System Galaxy Addendum

idProducer Advance On-premises Badging Solution

Installation • Licensing • Setup • Badge Design & Printing

- Advance License generated by idProducer upon client request
- On-Premises Deployment using IIS and Web API Server
- Advance license supports Customer-Subscriptions
- Badge Templates are designed in idProducer's Web-Client App
- Badge Templates are imported/synced in System Galaxy
- Badge Templates assigned & printed in System Galaxy

JAN 2024 | SG 11.8.5

System Galaxy Setup Guide

for

idProducer

Configuring System Galaxy to integrate with a 3rd Party Web API Solution

Revision D |

3rd Edition

Version 11.X

This guide covers using idProducer with a Advance License and the number of printers that are registered for the on-premises deployment.

Information in this document is subject to change without notice. Therefore, no claims are made as to the accuracy or completeness of this document.

Copyright © 2019 ◆ Galaxy Control Systems ◆ All Rights Reserved

No part of this document may be reproduced, copied, adapted, or transmitted, in any form or by any means, electronic or mechanical, for any purpose, without the express written consent of Galaxy Control Systems. Copyright protection claims include all forms and matters of copyrighted material and information, including but not limited to, material generated from the software programs, which are displayed on the screen such as icons, look and feel, etc.

Trademarks

Microsoft®, Windows®and SQL Server® are registered trademarks of Microsoft Corporation in the U.S. and other countries.

idProducer is a registered trademark of SpecsID in the U.S. and other countries.

Other product names used in this manual are for identification purposes only and may also be trademarks of their respective companies.

Graphics and illustrations by Technical Author. Screenshots used in this guide are for instructional reference only. Concept and Topology diagrams are original design of the technical illustrator unless otherwise indicated.

Scope

This guide covers the known requirements and instructions related to the Advance License implementation of idProducer (Web API Integration). Information about Advanced License is found the in the guide for **idProducer with Advanced License** or the **SG Online Help** site.

- Also see the ***Related Guides table*** in the Introduction of this guide.
- Also consult the 3rd Party documentation for system requirements related to the product.
- Contact Authorized Technical Support for support.

Galaxy Control Systems

3 North Main Street
Walkersville MD 21793

www.galaxysys.com

Contents

Welcome to idProducer On-premises Badging (for Advanced License) 4
FIRST TIME STARTUP OVERVIEW 4
idProducer Requirements 5
VERSION COMPATIBILITY SERVICES, GATEWAY, IP & PORT SETTINGS) 5
INSTALLATION REQUIREMENTS 5
RESERVED API LOGIN CREDENTIALS 6
LICENSING & REGISTRATION 6
PRINT DISPATCHER & PRINTERS 6
IMPORTING, SYNCHING, AND ASSIGNING BADGE TEMPLATES 6
TEMPLATE FIELDS, BADGE TEMPLATES, BADGE PRINTERS, CUSTOMERS 7
System Installation 8
Installing IIS Server 8
IdProducer Installation Process 9
Publishing the IdProducer Database 11
Creating the idProducer Website and Folder Permissions 13
System Registration 17
SYSTEM REGISTRATION 17
Configure Print Dispatcher on Customer Badging Client 20
HOW TO USE THE PRINT DISPATCHER 22
Creating Customer-Subscriptions in System Galaxy 23
Creating the SG Operators for the Customer 24
Creating Badge Templates in idProducer Client 25
About Updating Card Template Fields 25
CREATING BADGES 25
Managing Badges in System Galaxy 29
Importing/Syncing Badges in SG 29
IMPORTING / SYNCING A BADGE (from System Settings screen) 29
IMPORTING / SYNCING A BADGE (from Badge Designs screen) 30
Assigning and Printing Badges 31
Assign a Badge to a Cardholder 31
Print a Badge to a Print Dispatcher 32
Releasing a Badge from the Print Queue 34
APPENDICES 35
SYSTEM CONCEPTS - Overview and Troubleshooting 35
Distributed Print Dispatchers (and Printers) 35
Printing Badges (Online vs Offline) 36
Prepping Cardholder Data Fields for Transfer 36
System Registration and Licensing 36
System Settings 36
SG Operator Profiles 37
REVISION HISTORY OF THIS GUIDE 38
RELATED DOCUMENTATION 38
GLOSSARY 39
TERMS & DEFINITIONS 39

Welcome to idProducer On-premises Badging (for Advanced License)

This guide provides requirements and instructions for install, setup, and use of idProducer On-Premises Badging solution under an Advanced License scheme.

ALSO SEE: the *SG System Specifications Guide* for general system requirements beyond the scope of this guide.

NOTICE: This solution supports Customer-Subscriptions. See *Basic License Guide* for badging without customers.

REFERENCES: See the Appendix for a list of supporting guides and a Glossary of terms.

FIRST TIME STARTUP OVERVIEW

After properly installing System Galaxy and idProducer components, the first-time startup is as follows …

Advance License Process	App	Screen
(optional) Make desired updates to SG Cardholder fieldnames.	**SG**	System Settings > Cardholder Options tab
If you need to do this, it should be done before field names are imported into idProducer. Otherwise you will have to manually change the fieldnames in idProducer to match.		
Request and install the idProducer License from SpecsID.	**IDP**	Done at first log-in into idProducer.
Register SG for "idProducer Badging" and set number of printers * (Note: customer-subscription/customer-mapping is supported)	**SG**	System Registration Wizard (based on purchase order) *Also register the Galaxy client workstations.*
Create each Customer-Subscription and their login credentials	**SG**	Customer programming screen
(when the Customer is created, the corresponding Subscription is added to idProducer)		
Create Badging Operator for each Customer	**SG**	Operator programming screen
(make sure the operator is assigned to the correct customer and has the privileges necessary for enrollment)		
Configure *Customer Print Dispatchers* & Printer(s) at each Client.	**IDP**	*Print Dispatcher Configuration App*
Create Badge Templates under the appropriate Subscription.	**IDP**	*Web Client > Template Editor (for Cust-Subscription)*
Import/Sync Template Names	**SG**	Badge Design screen
Assign any Templates to any cardholder	**SG**	Cardholder Enrollment screen
Print badges to the available printer as appropriate.	**SG**	Cardholder Enrollment screen
* *You must Pre-request/preload an Advance license from idProducer.*		

idProducer Requirements

This section lists the requirements that you must meet to support successful integration, listed in order of encounter. These requirements can additionally be used as a troubleshooting checklist, but are not intended to substitute for instructions.

VERSION COMPATIBILITY SERVICES, GATEWAY, IP & PORT SETTINGS)

1. System Galaxy v11 thru Current
2. idProducer must be installed from the SG Install media (USB/ISO)
3. *idProducer supports smart elements such as bar code and mag stripe ...*
4. *idProducer supports single-sided/dual-sided cards, landscape/portrait layouts, and includes an expression builder.*
5. Galaxy supports 2 license schemes – see Licensing Requirements below.
   - Basic License = 1 Root Subscription (no customers) with the number of Printers according to purchase order.
   - Advanced Lic. = 1 Root and multiple Customer-Subscriptions + corresponding Print Dispatchers/multiple printers. Note: Under the *advanced license,* SG Customers are supported and are linked to the

INSTALLATION REQUIREMENTS

6. **System Galaxy must be installed before you install idProducer** (All 3 steps Prerequisites, Database & Software).
   - Launch System Galaxy and sign-in with your master password, but **do not register the system**. The system will prompt you that you have a 14-day grace period before registering so you verify your system.
   - As a sanity check, create a *badging test card by adding a new cardholder* and adding a *test access card* and saving the cardholder in the *System Galaxy Cardholder screen*. This test cardholder and card will be your *badging test card*.

7. **Microsoft IIS must be correctly installed before installing idProducer.** You should run the *Galaxy IIS Install Helper utility* to verify that IIS is correctly installed and configured to support the Galaxy API interface.

   NOTE: You can launch the *Galaxy IIS Install Helper utility* by clicking the "Install IIS Web Server" link on the *Galaxy Installer App*. This utility detects whether IIS is correctly installed. The utility will display the [Install IIS] button only if IIS is not installed. Otherwise, the utility displays a *hyperlink* to test the connection to IIS Home Page (local host).

8. **idProducer must be installed and the idProducer database must be published before you Register System Galaxy.**
   - IMPORTANT**:** Do not attempt to Register System Galaxy before you have installed the idProducer Advance License.
   - You must request an Advanced License before you register System Galaxy. To request and advance license by email from the client page, you must capture the PC machine address of the computer that idProducer is installed on.
9. **idProducer licensing must be correctly performed for the Advance License …**
   a) **Advance license**: you must request the license through the idProducer Web Client before you register System Galaxy for the idProducer badging. Then you must install the Advance license using the idProducer Web Client after the SG registration is completed.
10. The Web API Service must be running and as a sanity check, you must be able reach the *swagger* page for proper operation.
    - http://localhost:8000/swagger
    - http://X.X.X.X:8000/swagger

RESERVED API LOGIN CREDENTIALS

11. You must **restart the GCS Web API Service and both idProducer Services** (2) if you change the reserved API Login passwords for either system (SG or idProducer). The changes must be updated in the appSettings file before you refresh your services.
12. *A Reserved API Login Credential* is created for both Galaxy & idProducer to support badge printing.
13. The *Reserved API Logins* must be valid (never expire) and must not be used to browse menus, edit badge templates, or do system programming. *Reserved API logins* are strictly for the API connections and are not User logins.
14. **Galaxy's *Reserved API Login Credential*** is created during System Galaxy Installer Step-3 option A. The user is prompted to create the API Login username and password during the install. The Reserved API Login is added to the appSettings file and SG database. The password should never expire.
15. **idProducer's *Reserved API Login Credentials*** is created when SG System Registration is completed with idProducer as the badging solution. A default username and password are added to the appSettings file and idProducer database. The password should never expire. This reserved login should never be used to operate the idProducer client (i.e. browse menus, configure settings or badges).
16. If any changes are made to either Reserved Login, the appSettings file must be updated and API services restarted.

LICENSING & REGISTRATION

17. (optional) You may want to alter/change the **Galaxy Cardholder fieldnames** before you license or register System Galaxy / idProducer. The Cardholder fieldnames are pushed over to the Root Reseller when the Galaxy System Registration is performed. If you registered Galaxy before changing the names, you can still change the names, but you must Synchronize them in the System Settings\Badge Options screen. Note that these fieldnames appear in the field menu, the field names are not added to the badge as a label though. idProducer Badge Designer allows you to put custom text labels on the badge in the event you don't want to tamper with the cardholder field names. Simply drop a text box onto the badge next to the field.
18. **Basic License** – SG System Registration generates the **Base License**.
19. **Advance License** – user must request the **advance license** from the idProducer server before SG Registration is done. User must Install the advance license after SG is registered.

PRINT DISPATCHER & PRINTERS

20. Before you can **create a *Print Dispatcher* and add a printer,** you must have completed the licensing. Basic license supports 1 printer on Root Dispatcher. Advance license supports multiple subscriptions, dispatchers/printers.
21. The ***Print Dispatcher*** must be running for on-demand printing. The system will retain print requests in a pending table until the next time the Dispatcher is launched. ***Pending print requests*** print before on-demand print jobs.

IMPORTING, SYNCHING, AND ASSIGNING BADGE TEMPLATES

22. Badge Templates must be created in idProducer under the desired subscription (root or customer) before they can be imported/synched. Template names are imported by synching from SG.
    a) Root badge templates must be synched from the System Settings\Badge Options screen or Badge Designs in SG.
    b) (advance) Customer-subscription badge templates must be synched from the Customer programming screen in SG.
23. After Template names are imported/Synched, they are available in SG Cardholder screen.
    c) Basic license: Root templates are available to all cardholders (customer assignment is not supported for cardholders or for the SG operators, etc.).
    d) Advance license: supports printer(s) on Root Dispatcher and also multiple subscriptions, with a dispatcher and printers per each customer-subscription.

TEMPLATE FIELDS, BADGE TEMPLATES, BADGE PRINTERS, CUSTOMERS

24. If you want the ***template field name*** to be a specific value, you can change it in SG System Settings for *cardholder field names* before you register System Galaxy for badging. If you change the cardholder field name after registering you must synch it in the System Settings\Badge Options screen.

25. **idProducer *template fields*** must be replaced with ***SG cardholder fields*** before any badges can be designed.
    a) (This applies to Basic and Advance licenses.) System Galaxy automatically pushes the ***SG cardholder fields*** into the Root Reseller when System Galaxy is registered for badging.
    b) (This applies to Advance licenses.) System Galaxy automatically pushes SG cardholder fields into idProducer customer subscription when the customer-subscription is created from the SG Customer screen.

26. In System Galaxy, the **available badges** and **available printers** are determined by the License level (basic vs advance).
    c) Basic License: all badges and the root printer are available to every cardholder regardless of customer assigned. Customer assignment does not affect the available badges and printers if a Base License is installed.
    d) Advanced License: the available badges and printers are determined by which “Customer” is assigned to the cardholder.

System Installation

This section covers how to install the IIS Server, how to install idProducer and publish the database, how to create the idProducer Client Website.

Installing IIS Server

This topic describes how to install IIS Web Server using the *GCS Install Helper Utility*. The GCS Install Helper Utility will install and correctly configure the IIS Web Server to support the idProducer web client.

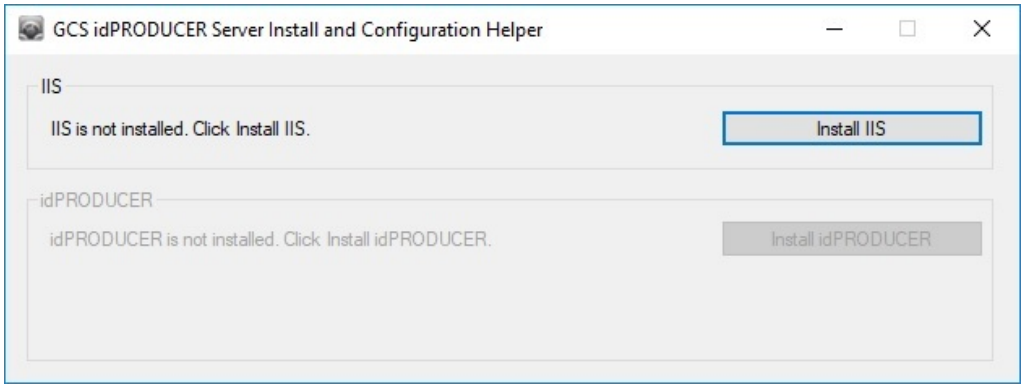
NOTES

- IIS Web Server must be correctly installed and configured before you can install idProducer.
- Launch the *GCS Install Helper utility* by clicking the "Install idProducer Badging" option on the Galaxy Installation App (USB/OSI).
- This utility will detect whether all the IIS server settings are correctly configured to support the idProducer web app.

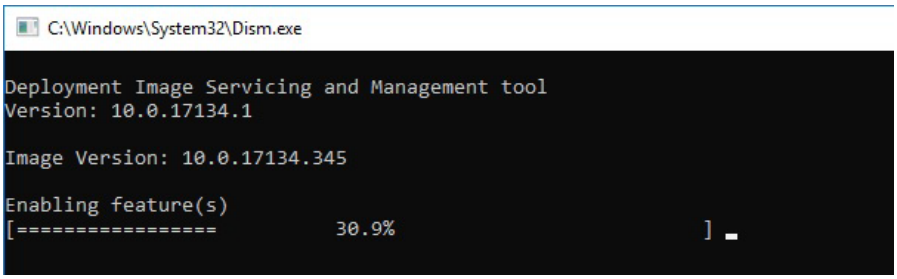
1. Load the System Galaxy Installation media (USB/ISO)
2. Double-click the **SGStartup.hta** file to open the SG Installation App.
3. Under the Web Applications, click the option to "Install idProducer Badging".
   Note: the button to install idProducer remains grayed/disabled until IIS is correctly installed.

4. Click the **Install IIS** button to install the IIS Web Server on the computer. (grayed buttons are or not available)

Note: if IIS already installed, the Install IIS button will not be available.
You can proceed to next section if IIS is already installed on this computer.



5. Click **YES** on the Windows UAC prompt to proceed with install.
6. A window will open showing the progress of the install.



GO TO IDPRODUCER INSTALLATION PROCESS

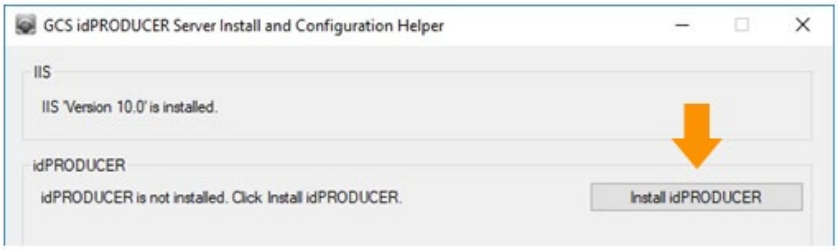
IdProducer Installation Process

This topic describes how to install idProducer software using the GCS Install idProducer Helper utility. Doing the complete install will include installing the Print Dispatcher.

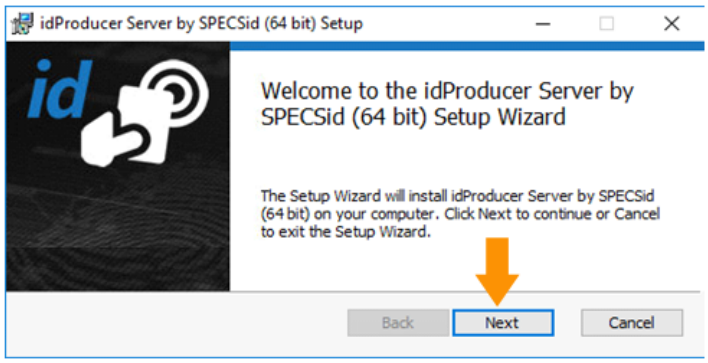
PREREQUISITES

- IIS Web Server must already be installed before you start this install. See IIS INSTALLATION for details.
- The idProducer installer will automatically launch the IDP Configuration Manager at the end of its process. Do not close it, but proceed to the next section to continue with the database install.

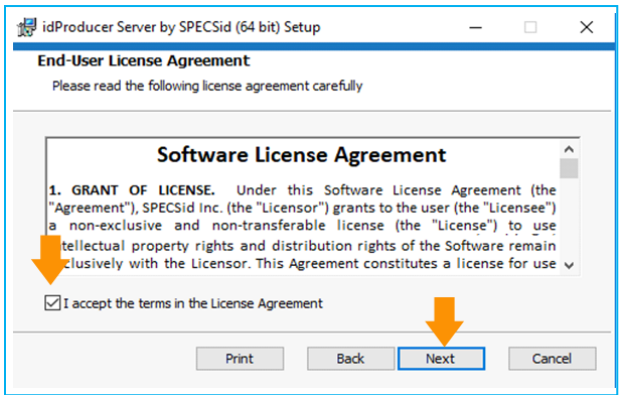
1. Click the **Install idProducer** button to install the idProducer client-server software.



2. When the idProducer Setup Wizard launches, click **Next** to proceed through the screens as appropriate.

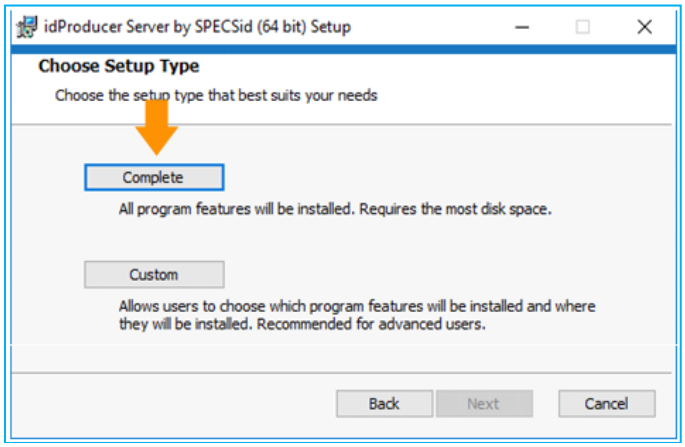


3. Check the EULA Agreement and Print as needed. Click **Next**.

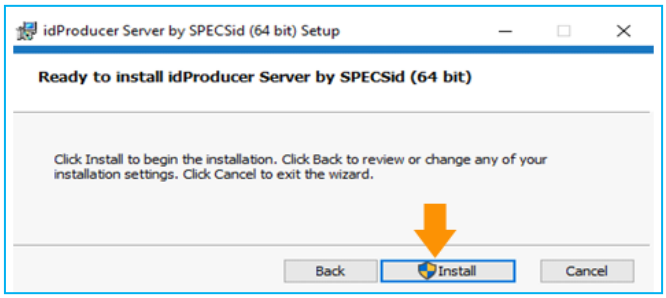


4. Click the **Complete** button in the Setup Type screen (recommended as standalone install).

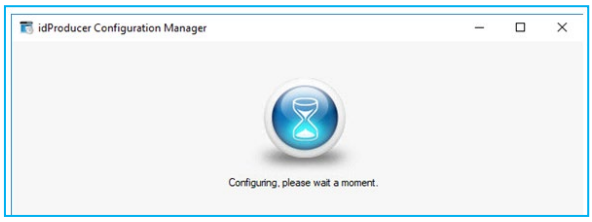
Note: Choosing Custom allows the user to perform a distributed installation of the Print Dispatcher and Capture Handler on a workstation.



5. Click the **Install** button to start the installation.



6. Click the **Finish** when prompted. The *idProducer Configuration Manager app* will automatically launch.

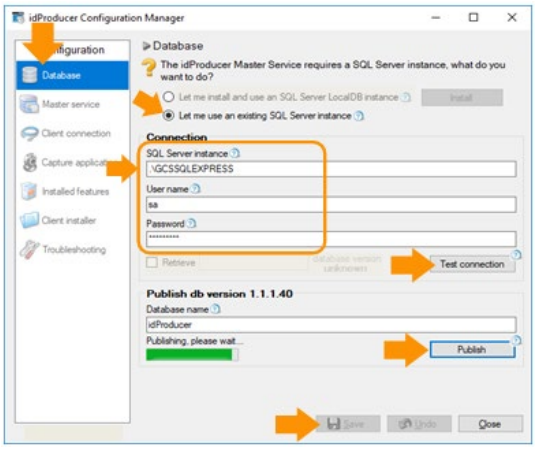


GO TO PUBLISHING THE DATABASE

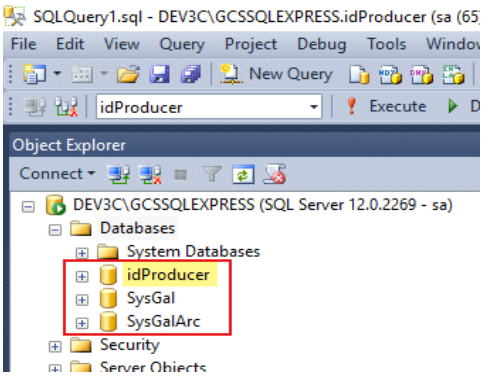
Publishing the IdProducer Database

This topic covers how to publish the idProducer database in the existing GCSSQLEXPRESS Server instance that was installed for the System Galaxy Databases (during Step-2 from the System Galaxy install media (USB/ISO)).

7. With the **idProducer** Configuration Manager open to the Database screen …
    a. Choose the "use existing SQL Server instance" option.
    b. Enter the **path and name** of the SQL Server instance (i.e. ".\GCSSQLEXPRESS")
    c. Enter the **username** "sa"
    d. Enter the correct sa **password** (the default is GCSsa5560" although you should have entered your unique password during the System Galaxy install Step-2).
    e. Click **Test Connection** button.
    f. When the connection test passes, click the **Publish** button to publish the idProducer database.
    g. When the database has been published, click the OK and SAVE buttons.

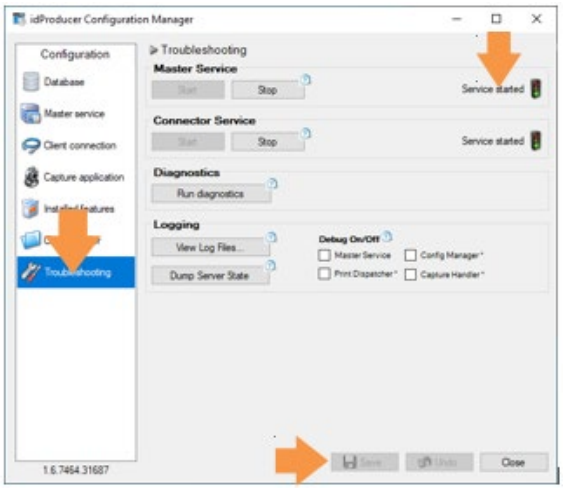


NOTE: The database is installed in the GCSSQLEXPRESS INSTANCE as seen below in the SQL Studio Manager application.



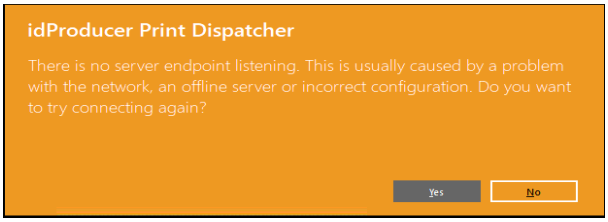
2. On the Troubleshooting screen …
    a. Make sure the **Master Service** and **Connector Service** are both started (green light)
    b. (optional) Check the desired Logging options.
    c. Click Save button and then Close.

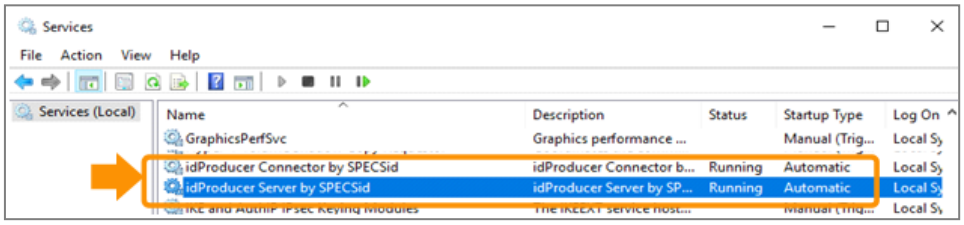
NOTICE: If the Configuration Manager throws an error that logging could not update due to "no endpoint listening", and the Master Service stops, this is because you have not yet set up the Master Print Dispatcher (i.e. the Root Print Dispatcher). Don't worry because you will do this in the next step. Just click OK and re-start the Master Service and quickly save the configuration before it flips off. You can manually restart the master service from the Windows Services window after you configure the Root Print Dispatcher if needed.



3. **<u>Reboot the computer</u>:** *When the PC restarts, you may see a message stating there is no endpoint listening. Restart the services manually if needed***.**

If this happens, examine the windows event logs (System) for service errors.





GO TO CREATING WEBSITE AND FOLDER PERMISSIONS

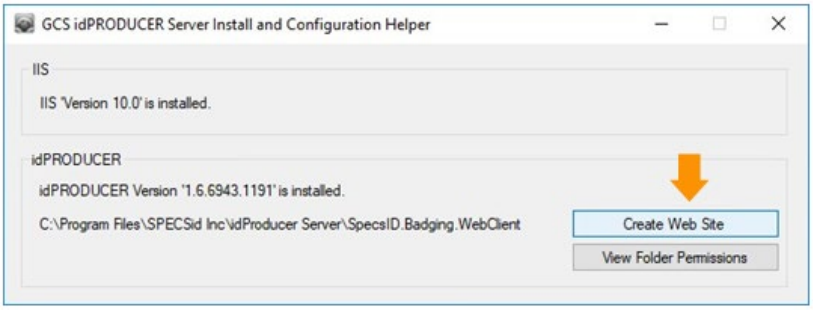
Creating the idProducer Website and Folder Permissions

This topic covers how to create the idProducer website and verify folder permissions in IIS on the Galaxy Web Server. This does not need to be done on a client workstation.

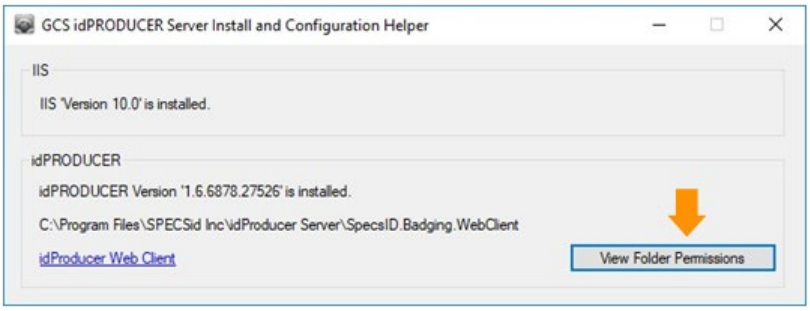
In the GCS idProducer Install Helper app, do the following …

1. Click the **Create Website** button to create the website and folder permissions.

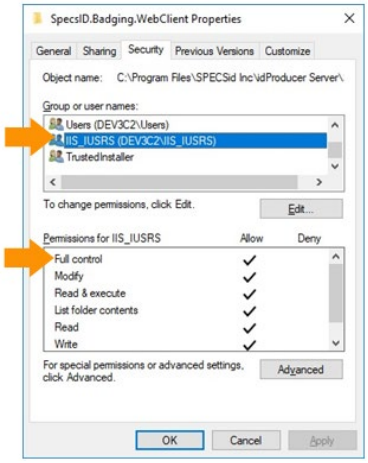
NOTE: this may be done automatically if you do not see a button on the installer helper to create the website.



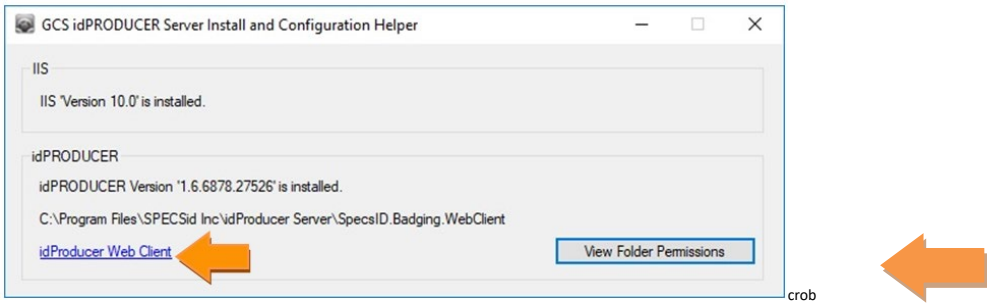
2. Click **View Folder Permissions** button to confirm that the IIS User had "Full Control".



3. In the Properties window, scroll down to the **IIS_IUSRS** (your machine name) and confirm that the user permission for "Full Control" is set to "Allow" (checked). If for any reason the IIS IUSER is not set for full control, you must edit the username and manually check "allow". Click Apply and OK to exit.

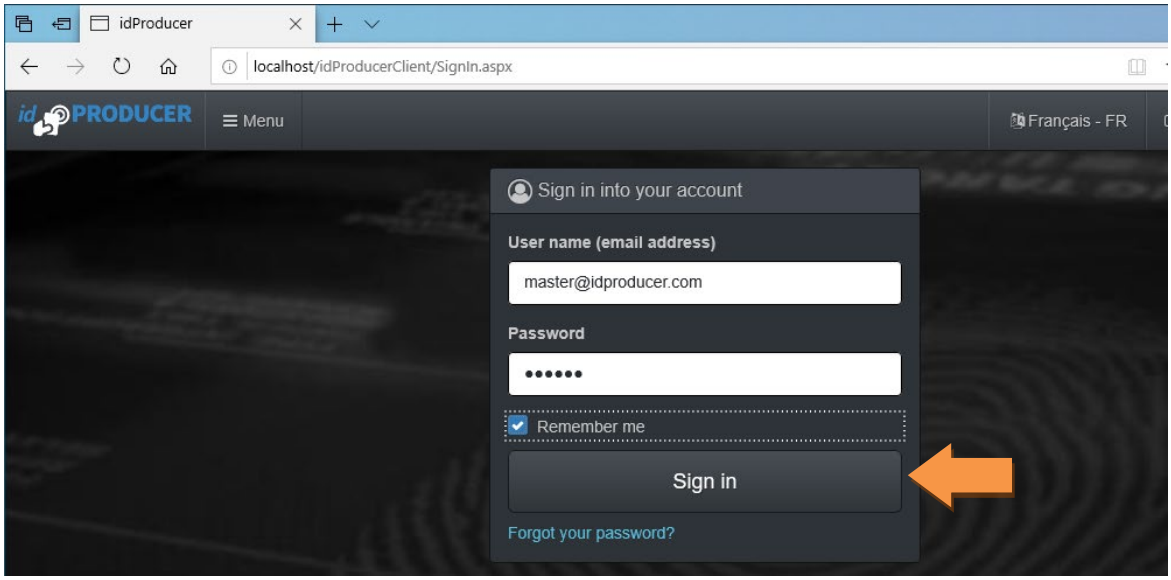


4. Click the **idProducer Website link** to test the idProducer Client has been created–.



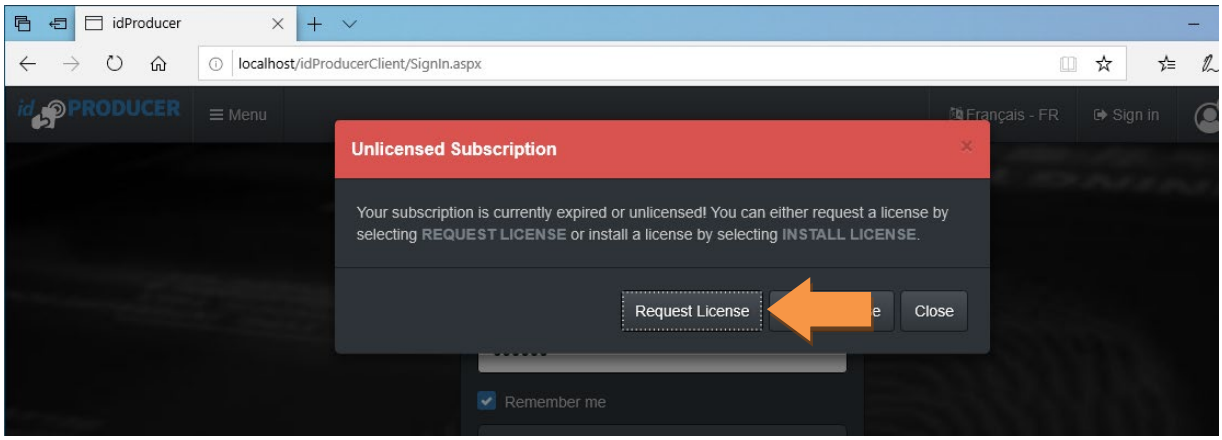
crob

5. **Sign in to idProducer** when the Web Client opens.
6. Enter your **login name** and **password** and click the [SIGN IN] button.

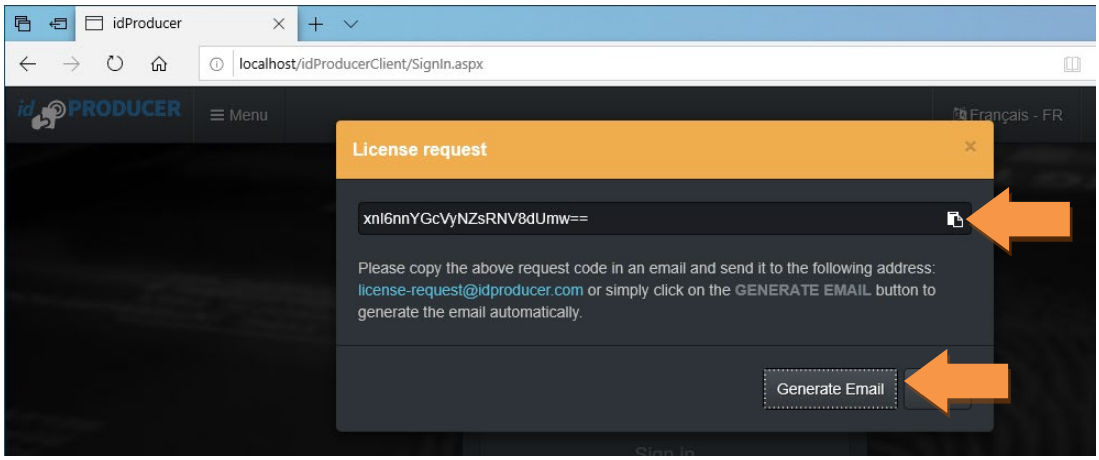


REQUESTING AN ADVANCED LICENSE IS DONE THROUGH THE NEXT STEPS.

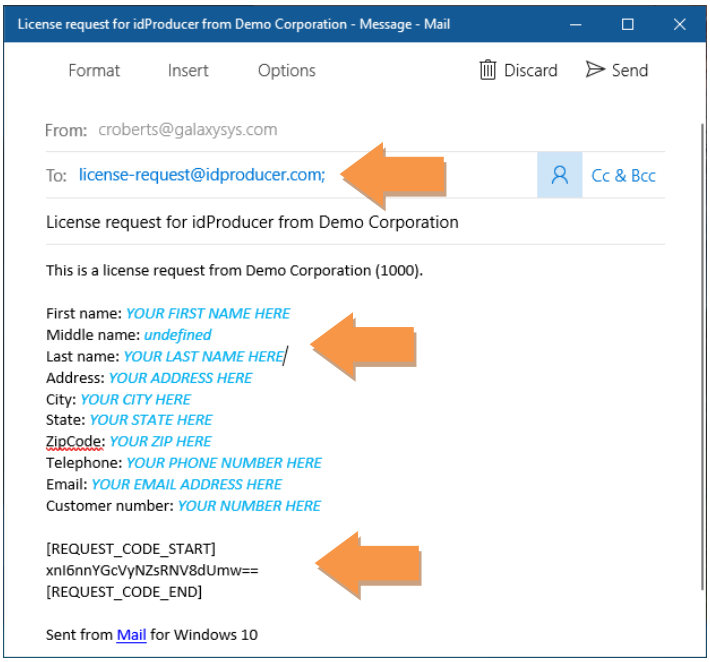
7. Click the **[Request License] button** to start the request process.



8. To generate the email you must capture the REQUEST CODE as follows …
    a. Click the **Copy icon** in the right corner to Copy the REQUEST CODE to the clipboard and click OK to close the *Request code copied* message box.
    b. Click the [Generate Email] button to automate your email request.

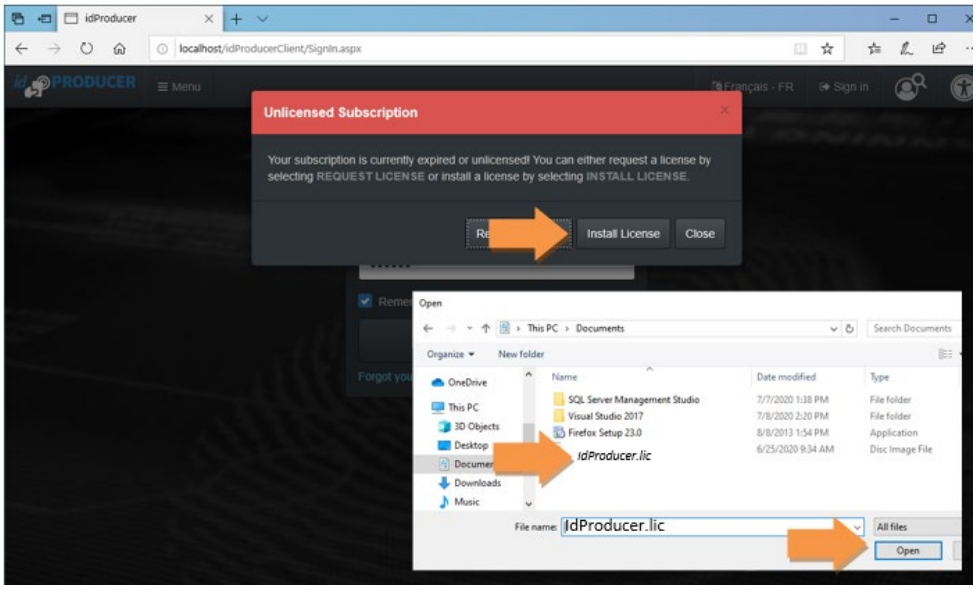


9. The default email application will open a new Email Message, with a *default form* that you must fill out.
    a. Provide your demographic address information, phone number, and your return email address
    b. Also include your customer number in the body of the email.
    c. The REQUEST_CODE will already be included in the email body.
    NOTICE: If you need to move to another machine to create your email, then you can copy the body text and the Request Code into a notepad file and move it to the computer that hosts your email application.
    d. Send the email to license-request@idproducer.com . You will receive a return email with the license file attached.



10. Do the following steps to install your license file …

    a. Detach the ***license file*** form your return email and copy it to a known location on your Galaxy Server.
    b. Sign into idProducer Web Client again and this time click the [Install License] button.
    c. In the Windows File Explorer, browse to the location of your license file
    d. Select your license file and click OPEN to install the license.



GO TO SYSTEM REGISTRATION

System Registration

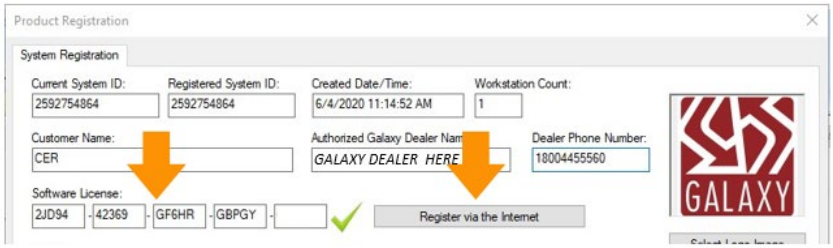
This topic covers the System Galaxy Registration for a system using Advanced License.

SYSTEM REGISTRATION

PREREQUISITES

- The idProducer software/client and Advanced License must be installed. See prior sections for details.
- You may not be able to configure or launch the print dispatcher until the Galaxy system registration is complete.
- the GCS Web API Service, idProducer Server Service, and idProducer Connector Service must all be running to register.

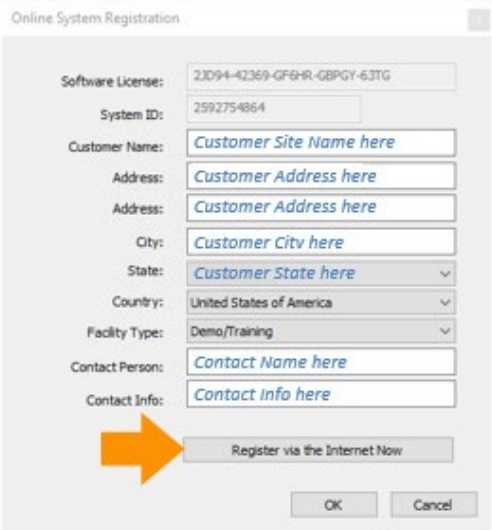
1. Launch System Galaxy (SG) from the desktop startup icon and create a master login credential (username and password).
2. Sign-in to System Galaxy with the new master login that you have just created.
3. From the SG menu, choose **Configure > Options > Registration > System (or Wizard)** to open Product Registration screen.
4. Enter the **Customer Name**, **Dealer Name**, and **Phone**, to begin the registration process.
   The name you enter in the Customer Name field will become your Root Site name in idProducer.
   a) Enter your **Software License key** – a green checkmark will appear if you enter it correctly.
   b) Click the **[Register via Internet] button** – a popup window will open for you to provide your contact information.



screen is cropped

NOTE: If you do not have an internet connection, you can register manually by calling authorized customer support.

   c) Enter data into all fields – no fields can be blank, use a space in address line 2 if you do not have a PO Box.
   d) Click the **[Register via Internet Now]** and click **OK** when the "Registration Successful" message box displays.
   User returns to main *Product Registration screen.* All settings should be prefilled to match purchase agreement.



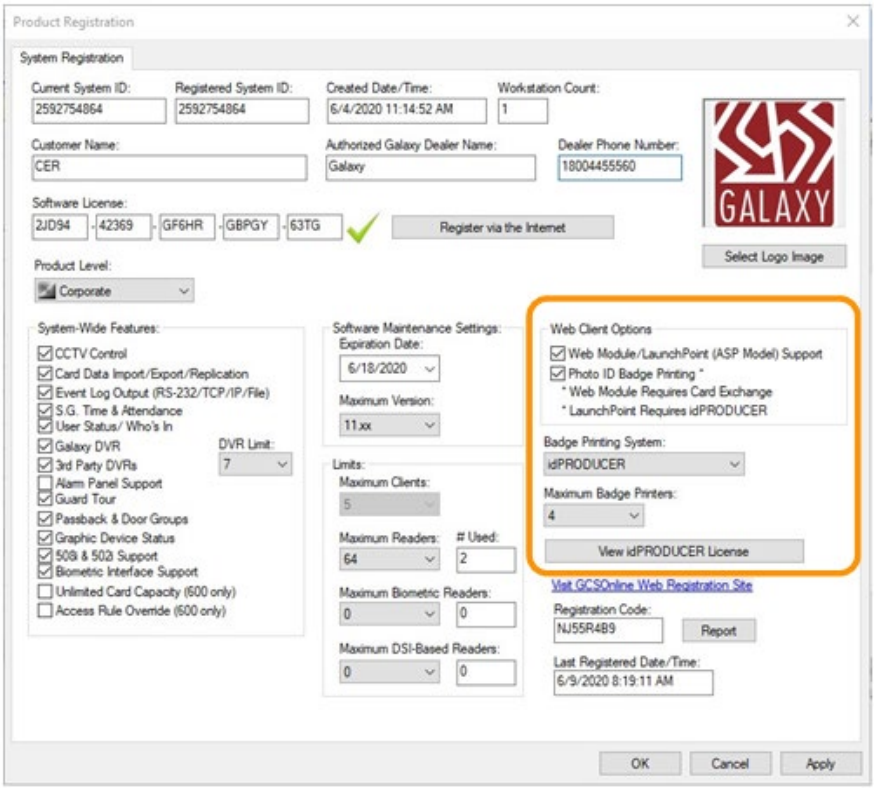
5. When you return to the *Product Registration* screen, you should take a minute to verify your registration settings.
    a) Product Level, system settings, reader options, Badge Solution (idProducer) and Printer Count are now configured to match the *customer purchase agreement*.
    b) Verify the *Software Maintenance Expiration Date* is correct and a *Registration Code* is present.
    c) Click APPLY button to commit the registration.

6. Click the [View idPRODUCER License] after the registration code is applied to open a message box that displays your basic license level and the number of registered printers for the system.

7. Click **OK** to exit when everything is correct. Changing anything after the Registration Code is applied will require customer support assistance. The code is only good for the exact setting you have validated.

To Register via Authorized Customer Support: You will manually set up all the system options, badging solution, and printer count according to the customer purchase agreement. You must enter the *registration code* that Customer Support provides, then click APPLY to confirm and save it.

NOTE: SG creates the Basic-level idProducer license and the idProducer reserved API credentials as well as pushing SG Cardholder fields into the idProducer Root Reseller account in the idProducer database. The Root account will take the name of the Galaxy *Customer Name* in the Registration screen.



Proceed to Print Dispatcher

WORKSTATION REGISTRATION

NOTICE: As of SG 11.7.0, the workstation registration is no longer needed. The registration options have been merged into the System Registration screen.

PROCEED TO CONFIGURE PRINT DISPATCHER

Configure Print Dispatcher on Customer Badging Client

This topic covers the first-time startup of the idProducer Print Dispatcher. The dispatcher is installed with the idProducer Installer on the server. To install a print dispatcher on a client workstation, you can run the idProducer Setup Exe file and choose "custom" install. Install the client print components but not the software.

IMPORTANT: You do not need to install this dispatcher at the server if you will not have badges at the root reseller level. It is more likely that you will only have badge designs at the customer-subscription level.

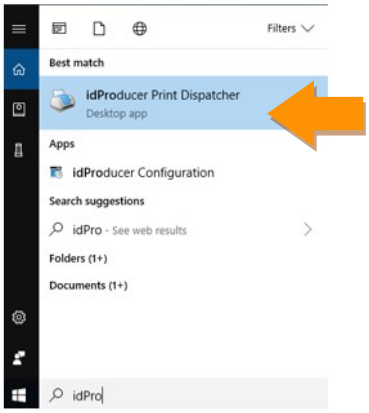
PREREQUISITES

- The System Galaxy installation (all 3 parts) must be installed. See SG Install Procedure for details.
- The idProducer software/client must be installed and licensed. See prior sections for details.
- The GCS Web API Service, idProducer Server Service, and idProducer Connector Service must all be running to register.
- You must have completed the Galaxy system registration.

If you have not installed the Print Dispatcher on the Client Workstation, you can do so by running a custom install using the idProducer installation setup file. Navigate to the idProducer folder in the C:\\GCS\System Galaxy\idProducer. Set your windows file explorer to show the hidden files. Run the idProducer setup file and choose CUSTOM install. Install the Print Dispatcher element and uncheck the client app installation.

1. Launch the Print Dispatcher app by typing *idProducer Print Dispatcher* in the search box on the Windows taskbar.

2. Click on the idProducer Print Dispatcher application when you see it in the list.

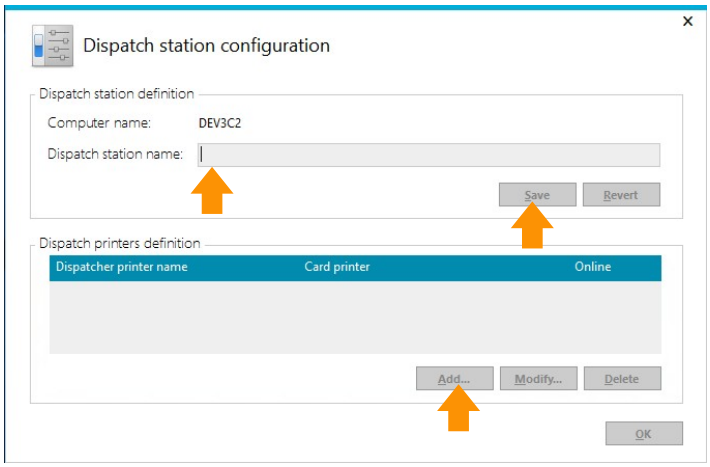


3. Sign in with the default login credentials. (Default login is **master@idProducer.com** / "master" password).

NOTE: clicking "Remember me" will tell the dispatcher to preserve the master username. You will still need to provide the password each time you start up. NOTE: **You can change the master password as desired**.

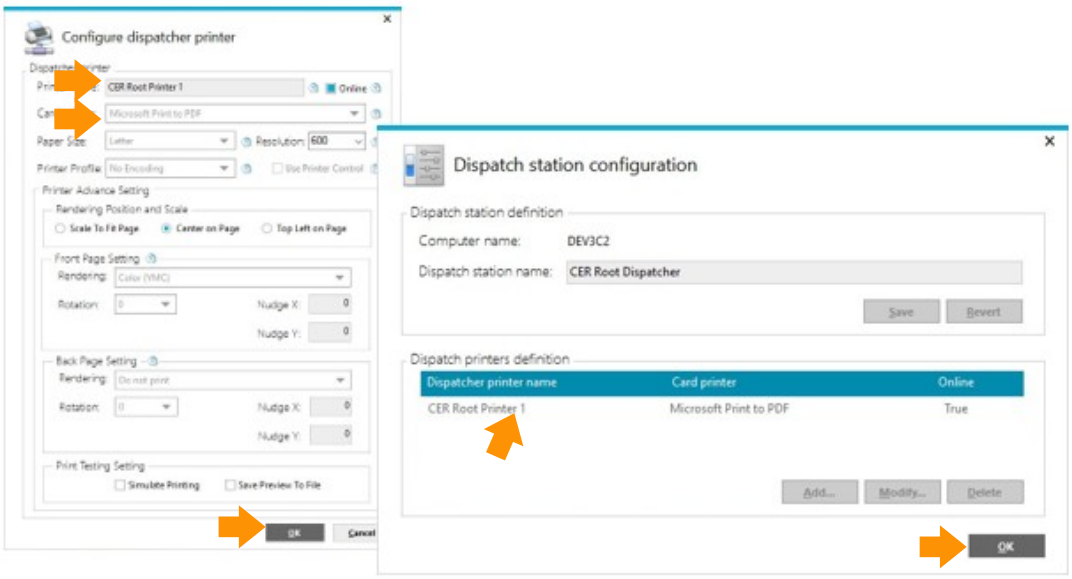
4. When the Print Dispatcher opens, you may see this dialog prompting you to create the dispatcher.

5. Enter a Dispatch Station Name … like *Main Dispatcher*.
   Note: Under a Basic license this is the only Dispatcher you will have. All operators will be able to see this dispatcher and its printers as long as the operator profile has been assigned the correct privileges in the System Galaxy Operator profile.
6. Click **SAVE** to the Print Dispatcher, then click **Add** to configure a badge printer.



7. In the Configure Printer screen, **enter a *unique name*** to identify the printer.
   This name will appear in System Galaxy so the operator can identify the desired printer.
8. Select the **Card Printer** (brand/model) and configure all the appropriate printer settings.

9. Click **OK** and the printer will be added to the list of *defined printers* in the Dispatch Station screen.

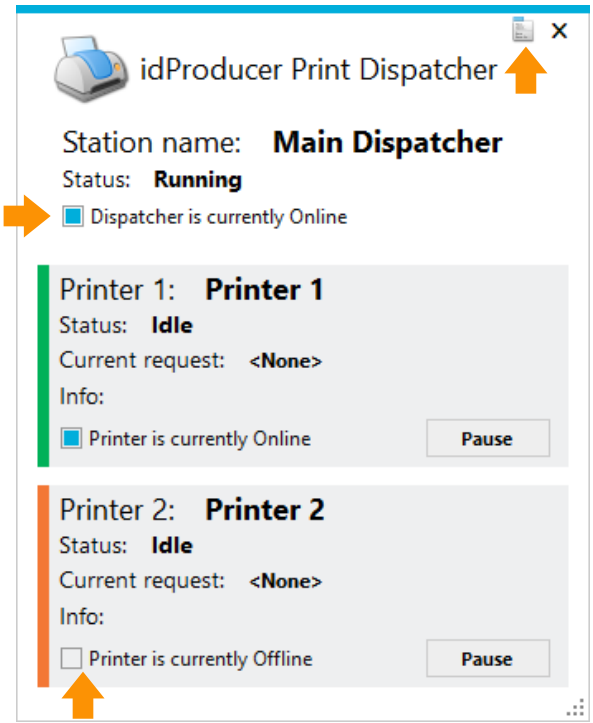


HOW TO USE THE PRINT DISPATCHER

NOTES

- Only one instance of a Print Dispatcher can run per PC.
- Offline printing occurs when the SG Operator sends or queues a badge to a printer or to the dispatcher when it is not running.

1. You will launch the idProducer ***Print Dispatcher*** on the the main server by typing "idProducer Print Dispatcher" into the search field on the Windows task bar.
2. The offline/pending print jobs will be automatically printed when the Print Dispatcher starts and is logged in, provided the services are running and the printer is online. Offline jobs take priority over live requests. Any jobs that are on "hold" will not print until released.
3. To print a badge, the SG Operator will send the badge to a printer from the System Galaxy cardholder screen.
   If the printer is offline, the badge print will be added to the idProducer ***print request queue***.
4. The SG Operator can also send a badge to the *Print Dispatcher Queue* if the printer is not online. These print jobs will be handled by a *Dispatch Operator* by choosing to open the Print Request Queue from the Dispatcher Menu (icon in the top right corner).
5. The Dispatch Operator can print, hold or close any queued jobs. The dispatcher can also assign a job.
6. The Print Dispatcher window will display the current online status of the Print Dispatcher (online vs. offline)
   This window also shows the printer status and activity (online v. offline; and idle v. printing).
7. User can pause/resume the Printer from the Print Dispatcher window, as needed.

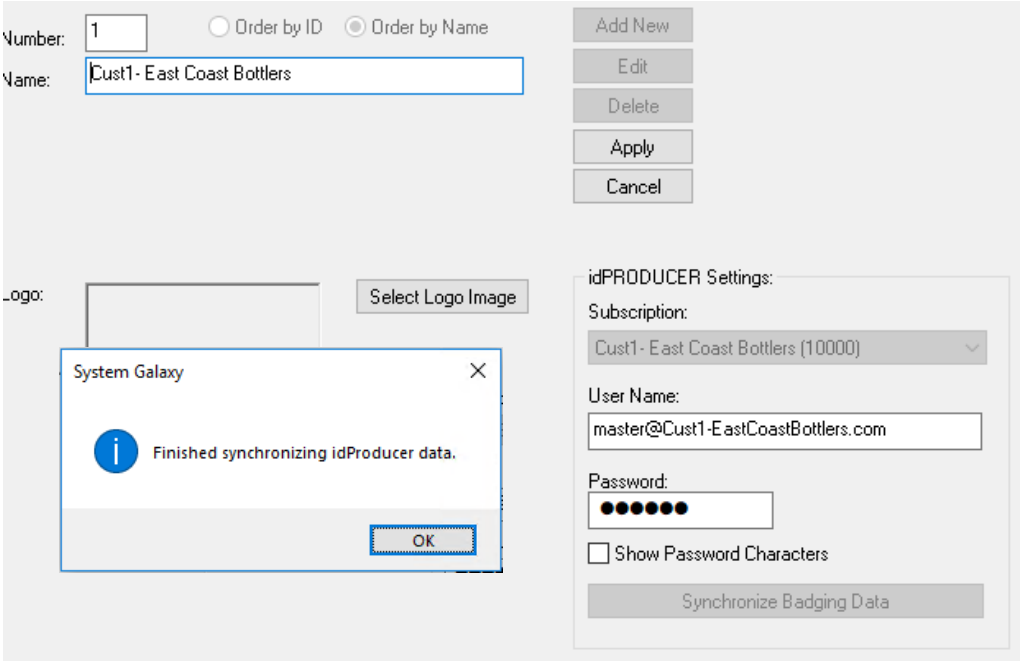


PROCEED TO CREATE CUSTOMER SUBSCRIPTIONS IN SYSTEM GALAXY

Creating Customer-Subscriptions in System Galaxy

This section describes **how to create the customer in SG and then add the Subscription login** and Sync the cardholder template fields..

1. In SG menu, select **Configure > System > Customers**.
2. In the Customer screen, click on the ADD NEW button.
3. Type a Customer name – make it simple and use as few spaces as possible.
   NOTICE: The customer name becomes the subscription name in idProducer and it also is incorporated into the subscription login username. Notice that spaces are converted to dashes, so you will want to be careful how you make the name. The User Name can become long and difficult to type.
4. Click APPLY button to save the customer name. Once you have saved the Customer you can add the Subscription details by clicking EDIT button with the Customer name selected.
5. You will notice that Galaxy already created the Subscription name and login based on the Customer name you created.
6. Type the password you want to use (do not lose this because you need it to sign in at the idProducer app to make your badges and to sign in to Print Dispatcher to add printers and operate the Dispatcher).
   TIP: you can use the 'Show Password' option to reveal the password you are typing.
7. Click APPLY to save the subscription login.
8. Click the SYNCHRONIZE button to push the SG Cardholder field names to the idProducer subscription.
9. Click OK to close the Synchronize Confirmation message.



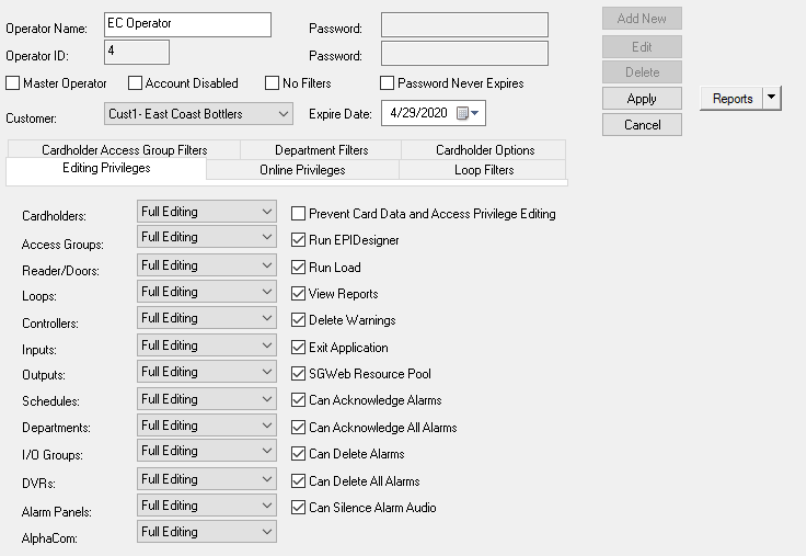
- **Continue to the next section to Create the SG Badging Operator for each Customer**
- **Or advance to the topic to Create the Badge Templates in idProducer**

.

Creating the SG Operators for the Customer

This section describes how to create the SG operators for the Customer-Subscriptions.

1. In SG menu, select **Configure > System > Operators**.
2. In the Operator screen, click on the ADD NEW button.
3. Type a new Operator user name and enter the password – do not forget or lose this. Notice if you forget the password, you can change the password using the SG master operator login to edit the operator profile password you lost.
4. Select the desired Customer name to link the operator to the Customer-Subscription. This will filter the badges so that the operator only sees badges from the same customer.
5. If this is a badging operator make sure the 'master' chechbox is "unchecked" (off). A master operator has no filters and can see all information for all customers. Also make sure the 'no filters' option is "unchecked" (off).
6. Also make sure the operator has full editing privileges for cardholder screen and the enrollment related options are not filtered.
7. Set the appropriate expiration settings (either a date or check 'Never Expires' as appropriate)
8. Click the APPLY button to save your changes.



Creating Badge Templates in idProducer Client

Under the Advance License, all badge templates are under the Customer-Subscription and are only available to Customer-linked operators for cardholders who are linked to the same customer. Badge Templates are visible in SG after the badge import is done only for the customer-operator that is linked to the customer-subscription (based on Customer and Operator programming).

IMPORTANT NOTES:

- idProducer Licensing must be installed before you create badge templates
- System Galaxy System Registration must be done before you can create badge templates.
- The System Galaxy **customer-subscriptions** must be created from System Galaxy Customer Programming screen. See the prior . Subscriptions cannot be created in idProducer directly. Templates are only created under the Galaxy customer-subscriptions.

General Process:

1. Create the Badge Template in idProducer using SG Cardholder Fields that were imported when System Galaxy was registered.
2. Import the Badge Templates into System Galaxy from the System Galaxy Badge Designs screen.

About Updating Card Template Fields

Updating Customer-Subscription Template Fields

System Galaxy will automatically update the Template Fields with *SG Cardholder Fields when the SG Operator synchronizes the templates from the SG Customer screen.* When the SG operator signs in, SG automatically pushes it's cardholder fields into idProducer's Template table and removes the 11 proprietary fields to avoid conflicts.

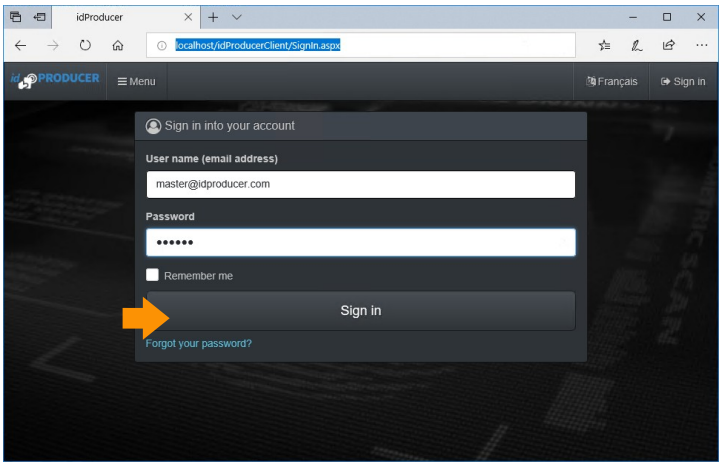
CAVEAT: all prerequisite programming must have been completed before this update can occur. Restarting SG will not trigger the update if the prerequisite setup is not correctly performed.

CREATING BADGES

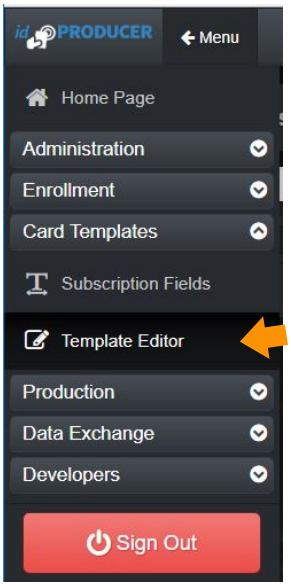
The Root Subscription is automatically synchronized each time System Galaxy software is restarted/re-launched. Or user can IMPORT/SYNC BADGES in the SG Badge Designs screen.

1. Login to idProducer using the ROOT idProducer User credentials if you want to create a Root Card Template (i.e. Badge Design) for cardholders who are assigned to the "No Customer" option.

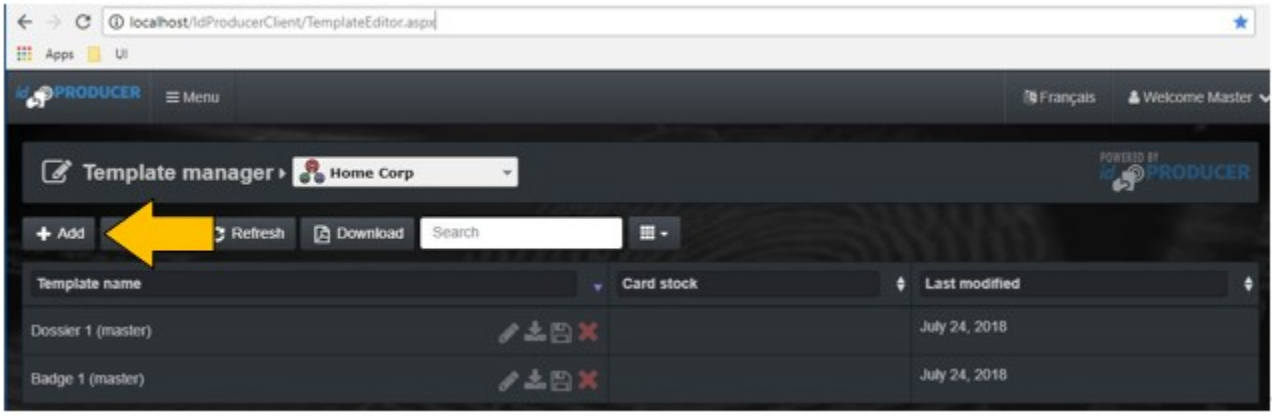
! Do not login to idProducer using the *reserved Galaxy API Login Credentials*. Always use the appropriate Customer Login Credentials to design badge templates.



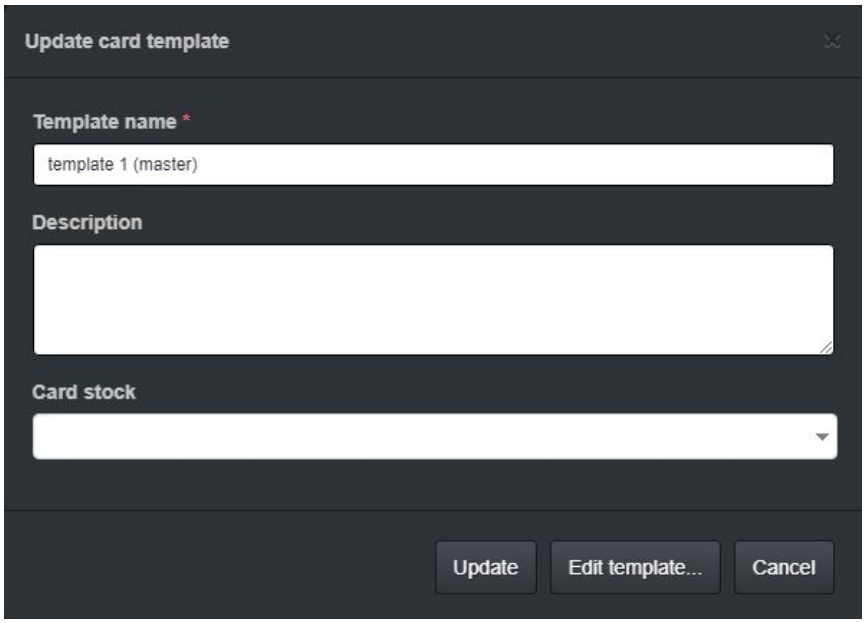
2. There are two ways to open the Template Editor …
    a. ***Click the Template Editor tile*** on the idProducer home web page.
    b. or open the Template Editor from the **Menu > Card Templates > Template Editor**



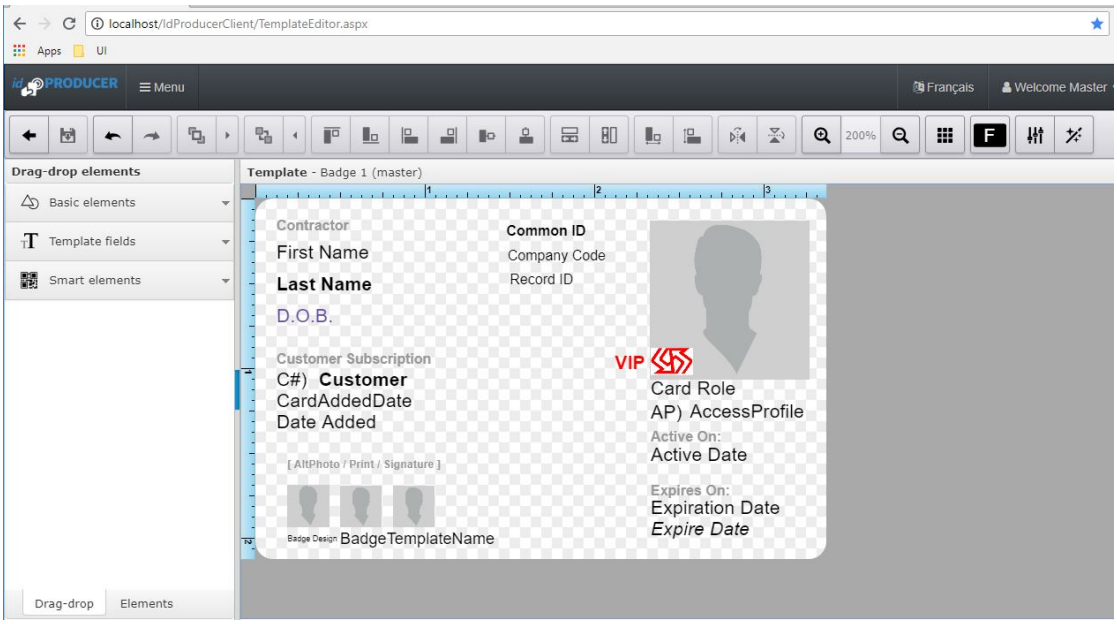
3. Make sure the desired ***Subscription-name*** is selected in the Template Manager droplist
4. Click ADD to start designing a Root template.



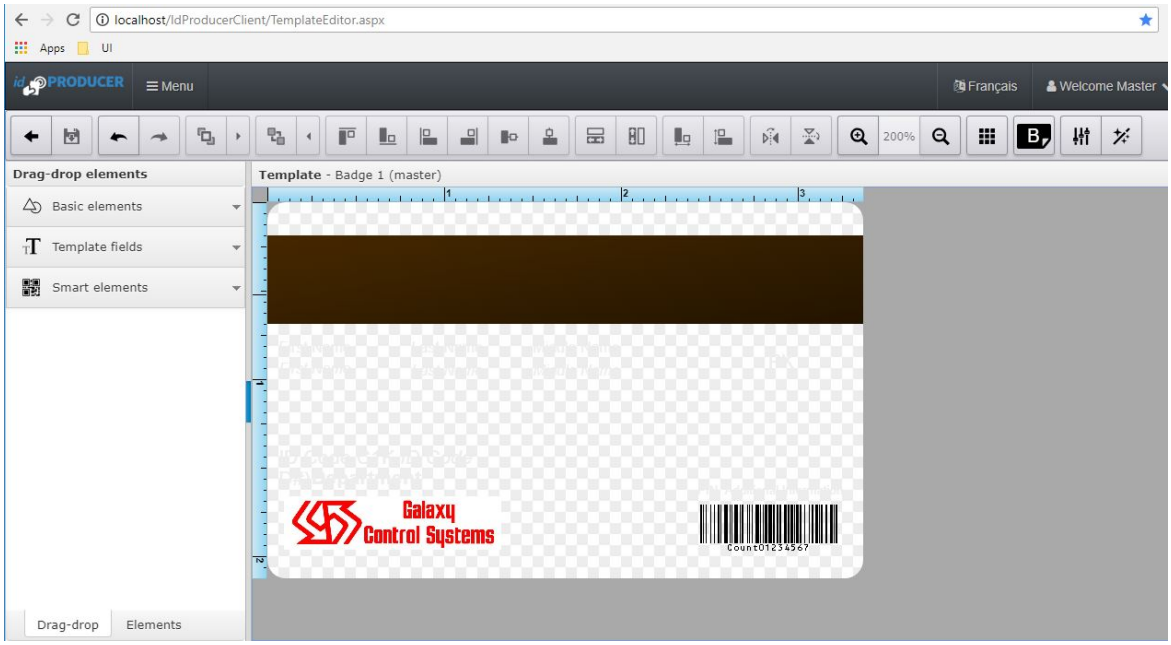
5. Give your template a descriptive name and chose your card stock. You will see a dialog properties box that allows you to select different sizes of cards and choose whether to have a front and back.



6. When the work canvas appears, begin creating the badge.
7. Expand Template Fields panel to see the Galaxy Cardholder Fields. Simply drag-n-drop the desired cardholder fields onto the card canvas.



8. Expand Smart Elements panel to see the bar code and magstripe fields. Simply drag-n-drop the desired smart fields onto the card canvas (back).



9. Save your badge design.

10. In System Galaxy you must import in the Badge Designs screen before you can print badges. Then you can see the template in Galaxy's Cardholder Template Droplist.

Managing Badges in System Galaxy

Under the Advance License, all badge templates are under the Customer-subscription are available to all cardholders who are assigned to the same Customer and after the badge import is performed.

NOTES

- You must have created the badge templates in idProducer before they can be imported.
- You must import/sync badges before they can be assigned and printed.

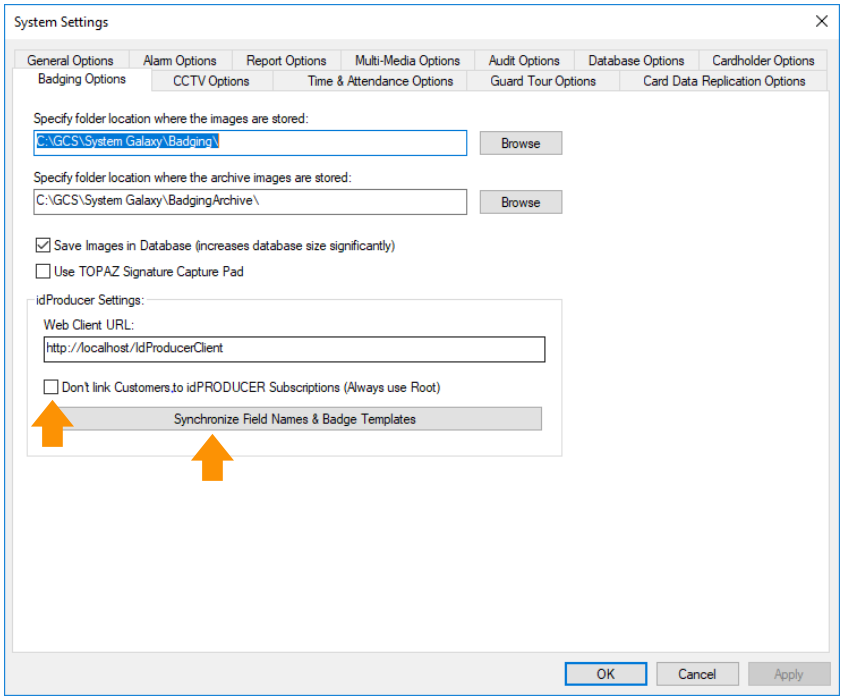
Importing/Syncing Badges in SG

Badges are imported or synced after they have been created.

- You can import/synch from the Badge Options tab in System Settings.
- You can import/synch from the Badge Design screen in SG.

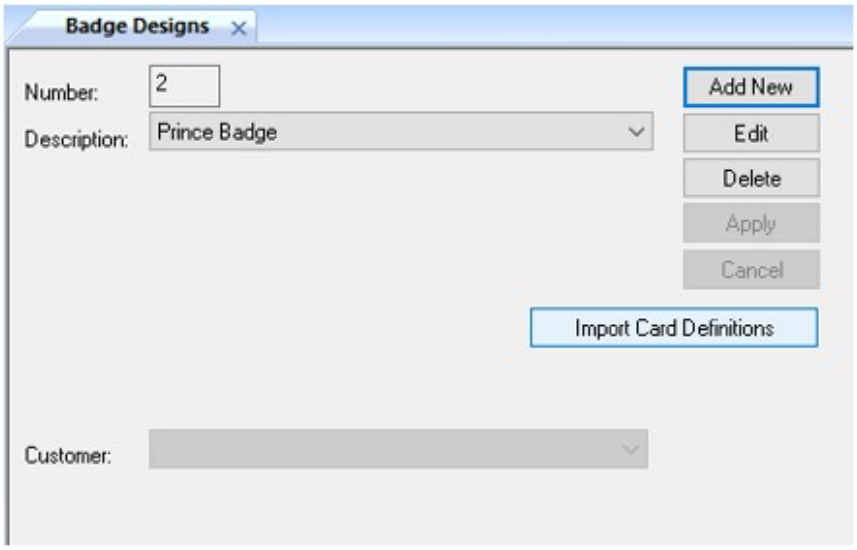
IMPORTING / SYNCING A BADGE (from System Settings screen)

9. From the SG menu, select **Configure > Options > System Settings**.
10. In the System Settings screen, select the **Badge Options** tab.
11. The *Don't link Customers to idProducer Subscribers* checkbox option should be unchecked for a Basic license.
    This way you can make customers in System Galaxy, but they will not link to idProducer Subscriptions, because idProducer Subscriptions require an advanced license.
12. Click on the **[Synchronize …]** button to import or sync badges.
13. Click APPLY and OK to close.



IMPORTING / SYNCING A BADGE (from Badge Designs screen)

1. From the SG menu, select Configure > Cards > Badge Designs.
2. In the Badge Designs screen, Click the **[Import Card Definitions]** button to import or sync badges.



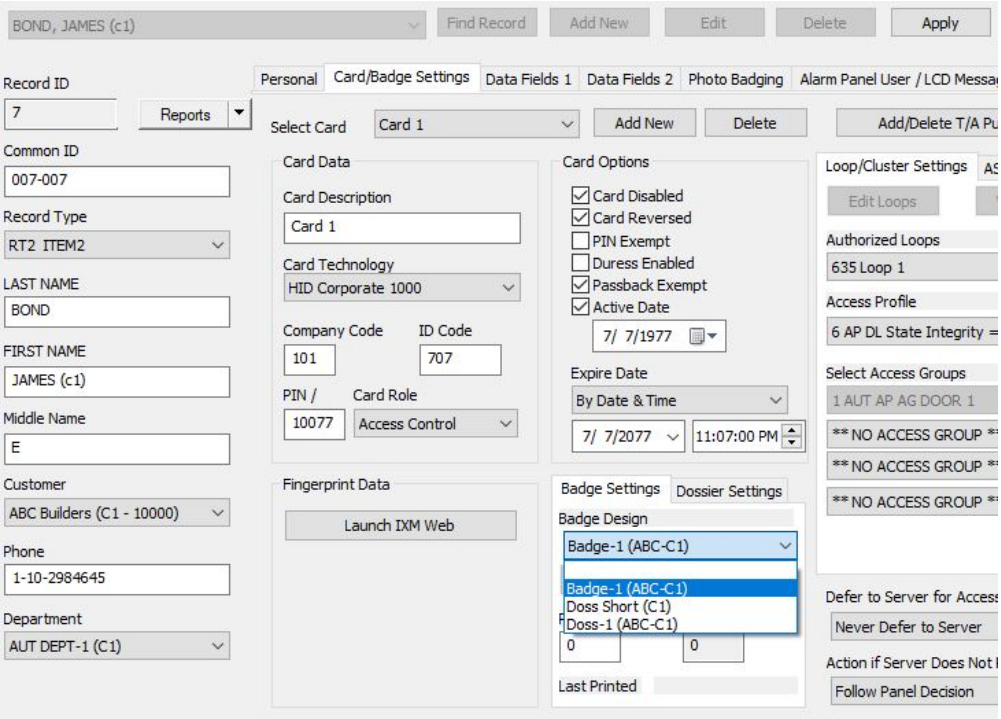
Assigning and Printing Badges

Badges are assigned and printed or previewed from Cardholder Screen after they have been imported.

- The print dispatcher engine must be running with the printer configured to print badges.

Assign a Badge to a Cardholder

1. Sign in to SG using the customer operator.
2. Open the Cardholder Programming screen from the toolbar or menu.
3. Click ADD NEW to enroll a new cardholder
   (or select an existing cardholder from the droplist and click EDIT).
4. Enter the First and Last Name. Then (optional) configure any personnel data needed.
5. (optional) Add a photograph on the Personal tab, if you are using photos on the badge. The photograph will appear on the printed badge if you have properly added the photograph field to the Badge Template in idProducer Badge Designer screen.
6. Enroll the card data and configure any card options as needed – such as activation or expiry.
7. Assign the desired loops and access privileges to the card as appropriate.
8. Make sure you have put data into any fields you need to print on the badge.
9. **Assign a Badge Template** (the droplist will only show Badges that were imported for the same customer)–
10. Click **APPLY** to save the cardholder record.



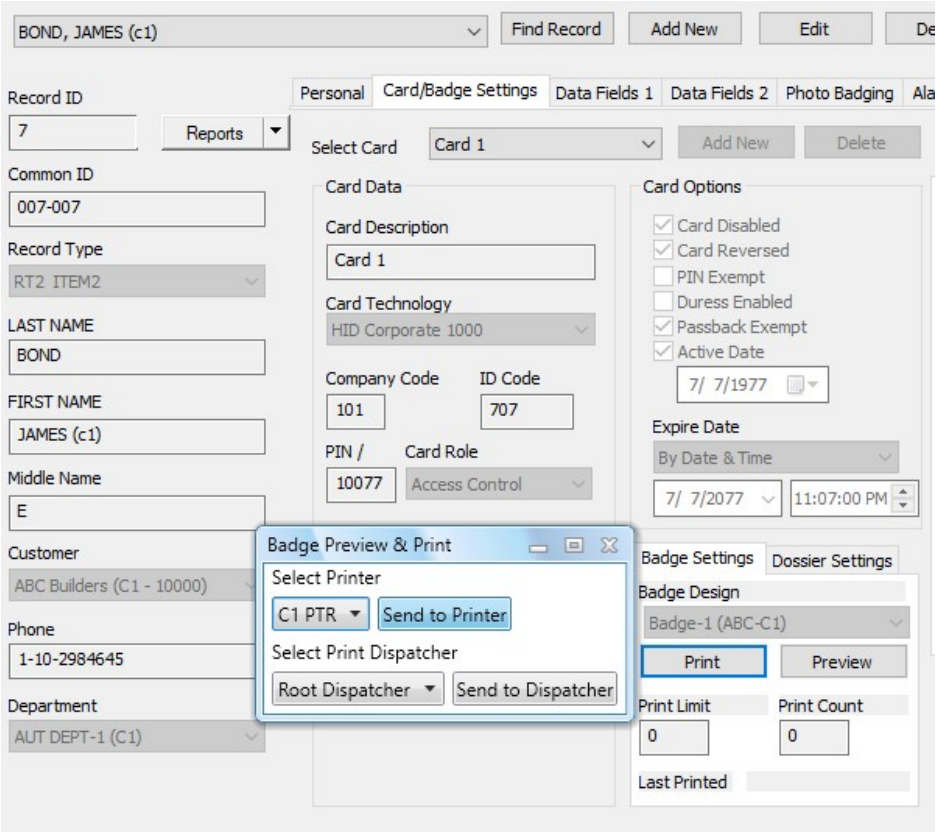
Continue to next page for Printing & Previewing

Print a Badge to a Print Dispatcher

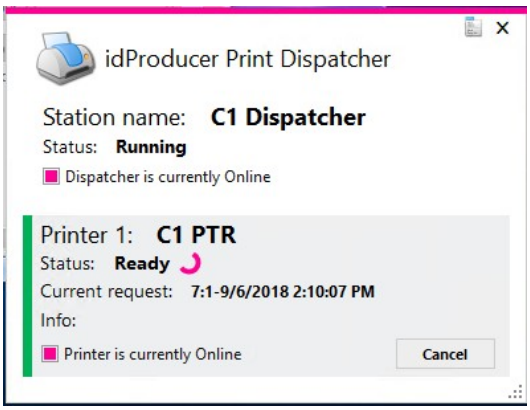
The Print Dispatcher must be running if you want the badge to print immediately. Launch the Print Dispatcher and sign in with valid credentials.

NOTE if the Dispatcher is offline, the idProducer system will add the print request to the print request table and it will print the badge the next time the Printer and Print Dispatcher are online.

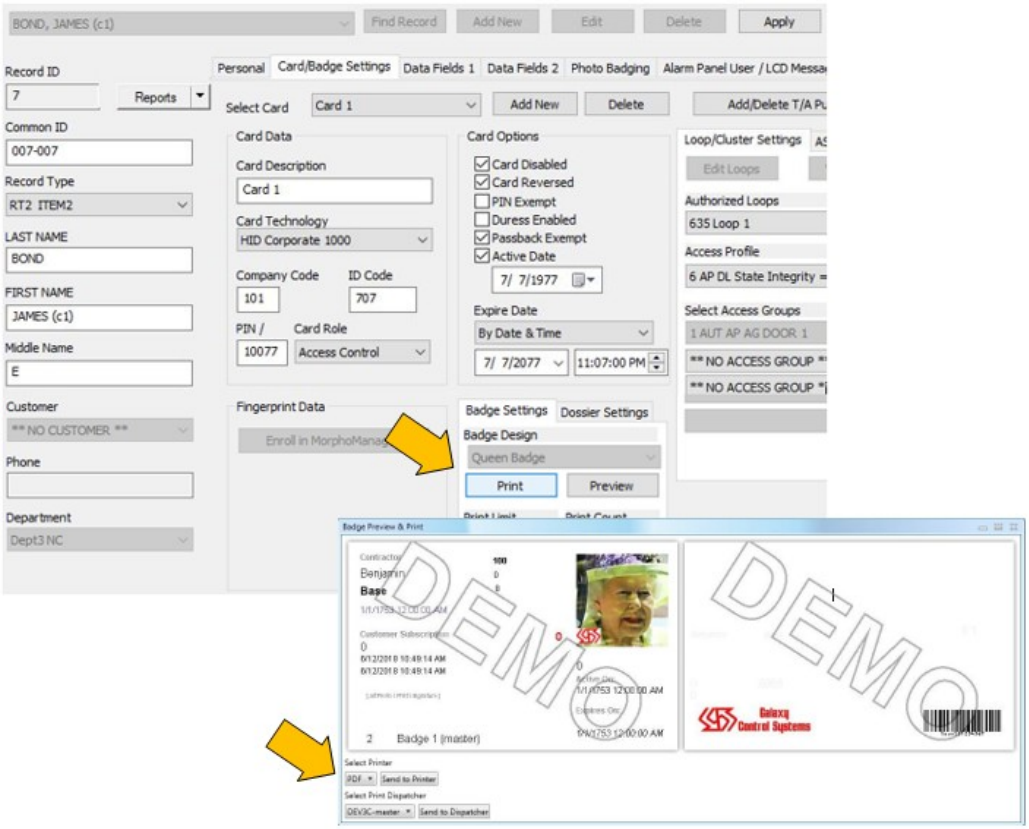
1. From the cardholder screen, click the **PRINT** or **PREVIEW** button
   - If you click the PRINT button, the badge will print to the default printer*
   - If you click the PREVIEW button the PREVIEW window will open, and you can print to the desired printer
2. Choose the Printer (or Dispatcher) button as desired.
3. Click either SEND TO PRINTER to print the badge (or DISPATCHER to send to the Dispatcher Queue).



4. The badge is sent to the printer immediately – the Print Dispatcher will show the printing cycle.

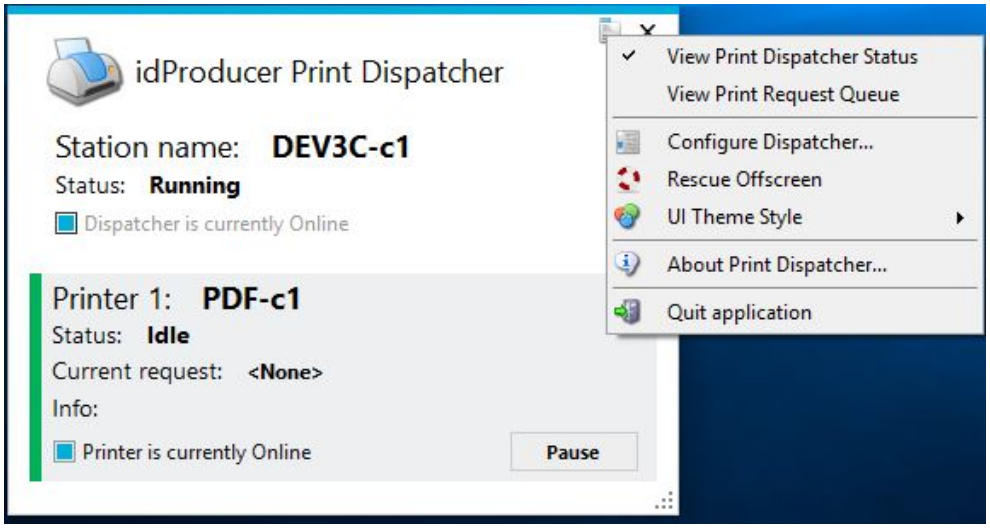


5. OPTIONALLY – from the PREVIEW WINDOW you can print to a Printer or Dispatcher Queue. These badges will not print until they are released by the dispatch operator.



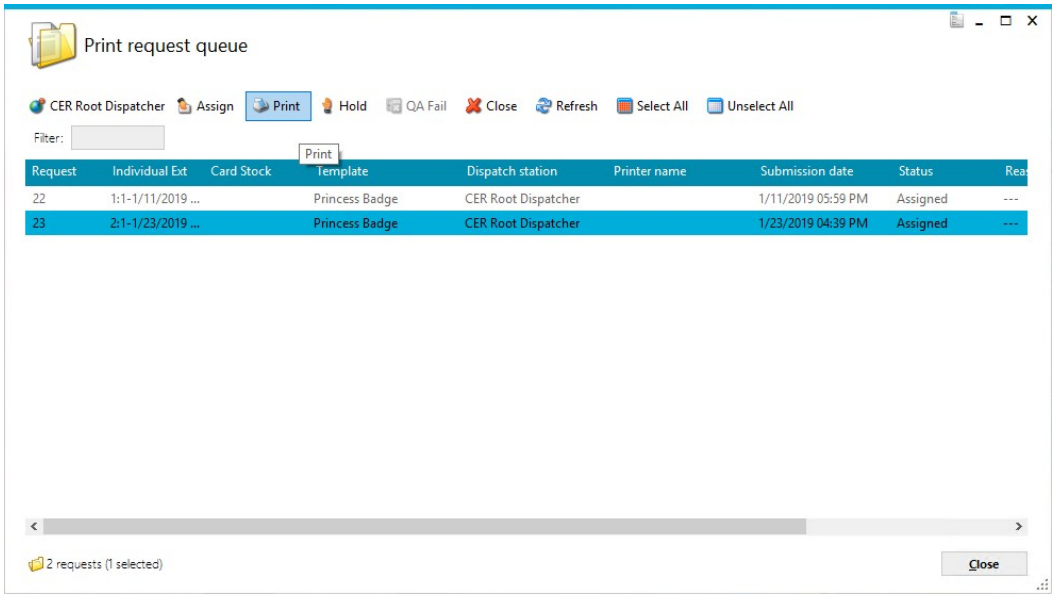
Releasing a Badge from the Print Queue

1. To release the badge from the dispatcher queue, you must open the Queue from the Print Dispatcher UI.
2. Right-click on the menu icon on the Print Dispatcher
3. Select 'View Print Request Queue' from the menu.



4. Select 'View Print Request Queue' from the menu.
5. When the Dispatcher Queue opens, highlight the badge you want to print and click PRINT.

NOTE: you can delete print requests from the queue by clicking the CLOSE button.



APPENDICES

SYSTEM CONCEPTS - Overview and Troubleshooting

Distributed Print Dispatchers (and Printers)

idProducer with an Advance License is deployed as a distributed solution (networked). This means that the *Print Dispatcher*(s) are installed at the Customer Badging Client (workstation). Each Customer will have their own badging workstation (client). The *SG Badging Operators* can only see the Badge Templates and Printers for their own customer-subscription. The number of printers registered is based on the SG system registration per your purchase order.

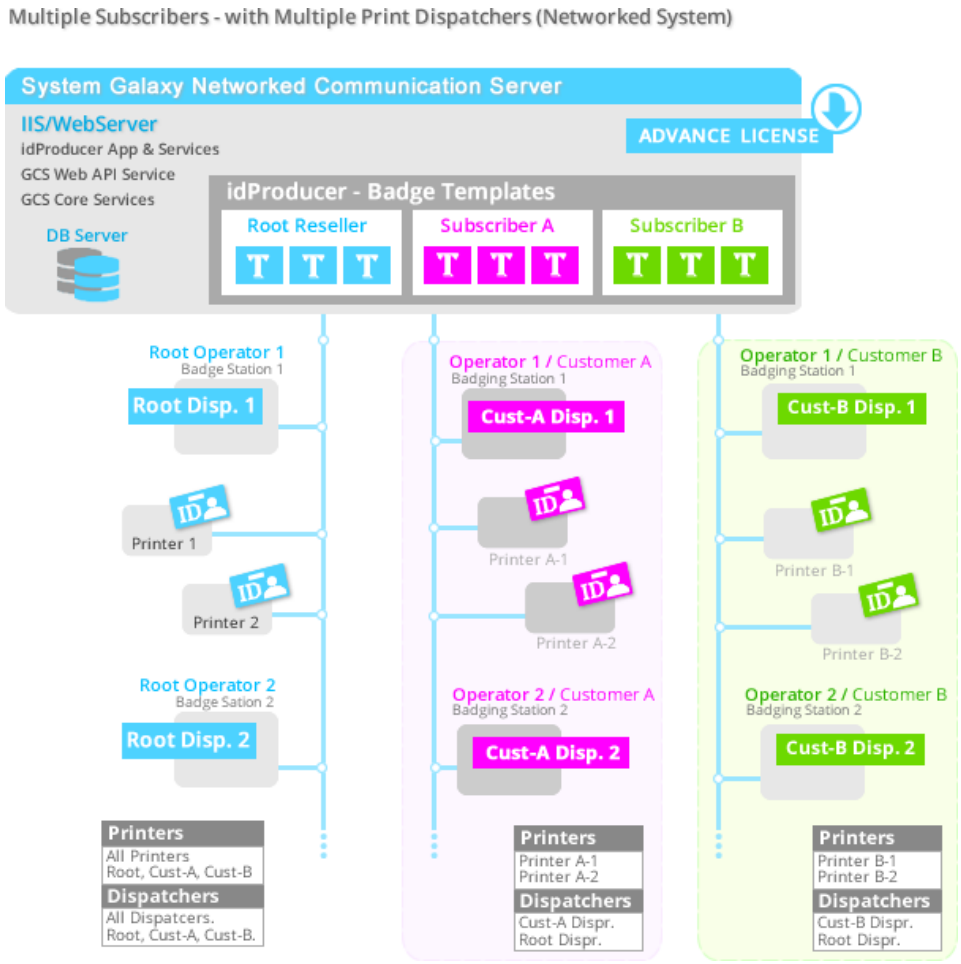
System Topology Diagram – On-Premises Badging Solution with Advanced License:

Multiple Customer-Subscriptions – with multiple Printers & Print Dispatchers:

Operators can only see the printers that are associated with the Print Dispatchers that belong to their Customer-Subscription.
Clients can see/use all printers that belong to their same Customer. Offline printers will resume printing whatever is in their print buffer when they come back online. Optionally, the operator can send offline badges to their matching Dispatcher Queue for manual processing.

Example below: is registered for Advance License which is done by installing it at the idProducer Web App (not through SG registration).

- **Root Reseller:** Printer-1 is added to Root Dispatcher-1, Printer-2 is added to Root Dispatcher-2. All Root Operators see all Root Printers & Root Dispatchers … and Root Badge Templates.
- **Customer-A:** Printer-A-1 is added to Cust-A Dispatcher-1; Printer-A-2 is added to Cust-A Dispatcher-2; All Customer-A Operators see all Cust-A Printers & Cust-A Dispatchers … and Cust-A Badge Templates.
- **Customer-B:** Printer-B-1 is added to Cust-B Dispatcher-1; Printer-B-2 is added to Cust-B Dispatcher-2; All Customer-B Operators see all Cust-B Printers & Cust-B Dispatchers … and Cust-B Badge Templates.
- **NOTE: technically you can run multiple Dispatchers on the same server. However if that server goes down then all the Printers may go "down".**



Printing Badges (Online vs Offline)

Badges print immediately when they are sent to ***online printers***. SG Badging Operators can print to every printer from any workstation, regardless of where the Print Dispatchers are installed. If a Dispatcher is minimized/closed, the printers will still be online, if the API services are running.

Offline printing is supported by two methods. If the printer is offline, the operator can still send a badge to the offline printer. idProducer will store the print request in a pending table. When the printer comes online, the pending requests will be buffered to the printer. These pending requests will be processed before any new live print requests are printed.

To avoid making a backlog of pending print jobs at an offline printer, the operator can send a badge to a Print Dispatcher Queue. This way the printer can resume printing new badges when it comes online. A dispatch operator can control when to forward the pending badges from hold queue to the restored printer.

Prepping Cardholder Data Fields for Transfer

Modifying certain cardholder field names is particularly useful if you want to distinguish between certain card code fields or the specify names for data fields.

System Galaxy transfers the ***cardholder field names*** to idProducer's Template Fields table when SG system registration is performed. This is the only time the field transfer is done. Therefore, if you need to modify ***SG field names*** it will save time and work if you do it before you perform the registration.

If you want the new names to go over in the transfer, you will need to modify the names before the system registration is done. This way idProducer will use the modified name in template field names. If you already registered the badging, you can still modify cardholder field names, but you will need to manually update idProducer's field name the in the Template Fields screen, because it is only transferred automatically at the time of registration.

System Registration and Licensing

The idProducer Advance license is requested and installed at the idProducer Web App. The install technician will sign-in and request a license from the prompts in the idProducer Web App by following the prompts. IdProducer will send the license file to the installer through email. After the advance license is installed, then you can register System Galaxy for idProducer Badging. During system registration, you must also set the number of printers to be installed from your purchase order. System Galaxy the Reserved API Login, and the Cardholder Data Fields to idProducer when you complete the system registration.

License Model	License Generated by …	Badging Accounts	Printer Support	Multiple Customer-Subscription
Advance License	**idProducer provides license** upon client request. License is manually installed by user.	**multiple** customers-subscriptions under the root reseller account	**multiple Printers and Dispatchers** per account/subscription. Operators see all printers	**Customer-Subscription** supports separate badges based on SG customer assignment. Operators only see badges that are assigned to their customer.

Refer to *SG idProducer Advanced Guide* for how to install, setup, and operate badging with Advance license features.

System Settings

In the System Settings there are a couple of useful features related to badging. In the General Tab, you can configure the workstation to not show the events screen. You can also force a synchronization of the badge templates (this imports the badge templates from idProducer. You must be a master operator to change these settings.

SG Operator Profiles

The SG operator does not need elevated permissions to send badges to a *Printer* or the *Dispatcher Queue*. The operator profile must have the standard editing privileges to the cardholder screen, and the Card/Badge settings tab must be visible. The badging operator profile can be filtered from viewing events or configuring hardware if you desire, but the privileges related to enrolling a cardholder must remain intact.

REVISION HISTORY OF THIS GUIDE

DATE	DESCRIPTION of REVISION
Nov 2018	First release of guide for on-premises *standalone server* deployment only.
DEC 2018	Splitting guide into 2 guides *basic* and *advance* badging (the term advance license replaces custom license).
JAN 2019 SG 11.1.0	Basic License for standalone install (recommended); 1 Root Subscription supporting 1 Printer/Dispatcher..
APR 2019 SG 11.1.0.2	Update guide to include latest features.
MAY 2020 SG 11.3.0	Update guide to use *linked references* that point user to supporting information that is covered in other documents /topics to trim down the guide – i.e. SG and IIS installs. And provide the relevant requirement statements. The SG GalSuite now auto- installs IIS.

RELATED DOCUMENTATION

DOCUMENT NAME	DESCRIPTION
» **System Galaxy Install Procedure**	SG Install Quick Start Procedure - for System Galaxy installation.
» **SG System Specifications Guide**	SG Admin Guide - Specifications for OS, PC/Servers, Clients, Networking, etc.
» **SG Software User Guide**	SG User Guide - programming and using the SG software.
» **SG idProducer Basic Guide** (Basic License)	SG Integration Guide - set up & use idProducer Badging with Basic License.
» **SG idProducer Advanced Guide** (Advanced Lic.)	SG Integration Guide - set up & use idProducer Badging with Advanced License.
Also see *Galaxy Online Help*	Documentation Directory – for full list of available documents.

GLOSSARY

TERMS & DEFINITIONS

TERM	MEANING
GCS	(acronym) Galaxy Control Systems. Indicates the service or utility program belongs to System Galaxy.
idP (or IDP)	(acronym) refers to the idProducer application.
SG	(acronym) System Galaxy. Refers to the system, software, hardware, or features/components of System Galaxy.
API Service	*GCS Web API Service* The service that allows the SG software to integrate with the idProducer API.
appSettings file	A configuration file that contains specific settings that SG uses to integrate with idProducer and its Print Dispatchers.
Communication Server(SG)	The main System Galaxy server that hosts the GCS Communicaiton Service and Core GCS services. These must be running for the system to operate properly. *See Core GCS Services*
Core Services (SG)	Core services include GCS Client Gateway, GCS Communication and Event services, GCS DBwriter, and GCS WebAPI.
Customer (SG)	(*Advance License only*) in System Galaxy a Customer can be assigned to a cardholder to differentiate it from other cardholders who are assigned to a different customer. In SG, when you create the customer, you also create the linked Subscription in the idPRODUCER database. The system will filter the available *Badge Templates* and *Print Dispatchers* based on the Customer-Subscription. Also see Subscription and Customer-Subscription.
Customer-Subscription linking	(*Advanced License only*) A ***Customer-Subscription*** refers to the *linked relationship* between the *SG Customer* and he *idProducer Subscription*. The ***Customer-Subscription linking*** is created in the SG Customer screen to create the account and login credentials and insert them into idProducer. NOTE: the SG Operator must be assigned to the same customer to import, view, assign, and print the *customer badges* for cardholders that are assigned to the same Customer. NOTE: You will also use the Customer-Subscription Login to sign-in and run the Customer-Subscription Print Dispatcher. See *Advanced idProducer Guide*.
Login, Reserved API (SG)	The ***Reserved API Login*** *credential for System Galaxy is* exclusively used for API connections and communication between SG and the API Service. The SG API Login is created during Part-3 of the SG Installation. Do not use the reserved API Login as a login for admin or operator tasks.
Login, Reserved API (idP)	The ***Reserved API Login*** *credential for idProducer is* exclusively used for the API connections and communication between the idProducer and the API Service. System Galaxy creates the *idProducer Reserved API Login* during SG system registration process. Do not use the reserved API Login as a login for admin or operator tasks.
Login, Root Suscription	The ***Root Login*** *credential* is used to sign-in to the Root Reseller account at the idProducer Client. Galaxy creates this login during *SG System Registration* process because it needs it to download the SG Cardholder Data Fields (Template Fields) to idProducer. You can use this login to sign-in to idProducer Web Client and perform administrative tasks at idProducer for the Root subscription. This login is also used to sign-in and run the Root Print Dispatcher.
Login, Subscription	(Advance License only) This is the login for a Customer-Subscription account. It is created by System Galaxy from the Customer Screen.
Print Dispatcher App (idP)	The ***idProducer Print Dispatcher App*** is a print engine that resides on the main server (or on a Client). It processes the *on-demand badge printing, pending jobs, and queues* for the badge templates that belong to the Subscription that is associated with the Dispatcher (i.e. Root Subscription for basic license; or Customer-Subscription for advanced license). The SG Operator sends a selected badge to a printer (or to the Dispatcher Queue) from the System Galaxy *Cardholder screen*.
Print Dispatcher Queue	The ***Print Dispatcher Queue*** is a holding queue for *badge print jobs* that were not sent directly to a printer, which is a useful alternative when a printer is offline. This lets the badging operator send badges to the Dispatcher Queue for manual processing by the dispatch operator, instead of cluttering up the print buffer of the offline printer. Then when the printer comes back online, it is ready for live badge printing without having a backlog of pending print requests in its buffer. And the Dispatch Operator can hold the print requests in the queue until a printer is available or send the badge to a different printer.
Root Reseller (Basic License)	The ***Root Reseller*** *(Basic)* is the *root subscription* in idProducer App, which is the only subscription allowed under a basic license. FYI: the Root Reseller name is changed to the *SG Site Name* at time of SG registration. The *Site Name* is found in the *SG System Registration screen*. NOTE: All badges belong to the Root Subscription, which only supports the "no customer" schema. This means that all *imported badges* will always be visible to every *badging operator* (provided the operator privileges/permissions are filtered in the *SG Operator Profile*).
Root Reseller (Advanced	The ***Root Reseller*** *(Advanced)* is the *root subscription* in idProducer App, which is the *parent subscription* allowed under an AdvanceLicense.. Under Advanced License, the Root Reseller is mapped to the "No Customer" entity in SG.

License)	The root badges and root printers are only available for Cardholders who are mapped to a the 'No Customer' selection.
Template, badge design (IDP)	A *badge template* or *badge design* is the "layout" (formatting and placement) of cardholder data fields, photos, and images that will print on the physical badge. Templates are created in idProducer, but they are assigned and printed from the SG Cardholder screen when the cardholder is enrolled. The template is created under a Subscription and automatically imported into SG. See Customer, Customer-Subscription, and Subscription for more.
Operator, SG	The SG Operator is a user of the SG Software. Operators need to be given the privileges to do their work and any appropriate filters. For Advanced IDP License, an operator can be assigned to a *Customer* in SG Operator profile screen and this will allow the operator see only the cardholders and templates that are associated with their same Customer. This will also filter which Print Dispatchers the operator will be able to send badges to. NOTE: all SG Operators have their own secure login. The operator profile should be configured to *allow viewing and editing* the cardholder screen if their role is to enroll cardholders and print badges.
Operator, SG Root Badging	This is the System Galaxy operator that is assigned to *'No Customer'* in SG Operator profile screen. NOTE: SG operators have their own secure login and their profile should be set up to allow *viewing and editing* the cardholder screen,and should not have filters that prevent them from doing their work tasks.
Subscription	(a.k.a Customer-Subscription; Advance License required) a Subscription is a "child" entity under the Root Reseller. You can have multiple subscriptions under a root-reseller. The badge templates must be created in idProducer which will organize the associated templates. although it may appear that a subscription could be added from idProducer, Customer-, which must be added from the System Galaxy Customer screen along with its login credentials.