

Format for a Report on Implementation of Programme of Work for the Global Taxonomy Initiative

As part of its multi-year programme of work, the Conference of the Parties, in the annex to decision VII/31, decided that the programme of work for the Global Taxonomy Initiative will be one of the items for in-depth review at its eighth meeting. The Conference of the Parties, in paragraph 5 of decision VII/31, also agreed that the review of the programme of work would focus on:

- (i) Assessing the implementation and effectiveness of the programme of work for the Global Taxonomy Initiative;
- (ii) Updating the programme of work if necessary, by retiring or replacing activities and by making adjustments to reflect changes in the international context; and
- (iii) Providing practical support for national and regional implementation.

To this end, the Conference of the Parties, in paragraph 6 of decision VII/9, requested Parties to report on the status of implementation of the programme of work for the Global Taxonomy Initiative. The COP further invited national and international taxonomic institutions to contribute information on their relevant activities to the review of the Global Taxonomy Initiative.

The following format contains a series of questions based on 18 activities identified in the programme of work for the Global Taxonomy Initiative annexed to decision VI/8. Responses to these questions will help Contracting Parties to assess the status of implementation and effectiveness of the programme of work of the Global Taxonomy Initiative and related provisions of the Convention. They will also assist the Conference of the Parties in providing further guidance on ways and means to implement this programme of work and, more broadly, the objectives of the Convention.

To assist with the review of the status of the implementation of the programme of work for the GTI, in responding to the following questions contained in this format, Parties are requested to focus on, but not limited to:

- (a) progress of actions taken at various levels for the implementation of the programme of work;
- (b) impacts of actions taken at various levels for the implementation of the programme of work;
- (c) constraints or impediments encountered in the implementation of the programme of work;
- (d) contributions of relevant actions taken at various levels to the implementation of national biodiversity strategies and action plans, the implementation of thematic programmes of work and cross-cutting issues under the Convention, the achievement of the goals of the Strategic Plan of the Convention and the 2010

- target; and
(e) Lessons learnt.

While providing further comments as requested, Parties are also encouraged to provide information about the web pages, publications and any other sources of information where more relevant information can be retrieved for review and assessment.

In order to assist with the review and synthesis of the information in the reports, respondents are requested to ensure that information provided is as succinct as possible. There is no set limit in length, but it is anticipated that Parties will be able to provide adequate and useful information in a few pages.

The information provided by Contracting Parties will not be used to rank performance or to otherwise compare implementation between individual Contracting Parties.

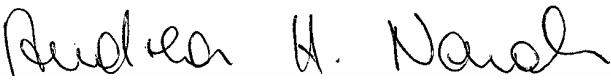
Contracting Parties are requested to submit their report on the implementation of the programme of work for the Global Taxonomy Initiative, in this format, to the Executive Secretary by 30 June 2004. Parties are also requested to submit an original signed copy by post and an electronic copy (preferably in Word) by electronic mail.

An electronic version of this document is available on the website of the Convention at <http://www.biodiv.org>.

Completed reports and any comments should be sent to:

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World Trade Centre
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Montreal, Quebec
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Please provide the following details on the origin of this report.

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Contact officer for this report (if different)	
Name and title of contact officers:	mentioned in the relevant paragraphs
Submission	
Signature of officer responsible for submitting national report:	
Date of submission:	5 July 2004

Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report.

Ad stakeholders:

The Austrian Ministry of Agriculture, Forestry, Environment and Water Management invited the members of the Austrian National Biodiversity Commission and other relevant persons to participate in the preparation of this questionnaire. [The National Biodiversity Commission was entrusted by the Federal Ministry of Environment in 1996 to coordinate and harmonize the numerous activities and programs as well as to promote the flow and exchange of information. This commission is composed of representatives from administrative departments (Federal Ministries and Provincial authorities), unions and management, science and NGOs].

Ad material:

Assessment of experts on the basis of their experience and relevant publications.

Ad process:

First drafts of this questionnaire were provided by several persons. The final version of this questionnaire was approved by the Austrian National Biodiversity Commission (e-mail) before it was sent to SCBD.

**REPORT ON IMPLEMENTATION OF PROGRAMME OF WORK FOR THE
GLOBAL TAXONOMY INITIATIVE**

**Programme of Work for the Global Taxonomy Initiative
Annex to Decision VI/8**

Operational Objective 1. Assess taxonomic needs and capacities at national, regional and global levels for the implementation of the Convention

1. Has your country undertaken any taxonomic needs assessments and identified priorities in this regard?	
a) no (please specify the reasons)	
b) no, but assessment is under way	
c) yes, some needs assessments made (please provide details)	X
b) yes, comprehensive assessments made (please provide details)	
Further comments on country-based taxonomic needs assessments and identification of priorities	
<p>In the context of a feasibility study of GBIF in Austria (Götzl & al., 2003), also gaps in taxonomic needs were detected. In addition, seeking such information was part of a GSCP questionnaire for a preliminary status report on target 1 of the GSPC (Kiehn unpubl., 2003)</p>	
2. Has your country worked with other countries in the region to undertake regional taxonomic needs assessments and identify priorities in this regard?	
a) no (please specify the reasons)	X
b) no, but some collaborative projects are being considered or planned	
c) yes, some activities undertaken (please provide details)	
d) yes, many activities undertaken (please provide details)	
Further comments on regional taxonomic needs assessment and identification of priorities	

3. Is your country involved in any activities as part of a global taxonomic needs assessment?	
a) no	
b) yes (please provide details)	X
Further comments on the involvement in the activities for the global taxonomic needs assessment	
As part of the GSPC process (target 1)	

4. Is your country undertaking any activities of public education and awareness to promote the implementation of the programme of work for the GTI?	
a) no	
b) yes, some programmes developed and some activities undertaken (please provide details)	X
c) yes, comprehensive programmes developed and many activities undertaken (please provide details)	
Further comments on public education and awareness programmes and activities	
As part of lectures at universities.	

Operational objective 2. Provide focus to help build and maintain the systems and infrastructure needed to obtain, collate and curate the biological specimens that are the basis for taxonomic knowledge

5. Is your country working to strengthen global and regional capacity building to support access to and generation of taxonomic information ¹ ?	
a) no (please specify the reasons)	
b) no, but some programmes under development	
c) yes, limited capacity building (please provide details)	X

¹ Responses to question 5 are expected to focus on, but not limited to (a) human capacity building; (b) infrastructure capacity building.

d) yes, significant capacity building (please provide details)	
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Further comments on global and regional capacity building to support access to and generation of taxonomic information

Implementation of the GBIF-work program:

Human capacity building: A GBIF-National Focal Point was established in 2001, who is initiating and managing national contributions to GBIF to promote the sharing of biodiversity data via Internet.

Infrastructure capacity building: A pilot-project is initiated to establish a first version (prototype) of a national Biodiversity-database-network to provide data to GBIF.

Launching of Websites to inform on the Austrian progress in implementing the GBIF-working program (www.biodiv.at/gbif) and to enable access via Internet on red lists of threatened animals (www.roteliste.at).

Ideas outlined in the GBIF-report (Götzl & al., 2003), but not yet implemented.

IPEN-activities of European Botanic Gardens (see electronic document of the CBD-CITES-synergy workshop Vilm, 2004)

Development Cooperation: support to Men-Tsee-Khang medicinal centre, Dharamsala, for capacity development (research equipment, training) for the collection of scientific and traditional taxonomic knowledge on traditional medicinal plants in Tibet.

6. Is your country working with other countries to create and/or strengthen the networks for regional cooperation in taxonomy?

a) no	
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b) no, but consultation is under way	
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c) no, but some plans and programmes are under development	
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d) yes, some activities undertaken for this purpose (please provide details)	X
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e) yes, comprehensive activities undertaken for this purpose (please provide details)	
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Further comments on strengthening of existing networks for regional cooperation in taxonomy

The Institute of Botany of the University of Vienna is currently working on an update of the Central European checklist on vascular plants.

The Austrian Federal Environment Agency is partner of EC-research project on alien species, which aims to create a database on alien plants and animals in Europe. This project includes some work on taxonomic questions concerning alien species.

Museums and taxonomic collections are taking part in international programs like BioCase, ENBI, Synthesys.

NGO-initiatives and private initiatives are taking place especially in the field of birds, butterflies and moths.

Operational objective 3. Facilitate an improved and effective infrastructure/system for access to taxonomic information, with priority on ensuring that countries of origin gain access to information concerning elements of their biodiversity

7. Is your country involved in the development of a coordinated global taxonomy information system, in particular the infrastructure to access digitized data/information?

a) no	
b) no, but some plans are being considered	
c) yes, to a limited extent (please provide details)	X
d) yes, to a significant extent (please provide details)	

Further comments on involvement in the development of a coordinated global taxonomy information system

Since 2001 Austria is associated member of GBIF. In fulfilling the Memorandum of Understanding a pilot-project is initiated to facilitate access to data on taxa-level (unit-level-data).

Ideas outlined in the GBIF-report (Götzl & al., 2003), but not yet implemented.

Museums and taxonomic collections are taking part in international programs like BioCase, ENBI, Synthesys.

Operational objective 4. Within the major thematic work programmes of the Convention include key taxonomic objectives to generate information needed for decision-making in conservation and sustainable use of biological diversity and its components

8. Has your country made any taxonomic studies and inventories at the national level, which provide a basic assessment of forest biological diversity, in particular in areas under current threat for habitat conversion, or of high conservation value?	
a) no (please provide the reasons)	
b) no, but some programmes are under development	
c) yes, some studies and inventories made (please provide details)	X
d) yes, comprehensive studies and inventories made (please provide details)	
Further comments on taxonomic studies and inventories made for a basic assessment of forest biological diversity	

In the framework of the Austrian Forest Inventory the genetic diversity of certain tree species, as well as the species diversity of shrubs and trees and the ecosystem diversity are recorded regularly. Furthermore there are investigations on the amount of dead wood and the vegetation type composition at all plots etc.

Basic studies for assessment of forest biological diversity are available:

"Hemeroby of Austrian Forest-Eco-Systems": Grabherr G., Koch G., Kirchmeir H. Reiter K., 1998, Universitätsverlag Wagner. Innsbruck.

"Red List of threatened forest biotope types in Austria": Essl F., Egger G., Ellmauer Th., Aigner S., 2002, Umweltbundesamt M-156. Vienna.

In 2004 the "Red list of threatened grasslands, tall herb communities and scrubs of open landscapes", (Essl, F., Egger, G., Aigner, S., Karrer, G., 2004, Umweltbundesamt M-167. Vienna.) has been published.

The Institute of Botany at the University of Vienna (Prof. H. Niklfeld) has compiled a distribution database of Austrian vascular plants, which is based on comprehensive floristic mapping all across Austria, including forested areas.

Many research activities take place on federal or/and provincial level (development of habitat maps, monitoring of birds, butterflies, moths etc.) Taxonomic studies especially in forest areas are often carried out in National Parks, Nature parks and other areas under protection as well as in the natural forest reserves.

DIANA (Soil **D**iversity in **A**ustrian **N**atural Forests), coordinated by Dr. S. Zechmeister, BFW (<http://bfw.ac.at/300/2197.html>): At 12 sites, mostly natural forest reserves, including Rothwald, the most important virgin forest in Central Europe, biological diversity of several taxonomic groups of soil organisms is studied. Four projects are already completed:

Prof. W. Waitzbauer, University of Vienna: "Ground beetles (Carabidea) as indicators for biodiversity in natural woodlands." In Rothwald the great amount of deadwood yields a rich xylobiontic entomofauna of Coleoptera (116 species including 2 FFH species) and Diptera (69 species). Many are index species that belong to the rare and endangered fauna of natural forests, extinct in many other areas of Europe.

Prof. W. Foissner, University of Salzburg: "Soil protozoan diversity in natural forest communities of Austria." At all, 233 species of ciliates were found, 32 of them new to science.

Dr. A. Sessitsch, ARCS Seibersdorf: "Genetic diversity of bacterial communities in soils of natural forests."

Prof. Dr. A. Bruckner, BOKU - University of Natural Resources and Applied Life Sciences, Vienna: "Soil fauna of natural forest reserves of Austria – diversity, community patterns, monitoring" – Earthworms, oribatids, springtails, and dipters were studied. One springtail was new to science.

Additional studies on nematodes (Dr. P. Zolda, University of Vienna), spiders (Dr. N. Milasowszky, University of Vienna) and springtails (Dr. H. Kopeszki, University of Innsbruck) will be published soon.

9. Has your country undertaken any taxonomy-related activities relating to marine and coastal biodiversity, in particular taxonomic work related to identification of ballast water organisms and monitoring health of mangrove systems through their invertebrate fauna?	
a) no	
b) not applicable	
c) no, but some programmes are under development	
d) yes, some activities undertaken (please provide details)	X
e) yes, many measures undertaken (please provide details)	
Further comments on taxonomy-related activities identified in the programme of work on marine and coastal biodiversity	
<p>Deep-sea hydrothermal vent meiofauna diversity is being studied by the Department of Marine Biology, Institute of Ecology and Conservation Biology, University of Vienna. Contact: Prof. Monika Bright.</p> <p>Diversity of corals of the genus <i>Acropora</i> along with their associated gobiid fish fauna (Red Sea). Contact: Dr. Jürgen Herler: same department as above.</p> <p>Numerous taxonomic publications on marine nematodes. Contact: Prof. Jörg Ott, same department as above.</p> <p>High-level taxonomic work on marine molluscs (Solenogastres, Caudofoveata, Bivalvia, Gastropoda) by the Institute of Zoology, Department of Systematic Zoology and Developmental Biology, University of Vienna. Contact: Prof. Gerhard Steiner.</p> <p>New book on taxonomy of Red Sea bivalves published in 2003 by Prof. Martin Zuschin, Institute of Paleontology, University of Vienna (Title: Bivalves and bivalve habitats of Safaga - Red Sea, Egypt - An actuopaleontological approach. VI. Bivalvia).</p> <p>Taxonomic studies on mudshrimp from coastal waters of the Mediterranean and Red Sea. Contact: Dr. Peter Dworschak, Museum of Natural History, Vienna.</p> <p>Numerous publications on the taxonomy of mysidacean shrimp (opossum shrimp) from around the world. Contact: Prof. Karl Wittmann, University of Medicine, Vienna.</p> <p>Prof. Gerhard Steiner: Taxonomy of major Molluscan groups in the marine environment worldwide (Caudofoveata, Solenogastres, Gastropoda, Bivalvia, Scaphopoda). Using morphological and molecular methods.</p>	
10. Has your country developed taxonomic support for implementing relevant actions identified in the programme of work on dry and sub-humid lands biodiversity, in particular identification of key indicator taxa like lichens?	
a) no (please provide reasons and plans for improvement)	

b) not applicable	
c) no, but some programmes are under development	
d) yes, some activities undertaken(please provide details)	X
e) yes, many activities undertaken (please provide details)	
Further comments on taxonomic support for implementing the programme of work on dry and sub-humid lands biodiversity	
<p>Terrestrial nematodes (Group: Dr. Pamela Zolda, Institute of Ecology and Conservation Biology): nematode taxonomy and diversity in dry meadows and natural forests in Austria.</p> <p>Ecology and cultural history of dunes in Lower Austria, a study on the importance of sand dunes as natural habitats. From the data gained, measures for the management and preservation of sandhabitats can be determined. (Wiesbauer, H, Mazzucco, K: "Dünen in Niederösterreich", St. Pölten, 1997).</p> <p>A study on the importance of sand habitats for aculeate Hymenoptera. On the basis of this study measures for the conservation of sand habitats can be proposed. (Wiesbauer, H, Mazzucco, K: "Sandlebensräume in Österreich und ihre Bedeutung für Stechimmen", Wien 1999).</p>	
11. Has your country developed taxonomic support for implementing relevant actions identified in the programme of work on inland waters biodiversity, in particular regional guides to freshwater fish and invertebrates as an input to ecosystem monitoring for river and lake health?	
a) no	
b) no, but some programmes are under development	
c) yes, some activities undertaken(please provide details)	
d) yes, many activities undertaken (please provide details)	X
Further comments on taxonomic support for the implementation of the programme of work on inland waters biodiversity	

Austria has published a comprehensive taxonomic study on fresh-water fauna, the so-called "Fauna Aquatica Austriaca". This study is being published in several volumes.

Department of Limnology, Institute of ecology and Conservation Biology, University of Vienna: "Fish fauna of the Danube and Danube backwaters". Contact: Prof. F. Schiemer.

BOKU - University of Natural Resources and Applied Life Sciences, Vienna, Department of Hydrobiology: Development of so-called "Leitbilder" (undisturbed, river-type-specific typologies) for Austrian Rivers as a reference and amelioration goal for disturbed river stretches. Contact: Prof. M. Jungwirth.

A nation-wide study concerning the situation of fishes in Austria was published in 1995. Apart from a listing of all of Austria's fish species (native, alien and extinct), their distribution and ecological characteristics, the extent to which and why they are endangered as well as fishery and the laws related to fishing are discussed in detail. (Spindler, T. Fischfauna in Österreich, Wien 1995, UBA Monografie Band 53).

12. Has your country undertaken any taxonomy-related activities identified in the programme of work on agricultural biodiversity as well as relevant activities identified in the International Pollinator Initiative and the International Soil Biodiversity Initiative?

a) no	
b) no, but some activities are being planned	
c) yes, some activities undertaken (please provide details)	X
d) yes, comprehensive activities undertaken (please provide details)	

Further comments on taxonomy-related activities for the implementation of the programme of work on agricultural biodiversity

Based on the EU-program for an environmentally compatible, extensive agriculture that protects the natural ecosystem ("ÖPUL") taxonomy-related activities are taking place in order to conserve and promote biodiversity on farmland.

In the animal sector above all these activities are taking place with regard to rare species of cattle, horses, sheep, goats, pigs, donkeys, poultry and fishes.

Similar activities are taking place in the plant and tree sector. It has to be noted that there are still major gaps in our taxonomic knowledge about vegetable varieties.

On the Pollinator Initiative and the Soil Initiative first steps are taken.

13. Is your country developing any taxonomic support for the implementation of the programme of work on mountain biodiversity, in particular identification of biodiversity components unique to mountain ecosystems?	
a) no	
b) no, but some programmes are under development	
c) yes, limited support (please provide details)	X
d) yes, significant support (please provide details)	
Further comments on taxonomic support for the implementation of the programme of work on mountain biodiversity	
<p>Recently a vegetation databank was developed for the Austrian alpine region.</p> <p>The federal provinces assess regularly the state of the mountain pastures in Austria (Almenkataster) including change in forest cover, life stock etc.</p> <p>GLORIA project (Global Observation Research Initiative in Alpine Environments) related to mountain vegetation diversity and climate-change-related shifts in plant communities. See: http://www.gloria.ac.at/res/gloria_home/ Contact: Prof. G. Grabherr, Institute of ecology and Conservation Biology.</p> <p>Project called "Raumalp", see http://www.oeaw.ac.at/isr/raumalp/ Contact: Prof. G. Grabherr, Institute of ecology and Conservation Biology.</p> <p>Project on genetic diversity of endemic alpine plants. Contact: Thorsten Englisch and Harald Niklfeld, Institute of Botany and Botanical Garden of the University of Vienna.</p> <p>The "Tiroler Landesmuseum Ferdinandeum" in Innsbruck has developed a database on Alpine Lepidoptera (butterflies and moths) throughout the Alps (sensu lato) (Camargue to Neusiedlersee, Danube valley and Swiss Jura to the Apennines and northern Croatia). See http://www.tiroler-landesmuseum.at (no direct database access via internet!). Contact: Dr. G. Tarmann, Tiroler Landesmuseum Ferdinandeum, Innsbruck.</p>	
14. Has your country developed taxonomic support for the implementation of the programme of work on protected areas?	
a) no	
b) no, but some programmes are under development	X
c) yes, some programmes in place and are being implemented (please provide details)	
d) yes, comprehensive programmes are being implemented (please provide details)	
Further comments on taxonomic support provided to the implementation of the programme of work on protected areas	

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Operational objective 5. Within the work on cross-cutting issues of the Convention include key taxonomic objectives to generate information needed for decision-making in conservation and sustainable use of biological diversity and its components

15. Has your country taken any measures to strengthen capacity for the inventory and classification of biodiversity and its components in the development of a national strategy on access and benefit-sharing?	
a) no	
b) no, but some programmes are under development	X
c) yes, some measures taken (please provide details)	
d) yes, comprehensive measures taken (please provide details)	
Further comments on the measures to strengthen capacity for the inventory and classification of biodiversity and its components in the development of a national strategy on access and benefit-sharing	
<p>Ideas outlined in the GBIF-report (Götzl & al., 2003), but not yet implemented.</p> <p>IPEN-activities of European Botanic Gardens (see electronic document of the CBD-CITES-synergy workshop Vilm, 2004)</p>	
16. Has your country developed taxonomic support to address the issues of invasive alien species?	
a) no	
b) no, but relevant policy and programme under development	
c) yes, some policies and programmes in place (please provide details)	X

d) yes, comprehensive policies and programmes in place (please provide details)	
Further comments on taxonomic support to address the issues of invasive alien species	
<p>The Austrian Federal Environment Agency published a survey on non-indigenous organisms in Austria. This inventory is based on literature data and on the expertise of specialists for all groups. (Essl, F. & Rabitsch, W.: "Neobiota in Österreich" Umweltbundesamt, Wien 2002).</p> <p>Austria has collated and published a comprehensive checklist on alien plants, which is a taxonomically well-edited base concerning alien plants.</p> <p>In 1995 a study on alien and returning (wolf, lynx, etc) animals was published (Stapfia 37, "Einwanderer - Neue Tierarten erobern Österreich" Linz 1995).</p> <p>A book on Alien Species in the series "Grüne Reihe" should be published soon.</p>	

17.Has your country developed taxonomic information system to support the maintenance, preservation and protection of traditional knowledge, innovations and practices of indigenous and local communities in accordance with Article 8(j) and related provisions?	
a) no	
b) not applicable	
c) no, but some programmes are under development	X
d) yes, some activities undertaken but a system is not in place yet (please provide details)	
e) yes, a taxonomic information system in place (please provide details)	
Further comments on the taxonomic information system to support the maintenance, preservation and protection of traditional knowledge, innovations and practices of indigenous and local communities	

18.Has your country undertaken any taxonomy-related activities that support the implementation of the ecosystem approach and the work in the field of assessments, monitoring and indicators?	
a) no	
b) no, but some programmes are under development	
c) yes, some programmes in place (please provide details)	X
d) yes, comprehensive programmes in place (please provide details)	
Further comments on programmes and activities to support the implementation of the ecosystem approach and the work in the field of assessments, monitoring and indicators	
<p>Scientific publications, e.g. Kiehn M., 2000: The genus <i>Cyrtandra</i> (Gesneriaceae): its indicative potential for assessing historical and actual disturbance of islands forest systems – Abstracts 43rd Symposium of the International Association for Vegetation Science, 79. – Nagano: Program Committee and Secretariat of IAVS 2000 Nagano.</p> <p>Identification of potential indicator marine organisms useful in monitoring eutrophication-related changes in shallow marine ecosystems (Institute of Ecology and Conservation Biology, Department of Marine Biology, University of Vienna, Contact: Dr. M. Stachowitsch).</p>	

If your country wishes to provide additional information on implementation of this programme of work, please do so in the following space

<p>There is already a wide range of GTI-relevant data available in Austria. Nevertheless, there is a need for action in terms of update, documentation, digitisation and access to these data via internet.</p> <p>Above that, comprehensive taxonomic initiatives on the flora and fauna of Austria (including moss, ferns, micro-organisms etc.) are yet to be done.</p> <p>Taxonomy is not at all a well funded subject at Austrian Universities and Museums.</p>
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