userXpress documentation

userXpress Technical Procedures

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Installation and enterprise deployment

Applies to userXpress 2.0.0.0

Install userXpress with the EXE installer, complete the first start and request an MSI package for centralized deployment.

Before installation

Prepare the following before running setup:

- Obtain the userXpress EXE installer and license code from Delorion or your software administrator.
- Check the desktop requirements, including installation rights and any required SAP GUI or SNC components.
- Have the intended SAP system, client, connection file and logon method available.

Windows 11 includes the .NET Framework runtime required by userXpress.

Before installing, finish the current operation and close userXpress.

Install the program

1. Run the supplied EXE installer and approve the Windows elevation prompt with an account authorized to install software.
2. Read and accept the license agreement, then start installation. The setup executable uses the default installation folder.
3. Wait for installation to complete. On 64-bit Windows, the default folder is `%ProgramFiles(x86)%\Delorion\userXpress` (normally `C:\Program Files (x86)\Delorion\userXpress`).
4. Complete any restart requested by Windows before starting the application.

Setup creates a **userXpress** entry in the Windows Start menu. It installs the program for the machine.

Each user completes the following first-start steps in their own Windows account.

First start and license

1. Start **userXpress** from the Start menu under the normal Windows account of the person who will use it.
2. In **New Passphrase**, enter a **Passphrase**, repeat it in **Re-Enter**, and optionally enter a **Hint**. Choose **OK**. Keep the passphrase secure: it protects saved SAP logons. Choosing **Cancel** closes the application.

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3. When the license window appears, choose **Enter new license**. Paste the supplied license code and choose **OK**. Check the license confirmation or registration details. If the code is rejected, obtain the correct code before continuing.
4. Replacing an expired or missing license closes userXpress. Start it again and enter your passphrase.
5. Open **Information** and record the displayed application version for your installation record.

On later starts, enter the same passphrase and choose **Unlock**. It is separate from your SAP password.

A forgotten passphrase requires a reset that clears saved logon credentials. See Reset a forgotten passphrase.

Deploy the MSI centrally

For centralized deployment, request the MSI package through the Delorion support portal. Run installation with machine administrator rights. Leave first-start configuration to the intended Windows user.

Run the following Windows Installer command in Command Prompt. It installs without displaying the wizard, suppresses an automatic restart and writes a verbose log.

Replace the example MSI path with the supplied package's actual path. The log directory must already exist and be writable by the deployment account.

```
msiexec.exe /i "C:\Packages\userXpress.msi" ^
  /qn /norestart ^
  /L*v "C:\Packages\userXpress-install.log"
```

Use these Windows Installer options with the `.msi` file. Configure SAP connections in the intended user's Windows account after installation.

Have the deployment tool wait for `msiexec` to finish and capture its exit code:

- `0`: installation succeeded.
- `3010`: installation succeeded and Windows needs a restart. Schedule that restart before handing over the workstation.
- For an error, retain the installation log and interpret the Windows Installer return code.

Upgrade or uninstall

To upgrade, finish the current operation, close userXpress and run the new EXE installer. The installer replaces the previous program version.

To uninstall, close userXpress and remove it through Windows' installed-applications controls. Uninstalling the program does not remove SAP accounts or role assignments.

Handle personal configuration, exports and recovery files separately under your retention policy.

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If an upgrade must be reversed, contact Delorion support with the old and new version numbers and the failure details before restoring the old installation. Keep the previous installer available. Do not replace individual program files with older copies.

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Network connectivity and authentication

Applies to userXpress 2.0.0.0

Use SAP Logon connection definitions, configure SNC and establish the first SAP connection.

Network access

Destination	Required access
SAP application or message server, including SAProuter where configured	Permit userXpress to reach the server addresses and ports in your SAP connection definitions. Obtain these from your SAP Basis team.
`docs.delorion.tech`	Browser HTTPS access for online Help.
`support.delorion.tech`	HTTPS access from userXpress and the browser for support sign-in, requests and approved attachments.

SAP ports depend on the system and route.

If a proxy is used, check support access from both the application and the browser.

SAP Logon connection file

userXpress automatically detects the SAP Logon configuration file in your Windows profile on first start and uses it to list the available systems.

Use a different connection file

To use a different SAP Logon configuration file, select it in Settings. SAP Logon XML and legacy INI files are supported.

1. Open **Settings** → **Connections**.
2. Under **SAP Logon configuration**, locate **Configuration file**.
3. Use the browse button to select your SAP Logon configuration file, then choose **OK** to save.
4. Open **Control Panel** → **Connected Systems** → **Add** and check that the expected system is in the list.

If the file is missing or the list does not contain the system you need, correct the file selection or ask the SAP Basis team to update the connection definition. Changing the SAP user’s authorizations will not add a missing connection entry.

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Configure SNC

Complete this section when the SAP connection uses Secure Network Communications (SNC). Your SNC provider must already be installed and configured for the administrator's identity. userXpress needs the provider's **32-bit DLL**, even on 64-bit Windows.

1. Open **Settings** → **Connections** and find **SNC library**.
2. Choose **Find installed libraries**, then select the correct provider from **Select an installed library**. The list shows its product, version and architecture. Selecting an entry sets the library override automatically.
3. If the provider is not found, enable **Use a library override for userXpress**, choose **Browse...** beside **Library path**, and select its DLL.
4. Check the status below the selection. Resolve a missing, unreadable or wrong-architecture library before continuing.
5. Choose **OK**. If the library setting changed, userXpress offers to restart. Choose **Yes** when you are ready, or **No** to restart later. The new library selection takes effect after restart.
6. Connect to the SNC-enabled SAP system using the configured logon method.

If IT manages the library through the Windows environment, leave **Use a library override for userXpress** cleared. The status shows the inherited setting and path.

An enabled override takes precedence for userXpress and does not change the Windows environment settings used by other applications.

Setting an SNC name on a SAP user record is a different operation. It does not install the provider or configure workstation trust.

Make the first connection

1. Open **Control Panel** → **Connected Systems** → **Add**.
2. Select the system, then enter the intended **Client** and **Language**.
3. For password logon, enter **User** and **Password**. For SNC single sign-on, the **User** and **Password** fields are disabled. The configured SNC identity is used.
4. Leave **Auto start** cleared for this first connection. Choose **OK** and wait for loading to finish.
5. Check the system/client in Control Panel and its data in the Global User Table and Global Role Table.

After the connection works, use AutoStart if you want it opened at subsequent starts. Saved passwords must be updated when the SAP password changes.

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Connection problems

Symptom	What to check
The system is absent from the logon list	Check **Settings → Connections → SAP Logon configuration**, the file's accessibility and its system entries.
SAP cannot be reached or the connection times out	Check the workstation's network/VPN, SAP server availability and the configured SAProuter route with the Basis team.
SAP rejects the logon	Check the client, account status and authentication method. For a changed password, update the saved credentials. Avoid repeated attempts with a rejected password.
The SNC library is missing or has the wrong architecture	Select the installed 32-bit provider DLL under **SNC library**, save and restart userXpress.
Logon succeeds but loading is denied	Give the SAP security administrator the reported function or table and follow Diagnose a SAP authorization failure.
Support sign-in succeeds in the browser but does not return to userXpress	Keep the support wizard open. Check that browser and endpoint policies allow the return to `127.0.0.1` on the same workstation.

For an unresolved problem, retain the exact message, timestamp and affected system/client. Use Diagnostics to prepare the information for support.

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Required SAP access

Applies to userXpress 2.0.0.0

Understand the SAP permissions used by userXpress and trace an authorization failure to the affected account and operation.

Which account needs access?

userXpress works with the permissions of the SAP user used for each connection. For SNC single sign-on, this is the SAP account mapped to that identity.

The administrator needs the normal SAP access for their work: reading user and role information and updating users within their assigned responsibilities. Using userXpress keeps that administrative scope unchanged.

This page explains how those permissions apply to the SAP calls behind each task. It provides a reference for the SAP security administrator and a procedure for resolving an authorization error. For authorization objects, fields and values, see SAP requirements.

RFC execution and administration permissions

SAP uses **S_RFC** to control execution of remote function calls. The role must allow the required functions or function groups for your SAP release.

SAP checks RFC execution permission together with the user, role or table permissions for the requested task. See SAP RFC authorization.

The following reference maps administration tasks to their principal SAP calls. Use the entries relevant to the administrator's work.

Each task includes the supporting reads needed to display account details, offer field values and refresh the result after a change.

Task	Principal SAP calls
Read account details	`BAPI_USER_GET_DETAIL`, together with user, address and assignment table reads.
Create, change or delete accounts	`BAPI_USER_CREATE1`, `BAPI_USER_CHANGE`, `BAPI_USER_DELETE`.
Lock or unlock accounts	`BAPI_USER_LOCK`, `BAPI_USER_UNLOCK`.
Set initial or deactivate passwords	`BAPI_USER_CHANGE`.
Set productive passwords	`SUSR_USER_CHANGE_PASSWORD_RFC`. Password generation/checking also uses `SUSR_GENERATE_PASSWORD` and `PASSWORD_FORMAL_CHECK`.

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Task	Principal SAP calls
Assign roles or profiles	`BAPI_USER_ACTGROUPS_ASSIGN`, `BAPI_USER_PROFILES_ASSIGN`, plus reads of existing assignments.
Copy role definitions and generate profiles	`/SDF/PRGN_EXECUTE_UPLOAD`, `PRGN_AUTO_GENERATE_PROFILE_NEW`.
Send a message or end a SAP session	`TH_POPUP` for messages. `TH_DELETE_USER` for session termination.

User administration involves **S_USER_GRP** for user-group scope. Role administration involves **S_USER_AGR**. Profile and assignment operations can additionally involve **S_USER_PRO** and **S_USER_SAS**, depending on your SAP authorization-check configuration.

Use the groups, roles, profiles and activities already defined for the administrator's responsibilities. SAP describes these checks in its user administration and role administration guidance.

SAP controls read access and change access through their respective authorization checks. Set the scope of each according to the administrator's responsibilities.

Access for role content filters

Role content searches read the authorization data maintained in roles, including authorization headers (`AGR_1250`), field values (`AGR_1251`), organizational values (`AGR_1252`) and role-menu data.

The editor also reads authorization and dictionary metadata to describe fields and suggest values. Some value lists require access to a field's own check table.

When access to one of these sources fails, the search can show confirmed matches alongside roles it could not evaluate. Those unverified roles are not confirmed non-matches.

Open **Details…** for the failed reads, correct the permission or connection problem and use **Run again**.

A match describes maintained role content. It does not establish that a particular user can execute a transaction: assignments, validity, generated profiles and other SAP checks also affect that user's access.

SAP GUI transactions

Commands such as **SU01** open SAP GUI using the account's normal transaction access and display or maintenance permissions, just as when the administrator opens the transaction directly.

Diagnose a SAP authorization failure

1. Record the exact error, action, time, SAP logon user, system and client. Include the function or table named in the error.

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2. Have the SAP security administrator activate an authorization trace for that user, covering the application server handling the RFC request. **STAUTHTRACE** or **ST01** can be used according to the SAP release and your tracing procedure.
3. Reproduce the failing action once, then stop the trace. For an action that changes SAP data, first check whether the original attempt already made the change.
4. Inspect the failed authorization checks and their field values. Correct the intended role, regenerate the profile and complete user comparison where required.
5. Reconnect userXpress and repeat the affected action.

SAP's authorization trace guidance explains trace scope. A trace on a different application server can miss the RFC request.

If the action succeeded but updating the table failed, investigate the refresh read separately. Repeating a successful account change will not fix a missing read authorization.

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SAP roles and assignment

Applies to userXpress 2.0.0.0

Import the userXpress SAP roles, generate the authorization profiles and assign the composite role to SAP users.

The supplied role package groups the SAP communication, read and user-administration permissions used by userXpress. You can provide this access through your existing SAP roles or use the package below, with authorization values matching the administrator's responsibilities.

The package contains two single roles and a composite role. To use it, import the roles in **PFCG**, generate both single-role profiles and assign the composite role to the SAP users who will connect from userXpress.

Download the userXpress SAP roles (.zip)

Roles in the package

Communication Authorization

Single role: `Z_DELORION_USERXPRESS_RFC`

Permits the RFC calls and table reads userXpress uses to communicate with SAP.

User Administrator

Single role: `Z_DELORION_USERXPRESS_USERADM`

Provides authorizations for SAP user accounts, role assignments and authorization profiles.

Admin User Role

Composite role: `ZC_DELORION_USERXPRESS`

Groups the communication and user-administration roles so you can assign them together.

Assign the composite role to the SAP account used by the userXpress connection. SAP assigns its two single roles during user comparison. See SAP: Creating Composite Roles.

Use the SAP access reference to identify the authorizations needed for the person's duties.

Prepare the role

Use the systems, clients, user groups, roles and activities already defined for the administrator's duties when preparing the supplied roles.

For example, an administrator who resets passwords may need to read account details and change passwords for one user group, without permission to delete accounts or change role definitions.

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Include the reads used to load and refresh the relevant user and role information. SAP controls read access and account changes through separate authorization checks, so set the scope of both to match those duties.

Import a PFCG role file

1. Download the ZIP file above and extract `Delorion-userXpress-Roles.SAP`.
2. Log on to the intended SAP system and client with an account authorized to maintain roles, then open **PFCG**.
3. Choose **Role** → **Upload** and select the extracted `.SAP` file.
4. Import the three roles listed above. If a role already exists, check that you intend to replace it before confirming.

After import, generate the authorization profiles for both single roles. Profile generation makes their authorization data available for assignment to users. See SAP: Working with Transaction PFCG.

Generate and assign

Generate the single-role profiles

Complete these steps for each single role: `Z_DELORION_USERXPRESS_RFC` and `Z_DELORION_USERXPRESS_USERADM`.

1. Enter the role name in **PFCG** and choose **Change**.
2. Open **Authorizations** → **Change Authorization Data**.
3. Maintain the required authorization values and apply the user-group, role-name and activity restrictions agreed for the administrator.
4. Save the authorization data and choose **Generate** to generate the profile.

Assign the composite role

1. Open `ZC_DELORION_USERXPRESS` in **PFCG** and choose **Change**.
2. On the **User** tab, enter the SAP user IDs that should receive the roles and set their assignment validity dates.
3. Save the assignments and choose **User Comparison**, then **Complete Comparison**. This applies the included single-role assignments and their generated profiles to the users.
4. Reconnect the affected userXpress connection to use the assigned authorizations.

SAP explains profile generation and user comparison in Maintaining User Authorizations with Roles and Profiles.

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Change or remove access

After changing a role’s authorization data, regenerate its profile and complete the necessary user comparison. Reconnect the affected userXpress connection to use the updated authorizations.

Before removing a role, identify the users who depend on it. Remove the intended assignments and complete user comparison through your SAP administration process. Uninstalling userXpress from a workstation does not revoke SAP role assignments.

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Diagnostics for customer IT

Applies to userXpress 2.0.0.0

Capture a performance report, identify connection failures and send the relevant files to support.

Record the problem

Record the version from **Information**, the action, the time and the exact error message. For a SAP operation, include the affected system/client and whether all targets failed or only some of them.

A timeout can occur after SAP has accepted a change. Check the target account before repeating account creation, deletion or another change whose result is uncertain. If the operation succeeded but the table did not refresh, report both outcomes.

Capture a performance report

Use **Information** → **Diagnostics** for slow startup, system loading or the operations measured during a diagnostic session. Capture the workload that is slow on the affected workstation. A report from a different set of systems may not reproduce the problem.

1. Finish or save your current work. The next step restarts userXpress.
2. Open **Information** → **Diagnostics** and leave **Redact system identifiers in the report** selected unless you are authorized to include them.
3. Choose **Measure next session** and confirm the restart.
4. Let startup and system loading finish. If the problem concerns a later operation, perform that operation in the diagnostic session and note its time and result.
5. Return to **Information** → **Diagnostics** and choose **Open latest report**. Use **Open diagnostics folder** to locate the report files.

Measurement remains active in that session until userXpress closes. Normal subsequent starts do not automatically start another measurement. An active measurement disables **Measure next session**.

Read and retain the report

The HTML report opens in the browser and can be read offline. Start with the operation that was slow and check whether it completed, failed or was cancelled.

Compare time spent on SAP requests, local processing and display updates. Include the number of clients and records involved when reporting a performance problem.

- **Elapsed** includes work inside a step. Do not add a parent’s elapsed time to its child times.
- **Self** excludes child-step time.

Distinguish time spent waiting for a dialog choice from processing time.

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The report directory contains HTML and accompanying CSV, JSONL and text files. Keep them together.

Choose **Export support bundle…** to save the latest report directory as a ZIP, and check that the ZIP belongs to the session you intend to send. Exporting the ZIP does not upload it.

If **Open latest report** is disabled, no HTML report is available for that action. Check the status and output location in the diagnostics window.

If userXpress failed before completing the operation, preserve the report folder and explain where execution stopped.

Connection and authorization failures

For an SNC failure, open **Settings** → **Connections** → **SNC library** and record the displayed library path, version, architecture and error. Follow Configure SNC if the wrong library was selected.

For a SAP authorization failure, give the SAP security team the error's function or table, SAP user and client. Follow Diagnose a SAP authorization failure.

For incomplete role content results, include the query's status and **Details…** information. Distinguish roles confirmed to match from those the application could not evaluate.

Review files before sending

Application logs, exports and screenshots can contain user identifiers, role names, file paths and other customer information. Performance-report redaction does not redact every other attachment.

Check the complete files you intend to send. A truncated preview is not the complete attachment.

Open **Information** → **Create support request**, describe the problem and review the proposed files. Exclude unrelated material and files containing passwords or tokens. Approve the selection before continuing to sign-in and upload.

After the approved files have been uploaded, complete the final review and submission in the browser. The desktop preparation step alone does not submit the ticket. Follow Create a support request for the wizard's individual steps.

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