TIS : OVERVIEW

Abstract

This document is part of the Technical Interface Specification (TIS) for Direct Trader Input (DTI) to CHIEF and Inventory system linking. It provides a management overview and introduction to the other more detailed parts. The TIS defines the application-related interfaces between CHIEF and the Trade systems and complements the CHIEF User Guides and Interchange Agreements with each CSP.

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Table of Contents

1.   OVERVIEW

1.1.   Introduction

This document is part of the Technical Interface Specification (TIS) for Direct Trader Input (DTI) to the CHIEF System and Inventory system linking. To simplify the production, review and maintenance process the TIS is published as a series of linked design (DES) documents. This document describes the overall purpose and scope of the TIS and summarises the other more detailed documents. It is designed to be complete in itself and to provide a management summary.

The TIS is complemented by User Guides (see Reference [9]) for the Exports and Imports systems describing the use of the system from the users point of view.

The CHIEF network interfaces are RFC1006 over TCP/IP. The detailed specification of the interface with a particular Community Systems Provider (CSP) is specified in an Interchange Agreement (Reference [15]), which is negotiated by Customs for agreement between the CHIEF project and the CSP. The Interchange Agreement includes the definitions of the services provided by CHIEF for the CSP and by the CSP for CHIEF. These definitions include addressing, concurrency and inactivity time-out parameters.

It should be noted that "CSP" is often used to refer to a system that provides the DTI facilities and, as such, includes the interface to the email service provided by Customs (EDCS). The TIS does not detail the trade interface to a CSP although CSPs are likely to support the EDIFACT messages defined in the TIS and the screens described in the User Guides.

1.2.   Purpose and Scope

The TIS defines the architecture and data structures that support the trade interfaces. In doing so its aim is to give trade system and package suppliers adequate definitive information on protocol, syntax and structure so that changes can be planned sufficiently in advance of implementation.

An interactive EDI message based interface is provided so that the trade system and package suppliers can access the data without being concerned with the physical layout of screens and reports. This message interface is used for declarations, for inter system messages between CHIEF and the Inventory systems, and for unsolicited outputs (e.g. reports) from CHIEF to the trade.

A screen-based interface is also provided for the trade. It is constrained by the ICL ICAB-02 screen syntax but offers a generalised and flexible interface with transactions designed with a common look and feel. CSPs are not expected to restructure the screens but may convert the syntax. Indeed the screens are designed to only use the 24 lines supported by IBM 3270 terminals.

Trade software is responsible for formatting reports for delivery to Customs – the required layouts are specified in the TIS (see Reference [7]).

The report and screen interface is referred to as the HCI (Human Computer Interface). The features and style of the HCI are described in the TIS (see Reference [3]). For example, the HCI specifies the way in which data is presented and transactions are structured and sequenced. The HCI specifies the common functions (e.g. paging, help) in terms of the ICAB-02 syntax so they can be mapped onto function keys.

It is the EDI message interface in Reference [2] that is optimised for trade system and package use and it is therefore this that the TIS defines in detail. Thus the application specific TIS documents (see References [4] - [7]) contain details of message formats but not screen formats. The data element definitions are provided in Reference [8].

The User Guides (see References [9] - [14]) specify the interactive user interface to application facilities, e.g. the use of transactions, the meanings of error codes. These are not published in the TIS since they do not contain information needed to implement trade system and packages – only required for training end-users.

1.3.   Document Structure

The CHIEF systems architecture as it is perceived by the Trade is outlined in Section 2. This shows the relationship between functions described in the other TIS documents and the bounding relationships with the network, the application and the user. As depicted in Figure 2.3, Sections 3 to 10 expand on this by describing the scope and providing a synopsis of each of the other documents.

END OF SECTION 1

2.   ARCHITECTURE

2.1.   Systems and Services

CHIEF as perceived by the Trade systems and described in the TIS is a subset of the overall CHIEF system. CHIEF is a central server that is also accessed by Customs users and interwork with other Customs and OGD systems. This functionality is provided by defining a number of systems. The most important, and the only one considered here, is the CHIEF Import and Export System (CHIEF/IES). Through its architecture, the CHIEF/IES is represented to other systems as a number of services, the characteristics of which can be summarised as follows:

a.   The facilities of CHIEF available through one service can differ from those available through another: both being subsets of the full facilities of CHIEF.

b.   Separate services are provided for each type of transfer, for example, interactive screens (ICAB-02), interactive messages (EDIFACT), print messages.

c.   CHIEF is able to constrain external systems to access its facilities through particular services only.

d.   In addition, as an aid to system management, these services can be further divided on the basis of availability of use – such as making a service specific to a group of users or time of day.

The process that uses the service is termed the client and the process that provides the facilities of the service is termed a server. The services are not only provided by CHIEF, in some cases CHIEF is the client to a service provided by a CSP – for example CSPs provide a trader report delivery service for CHIEF, the trade does not use the one provided by CHIEF for Customs.

Given this approach, each CSP system normally expects to view CHIEF as a number of services, each supporting one of the transfer types identified above and typically (though not essentially) dedicated to its own use. The relationship is illustrated in Figure 2.1 which shows the mapping between the services CHIEF offers and their user populations.

Trade Users (DTI)					
Trade Systems / Packages					
CSP Systems				Custom Users (CIE)	
Inventory Linking Messages	Reports, Advices	Declaration Input	Interactive Transactions	Interactive Transactions	Hardcopy Prints
EDIFACT messages				ICAB-02 screens	ICAW-02
EDI SERVICES				HCI SERVICES	PRINT SERVICE
CHIEF/IES					

Figure 2.1 CHIEF/IES Services

The TIS defines the CSP interface to CHIEF/IES. It is the responsibility of the CSPs to define the interface to other trade systems and packages, using any other protocols and syntaxes.

2.2.   Protocol Stacks

To interwork with these services it is necessary to construct compatible protocol stacks in CHIEF and the CSPs. Such stacks, built of suitably profiled layers, define how data is enveloped, encoded and addressed and the rules under which it is exchanged.

The CHIEF/CSP interface is ISO Transport Services RFC 1006 over TCP /IP. TCP port 102 must be used. See the relevant Interchange Agreement between CHIEF and each end system and http://tools.ietf.org/html/rfc1006.

The ISO/CCITT higher level layers (OSI session, presentation, and application) continue unchanged without knowledge of the fact that they are running on a TCP/IP network.

Above session, the stack splits in two depending on the type of service offered. On the one hand the HCI supports human users and uses ICAB-02 encoding; on the other the message interface supports system and package users and uses EDIFACT encoding. ICAB 02 and EDIFACT are essentially application syntaxes – though both contain protocol control features. Figure 2.2 summarises the relationship between the underlying stacks and the services they carry.
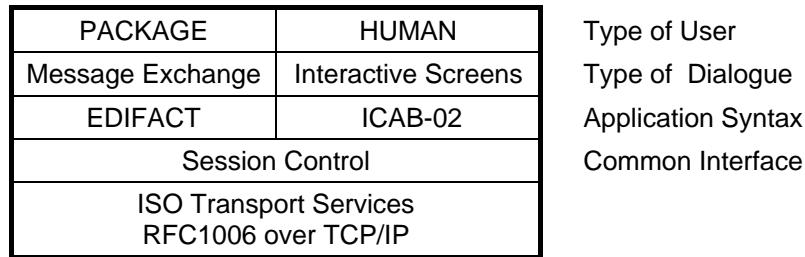
PACKAGE	HUMAN	Type of User
Message Exchange	Interactive Screens	Type of Dialogue
EDIFACT	ICAB-02	Application Syntax
Session Control		Common Interface
ISO Transport Services RFC1006 over TCP/IP		

Figure 2.2 CHIEF/CSP Protocol Stack

Figure 2.3 shows how the TIS documents are scoped to specify the interface to CHIEF within the upper layers of the protocol stack. The figure also identifies the sections of this document that give an overview of the contents of the associated part of the TIS.

DES 205 IMPORTS Section 7	DES 208 EXPORTS Section 8	DES 242 MOVEMENT CONTROL Section 9	DES 222 REQUESTS & REPORTS Section 10	USM 211 IMPORTS Reference [10]	USM 305 EXPORTS Reference [11]	USM 239 COMMON ENTRY Reference [12]	USM 260 ACCOUNTS Reference [13]
DES 209 DATA ELEMENT DEFINITIONS Section 6							
DES 150 ELECTRONIC DATA INTERCHANGE (EDI) Section 5				DES 214 HUMAN COMPUTER INTERFACE (HCI) Section 4			
DES 111 SYSTEM CONNECTION AND SESSION CONTROL Section 3							

Figure 2.3 Relationship of TIS Parts to the Protocol Stack

END OF SECTION 2

3.   SYSTEM CONNECTION AND SESSION CONTROL

3.1.   Introduction

As described in Section 2.2, transactions consisting of EDI messages and HCI interactions are carried over a common OSI conformant session protocol which must be supported in CHIEF and the CSPs. The session service is responsible for setting up, monitoring and terminating sessions between the clients and servers of the CSP systems and CHIEF/IES.

CHIEF uses a subset of the commands supported by the OSI session layer standard. The TIS defines the use of the OSI session service to support HCI and EDI dialogues as defined in Reference [1].

The session layer is a user of the underlying transport service and there is a one to one relationship between OSI session connections and transport connections. Transport connections are established between Transport Service Access Points (TSAPs). A TSAP can be defined to support many concurrent connections – a CHIEF service is identified by a TSAP. Transaction connections are multiplexed by the transport layer over underlying network connections.

The number of concurrent transport connections (and hence OSI sessions) or each service is defined in the Interchange Agreement (see Reference [15]) for each CSP connected to CHIEF.

Transport connections can be reused by OSI sessions although it is not mandatory for an implementation of the OSI session standard to support such reuse. The cost of establishing a transport connection is not high compared to other session overheads (e.g. establishing security parameters, maintaining context).

3.2.   Client Sessions

The interface between the CSP systems and CHIEF/IES is defined to be symmetrical in terms of the clients and servers defined by the architecture (see Section 2.1) – the CSP is usually the client and CHIEF the server. It is the responsibility of the client to establish the session – referred to as a client session.

A client session is supported by an OSI session. The client's security parameters (see Reference [1]) are supplied with the OSI start session request. The OSI start session response identifies that the client session has been established or gives the reason for failure.

Once a client session is established on an OSI session, messages can be transferred between the client and the server according to the application rules which pertain to the service provided.

3.3.   HCI Client Sessions

The client of an HCI session is a simple provider of a dependent terminal screen image. This means that the server provided by CHIEF for HCI client sessions has to maintain considerable context to support the facilities of the CHIEF HCI (see Section 4). This context includes the data of the current transaction and any outer level transactions from which the transaction may have been selected.

In order to achieve the response times and throughput requirements of CHIEF, this context is held in mainstore. CHIEF does not wish to hold such context for a trader while he is doing something else or when it may be sometime before he accesses CHIEF again – the overheads of creating a client session are less than the cost of swapping inactive client session context to secondary storage. In particular, a CSP should not allow the user to return to interactions with another system (e.g. an Inventory system) while a CHIEF transaction is incomplete.

Thus DTI users are expected both to want to and to be encouraged to access CHIEF at the HCI in bursts of activity, completing transactions and not expecting context to remain on returning hours later. The CSPs are responsible for establishing HCI client sessions with CHIEF, having first authenticated the user and his terminal location and converted this information into the session access parameters required by CHIEF. Thus the trade user session is with the CSP which can arrange for the user session to transparently span several CHIEF HCI client sessions as required.

The Interchange Agreement (see Reference [14]) specifies the required concurrency of HCI client sessions and an inactivity time-out period (say 10 minutes). The CSP is expected to end the client session before the time-out expires. CHIEF reserves the right to abort the session and any outstanding transactions at this time.

3.4.   EDI Client Sessions

EDI client sessions are required for trader input of declarations to CHIEF, for outputting data for delivery to a trader by a CSP and for Inventory system linking. The discussion in this section is mainly concerned with the trader sessions.

The client of an EDI session is an intelligent provider of messages containing all the transaction data needed by the server. How the data is obtained is the responsibility of the client system (e.g. combination of local user input, database of information and message from elsewhere).

The CHIEF EDI server is a simple sponsor which converts the EDIFACT message into a CHIEF Document (see Section 4.2) for processing as a transaction by an application server. Once the response has been returned to the client, there is no transaction context for CHIEF to retain.

Although the CHIEF EDI server does not have to remember transaction context, the CHIEF interface is defined to be interactive with the client inputting a sequence of transactions within an EDI client session. This approach is adopted for simplicity – maintaining consistency with the interactive HCI. This approach gives maximum flexibility to the type of client that can be supported, for example:

-       declarations can be input by a user and forwarded individually giving the user a response before moving onto the next declaration;

-       declarations can be input by a user and added to a batch for subsequent input to CHIEF, possibly stopping on error for a declaration to be corrected before proceeding with the rest of the batch;

-       declarations can be input by a number of users working for the same organisation and added to a queue for subsequent input to CHIEF.

The establishment of an EDI client session removes the overhead of security parameters from each message and the cost of establishing the security context for processing the transaction.

To minimise the concurrency of EDI client sessions, EDI clients are expected to batch work for CHIEF. EDI client sessions will be timed out in a similar fashion to HCI client sessions. While the time-out period could be shorter than for HCI client sessions, a similar period is likely to be used to allow the client to support a delay in the input of a batch of declarations while a rejected entry is corrected.

In the same way as for HCI client sessions, the CSP is responsible for user authentication and establishing EDI client sessions with CHIEF as required. The CSPs are responsible for defining the interface with the trade systems. This interface could, for example:

a.   Leave a trade user session open with the CSP system for an extended period, starting an EDI client session as required and ending the session on the basis of a time-out period or demand within a given concurrency of client sessions.

b.   Require explicit start/end of batch requests from the trade system and pass these directly through as start and end of client session requests.

As for HCI client sessions, the Interchange Agreement (see Reference [14]) specifies the required concurrency of EDI client sessions and an inactivity time-out period (say 10 minutes). The CSP is expected to end the client session before the time-out expires. CHIEF reserves the right to abort the session at this time.

The interactive EDI interface currently defined by the TIS is only required to support simple transactions consisting of a single phase.

3.5.   Client Session Recovery

It is expected that an OSI session may be aborted due to the loss of the client, the server or the underlying connection. While the probability of losing the transport connection could be reduced by using a different class of transport service (class 2 is used), it is thought that it would still be necessary to support client session recovery (and therefore class 2 transport is adequate).

For some services, client session context is retained by the server when an OSI session aborts. Retention is subject to time-out and concurrency restrictions as defined for the service and specified in the Interchange Agreement (see Reference [15]).

The client session can be recovered on a new OSI session in the same service by identifying the existing client session along with the client's security parameters (see Reference [1]) in the OSI start session request. If the client session cannot be recovered, a new client session is established.

<div align="center">END OF SECTION 3</div>

4.   THE HUMAN COMPUTER INTERFACE

4.1.   Introduction

As described in Section 2 the interface between the CSP systems and CHIEF/IES takes two complementary forms – one designed for human use and the other for system or package use. Both interfaces use the common session facilities described in Section 3 and operate over the same type of wide area network connections. This section describes the Human Computer Interface (HCI) for interactive access to CHIEF/IES at a screen and for hardcopy output. A guide to the features of the HCI is given in Reference [3].

Note the following:

a.   Essentially the same HCI is also used for the Customs interface – for example to do CIE processing. The HCI definition covers the interactive use of screens and keyboards and the formatting of hardcopy output.

b.   The interactive HCI is provided by CHIEF using the ICL ICAB 02 dependent terminal syntax (ie. CHIEF thinks it is driving the terminal directly). The CSPs are assumed to be 'transparent' and to relay the CHIEF commands and responses so that HCI trade users connected to a CSP system interact with CHIEF directly within a client session. However, a trade user does not sign-on directly to CHIEF – rather he is authenticated by the CSP which establishes a client session with CHIEF on his behalf.

c.   The Trade interface does not support hardcopy printers directly – rather the data for delivery to the trader is sent from CHIEF as an EDI message. However, the hardcopy formats to be generated by the trade system are defined in the TIS and these conform to the style specified for the HCI.

d.   As stated in Section 2, the TIS specifies the EDI message formats and the rules for their exchange but it does not include the individual screen layouts for CHIEF export, import or system maintenance transactions. Information of this kind is defined in the User Guides (see References [9] - [13]). The TIS does however specify the use of screen and keyboard in terms of its conformance to the ICAB 02 syntax and defines the 'style' of interactions for human users of CHIEF.

4.2.   The HCI Guide

The aim of the HCI Guide is to provide a coherent and uniform view of CHIEF HCI facilities – the 'style' of operation. While it defines the design principles and control sequences it does not define the physical rendition on the terminal; thus for example while it prescribes delimited protected fields it does not lay down what field delimiter characters are to be used. In practice it includes examples that could be realised by an implementation on a terminal with the functionality of an industry standard IBM compatible PC.

The guide contains much detailed material – the main features are summarised below.

a.   The screen is divided into a command/status lines (line 1-2), a document display area (lines 3-22), a reply line (line 23) and an action line (line 24).

b.   The system processes logical **documents** (which can be paged within the document display area). Documents are built up of **segments** that are themselves composed of **fields**. (Note: the analogy with the EDI interface hierarchy of message, segment and element is not accidental. As processed by the CHIEF application they are identical logical structures – the differences being 'ironed out' by the 'Execution Environment'). Rules and options are provided for the presentation of such structures on the screen.

c.   The data in a document is presented with backdrop text defined in an associated document view. Different views of a document can be defined to offer appropriate levels of presentation for different classes of User.

d.   The highest unit of interaction is the **client session** – see Section 3 and Reference [1] – it is the level at which authentication takes place. Within a client session, the user inputs a sequence of **transactions** each made up of a sequence of **phases**. Users can be guided through phase and transaction sequences; in some cases a transaction can nest a further one (e.g. to display help information, to look at detail associated with an entry on a list) and procedures are defined for aborting or breaking in to a transaction sequence once started. There is no provision for concurrent transactions within a client session or for a user to suspend a transaction while he completes a more urgent one. However, local (windowing) software could be provided to offer the user more than one client session on a terminal.

e.   Rules are given for validation and the subsequent display of errors; the reply line conveys the overall transaction status, whilst error messages are generally displayed interleaved within the document area with a severity rating, error number and explanatory text.

f.   There is a common facilities philosophy whereby all processing sequences have the same overall structure. These sequences include:

- signing on and signing off;

- validation;

- storing and committing inputs;

- paging and scrolling through multi-screen displays.

g.   Specific system facilities are provided such as System Messages (which can be queued for display), Help (which can be requested for a selected field), Noticeboard and the ability to access reference data including historic versions (e.g. an earlier exchange rate).

END OF SECTION 4

5.   THE EDIFACT INTERFACE

5.1.   Introduction

As described in Section 2 the interface between the CSP systems and CHIEF/IES takes two complementary forms – one designed for human use and the other for system or package use. Both interfaces use the common session facilities described in Section 3 and operate over the same type of wide area network connections. This section describes the **Electronic Data Interchange (EDI)** message interface for system or package use. The TIS document which defines the EDI interface is Reference [2].

This section gives a brief introduction to EDI and EDIFACT and summarises the contents of Reference [2].

5.2.   EDI and EDIFACT

EDI – Electronic Data Interchange – is the term used to describe the transfer of structured data between different business organisations' computer systems with the aim of increasing efficiency, mainly by reducing the need for paperwork and re-keying. To achieve this, standards for the structure must be agreed. These should be agreed not just between two business partners but made common to a trading community and, in a world of multinationals, not be limited to national boundaries. Recognising this, trade co-ordination bodies within the UN promulgated the **EDIFACT** (EDI For Administration, Commerce and Transport) standard for world-wide use. It was ratified as an ISO standard (ISO 9735) in 1987. World customs authorities, together with organisations like IATA, took a keen interest in this development. The EDIFACT unit of transfer is called a **message**, a set of related messages is called an **interchange**.

EDIFACT defines not only a syntax and structures for message representation but, through the work of the 'EDIFACT Board' (within the UN Economic Commission for Europe), approves a defined set of messages for world-wide use. These are called UN Standard Messages (**UNSMs**) and have six character identifiers. It is permissible to use subsets of UNSMs for particular purposes. UNSMs are built of **segments** themselves composed of **elements**. The segments and elements are themselves standardised and published in the form of directories. Data can be represented in elements in the form of text or quantities or in coded form. Where codes are used code lists are provided or referenced (eg to existing standards for goods descriptions). UNSMs are either applications specific or for general use – the latter are called service messages. A 'typical' EDIFACT application includes specific and service type UNSMs with possibly other non-standard messages (but still using EDIFACT standard syntax) for purposes local to a particular trading community.

5.3.   EDIFACT on CHIEF

The messages used on CHIEF are typical in this respect. The UNSMs to be used (in defined subsets) are:

CUSDEC   Customs Declaration. For declaring goods for import, export or transit to a customs authority.

CUSRES   Customs Response. To transfer data from a customs authority to the sender of customs data, including clearance.

CONTRL   Message a rejecting, with error indication, a received interchange, functional group or message.

CHIEF does not currently use other messages, including CUSREP and CUSCAR (Customs Conveyance and Cargo Reports).

In addition a number of CHIEF specific EDIFACT messages are defined. The message types are prefixed "UKC" (UK Customs).

The EDIFACT standard although ratified by the ISO, is not part of the OSI model; it is defined independently of the communications service used to convey the messages. Most implementations to date have used electronic mail or file transfer – CHIEF however offers an interactive service where the HCI transfers and EDI messages are serviced at the same priority by the same TP service. This is achieved on CHIEF by exchanging EDIFACT messages within a session (see Section 3) rather than batching messages in an EDIFACT Interchange.

5.4.   The EDI Specification

Reference [2] defines the application-to-application protocol for the exchange of the different CHIEF messages. For each message, rules are given as to who can send it under what circumstances and how it is to be acknowledged.

Where possible, reference is given to the published source material – the various EDIFACT Board directories and code lists. Where required it gives CHIEF specific values for codes. All messages that are based on UNSMs are subsets not variants; in other words standard segments and elements are used in standard ways. For example, the CHIEF definition of a message may exclude a conditional segment (and its appearance would be regarded as an error) or CHIEF may define the format of an element more rigorously than the source standard (e.g. CHIEF specifies 3 upper case alphabetics for an element which EDIFACT defines as up to 3 alphanumerics).

END OF SECTION 5

6.   DATA ELEMENTS

All the data elements that are used in the trade interface to CHIEF are listed in this TIS document (Reference [8]). The declared elements are related to a SAD box, the rules for whose completion are given in Tariff Volume 3 (see Reference [16]). The descriptions and values in the table should be treated as an aide-memoire rather than definitive.

Details provided include character set, length, decimal format and repetition, together with the CHIEF data item name and explanatory notes.

END OF SECTION 6

7.   IMPORTS

7.1.   Introduction

The Imports sub-system is one of the major components of the CHIEF/IES – complementing the Exports sub-system. Imports and Exports are implemented in the same system, sharing data and management facilities. Both are available through the HCI and EDI interfaces and are supported by the same network and session connection mechanisms and make use of some common application facilities.

The EDI interface for Imports is defined in Reference [4].

The interactive user interface for Imports is defined in Reference [10].

The Import facilities and the EDI interface are summarised in the rest of this section.

7.2.   Imports Facilities

Import entry processing is more complex than that for exports since duty has to be calculated and revenue collected. The control of import and export entries is much the same with pre-lodgement, profiling, routes, automatic and manual clearance. However imports is only involved with the goods at the Office of Import whereas exports is more complex since it covers the movement of the goods from arrival at the Office of Export, through other offices until departure from the UK or notification of exit from an Office of Exit in another Member State. As for exports the principal dialogue involves the input to CHIEF of a defined subset of CUSDEC and the subsequent issuing by CHIEF of a CUSRES response; entries can also be made using the HCI.

Advices and reports are sent as EDI messages for formatting and delivery to the trader as required.

Two aspects of import entry processing that determine much of the EDI message exchanges are pre-lodgement and inventory linking.

a.   **Pre-lodgement.** This involves the entry of customs details to CHIEF for goods that have not yet arrived at the location concerned.

b.   **Inventory linking.** Goods processed by the CSPs are often controlled by information held on an inventory databases and such consignments are 'inventory linked' to CHIEF. Before goods can be cleared the consignment details declared to CHIEF and those recorded in the Inventory system must be consistent – an exchange of CHIEF specific EDI messages is defined for inventory reconciliation.

For inventory linked entries, a single vessel arrival message can be input to the Inventory System. It then informs CHIEF of the arrival of each entry linked to a consignment on the vessel, thus initiating the clearance sequence for the associated entry with the minimum of further intervention.

7.3.   Imports Transactions

A number of transactions are involved in the processing of an Import entry through to clearance. The complexity of the sequence of transactions is mainly influenced by pre-lodgement and inventory linking.

<div align="center">END OF SECTION 7</div>

8.   EXPORTS

8.1.   Introduction

The Exports sub-system is one of the major components of the CHIEF/IES – complementing the Imports sub-system. Imports and Exports are implemented in the same system, sharing reference data and management facilities. Both are available through the HCI and EDI interfaces and are supported by the same network and session connection mechanisms and make use of some common application facilities.

The EDI interface for Exports is defined in Reference [5].

The interactive user interface for Exports is defined in Reference [11].

The Export facilities and the EDI interface are summarised in the rest of this section.

8.2.   Exports Facilities

The CHIEF Exports application is functionally similar to Imports, with pre-lodgement, profiling, routes, automatic and manual clearance. Export declarations do not have the import complexity of duty calculations and accounting.

However, the handling of export movements is more complex than for imports. CHIEF is only involved in the import movement at the Office of Import whereas for exports CHIEF is involved not only in clearance at the Office of Export but also in subsequent movements through other offices until the goods exit from the EU. For direct exports CHIEF handles arrival, permission to progress and departure notifications for Offices of Exit. For indirect exports exit notifications from other Member States are passed to CHIEF.

Depending on the nature of the goods and their method of Export, various Customs schemes are available to exporters and their agents to submit declarations. As for imports, the principal dialogue involves the input to CHIEF of a defined subset of CUSDEC and the subsequent issuing by CHIEF of a CUSRES response. Entries can also be made using the HCI.

Advices and reports are sent as EDI messages for formatting and delivery to the trader as required or may be suppressed.

8.3.   Exports Procedures

There are two main export procedures – Normal and Simplified.

a.   Normal procedures. For goods subject to customs control, the SAD declaration, with all supporting documents, must be presented to Customs. For non statistical and low value goods, only a limited amount of information is required. Traders are encouraged to input their declarations electronically in advance of presentation (DTI), but if this has not been done the details will then be input by Customs (CIE) prior to granting permission to progress.

b.   Simplified procedures. Traders must be authorized to use a specific simplified procedure. Local Clearance Procedure (LCP) usually operates inland (e.g. at traders' premises, DEPs and ICDs), whilst Simplified Declaration Procedure (SDP) usually operates at the UK frontier (e.g. ports, airports). In both procedures, traders make an electronic initial declaration, the Pre Shipment Advice (PSA) containing the minimum information to identify, control the movement and subsequent export of the goods, followed later by an electronic Supplementary Declaration containing full details of the consignment.

Exports also supports Exit Summary Declarations.

<div align="center">END OF SECTION 8</div>

9.   MOVEMENT CONTROL

9.1.   Introduction

CHIEF provides facilities for inventory linking and matching and consignment control.

The EDI interface for movement control is defined in Reference [6].

9.2.   Inventory Linking

An inventory linked declaration can be submitted as an EDI message which is checked by the Inventory system for consistency with the consignment and only passed on to CHIEF if it matches. For inventory linked entries, CHIEF sends a message to the Inventory system so it can link the entry to the consignment and record the entry status and route. For entries that were not matched on input, CHIEF requires a response to identify whether the entry matches the consignment or not.

9.3.   Export Consignment Control

Import entries are currently either inventory linked or non-inventory linked. This terminology comes from the way an import entry may identify a consignment known to a particular inventory system (i.e. linked) with CHIEF sending the entry reference to the Inventory System to link the entry to the consignment.

For Exports, an entry is not so linked; rather movements may be controlled by an Inventory system or manually using arrival and departure notifications with the declaration identified by a Unique Consignment Reference (UCR). Declarations can be consolidated under a Master UCR and the arrival and departure notifications can be at the Master level as well as for individual declarations. If the arrival message is from an inventory system then CHIEF informs the system of changes to the route and status of the movement.

For imports, the CHIEF interface with an Inventory system was designed to support the inventory matching which requires the Inventory system to compare data in its database and respond. There is no such check for an export movement and the messages from CHIEF simply have to be acknowledged. This means that in some cases the import terminology is misleading and in other cases it may not be appreciated that the term is being used in a more general context.

Exports is implemented so it can use the Inventory system links that exist for imports but the movement control messages from CHIEF can also be sent to trade roles in the same way as the report messages, to update the inventory database.

It should be noted that the trade systems which are referred to as Inventory systems in this TIS are no longer just the systems controlling goods at the frontier ports but also include DEPs and other inland freight forwarding systems. Trade systems that are not set up as Inventory systems can also use the EDI messages to arrive consignments rather than the HCI transactions.

END OF SECTION 9

10.   REQUESTS AND REPORTS

10.1.   Introduction

CHIEF provides a number of transactions for requesting actions relating to an entry and for accessing information relating to consignments, declarations and movements. Several of these transactions have an EDI interface and the corresponding HCI interface is described in the appropriate CHIEF User Guide.

Availability of the transactions is subject to CHIEF access security, according to the rules maintained by Customs reflecting the needs of the different trade organisations.

A range of Reports relating to Import and Export entries is provided for onward transmission to the traders.

The EDI interface for requests and reports is defined in Reference [7].

10.2.   Entry-related Actions

The transactions for entry-related actions are Request EAD, Request SAD Copy 3, Query Response and Cancel Request.

10.3.   Information Requests

The information request transactions are Display an Export consignment (Master or Declaration UCR), Display movement handling agent view of Entry, Display a version of an Entry, Display Licence Usage and List export movements.

10.4.   Report Handling

The data for the reports defined by Customs for the Trade is sent by CHIEF except for some Import reports that are generated directly by an Inventory system.

CHIEF delivers reports as unsolicited EDIFACT messages for onward delivery to traders, either to the CSPs and another Customs system (EDCS) for web users.

Whilst some reports are required on paper for presentation to Customs, others inform the trader that some action is necessary and may be forwarded as hardcopy documents for printing or in electronic form for display or retention.

The reports cover Entry Pre-lodgement, Amendment, Acceptance, Examination, Reselection, Cancellation, Progress/Movement and Accounting.

Report layouts are provided for guidance, identifying the location for data and the associated backdrop text.

END OF SECTION 10

11. GLOSSARY AND REFERENCES

11.1. Glossary

See USM 102 – CHIEF GLOSSARY AND ABBREVIATIONS

11.2. References

Ref No.	Title	Document reference
1.	TIS : SYSTEM CONNECTION AND SESSION CONTROL	DES 111
2.	TIS : ELECTRONIC DATA INTERCHANGE (EDI) SPECIFICATION	DES 150
3.	TIS : HUMAN COMPUTER INTERFACE (HCI) GUIDE	DES 214
4.	TIS : EDI FOR IMPORTS	DES 205
5.	TIS : EDI FOR EXPORTS	DES 208
6.	TIS : EDI FOR CONSIGNMENT AND MOVEMENT CONTROL	DES 242
7.	TIS : EDI FOR REQUESTS AND REPORTS	DES 222
8.	TIS : DATA ELEMENT DEFINITIONS	DES 209
9.	INTRODUCTION TO CHIEF USER IES GUIDE	USM 100
10.	IMPORT ENTRY TRADE USER GUIDE	USM 211
11.	EXPORT ENTRY TRADE USER GUIDE	USM 305
12.	COMMON ENTRY TRADE USER GUIDE	USM 239
13.	ACCOUNTS MAINTENANCE TRADE USER GUIDE	USM 260
14.	STANDING DATA TRADE USER GUIDE	USM 401
15.	CSP/CHIEF INTERCHANGE AGREEMENTS	CIA series
16.	INTEGRATED TARIFF OF THE UNITED KINGDOM	HMRC

END OF SECTION 11

12.　　　DOCUMENT CONTROL

12.1.　　Document History

Issue No.	Date of Change	IC No.	Details of changes
3.1	31/08/95		Incorporates minor changes to facilitate conversion to Electronic Documentation.
4.0	10/08/2001		Conversion to Word97. Minor clarifications and corrections, removing history and updating terminology. Removal of GENRAL. Updates for new Exports.
4.1	26/03/2009		This issue reflects the restructuring of the TIS documents. References to the CHIEF Interface (CHIP) specifications removed. They have been superseded by the use of RFC1006 over TCP/IP. Glossary removed, now in USM 102. (Old) Exports removed.
4.2	07/12/2009		Removed BT logo and BT specific details

12.2.　　Revision Record

Revision Number	Date	Name	Signature

The above table is to be used for recording the incorporation of minor revisions into the document; that is, revisions issued as changed pages only. This page must be retained in the document until such time as the complete document is re-issued.

12.3.   Configuration Management

12.3.1.   Document Configuration

a) Title:	TIS : OVERVIEW
b) Reference:	DES 110
c) Privacy marking:	X<>
d) Status:	Agreed for use
e) Owner:	Jenny Arentsen
f) Change Authority:	CHIEF Document Controller
g) Location of master copy:	
Paper:	CHIEF Library
Electronic:	System: http://aspireportal/sites/CHIEFTRANS/Knowledge %20Management%20%20Transfer Directory: \Redocumentation Project\TIS\ Filename: DES110 - Overview and Glossary.doc Format: Word 2003
h) Suggested Distribution:	Project Library HMRC for onward distribution to the Trade

12.3.2.   Document Signatories

Approver		**Author**	
Signature:		**Signature:**	
Name:	Jenny Arentsen	**Name:**	Pradeep Agarwal
Date:		**Date :**	

END OF DOCUMENT