Table of Contents

TABLE OF CONTENTS 1

OVERVIEW 3

Drupal 7 Architecture 3
Users and Permissions 3
Node Content Types and Structure 3

Drupal 9 Architecture 4
A Complete Redesign of schoolboard.net 4
Users and Permissions 4
Groups and Permissions 5
Group Members and Permissions 5
Node Content Types and Paragraph Structure 5

D7 → D9 Migration 6
Overview and Goals 6
Data to be Migrated 6
Migration Order 6
Reporting, Errors, and Logs 6

STEP 1: USER AND USER PERMISSIONS MIGRATION 7

STEP 2: GROUP MIGRATION 8

Overview 8

Group Entity Content 8

D7 Group Visibility = D9 Group Type 8

STEP 3: USER GROUP MEMBERSHIP AND PERMISSIONS MIGRATION 10

Overview 10

D7 and D9 Role Differences 10

Group Member Transfer Rules 11

STEP 4: EVENT NODE MIGRATION 12

Event Migration Overview 12

Assign Node to Group(s) 13

Attach Node files to Paragraph(s) 13

STEP 5: BOOK AND CHILD NODE MIGRATION 14

Book Migration Overview 14

Child Nodes of Book converted to Paragraphs 14

Assign Node to Group(s) 15

Attach Node files to Paragraph(s) 15

Overview

schoolboard.net (SBN) was developed in Drupal 7 (D7) integrated with the D7 OG Groups module. With EOL for D7, schoolboard.net needs to migrate to a Drupal 9 platform to enable future growth.

Document Legend: D7 logic is in Blue and D9 logic is in Green

Drupal 7 Architecture

Users and Permissions

User and group permissions are controlled by the OG Groups module. A District Administrator (District Admin) is assigned as a Drupal Role at the user level which allows a site administrator the ability to:

- Add new users
- Activate / Block users
- Create groups
- Add users to groups
- Assign users group permissions

Groups have group member permissions for editing and viewing private files. A group administrator can be assigned who can add/remove members and edit content for the group. These permissions are controlled by the OG Groups module.

Node Content Types and Structure

There are two content types for creating nodes in D7:

- Event
- Book (uses Book module)

Two file types are attached to each node – public and private files. Permission to view private files in D7 is controlled by an SBN module written by Ron Parker.

Visibility of a node to the public vs. group member (private) is controlled with a check-off on each node.

A node can be assigned to one or more groups.

Drupal 9 Architecture

A Complete Redesign of schoolboard.net

Because OG Groups is unavailable for D9 a completely new architecture of SBN has been created in D9. This encompassed structural changes to the environment for new D9 features and to use:

- D9 Groups to replace OG Groups
- D9 native permissions to replace OG Group permissions
- D9 Group Types to control public/private face of groups and landing page
- D9 user permissions for anonymous (public), users and administrators
- Paragraphs to replace content and files stored in a D7 node

The result of these changes impacts the migration of our D7 sites to D9 architecture.

Users and Permissions

Native D9 system-wide permissions are used for both users and groups.

A District Administrator (District Admin) Drupal role is assigned at the user level which allows a site administrator the ability to:

- Add new users
- Activate / Block users
- Create groups
- Add users to groups
- Assign users group permissions

Individual users are either active or blocked. Individual users must be assigned to groups to view content. By default, any user who is a member of a group has access to private files.

Groups and Permissions

Group architecture has been redefined in D9 to use native groups and group types. D9 Group Types control permissions of anonymous (public), group members and outsiders' access to content, public and private files.
The D9 group types and properties are:

- Board Groups (Machine name: board_groups) – public facing content
- Non-Public Groups (Machine name: district_groups) – no public face
- No Private File Access (Machine name: no_private_file_access) – no public face and no private file access for group members

As part of D7 migration, every group must be assigned a D9 group type. How group type is assigned is further explained in the migration process rules.

Group Members and Permissions

Each D9 group type has a group administrator role:

- Board Groups Admin (Machine name: board_groups-group_admin)
- Non-Public Groups Admin (Machine name: district_groups-group_admin)
- No Private File Access Admin (Machine name: no_private_file_access-group_adm)

Any member of a D7 group who has administrator or edit permissions will be migrated to D9 with a group admin role assigned to them.

Node Content Types and Paragraph Structure

There are two node content types in D9:

- Event (Machine name: event)
- Accordion Agenda (Machine name: accordion_agenda)

Both content types have fields and use a Paragraph to hold the primary content, public and private files (Machine name: agenda_section).

The Accordion Agenda uses nested paragraph (machine name: nested) which has a Title and a paragraph (agenda_section).

Each of the content types can have multiple Agenda Sections.

During migration the D7 content type Book will be migrated to D9 content type Accordion Agenda. This will be further explained in the migration process rules.

D7 → D9 Migration

Overview and Goals

D9 group types, roles and permissions are set in the target D9 site. We will be migrating the D7 groups and permissions to their D9 counterparts.

D9 content types are set in the target D9 site. We will be migrating the D7 nodes, groups, visibility to their D9 node counterparts. We will be migrating D7 node body content and file attachments (public and private) to their D9 paragraph counter parts.

Data to be Migrated

The following data is to be migrated:

- Users and site-wide permissions
- Groups
- User Group Memberships
- User Group Permissions
- Nodes – Event and Book Content types
- Node Group Assignments
- Node File Attachments

Migration Order

The migration order or process follows the list above in data to be migrated.

Reporting, Errors, and Logs

The migration at each step needs to provide reporting of successfully migrated items, any errors and specifically what those errors are so they can be corrected. A log of total items at the start and then a reconciliation of success and errors.

Step 1: User and User Permissions Migration

All D7 user data and the user's site-wide permissions are to be migrated to the D9 counterpart fields. The user fields to be migrated are:

- User Id (uid) – D7 UID must = D9 UID - Critical
- Email address
- Username
- Password – imperative this does not change
- Status
- Roles

Several rules must be applied as part of the user migration process.

1. If D7 Status = Blocked and D7 Role **not =** DistrictAdmin then **do** not migrate

2. If D7 Role = administrator, then **do not** migrate

3. If D7 Role = DistrictAdmin then migrate and set D9 Role = District Admin (machine name: district_admin)

4. If D7 Status = Active and D7 Role = authenticated user then migrate

It is important to move District Administrators who have been blocked so authored content can be tied to their UID.

A video explaining user migration in more detail can be found at: www.schoolboard.net/migration/users_video.mp4

Step 2: Group Migration

Overview

D7 uses the OG group module and all content and permissions need to migrate to D9 counterparts in the native D9 groups.

The D7 OG Group Id should migrate to a field in D9 to identify the D7 group id – this currently does not exist in D9.

Group Entity Content

The D7 content to be migrated to the D9 counterpart fields is:

- D7 OG Group ID to D9 field D7 Group ID
- D7 Group Title to D9 Group Title
- D7 Body Text to D9 Body Text
- D7 URL Path Alias to D9 URL Path Alias
- D7 Published to D9 Published
- D7 Authoring information to D9 Authoring information
- D7 Menu settings to D9 Menu settings (Main Navigation – machine name: main)
- D7 Group roles and permissions **do not migrate**

D7 Group Visibility = D9 Group Type

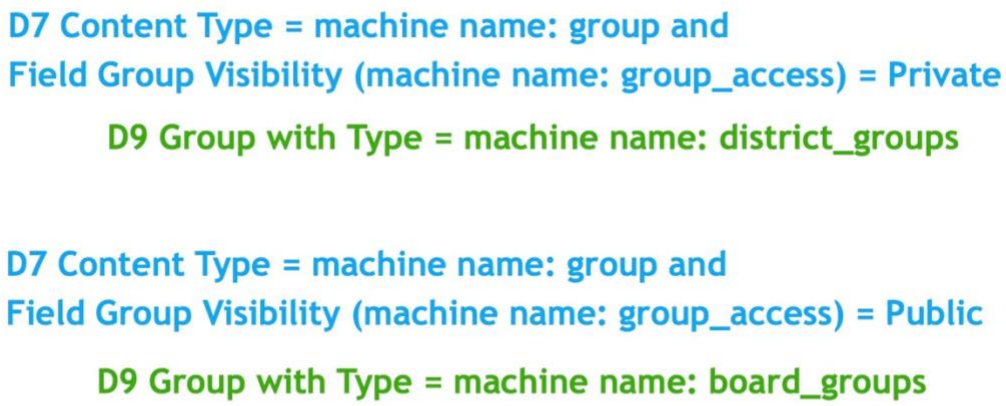
A major change from D7 OG groups to D9 groups is how group visibility is handled. We need to migrate the D7 group visibility field to be an entry in the D9 Group Type field.

In D9 there are two group types:

- Board Groups (machine name: board_groups) for **Public groups**
- Non-Public Groups (machine name: district_groups) for **Private groups**

The rules to apply to migration are:

- If D7 Group Visibility = Public then D9 group = board_groups
- If D7 Group Visibility = Private then D9 group = district_groups



All group level permissions are controlled by native D9 permissions so there is nothing to migrate from D7.

A video explaining this process in more detail can be found at:
http://www.schoolboard.net/migration/groups_video.mp4

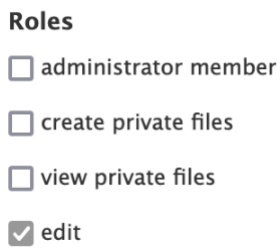
Step 3: User Group Membership and Permissions Migration

Overview

D7 uses the OG group module and all content and permissions need to migrate to D9 counterparts in the native D9 groups.

D9 maintains users by Group Type.

D7 and D9 Role Differences



D7 group member roles (left) provide roles for both an administrator member of the group and/or members who could edit content for the group.

In D9 there is only a group administrator member role.

For migration D7 roles of administrator or edit will be migrated to D9 as Group Admin.

D9 assigns roles at the Group Type level and the group visibility comes into play when migrating user group permissions. See D7 Group Visibility = D9 Group Type above. Depending upon the group type there are different group admin roles:

- Board Groups (machine name: board_groups-group_admin)
- Non-Public Groups (machine name: district_groups-group_admin)

All other group members are to migrated from D7 to D9 as only a member of the group and have no role assigned to them.

A video explaining this process in more detail can be found at:
www.schoolboard.net/migration/group_members_video.mp4

Group Member Transfer Rules

The following are the rules from group member and group member permissions transfers from D7 to D9.

If

- D7 Group Member Role = administrator member or edit and
- D7 Content Type machine name: group and
- Field Group Visibility (machine name: group access) = Private

then

- D9 Group Member Role = machine name: district_groups-group_admin

if

- D7 Group Member Role = administrator member or edit and
- D7 Content Type = machine name: group and
- Field Group Visibility (machine name: group_access) = Public

then

- D9 Group Member Role = machine name: board_groups-group_admin

Notes:

1. it appears these entries are in group_content__group_roles' table.

2. D9 is different from D7 because group_admin is tied to the Group Type (e.g. board_groups or district_groups) as a role and not a single role as it was in D7.

Step 4: Event Node Migration

Event Migration Overview

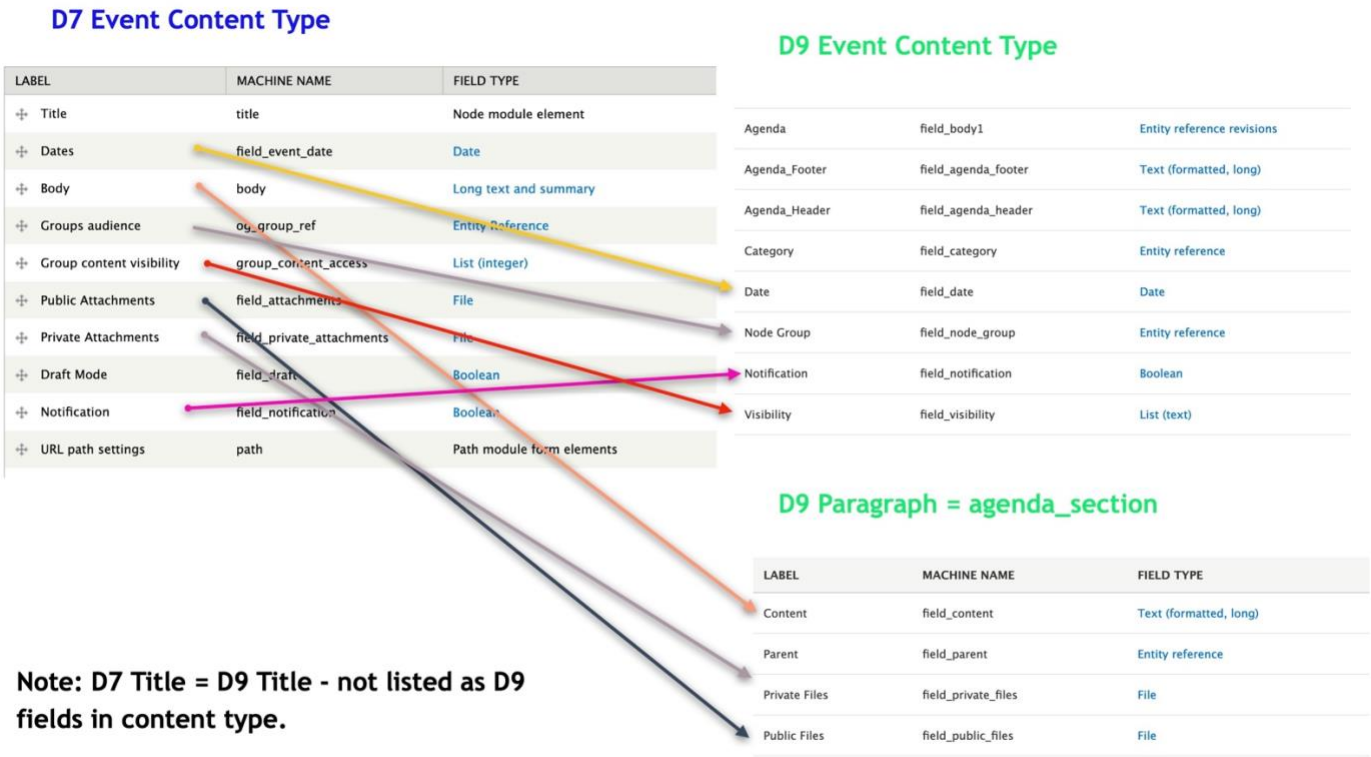
A video explaining this process in more detail can be found at:
www.schoolboard.net/migration/event_node_video.mp4

The D7 Event content type node held all content including the body, public and private files. This has radically changed in the D9 architecture.

The D9 Event content type uses the paragraphs module and a single paragraph holds the content (e.g. D7 body), public and private files.

The migration process needs to create the node, a paragraph tied to the node and migrate the D7 data to their D9 counterparts.

Here is a map of the fields:



Assign Node to Group(s)

When the node is created it must be assigned to all D9 groups listed in the D7 node Group Audience field.

Attach Node files to Paragraph(s)

A D9 paragraph, tied to the node, will contain the migrated D7 body, D7 public files and D7 Private files.

A video explaining this process in more detail can be found at:
www.schoolboard.net/migration/event_node_video.mp4

Step 5: Book and Child Node Migration

Book Migration Overview

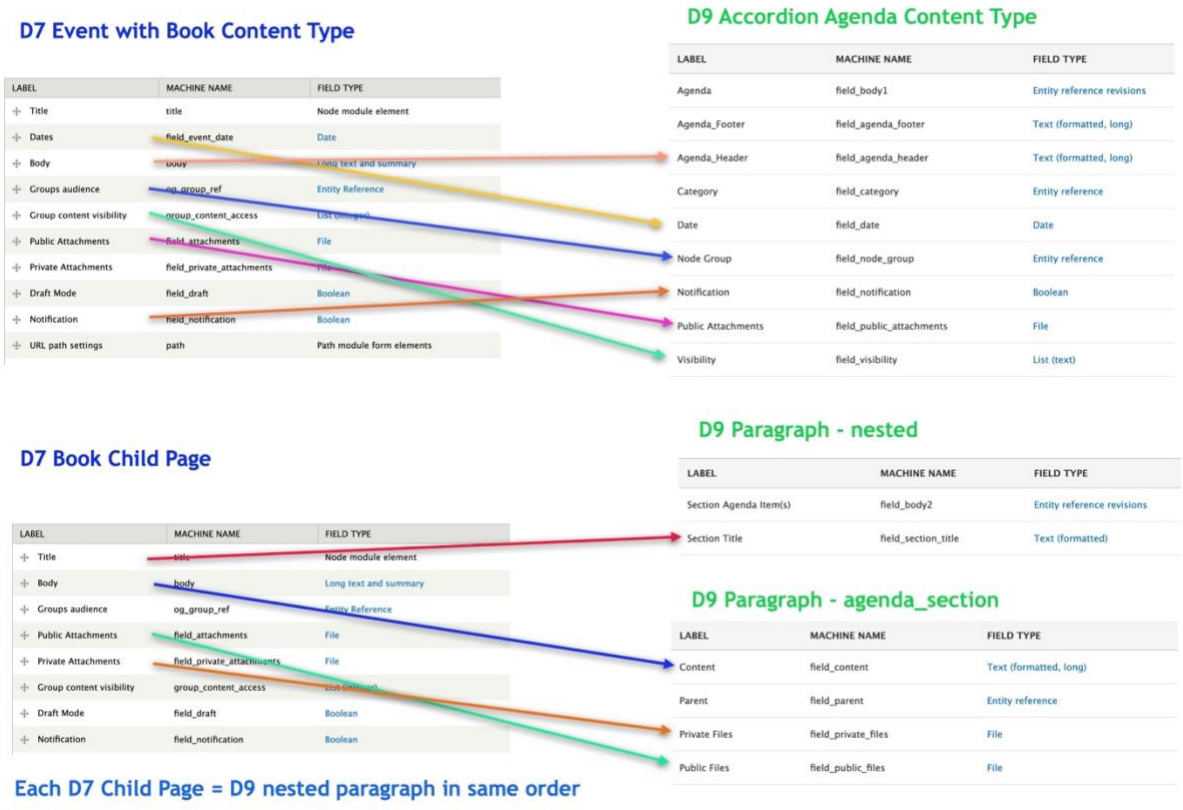
A D7 Event content type that has been identified as a Book is to be converted to a D9 Accordion Agenda content type.

The Event creates the Accordion Agenda, and each child page creates a (machine name: nested) paragraph within the Accordion

Child Nodes of Book converted to Paragraphs

Child nodes where all content is stored on the node will be converted to paragraphs, similar to Event above. The difference is the use of a 2-level (nested) paragraph for each child page so the child node title = the title of the paragraph section. Paragraphs must be kept in the same order as child nodes.

Here is a field map for the data:



Assign Node to Group(s)

When the node is created it must be assigned to all D9 groups listed in the D7 node Group Audience field.

Attach Node files to Paragraph(s)

A separate D9 nested paragraph, tied to the node, will contain the migrated D7 body, D7 public files and D7 Private files of each child page. The paragraphs must maintain the display order of the D7 child pages.

A video explaining this process in more detail can be found at:
www.schoolboard.net/migration/book_accordion_video.mp4