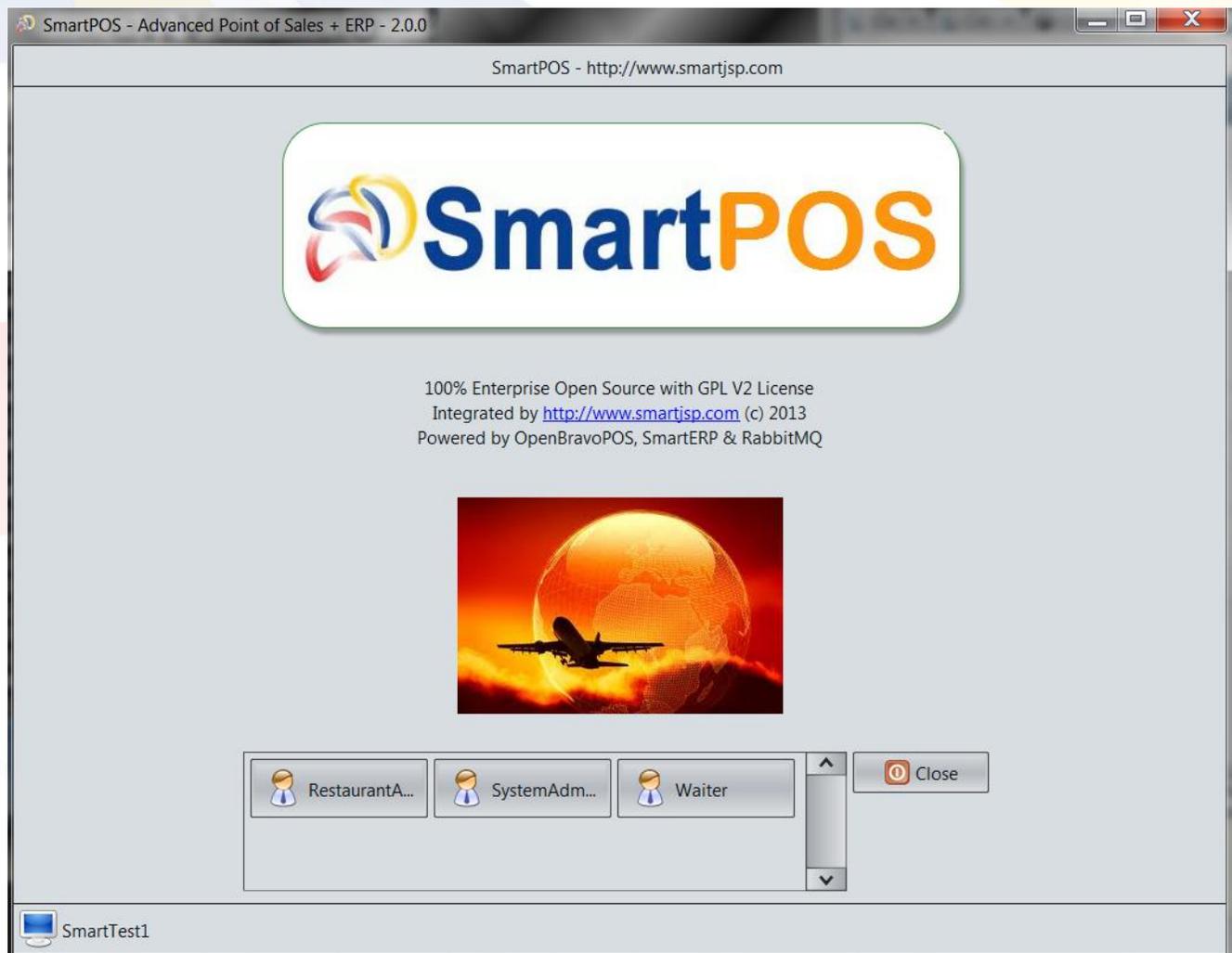


**SmartPOS 2.0 Advanced Point of Sales + Rabbit MQ + SmartERP (Based in Idempiere 1.0.c)  
Sponsored by Rapid Corp L.L.C (U.S.A)**

**Release Notes.**

Our web site: <https://sourceforge.net/projects/smart-pos/>

It been a while since our major previous release 1.3, our SmartJSP team have been busy evolving our solution to a more reliable, flexible and powerful environment sponsored by Rapid Corp L.L.C.



**New Features and Major Product Changes.****1 ERP Side (Adempiere → Idempiere)**

Following a natural path of evolution, we have migrated our Adempiere 3.6.1 to Idempiere 1.0c, what that means for our users:

**1.1 End Users:** A lot of benefits, enhancements of usability for idempiere, please check here, [http://wiki.idempiere.org/en/Category:New\\_Features\\_v0.01](http://wiki.idempiere.org/en/Category:New_Features_v0.01)

All of these keeping our transparent and complete POS-ERP functionality to manage insurance companies, clubs, bulk loading for medicines, automatic integration from POS transactions and so on.

Quick facts: It is a lighter and quicker product (less memory: 300MB, quicker start up (30 sec or less) , less resources required (CPU)...

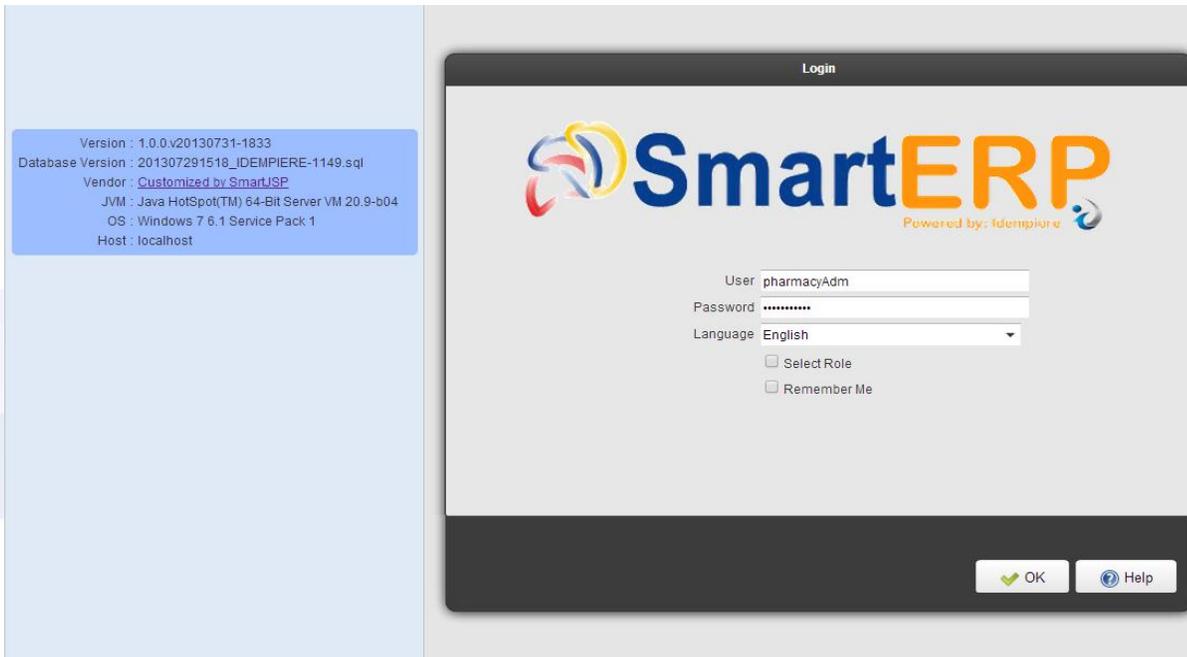
**1.2 Developers & Technical gurus**

Massive architectural changes moving from (Adempiere) a traditional java enterprise app running inside jboss, to a flexible component & service oriented web application running inside an OSGi environment with tomcat as a web container.

Our previous Adempiere extension is now a OSGi plug-in (extension, with callout, model validators, processes and so on) and our previous adempiere customization is now a set of OSGI fragment (theme) and features.

Also, idempiere comes with last generation version of main open source frameworks such as: jasper reports 5.1 , sophisticated and ready to go composite web services, an optimized development environment that reduce in more than 5 times compilation, redeployment (hot swap!) , ZK6 with a fully and beautiful new User interface, and much more, please check here for technical enhancements ....

[http://wiki.idempiere.org/en/Category:New\\_Features\\_v0.01](http://wiki.idempiere.org/en/Category:New_Features_v0.01)



## 2. Middleware side (MQ Broker)

We have also listed our users about issues related with activeMQ, mainly related with weird behavior on windows, difficult configuration and management (XML) and some reliability issues with high load of transactions + resource consumption. So we went and performed a deep technical review of the state of the art for open source MQ brokers, looking for something lighter, quicker, more reliable, multi-platform, with good documentation, active community and 100% open source, and after testing, reading and looking market tendencies (AMQP protocols) among ZeroMQ, RabbbitMQ and others we choose RabbitMQ as the new Mqbroker for our SmartPOS solutions.



Fortunately for everyone, we were good isolating the messaging layers of the ERP and POS side, and the source code impact is not huge... we have replaced and removed all the JMS + activeMQ dependencies in both Netbeans (POS) and Eclipse projects (ERP) and we have also simplified the configuration, administration and resource management for these MQ integration, don't forget to check our step by step installation & setup document.

Benefits of RabbitMQ: quick installation and setup, web console to manage users, queue and so on (it does not need manual config of files), as they claims in their web site: messaging that works .... Good documentation including a manning book plus a lot of examples for java, .net, php, python and others It is lighter (it consumes 100K of ram or less), extremely reliable and quick using the new high performance and standard AMQP protocol. Multi-language, multi-platform and 100% oriented to real enterprise environments. Recently integrated with Spring, Vmware and big enterprise middleware for real market solutions. Easier to manage and maintain than ActiveMQ. It also supports data replication and queue recovery (replacing our store-forward approach with RabbitMQ Shovel)

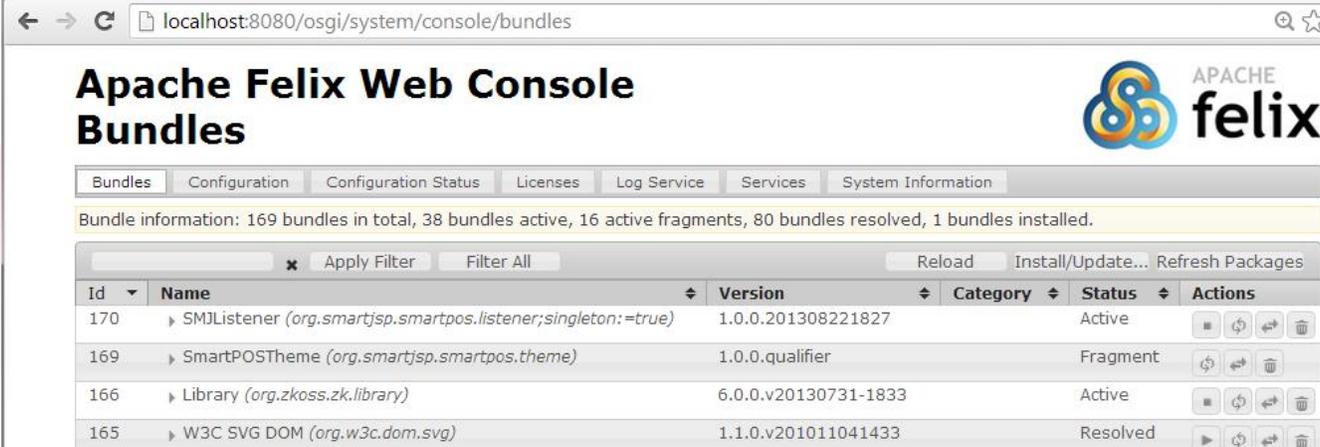
In summary we expect to improve usability, performance, administration and simplify the life of our developers and end users, this little rabbit also help to reduce resource consumption and enable us to dream about the creation of a fully 100% open source SmartPOS appliance (Linux + postgres +smartpos ) in a bullet proof and light hardware box (under development) requested from many customers around the world.

### 3. POS Side.

We don't have massive impact in this side (take it easy).. but we have positive impacts where we simplified the resource configuration, we have removed the embeded Active MQ broker (now RabbitMQ is running in your POS station as a lighter separated process < less than 100k ) improving start up performance and enabling a user friendly web interface for administration and monitoring for client and server side (replication is supported).

A lot of configuration parameters are not required anymore (Configuration is quicker and simpler ...!!) and all the messaging layer has been changed to work with RabbitMQ and AMQP protocol. We continue to support real time XML message synchronization for these scenarios as before, and listen ERP XML messages as well.

Here you can see our OSGi plug-in + Osgi fragment up and running ..



The screenshot shows the Apache Felix Web Console interface. The browser address bar displays 'localhost:8080/osgi/system/console/bundles'. The page title is 'Apache Felix Web Console Bundles'. Below the title, there are tabs for 'Bundles', 'Configuration', 'Configuration Status', 'Licenses', 'Log Service', 'Services', and 'System Information'. A summary line states: 'Bundle information: 169 bundles in total, 38 bundles active, 16 active fragments, 80 bundles resolved, 1 bundles installed.' Below this is a table of bundles with columns for Id, Name, Version, Category, Status, and Actions.

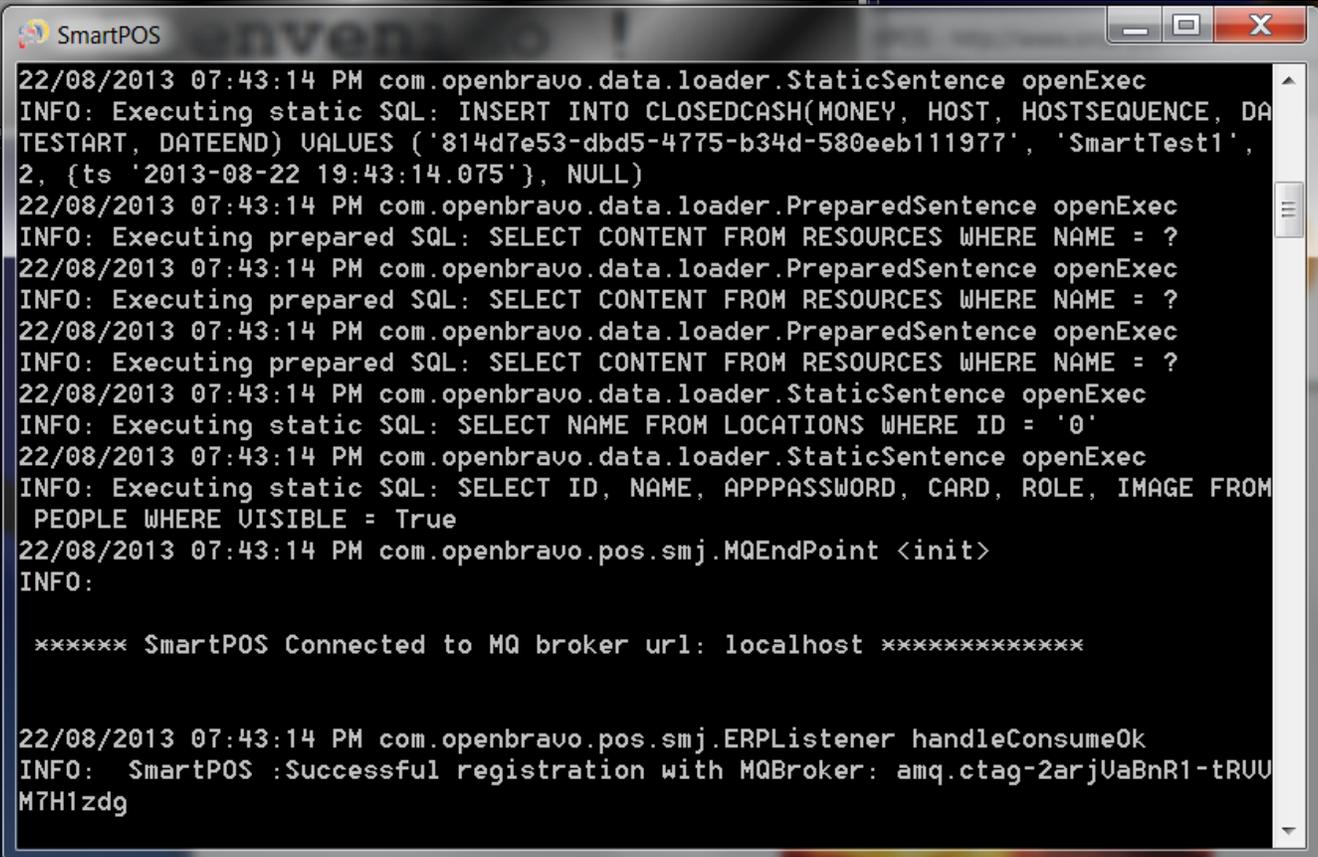
Id	Name	Version	Category	Status	Actions
170	SMJListener ( <i>org.smartjsp.smartpos.listener;singleton:=true</i> )	1.0.0.201308221827		Active	[Stop] [Refresh] [Restart] [Delete]
169	SmartPOSTheme ( <i>org.smartjsp.smartpos.theme</i> )	1.0.0.qualifier		Fragment	[Refresh] [Restart] [Delete]
166	Library ( <i>org.zkoss.zk.library</i> )	6.0.0.v20130731-1833		Active	[Stop] [Refresh] [Restart] [Delete]
165	W3C SVG DOM ( <i>org.w3c.dom.svg</i> )	1.1.0.v201011041433		Resolved	[Start] [Refresh] [Restart] [Delete]

Also our Idempiere & SmartPOS consoles - starting our activation process & listeners  
(connected to RabbitMQ)

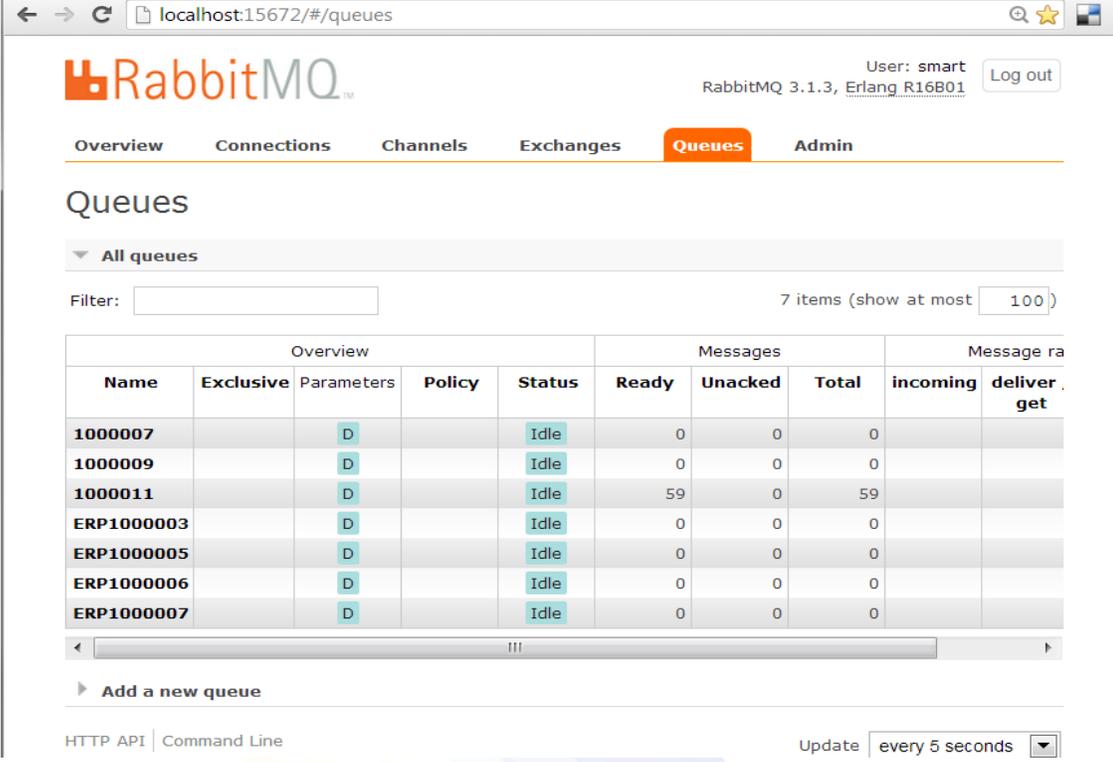
```
18:31:18.721=====> POSActivator.start: ***** SmartPOS Starting OSGi Listener *****
18:31:19.269=====> MQEndPoint.<init>:
```

```
***** SmartERP Channel Connected to MQ broker url: localhost *****
```

```
18:31:19.435=====> ERPPosListener.run: SmartERP listening messages from queue POS:ERP1000003 [14]
18:31:19.435=====> ERPPosListener.handleConsumeOk: SmartERP :Successful registration with MQBroker:
amq.ctag-D7z4DJuclchILsSqr7BS2w [15]
18:31:19.597=====> ERPPosListener.run: SmartERP listening messages from queue POS:ERP1000006 [14]
18:31:19.597=====> ERPPosListener.handleConsumeOk: SmartERP :Successful registration with MQBroker:
amq.ctag-R2kzrkhnJSBI9wsHz3SILQ [16]
18:31:19.785=====> ERPPosListener.run: SmartERP listening messages from queue POS:ERP1000005 [14]
18:31:19.785=====> ERPPosListener.handleConsumeOk: SmartERP :Successful registration with MQBroker:
amq.ctag-8RCHLTPqPtgybwTkz63TuQ [17]
18:31:19.903=====> ERPPosListener.run: SmartERP listening messages from queue POS:ERP1000007 [14]
18:31:19.903=====> ERPPosListener.handleConsumeOk: SmartERP :Successful registration with MQBroker:
amq.ctag-iXdJyRN2oWtnGohulLmb6A [18]
```



```
SmartPOS
22/08/2013 07:43:14 PM com.openbravo.data.loader.StaticSentence openExec
INFO: Executing static SQL: INSERT INTO CLOSEDCASH(MONEY, HOST, HOSTSEQUENCE, DA
TESTART, DATEEND) UALUES ('814d7e53-dbd5-4775-b34d-580eeb111977', 'SmartTest1',
2, {ts '2013-08-22 19:43:14.075'}, NULL)
22/08/2013 07:43:14 PM com.openbravo.data.loader.PreparedSentence openExec
INFO: Executing prepared SQL: SELECT CONTENT FROM RESOURCES WHERE NAME = ?
22/08/2013 07:43:14 PM com.openbravo.data.loader.PreparedSentence openExec
INFO: Executing prepared SQL: SELECT CONTENT FROM RESOURCES WHERE NAME = ?
22/08/2013 07:43:14 PM com.openbravo.data.loader.PreparedSentence openExec
INFO: Executing prepared SQL: SELECT CONTENT FROM RESOURCES WHERE NAME = ?
22/08/2013 07:43:14 PM com.openbravo.data.loader.StaticSentence openExec
INFO: Executing static SQL: SELECT NAME FROM LOCATIONS WHERE ID = '0'
22/08/2013 07:43:14 PM com.openbravo.data.loader.StaticSentence openExec
INFO: Executing static SQL: SELECT ID, NAME, APPPASSWORD, CARD, ROLE, IMAGE FROM
PEOPLE WHERE UISIBLE = True
22/08/2013 07:43:14 PM com.openbravo.pos.smj.MQEndPoint <init>
INFO:
***** SmartPOS Connected to MQ broker url: localhost *****
22/08/2013 07:43:14 PM com.openbravo.pos.smj.ERPListener handleConsumeOk
INFO: SmartPOS :Successful registration with MQBroker: amq.ctag-2arjUaBnR1-tRUU
M7H1zdg
```



The screenshot shows the RabbitMQ Admin interface at localhost:15672/#/queues. The user is 'smart' and the version is 3.1.3. The 'Queues' tab is selected, showing a table of 7 queues. The table has columns for Name, Exclusive, Parameters, Policy, Status, Messages (Ready, Unacked, Total), and Message rate (incoming, deliver, get). The queues listed are 1000007, 1000009, 1000011, ERP1000003, ERP1000005, ERP1000006, and ERP1000007. Queue 1000011 has 59 messages ready and 59 total. All queues have a status of 'Idle' and a policy of 'D'.

Name	Exclusive	Parameters	Policy	Status	Messages			Message rate	
					Ready	Unacked	Total	incoming	deliver, get
1000007		D		Idle	0	0	0		
1000009		D		Idle	0	0	0		
1000011		D		Idle	59	0	59		
ERP1000003		D		Idle	0	0	0		
ERP1000005		D		Idle	0	0	0		
ERP1000006		D		Idle	0	0	0		
ERP1000007		D		Idle	0	0	0		

#### 4. Source code repositories (changes in policies and Bitbucket repositories)

Previous Adempiere extension and customization are now OSGi plug-ins, fragments (theme) and features; all of them available without any user/password protection in our central Bitbucket mercurial repositories (100% open source with any tricks) Guidelines to coordinate contributions will be available soon

ERP - Osgi plug-ins

[https://bitbucket.org/PedroRozo\\_SmartJSP/smartpos-erp](https://bitbucket.org/PedroRozo_SmartJSP/smartpos-erp)

POS - Repositories

SMJ project changes (installation, custom work, xml files, sql utils and so on)

[https://bitbucket.org/PedroRozo\\_SmartJSP/smartpos-smjpos](https://bitbucket.org/PedroRozo_SmartJSP/smartpos-smjpos)

Openbravo Fork

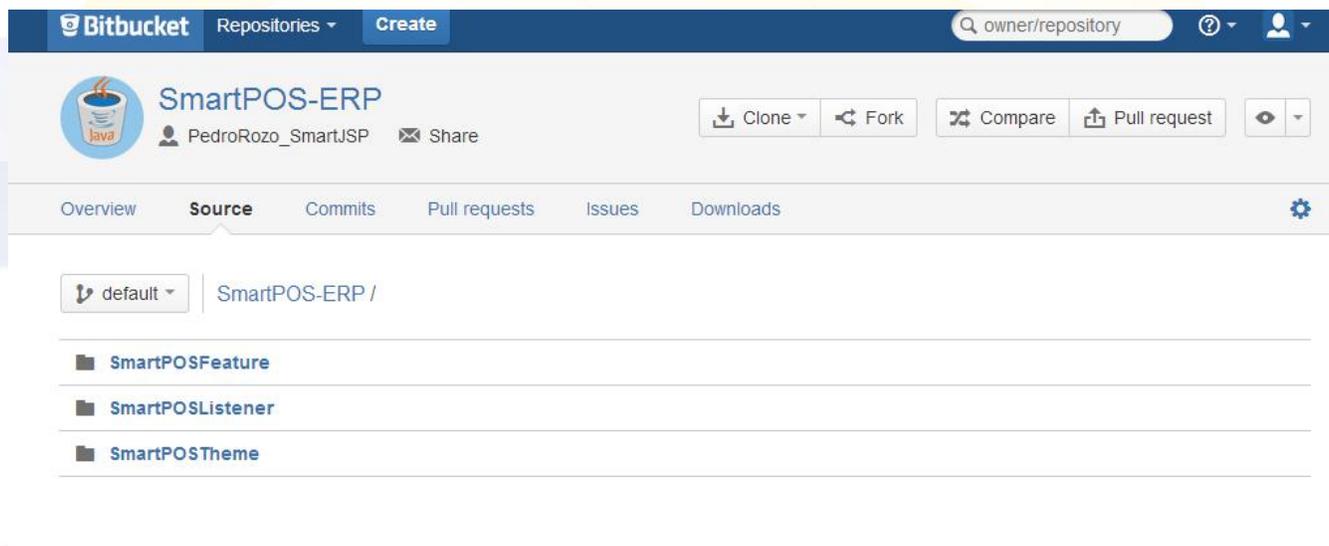
[https://bitbucket.org/PedroRozo\\_SmartJSP/smartpos-obpos/overview](https://bitbucket.org/PedroRozo_SmartJSP/smartpos-obpos/overview)

Suggestion for OSGi newcomers ? As a java developer if you are not familiar with OSGi concepts, please check the basic concepts here:

<http://www.vogella.com/articles/OSGi/article.html>

And after that ... follow the great tutorials created by Jan Thielemann from Germany:

[http://wiki.idempiere.org/en/Category:Plug-In\\_Development](http://wiki.idempiere.org/en/Category:Plug-In_Development) and you will be ready soon



## 5. Q&A Ready for production ? (almost ... minor testing is required we hope)

We are close to have this version for production environments ... our main sponsor: Rapid Corp LLC on U.S.A. is running additional tests at this time as well, and we have been running a good set of regression tests with positive results, but due to the massive set of changes performed we would appreciate your feedback reporting using our technical forums ( we hope to setup a ticket system soon for that) with as much detail, logs, and step by step procedures as possible to replicate and fix them if they arise.

## 6. Confirmed Road map for the next two months

- tests, test, and test (welcome to help us ) ...
- deployment guide to linux (ERP + RabbitMQ)
- Replication, Reliability and resiliency Enhancements under development
- SmartPOS 2.1 support for Linux desktops (POS side) Please remember we already support Linux for Rabbit MQ and Idempiere without any issues.
- Functional enhancements
- SmartPOS 2.2 appliance: a bullet proof virtual appliance 100% open source: CentOSlinux + postgres9 + SmartERP (Idempiere 1.0c) + RabbitMQ + POS Everything open source.

## 7. New Demo files with demo data (ERP & POS)

SmartERP - based on Idempiere 1.0c ready to go

Postgres database backup with demo data

SmartPOS 2.0 windows installer

Postgres database backup with/without demo data (ready to sync)

Rabbit MQ server (please download from RabbitMQServer

<http://smartjsp.com/smartpos-2-0/> (Primary)

<https://sourceforge.net/projects/smart-pos/files/2.0/>

## 8 . New Step-by-step guide !!!

Guiding your about the setup process of the ERP side, RabbitMQ + POS side step by step.

<http://smartjsp.com/smartpos-2-0/> (Primary)

<https://sourceforge.net/projects/smart-pos/files/2.0/>

## 9.Looking for testers and sponsors

We are confident in the future of a this fully open source SmartPOS, but we need your help testing and perhaps sponsoring new functionality and development work to keep running our development team. There are many areas of innovation where we would like to evolve our solution ... and we will be glad to listen and help you in your ERP + POS projects to customize and make them a key components of your projects.

Our team have been evolving our SmartPOS solution to restaurants and pharmacy industries located on Panama, Colombia, U.S.A (English) and Ivory Coast (french) successfully, working together and applying open standards and best practices to create a flexible, stable and reliable solutions for enterprise environments.

For any feedback, please use our technical and functional forums in English & Spanish.

Professional services around these solutions such as; customization, extensions, integration and implementation are available contacting us thru our web portal: <http://www.smartjsp.com> or thru our email: [infosmart@smartjsp.com](mailto:infosmart@smartjsp.com).

**Special thanks to:** Idempiere team: Carlos Ruiz, Hengsin Low (Forums guidance) and Jan.thielemann (Tutorials)

Please let us know your ideas and thoughts to improve our solution using the source forge forum, and please enjoy these new set of toys brought to you by our Rapid Corp L.L.C sponsor and our SmartJSP functional and technical teams

On behalf of our SmartJSP development and functional teams please enjoy our new SmartPOS 2.0 release. 100% professional open source for enterprise oriented environments

Regards

**Pedro Rozo**

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