

July/August 2004 Newsletter (Number 05/04)

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1. Data

GIS interface: Doug F., Pat, and Hsin-I Yu have made great progress with the GIS interface to Neptune. You can view the current version in the Services [web site](#) and perform Neptune searches through it.

Interface Control Document (ICD) and other TouchGraphs: The current version of the ICD diagram and the touchgraph that shows the Earth Science Cyberinfrastructure is available on the Test site ([select ICD mesh](#)). CHRONOS's ICD document can be downloaded as .pdf file by clicking on the CHRONOS icon. This can be used by the community as an example and as a concrete vehicle to ensure interoperability. Other Touchgraphs available on this site illustrate the site map of CHRONOS and the schemas of the databases hosted and federated through CHRONOS.

MyCHRONOS: MyCHRONOS is up and running. As a result of the workshop in San Antonio (see below), we have received ten large data files totaling approximately 22,000 sample of geochemical and biostratigraphic data. Some of this data is still unpublished and is being used by Pat Diver to develop sedimentary geochemical database modules to be integrated in PaleoStrat schema. Data submitted by Mimi Katz (Rutgers) and linked to two publications in press are already online with related metadata. Currently the files are downloadable but soon their content will be searchable and accessible through Chiron and the other CHRONOS interfaces together with the contents of the federated databases. Xiaoyun Tang (see below) is working on this.

Janus/IODP: Pat Diver will be working with IODP to network a clone of Janus (called JanusLegacy containing all released data) with CHRONOS. Target date for completion of JanusLegacy is October 1, 2004. JanusLegacy will be updated with new data from Janus on a regular (monthly or bimonthly) basis.

Treatise of Invertebrate Paleontology: We are working with the TIP group at the University of Kansas to help them in the technical development of

1. Workshops

The '**Geochemical Cycles workshop**' (San Antonio, TX, June 25-26, 2004) was a great success. Credit for its success is due to Ethan Grossman and John McArthur who put together an excellent group of top-notch scientists and coordinated the lively discussions. A workshop report will appear soon on the workshop's [web site](#). Twenty-seven geochemists, chemostratigraphers, and modelers from the US, UK, Germany, France, Australia, and Canada attended the meeting. Among the most significant outcomes of the workshop was the creation of a working group for geochemical cycles/paleo geochemistry that currently includes 18 scientists grouped by geochemical proxy. The group is coordinated by Ethan G. and John M. and can be viewed [on line](#). The other outcome was the enthusiastic response to our solicitation to send data files to CHRONOS. Participants and other geochemists that could not be at the meeting have already sent us ten data files including e.g., Phanerozoic strontium isotopes (McArthur) and Precambrian/Phanerozoic oxygen, carbon, and strontium isotopes (Shields and Veizer). Pat Diver is working on the sedimentary geochemistry database module to accommodate isotopic and trace element data from sedimentary rocks that is fully integrated with stratigraphic information and the age/depth plotting application of CHRONOS. We are working with the emerging SedDB initiative (Lamont Doherty Earth Observatory) to coordinate our activities and ensuring interoperability.

A CHRONOS workshop on '**Mesozoic and Cenozoic paleoceanography**' is being organized by Ben Flower in St. Petersburg, FL. (October 27-28, 2004). The workshop [web site](#) gives details about the meeting.

2. Meetings

The **Second CHRONOS retreat** is going to take place in Ames on August 2-3. It will be followed by NSF site review on August 4-5. Steering committee members will be present at the site review. Information on the logistical details of the retreat is available at [2ndretreat.html](#).

PaleoBank, to put it on line, and network it with CHRONOS. For this we will use schema and metadata in use by the biological community (DarwinCore and DiGiR) to ensure full interoperability between the paleobiological community resources and existing biological databases.

ANDRILL and diatom taxonomy: CHRONOS is to become the data repository for the NSF-OPP-funded ANDRILL project ([Antarctic Drilling Project](#)) and to develop a taxonomic database for marine diatoms in collaboration with Dave Harwood (UNL) and his group.

Paleobiology/Biostratigraphy working group: We have established this working group led by V. Davydov, B. Huber, and M. Leckie. 29 scientists covering ten taxonomic groups are currently in this [working group](#).

Radioisotope Geochronology working group: Sam Bowring, Paul Renne, and Mark Schmitz head this working group that will be developed in conjunction with EARTHTIME.

2. Tools

Time scale conversion tools: We currently have 18 time scales (with [webservices for conversion](#) and through the [Chiron Interface](#)) using information from the 2004 GTS book and provided by Jim Ogg. Stephanie Schueller and Pat Diver are thanked for digitizing the information.

3. Varia

Personnel: We welcome Xiaoyun Tang to the CHRONOS IT team. She is the new systems analyst and started working with us July 12. She holds a BS in Computer Science and MS in Computer Engineering from Iowa State University. We are very excited to have her onboard!

Advisory board: we want to thank Dennis Kent and Bill Clopine for serving on CHRONOS's advisory board. We are welcoming Timothy Bralower (PennState) and Ron Waczszak (ConocoPhillips) as

32nd International Geological Congress, Florence, Italy, Aug. 20-29, 2004. Jim Ogg, Bruce Wardlaw and Cinzia C. will give talks and demo CHRONOS at ICS's booth.

8th International Conference on Paleooceanography in Biarritz, France from 5-10 September. Brian Huber is presenting a poster for CHRONOS.

Geological Society of America Annual Meeting, Denver, Colorado (Nov 7-10, 2004). CHRONOS steering committee and advisory board meetings tentatively scheduled for Nov 5 and Nov 7. CHRONOS has a booth (#900) with partner projects PaleoStrat, EARTHTIME, and GeoSystems, and sponsors topical session #112: "Geologic Time and CHRONOS: Databases, Tools, Outreach, Education, and the Geoinformatics Revolution" (Convenors: Cinzia Cervato and Walter S. Snyder). 47 abstracts were received and organized in one poster (Nov 7 AM) and two oral sessions (8 Nov.). Keynote speakers are: Mike Benton (Bristol Univ.), Kenneth J. Hsu, Margaret Leinen (NSF), and W.B.F. Ryan (Columbia Univ.). Presentations are highly interdisciplinary, ranging from geosciences, to archaeology, to IT and will include live demonstrations of Virtual Reality activities on a Geowall.

American Geophysical Union Fall Meeting, San Francisco (Dec 13-17, 2004). Abstract deadline is Sept. 9. CHRONOS and partners PaleoStrat, EARTHTIME, and GeoSystems will have two booths (#227-229).

North American Paleontology Convention, Halifax, NS, Canada (June 19-26, 2005) [Symposium](#) on: The first step towards the development of taxonomic dictionaries for all Phanerozoic organisms (Convenors: Cinzia Cervato, ISU, and Richard Lane, NSF).

National Science Teachers Association National Meeting, Dallas TX, Mar 31-Apr 4, 2005). Cinzia C. was asked to be AGU Distinguished speaker for AGU Feature lecture. The presentation entitled: 'Bugs, isotopes, magnets, and orbits: Earth's clock' will give an overview of ongoing science projects on Earth history, data sharing, and education and

new members of the board.

EARTHTIME and GeoSystems: in the fall we will begin working with these partner projects to provide them with IT assistance (web development, domain hosting etc) and to collaborate in community involvement and education activities.

The **next newsletter** (September 2004) will appear before the end of September.

outreach activities.

3. International

CHRONOS Europe - A meeting with scientists and representatives from European funding agencies, organized by H. Richard Lane, will take place in Florence on August 20 at the Fortezza da Basso, Sala Arco (#33) from 10-5 PM.

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