



Banner Extensibility

CHRIS FONTENOT
Technical Solutions Consultant



Disclaimer

This presentation is not a commitment, promise or other obligation to deliver any material code or functionality, and it should not be relied upon in making any purchase decision. Development and release of Ellucian products and services may change, without prior notice, at Ellucian's discretion.

The Big Picture



 ellucian.

The Big Picture

Banner Admin
Extensibility
(Eclipse plugins)

Text Manager

Theme Editor

Page Builder

Configure Page
Components

Database
Configurations



Banner Integration Approaches

Integration Approach	On-Premise	Managed Cloud	SaaS
Ethos APIs	✓	✓	✓
Banner APIs	✓	✓	✓*
Cloud-friendly Partner and Third-Party Integrations	✓	✓	✓
MDUU	✓	✓	✓
DB connection	✓	✓	
3 rd party Integration (e.g., <i>Axiom, Jitterbit, Oracle Integration</i>)	✓	✓*	
Anything else	✓		



What's supported in SaaS – Custom/Mods

Supported:

- ✓ Supplemental Data Engine (SDE)
- ✓ Mass Data Update Utility (MDUU)
- ✓ Page Builder
- ✓ Theme Editor
- ✓ Text Manager
- ✓ Business Rules Form (GORRSQL)
- ✓ Embedded Reporting

Not supported:

- × Changes to schema objects
- × Admin page extensions/modification
- × New or modified Self Service pages
- × New or modified Job submission jobs (C, Java, Oracle Rpts, etc.)
- × New or modified tables or views
- × New or modified: Triggers, Packages, Functions, Procedures, indexes
- × SQL, SQL/Developer, TOAD, Host command access
- × Direct modification of CSS Files

Banner Admin Extensibility



Banner Admin Extensibility

Provides the ability to:

- Create new Banner Administrative pages
- Create extensions for baseline Banner Administrative pages

Banner Administrative Extensibility : Recent Updates

Newest versions

March 19

- Foundations 2.13.10
- Frames 2.8.7
- Templates 1.5

Recent Improvements

- Support of Clob and Blob Variables
- Checkbox improvements
- New template for Application Pages
- Improved templates: Keyblock, Validation & Inquiry Page
- Ability to extend associations and Edit Panels
- Defect corrections to the plugins

Documentation additions

- Parts & extending panels
- Steps for extending associations
- References for Foundation Block, Task & Item services, Canvas Use Cases

For more information

EL256851 - Development and
Maintenance Strategies for
Ellucian Banner Admin Pages
RECORDING

Banner 9 Documentation Library:

- [Banner Transformed: Extending your Administrative Application](#)
- [Banner Transformed Working with Eclipse and Your Administrative Application](#)
- [Banner Transformed Administrative Page Developers Reference Guide](#)
- **Available Training:**
 - On Demand–Extend Banner Administrative Pages
 - Instructor Led Classes - [Course Catalog](#)

Ellucian Education Services Course Catalog

<https://www.ellucian.com/solutions/course-catalog>

Banner Technical

Banner Technical: A Developers Overview: Getting Started in Banner 9 Self-Service	Virtual
Banner Technical: A Developers Overview: Getting Started in Banner 9 Self-Service	Virtual
Banner Technical: Extending Banner 9 Admin Apps	Virtual
Banner Technical: Extending Banner 9 Admin Apps	Virtual
Banner Technical: Extending Banner 9 Admin Apps	Virtual
Banner Technical: Introduction to Groovy and Grails	Virtual
Banner Technical: Introduction to Groovy and Grails	Virtual
Banner Technical: Introduction to Groovy and Grails	Virtual
Banner Technical: Introduction to Groovy and Grails	Virtual
Banner Technical: Introduction to Groovy and Grails	Virtual
Banner Technical: Java and Object Oriented Programming Overview	Virtual
Banner Technical: Java and Object Oriented Programming Overview	Virtual
Banner Technical: Java and Object Oriented Programming Overview	Virtual
Banner Technical: Java and Object Oriented Programming Overview	Virtual



Text Manager

 ellucian.

Text Manager

Provides the ability to substitute your terminology in place of the Banner baseline terminology

Class

Freshman

Course

First Year Student

Text Manager

Support for Banner Admin Library Properties

The screenshot displays the Ellucian Text Manager interface. At the top, the breadcrumb navigation shows 'ellucian > Text Manager Projects GMAPROJ 9.3.7 (BUILD)'. Below this, the 'TEXT MANAGER PROJECTS' section is active, showing a form for project configuration. The 'Project Code' is 'Common', 'Project Description' is 'Common test', 'New Project Code' is empty, and 'Owner' is 'SYSTEMST08'. A navigation bar below the form includes 'Configuration', 'Export', 'Import', 'History', and 'Cache' tabs, with 'Configuration' selected.

The 'CONFIGURATION' section contains a table with the following data:

Key *	Value *	Description
BAN_APP	BANADMIN	Text Configuration for Project <Application Name>
MODULE_NAME	STUDENT,COMMON	Use to define the Admin product that will be uploaded into this project
USE_IN_APP	YES	For enabling the project to be used in admin applications for reading db properties

At the bottom of the configuration section, there are navigation controls showing '1 of 1' items and '10 Per Page'.

Registration Student Term **Curricula** Study Path Time Status

Curriculum/Field of Study

CURRICULUM Insert Delete Copy Filter

Replace Update Duplicate Roll to Outcome Apply to Graduate Study Path

Current	Activity	Study Path	Term	Term Description	End Term	End Term Description	Catalog Term	Catalog Term Description
<input checked="" type="checkbox"/>	ACTIVE	1	201810	Spring 2018			201810	Spring 2018

1 of 5 Per Page Record 1 of 5

Curriculum Status Details

Program	...	Center of Learning	AS	...	College of Arts & Sciences
Level	UG	Undergraduate	Degree	BS	Bachelor of Science
Campus	M	Main	Start Date		End Date

FIELD OF STUDY Insert Delete Copy Filter

ellucian Text Manager Interactive Translator GMATRAN 9.3.7 (BUILD) ADD RETRIEVE RELATED TOOLS

Project: Common Source Language: root Target Language: en Start Over

Search In Source Text Target Text Start From Beginning Find Whole Word Only Match Case Copy Case

Find Next Replace Replace All

EXTENDED SEARCH Insert Delete Copy Filter

INTERACTIVE TRANSLATOR Insert Delete Copy Filter

Active filters: Source Text: College Source: %SOQOLIB% Object Name: .prompt Clear All Filter Again

Project: Common Source Language: root Target Language: en Select All Inverse Select

Source Text	Target Text	Status	Select	Source	Parent Name	Object Name
College	>	Untranslated	<input type="checkbox"/>	NET/HEDTECH/GENERAL/COMMON/LIBRARIES/SOQOLIB/VIEW...	sCurriculaTraditionalLeurC	.prompt
College	> Center of Learning	Translated	<input type="checkbox"/>	NET/HEDTECH/GENERAL/COMMON/LIBRARIES/SOQOLIB/VIEW...	sovcur.sorlcurCollCode	.prompt
College	>	Untranslated	<input type="checkbox"/>	NET/HEDTECH/GENERAL/COMMON/LIBRARIES/SOQOLIB/VIEW...	sorlcurLite.sorlcurCollCode	.prompt
College	>	Untranslated	<input type="checkbox"/>	NET/HEDTECH/GENERAL/COMMON/LIBRARIES/SOQOLIB/VIEW...	sovcur.sovlcurCollCode	.prompt

For more information

Documentation:

- [Banner General - Text Manager Handbook](#)
- Individual Self-Service application guides

Available Training:

- [On Demand-Text Manager Implementation](#)

**EL252716 - Branding and
Managing Text in Your Ellucian
Banner Applications**

Page Builder



 ellucian.

Page Builder

Provides the ability to build Banner 9 pages

- Course program of study
- Students request transcripts or reprinting their degree
- Employee Directory
- Consolidating multiple Admin pages into a Page Builder page

Page Builder Example: Course Program of Study (CPOS)

Overview

You should immediately review these registrations and pay particular attention to the "Count In Aid" column. Classes marked a 'No' will not be included in your financial aid funding and you will be solely responsible for payment of these classes.

Additionally, any class in the "Count In Program" column as 'No' will not count toward your graduation requirements. These classes are taken at your discretion. Please consult with a Counselor for further information or assistance.

Term Selection:

CPOS Audit Results:

CRN	Subject	Course	Remedial	ESL	Course	Count for Aid	Count in Program
11846	MKRT	123	No	No		No	No
13445	BADV	100	No	No		No	No
13446	BADV	110	No	No		No	No

<https://ecommunities.ellucian.com/thread/61201>

Recent enhancements

Admin Security for Page Builder pages

Set up GSASECR security in addition to Web Tailor roles

Page Builder Admin pages integrated with Application Navigator (AppNav)

Access Page Builder Pages from the Banner AppNav menu

Home Page URL

To prevent end users from “landing” on the Page Builder landing page

Improved User interface interaction for Page Builder Developers

- Visual Page Composer split screen
- Navigation improvements
- Searching improvements

Quality improvements

Defect Corrections

Page Builder Releases Coming in 2019

Banner Extensibility 9.4 (June 2019)

- Page Builder Developer Security enhancements

Banner Extensibility 9.5 (August 2019)

- Technology upgrade to Grails 3

**EL253619 - Leverage Page
Builder in Ellucian Banner
Admin**

Sneak peak - work in process

Developer Security

Select Option

Page Owner

Assign Privileges All Developers

Assign Privileges to Users:

User	Maintenance

Page 1 of 0 | Per Page 5 | Records Found: 0

[Add New](#) [Delete selected](#) [Save](#)

Assign Privileges to Group of Users:

Business Profile	Maintenance

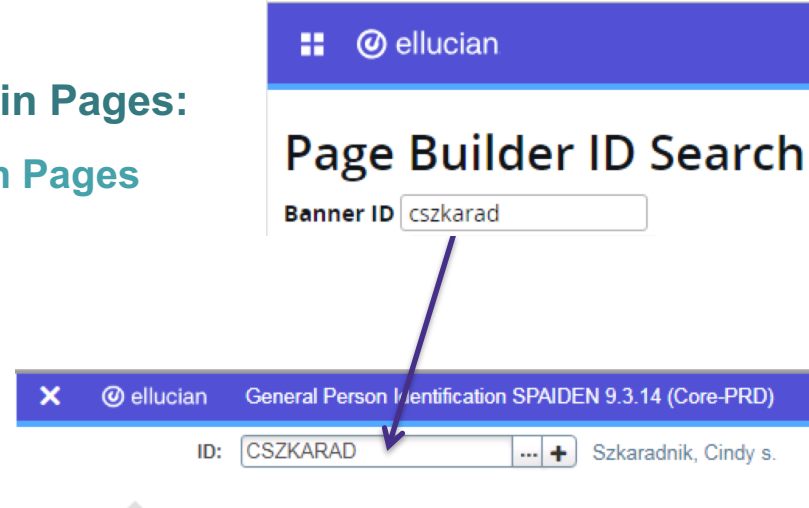
Page 1 of 0 | Per Page 5 | Records Found: 0

[Add New](#) [Delete selected](#) [Save](#)

Under future consideration

Enhanced integration with Banner 9 Baseline Admin Pages:

- Support for sharing global values with other Admin Pages
- Called from Quickflows
- Tracking User access for Page Builder pages
- Called from “Related Pages”



Page Builder at Ellucian Live

**EL252725 - Pushing the Page
Builder Envelope**

**EL254083 - Developing an Ellucian
Banner Admin Page in Page
Builder**

**EL253619 - Leverage Page
Builder in Ellucian Banner
Admin**

For more information

Documentation:

- [Banner Extensibility Handbook](#)
- [Banner Extensibility Installation Guide](#)

Community – Banner General and Technical Space

On-demand course [Page Builder Installation and Implementation](#)

Page Builder Sessions	Presenter
EL254083 - Developing an Ellucian Banner Admin Page in Page Builder	Utah Valley University
EL256790 - Ellucian Banner Page Builder Technical Deep Dive	Ellucian
EL253100 - Building Innovative Pages with Page Builder	Ellucian
EL252725 - Pushing the Page Builder Envelope	Wichita State University
EL253619 - Leverage Page Builder in Ellucian Banner Admin-Upcoming features	Ellucian
EL256873 - Custom Forms conversion? We are doing it and so can you!	Community College of Philadelphia
EL251992 - Ellucian Banner Financial Aid: Extensibility Tools	Ellucian
EL256539 - Using Banner Human Resources and Page Builder to Meet Your HCM Needs	Ellucian



Database Configurations for Self-Service

 ellucian.

Database Configurations for Self-Service Applications

Provides the ability to configure
Self-Service applications through Banner Admin pages
without a restart

Ability to change page roles for Banner 9 Self-Service

Database Configuration for Self-Service

- **Manage Self-Service Configurations through Admin Pages**
 - No restart required
 - Change configuration values on Banner General Admin pages
 - Configuration follows database cloning
- **Banner General - New pages**
 - Banner Applications (GUAAPPL)
 - Banner Application Configurations (GUACONF)
- **Support for user level configurations**

**EL286502 - Configure Ellucian
Banner with the Banner
Applications Configuration
(GUACONF) Page**

Example configurations in GUACONF

ellucian Banner Applications Configurations GUACONF 9.3.13

Application ID: Employee EmployeeSelfService [Start Over](#)

Application Pages **Configurations**

CONFIGURATIONS Insert Delete Copy Filter

Configuration Name	Configuration Type	Configuration Value	User Preference Indicator
defaultWebSessionTimeout	configobject	[:]	<input type="checkbox"/>
defaultWebSessionTimeout	integer	1000	<input type="checkbox"/>
ess.displayComponent.AdjustedHire	string	Y	<input type="checkbox"/>
ess.displayComponent.BeneficiaryLink	string	Y	<input type="checkbox"/>
ess.displayComponent.BenefitsSection	string	Y	<input type="checkbox"/>
ess.displayComponent.BirthDate	string	Y	<input type="checkbox"/>
ess.displayComponent.Campus	string	Y	<input type="checkbox"/>
ess.displayComponent.College	string	Y	<input type="checkbox"/>
ess.displayComponent.CurrentHire	string	Y	<input type="checkbox"/>
ess.displayComponent.DistOrganization	string	Y	<input type="checkbox"/>

10 of 17 Per Page Record 95 of 168

Employee Dashboard



Akers, Terry

[My Info](#)

[My Team](#)

Leave Balances as of 03/28/2019

Vacation Pay in days	22.56	Sick Pay in days	19.31	Personal Pay in days	4.00
----------------------	-------	------------------	-------	----------------------	------

[Full Leave Balance Information](#)

Your Pay

Latest Pay Stub: [02/11/2018](#) [All Pay Stubs](#) [Direct Deposit Information](#) [Deductions History](#)

Earnings

Benefits

Taxes

Job Summary

My Activities

[Enter Time](#)

- [Approve Time](#)
- [Approve Leave Report](#)
- [Approve Leave Request](#)
- [Electronic Personnel Action Forms \(EPAF\)](#)

Update Benefits section to display = N

ellucian Banner Applications Configurations GUACONF 9.3.13

Application ID: Employee EmployeeSelfService [Start Over](#)

Application Pages **Configurations**

CONFIGURATIONS Insert Delete Copy Filter

Configuration Name	Configuration Type	Configuration Value	User Preference Indicator
defaultWebSessionTimeout	configobject	[-]	<input type="checkbox"/>
defaultWebSessionTimeout	integer	1000	<input type="checkbox"/>
ess.displayComponent.AdjustedHire	string	Y	<input type="checkbox"/>
ess.displayComponent.BenefitsSection	string	N	<input type="checkbox"/>
ess.displayComponent.BirthDate	string	Y	<input type="checkbox"/>
ess.displayComponent.Campus	string	Y	<input type="checkbox"/>
ess.displayComponent.College	string	Y	<input type="checkbox"/>
ess.displayComponent.CurrentHire	string	Y	<input type="checkbox"/>
ess.displayComponent.DistOrganization	string	Y	<input type="checkbox"/>

10 of 17 Per Page Record 95 of 168

Employee Dashboard



Akers, Terry

[My Info](#)

[My Team](#)

Leave Balances as of 03/28/2019

Vacation Pay in days	22.56	Sick Pay in days	19.31	Personal Pay in days	4.00
----------------------	-------	------------------	-------	----------------------	------

[Full Leave Balance Information](#)

Your Pay

Latest Pay Stub: [02/11/2018](#)

[All Pay Stubs](#)

[Direct Deposit Information](#)

[Deductions History](#)

Earnings

Taxes

Job Summary

Employee Summary

My Activities

[Enter Time](#)

Approve Time

Approve Leave Report

Approve Leave Request

Electronic Personnel Action Forms (EPAF)

Faculty Load and Compensation

For Banner 9 Self-Service pages

Customizing roles



 ellucian.

How to Update Page Roles

ellucian Banner Applications Configurations GUACONF 9.3.13 (Core-PRD) ADD RETRIEVE RELATED TOOLS

Application ID: FACSS FacultySelfService Start Over

Application Pages Configurations

APPLICATIONS

Page ID	Page URL	Page Description	Status	Display Sequence
SsbComponentGradeRoster	/ssb/componentGradeRoster/**		<input checked="" type="checkbox"/>	41
SsbCompositeGradeRoster	/ssb/compositeGradeRoster/**		<input checked="" type="checkbox"/>	43
SsbCourseDetail	/ssb/courseDetail/**		<input checked="" type="checkbox"/>	31
SsbCourseGradeRoster	/ssb/courseGradeRoster/**		<input checked="" type="checkbox"/>	38
SsbExport	/ssb/export/**		<input checked="" type="checkbox"/>	34
SsbFacultyAttendanceTracking	/ssb/facultyAttendanceTrackin...		<input checked="" type="checkbox"/>	29
SsbFacultyCommonDashboard	/ssb/facultyCommonDashboa...		<input checked="" type="checkbox"/>	47
SsbGradeEntry	/ssb/gradeEntry/**		<input checked="" type="checkbox"/>	30
SsbGradeEntryExport	/ssb/gradeEntryExport/**		<input checked="" type="checkbox"/>	36
SsbGradeEntryImport	/ssb/gradeEntryImport/**		<input checked="" type="checkbox"/>	35

10 Per Page Record 26 of 49

ROLES

Page ID	Role
SsbFacultyAttendanceTracking	ROLE_SELFSERVICE-FACULTY_BAN_DEFAULT_M

10 Per Page Record 1 of 1

Roles
match Web
Tailor Roles

Different roles can be defined for each page

The screenshot displays the Banner Applications Configurations interface for GUACONF 9.3.13 (Core-PRD). The application ID is FACSS FacultySelfService. The 'Application Pages' tab is active, showing a list of pages under the 'APPLICATIONS' section. The 'SsbFacultyCommonDashboard' page is highlighted with a red box. Below this, the 'ROLES' section shows two roles assigned to the 'SsbFacultyCommonDashboard' page, also highlighted with a red box.

APPLICATIONS

Page ID	Page URL	Page Description	Status	Display Sequence
SsbComponentGradeRoster	/ssb/componentGradeRoster/**		<input checked="" type="checkbox"/>	41
SsbCompositeGradeRoster	/ssb/compositeGradeRoster/**		<input checked="" type="checkbox"/>	43
SsbCourseDetail	/ssb/courseDetail/**		<input checked="" type="checkbox"/>	31
SsbCourseGradeRoster	/ssb/courseGradeRoster/**		<input checked="" type="checkbox"/>	38
SsbExport	/ssb/export/**		<input checked="" type="checkbox"/>	34
SsbFacultyAttendanceTracking	/ssb/facultyAttendanceTrackin		<input checked="" type="checkbox"/>	29
SsbFacultyCommonDashboard	/ssb/facultyCommonDashboa...		<input checked="" type="checkbox"/>	47
SsbGradeEntry	/ssb/gradeEntry/**		<input checked="" type="checkbox"/>	30
SsbGradeEntryExport	/ssb/gradeEntryExport/**		<input checked="" type="checkbox"/>	36
SsbGradeEntryImport	/ssb/gradeEntryImport/**		<input checked="" type="checkbox"/>	35

Record 27 of 49

ROLES

Page ID	Role
SsbFacultyCommonDashboard	ROLE_SELFSERVICE-FACULTY_BAN_DEFAULT_M
SsbFacultyCommonDashboard	ROLE_SELFSERVICE-STUDENTACADEMICREVIEWADMIN_BAN_DEFAULT_M

Record 1 of 2

Activity Date 03/05/2018 12:16:45 PM Activity User BANNER

SAVE

EDIT Record: 27/49 GURCTLEP.GURCTLEP_PAGE_ID [27] ©2000 - 2018 Ellucian. All rights reserved. ellucian

Theming across Ellucian applications

Ellucian Theme Editor



Ellucian Theme Editor

Provides the ability to theme applications from the cloud:

- Custom colors
- Background image
- Logo
- Favicon

Theme Editor

Account Ellucian

Account API ID *****6IAK

Theme name

Primary color

Secondary color

Action Color

Logo URL

Favicon URL

Theme Preview

Background Image Preview

- ☰
- 🏠
- 🔍
- 📁
- 🕒
- ★
- 👤
- ?

Preview

1

[Bread Crumb](#) • Page Title

Page Title

Active Tab Default Tab

Sample Label

Pending

Sample Label

Approved

Secondary

Primary

Do you want to save your changes?

Cancel No Yes

Action Item Management



Action Item Status

Define Action Item status and if the Action Item Status prevents a process.



Action Items

Create and maintain Action Items.



Post Action Items

Schedule and post Action items to a population.



Manage Folders, Populations and Queries

Open Banner Communication Management to:

- Set up folders for organizing Groups, Action Items and Populations.
- Maintain populations and population queries for posting Action Items.



Groups

Maintain titles and instruction for Groups and assign Action Items to a Group.

Application ID: GENERAL_SS GENERAL SS

Start Over

Application Pages Configurations

CONFIGURATIONS

Insert Delete Copy Filter

Configuration Name	Configuration Type	Configuration Value	User Preference Indicator
banner.analytics.trackerId	string		<input type="checkbox"/>
banner.applicationName	string	GeneralSsb	<input type="checkbox"/>
banner.picturesPath	string	System.getProperty('base.dir') '/test/images'	<input type="checkbox"/>
banner.theme.cacheTimeOut	integer	120	<input type="checkbox"/>
banner.theme.name	string	cindystheme	<input type="checkbox"/>
banner.theme.template	string	BannerGeneralSsb-9_3	<input type="checkbox"/>
banner.theme.url	string	https://theme.elluciancloud.com/AccountApiID/theme	<input type="checkbox"/>
banner.transactionTimeout	integer	300	<input type="checkbox"/>
banner8.SS.locale.url	map	[default: 'http://gvuba803.greatvalleyu.com:8888/ssomanager/c/SSB?pkg=...	<input type="checkbox"/>
banner8.SS.url	string	http://gvuba801.greatvalleyu.com:9020/GVUDB/twbkwbis.P_GenMenu?n...	<input type="checkbox"/>

2 of 5 Per Page

Record 17 of 43

Comments

Required only if Theme server is remote

Theme Editor

Account Ellucian

Account API ID *****6IAK

Theme name

cindystheme

Primary color

#201A1D

Secondary color

#F21F33

Action Color

Taupe

Logo URL

https://malaln60.ellucian.com:8843/images/sgu-logo.png

ellucian UNIVERSITY

Favicon URL

https://malaln60.ellucian.com:8843/images/favicon.ico

Theme Preview

Background Image Preview



Preview

1

Bread Crumb • Page Title

Page Title

Do you want to save your changes?

Cancel

No

Yes

Active Tab

Default Tab

Sample Label

Pending

Sample Label

Select One

Approved

Secondary

Primary

Action Item Management



Action Item Status

Define Action Item status and if the Action Item Status prevents a process.



Action Items

Create and maintain Action Items.



Post Action Items

Schedule and post Action items to a population.



Manage Folders, Populations and Queries

Open Banner Communication Management to:

- Set up folders for organizing Groups, Action Items and Populations.
- Maintain populations and population queries for posting Action Items.



Groups

Maintain titles and instruction for Groups and assign Action Items to a Group.

Ellucian Theme Editor – Coming Next

Roadmap items - 2019:

- Multiple Logos
- Multiple Background Images

**EL252716 - Branding and
Managing Text in Your Ellucian
Banner Applications**

For more information

Documentation:

- [Banner Extensibility Handbook](#)
- [Banner Extensibility Installation Guide](#)
- [Banner Transformed: Branding Your Administrative Application](#)
- [Ellucian Theme Editor Handbook](#)
- Cloud Status Page <https://status.elluciancloud.com>



Questions





Thank you.

CHRIS FONTENOT

Solutions Consultant

chris.fontenot@ellucian.com