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Issuing Organisation Name : CrisYs Corp

CRIS IS. CRIS WAS.

Messir User Manual
- v 1.0.3 -

Based on IEEE Std 1063-2001 [1]

Sunday 23rd October, 2016 - 17:21

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Chapter 1
Product information

1.1 Identification

SHeavy®is a web based software developed by CrisYs Corp. whose goal is to prevent the spreading of epidemics but also to manage differents oragnizations to handle epidemics in real time. s

1.2 Copyright

A copyright is an exclusive right granted to an author of a literary, musical, audiovisual or artistic work, giving the author the sole right to reproduce and distribute that work. There are several different types of copyrights which are associated with CrisYs Corp products. These include various copyrights in CrisYs Corp's software source code, executable code, product packaging, hardware and publications.

1.3 Trademark notices

Trademarks are the distinctive names, words, logos, designs and symbols used to distinguish our products or company. Some of our recognized trademarks include CrisYs Corp®, SHeavy®. The CrisYs Corp®trademark has been filed in many countries throughout the world and registrations have been issued in CrisYs Corp's name in many countries.

1.4 Restrictions

There are no restrictions on copying or distributing the software's associated documentation but the distribution of the software is only allowed over the buyer's network.

1.5 Warranties

SHeavy warrants for an entire lifetime following delivery of the Software that the Software will perform substantially in accordance with the user manual. Additionally SHeavy warrants also that our support is available 24h/24h and 7/7 days.

1.6 Contractual obligations

Having a function ready system. Maintain the web application deployed for each actor.

1.7 Disclaimers

SHeavy only shares instructions from trustful organizations and in no event will SHeavy or its distributors and their dealers be liable to you for any damages and any losts or incidental or consequential damage.

1.8 Contact

1.8.1 Online assistance

Visit the CrisYs Corp to get quick answers to your question or refer to our online support at https://www.crisyscorp.com/support. You can also get help and advices by contacting us on https://www.crisyscorp.com/chat or by contact@crisyscorp.com.

1.8.2 Telephone assistance

When you contact our support by telephone make sure that your problem is not already described on https://www.crisyscorp.com/support. Otherwise choose one of our callcenters.
CSC 1: 4884224179-85
CSC 2: 4884224179-86
More callcenters are available at https://www.crisyscorp.com/callcenter.

Chapter 2
General Information

2.1 Scope

SHEAVY is a consitent tool to handle and manage an epidemic in an efficient way. SHEAVY can be used worldwide working together with infrastrucutres like gouvernements, health organisations and hospitals. This document's goal is to provide the basic knowledge to use SHEAVY. There is no source code or programming aspect in this file.

2.2 Purpose

The user manual guide was written to show how different users can acces to the system and to understand its workflow.

2.3 Intended audience

EXTERIOR: All person which isn't involved with the crisis management will have a simple guideline to access to the news published in the application.

INTERIOR: All person activly helping controling the crisis will have a overall view of the interface. They will know where to find which information. Our contact list search will be explained to let them find anybody easily, person or institution.

2.4 SHeavy

SHEAVY is an epidemic crisis management web based tool. Data from different sources will be fetched together to centralize all the known statuses and information of the crisis in some simple clicks. Its also a searchtool to find someone involved in the crisis easily and trough a realtime view interface, it will be fast to know how the ressources are distributed. A feature will alert the users of an important message. It keeps also track of the locations of the users to

1. Prevent them accessing an unauthorized zone
2. Guide them with GPS to secure zones.

2.4.1 Actors & Functionalities

SHeavy has different functionalities for several Actors and an hierachical-levels of organizational chart. Here is an overview.
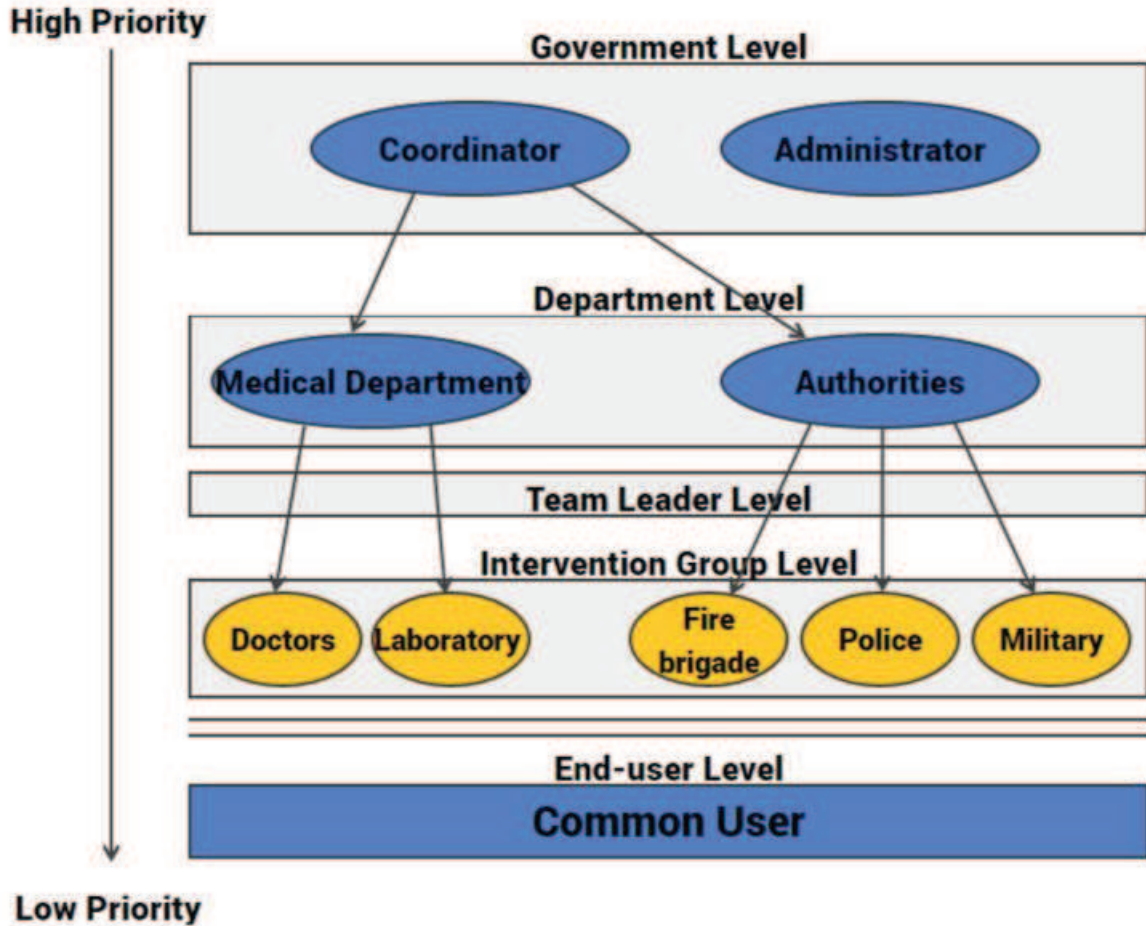
2.4.1.1 CrisYs Corp

CrisYs Corp are the developers of the crisis management system SHeavy.

- Create and set up the system.

2.4.1.2 Common Users

A common user is defined as an end user who uses SHeavy only in order to collect information about the possible epidemic and uses the given instructions to avoid the infection.

- Common users are the principle target of SHeavy. They are going to use the application in order to reach information about a possible or several epidemic and follow the instructions given by SHeavy.
- Common users will get warnings if accessing an infected zone by GPS tracking. They will have paths to follow to access and find the safe zones.

2.4.1.3 Coordinators

The Coordinator is the intermediate between its two low-level departements, Medical Departement and Authorities, and the Government. He will execute the orders of the Government by using SHeavy. The Coordinator has several main functions such as :

- The Coordinator starts or beends the alert of the concerning epidemic.
- He's also responsable for the Ressources Management, which is already set up before the epidemic.
- Another task is to update SHeavy's Map accordingly to the situation.

2.4.1.4 Administrator

The Administrator is the responsable who keeps the ssystem operational. Additionly he distributs the logins and the professional web and mobile interface.

- The Administrator keeps the system operational by maintaining the system.
- If necessary he performs some improvements and bugs corrections.
- The Administrator distributs the professional web and mobile interface to the concerned persons. and also the logins.
- The admistrator is able to block a mobile phone or desktop interface for the security of the system.

2.4.1.5 Medical Departement

The Medical Departement has two main groups, namely Doctors and the Laboratory. Each one is connected with each other and they are exchanging their reports. The Medical Departement is the intermediate between its groups and the Coordinator.

- Sends an alert of a possible epidemic to the Coordinator.
- Sends several reports to the Coordinator.

2.4.1.6 Doctors

Doctors are in charge of taking care of the infected victims. They'll also perform check ups and send reports and blood sample to the Laboratory.

- Write reports that will be sent to the Laboratory and Medical Departement.
- Works in various check points or hospitals in order to perfom check ups.
- Take care of the infected patients the time that an antivirus is found.
- Takes blood sample from the infected patients and sends them to the Laboratory.

2.4.1.7 Laboratory

The Laboratory is a medical group which goal is to find a cure against the virus. In constant collaboration with different medical chiefs they will get relevant information of the evolution of the epidemic in realtime. They also get the blood samples and reports from the Doctors.

- Write reports that will be sent to the Doctors and Medical Departement.
- Analizing the blood samples to isolate the virus and demantle its structure to provide an antivirus.
- Gives a guideline to the application as a news so that all the people knows how to protect itself from become infected.

2.4.1.8 Authorities

The Authorities is regrouping various intervention groups such as the fire brigade, the police and the militaries. They are working together and have a connection with each other. The Authorities are the intermediate between its groups and the Coordinator.

- Support group for various purposes.

2.4.1.9 Team Leader

Team Leader are present in all instances of epartements such as Medical Departements and Authorities. They are the leader of an intervention group which is going to execute missions given by the Coordinator.

- They are responsable of his team.
- Accept or decline a mission given by the Coordinator.
- Execute missions.

2.4.2 Operating environment

SHEAVY is a webbased application. It has a server and a client side. The server needs to be powerfull to handle the mass of information. Clients need to have a good internet access and a basic system requirement to access fast their pages.

2.4.2.1 System requirements: Client

Phone Application	
Android	
OS	Android
Hardware	ARM 5 Dual Core
iOS	
Operating System	iOS 8
Hardware	iPhone 5

2.4.2.2 System requirements: Server

Server Application	
Linux x86/x64	
Kernel	4.8.1
Hard disk space	10 TB
Processeur	Intel Xeon E7-8893
RAM	32 GB

2.5 Document structure

Information on how this document is organised and it is expected to be used. Recommendations on which members of the audience should consult which sections of the document, and explanations about the used notation (i.e. description of formats and conventions) must also be provided.

Chapter 3
Usage Guide

This section is aimed at describing the general use of the software. Such information is grouped by the different kinds of actors. Such actors are expected to use the software to perform some processes or workflows (called here procedures) using the concerned software **(including installation procedures)**.

3.1 Actors common procedures

Common procedures to several actors are grouped in this section to avoid redundancy.

3.1.1 Login

Use Case: LoginAttempt
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Common user, Government, Medical Department
Secondary Actor: None
Intention: Log in the user to fit in his function role and acces to his specific application view.
Level: Subfunctional level
Main Success Scenario :
    1. A user need to login with his credidentials and password to access the professional view of the application//

3.1.2 Send a Requirment Notice

Use Case: SendNotice
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Medical Department, Government
Secondary Actor: Furnitures Department
Intention: All users apart from common users can send a requirement query to a specific user group f.e. Medical Departement,
    Furnitures Departement with a comment to describe his necessity including the location where it's needed.
Level: Subfunctional level
Main Success Scenario :
    1. The Medical Departement requires some extra material to perfom several tests and don't has the equipment. According to that the Medical Departement will send a description of his necessity to one or several Departement who are going to fill the order. The order will be sent to the Medical Departement's location.
    2. The Military Departement want extra barriers to finish the isolation of a zone. They are going to order extra barriers to

the Furnitures Departement and it is going to be delivered to a specific location mentioned in the description of the order.
3. It could be that some humain ressources are needed to a specific location. According to that a requirment notice will be sent to the Central Headquarter in order to get reinforcements.

3.1.3 Find a Person

Use Case: FindPerson
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Medical Departement, Government
Secondary Actor: Medical Departement, Government
Intention: A user except to common users can find people by name, by availablity or by his functionality and call them.
Level: Subfunctional level
Main Success Scenario :
1. The Government want to know where's the progression to cure the epidemic. In order to know that the Government will search for a leader of the Labotary by searching a person by his functionality.
2. The Military Departement wants to talk with a medical group's chief. In order to call him the military Departement search for a person by functionality and availablity.

3.1.4 Trigger the alert state

Use Case: TriggerAlertState
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Medical Departement, Government
Secondary Actor: Common user
Intention: According to the diagnostic or decision of one of the primary actors, an confirmed alert will be sent and SHeavy will notify all users about a possible epidemic.
Level: Subfunctional level
Main Success Scenario :
1. Medical Department finds out that an epidemic is possible. They will immediately send a confirmed notification to SHeavy.
2. Military Department finds out that an epidemic is possible. They will immediately send a confirmed notification to SHeavy.
3. The Government finds out that an epidemic is possible. They will immediately send a confirmed notification to SHeavy.

3.1.5 Lift the alert state

Use Case: LiftAlertState
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Medical Departement, Government
Secondary Actor: Common user
Intention: According to the diagnostic or decision of one of the primary actors, the epidemic alert will be lifted and SHeavy will notify all users that the epidemic is over.

Level: Subfunctional level
Main Success Scenario :
    1. Medical Department notices that the epidemic is over or that the diagnostic was not right. They will immediately lift the alert and SHeavy updates his alert notification.
    2. Military Department finds out that an epidemic is over or that their information was not right. They will immediately lift the alert and SHeavy updates his alert notification.
    3. The Government finds out that an epidemic is over or that their information was not right. They will immediately lift the alert and SHeavy updates his alert notification.
    4. The system will automatically lift the pre-alert if the alert notification was not confirmed. For example due to a misclick or misfunction of the system.

3.1.6 Alert Assessements

Use Case: AlertAssessement
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Medical Departement, Government
Secondary Actor: Common
Intention: After the recognition of a possible epidemic, the concerned primary, which is going to trigger the alert, will rate the epidemic in a color-scale (orange or red). In order to inform the common user as best as they can.
Level: Analyse level
Main Success Scenario :
    1. If there are some cases of an epidemic, the concerned primary actor will trigger the orange level alert.
    2. If the epidemic is already spread out or infected person percentage is greater than 1/4 of the country's population then the concerned primary actor will trigger the red level alert.
    3. The green level alert is triggered per default in other words there's no epidemic.

3.1.7 Set Camps

Use Case: SetCamps
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Laboratory, Military Departement
Secondary Actor: None
Intention: Set up a safe camp or a quarantine zone.
Level: Subfunctional level
Main Success Scenario :
    1. The Laboratory surveys the status of a zone.
    2. After the Laboratory confirms that a zone is safe or infected, the Military Departement is notified.
    3. The Military Departement set up a corresponding safe camp or quarantine zone.
    4. If a camp is already classified as safe or danger, a new confirmation of the Laboratory could come that changes the status of the zone.
    5. The Military Departement resets the camp to the corresponding change.

3.1.8 Set or change zone state

Use Case: SetZoneState
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Laboratory, Government
Secondary Actor: None
Intention: Set or change the state of a zone after the confirmation of the Government.
Level: Subfunctional level
Main Success Scenario :

1. After the TriggerAlertState or LiftAlertState, the Government confirms the respective state of a zone: Safe, Unsafe, Danger.

2. The state of zone is also received by SHeavy.

3. SHeavy sets the state to a new zone or changes the state of a current zone to the respective new state.

4. SHeavy updates the state of that zone in the database that updates any corresponding functions of the application.

5. SHeavy notifies the Medical Department and the Military Department that a new region has the corresponding state or that an existing region changed his state to the new state.

3.1.9 Update Map after alert state

Use Case: UpdateMap
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Laboratory, Military Departement
Secondary Actor: None
Intention: Update the map and GPS accordingly to the confirmation of a change of zones.
Level: Subfunctional level
Main Success Scenario :

1. The Medical Department and/or the Military Department uses the TriggerAlertState or LiftAlertState and the Government confirms the change of state.

2. SHeavy receives that the state of a city or region is changed to a zone type.

3. SHeavy updates the map and GPS accordingly to the alert message.

4. SHeavy sent a message to the Medical Department, Military Department and Government that the state has changed.

5. SHeavy sent an alert message to the Common User in order to inform this change.

Extensions:

3.a The state of a city or region is set or changed to Safe, Unsafe or Danger.

3.a.1 After the TriggerAlertState or LiftAlertState, Sheavy receives the state.

3.a.2 SHeavy uses that information to set new zones and update the map and GPS.

3.2 Creator procedures

3.2.1 System Creation

Use Case: SystemCreation
Scope: Crisis Management System (*SHeavy*)
Primary Actor: Creator
Secondary Actor: None
Intention: The intention of the Creator is to set in place the system made to handle a epidemical crisis.
Level: Sub-functional level
Main Success Scenario :

1. The system is set up.//

3.3 Medical Department procedures

3.3.1 Handling of infected patient

Use Case: HandlingOfInfectedPatient
Scope: Crisis Management System (*CMS*)
Primary Actor: Doctor
Secondary Actor: Labotatory
Intention: The Medical Department intends to update the application with the newest data about infected people, no matter what sickness they have. In case of a known epidemic infection, keep an updated record of the growth of the epidemic.
Level: Sub-functional level
Main Success Scenario :
    1. The Medical Department performs a medical check on a patient.
    2. The Medical Department sends data about that patient to the application.
    3. If the patient shows signs of an infection that is an already known epidemic infection, his data and location will be automatically updated on the data center part dedicated to this matter and also notify on SHeavy.
    4. If the patient shows signs of an unknown infection the medical Department will proceed on taking a sample of blood for further testing.
    5. The Medical sends the sample to the nearest laboratory in order to find a cure.

3.4 Common users procedures

3.4.1 Alert while entering a Danger Zone

Use Case: DangerAlert
Scope: Crisis Management System (*CMS*)
Primary Actor: Common user
Secondary Actor: None
Intention: Warn a user that he is about to enter a Danger Zone before entering the Danger Zone.
Level: Sub-functional level
Main Success Scenario :
    1. The common user is going somewhere in or near a Danger Zone to do something.
    2. The common user is located by SHeavy and John is near a Danger Zone and is going in its direction.
    3. SHeavy immediately send a warning to John's Phone, indicating that John is entering a Danger Zone.
    4. The common user sees the warning and he takes a way around the Danger Zone.

3.5 Gouvernement Procedure

3.5.1 Handling Ressources

Use Case: HandlingRessources
Scope: Crisis Management System (*CMS*)
Primary Actor: Gouvernment
Secondary Actor: None

Intention: Any actor can live track where each Team of each Departement is working. It shows if a team is avaible. Ressources Requirments can be sent.

Level: Sub-functional level

Main Success Scenario :

1. The gouvernment has a detailed list where all the teams are distributed and can in function apply a stratigy to minimize the expansion of the epidemic

2. The gourvenment sees which teams are available and affect them to a mission changing in the same time the team status to unavailable.

3.6 System procedures

3.6.1 Finding safe route

Use Case: FindSafe

Scope: Crisis Management System (*CMS*)

Primary Actor: System

Secondary Actor: Common User

Intention: Suggest the user the safest way to get to a safe place (e.g. hospital).

Level: Sub-functional level

Main Success Scenario :

1. The common user is going to a safe place and uses the GPS of SHeavy.

2. SHeavy calculates the fastest way to the indicated place.

3. SHeavy shows the safest way from the GPS to John.

Extensions:

2.a SHeavy calculates the fastest way avoiding Unsafe and Danger Zones.

2.a.1 SHeavy ignores any way through an Unsafe/Danger Zone.

2.a.2 SHeavy calculates the fastest way from the non-ignored ways.

Chapter 4
Software operations

Explain each allowed software operations (i.e. an atomic unit of treatment, a service, a functionality) including a brief description of the operation, required parameters, optional parameters, default options, required steps to trigger the operation, assumptions upon request of the operation and expected results of executing such operation. Describe how to recognise that the operation has successfully been executed or abnormally terminated. The template given below (i.e. section 4.1 has to be used).

Group the operations devoted to the needs of specific actors. Common operations to several actors may be grouped and presented once to avoid redundancy.

4.1 MyOperation

The system operator creates and adds a new crisis to the system after being informed by a third party (citizen, organization) and selects a crisis handler for the crisis.

4.1.1 MyExample1

Examples should illustrate the use of **complex operations**.

Each example must show how the actor uses the software operation under description to achieve (at least one of) its expected outcome.

It might be required to include GUI screenshots to illustrate the example.

4.2 Requirements

The professional user (medical department, government) can request material needs or support by a resource team. The user has to describe the needs in the corresponding window.

Parameters: Needs Information, Needs Request
Precondition: The user has to be logged in as professional and click on the 'Need' button in the resources menu.
Post-condition: A need request is send to the corresponding groups.
Output messages: The needs are send to the corresponding team.
Triggering:

1. Click on menu, then resource and then on needs.
2. The user has to fill out the Needs Information that is the selection of the receiver, as well as the description of the needs.

3. The user has to indicate his location to add a verification of the needs.
4. After filling in, click on 'Send' to notify the resource teams of your request.
5. The user will be notify after the receiver confirms the request.

4.3 Send Alert

The professional user create an alert message to an event, including a description of what happened and what should be done as a reaction of that event.

Parameters: Alert Information, User and State Information
Precondition: The user is logged in as professional user and is sending an alert message.
Post-condition: An alert message is sent out to the users selected in the alert message window.
Output messages: The selected users will be notified after the alert is confirmed.
Triggering:

1. In the alert message window, the user fills out the alert information: the title and the description text-fields.
2. Select which user should receive the alert as well as indicating the state of the alert if needed.
3. Click on the 'Send' button and in the next screen click on 'Yes' if you are sure to submit this message.

4.4 Find Safe Place

Any user requests the safest and fastest way to a certain safe place e.g. hospital, safe camp. The operation will send him through GPS to the selected place.

Parameters: Place Information, Place Location
Precondition: The user is logged in and is requesting to find the safe place.
Post-condition: The application send the user to the GPS.
Output messages: Route to the selected safe place is ready.
Triggering:

1. In the menu the user clicks on 'Safe Place Finder'.
2. A new window shows a list of safe places and the user choses one by clicking on the one the user wants to request the route and send the Place Information to SHeavy.
3. SHeavy send back the Place Location which includes the actual location as well as the safest route.
4. The user is lead to the GPS window.

4.5 Urgency Call

Any professional user requests a call to a specific group in a certain location by selecting them in the contact list or using the search to find the group (medics, fireman, military) by name or location (e.g. hospital/camp name or city they are located).

Parameters: Contact Information
Precondition: The user is logged in and is requesting to make an urgency call.
Post-condition: The application uses call the respective group or person.
Output messages: Calling 'ContactX'
Triggering:

1. Open the 'Contacts'-menu.

2. Open the 'Contacts'-menu.
3. Click on 'Call' to request a call to the person or group.

Chapter 5
Error messages and problem resolutions

All known problems in using the software should be listed and explained in details using the structure presented below.

Contact information for reporting any problems (either with the software or this document) should be clearly indicated

5.1 Error message 1

5.1.1 Problem identification

A description explaining the meaning of the faced problem.

5.1.2 Probable cause

A description explaining the reasons why such a problem has been raised.

5.1.3 Corrective actions

Describe the required steps the actor should take to recover from such situation.

Appendix A
Title of the appendix 1

Here you write the context of the appendix, structuring such content in sections, sub-sections and sub-sub-sections, if needed.

An example of appendix is the flat presentation of all the graphical user interface screens. Each screen can be presented (identification symbol and description) and screens transition graph can be given.

A.1 My Section

Description of the section.

A.1.1 My subSection

A.1.1.1 My subSubSection

References

1. IEEE: IEEE Standard for Software User Documentation. IEEE Std 1063-2001 (Dec 2001) 1–24