

Construction of the Paleontologic-Biostratigraphic
Cretaceous File in the Federal Institute for
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The large volume of fossiliferous core material of the Cretaceous System being accumulated by the Deep Sea Drilling Project and the great amount of information compiled by many different authors in the Initial Reports made it highly desirable to prepare a summary of the paleontological and biostratigraphical data in order to improve its accessibility for research and to allow the computer processing of the data. The data presented in the Cretaceous data file in Hannover covers all of the Cretaceous cores gathered in the oceans of the world from the DSDP-IPOD Project. It proved to be necessary to standardize the paleontological data from numerous authors. This difficult work has been done for calcareous nannoplankton, dinoflagellates (partly), radiolarians and diatoms. We are working on the foraminifera data. It is planned to enter Cretaceous continental data into the file, too; it then will be possible to correlate continental and oceanic data.

The information can be collected on so-called "OPSCAN sheets" (= form sheets for an OPSCAN reader) or on punch cards. This data is stored in the file PALBASE, generated and maintained by the data maintenance programs, is the starting point for a packet of evaluating and editing programs:

H1SEXT prints sample data (specified by punch cards) in word form, as many as necessary.

H1OUTP is the standard output program for PALBASE: it extracts all data for a site or fossil group in diagram form which makes it easy to recognize changes of biostratigraphical zones. It is possible to generate large diagrams by connecting several parts. The desired sites can be specified on punch cards. It is also possible to choose all sites of a fossil group or those situated within a specified rectangular area. At the end of the print output H1OUTP generates two line printer plots indicating the positions of all sites printed. The first plot represents the smallest rectangular area containing all printed sites. The second plot is a world map. This plot is then combined with a transparent foil showing the continental contours.

H1PULL can perform species retrievals from the data stored in PALBASE. It tests each sample for a specified species combination (logical term).
Example: 16 * 32 * 101 V 17 * -2
Meaning: all samples containing species 16, 32 and 101 and/or species 17 and not 2 shall be printed.

The output of H1PULL is also in diagram form. As in H1OUTP, geographical searching limits can be chosen. H1PULL produces two line printer plots, too. If a site contains a sample corresponding to the logical term, it will be represented by the character "+", otherwise "-".

