

# **MALTA 2011**

## **LEAN BUSINESS EXCELLENCE**

- advanced executive education -

**First time in Malta**

**Dr. Carlo Scodanibbio  
and  
Ing. Joseph Micallef**

**jointly present:**

**“a modular and most comprehensive training program on lean management principles for the industry within the Maltese islands and neighbouring countries”**

***Training Event 03:***

### **“TOTAL PRODUCTIVE MAINTENANCE & LEAN PLANT/ASSETS MANAGEMENT”**

**11-13-15 July 2011 – Malta Enterprise – San Gwann - Malta**

**what has to be changed in the traditional approach to maintenance operations and plant/assets management in order to face the challenges of the years 2000**

with thanks to:



**TPM & LEAN PLANT/ASSETS MANAGEMENT**  
**A 3-Day Course Developed And Presented By:**

**Dr. Carlo Scodanibbio – Ing. Joseph Micallef**  
email: [carlo@scodanibbio.com](mailto:carlo@scodanibbio.com) [jmicallef@theiet.org](mailto:jmicallef@theiet.org)

<http://www.scodanibbio.com/malta2011/>

An illustration featuring several interlocking gears of various sizes and colors (blue, grey, and white). A stick figure is positioned in the center, appearing to be working on or adjusting one of the gears. The background is dark, making the gears stand out.

# TOTAL PRODUCTIVE MAINTENANCE & LEAN PLANT/ASSETS MANAGEMENT

## Foreword .

*“We are what we repeatedly do. Excellence, therefore, is not an act, but a habit. Aristotle”*

**FROM THE DESKTOP OF DR. CARLO SCODANIBBIO AND ING. JOSEPH MICALLEF**

Dear Delegate(s),

### **Maintenance.**

*It has been officially invented and structured as a plant management discipline over 60 years ago.*

*Technically, it has gone through many and major changes: maintenance techniques have been improved, modified, widened and new maintenance techniques have been discovered over the last 2 decades. Organisationally, however, maintenance has only somewhat changed with the advent of Nakajima's TPM – Total Productive Maintenance. Today, maintenance is changing again.*

*Today, we discover that “maintenance” does not always deliver what it promises: plant, machinery and equipment operating efficiently and effectively along their entire lifecycle and at the least possible total cost.*

*The signals are clear and well known: major breakdowns still materialise in spite of excellent preventive maintenance and even autonomous maintenance practices – minor breakdowns, minor stoppages, idling, reduced-capacity operation, quality defectiveness and other malfunctions are still present in the majority of factories and plants world-wide in spite of efforts and investments to reduce them considerably – maintenance costs are still too high for the level of competitiveness required nowadays – waste (of maintenance manpower, of materials, of operation time) is at un-acceptable levels – large maintenance works and yearly shut-down projects are seldom completed in time and within budget – outage maintenance often becomes panic management.*

*There is a common denominator to all signals above: inadequate project management and inadequate planning – that is, inadequate thinking. Most maintenance works – even routine, scheduled maintenance activities – ARE project works by their own nature and as such should be handled. However, project management practices are only dedicated (when it so happens!) to large-scale maintenance works and with doubtful effectiveness. Project Management and, even less, Lean Project Management, are hardly known to maintenance people at ALL levels. That's what is lacking.*

*The real revolution in the maintenance world is taking place only now. Under the Lean Thinking philosophy, lean principles can and should be deployed also in maintenance activities and made known to all those concerned, including maintenance technicians and workers.*

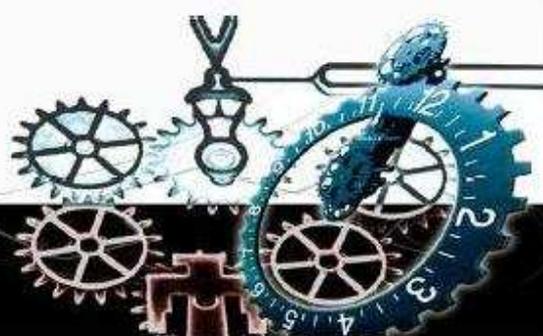
*This course will be a shocking experience for many of you. Because it demystifies all traditional principles of the first industrial revolution on which the majority of enterprises, still today, are built or around which they operate. By presenting in rather great detail the philosophy of the second industrial revolution and the main tools and disciplines readily available to all enterprises to perform in an “excellent” status, this course is a door-opener to lean project/construction practices for whoever is:*

- ready to listen to message
- prepared to abandon obsolete principles, formulas and approaches
- willing to get to “lean” status.

*By showing that “thinking” is what must change at all levels of an organisation, this course will prove that higher levels of performance can be achieved if you create the right conditions.*

*We GUARANTEE that you will leave this workshop with the knowledge and tools to improve the value proposition of your organisation!*  
*Dr. Carlo Scodanibbio and Ing. Joseph Micallef*

**Lean isn't an option any more - it's a necessity!!!**

An illustration featuring several interlocking gears of various sizes and colors (blue, grey, and white). A stick figure is positioned in the center, appearing to be working on or adjusting one of the gears. The background is dark, making the gears stand out.

**Course Trainers:**  
Dr. Carlo Scodanibbio and Ing. Joseph Micallef - Independent Consultants

**Course Dates:**  
11-13-15 July 2011

**Course Venue:**  
Malta Enterprise – San Gwann

# TOTAL PRODUCTIVE MAINTENANCE & LEAN PLANT/ASSETS MANAGEMENT

## Course Outline .

**“a very thorough and comprehensive programme on all aspects of lean maintenance”**

- What is “Maintenance” – definitions and classification of Maintenance operations
- Overview of main Maintenance Operations: **Reactive Maintenance** (Breakdown Maintenance) – **Preventive Maintenance** (Scheduled routine Maintenance) – **Predictive Maintenance** (Condition-based Monitoring) – **RBI (Risk Based Inspection)** – **RCM (Reliability Centred Maintenance)** – **IPF (Instrument Protective Function)** – **Shut-down Maintenance - Outage Maintenance.**
- The impact of the **TPM (Total Productive Maintenance)** discipline in the Maintenance domain
- “Traditional” **TPM goals** – today’s TPM goals
- The **6 Big Equipment Losses**
- Measuring **OEE (Overall Equipment Effectiveness)** under the TPM angle of view
- Equipment Ranking
- Specific **TPM tools**: **SOCO (5S)** and **Workplace Management** - Establishment of **Equipment Optimal Conditions** – the **PM Analysis** – tools to fight equipment **Minor Stoppages** – tools to fight equipment **Reduced Speed** – tools to fight inadequate **output Quality** – tools to fight **Start-up Yield Losses** – tools to fight “**accelerated**” deterioration and for prevention of **breakdowns**
- The difference between traditional equipment overhaul/refurbishing and **TPM Equipment Restoration**
- TPM as “integration” system between all organisational areas that deal with plant and machinery
- **TPM Autonomous Maintenance**: the heart of TPM
- TPM programs for the Maintenance and for the Production/Plant Operation Departments
- **Maintainability Improvement** and **Maintenance Prevention**: new horizons under the TPM Plant Management philosophy.
- Standardisation and **Equipment Maintenance Standards**
- **Maintenance Planning** and **Maintenance Records**
- **Spare Parts Management**
- **Plant Management Economics**: Maintenance Budget Management – Maintenance Budget Control – Minimising Equipment **Life-Cycle Costs**
- Measuring TPM Effectiveness
- A TPM Implementation Case-Study
- **ALL Maintenance Works are Project Works!** As such, they must be planned and managed accordingly!
- “Traditional” **Project Management** and **Project Planning**: overview of basics concepts and core principles.
- Planning, Scheduling, Controlling Projects: the “traditional” approach – basic reasons for Planning – the traditional **PBS (Project Breakdown Structure)** - **PERT** and **CPM**: basics - the Project Program – **Gantt (Bar) Diagram** - the **Earned Value** method – **Project Risk Management.**
- Analysis of the weaknesses and failures in traditional Planning: why so many projects are completed late, with cost overruns and dissatisfaction? why “project performance” is often poor? The root causes of poor performance date back to over 2 centuries ago. We have gone into the 21st century, with enterprises designed in the 18th and 19th centuries to perform well in the 20th.... Is our Industrial DNA still polluted by those obsolete principles that gave birth to the **first Industrial Revolution**? Case studies.
- Today’s key to **World-Class Performance** in all Industrial Sectors: **Lean Thinking** – basic core principles.
- Deploying **Lean Thinking** principles in the Maintenance domain, in the Project world and in the Planning area. Targets: **elimination of waste** – **establishment of flow.**
- What is a **Lean Project** and **Lean Maintenance Project Management**. Where does **waste** hide in traditional projects – where does **waste** hide in maintenance works and how to identify the main items of waste: idling, walking, talking, moving, excessive handling, double-handling, searching, un-necessary work steps, making errors and mistakes, fixing errors an mistakes, misunderstandings, trial-and-error approaches, overlooking, inadequate or excessive or un-necessary supervision/control, waste in paperwork, waste of materials, etc. - how to reduce waste drastically – why maintenance works don’t flow.
- The starting points: how should maintenance project's processes be planned for subsequent, lean implementation – how to conceive and visualise **flow working processes**
- **Team Exercising**: traditional planning vs. lean planning – see the differences
- Analysis: why do we plan “by impulse”? Why don’t we have enough time to plan “lean”? Is it really a matter of time or rather of “style of thinking”? Why do we miss the “crucial” points and overlook that “something really important”? Why do we discover “unforeseen/s” and “surprises” during works executions?

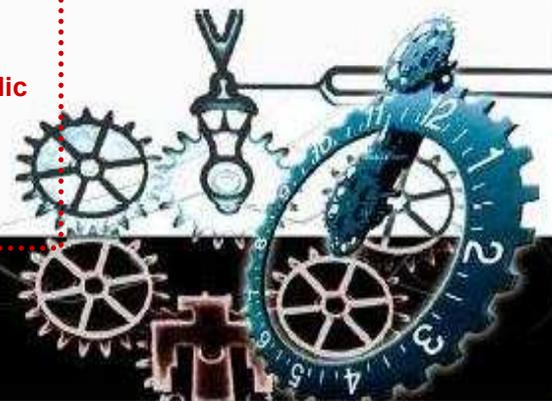
**This course is very interactive and supplemented with abundant practical exercises and case studies.**

**This course is equally beneficial for all Industrial Sectors (Manufacturing Industry – Continuous Process Industry - Construction Industry – Service Establishments – Engineering) and for Public/Governmental and semi-Public Bodies and Institutions active in all sizes Maintenance works.**

**Derived from Dr. Carlo’s extensive experience on Lean processes, this course will be conducted with a highly engaging and result-oriented approach that gives you immediate and substantial practical know-how.**

**Course Dates:**  
11-13-15 July 2011

**Course Venue:**  
Malta Enterprise – San Gwann



# TOTAL PRODUCTIVE MAINTENANCE & LEAN PLANT/ASSETS MANAGEMENT

## Course Outline .

An excellent course, Carlo has opened my eyes with his energy-giving class.  
[Estelle Vermaak – Site Manager – Rotek – South Africa]

- The role of **Creativity** in planning – the relationship between *Creative Thinking* and *Lean Thinking* – the difference between traditional “automated”, reactive thinking and “lean”, proactive and projective thinking.
- **Lean Planning** operationally. The concept of the **Last Planner**: how to eliminate all waste in Project and Maintenance works. How to make maintenance work *flow*, work-package after work-package - how to conceive “*realistic assignments*” – how to plan them – how to assure a high PPC (Percent Plan Complete) – how to improve the PPC even further by using the *5Why* technique.
- The “lean” approach to Preventive/Scheduled Maintenance works: why Maintenance Personnel should be Last Planners.
- The “lean” approach to large-scale and Shut-down Maintenance operations – the **Concurrent Engineering** approach – **Lean Risk Management**, or deploying Risk reduction techniques to assure regular work-flow and respect of the time parameter: **FMEA** (Failure Mode and Effect Analysis) – **FTA** (Fault Tree Analysis) – **Markov Chain** – and others.
- The “lean” approach to management of external maintenance sub-contractors integrating them in the works’ *flow*.
- About Maintenance Planning Software: is it really beneficial? Under what conditions? Open debate.
- **Lean Plant & Assets Management**. What has to be changed in the traditional approach: the focus must be on “*process flow*” and not in individual “*efficiency*” – case studies. The “super-star-galactica” cul-de-sac in Plant Selection and Management. Methods first, then Technology – or how to maximise value added for equipment life.
- **Lean Planning, Lean Maintenance, Lean Plant Management and People**. A new breed of people is required in the modern maintenance world - the “multi-skill” and “multi-function” factors - the “empowerment” factor - self-planning - self-control. Should everybody be a “*last planner*”?

Excellent course: Carlo is brilliant and liberates the mind from the chains of traditional thinking that inhibits any real progress in improvement in the workplace.  
[Yuri Mynhardt - QC Manager - Circuit Breaker Industries Ltd - Isando - South Africa]

### WALK AWAY HAVING A POWERFUL GRASP OF WORKING SKILLS TO:

- **Understand** the basics of modern Maintenance and Plant Management and the Lean Thinking philosophy, performance goals and critical success factors
- **Understand** the real reasons of failure of maintenance operations managed and planned with a “traditional” style
- **Trigger** a different thinking mechanism suited to focus onto crucial issues of the planning process
- **Use** lean ideas to see maintenance works as “waste-less flow processes” and to think about improvement of the whole maintenance function
- **Equip** your toolbox with lean planning tools, tips and techniques
- **Learn** how to ensure Maintenance works of any size/scale will be accomplished in time, within budget and with overall satisfaction
- **Understand** the difference between traditional Plant Management and Lean Plant/Assets Management
- **Learn** how to transmit lean concepts to your own people and to external parties such as maintenance sub-contractors
- **Implement** strategies to increase Plant Performance through lean-thinking people while assuring their job satisfaction

An excellent course, one of the best I have ever attended in many years.  
[Danisa Malope – Maintenance Manager - Eskom – South Africa]

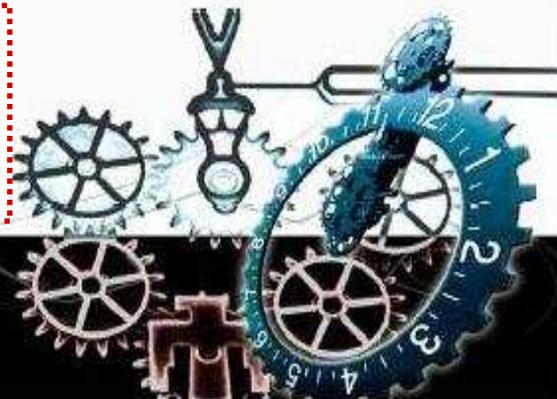
An excellent course, it was an eye opener  
[Ernst Mathias – Manager, Projects – National Housing Enterprise – Windhoek – Namibia]

**Training Grants ranging between 60 and 80% may be made available to eligible enterprises through the Training Aid Framework (TAF) Scheme administered by the ETC.**

**Deadline for Training Grants Application: 17 June 2011.**

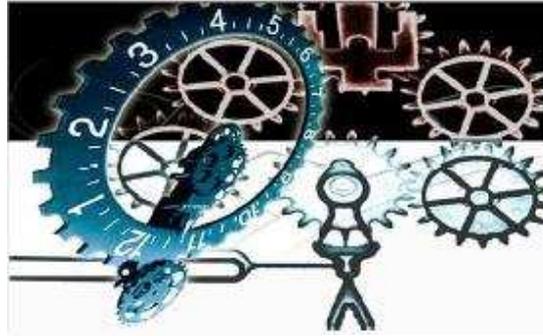
**NB: the onus of enquiring about and applying for Training Grants rests vested with your Organisation.**

**“ if it doesn't add value, it is waste ”**



# TOTAL PRODUCTIVE MAINTENANCE & LEAN PLANT/ASSETS MANAGEMENT

## About your Facilitators .



**Ing Joseph Micallef** graduated in electrical engineering from the University of Malta in May 1992. He has been involved in the manufacturing industry since 1990. Initially starting his career within the medical devices and plastics processing manufacturing sector, he later moved on within the electronics manufacturing sector. Throughout his career, Joseph has had experiences in a variety of industrial and automation processes, research and development projects, various manufacturing processes and occupied senior technical and management roles in research and development, process control, quality management, occupational health safety and business process management. For over these last c. 14 years, Joseph has been occupying the position of Quality Manager within a very dynamic high tech electronics manufacturing industry sector. Apart from his broad industrial experiences gained through the last c. 20 years, Joseph has also paralleled his experience within the services sector through his various freelance projects which he has undertaken since the year 2000 when he had ventured into the freelance consultancy and mentoring/training business. Joseph's career spreads primarily in Malta, but he has been assigned several projects and training opportunities in various countries within Europe (UK, Scotland, Belgium, France, Finland, Italy), the US (Jacksonville, Houston) and the Middle East (Egypt). Ing. Joseph Micallef is a corporate member of a number of institutions.

In particular he is registered Chartered Engineer with the Engineering Council (UK) – *C.Eng.*, corporate member in the Institution of Engineering and Technology (UK) - *M.I.E.T.*, European engineer through FEANI – *Eur.Ing.*, and warranted member within the Chamber of Engineers (Malta).



**Dr Carlo Scodanibbio** is an internationally renowned Trainer, Speaker and Industrial Consultant with over 40 years of experience in Plant Engineering, Project Engineering, Project Management, Industrial Engineering and Operations Management. A free-lance Consultant since 1979, he has worked in a wide spectrum of companies and industries in many Countries including Cyprus, Italy, India, Saudi Arabia, Malta, Namibia, Kenya, Botswana, Malaysia, Mauritius, Romania, Turkey, Lebanon and South Africa. Carlo has co-operated, inter-alia, with several organisations such as Italian Chambers of Commerce and Industry, Cyprus Chamber of Commerce and Industry, Cyprus Productivity Centre, Malta Federation of Industry, Malta Chamber of Commerce and Industry, Mauritius Employers' Federation, Romanian Paper Industry Association, United Nations Industrial Development Organisation, Federation of Kenya Employers and University of Cape Town.



An excellent course. I believe that any seminar whichever must be conducted by someone who is capable, has true art of teaching, brilliant, ready to help, smart to the point, assuring, good observer, and with comprehensive knowledge, as Dr. Carlo Scodanibbio. I have enjoyed the course and learnt to my entire satisfaction. [S Eraddun, Desbro Int., Mauritius]

Enthusiastic, optimistic and a dynamic facilitator, Carlo has been a frequent instructor and speaker at seminars and courses attended by well over 15,000 participants. Carlo, holds a doctor degree in Electrical Engineering from Politecnico di Milano, and has written numerous articles and research papers which have been actively published in many manufacturing newsletters, bulletins and international magazines.

### Who Should Attend This Prestigious Event:

Senior & Middle-Level Managers (Heads and Directors of Operations, Maintenance and Production - Operations Managers, Maintenance Managers - Reliability Engineers, Production Managers or Engineers - Maintenance Supervisors, Maintenance Planners, Schedulers and Controllers - Plant Managers/Assets Managers - Engineering Managers or Chief Engineers - Project and Shutdown Managers / Leaders / Planners / Coordinators) from the Manufacturing, Continuous Process and Construction industry, as well as professional Project Managers, Engineers and Senior Project/Maintenance Personnel from the Public Works sector and Municipalities. **(Malta & neighbouring Countries)**.

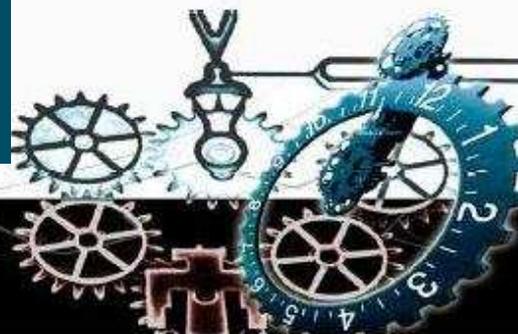
**The small and very small Maintenance/Service Contractors (electrical, mechanical, air-conditioning, piping, etc.) will particularly benefit from participating in this course.**

**A 3-day Training Event for Organisations active in Maintenance operations of any nature.**

#### Timings:

Registration will be at 08:00 on each day with the course beginning at 08:30. There will be a 15min break for refreshments in the morning and the afternoon (at approx. 10:15 and 15:15 respectively) and lunch will be served at 12:30. Each course session will conclude at 17:00. All timings are approximate due to the interactive and intensive nature of the course.

An excellent course, very good content, new ideas on how to be better  
[Noel Psaila – Director, Engineering – Mater Dei Hospital – Malta]





# Registration .

(Online Registration: <http://www.scodanibbio.com/malta2011/onlinereg/03.html>)

## Course Fees, Discounts, Terms and Conditions

### Fees and Discounts Structure

(prices are per Delegate excluding VAT)

- |  |         |
|--|---------|
| <input type="checkbox"/> Price per 1 Delegate    | €490-00 |
| <input type="checkbox"/> 2 Delegates: less 5%    | €465-00 |
| <input type="checkbox"/> 3-5 Delegates: less 10% | €441-00 |
| <input type="checkbox"/> 6-9 Delegates: less 15% | €416-00 |
| <input type="checkbox"/> 10+ Delegates: less 20% | €392-00 |

### Deadline for Course Registration

**4 July 2011**

#### Early Bird Registration

Register and settle Course Fees by **13 June, 2011** and get **an additional 10% discount** on the applicable price (as per Fees Structure)

Please complete and sign this Form, scan it and email it to [jmicallef@theiet.org](mailto:jmicallef@theiet.org) or [carlo@scodanibbio.com](mailto:carlo@scodanibbio.com)

### DELEGATE/S DETAILS (in BLOCK CAPITALS) (more than 5 Delegates: please add separate schedule)

- 1 Delegate Name \_\_\_\_\_  
Position \_\_\_\_\_  
Email \_\_\_\_\_
- 2 Delegate Name \_\_\_\_\_  
Position \_\_\_\_\_  
Email \_\_\_\_\_
- 3 Delegate Name \_\_\_\_\_  
Position \_\_\_\_\_  
Email \_\_\_\_\_
- 4 Delegate Name \_\_\_\_\_  
Position \_\_\_\_\_  
Email \_\_\_\_\_
- 5 Delegate Name \_\_\_\_\_  
Position \_\_\_\_\_  
Email \_\_\_\_\_

### ORGANISATION DETAILS (please write in BLOCK CAPITALS)

Organisation \_\_\_\_\_  
Nature of Business \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ P/Code \_\_\_\_\_  
Country \_\_\_\_\_  
Phone \_\_\_\_\_ Fax \_\_\_\_\_

We are registering \_\_\_ Delegates @ € \_\_\_\_/each

Total amount € \_\_\_\_\_  
Less 10% Early Bird Discount € \_\_\_\_\_

Net amount to be invoiced € \_\_\_\_\_

### Authorising Manager

Name \_\_\_\_\_ Position \_\_\_\_\_

Date \_\_\_\_\_ Signature \_\_\_\_\_

(This Registration is invalid without a signature)

Training Grants ranging between 60 and 80% may be made available to eligible enterprises through the Training Aid Framework (TAF) Scheme administered by the ETC. Deadline for Training Grants Application: **17 June 2011**. NB: the onus of enquiring about and applying for Training Grants rests vested with your Organisation.

### TERMS OF PAYMENT

**Fees include:** participation to the 3-day Course "TPM & Lean Plant/Assets Management" to be held at Malta Enterprise in San Gwann on 11-13-15 July 2011 – Refreshments and Lunches – Course Notes and Documentation – **Certificate of Achievement** (*Certificate of Successful Completion*, against satisfactory results in the course's tests and exercises) signed by Dr. Carlo Scodanibbio and Ing. Joseph Micallef – One free e-consulting Advice by Dr. Carlo Scodanibbio and/or Ing. Joseph Micallef. Upon receipt of a duly completed and signed Registration Form, a **Confirmation Letter** and **Invoice** will be sent to you by the organisers. Payment of Course Fees is strictly **on presentation** and is required **within 5 working days** from date of Invoice.

### METHOD OF PAYMENT

Payments may be done by cheque or Bank Transfer in favour of Ing. Joseph Micallef, who acts as the official Course Organiser.

To arrange for payment after receiving **Confirmation Letter** and **Invoice** kindly contact Ing. Micallef directly on (+ 356) **9982 2244** or email [jmicallef@theiet.org](mailto:jmicallef@theiet.org)

### CANCELLATION POLICY

All Cancellations of Registrations must be made in writing. Due to contractual obligations, a cancellation charge of 30% of the invoiced amount applies if the cancellation is received 10 days or less before Course starting date. However, a complete set of documentation will be sent to you. Substitutions are welcome at any time. Should the course be cancelled by force-majeure or for any other reason, you will receive a **full refund** of the paid Fees.

<http://www.scodanibbio.com/malta2011/>

