



Pages 1 to 13

# **NEW ESCC SPECIFICATIONS AND SPECIFICATION CHANGE REQUESTS**

## **ESCC Basic Specification No. 20800**

|         |               |
|---------|---------------|
| Issue 2 | February 2004 |
|---------|---------------|



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**DOCUMENTATION CHANGE NOTICE**

(Refer to <https://escies.org> for ESCC DCR content)

| DCR No. | CHANGE DESCRIPTION  |
|---------|---|
| 91      | Specification upissued to incorporate Policy changes per DCR. |

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## 1. **SCOPE**

This specification defines the requirements to be met in originating a new ESCC Specification or in originating a proposed change to a specification. The purpose is to:

- Ensure that proposed specifications or changes are beneficial to the System, adequately drafted and justified and are submitted in a state appropriate for efficient review by the approval authorities and publication by the Executive Secretariat.
- Inform originators on how to proceed and subsequently how to obtain information on the progress and results of their proposed specifications and specification change requests.

## 2. **RELATED DOCUMENTS**

### 2.1 **APPLICABLE DOCUMENTS**

The following ESCC Specifications form part of, and shall be read in conjunction with, this specification. The relevant issues shall be those in effect on the date of preparation of a new specification or DCR.

|            |  |
|------------|--|
| ESCC 20000 | Using the ESCC Specification System                  |
| ESCC 21300 | Terms, Definitions, Abbreviations, Symbols and Units |
| ESCC 23600 | Complaints and Appeals                               |

### 2.2 **REFERENCE DOCUMENTS**

|             |  |
|-------------|--|
| ESCC REP001 | List of Published ESCC Documents and Specifications    |
| ESCC REP002 | List of Discontinued ESCC Documents and Specifications |

## 3. **DEFINITIONS AND ABBREVIATIONS**

### 3.1 **DEFINITIONS**

|        |   |
|--------|---|
| Change | One or more required changes to a specification |
| User   | A user of the ESCC Specification System         |

### 3.2 **ABBREVIATIONS**

The following abbreviations are used in this specification:

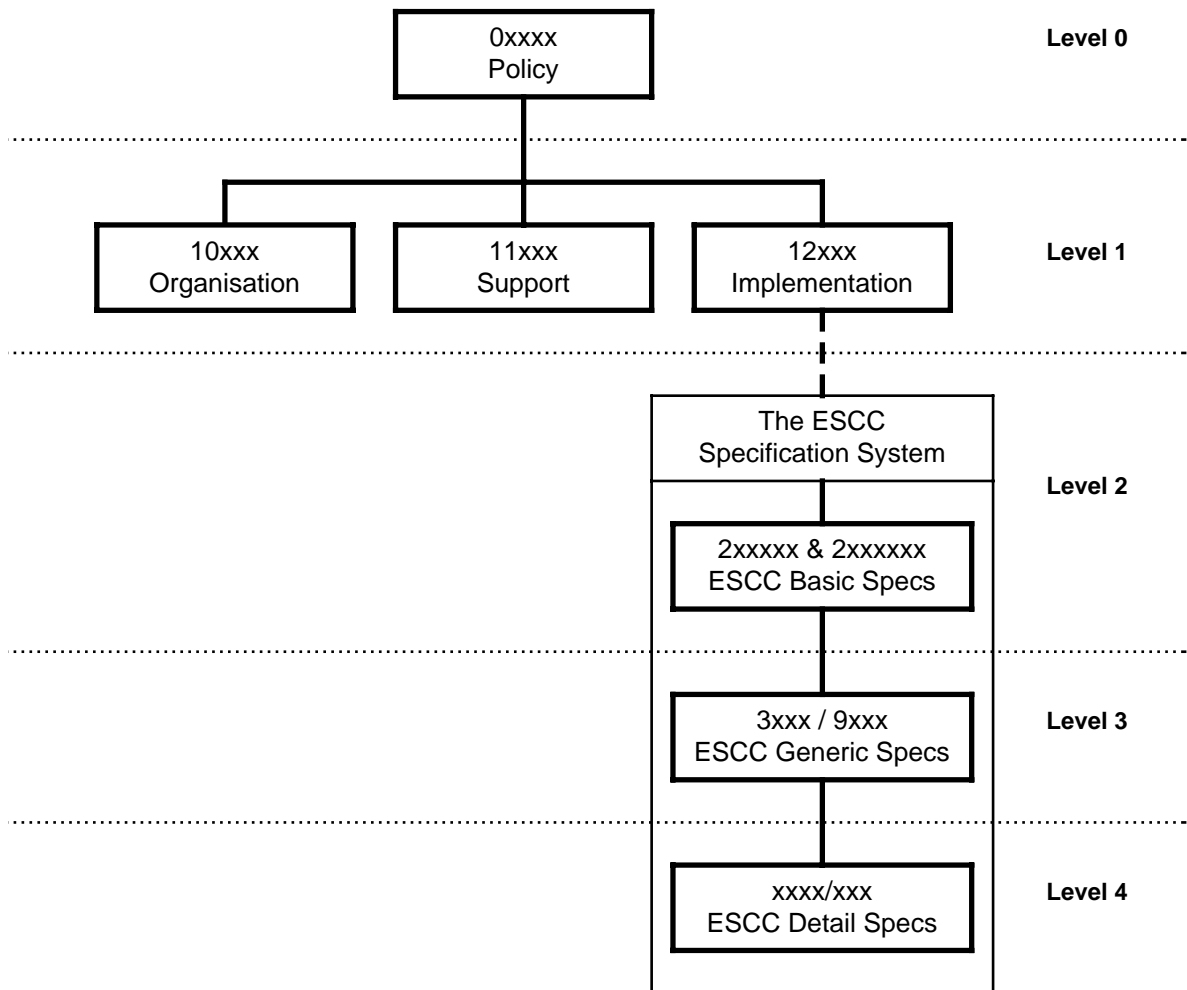
|        |   |
|--------|---|
| CTB    | Components Technology Board                           |
| DCR    | Document Change Request                               |
| ESCC   | European Space Components Coordination                |
| ESCIES | European Space Components Information Exchange System |

PSWG                      Policy and Standards Working Group  
 Secretariat                The ESCC Executive Secretariat  
 SGML                        Standard Generalised Mark-up Language

**4. INTRODUCTION**

The ESCC Documentation System comprises Documents and Specifications organised in five levels, 0 to 4. Documents in levels 0 and 1 outline the ESCC System and its operation. Specifications in levels 2, 3 and 4 provide the technical information necessary to qualify and procure components. They also provide the administrative information necessary for component manufacturers and component users to use and interact with the System. Users of the Specification System do not need to refer to level 0 and 1 Documents. However, they are made publicly available for information purposes. This specification is, therefore, aimed at Users and provides the information necessary to prepare new specifications or propose changes to specifications.

The ESCC documentation architecture is illustrated as follows:



**5. ESCC DOCUMENTS (LEVELS 0 AND 1)**

Users will generally not consult documents at Level 0 and 1 and accordingly will not propose new documents or changes to the documents. However, if a User, who is not otherwise involved in the ESCC harmonisation activity, perceives a need to add to, or modify, this body of documentation they are at liberty to make a proposal. In the first instance they should contact the Secretariat who will advise on the appropriate submission approach.

**6. NEW BASIC SPECIFICATIONS (LEVEL 2)**

The initiation of Basic Specifications is under the remit of the PSWG. Users who identify the need for a new specification, e.g. a new test method, should in the first instance contact the Secretariat with an outline proposal and justification. The Secretariat will advise on how to proceed.

**7. NEW GENERIC SPECIFICATIONS (LEVEL 3)**

The initiation of Generic Specifications is under the remit of the PSWG. The introduction of a new Generic represents a policy decision on the part of the System to embrace a new family of components. The need to do so may well arise from the work of the CTB in identifying strategic components for application in future Space projects. The resultant work may be extensive, involving not only the new Generic but possibly additional Basic Specifications and the range of underlying Detail Specifications.

The PSWG will first establish a broad consensus that the new family is needed before proceeding to organise the specification drafting. Users are accordingly advised that proposals for a new Generic should be well prepared and answer to a present and future need for the component user community as a whole.

Users should, in the first instance, contact the Secretariat who will advise on how to proceed. For this first contact the User should have prepared an outline proposal which identifies the Generic proposed and the range of supporting Basic and Detail Specifications foreseen. Sources of supply, application and usage should be addressed and the User should indicate the resources they are prepared to contribute to the specification preparation activity.

**8. NEW DETAIL SPECIFICATIONS (LEVEL 4)**

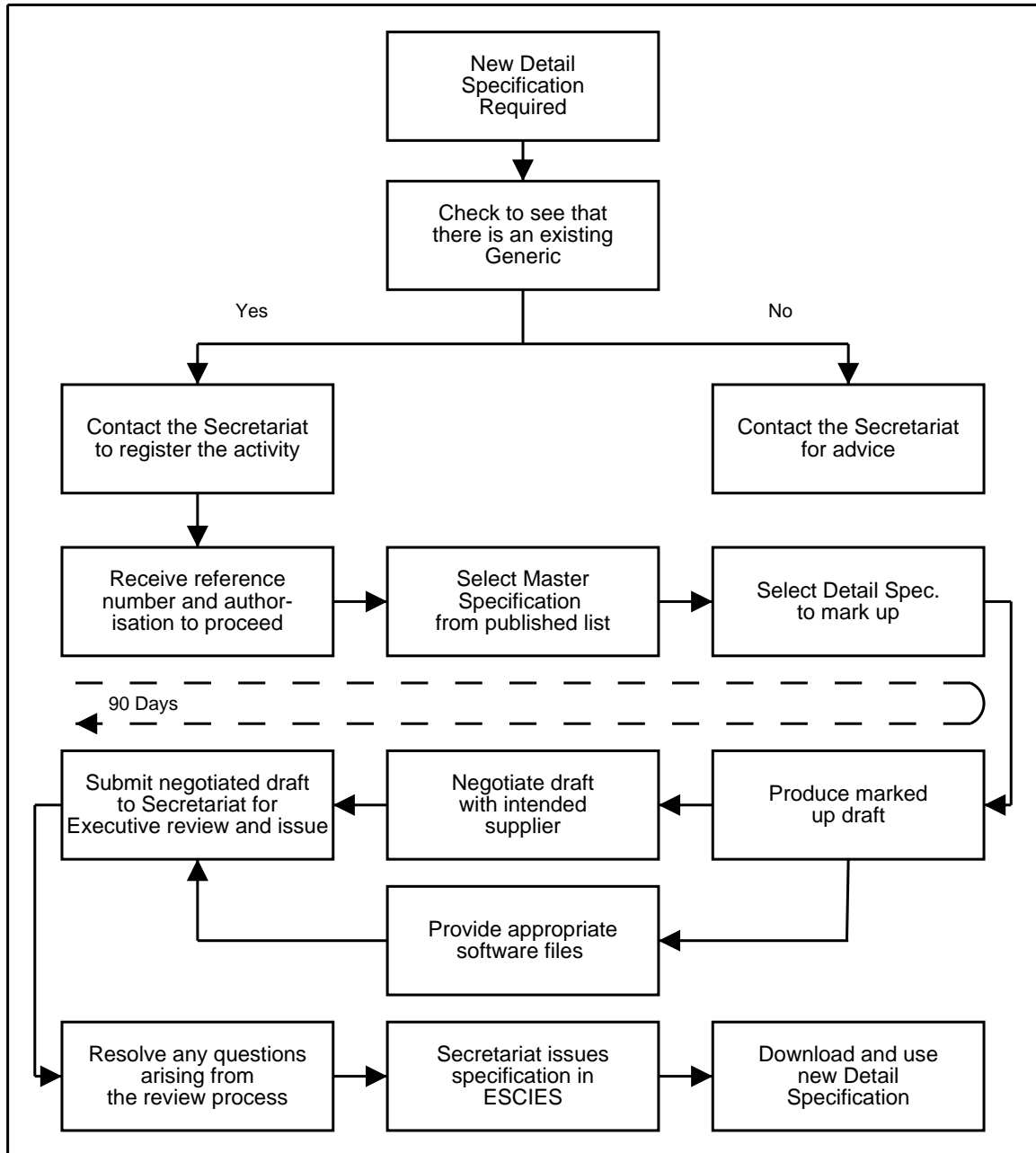
**8.1 GENERAL**

The Generic and first Detail Specification, together with the referenced Basic Specifications, for a family of components is considered to set the policy for that family which is then adhered to in any subsequent Detail Specifications issued under that Generic. Policy is taken to mean the selection of appropriate screening methods, qualification tests, lot acceptance/validation or periodic tests and component parameter definitions within the Generic and Detail Specifications.

Once a family of components is included in the System, Users are expected to identify the need for additional components in the family and to prepare the appropriate Detail Specifications.

The operation of the System accordingly supports this User (component users and component manufacturers) role. Information to support the process is provided in the ESCC section of the ESCIES web site and Users may additionally contact the Secretariat for assistance.

8.2 FLOW CHART



8.3 AVAILABILITY OF GENERIC SPECIFICATION

Before a Detail Specification can be prepared an appropriate Generic Specification and at least one related Detail Specification must already exist within the System. Users are advised to first consult REP001, the list of published ESCC document and specifications, in order to identify the family the proposed component will fall under and to thus verify the existence of a suitable Generic. REP002, the list of discontinued ESCC documents and specifications, should also be checked. REP001 and REP002 are published periodically, their content duplicated in the ESCC section of the ESCIES web site and list all Basic, Generic and Detail Specifications.



## 8.4 PREPARATION GUIDELINES

### 8.4.1 Code Application

Once a User intends to prepare a new ESCC Detail Specification the first step is to register the activity with the Secretariat. In order to prevent the specification of unsuitable components, wasted or duplication of effort etc. registration is the basis for a controlled preparation process. Registration provides a reference number and a right to prepare the specification which are valid for ninety days. Extensions may be subsequently requested.

Detail Specification preparation is under the remit of the Executive and therefore the code application should be directed to the Secretariat. The Secretariat will interface with the User and arrange for assistance from the Executive, as required, during the drafting process.

When a request for code application is received by the Secretariat the following steps are carried out and the User is advised of the outcome:

- A check is made to determine the likely final specification number.
- A check is made to see if the component is already the subject of specification writing activities elsewhere. When a draft is already under preparation the User will be advised and put in contact with the person or organisation already preparing the draft.
- If there is no existing activity and if the component is considered suitable for Space application, with a potential for future repeat usage, a reference number will be allocated by the Secretariat and the User informed.
- If an inactive draft exists the Secretariat will provide a copy to assist the User.
- If a broader range of component variants than that proposed will need to be included in the new Detail Specification the Secretariat will inform the User.
- If the component is already covered by an issued Detail Specification, if it can be added to an existing specification or if it is considered unsuitable for the ESCC System a reference number will not be provided and the User informed appropriately.

The User is responsible for obtaining the reference number from the Secretariat and for preparing the draft Detail Specification. If ninety days is insufficient time the User is responsible for requesting an extension. The activity will otherwise lapse and another User may acquire the right to prepare a specification for that component.

### 8.4.2 Use and Submission of Code Application Form

A Code Application shall be submitted using the form specified in the ESCC section of the ESCIES web site. All relevant Boxes shall be completed. The preferred method of submission is electronic as indicated on the web site

### 8.4.3 Draft Preparation

The User prepares a draft Detail Specification in the ESCC format. There are no blank formats available. The Secretariat identifies Master Specifications in the REP001 list. Master Specifications are those Detail Specifications which most accurately reflect the required style, format and rules of the ESCC System. The User is recommended to produce a marked up specification in line with the appropriate Master Specification. In addition if the new function is similar to one for which there is an existing specification then that too should be selected. The draft specification should then be prepared by marking up the existing similar specification with the detailed functional and technical differences, together with any differences extracted from the Master Specification. The marked up draft which results should thus be compliant to the latest requirements of the System as well as having required a minimum of rewriting. If a suitable Master Specification does not exist the User should contact the Secretariat for advice.

#### 8.4.4 Draft Negotiation, Review and Issue

The completed draft Detail Specification must be negotiated by the User with the intended supplier or suppliers. This means that the specification is agreed with the supplier and any supplier specific changes are included in an appendix to the specification. It must be noted that such changes are restricted to alternative and equivalent test methods, e.g. the substitution of an in house test method for the normal ESCC specified test method (See the relevant paragraph of any Generic Specification).

The negotiated draft is provided by the User to the Secretariat with a request for its review and issue. The Executive will review the draft to ensure compliance to the requirements of the ESCC System. This includes a detailed technical writing review which will correct minor errors or omissions and flag any questions concerning technical content or policy. Any problems with the specification will be referred back to the User for resolution. Subsequently the successfully reviewed draft specification will be approved for issue by the Executive.

#### 8.4.5 Publication

The Secretariat will prepare the new Detail Specification for publication by editing the necessary changes into a copy of the software file of the original specification selected for marking up. Once the new specification is printed and checked and it is approved for issue, the specification number is finalised and applied. Finally an output file is prepared for electronic publication in the ESCC section of the ESCIES web site. The release of the new specification in ESCIES is recorded on the ESCC "New and Updated Specifications" section.

The User will also be directly informed by the Secretariat of the publication.

(Note that the preference to receive a marked up specification rather than a completed draft in hard copy or an incompatible file format, is to reduce the amount of editorial work and checking.)

#### 8.4.6 Use of Software

The software used for ESCC specification publication is an SGML editing application together with a content management system based on commercially available software. More information is provided in the ESCC section of the ESCIES web site. Users who wish to prepare a number of Detail Specifications are encouraged to provide compatible files for parts or all of the draft specifications. The use of the editing system itself is also possible. Users are encouraged to discuss these aspects with the Secretariat.

### 9. PREPARATION OF A DOCUMENT CHANGE REQUEST

#### 9.1 GENERAL

All ESCC published specifications are under configuration control. Any change is made subject to the submission of a change request which is duly approved before the specification is changed and upissued.

#### 9.2 PREPARATION OF A DCR

##### 9.2.1 Originator

A DCR may be originated by any User.

##### 9.2.2 Specification Changes

A DCR shall be used to initiate any change considered necessary to an ESCC specification. The proposed change may cover any or all of the following areas:

- Change of policy.
- Change to correct or extend technical content.
- Addition of Variants etc. to Detail Specifications.
- Correction of editorial errors and omissions.

### 9.2.3 Change Restrictions

Changes to specifications shall be restricted to those required for correction of any errors or omissions and those which establish significant benefits with regard to:

- The implementation of a specification.
- Cost implications.
- Quality.
- Procurement aspects.

Specifications shall not be changed to:

- Avoid Non-conformance Review Board processing.
- Enable qualification of discrepant parts.
- Incorporate specific project requirements which may not be acceptable for subsequent projects.
- Accommodate the specific requirements of a single Manufacturer, except, where a Manufacturer wishes to use an alternative test method or equipment which is equivalent to that called up. In this case a Manufacturer specific appendix may be proposed for addition to individual Detail Specifications.

### 9.2.4 Considerations

When preparing a DCR, the originator shall take the following points into consideration:-

- Whether the proposed change affects other parts of the specification being changed. In this case, any necessary additional changes shall be included in the DCR.
- Whether the proposed change directly affects another specification. In this case, the other specification shall be identified together with the corresponding change.
- Whether the proposed change is part of a series of changes to a number of specifications but does not directly affect another specification. In this case, a separate DCR shall be raised for each additional specification. No reference to the additional specification shall be included in the proposed DCR except, where applicable, as part of the justification for the change.

### 9.2.5 Use and Submission of DCR Form

A DCR shall be submitted using the form specified in the ESCC section of the ESCIES web site. All relevant Boxes shall be completed and the information supplied must be to the current Issue of each affected specification.

The Boxes on the DCR form which are to be completed by the originator provide the following information:-

- Identification of the originator.
- Identification of the specification and any other affected specifications to be changed.
- A description of the proposed change.
- A justification of the change.
- The proposed new content.

Where the information required for the proposed change is too extensive for the DCR form, continuation sheets or attachments shall be used to complete the information.

As an alternative or supplement to using continuation sheets, pages from the existing specification marked up with the proposed change may be submitted with the DCR form.

A DCR shall be submitted by the originator to the Secretariat. The preferred method of submission is electronic as indicated in the ESCC section of the ESCIES web site.

### 9.3 DCR PROCESSING

#### 9.3.1 Receipt, Identification and Acknowledgement

Upon receipt of a DCR, the Secretariat will assign a sequential reference number, commencing with 1. The assigned number will be used for identification of a DCR through all further processing.

If a DCR is incomplete in detail when received, the Secretariat will either:-

- Contact the originator and hold the DCR pending receipt of the outstanding information, or
- Return the DCR to the originator for completion, indicating the shortcomings.

Otherwise, the Secretariat will acknowledge receipt of the DCR and provide the originator with the assigned DCR number.

#### 9.3.2 Classification

Upon receipt the DCR will be classified for approval purposes as Policy, Technical or Editorial.

#### 9.3.3 Review, Approval and Implementation

In accordance with ESCC procedures a numbered DCR will be submitted to the appropriate review and approval cycle. For other than Editorial DCRs the approval of the pertinent ESCC Body is required. A DCR is given a disposition of either:

- Rejected,
- Approved as submitted, or
- Approved with changes.

Copies of DCRs with their disposition are provided by the Secretariat to the Executive and all approved DCRs are published in the ESCC section of the ESCIES web site.

Approved DCRs are implemented by the Secretariat. During implementation, the DCR number, of an approved DCR, is entered in the Document Change Notice of the upissued specification.

#### 9.3.4 Distribution

Upissued specifications are made available via the ESCC section of the ESCIES web site for immediate access by Users.

#### 9.3.5 Progress and Outcome

The originator of a DCR may monitor its progress and establish the outcome, approval or rejection, in whole or in part, by means of contact with the Secretariat. However, the originator, in the first instance, should monitor the list of approved DCRs in the ESCC section of the ESCIES web site.

The Secretariat will inform an originator when a DCR is rejected providing the rationale given by the approving authority for the rejection.

The proposed changes in a rejected DCR may be resubmitted as a new DCR, provided that they are supported by new or additional information. A User may also appeal a decision to reject a DCR in accordance with ESCC Basic Specification No. 23600.

**10. CONTACT INFORMATION**

This may be found in the ESCC section of the ESCIES web site:

- <https://escies.org>

The Secretariat mailing address is:

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