



Tips and Techniques for Digital Library Provisioning

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The Administration and Registration Tool (ART) supports the registering and maintaining users for the Smarter Balanced Digital Library. As other Smarter Balanced services come on line, they will be accessed using these same accounts. The following are details about the provisioning process that have emerged as we have supported provisioning between October and December 2014.

This is intended as a supplement to the ART user guide and it assumes familiarity with ART and the general provisioning process.

Registering Districts and Schools

Districts and schools each have two Identifiers, the LocalEducationAgencyIdentifier and the NCESLEAID. If your state has assigned an identifier to the district or school, you should use that ID in the LocalEducationAgencyIdentifier. If not, you can use the NCES-assigned ID in both places.

When registering districts, the ParentEntityType should be "STATE" and the ParentEntityId should be your state's two-letter abbreviation. This duplicates the value in StateAbbreviation. The reason for this redundancy is that you can optionally insert a "Group of Districts" into the hierarchy so that a district belongs to a group which belongs to the state. Even if your state groups its districts, you don't need to worry about creating "Groups of Districts" now. You can create groups and migrate districts into those groups at a later date.

If you don't have the information convenient, you can download district and school tables for your state from <http://nces.ed.gov/ccd/districtsearch/> and <http://nces.ed.gov/ccd/schoolsearch/>. They'll download in spreadsheet format and, with a little manipulation, you can prep them for upload into ART!

Here's a sample upload for registering districts:

LocalEducationAgencyIdentifier	OrganizationName	NCESLEAID	ParentEntityType	ParentExternalId	StateAbbreviation	Delete
1964733	Los Angeles Unified School District	0622710	STATE	CA	CA	
3066423	Anaheim City	0602610	STATE	CA	CA	
033	Bear Lake County District	1600240	STATE	ID	ID	

When registering schools, the ParentEntityType should be DISTRICT. There is the ability to create groups of schools within districts but, like groups of districts, they can be created later.

Here's a sample for registering schools (again, based on actual records in <http://nces.ed.gov/ccd/schoolsearch/>)

InstitutionIdentifier	NameOfInstitution	NCESInstitutionId	ParentEntityType	ParentExternalId	StateAbbreviation	Delete
1935121	Abraham Lincoln Senior High	062271003139	DISTRICT	1964733	CA	
6027437	Jefferson (Thomas) Elementary	060261000154	DISTRICT	3066423	CA	

Add both the District Coordinator and the DL_EndUser roles

When you create a new account in ART, the user will receive a “Welcome to the Digital Library” email. However, if the user doesn’t have a DL_EndUser role, they will be unable to log into the digital library. This is most likely to happen when you create new accounts for District Coordinators who have not previously been Digital Library users.

So, when creating District Coordinators, always add the DL_EndUser role as well. If you’re creating district coordinator roles using a spreadsheet then use two rows for each user. One for the District Coordinator role and one for the DL_EndUser. Here’s an example.

FirstName	LastOrSurname	ElectronicMailAddress	Telephone Number	Role	AssociatedEntityId	Level	StateAbbreviation
Zog	Jones	zog@mailinator.com		District Coordinator	Abc123	DISTRICT	WA
Zog	Jones	zog@mailinator.com		DL_EndUser	Abc123	DISTRICT	WA
Thag	Simmons	thag@mailinator.com		District Coordinator	Def456	DISTRICT	WA
Thag	Simmons	thag@mailinator.com		DL_EndUser	Def456	DISTRICT	WA
Davey	Jones	dave@mailinator.com		District Coordinator	Ghi789	DISTRICT	WA
Davey	Jones	dave@mailinator.com		DL_EndUser	Ghi789	DISTRICT	WA

Roles are additive. So, if you’ve already uploaded a spreadsheet with the District Coordinator roles in it, you can substitute DL_EndUser in the Role column then upload again and it will add the DL_EndUser role without disturbing the existing District Coordinator role. Likewise, if you upload the same spreadsheet twice, it will recognize that the role already exists and leave it alone. The only way to remove a role with a bulk upload is to put an exact match to the role in the spreadsheet and then enter DELETE in the Delete column.

Roles at the State Level

Roles always have an associated entity. DL_EndUser roles can be assigned at any level. For example:

FirstName	LastOrSurname	ElectronicMailAddress	Telephone Number	Role	AssociatedEntityId	Level	StateAbbreviation
Zog	Jones	zog@mailinator.com		DL_EndUser	WA	STATE	WA
Thag	Simmons	thag@mailinator.com		DL_EndUser	LAUSD	DISTRICT	CA
Davey	Jones	dave@mailinator.com		DL_EndUser	PS123	SCHOOL	NY

All of the users provisioned using the old system (pre-October) are assigned the DL_EndUser role at the state level (like Zog Jones in the example above).

The entity associated with a DL_EndUser doesn't affect their privileges on the Digital Library. However, it does affect who can manage that user. For example, a DL_EndUser assigned to a particular district, or to a school in that district, will be visible to that district's coordinator and the district coordinator can reset the user's password, if needed, without having to contact the state help desk. For this reason, it will be valuable to migrate existing state-level users to their corresponding districts and schools.

Note: If a user has the DL_EndUser role at both the state and district level, they will **not** appear in ART to the District Coordinator. A software fix to this is being designed. In the meantime, a periodic process automatically removes state-level DL_EndUser roles when a user also has a DL_EndUser role at a lower level. So, users which are hidden for this reason will appear 1-2 days later.

For coordinator roles, the associated entity governs privileges in ART. For example, a person isn't just a District Coordinator, they are a District Coordinator for a particular district. A person can have multiple instances of the same role associated with different entities. For example, the same person could be a District Coordinator for multiple districts.

Email systems blocking welcome and password reset email messages.

Some districts and schools have had problems when their email filters block the Digital Library welcome and/or password reset email messages. You can encourage users to check their "junk mail" or "spam" folders to see if the message is there. Also encourage them to add "Smarter-DoNotReply@opentestsystem" to their "safe senders" list.

School, district, or state email administrators can use the following information to configure their filters to ensure that Digital Library and Single-Sign-On messages are passed through.

Messages will have the following characteristics:

- From: Smarter-DoNotReply@opentestsystem.org
- Subject: PROD: Welcome to the Smarter Balanced Digital Library
- Sender: <some numbers>@amazonses.com. for example, 000001491afb27a5-a7c5c02d-b08e-471e-8e07-7f51ccef471c-000000@amazonses.com
- Received: from <some numbers>@smtp-out.amazonses.com. For example, a9-75.smtp-out.amazonses.com

Updating Accounts for Users with new Email addresses

Some user groups will need to update their email addresses after their accounts have been created. When the email address for these users is updated in ART, user may find that access to their contributed resources is no longer available. (An example of this might be when a school district changes the email addresses for all administrators.) The following workaround will help you maintain access to users' existing accounts (for example, in cases where they no longer see their contributed resources or reviews):

1. Find the user's current account in the Digital Library (the one that ends in the user's new email address) via the **People** tab, and change the email address by prefixing it with "Inactive_" and Save. The email address should look as follows: "Inactive_Username@new_email_address". We want to do this so that the email address is different for when we update the old account in the next step.
2. Locate the old account (with the old email address), and update the email address and user name to the new email address.
3. Remove the "SSO UUID" field on the account
4. Save

When those users log in the next time, they should see their resources and reviews from their previous accounts.

Login Problems with ART

Occasionally you may have a problem logging in to ART. After entering the correct username and password you'll get one of several cryptic error messages such as, "There was an issue logging in...".

We are currently investigating the problem. It seems to be an issue with an time-stamped browser cookie. The cookie expires so the problem will go away if you wait a few hours or a day and then log in again.

In the meantime, most of the following workarounds will get you in:

- Open an incognito or inPrivate browser window (this always works for me).
- Close all browser windows and then try again.
- Switch browsers, from Internet Explorer to Firefox or Chrome or vice-versa.
- Clear all cookies from the last two hours.
- Clear all cookies from the last day (if two hours doesn't work).

If you find a way to consistently reproduce the problem, please report it to sb@smarterbalanced.org. That will help us diagnose and correct the bug.

Digital Library Login Error Codes

Occasionally users will successfully log into the SSO system only to get an error when accessing the Digital Library. Here are the possible error codes, their meanings and the recommended remedies:

Code	Cause	Remedy
Error code 100 We are unable to create your Digital Library Profile...	The communication between Single Sign-on and the Digital Library had a problem.	This error message indicates a communications issue. If the error occurs consistently, district personnel should pass on the details to your state help desk. If the help desk personnel are able to replicate the problem then they should contact Smarter Balanced for a solution.
Error code 101 We are unable to create your Digital Library Profile...	The user does not have a DL_EndUser role assigned.	This happens when an individual is granted a role like "District Coordinator" or "School Coordinator" but not the DL_EndUser role. Add the DL_EndUser role to correct the problem.
Error code 102 Access to the Digital Library is Denied	The user is assigned to a state that has not subscribed to the Digital Library	This has happened to SNEs and SLTs that belong to non-subscribing states but that should still have Digital Library access. If the individual has responsibilities in your state, then grant them DL_EndUser access within your state (or a school or district in your state).
Error Code 103 We are unable to create your Digital Library	An existing user's profile could not be updated with new registration	This error message indicates a communications issue. If the error occurs consistently, district personnel should pass on the details to your state help desk. If the help desk personnel are able to replicate the problem then they should contact Smarter Balanced

Profile...	information.	for a solution.
Error Code 104 We are unable to create your Digital Library Profile...	A new user's profile could not be created with the registration information.	This error message indicates a communications issue. If the error occurs consistently, district personnel should pass on the details to your state help desk. If the help desk personnel are able to replicate the problem then they should contact Smarter Balanced for a solution.
Error Code 105 We are unable to create your Digital Library Profile...	The user does not have a DL_EndUser role assigned in a state that has subscribed to the Digital Library.	If the individual has responsibilities in your state, then grant them DL_EndUser access within your state (or a school or district in your state).
Error Code 200	The user has been administratively blocked in the Digital Library user management component.	User blocking usually occurs because of poor conduct on the part of the user. See if you can determine what the reason might be for blocking. Then, contact your state help desk.

Previous Issues that Have Been Fixed

- Previously, when you changed the email address of a user, they had to create a new profile in the Digital Library and their previous history was lost to them. Now, the Digital Library associates the existing account with the new email address.
- Previously, email addresses were case-sensitive so you could have two accounts with the same email address differing only in the use of upper and lower case. That issue has been fixed.
- Coordinators sometimes saw users from other states because no roles had been assigned to those users. This issue was addressed by removing all users with no associated roles. It may reappear from time to time until the code is updated to remove accounts when the last role is deleted.
- Exports were previously limited to the users displayed on the screen. They are now limited to 100,000 users per export.

Scheduled Downtime for ART

Starting Saturday, October 25 2014, there will be regularly scheduled maintenance for the Administration and Registration Tool (ART) for the Digital Library from 6:30AM – 7:00AM Eastern Time on Saturdays. This time slot was selected to minimize disruption. During these maintenance periods, ART may be unavailable for registering and updating users. Other services, including user access to the Digital Library will be uninterrupted. We apologize for any inconvenience this may cause.

Known issues in ART

The following are known bugs in ART. All have been corrected and are presently being tested. We expect the fixes to be deployed on the operational site soon. In the meantime you should be aware of them.

- Email addresses with apostrophes cannot access the Digital Library. Previously, accounts with apostrophes could not be created. A partial fix has allowed such accounts to be created but they still cannot connect to the Digital Library.