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Announcement

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[Open Exchange](#)

## InterSystems Package Manager ZPM 0.4.0 Release

A new release of ZPM has been published 0.4.0

New in this release

- Added support for Deployed packages, publishing, and installation
- Support for multiple registry servers, e.g. public community registry, private corporate, and so on, including Python embedded code
- Ability to show all versions and package origin in search
- Fixed issue for packages with preload code
- The expanded limit for the length of arguments in Invoke

### Multiple registries

It is now possible to define more than one registry in your instance, so, you may use public community, testing, or private corporate registry at the same time. Just use another name for the registry

For instance, we can add the testing registry

```
zpm:USER>repo -n test -r -url https://test.pm.community.intersystems.com/registry/ -u  
ser test -pass Password42
```

```
test
```

Source:	https://test.pm.community.intersystems.com/registry/
Enabled?	Yes
Available?	Yes
Use for Snapshots?	Yes
Use for Prereleases?	Yes
Is Read-Only?	No
Deployment Enabled?	No
Username:	test
Password:	<set>

```
zpm:USER>repo -list
```

```
test
```

Source:	https://test.pm.community.intersystems.com/registry/
Enabled?	Yes
Available?	Yes
Use for Snapshots?	Yes
Use for Prereleases?	Yes
Is Read-Only?	No
Deployment Enabled?	No
Username:	test
Password:	<set>

registry

Source:	<a href="https://pm.community.intersystems.com">https://pm.community.intersystems.com</a>
Enabled?	Yes
Available?	Yes
Use for Snapshots?	Yes
Use for Prereleases?	Yes
Is Read-Only?	No
Deployment Enabled?	No

And in addition to this change, it's now possible to redefine properties for registry by only passing the name of the existing registry. For instance to update only the password

```
zpm:USER>repo -n test -pass Password42
```

test

Source:	<a href="https://test.pm.community.intersystems.com/registry/">https://test.pm.community.intersystems.com/registry/</a>
Enabled?	Yes
Available?	Yes
Use for Snapshots?	Yes
Use for Prereleases?	Yes
Is Read-Only?	No
Deployment Enabled?	No
Username:	test
Password:	<set>

## Deployed packages

Since version 0.4.0, ZPM now supports deployed packages. The minimal module.xml may look like below, important here is `Deploy="true"` flag

```
<?xml version="1.0" encoding="UTF-8"?>
<Export generator="Cache" version="25">
<Document name="demo.ZPM">
<Module>
  <Name>demo</Name>
  <Version>1.0.0</Version>
  <Description>DEMO.</Description>
  <Keywords>demo</Keywords>
  <SourcesRoot>src</SourcesRoot>
  <Resource Name="Sample.Demo.PKG" Deploy="true"/>
</Module>
</Document>
</Export>
```

The process of development is the same as previously, you should use the `load` command to load the module in development mode (by default)

```
zpm "load /home/irisowner/myproject"
```

In this case, zpm will load source code, and ignore `Deploy` flag due to `DeveloperMode`, so, you can modify the code.

## Publishing

To publish deployed module, you have to use your own registry, or you may use the testing community registry for tests.

```
zpm:USER>publish demo -DPublishTo=test
```

```
[USER|demo]      PrepareDeploy START
[USER-PACKAGE-429287|demo]    PrepareDeploy SUCCESS
[USER-PACKAGE-429287|demo]    Reload START (/home/irisowner/zpm/packages/demo/)
[USER-PACKAGE-429287|demo]    Reload SUCCESS
[demo] Module object refreshed.
[USER-PACKAGE-429287|demo]    Validate START
[USER-PACKAGE-429287|demo]    Validate SUCCESS
[USER-PACKAGE-429287|demo]    Compile START
[USER-PACKAGE-429287|demo]    Compile SUCCESS
[USER-PACKAGE-429287|demo]    Activate START
[USER-PACKAGE-429287|demo]    Configure START
[USER-PACKAGE-429287|demo]    Configure SUCCESS
[USER-PACKAGE-429287|demo]    Activate SUCCESS
[USER-PACKAGE-429287|demo]    Package START
[USER-PACKAGE-429287|demo]    MakeDeployed START
[USER-PACKAGE-429287|demo]    MakeDeployed SUCCESS
[USER|demo]      Package SUCCESS
[USER|demo]      Register START
[USER|demo]      Register SUCCESS
[USER|demo]      Publish START
[USER|demo]      Publish SUCCESS
```

When ZPM see that package uses `Deploy=true` for some resources, for the purpose of packaging and publishing it creates a new temporary namespace, and loads the package there, deploys the code, and packages what's left without the original source code, where it is not supposed to be. And log shows each step and the namespace where that step was performed. An additional parameter `-DPublishTo=test`, defines the name of the registry where to publish the package. And if you wish you may change the release number with parameter as well `-DNewVersion=1.0.0`

## Installation deployed packages

Installation is as usual, but you will not be able to install deployed package, or any package in production mode if you already have the package installed in development mode.

```
zpm:USER>install demo
```

```
ERROR! Cannot install 'demo' over previously installed in developer mode
```

You would need to uninstall the package installed in development mode, or use a clean namespace or instance for it.

It's important to remember, that deployed package does not have source code, so, the packaging should be completed on a specific version of IRIS that which developer support. The registry supports multiple platform versions for one specific version of the package, so, during installation zpm will request a version for the platform. To compare versions it uses only major and minor parts of the IRIS version, e.g. 2022.2, 2021.1. When you will try to install the package on an unsupported version of IRIS, will get the error

```
zpm:USER>install test/demo
```

ERROR! Deployed package 'demo' 1.0.0 not supported on this platform 2022.1.

### Successful install

```
zpm:USER>install test/demo
```

```
[USER|demo]      Reload START (/usr/irissys/mgr/.modules/USER/demo/1.0.0/)
[USER|demo]      Reload SUCCESS
[demo] Module object refreshed.
[USER|demo]      Validate START
[USER|demo]      Validate SUCCESS
[USER|demo]      Compile START
[USER|demo]      Compile SUCCESS
[USER|demo]      Activate START
[USER|demo]      Configure START
[USER|demo]      Configure SUCCESS
[USER|demo]      Activate SUCCESS
```

## Docker images with ZPM

The latest ZPM already available with IRIS Community and pre-installed ZPM

### Image names

- intersystemsdc/iris-community
- intersystemsdc/irishealth-community
- intersystemsdc/iris-ml-community
- intersystemsdc/irishealth-ml-community

### And tags available

- latest, and full version tag 2022.1.0.209.0-zpm
- preview, and full version tag 2022.2.0.345.0-zpm
- 2021.2.0.651.0-zpm

All images are available for x86-64 and ARM64 by the same name.

[#InterSystems Package Manager \(IPM\)](#) [#Release](#) [#InterSystems IRIS](#)  
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