The CIPRes National Resource

Software development Goals:

- Create an IT infrastructure that serves the community.
  - Web-based GUIs that provide data and tool access.
  - Software tools that can be downloaded and run on individuals resources.
- Create a platform that facilitates interaction between existing legacy codes.
- Create a published standard API for community developers.
- Build relationships with other large software development projects in the community.
The CIPRes National Resource

Database development Goals:

- Recreate Treebase in a well supported, SQL-based DBMS.
- Create a Second-generation database (Treebase2).
- Create software tools that facilitate data exchange between data creators and Treebase2

Hardware Goals:

- Create a production quality service where computational resources maintained at SDSC are provided to the community.
CIPRes Software Development

Downloadable software that connects legacy codes with new algorithms, creating new capabilities:

Client

Tree (Nexus) → JAVA application → AXIS

Output (Newick)

Server

GSOAP → SOAP → CIPRES API

DCM3
- Tree Decomposer
Paup
- Tree Pruner
- Tree Merger
- Tree Refinement

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CIPRes Software Development

In the next year:

- **Input**
- **User Interface**
- **Controller**
- **User Interface**
- **Sockets**
- **Home Grown**
- **CORBA?**
- **SOAP Services**
- **Any Tree Generator**
- **DCM3**
- **TNT**
- **Tree Pruner A**
- **Tree Pruner B**
- **Tree Merger A**
- **Tree Merger B**
- **Tree Refinement A**
- **Tree Refinement B**

Workflows using modules as required

Output (NexML)
CIPRes Software Development

In the following years: Visual Programming Tools to manage your workflow
CIPRes Database Development

Release schedule

06/2004  Treebase in 4d/Mac OS9.

08/2004  Treebase mirror in MySQL, new search features added.

12/2004  Treebase2 Schema V 1.0; admin tools; User interfaces; DB2.

03/2005  Treebase2 Schema V 1.1; Non-Newick tree formats; transitive closure.

12/2005  Treebase2 Schema V 1.3; CIPRes Software release with a personal db.
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CIPRes Database Development

Treebase2 Software Stack

MySQL
DB2

SQL

Apache
Tomcat
Hibernate
Application
Java Server Faces