ASA
Adaptive Software
[As part of the INRIA associated team program](#)
The Team's Mission

ASA aims at assisting the development of dynamic   distributed software systems for next generation ubiquitous communication and   computing infrastructures   · **Partic**

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- [ARLES](#) - [INRIA CRI Paris-Rocquencourt](#)
- SEA Group – University of L'Aquila

Objectives

Software in the near ubiquitous future (*Softure*) will need to cope   with variability, as software systems get deployed on an increasingly large diversity   of computing platforms and should further deliver applications   ubiquitously. Heterogeneity of the underlying communication and computing infrastructures, mobility and continuously evolving requirements   demand new software paradigms that span the entire life-cycle, from   development to deployment and execution.   *Softure* must be developed in   a way that facilitates both its deployment over heterogeneous networks of   heterogeneous nodes, and its interaction with end users, their environment   and/or other existing systems, depending on the application domain. Moreover,
Softure
should be reliable and meet the user's performance   requirements and needs. Last but not least,
Softure
should be dynamic   so that the applications they implement can be provisioned ubiquitously, despite the high dynamics of the pervasive networking and computing   environment. Looking at the software life cycle, one key issue in this   domain appears to be the disappearance of a clear distinction between static   and dynamic aspects. Indeed, the adaptability requirement imposed by ubiquity   makes software become "evolving" in nature, therefore introducing   a strong interaction between the development environment and the middleware   one. Goal of the ASA team is to research design and programming   techniques and innovative middleware models that can be profitably integrated   to support this new generation of software systems.

Status

After 3 years of support from 2007 to 2009, the team is no longer part of the INRIA associated team program. However, collaboration with the University of L'Aquila on ASA topic keeps ongoing, in particular as part of our research on the [dynamic synthesis of connectors](#) .