

ICL Pathway

PATHWAY RELEASE POLICY

Ref: PA/STR/003

Version: 4.0

COMMERCIAL IN CONFIDENCE

Date: 14/07/99

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Abstract: This document defines the Pathway policy for the identification and planning of new Releases of Software and Data.

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1. DOCUMENT CONTROL

1.1 DOCUMENT HISTORY

Version	Date	Reason
0.1	20/10/96	First Draft for Pathway internal use only
0.2	30/10/96	Second draft following application of Pathway comments.
0.3	30/10/96	Draft for issue to the PDA.
0.4	12/11/96	Updated following PDA comments through Michael Purchase.
0.5	17/11/96	Updated following PDA & Sponsor comments received through Michael Purchase.
0.6	18/11/96	Further comments applied from Pathway and PDA.
0.7	24/11/96	Further comments applied from PDA.
1.0	26/11/96	Further comments applied from POCL.
1.1	27/11/96	Further comments applied from PDA, BA and POCL
1.2	28/11/96	Incorporates revisions following review by Pathway, PDA, POCL and BA
1.3	1/5/98	Brought up to date to recognise differences between infrastructure and new product releases
2.0	29/03/99	Applied comments and approved ready for issue
2.1	21/05/99	Amended to reflect the current definition for Reference Data changes.
2.2	22/06/99	Amended to reflect the signed Heads of Agreement (24 th May 1999)
2.3	25/06/99	Amended to reflect comments from Pathway review
3.0	28/06/99	Further comments applied and approved ready for issue
3.1	14/07/99	Amended to reflect comments from Horizon/POCL review
4.0	14/07/99	Pathway review comments applied and approved ready for issue

1.2 APPROVAL AUTHORITIES

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Name	Position	Signature	Date
Tony Oppenheim	Commercial and Finance Director		
Stephen Muchow	Customer Service Director		
Liam Foley	Business Development Director		
Terry Austin	Development Director		
Mike Coombs	Deputy Managing Director		

1.3 CHANGES FORECAST

None.

1.4 ABBREVIATIONS USED

The terms and abbreviations used in this document are those defined in Schedule A01 of the Agreement.

2. INTRODUCTION

2.1 PURPOSE

This document describes Pathway's policy for identifying and planning the development of new Releases of Software and Data. Pathway aims to do this in a manner that is responsive to the business needs of POCL, and which also conforms to the provisions of the Agreement. Overall, it aims to:

- a) establish the principles associated with releases of Pathway Services in the context of the Agreement;
- b) establish the principles for regular and on-going Releases of the Pathway systems and services; including software infrastructure releases, new product releases and maintenance releases:

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- c) establish the provisions to bring in changes to functionality and new POCL Clients more quickly and frequently through Reference Data provided by POCL and/or Pathway and to explain the main qualifiers for doing this;
- d) establish indicative timescales for the different types of Release in order to put these into context.

The Pathway Release Policy is a key element in the process of establishing business change, and provides a set of principles for the timely and efficient introduction of new or improved products and services.

2.2 DEFINITION OF RELEASE

The Agreement defines a Release to be “a documented collection of Software and/or data provided by the CONTRACTOR to deliver a Service”, while the Requirement 476 makes it clear that the definition also includes Reference Data. Throughout this document releases will be referred to as either Software Releases or Reference Data Releases. It is possible that both Software Releases and Reference Data Releases require the co-ordinated implementation of hardware/system infrastructure and supporting services and it will be seen that this requirement leads to further subdivisions of the definition of Releases later in the document.

2.3 IDENTIFICATION OF NEW BUSINESS OPPORTUNITIES

Releases are required to support changes of Service delivery in order to implement business change. This business change will cover a wide range of scale and complexity. For example:

- i. adjustment to POCL trading variables, such as the price of a first class stamp;
- ii. changes to business rules, e.g. whether or not to print a receipt for Automated Payment Transactions;
- iii. amending the format or information provided for existing transaction types;
- iv. franchising an existing outlet, or creating a new outlet;
- v. implementing a new client for an existing service;
- vi. introducing a new client transaction or new product ;
- vii. re-engineering services within POCL's own operations.

The time, risk and cost of implementing such business changes will vary, depending upon the extent of:

- a) systems development;
- b) type of reference data changes;
- c) changes to infrastructure;
- d) changes to support Services, such as Help Desk;
- e) changes to documentation;
- f) training requirements;
- g) changes to marketing material;
- h) network changes and telecommunications;
- i) clients process re-engineering;
- j) and so on.

All these changes must be taken into account in the process of defining new business opportunities and setting priorities.

New business opportunities will require a formal response from ICL Pathway detailing options and costs to support and qualify the business case for POCL. Authorisation for Pathway to commence work will be subject to the Change Control process.

2.4 CHANGE CONTROL

Where a proposed change to the software includes a change to the contractual requirements or Contract Controlled Documents then the change will have to be introduced by a Change Request from POCL or a Change Proposal from Pathway. A proposed change becomes contractually committed upon the presentation of a CCN by Pathway and its approval by POCL.

Pathway will also raise CCNs to introduce Software Infrastructure releases in order to get POCL's agreement to implementation.

Pathway will not commit resources or expenditure to the development and implementation of a change until the CCN has been approved, other than the agreed level of support for impact assessment and preparation of the CCN.

In certain circumstances where a change is needed urgently it is possible to implement using the Emergency Procedures defined in Section 3.3.

2.5 CONTRACTUAL AND FUTURE RELEASES

Release 1 was delivered in 3 phases: Release 1a (April 1997); Release 1b (May 1997); Release 1c (November 1997).

The CSR provides extended MIS functionality, introduces APS and EPOSS functionality, and passes information to POCL's interim TIP system for accounting and reconciliation purposes. CSR forms the basis for contractual acceptance, and will support the mounting of the Live Trial and so the launching of National Rollout.

The CSR+ will provide extended APS functionality, encompassing Smart Card functionality and the introduction of the Logistics Feeder Service (LFS).

Further releases may be required on an ongoing basis. A number of new products are already envisaged to extend the range of business functionality available at the counter. There will, from time to time, be a need to refresh or extend the supporting software infrastructure and the ongoing maintenance of the services will necessitate fault correction. Performance and Scalability upgrades will also be implemented according to Component scalability plans, but these are outside the scope of Software or Reference Data Releases.

3. CLASSIFICATION OF RELEASES

Releases are classified as either Software Releases or Reference Data Releases.

Software Releases fall into 3 main categories: Software Infrastructure Releases, New Product Releases and Maintenance Releases.

Similarly, Reference Data releases fall into a number of categories according to the impact and indicative timescales for implementation. The timescales are intended to be indicative only. The classifications may also be reviewed in the light of experience.

Emergency Procedures for releases of software are described.

3.1 SOFTWARE RELEASES

Software Releases result from a number of different requirements to change or to extend the Services.

This may be simply in order to maintain them in good working order, addressing faults, and improving service levels i.e. Maintenance Releases.

It may be that one or more additional areas of business functionality are required, perhaps introducing an entirely new service. This would give rise to a New Product Release.

The supporting infrastructure services will periodically need to be updated to take account of the software infrastructure required to support new products, releases or workload changes. So, depending on the nature of the changes required, different types of release are demanded. The impact of such changes measured in terms of the time, effort and risk and cost of implementing the changes will vary widely from one change to another, and these serve to characterise the different types of release.

Some changes will require extensive development effort and perhaps involve co-ordinated changes to hardware/system infrastructure and support services, while others require only minor localised software development with little or no need for changes to the hardware/system infrastructure or support services. Some can be implemented in a highly segregated manner, without disrupting too many of the existing components, whilst others may be highly invasive. As a consequence some may require little in the way of re-integration effort, whilst others may require a great deal. All will require comprehensive and systematic testing of the areas concerned.

Between these extremes there is a continuum of the possible scale and complexity of implementation of changes, but according to their essential characteristics, all will fall into their respective categories of either New Product Release or Software Infrastructure Release.

Because of the development, integration and testing lead times involved with Software Infrastructure Releases, it is planned that a maximum of one a year could be implemented. Several New Product Releases may be planned each year, but in general releases should be spread out at least 3 months apart, and avoiding the busy Christmas period where POCL outlets are involved. Section 6 provides more information on timescales.

3.1.1 NEW PRODUCT RELEASES

A new product release may contain one or more business products. An approved CCN will be required to develop and implement a new business product.

The principal characteristics of the changes that form a New Product Release are as follows:

- a) Non-invasive changes, requiring little or no revision to the existing components of the services already operating

- b) May be implemented by the addition of discrete components, perhaps entire new services, highly segregated from the existing components, requiring little or no re-configuring of the existing services and their interfaces
- c) May be tested largely in isolation
- d) Imposes little or no re-integration of existing services
- e) Involves little or no migration from existing services
- f) Can be implemented with a backward compatible path, allowing gradual introduction across the network of POCL outlets, and as such permits the operation of a limited pilot
- g) Usually introduces significant new business functionality, and so requires significant levels of user training, which implies a requirement for a gradual training programme
- h) Several can be developed in parallel by virtue of the segregation, are typically of short duration, and can be implemented flexibly, either as separate releases or combined as one release
- i) Reference Data changes will be included within the release

3.1.2 SOFTWARE INFRASTRUCTURE RELEASES

An approved CCN will be required to introduce a Software Infrastructure Release.

The principal characteristics of the changes that form a Software Infrastructure Release are as follows:

- a) Invasive changes, requiring significant revision to existing components of the services already operating
- b) Major infrastructure components refreshed, or significant re-configuring of the existing services and their interfaces
- c) Extensive service-wide regression testing required
- d) Imposes significant levels of re-integration of existing services
- e) May involve migration from existing service state
- f) May introduce major enhancements to existing business functionality

Cannot easily be developed in parallel because of the re-integration aspects, are typically of long duration, and must be implemented as planned and separate from other releases if possible. Because of the long lead-times such changes are generally best grouped together as one big release.

3.1.3 MAINTENANCE RELEASES

From time to time there will be a need for Releases of new Software and data in order to remove faults or to improve Service Levels without changing business functionality or business data. Such Releases are called Maintenance Releases.

Maintenance Releases fall into three main types:

- Performance / capacity improvements (CCN required)
- Scheduled releases containing fault fixes combined with small functional changes (CCN required)
- Urgent fault fixes (No CCN required)

Maintenance Releases will range in scope from very minor Releases which require little regression testing to major Releases that may require full Regression testing and the recalibration of SLA timings. The requirement for testing will be determined by reference to assessed technical and operational impacts for each overall Release and notified to POCL. Maintenance Releases shall be planned and implemented under Pathway's management control.

Minor maintenance releases that are designed solely to rectify faults reported to ICL Pathway through the incident and problem management process and that result in no associated changes to designed system functionality, process, procedure, training or documentation (bug fixes), will be applied to the system as soon as they have been authorised by ICL Pathway Customer Service Release Management. POCL Business Service Management will be notified immediately by entries made in the Online Problem Management database. Notification that such releases have been applied will be given at the regular Horizon Service Review Forum meetings and will be documented in the Horizon Service Review Book.

All other Maintenance Releases shall be subject to the Change Control procedure; and the Emergency Change procedure (Section 3.3) shall be invoked only when immediate action is needed.

3.2 REFERENCE DATA RELEASES

Reference Data changes fall into three main categories:

- Those governed by the Operational business Change Process
- Those required as a result of a fault reported via the incident and problem management process

- Those required to implement a business/functional change which will be released in conjunction with a New Product or Maintenance Release and are subject to the normal Change Control Process defined in section 2.4.

POCL Reference data releases are governed by the Operational Business Change processes where the required business change has been defined and agreed in advance.

The purpose of Operational Business Change (OBC) is to predefine common changes to the POCL business that occur often and require a short implementation cycle e.g. changing the price of a bus ticket. By pre-defining these changes the impacting cycle of the change is greatly reduced and the implementation actions and time scales can be defined in advance.

Operational Business Changes are initiated through the receipt of an OBC request form and Reference Data files, as defined in the process documents.

Reference Data Releases (under OBC) are broken down into more detailed change types according to the impact and indicative timescales for implementation. The change types are documented in the "ICL Pathway/POCL Interface Agreement for Operation Business Change - Product" document. The interface agreement identifies specific types of business change in advance so that their characteristics (e.g. timescales, dependencies and responsibilities) can be understood by POCL when managing their business. These would be to support, for example, negotiation with clients and service management processes.

The broad categories of change type for Operational Business Change are:

- Outlet Advanced - requires additional activity from ICL Pathway e.g. relocating an outlet
- Outlet Basic - Class 1 reference data change only e.g. change of phone number
- Product Advanced - requires additional activity from ICL Pathway e.g. creation of new buttons on the counter menu
- Product Basic - Class 1 reference data change only e.g. change to the price of a bus ticket.

Class 1 Reference Data is reference data that has no additional impact on the Horizon system, although verification of the new data by POCL is required for High Risk changes.

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3.3 EMERGENCY PROCEDURES

Schedule A05 allows that if Pathway considers that any change is necessary in order for it to comply with its obligations under the Agreement and there is insufficient time to comply with the procedures then Pathway shall be entitled to proceed with such change, provided that it shall as soon as practicable provide POCL with a CCN for retrospective change. Such change shall be subject to the procedures described in Schedule A05, and if POCL, acting reasonably, do not agree to such change, such change shall be invalid and Pathway shall at its own expense promptly take all steps necessary to reverse and remove the effects of such change.

4. DEFINITION OF RELEASE CONTENT

4.1 RELEASE CONTROL & CONTENT

The Requirement and Solution 476 refers to the testing, control and approval of Releases while the testing of Releases is described in Pathway's testing strategies and plans.

The content of a Release (other than those exclusively containing Fault fixes) is determined through appropriate documentation baselined by one or more CCNs that shall be approved prior to a predetermined cut-off date for each Release. The purpose of this cut-off date is to ensure that the changes required in each Release are fully defined in time for the start of detailed design, development and testing. After the cut-off date changes may only be introduced under Change Control.

Requirement 476 requires POCL's approval (such approval not being unreasonably withheld) to the:

- contents of any release
- upgrade path for any release
- timing of the distribution of any release
- timing of the activation of any release

The definition of release content for any specific Release (other than those exclusively containing Fault fixes), and the development of any more detailed specifications, will need to take into account, amongst other things, the business priorities of the business changes in that Release and the alignment with associated POCL and Client systems. Processes for release content definition are to be developed to address such issues.

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Processes will also be defined to address the co-ordinated development, trialing and introduction of Releases where these need to be aligned with POCL system releases e.g. TIP.

5. RELEASE SCHEDULE

5.1 SOFTWARE RELEASES

Pathway plans to implement approved CCNs in a number of Software Releases each year, disregarding releases covered under Maintenance Releases and Emergency Procedures (section 3.3).

In scheduling these releases a number of factors need to be considered.

Due to the long lead-times involved in Software Infrastructure Releases, largely stemming from the need to perform extensive re-integration, it is impractical to plan for more than one Software Infrastructure Release in a twelve month period.

Whatever the release type concerned, implementation periods need to be spread out to avoid conflict. The critical interval can be judged from the experience of other large service contracts. Experience dictates that they should be at least 3 months apart to achieve the optimum balance between the business imperative to introduce new functionality and the risk of adverse impact on Service Levels resulting from excessive rates of change.

Implementations involving the POCL outlets should be planned to avoid their busy Christmas period wherever possible.

New Product Releases, and some Software Infrastructure Releases will involve a phased implementation period, with user training activities and possibly the running of a Pilot. These post go-live activities need to be scheduled in and taken into consideration regarding the scheduling of subsequent releases.

Under certain circumstances it may be advantageous to all parties to cluster a number of releases together into a single implementation period. This is particularly relevant to New Product Releases. The frequency of Releases will be reviewed in line with experience gained during live operation. The current view is that between 2 and 3 releases are likely each year including one Software Infrastructure release and one or two New Product Releases. Each New Product Release may include one or more business products, depending on the size and the complexity of each.

The relationship between the release definition activities and the ultimate implementation of the release is illustrated below:

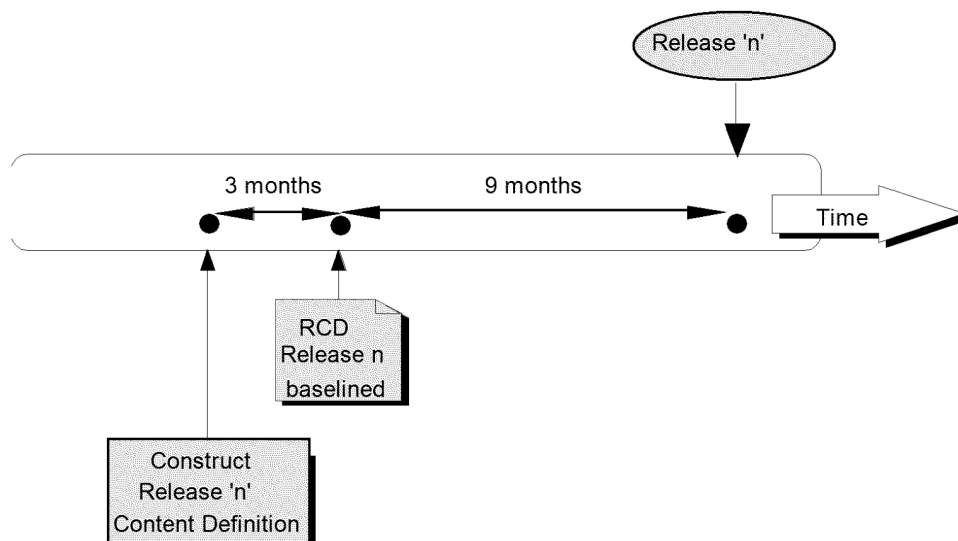


Fig 6.1 - Release Planning

Changes which have been approved within the Validity Period of the associated CCN will be included within the Release Contents Definition for the Release stated. Three months are allowed for the approval of each Release Contents Definition which is then baselined while the Release is implemented. Thus in steady state, there will be at any time, one live Release (Release "n") and two new Releases (n+1 and n+2) at different stages of design and implementation.

The table below illustrates a possible timetable for, say, a Software Infrastructure Release encompassing some functional enhancements delivered in the Autumn, then avoiding the Christmas period, a combined release comprising maybe 2 New Products , delivered in the following Spring.

Release Contents Baselined	Design	Development	Test & Integration	Implement	Release Go Live
1 January	1 Jan - 28 Feb	1 Feb - 31 May	1 Apr - 30 Sep	1 Sep - 30 Nov	1 October
1 July	1 July - 31 July	1 Aug - 31 Oct	1 Nov - 28 Feb	1 Mar - 31 May	1 April

Fig 6.2 - Release Timetable

In constructing the illustrative timetable shown above, Pathway has assumed that the Test & Integration period will encompass a period of POCL confidence testing (if required by POCL). It is anticipated that the testing and product acceptance processes after the initial releases will be rationalised by mutual agreement.

For the avoidance of doubt, if an element of the Services under test fails its testing criteria and it is decided by POCL and Pathway to withdraw it in order to maintain Release timescales, then that failed element will be included in the next Release unless otherwise agreed.

5.1.1 SOFTWARE DISTRIBUTION AND ACTIVATION

Some software releases will involve a phased implementation period, with user training activities and possibly a pilot. In these cases there will be a schedule of software activation agreed with POCL.

The new software for a release will normally be distributed to the outlets over a period of time (dependent on the size of the software release) prior to activation. Software release activation will normally be done over a week-end, but where contact cannot be made with any outlets the activation will necessarily span a few days. Both Data Centres will normally be upgraded at the point of Software release activation.

Urgent fault fix maintenance releases may be done overnight during the week if required.

5.2 REFERENCE DATA DISTRIBUTION

Indicative timescales for the implementation of the different classes of Reference Data Release are provided in document "ICL Pathway/POCL Interface Agreement for Operation Business Change - Product".

Reference Data changes initiated as part of fault fixes or new products will be an integral part of the New Product or Maintenance release of which they form a part and will be scheduled in accordance with the agreed release date.