# Caché Package Manager Usage Cases

## Prerequisites

It’s worth to emphasize that we currently depending on the NPM v2.\* availability for “publishing” step to the repository. Version is important because we have discovered harder way that older node/npm is not working with our CouchDB backend store:

These were broken:

C:\InterSystems\CacheLatest\.cpm>npm --version

1.4.9

C:\InterSystems\CacheLatest\.cpm>node --version

v0.10.28

These were working;

C:\InterSystems\CacheLatest\.cpm>npm --version

2.5.1

C:\InterSystems\CacheLatest\.cpm>node --version

v0.12.0

Here are few steps for semi-manual publishing using npm:

* `npm adduser --registry http://cpmiscregistry.couchappy.com`
* `npm login --registry http://cpmiscregistry.couchappy.com`
* `npm publish --registry http://cpmiscregistry.couchappy.com`

Also remember – NPM has its own limitations per the package naming schema, so we enforce all the packages to be lower cases.

## Publishing flow

* Create package, preferably using already available studio project;
* Modify all required attributes (version, license, author, maintainer, etc);
* Export meta-information and container to the staging area, with optional major/minor version increment;
* And then publish this package from inside of staging area using npm;

## Packages publishing flow

|  |  |
| --- | --- |
| CPM | Shell |
| DEVLATEST:00:53:41:CPM>**do ^CPM**    CPM:CPM>> **list /v**  cpm-installer-sample 0.5.0  Sample.Address.cls  Sample.Company.cls  Sample.Customer.cls  Sample.Employee.cls  Sample.Person.cls  Sample.USZipCode.cls  Sample.Utils.cls  Sample.Vendor.cls  simple.prj    simple-proj 0.4.1  Sample.Address.CLS  Sample.Company.CLS  Sample.Customer.CLS  Sample.Employee.CLS  Sample.Person.CLS  Sample.USZipCode.CLS  Sample.Utils.CLS  Sample.Vendor.CLS  simple.prj |  |
| CPM:CPM>> **config /get tempdir**  tempdir = C:\InterSystems\CacheLatest\.cpm\  CPM:CPM>> **export /minor simple-proj**  simple-proj version set to: 0.4.2    Exporting to XML started on 03/11/2015 00:54:29  Exporting class: Sample.Address  Exporting class: Sample.Company  Exporting class: Sample.Customer  Exporting class: Sample.Employee  Exporting class: Sample.Person  Exporting class: Sample.USZipCode  Exporting class: Sample.Utils  Exporting class: Sample.Vendor  Exporting project: simple.prj  Export finished successfully. | C:\InterSystems\CacheLatest\.cpm>npm publish --registry http://cpmiscregistry.couchappy.com  **+ simple-proj@0.4.2** |
| CPM:CPM>> **export /minor cpm-installer-sample**  cpm-installer-sample version set to: 0.5.1    Exporting to XML started on 03/11/2015 00:57:17  Exporting class: Sample.Address  Exporting class: Sample.Company  Exporting class: Sample.Customer  Exporting class: Sample.Employee  Exporting class: Sample.Person  Exporting class: Sample.USZipCode  Exporting class: Sample.Utils  Exporting class: Sample.Vendor  Exporting project: simple.prj  Export finished successfully. | C:\InterSystems\CacheLatest\.cpm>npm publish --registry http://cpmiscregistry.couchappy.com  npm ERR! publish Failed PUT 403  npm ERR! Windows\_NT 6.3.9600  npm ERR! argv "C:\\Program Files\\nodejs\\\\node.exe" "C:\\Program Files\\nodejs\\node\_modules\\npm\\bin\\npm-cli.js" "publish" "--registry" "http://cpmiscregistry.couchappy.com"  npm ERR! node v0.12.0  npm ERR! npm v2.5.1  npm ERR! code E403  **npm ERR! forbidden cannot modify pre-existing version: 0.5.1**  npm ERR! old={"\_class":"CPM.Registry.Package","\_id":"cpm-installer-sample@0.5.1","name":"cpm-installer-sample","author":"","path":"simple.xml","version":"0.5.1","license":"MIT","keywords":[],"description":"","depe  ndencies":{"":""},"items":["Sample.Address.cls","Sample.Company.cls","Sample.Customer.cls","Sample.Employee.cls","Sample.Person.cls","Sample.USZipCode.cls","Sample.Utils.cls","Sample.Vendor.cls","simple.prj"],"maintainers":[{"name":"tsafin","email":"timur.safin@gmail.com"}],"Modified":"2015-03-08 18:46:41.998","scripts":{},"\_shasum":"0353d441e1077939bff7a24707240bb8bed338a7","\_from":".","\_npmVersion":"2.5.1","\_nodeVersion"  :"0.12.0","\_npmUser":{"name":"tsafin","email":"timur.safin@gmail.com"},"dist":{"shasum":"0353d441e1077939bff7a24707240bb8bed338a7","tarball":"http://cpmiscregistry.couchappy.com/cpm-installer-sample/-/cpm-installer-sample-0.5.1.tgz"}}  …  npm ERR!  npm ERR! If you need help, you may report this error at:  npm ERR! <http://github.com/npm/npm/issues>  npm ERR! Please include the following file with any support request:  npm ERR! C:\InterSystems\CacheLatest\.cpm\npm-debug.log |
| CPM:CPM>> **export /minor cpm-installer-sample**  cpm-installer-sample version set to: 0.5.2    Exporting to XML started on 03/11/2015 00:57:52  Exporting class: Sample.Address  Exporting class: Sample.Company  Exporting class: Sample.Customer  Exporting class: Sample.Employee  Exporting class: Sample.Person  Exporting class: Sample.USZipCode  Exporting class: Sample.Utils  Exporting class: Sample.Vendor  Exporting project: simple.prj  Export finished successfully. | C:\InterSystems\CacheLatest\.cpm>npm publish --registry http://cpmiscregistry.couchappy.com  **+ cpm-installer-sample@0.5.2** |
|  |  |
|  |  |
|  |  |

## Command-line access

We have CLI wrapper cpm.bat which supposed to be able to run CPM commands from the shell script. It’s not working in all the cases and with all installations. It will use 1st available running instance, and this may be not the proper selection. It’s recommended to shutdown all other instances to make this script happy with the single one left.

Also it has not knowledge about namespace you loaded CPM code, so at the moment the only solution is to modify it via some hard-coding:

C:\Users\Timur\Documents\Intersystems\src\CPM\bin>cpm list

<NOROUTINE> \*CPM

Let’s embed namespace “CPM” for a moment:

cd "%CACHEBIN%"

cache.exe -s..\mgr\ -U CPM “BATCH^CPM(%ARGUMENTS%)"

cd "%cd%"

and then you could run it

C:\Users\Timur\Documents\Intersystems\src\CPM\bin>cpm list

cpm-installer-sample 0.5.2

simple-proj 0.4.2

C:\Users\Timur\Documents\Intersystems\src\CPM\bin>cpm list /verbose

cpm-installer-sample 0.5.2

Sample.Address.cls

Sample.Company.cls

Sample.Customer.cls

Sample.Employee.cls

Sample.Person.cls

Sample.USZipCode.cls

Sample.Utils.cls

Sample.Vendor.cls

simple.prj

simple-proj 0.4.2

Sample.Address.CLS

Sample.Company.CLS

Sample.Customer.CLS

Sample.Employee.CLS

Sample.Person.CLS

Sample.USZipCode.CLS

Sample.Utils.CLS

Sample.Vendor.CLS

simple.prj