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#### Conference Abstract

# Symbiota2

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### Abstract

Symbiota is free open source software for making specimen information available on the web. It is widely used in the United States and is beginning to be used in other countries. Its strengths include its ability to integrate specimen images and records with images of living organisms, image-based records, descriptions, tools for generating illustrated dynamic checklists and many tools for collaborative data cleaning. Another strength for many collections is that data entry can, but does not have to be, done via a web browser. These strengths of Symbiota have encouraged the development of communities of users, some regional and some taxonomic, which embrace contributions from knowledgeable and enthusiastic amateurs. As with any software, however, the increasing use of Symbiota has suggested ways in which it could be made more effective. Some of the required changes appear simple, such as the development of forms better suited to specific tasks or countries; incorporating more, or modifying existing, look up tables; and enabling audioand video-based records. Others are more complex, such as modifying the identification tool so that people can use their knowledge to cut the number of steps required for an identification; enabling provision of Representational State Transfer (RESTful) web services; providing an offline app for use in the field or where there is limited internet access; incorporating an efficient mechanism for generating a downloadable spreadsheet of specimen-based measurements linked to the specimen records; and facilitating linkage of publications to cited specimens or genebank accessions. Symbiota2 will address these needs by separating functionality from layout so that the layout can be more easily modified and improvements such as those mentioned made more easily. It will have a plugin architecture which will make further development easier and expand the potential

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developer pool. In the presentation, we shall focus on modifications that will enable Symbiota2 to better serve collections working with agriculturally significant plants and/or in areas with heavy reliance on native plants for medicinal use.

## Keywords

Collection networks; Symbiota; plugin architecture; RESTful services; collection databases; collaboration

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