}, cc, subject, body,  
mimeBodyParts);  
out.println("Mails sent!");
```

Event Sample scripts

On grant permission

Update a user attribute when assigning a specific permission

```
if (grant.roleName.equals("RS002")) {  
    user = serviceLocator.getUserService().findUserByUserName(grant.user);  
    if (user != null) {  
        attributes = serviceLocator.getUserService().findUserAttributes(user.userName);  
        if (attributes == null) {  
            attributes = new HashMap();  
        }  
        attributes.put("language", "Spanish");  
        serviceLocator.getUserService().updateUserAttributes(user.userName, attributes);  
    }  
}
```

On user change

Run a Python script when the user has assigned an specific role

```
if (user != null) {  
    roleGrantList = serviceLocator.getApplicationService().findEffectiveRoleGrantByUser(user.id);  
    for(roleGrant:roleGrantList){  
        if (roleGrant.roleName.equals("SOFFID_TEST")) {  
            // RUN SCRIPT  
            String command = "python3 /opt/soffid/iam-console-3/conf/exampleScript.py > /opt/soffid/iam-console-3/conf/resultsScript01.txt";  
            Process process = Runtime.getRuntime().exec(command);  
            user.comments = "ADD comments";  
            user = serviceLocator.getUserService().update(user);  
        }  
    }  
}
```