Physalis FAQ

What's Physalis?
Physalis is an OSGi like service framework for the .Net Compact Framework V2 platform. We say "OSGi like" because of differences between the .Net and Java platforms; some OSGi features are not feasible or not useful on the .Net platform. Those differences will be detailed further in this document.

Why targeting the Compact Framework?
For several reasons:
- If Physalis runs on the .Net CF, it will run on the standard .Net framework,
- Windows Vista will introduce a service framework called Indigo, so the today need of a service framework on the Windows platform will be fulfilled by Microsoft quite soon.

Which .Net language is used to develop Physalis?
The most efficient one, available in the .Net CF: C#.

Why targeting the Compact Framework V2?
Physalis is not a little project and will take time to be developed (particularly if I'm still alone to develop it). Visual Studio 2005 will introduce the .Net V2 platform in the middle of 2005 and some betas are already available, so let's work with the most up to date tool.

Does Physalis propose exactly the same interfaces as OSGi?
We would say almost. The Physalis choice is to keep the OSGi "spirit" for the specifications (you'll find the same interfaces…) but using the beautiful features of .Net (events and delegates instead of implementing listeners) and properties (instead of having getter and setter).

What is the Physalis deployment form?
We've thought for a long time about this question. Here we face a typical difference between .Net and Java. In Java, a jar can be used as a self hosting executable or as a library. In the Windows world, a library is host in a *.dll* file and a self hosting executable in an *.exe* file.
Many issues have been studied before taking a clear decision, and particularly the ability, for a Physalis application, to be well integrated into the OS (icons, menu…).
It has finally been decided that Physalis will be a *DLL*, strong named to be installed into the .Net GAC and shared between applications.

What is the Physalis equivalent for the OSGi bundle?
This is a very interesting point. Basically, a Physalis bundle is a *.dll* file.
From a .Net point of view, a Physalis bundle is a single module assembly.

How are loaded Physalis bundles?
There are 2 solutions: a Physalis bundle is loaded into its own .Net application domain or loaded into the main Physalis .Net application domain.
Assuming Physalis targets smart device with limited resources, loading each bundle in a separate .Net application domain is not a good solution because performances would be very poor, the communication between domains involves heavy mechanisms like remoting and serialization.

So, even if this implies limitations (please refer to the *Known limitations* document), it has been decided Physalis will load the bundle in the main application domain.