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# ITK3 Test Harness User Guidance

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# Document management

## Revision History

Version	Date	Summary of Changes
0.1	14/06/2018	Initial draft
0.2	22/06/2018	Updated by Chris Berry, NHSD Solution Assurance
0.3	11/07/2018	Updated with comments from reviewers John George, Kevin Sprague, Richard Kavanagh from the NHS Digital Interoperability Standards Service, Mike Moore (Project manager, NHS Digital Transfer of Care) and Richard Robinson (NHS Digital Solutions Assurance)
1.0	31/07/2018	Updated ITK Conformance email address to <a href="mailto:itkconformance@nhs.net">itkconformance@nhs.net</a>

## Reviewers

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This document must be approved by the following people:

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Richard Kavanagh		Head of Interoperability Standards Service		0.3

## Glossary of Terms

Term / Abbreviation	What it stands for
FHIR	Fast Healthcare Interoperability Resources
ITK3	Interoperability Toolkit (V3)
MESH	Message Exchange for Social Care and Health
Opentest	Open access test environment for Spine
OpenVPN	Open Source Virtual Private Network

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# 1 Introduction

## 1.1 Purpose of this document

This document explains the steps required to gain credentials for the use of the ITK3 Test Harness. It also gives some information relating to functionality of the software.

## 1.2 Background

The NHS Digital Interoperability Standards Service has developed a set of generic FHIR messaging components to allow a standardised approach to using FHIR message headers and responses across NHS message and document flows in England. These components, along with NHS Digital FHIR Message and FHIR Document specifications, are part of the ITK3 solution.

The message specification and implementation guide can be viewed at:-

<https://developer.nhs.uk/apis/itk3messagedistribution/>.

Specifications describing a specific payload, in this case Transfer of Care, that could be carried by the ITK3 FHIR messaging components can be found at:-

<https://developer.nhs.uk/transfer-care-specification-versions/>

FHIR messages will be sent using MESH from sender to recipient as per the ITK3 specifications. To ensure that senders are clear on the successful receipt or otherwise of their messages, a piece of software, a Test Harness, has been built to produce standard responses, including failures of messages.

Standard error codes and descriptions will be returned depending on the nature of the success/failure of a message. Details of expected response codes are documented at:-

[https://developer.nhs.uk/apis/itk3messagedistribution/explore\\_response\\_codes.html](https://developer.nhs.uk/apis/itk3messagedistribution/explore_response_codes.html)

The ITK3 Test Harness simulates the expected response of a receiving primary care practice system and the behaviour of a hospital sending system.

The ITK3 Test Harness is situated within the NHS Digital [Opentest environment](#), which is accessible via OpenVPN.

The transport mechanism used is MESH.

For more detailed information about the ITK3 Test Harness, please consult

<https://developer.nhs.uk/itk3-test-harness/>

## 1.3 Audience

This document is intended for ITK3 message specification implementers who wish to access the ITK3 Test Harness to confirm the validity of their messages and to check that the various responses returned by the ITK3 can be correctly catered for.

## 2 Process for accessing the ITK3 Test Harness

There are several prerequisites for use of the ITK3 Test harness via a local Mesh client:

1. Access to Opentest Environment
2. Ownership of a MESH mailbox within Opentest
3. A local MESH Client installation configured for the Opentest environment

To arrange the fulfilment of any of the above prerequisites, a potential user should send an email to [itkconformance@nhs.net](mailto:itkconformance@nhs.net) to register their interest and their contact details would be verified with the relevant NHS Digital programme.

A user may also wish to

1. Receive test harness validation reports
2. Gain access to the Opentest portal to view validation reports and logs

These can be obtained by additionally supplying an email address to register.

It is also possible to access the software via a MESH API. If this is required, please email [itkconformance@nhs.net](mailto:itkconformance@nhs.net) in the first instance.

On receipt of the email, NHS Digital will:

1. Request Opentest Access on the supplier's behalf through the NHS Digital Solution Assurance Service Desk
2. Request MESH Mailboxes for a new or existing Opentest Connection through the NHS Digital Solution Assurance Service Desk
3. Confirm and configure the requested supplier email address to receive validation reports, if required
4. Provide support, if necessary, on post configuration of MESH client to access Opentest

Note: The MESH client can be downloaded from: [https://s3.eu-west-2.amazonaws.com/files.digital.nhs.uk/assets/MESH\\_Client\\_Installation\\_Pack.zip](https://s3.eu-west-2.amazonaws.com/files.digital.nhs.uk/assets/MESH_Client_Installation_Pack.zip)

5. Create supplier specific Opentest portal credentials, if required.

## 3 Additional support with messages to the ITK3 Test Harness

Users may require additional support with message construction, for example relating to the creation of :-

1. XML valid messages
2. Messages which conform to the NHS Digital message specifications

There are several validation tools available which support implementers in creating valid and profile conformant messages.

The FHIR website has a section concerning validation at <http://hl7.org/fhir/validation.html>; a variety of validation tools for general use can be downloaded from this area.

Additional validation tools can be obtained from the FHIR community, including <http://clarotech.co.uk/products/>.

Guidance is available in relation to creating valid and conformant messages by emailing [information.standards@nhs.net](mailto:information.standards@nhs.net) as appropriate.