

APPENDIX I

EXTRACTS FROM THE QUESTIONNAIRE

COMMONWEALTH SECRETARIAT

SURVEY OF TECHNICAL AND COMMERCIAL QUALIFICATIONS AND EXAMINATIONS IN THE DEVELOPING COUNTRIES OF THE COMMONWEALTH

INTRODUCTION

1. The Commonwealth Secretariat is conducting a survey on the current position on technical and commercial qualifications and examinations in the developing countries of the Commonwealth. This follows a recommendation from the Seventh Commonwealth Education Conference (Accra 1977) that a study should be made of the problems encountered in technical examinations. Information for the survey is being collected by this questionnaire.

2. Address (Commonwealth Secretariat)

3. The questionnaire falls into two parts:

. In Part I (pages 2-6) you are asked to indicate, by entries in the appropriate columns, the courses offered by your college (or other institution) by subject area, and level and type of qualification. These concepts are explained in more detail in paragraphs 4, 5 and 6 below. Where the course leads to an OUTSIDE QUALIFICATION you are asked to indicate how appropriate the examination syllabus appears to be to local employment requirements.

. In Part II (pages 7 and 8) you are asked to give information on any recent or forthcoming changes in policy concerning technical or commercial qualifications or examinations- the reasons for using outside qualifications; and to make any other comment on technical or commercial qualifications, which you think might be of help.

4. On pages 2-5 of the questionnaire a wide range of technical and commercial subjects are listed in 32 groups. As there are probably subjects not included on these pages, but which are offered by some institutions, a facility for 'writing in' additional courses is given on page 6.

5. For the purpose of this questionnaire, technical qualifications and examinations have been divided into three levels which fall between, but do not include, trade tests at one end of the scale and university level awards at the other:

Higher Technician

Typified by City and Guilds TEchnicians Part III or the Higher Technician Diploma. Also includes some of the awards of professional and similar bodies if they are below graduate level. Technical management studies are also included at this level.

Technician

Typified by City and Guilds Technicians Parts I and II or the Ordinary Technician Diploma. General Courses and Supervisory Studies are included at this level.

Craft

All levels of City and Guilds Craft courses. Also includes Mechanics and Operatives work.

Similarly commercial qualifications have been divided into three levels, roughly corresponding with those adopted by the Royal Society of Arts and the London Chamber of Commerce and Industry:

Stage III	:	Advanced
Stage II	:	Intermediate
Stage I	:	Elementary

From most of the groups of technical and commercial subjects on pages 2-5 of the questionnaire, all three levels of qualification are shown, but for some only two are normally appropriate. Where subjects are 'written in' on page 6, the appropriate level of qualification should also be recorded.

6. A preliminary review of the information available to the Commonwealth Secretariat has suggested that four types of qualification are awarded in technical and commercial subjects in the developing countries of the Commonwealth:

(i) Qualifications awarded by LOCAL EDUCATIONAL INSTITUTION (e.g. a polytechnic or a college).

(ii) NATIONAL QUALIFICATIONS awarded by a Government Department or National Body.

(iii) REGIONAL QUALIFICATIONS awarded by a regional examining authority in which several countries participate.

(iv) OUTSIDE QUALIFICATIONS, awarded by institutions completely outside the nation or region including both those awarded by such bodies as City and Guilds, the Royal Society of Arts, the London Chamber of Commerce and Industry, and also those awarded by, say, American universities to students in some Caribbean colleges.

7. The information in this questionnaire will be treated as confidential and will not be made available in any form which identifies your Institution outside the Commonwealth Secretariat and the survey contractors (Guildford Educational Services Ltd.) without the written consent of the person named on page 8 or his/her successor in office.

Groups of Subjects 1	Levels of Courses 2	College /Poly Qualification 3	National Qualification 4	Regional Qualification 5	Outside Qualification 6	Please complete columns 7 and 8 if there is a tick in column 6		Line No. 9
						Examining Body 7	Code 8	
Agriculture Animal Husbandry	Higher Technician							111
	Technician							112
Fishing Forestry Horticulture	Craft							
Mining and Quarrying	Higher Technician							
	Technician							
	Craft							
General Engineering Combined Electrical and Mechanical Engine	Higher Technician							
Business Studies	Stage III Advanced							841
Marketing	Stage II Intermediate							842
Secretarial and Typing	Stage II Intermediate							852
	Stage I Elementary							853
Clerical and Office Skills	Stage II Intermediate							862
	Stage I Elementary							863
Publishing Journalism	Stage III Advanced							871
Broadcasting Advertising	Stage II Intermediate							872

PART I

If your institution runs courses leading to qualifications in the subjects and at the level shown, please indicate by a tick in the appropriate column(s) 3-6 what type of qualification is awarded. Please tick more than one column if appropriate. Please see paragraphs 5 and 6 on page 1 for the definitions of levels and types of qualification.

If your institution also runs courses leading to qualifications in subjects not included on pages 2-5, please enter them on page 6 in the blank spaces provided.

Where your institution offers courses leading to an OUTSIDE QUALIFICATION (a tick in column 6) please state the name (or abbreviation) of the examining body in column 7, and in column 8 please put a code number 1, 2, 3, 4 and 5 to indicate your opinion on how appropriate syllabus is, on the following scale:

- 5: Syllabus completely matches employment requirements
- 4: Syllabus matches employment requirements with a few exceptions.
- 3: Syllabus partly matches employment requirements
- 2: Syllabus is only slightly appropriate for employment requirements
- 1: Syllabus does not match employment requirements.

PART II

(a) Please give information on any recent or forthcoming changes in national or institutional policy concerning technical or commercial qualifications and examinations.

(b) If you have indicated on pages 2-6 that your institution offers courses leading to Outside Qualifications, please summarize the reasons why such qualifications are used.

(c) Please record on this page any further comment you want to make on technical or commercial qualifications or examinations.

APPENDIX II

QUOTATIONS FROM QUESTIONNAIRE RESPONSES

(Note: In view of the assurances of confidentiality the origin of the quotations is not given).

General Comments on Transitional Positions

"X" has depended on the City and Guilds of London Institute and Royal Society of Arts (London) examinations as a means of evaluating technical, vocational and commercial education and training programmes. As a result, the pattern of technical, vocational and commercial education in this country has been greatly influenced by the requirements of these British examining bodies.

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These outside qualifications are being used until we develop our local or regional certification.

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CGLI examinations maintain standards, and curricula obviously related very much to employers' needs. However, opinion is now that national qualifications should be the aim. Continuing help from TEC and CGLI will be most welcome.

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The chief reason for taking City and Guilds Examinations is that there are no local trade examinations. Personally I would prefer to continue with City and Guilds Examination in order to maintain the standard reached in each trade. The setting up of local examinations I feel would inevitably lead to a lowering in standards, due to the limited number of people sitting for examinations in "X". Also many new firms that are being established in "X" readily accept this qualification. Thirdly for students who emigrate the same is the case. City and Guilds have an acceptable standard.

* * * * *

I believe that local qualifications would be good enough for our students at craft and technician levels; for very few of them will go overseas to work or to study. At the same time, we should not deprive them the opportunity to obtain a foreign qualification; it could provide them a good incentive to study and to better themselves.

* * * * *

Pitmans & RSA

Limited resources make them easier to manage as they are already widely accepted qualifications.

City and Guilds

Largely same as above; however if a body similar to one working in some regions in Africa were to operate in "X" we would opt to have a regional body to validate our local qualifications in co-operation with City and Guilds in a phased arrangement.

The College of "X" is new (established 1975) and is still in the process of having its qualifications accepted by the community.

In the case of General Engineering, the College is not yet in a position to train manpower to the Higher Technician level, and must, therefore, depend on the assistance of outside institutions.

In the case of the R.S.A. and the London Institute of Banking, these examinations are optional.

Other Reasons for Using Outside Qualifications and Examinations

City and Guilds and Pitmans are of course internationally recognised and a certificate issued by these bodies is of far more value to the student looking for a job (especially overseas) than a locally issued diploma.

The wide use of the City and Guilds (in many countries) makes comparison relatively easy, and most of these examinations are specially prepared for overseas countries. The Examinations of the NWRAC are arranged in 'easy' stages - ideal for working people who attend Evening Classes.

To enable students to pursue advanced studies, without undue duplication of topics and subjects already done, e.g. a student who already has Part I of the 626 City and Guilds course can, if he then goes to Britain, register with a college to take Part II of the exam.

City and Guilds examinations are internationally known and accepted. Students with purely local qualifications may find it difficult to 'sell' their local qualifications abroad. Hence we give students the chance to gain local qualifications which in many ways are more fitting to the local situation than the C & G qualifications, while at the same time we allow them to gain C & G qualifications for international acceptance. A similar argument can be made for the Royal Society of Arts examinations.

It is considered that "X" as a developing nation, should set high standards in qualifications which will be acceptable in other countries. City and Guilds therefore offers a standard on which "X" may build some of her technical and vocational qualifications. Through our association with City and Guilds local personnel can be trained in the conduct of technical examinations.

We believe that if any person thinks that he has acquired certain standard skill or knowledge of a particular level to sit for any examination in any course or subject, he should be permitted to avail of such test or examination on payment of full fees and other expenses fixed for the same and declared pass or fail on merit and his performance at such test or examination. We believe that it should be his fundamental right to sit for these examinations if he so desires, regardless of the place and country to which he belongs and that no examining authorities should refuse him permission to avail of these examinations.

The reasons why we require outside qualifications is because to maintain a balance in standard between our qualifications and outside qualifications. Besides that, we have to cope with the employment requirements in "X". Moreover, these outside qualifications along with our qualifications would enable the students to further the course to degree level with certain subjects being exempted in the colleges abroad.

The present examinations and qualifications conducted by the Ministry of Education normally lacks of recognition from private firms and companies since too much emphasis is placed on academic subjects and not technical subjects or trade subjects.

We have been using Pitman's Examinations for some years now and find their standard of papers suitable to the needs of the students here. The O.C.B.S. is perhaps not quite as suitable as it might be but was chosen as being the best on offer.

For high level manpower the need exist to relate training and qualifications to an acceptable international standard. Whilst much of the course work is irrelevant to local needs, there exists a real need for personnel to have an awareness and greater understanding of their work, since there is now likely to be a greater interaction with international agencies since independence. We feel therefore that in order to win confidence, local personnel must be exposed to the same type of education and training as their overseas contemporaries.

City and Guilds, R.S.A. and Pitmans examining bodies set up examinations in Technical and commercial subjects; the certificate issued by these bodies have been recognised qualifications for employment both in public and private sectors. Such certificates also have international recognition for the award of scholarships and for admission to institutions (overseas) for further training.

Comment Critical of Outside Examinations

Under developed countries are suffering from

- (a) Desperate shortage of Craft Skills
- (b) Foreign Currency and Economic Problems

Skills are required for the shortest possible time - the 820 basic course is in fact wasting the first year of Apprenticeship as it stands at present.

Suggestion - retain a Basic First Year course - but related to three separate crafts (1) Mechanical (2) Electrical (3) Automotive. The final exam of say multi-choice + problem solving would be related to each specific subject. Eliminate the section which is common for all three.

Department Heads require 'Trainees' to be learning the 'trade' from 'square one' and not wasting time on a Phase A and Phase B before eventually moving to a C Phase of the trade.

Practical Testing

Phased tests must be to suit local needs. Because of

- (a) Materials are extremely difficult to obtain
- (b) The test pieces must reflect an 'on the job requirement'.

Other Comments

The Institute meets the needs as they arise and the courses very very much from year to year. Many short courses are run, e.g. Outboard Motor Operating and Servicing, Auto Electrics, Welding, Chainsaw Operating, Motor Maintenance etc. For all these courses the College issues its own Certificate. On occasions courses have been run on a refresher basis for Government Officers to obtain G.C.E. London/A.E.B. subjects.

Steps are being taken to revise Craft Syllabuses along modular lines in order to obtain qualifications to meet the exact requirements of industry and commerce.

For the secretariat courses "X" conducts internal examinations supervised and corrected by its qualified staff, for which Diplomas and proficiency certificates are issued upon successful course-completion. These are being accepted by local and overseas employers including governments in the region. (We however, encourage students to take any amount of overseas examinations if they so desire.)

Nautical Studies

With ships' officer qualifications, a system of Commonwealth validity has existed for many years and it is important that there is Commonwealth agreement on and implementation of minimum standards of training and certification.

APPENDIX III

GLOSSARY OF TERMS USED

Application

This is one of the learning categories or abilities which may be assessed. Application questions or tasks require the student to use his knowledge and understanding in order to solve a problem which is new to him. Contrast Knowledge and Comprehension(q.v.)

Attainment

A student's attainment is what he knows or can do, usually as a result of following a course of study. Attainment resting is distinguished from predictive (or aptitude) testing, which seeks to determine what the student might learn or learn to do given appropriate tuition.

Banking

This is the system in which examination questions or tests are retained in secure conditions and re-used on subsequent occasions, often in a different combination. Contrasted with a traditional system (q.v.). Banking requires greater capital outlay, but can be used to improve reliability, efficiency and flexibility. A form of banking may also be used to provide a central 'pool' of course modules or learning objectives.

Comprehension

Comprehension is one of the learning categories which may be assessed. Examination questions testing comprehension require the student to show that he has understood what he has learnt, not simply to recall it.

Craft

Craft level courses and examinations are designed for the skilled craftsman in industry, whose work is mainly 'with the tools', but who also needs an understanding of related technology. The academic level of a craft course and examination is below that of technician. Craft examinations are offered by City and Guilds of London Institute.

Criterion-referencing

A criterion-referenced assessment is one where the conditions for passing are set out in advance. The student passes if he fulfills certain criteria - for example if he can perform each of a set list of tasks to the standard required. Criterion-referencing is more suitable for practical skills than for cognitive abilities where it may be difficult to define the criteria with sufficient precision.

Distance Learning

In a distance learning system the student does not have to attend college on a regular basis. Instead he is provided with learning material on which to work at home, although he may also attend a small number of tutorials or practical sessions. Correspondence courses are examples of distance learning schemes, but modern distance learning may also make use of such audio-visual media as cassettes, radio and television.

Efficiency

An efficient assessment is one which makes the best use of the money, time and effort devoted to it. It does not make any unnecessary demand on students, lecturers or assessors, or consume money or resources unnecessarily. Efficiency requires, for example, the minimum number of assessment components consistent with validity and reliability.

An efficient administrative system is also necessary - for example question papers must be printed and despatched on time.

External candidates

An external candidate is one who has not followed a course of study at a college, but who wishes to sit for the examination or assessment in order to gain an award.

External examination system

In an external examination system the examinations and assessments are set and marked by a body outside the college which the students attend. Contrast internal examinations (q.v.)

Internal examinations

Internal examinations are those set and marked by the college which the students attend. The college may also conduct other internal assessments, for example projects or course-work assessment. The award may be made by the college or by an external validating body.

Knowledge

Some times called 'information' or 'recall of facts', this is the lowest learning category (ability) assessed. A knowledge question requires the student only to remember what he has been taught, not to understand it (comprehension) or to apply it (application).

Learning Categories

Also called 'abilities' or 'types of knowledge', learning categories are the different divisions of knowledge which may be assessed in an examination system. They are broadly divided into cognitive (or intellectual), psycho-motor (or practical) and affective (attitudes - not usually covered in attainment testing). The cognitive domain may be subdivided into knowledge, comprehension and application (q.v.).

Learning Objectives

A syllabus or scheme of work written in learning objectives states what the student should be able to do by the end of the course in terms of behaviour which can be observed. For example 'By the end of the course the student should be able to determine the square root of a 4-figure number using tables'. Objectives are a more precise way of stating what is expected than conventional syllabuses. The terms 'behavioural objectives' and 'general and specific objectives' are also used.

Modular schemes

Modular schemes are those divided into a number of modules or units (typically 3 to 5 in each year of the course), each of which may be taken and certificated separately. In such schemes the student does not need to enter for all the papers at once. Examples of modular schemes are TEC certificates and diplomas and the CGLI Telecommunications courses.

Multiple-choice questions

These are a form of objective questions (q.v.), in which there are 4 (sometimes 5) possible answers given. The student has to choose which one of them is correct.

Norm-referencing

In a norm-referenced examination the pass mark is determined by reference to the 'norm', the overall performance of all students at that level. In practice this often means passing a fixed percentage, which is a reasonable approach in a large national or international examination where the standard of students tends to remain the same from year to year. In a smaller local examination where the standard of the students may vary, norm-referencing should not be applied without the use of reliable banked questions to ensure stable standards.

Contrast criterion-referencing (q.v.)

Objective items/tests

In an objective question (often called an 'item'), the student is required to select the correct answer or answers from a given range of possibilities. Because the correct answer is determined when the question is set, no subjective judgment is involved in the marking - indeed marking can be done by clerks or by machine. Common types of objective question include multiple-choice (q.v.), multiple-response, matching and true/false.

For course objectives or behavioural objectives see under 'Learning Objectives'.

Outside examinations system

In an outside system, the examinations are organised and certificated by a qualifying body outside the country where they are taken. Usually the

examinations are set and marked by the qualifying body, sometimes merely validated.

Programme

A programme is the combination of units or modules which together make up a complete and coherent course. For example, a TEC certificate programme consists of 15 units.

Psychomotor skills

Psychomotor skills are practical abilities and are therefore to be distinguished from the cognitive abilities of knowledge, comprehension and application (q.v.). Psychomotor skills include, for example, welding, drilling and plastering.

Qualifying body

A qualifying or award-making body is an organisation which confers certificates or similar awards on successful students. Usually the awards are made on the basis of examinations conducted or validated by the body itself, but it would be possible for the award to be made on the basis of an assessment conducted by another organisation.

Reliability

The reliability of an assessment is its consistency of measurement. Reliability requires good and consistent syllabus coverage, consistent standards between students and between colleges from year to year and reliable marking. The result which a student gets should be the same as it would have been if he had taken a different (but comparable) examination paper, on a different day, at a different centre and marked by a different marker.

Shelf life

The shelf life of an examination syllabus or question bank is the length of time for which it remains valid before needing to be revised or discarded. The shelf life of both syllabuses and individual banked questions may be expected to be 5 years.

Side-effects

The side-effects of an examination or assessment are the incidental effects which it has upon the course - these may be either beneficial or harmful. For example, the use of open-book examinations has beneficial side-effects in encouraging emphasis on the application of knowledge rather than on learning by rote.

Specification

The specification for an examination paper or other assessment component lays down the topics and abilities (learning categories) which are to be assessed and the weighting to be given to each. The specification is normally expected to remain in force for a number of years, preferably for the life of the syllabus.

Technician

Technician courses and examinations have a greater theoretical content and a higher academic level than craft courses (q.v.).

Traditional (one-off) systems

A traditional examination system is one in which a fresh paper is specially prepared for each examination series, usually only once or twice a year, and then discarded. Contrasted with banking (q.v.). Frequently, traditional systems are associated with constructed-answer questions (short-answer, structured and essay) and banking with objective testing, but this need not necessarily be so.

Validation

An external award-making body which validates college courses does not itself set or mark examinations for the students. Instead it assesses the course curriculum and assessment scheme (by correspondence and usually as stated by visiting assessors or moderators). If satisfied, it awards certificates to those students reported by the college to have passed the assessment.

Validity

The validity of a scheme of assessment is the extent to which it measures appropriate topics and abilities. Validity requires that the assessment should match the syllabus, but also that the syllabus itself should be relevant to the students' present or intended occupation. A scheme developed for U.K. students will not necessarily be valid for those overseas.

APPENDIX IV

CERTIFICATES AWARDED BY THE CITY AND GUILDS OF LONDON

INSTITUTE IN COLLABORATION WITH OTHER BODIES

1. All certificates give the full name of the candidate, the title of the award (eg Mechanical Engineering), and may include information about the grades he received and the college (if any) which he attended. All this information is computer-printed onto a blank certificate, and it is the design of this blank which can vary to indicate the degree of collaboration.
2. There are five main points which can be varied:
 - (i) The emblem (coat of arms, logo)
 - (ii) The wording of the heading and any subsidiary heading
 - (iii) The security background to the computer printing (normally City and Guilds or the name of the awarding body repeated in very small lettering in colour, which incidentally helps to make the certificate more attractive visually).
 - (iv) The signatures printed at the foot of the certificate
 - (v) Any supplementary wording.
3. The standard City and Guilds certificate has
 - (i) The City and Guilds emblem
 - (ii) A main heading 'CITY AND GUILDS OF LONDON INSTITUTE' with subsidiary headings 'Incorporated by Royal Charter' 'Founded in 1878'.
 - (iii) A security background of 'City and Guilds' repeated.
 - (iv) Printed signatures of the Chairman of Council and the Director-General.
 - (v) No supplementary wording.
4. City and Guilds awards a number of certificates 'in conjunction with' another body or bodies. Four variants were seen during the study:
 - (i) In two of them the City and Guilds emblem was retained on its own. In one it was removed. In the fourth it was balanced by the emblem of the other body.
 - (ii) In all cases 'CITY AND GUILDS OF LONDON INSTITUTE' remained the main heading and 'In conjunction with (the name of the other body)' replaced the wording noted in paragraph 3(ii) above as a subsidiary heading.
 - (iii) In all cases the security background remained 'City and Guilds'.
 - (iv) In one case the two City and Guilds signatures only were included; in another those of the President and Chief Executive of the other body were added; in a third case those of the Presidents of two other bodies were added; and in one case the only two signatures were the Director-General of City and Guilds and the Secretary of the other body.

(v) In no cases was supplementary wording used.

5. The next gradation of dual certification is where the other body takes precedence over City and Guilds. Two cases were noted during the study (called here Case A and Case B)

(i) In Case A there were no emblems (possibly because the other body did not have one); in Case B the emblem of the other body was added at the top.

(ii) In both cases the name of the other body became the main heading (in large bold letters) and 'in collaboration with City and Guilds of London Institute' became a subsidiary heading.

(iii) In Case A the security background remained 'City and Guilds'; in Case B the name of the other body was used.

(iv) In both cases there was signature from the other body which took precedence (i.e. was on the left) over that of the Director-General of City and Guilds.

(v) In neither case was supplementary wording used.

6. In the next gradation an example was seen of a certificate awarded as an interim arrangement between the Business Education Council and City and Guilds:

(i) There was no emblem.

(ii) The main heading was 'Business Education Council'; there was no subsidiary heading.

(iii) The security background was 'City and Guilds'.

(iv) There were signatures of the Chairman of City and Guilds and the Business Education Council.

(v) Supplementary wording was printed at the bottom: 'This examination is administered on behalf of the Business Education Council by the City and Guilds of London Institute'.

7. The final stage was reached in a Certificate printed by City and Guilds on behalf of one of the regional examining councils. The emblem, the main heading, the security background and the signatures are all of the regional council. There is no subsidiary heading or supplementary wording, and indeed nothing to show any involvement of City and Guilds at all.

8. While the various certificates described above reflect a series of different relationships, too much 'political' subtlety is not necessarily implied in all the details, which may be influenced by:

(a) aesthetics of design and layout (particularly the size of the lettering);

(b) practical considerations (if an organisation has an annually elected President it will be more sensible to use only the signature of a permanent Chief Executive);

(c) cost (a special security background in particular can add substantially to the cost).

APPENDIX V

THE NATIONAL EQUIVALENCE INFORMATION CENTRE (NEIC) FOR THE UNITED KINGDOM

The British Council and the NEIC

The Department of Education and Science asked the British Council to establish a national centre because of the Council's existing involvement in such work and the knowledge it had, through its offices overseas, of non-UK qualifications. It does not operate as a body which makes rulings on the recognition which is to be given to overseas qualifications but gives advice to overseas and UK institutions, and individuals on the recognition generally accorded. In this sense it acts as a clearing-house for the storing and dissemination of information. It will offer, if required, advice to institutions of higher education and the professional associations on the recognition which, in its opinion, should be accorded to a particular overseas qualification. Institutions are free to accept or reject this advice as they wish. In practice, the smaller institutions which are lacking in information and precedent are generally glad to accept the advice. The larger institutions approach the NEIC for advice and information on more obscure qualifications. The NEIC does not produce, as the German centre does, a document listing in detail the recognition which is recommended for overseas qualifications. A comprehensive description of the United Kingdom NEIC is given in the Council of Europe document CCC/ESR (77) 13.

Nature of enquiries handled by the NEIC

The majority of enquiries received by the NEIC concern qualifications related to access to either further or higher education, although an increasing number of enquiries related to job application and employment prospects are also handled. Enquiries relating to teacher qualifications are referred to the Teachers' Qualifications Branch of the Department of Education and Science.

APPENDIX VI

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