

What's new in TS-Creator version 5.4

Released 1 June 2012

Version 5.4 has the following major enhancements, which are explained in detail in this document or in the composite Manual. Nearly all were excellent recommendations from current PRO users. Thank you!

- (1) Composite manual (ca. 200 pages) for users and datapack makers
 - (2) Evolutionary tree (phylogeny) columns;
with Paleogene Foram evolution datapack example linked to Chronos taxonomy
 - (3) Enhanced cross-plot and depth-age conversion
 - (4) Mappack enhancements (and mappacks for Australia, Indian plate, Middle East, etc.)
 - (5) Phanerozoic carbonate trends, climatic periods, main hydrocarbon episodes, etc.
- There are also several minor improvements.

Version 5.4 new features

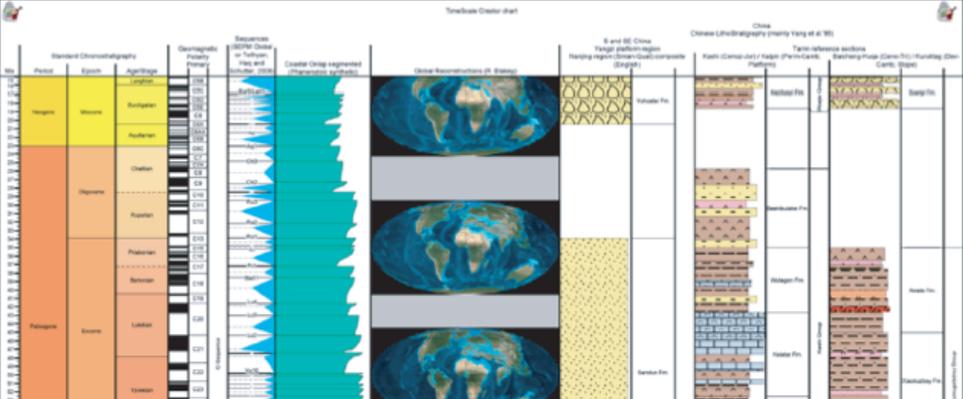
(1) Manual.

See the Manual section of either the Public or Pro sites to download the merged:

Manuals for TimeScale Creator use, and for making TSC datapacks



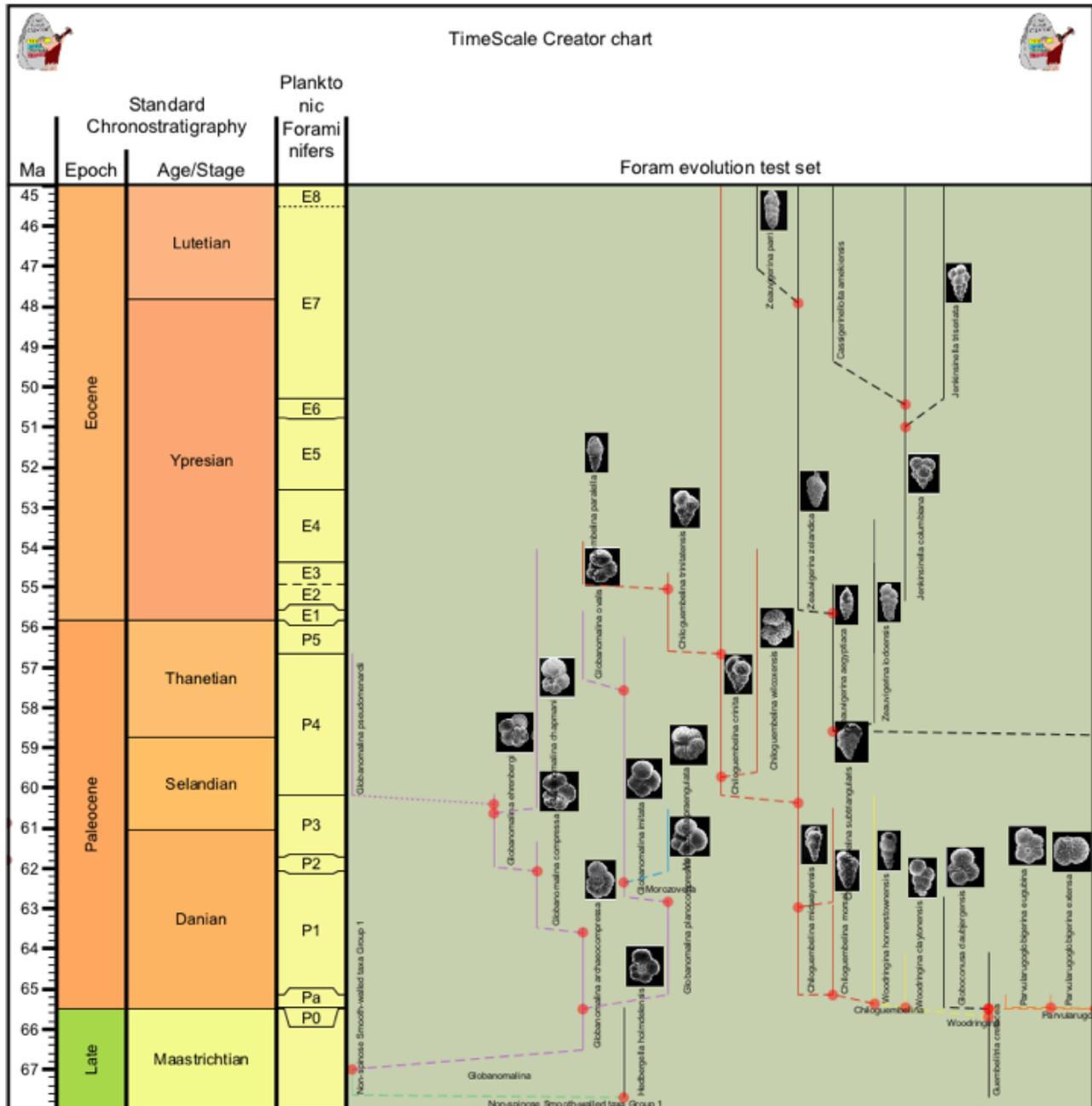

Detailed fully-illustrated version = 200 pages



The first section details usage of TSCreator, including cross-plot. The second section explains all aspects of creating datapacks for all types of columns, plus an extended explanation for making transects.

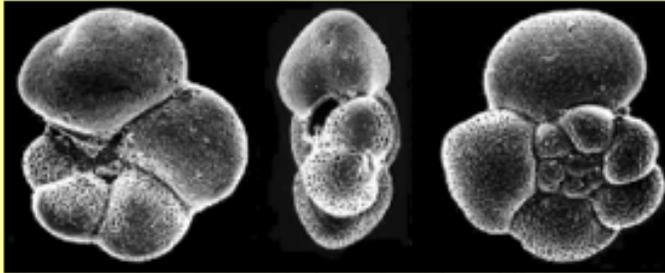
(2) Evolutionary Trees.

An extension of the “range” column is the ability to display branches between ranges to show interpreted evolutionary connections. The trees can be compacted, such that “new branches grow over dead ones” if one clicks that option on the Settings screen (bottom menu set).



Both the Public and Pro versions contains a datapack “Paleogene Planktonic Foraminifer Evolution” that is based on a compilation by C. Liu, R.K. Olsson, W.A. Berggren, P.N. Pearson, C. Hemleben, B.T. Huber, and L. Leon-Rodrigues (2009; poster given at NAMS, but provided by C. Liu to TSCreator for general release). All planktonic foraminifer ranges have popups with a trio of images, plus a link to the Chronos website for taxonomy details:

Globanomalina compressa:



CALIBRATION= 40% up in P3a [Click [compressa](#) for details. Original 'compressa' genus/species = Globanomalina].

Click for:

CHRONOS Portal

http://portal.chronos.org/gridsphere/gridsphere?cid=searches#search=chronos.palcforam.record.record-number.execute=chronos.palcforam.record

CHRONOS PORTAL

CHRONOS Home | Information Site | Tutorials

CHRONOS | Searches | Tools | Resources

by keywords | by location | by timescale

Search Menu [AR]

- Neptune
 - Samples by Location
 - Samples by Age
 - Samples by Taxa Occurrences
 - Samples Search (Advanced)
 - Sample Search (ONS Biodiversity)
 - CO2/δ13C Data Summary
 - Age Model Data
 - Sample Chart Search
- Time Scale
 - Time Scale Interval Age Info
 - Chrons
 - Time Scale Database Info
- OilForamDB
 - Records by Record Number
 - Records by Author or Date
 - Records by Taxon Occurrence
- CONOPS
 - CONOPS Data Search
- James
 - Samples by Location
 - Samples by Age
 - Samples by Taxa Occurrences
 - Core Info and Images
- Hiccupaleo
 - Hiccupaleo Query
- NHITA
 - Samples by Location
 - Samples by Age
 - Samples by Taxa
 - Samples (Advanced)
- PalcforamDB
 - Records by Record Number
 - Records by Author or Date
 - Records by Taxon Occurrence
- ForamDB
 - Records by Record Number
 - Records by Author or Date
 - Records by Taxon Occurrence
- Portal
 - Taxon Info
- EcocForamDB
 - Records by Record Number
 - Records by Author or Date
 - Records by Taxon Occurrence

Records by Record Number

Search for records in the Paleocene ForamDB.

Record Number: 354

View dataset as Web browser

- View dataset as an HTML table
- View dataset as an Excel spreadsheet
- View dataset as Comma-Separated Values (CSV)
- View dataset as Tab-Separated Values (TSV)

PalcforamDB

| | | | | | |
|--------------------------|---|----------------------------------|---|----------------------------|----------------------|
| Record number: | 354 | Author: | (Pummer) | Date: | 1926 |
| Current genus: | Globanomalina | Original genus/original species: | Globigirina | Species: | compressa |
| Repository: | Chicago Field Museum | Catalogue number: | UC 55091 | | |
| Diameter/length (mm): | 0.4 | Width (mm): | | Thickness (mm): | |
| Breadth (mm): | | Type location: | Zone P2, Wild Point Fm., Midway Group (Upper Danian), Navarro County, Texas | Type level: | |
| FO (Stage): | | FO (Zone): | | FO (Ma): | 63.44 |
| LO (Stage): | | LO (Zone): | | LO (Ma): | 61 |
| Umb. depth: | Shallow | Umb. width: | Wide | Umbilical or test sutures: | Moderately depressed |
| Coiling axis: | Low | Test outline, width: | Lobate | Edge view: | Equally beveled |
| Chamber arrangement: | Trochospiral | Number of final whorl chambers: | 5 | Spiral sutures: | Moderately depressed |
| Aperture: | | Aperture border: | | Accessory apertures: | |
| Shell zones (cm): | Finely perforate: 1-2.5 | Wall texture: | Smooth | Umb. chbr. shp: | Inflated |
| Periph. margin shape: | Subangular | Periph. suture: | N/A | Sp. chbr. shp: | Inflated |
| Ecotope paleobiology: | | Synonymy: | | Description source: | Original |
| Description: | | | | | |
| Similar species: | | | | | |
| Geographic distribution: | | | | | |
| Remarks: | A small, 5 chambered smooth-walled test, with a moderately angular axial periphery, and with an imperforate peripheral margin that is moderately to strongly developed. Aperture a low, umbilical-extraumbilical arch, bordered along its entire extent by a narrow well defined lip. Pummer (1926) designated three co-types to represent her new species and illustrated one view of each (lateral, edge and ventral). We have selected one of these co-types (Pummer, 1926, fig. 11C) as a neotype for this species. The axial view of the neotype is the view illustrated by Pummer to show the degree of compression of the test and the bluntly angular peripheral margin of the chambers of her new species. The chambers of the two other co-types are somewhat more inflated and the axial periphery of the test is somewhat less compressed than in the neotype. Blow (1979) restricted his identification of <i>G. compressa</i> to morphotypes with compressed axial chambers in axial view in contrast to morphotypes with an inflated rounded axial periphery which he identified as <i>G. compressa</i> or, if the chambers were more fully inflated, as <i>G. planocompressa</i> Shitkaya. Our studies separate <i>compressa</i> and <i>planocompressa</i> on the degree of compression/inflation of the chambers and the presence or absence of an imperforate peripheral margin. In the <i>compressa</i> - <i>ehenbergi</i> - <i>chamoni</i> lineage an imperforate peripheral margin is a distinguishing characteristic and the degree of compression of chambers in the ultimate whorl may vary from slightly compressed to the compressed oval shape. In contrast, in the <i>planocompressa</i> - <i>inflat</i> - <i>ovata</i> lineage the chambers in the ultimate whorl are fully inflated and the axial periphery is perforate. | | | | |

PalcforamDB

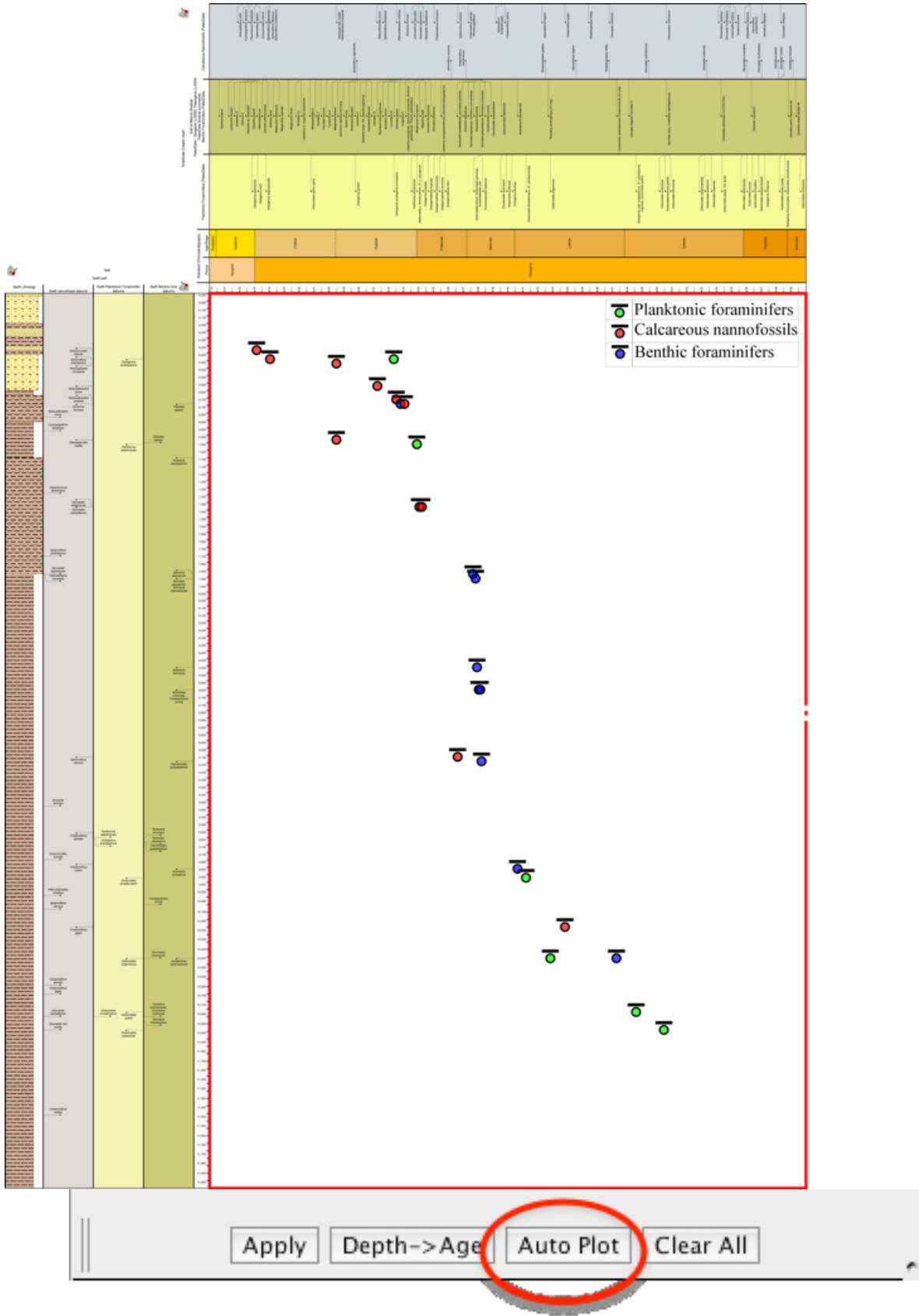
354

Location: Upper Danian, Zone P2, Wild Point Fm., Midway Group, Navarro Co., Texas

Zone P2, 0209-04-050203, 0082 cm, San Pedro Palace, South Atlantic Ocean

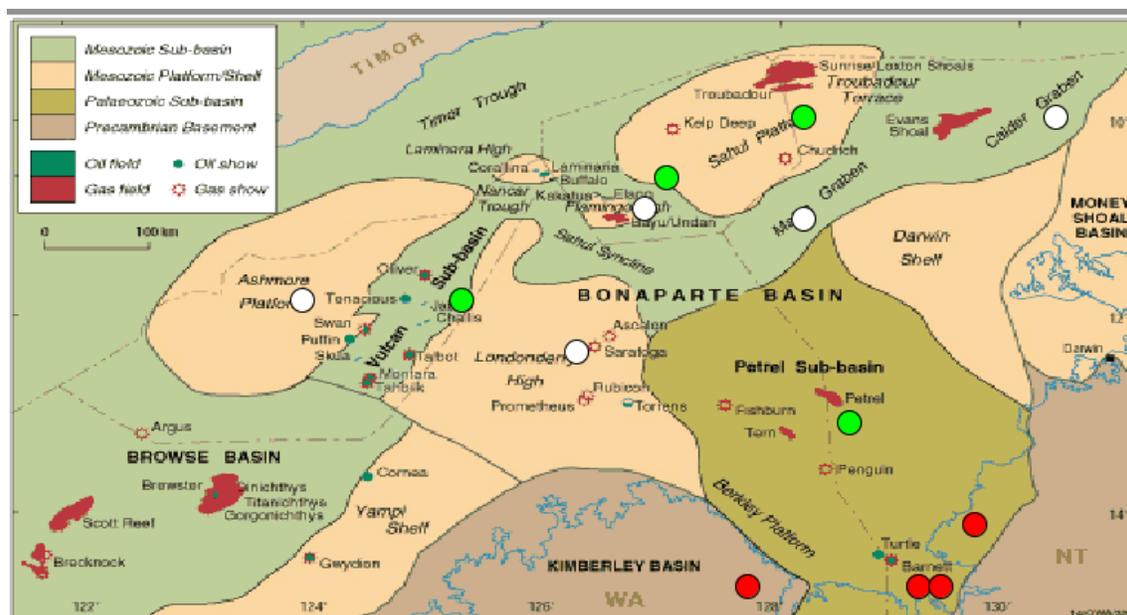
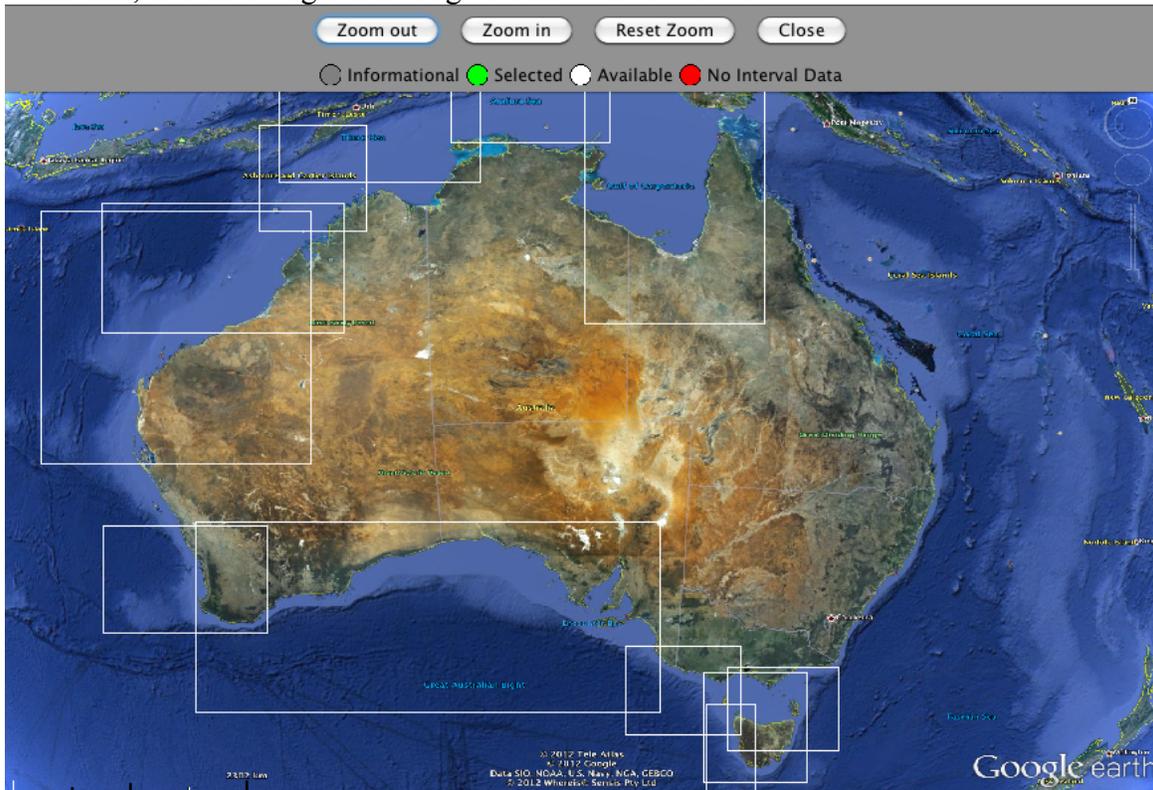
(3) Enhanced cross-plot and depth-age conversion

As part of a project to make this tool available to college stratigraphy classes, the interface has been expanded, an auto-match feature was added (including auto-symbols), stage-background colors, and a depth-to-age conversion that automatically puts the converted file (including geophysical logs) adjacent to the reference timescale. See extended section in the composite manual on how to use the different features. This will be also mounted as ge-education module using a Gulf of Mexico transect this summer.



(4) Vertical perspective (“Google Earth”) geographic interface with sub-maps

We have mounted regional datapacks for Australia (with offshore basin sub-maps; developed with Geoscience Australia), Middle East, India and China that use a modified “Google Earth” type geographic interface. One mounts these mappacks, then uses them to select columns (red/green/white dots) similar to the regular column menu system. The two sets work together. We will be mounting similar geographic packs for New Zealand, Canada, and other regions through the summer of 2012:



(5) Phanerozoic carbonate and other long-term trends

Within the “Global Trends, Impacts, Volcanism, Tectonics” directory in the internal TSCreator 5.4 package are Carbonate Trends (Reef ecosystems, platform types, major reef builders), Icehouse/Greenhouse conditions, and Hydrocarbon system overviews (anoxic events, major source-reservoir-seal episodes). The main references are Markello, J.R.; Koepnick, R.B.; Waite, L.E.; and Collins, J.F., 2006, *The Carbonate Analogs Through Time (CATT) Hypothesis and the Global Atlas of Carbonate Fields- A Systematic and Predictive look at Phanerozoic Carbonate Systems*, in Lukasik, J. and Simo, T. eds., Controls on Carbonate Platform and Reef Development, SEPM Special Publication; and Lowell Waite (author) and Roger Gilcrease (compiler), 2002. *Phanerozoic Cycles and Events (NV PXD Global Stratigraphic Chart 02.DSF)*, March 27, 2002 (printed by Pioneer Natural Resources; permission provided by L. Waite).

Coming in Version 6.0 (to coincide with publication of GTS2012 in August, 2012):

- (1) ***Geologic TimeScale 2012*** revision of all age models; updated zonations; etc.
- (2) Calcareous nannofossil display with images, linked to Nannotax
- (3) Vertebrate evolution
- (4) Web-service for general public

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| <p>Contact Jim Ogg (jogg@purdue.edu) for any questions, suggestions or comments.</p> |
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As always, we welcome your suggestions for enhancements, datasets, user-interfaces and other ways to improve the TimeScale Creator systems!

The TimeScale Creator visualization system and datapacks are products of the non-profit Geologic TimeScale Foundation. Visit www.tscreator.org (which redirects to a server at Purdue University) for more information, manuals, educational modules, etc. The PRO portion of the site requires a user-password.