

Training Courses Catalog

-

2025 Edition



Training on reliability in NDE

EXTENDE | **CIVA**

Reference: ENDC24D011

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1. Introduction

Thank you for your interest in our training sessions!

Our training options for 2025 are focused on two main themes:

- Training to use CIVA software,
- Training on reliability in NDE.

Our training material evolves constantly, as we update it with your feedback, with new features and constant improvements in CIVA.

This year, our team mainly offers in-person CIVA software training sessions. Online full training sessions will be provided only upon request.

In 2025, we plan to hold the following intercompany training sessions:

- 2 CIVA UT courses (+ additional module CIVA RT/CT or CIVA UT Analysis)
- 1 “Reliability in NDE” course (3.5 days)

For all our courses, it is recommended that participants have basic knowledge in the field of NDT (and in statistics for reliability in NDE). The courses described in this catalog alternate between lectures and large hands-on practical use with CIVA software on a PC through a set of application examples.

2. The trainers

For the “Reliability in NDE” training program, the trainer will come from our French sister company “EXTENDE SA”. For some other specific or dedicated training sessions, EXTENDE Inc. might also work with their colleagues from France.



Ms. Erica Schumacher,
CIVA trainer,
Vice President of
EXTENDE Inc.



Ms. Starr D'Auria,
CIVA trainer,
NDE Engineer.



Mr. Fabrice Foucher
CIVA and Reliability
in NDE trainer
ET L3,
Business Manager.



Dr. Bastien Clause,
CIVA and Reliability
in NDE trainer
NDE Engineer.



Mr. Roman Fernandez,
CIVA trainer,
RT L3, International
Development Manager.



Dr. Sébastien Lonné,
CIVA trainer,
UT L3, Technical Manager.



Dr. Benoit Puel,
CIVA trainer,
He takes care of studies,
support, and R&D
projects



Mr. Jérôme Dudous,
CIVA trainer.
He takes care of studies
and support.



Ms. Laura Clément,
CIVA trainer,
RT L2. She takes care
of studies, support,
and R&D projects.



Mr. Anouar Kalai,
CIVA trainer,
ET L3. He takes care of
studies, support, and is also a
Flux (FEM) expert

3. CIVA training course



3.1 Choosing the right course

Since CIVA offers more and more solutions and new modules, we want the CIVA user community to take full advantage of this software and all its capabilities.

By participating in these training courses, you will be able to **maximize the benefits of CIVA**, know its limitations and get sufficient knowledge of the calculation models to **perform more efficient simulations**. EXTENDE provides **comprehensive training courses** for CIVA software, the expertise and modelling platform for NDT. These courses are intended **for CIVA users, future CIVA users, or people wishing to understand the modelling possibilities and benefits of using the software**.

Different users require different knowledge and have different expectations for CIVA. That is why EXTENDE provides different kinds of training courses, that will allow the trainee to choose the one that fits their needs. Details of all the courses are described in §5.

3.2 Inter-company training sessions:

You will find detailed programs in this catalogue. Such sessions last 5 days. In addition to the inter-company UT sessions, an additional module is optionally proposed following the UT module (among CIVA RT/CT or CIVA Analysis).

For people interested only in the UT module, it is possible to register only for the first 3.5 days.

3.3 Dedicated introductory courses:

This type of training session can be organized, either at the customer's facilities or at EXTENDE's premises, depending on the customer's preference. To take advantage of this option, the sessions are scheduled for a maximum of six people.

We can provide training sessions for more than six participants, but in this case, in order to ensure that each trainee gets the necessary attention for a satisfying course, we will provide two trainers with an additional cost for the second trainer.

The duration of these sessions depends on the number of CIVA modules to be covered. Please contact us for more details.

3.4 Full Dedicated “online” introductory courses:

EXTENDE Inc. also proposes a dedicated “online” course for CIVA software when in-person training courses are not easy to organize (distance, availabilities...). This session is done via a "Teams" conference and is typically split into several nonconsecutive days. This session is scheduled for a maximum of six people from the same company.

3.5 Short dedicated “online” introductory course:

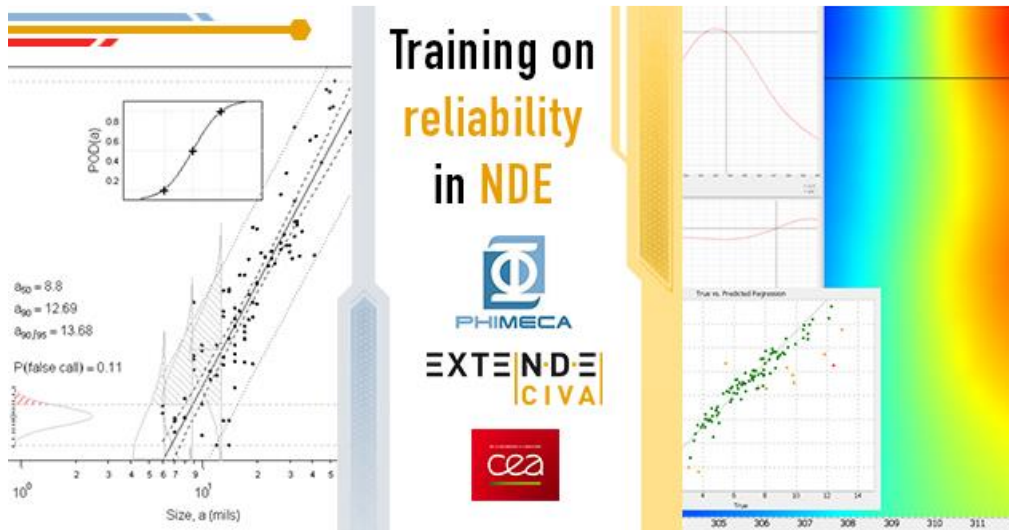
This session is done via a "Teams" conference and is organized with one or two remote session(s) of 3 hours. This session is mainly proposed in addition to a complete “in-person” course:

- Before a complete course, this session helps to quickly learn the very basics of the software in order to be efficient as soon as you start using it.
- After a complete course, such short online sessions are well suited for reminders, or to provide additional information, or again to answer users' questions after some time of practicing with the software.

3.6 Dedicated advanced courses:

With this option, the program is tailored to your needs. Training can take place on the customer's site or in our facilities. The customer will send some specific application cases a few days before the beginning of the session, so that the trainer can prepare the modeling of these cases. It is recommended to have followed an introductory course first before an advanced one.

4. Reliability in NDE training course



4.1 Inter-company training sessions:

You will find the detailed programs in this catalogue. Such sessions last 3.5 days, usually from Tuesday to Friday at noon, and are held in our facilities.

4.2 Dedicated courses:

This type of training session can be organized, either at the customer's facilities or in EXTENDE's premises, depending on the customer's preference. To take advantage of this option, the sessions are scheduled for a maximum of six people.

5. Program of the sessions

5.1 CIVA Inter-company introductory course: “Introduction to CIVA & applications”



Length: 5 days

<p>Day 1:</p> <ul style="list-style-type: none"> ▪ General introduction on CIVA ▪ Presentation of CIVA UT / Beam computation ▪ Exercises of practical applications with CIVA UT / Beam computation 	<p>Day 2:</p> <ul style="list-style-type: none"> ▪ Presentation of CIVA UT / Inspection Simulation ▪ Exercises on practical applications with CIVA UT / Inspection Simulation
<p>Day 3:</p> <ul style="list-style-type: none"> ▪ Presentation of Phased-Array UT sensor simulation settings ▪ Exercises on practical applications with Phased-Array UT sensors 	<p>Day 4:</p> <ul style="list-style-type: none"> ▪ Presentation and practical applications for parametric studies, metamodels and POD ▪ Presentation of CIVA RT/CT or CIVA UT ANALYSIS* <p><i>* see Part 6 for 2025 calendar</i></p>
<p>Day 5:</p> <ul style="list-style-type: none"> ▪ Practice on one additional CIVA module (CIVA RT/CT or CIVA UT ANALYSIS) 	



Registration deadline: Contact EXTENDE no later than a month before the training. Registration will be validated according to the available places and the conditions and deadlines defined in the commercial offer sent by EXTENDE.

Objectives: After the course, the trainees will be able to build a CIVA simulation configuration autonomously. They will obtain sufficient knowledge of the calculation models to have a clear idea about the capabilities and the limits of the software.

Target audience: NDE engineers and practitioners wishing to learn about CIVA capabilities and/or wishing to use it.

Prerequisite: A minimum knowledge in NDT (level 2 equivalent).

Training documents: The trainees will receive a paper and an electronic copy of the training book and an electronic copy of the presentations.

Price: US\$600 (not including taxes) / person / day.

When: See Part 6 for the 2025 schedule. Additional sessions can be organized on demand if enough people are interested.

Organization details: The session will take place near Extende Inc. at:
Work Place Oyster Point
733 Thimble Shoals Blvd #170
Newport News, VA 23606
United States

Trainees are expected to bring their own laptop. Be aware that CIVA is easiest to use with a graphic resolution of at least 1280x1024.
EXTENDE delivers all the necessary licenses to use CIVA during the course.
EXTENDE will provide lunch each day.

5.2 Dedicated CIVA introductory course: “Introduction to CIVA & applications” in person

EXTENDE Inc. proposes dedicated introductory training sessions organized from 2 to 5 days. **Based on the standard program described in 5.1**, the agenda and the training duration are adapted to the customer’s request. It can be organized either at the customer’s facilities (in USA or Canada) or at EXTENDE Inc. premises, depending on the customer’s preference. At the end of the course, the last day or half-day can be dedicated to the preparation of customer cases, but without advanced preparation from EXTENDE Inc.

Length: 2 to 5 days

Objectives: After the course, the trainees will be able to build a CIVA simulation configuration autonomously. They will obtain sufficient knowledge of the calculation models to have a clear idea about the capabilities and the limits of the software.

Target audience: NDE engineers and practitioners wishing to get some knowledge on CIVA capabilities and/or wishing to use it.

Prerequisite: A minimum knowledge in NDT (level 2 equivalent).

Training documents: The trainees will receive a paper and an electronic copy of the training book and an electronic copy of the presentations.

Price*: US\$1,700 / day. **This price does not include travel fees.**

*Price for a group of 6 people maximum. Beyond this number of participants, additional costs will be applied.

When: Organized on demand and depending on availabilities from our trainers.

Organization details:

- If the session is organized in Newport News, VA, U.S.A., additional fees will be charged at a price defined in the official proposal, for facility rental. Trainees are required to bring their own laptop, however, be aware that CIVA is easiest to use with a graphic resolution of at least 1280x1024. EXTENDE delivers all the necessary licenses during the course. EXTENDE will provide lunch each day.
- If the session is organized on a customer’s site, the trainer’s travel fees will be charged at a price defined in the official proposal. The customer is in charge of the organization of the training room (computers, projector, lunch, etc.). EXTENDE delivers all the necessary licenses to use CIVA during the course.

5.3 Complete CIVA online course: “Introduction to CIVA & applications”

The duration and organization of the training course are adapted to the customer's interest in (a) specific module(s). For example, for the UT module, the course is usually 4 days of attendance. EXTENDE offers a format with different online sessions of 1 or 2 consecutive days maximum each (6 hours per day) with a day in between to allow trainees to complete the exercises. Of course, training sessions that require less than 4 days are also available, in a similarly adapted format. This session is scheduled for a maximum of six people from the same company.

Length: 2 to 8 days, split in different groups of no more than 2 consecutive days maximum. Between each session, the trainees will be able to practice on their own and do some exercises.

Objectives: After the course, the trainees will be able to build a CIVA simulation configuration autonomously. They will obtain sufficient knowledge of the calculation models to have a clear idea about the capabilities and the limits of the software.

Target audience: NDE engineers and practitioners wishing to learn about CIVA capabilities and/or wishing to use it.

Prerequisite: A minimum knowledge in NDT (level 2 equivalent).

Training documents: The trainees will receive an electronic copy of the training book and an electronic copy of the presentations.

Price*: US\$1,425 / day.

*Price for a group of 6 people maximum,

When: Organized on demand and depending on availabilities from our trainers.

Organization details:

- This session is done via a "Teams" conference (or any other device provided by the customer if the Teams is not compatible with the customer's IT system). It is recommended that the customer print the documentation to facilitate the practical session or to have 2 separate screens (for CIVA and for the documentation).
- The customer is in charge of the organization of the trainees' computers.
- EXTENDE delivers all the necessary licenses to use CIVA during the course before the training.

5.4 Short CIVA online course (before or after a full session)

This type of training session is done remotely via a "Teams" conference (or any other device provided by the customer if Teams is not compatible with the customer's IT system), and can meet two types of needs :

- 1) **Before a complete training**, EXTENDE can provide new customers with a tutorial course for software application. This is a very short course, based on a presentation, demonstration, and a practical application on a very simple configuration. It is strongly recommended to follow up with a complete course a few months after this short introductory one, to have a larger overview of the capabilities of CIVA.

The content of the short course is the following:

- CIVA overview
- Brief presentation of the graphical user's interfaces
- Demo: How to prepare a configuration, run the computation and save
- Demo: Introduction to imaging
- Demo: Presentations of the basic analysis tools
- Get you started on a simple example

- 2) This « short » online » course is also very well suited for a « **reminder session** », questions/answers or to provide further information after an initial complete training.

The duration of this session is 3 hours for one module. Another session of 3 hours, which can be delivered later, is necessary if all the modules are undertaken.

Price*: US\$800 / 3 hours or US\$1,425 / 6 hours

*Price for a group of 6 people maximum

When: Organized on demand and depending on availabilities from our trainers

5.5 Dedicated CIVA advanced courses: “To go further with CIVA for your applications” in person

EXTENDE completes its offer of training courses with **more customized sessions** on particular subjects that will need a detailed description of the customer’s targeted configurations.

This format is quite open. The program is defined prior to the training thanks to an in-depth discussion between EXTENDE and the customer and may be structured around specific simulation configurations. These configurations will be communicated by the customer at least 15 days before the beginning of the session, and EXTENDE will plan specific preparation work with some examples. Such a session cannot last more than 5 consecutive days, but, on the customer’s demand, several sessions can be defined and organized at different intervals.

Price: To be defined according to the course duration and the necessary preparation time.

When: Organized on demand and depending on the availability of our trainers.

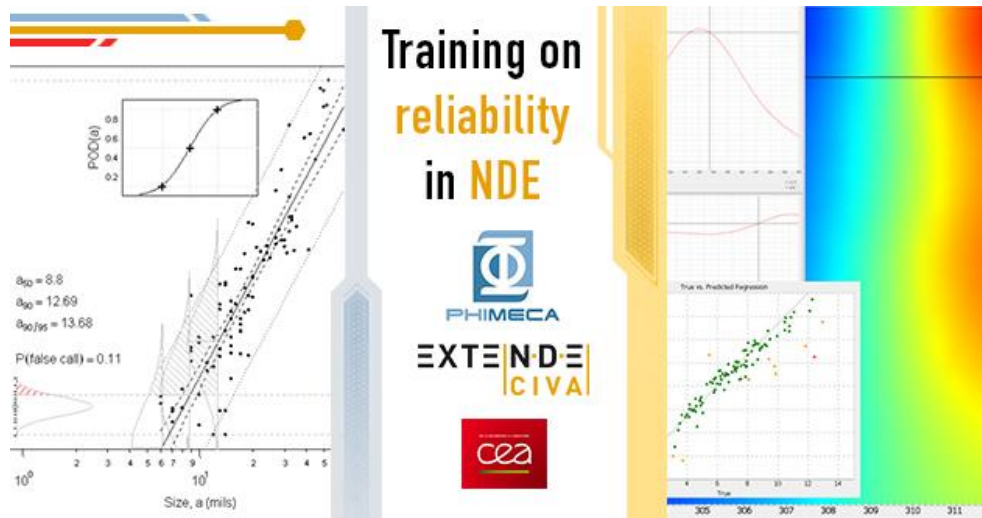
Target audience: NDE engineers and practitioners wishing to use CIVA for more advanced applications.

Prerequisite: A minimum knowledge in NDT (level 2 equivalent) and some experience with using CIVA software.

Organization details:

- If the session is organized in Newport News, VA, U.S.A., additional fees will be charged at a price defined in the official proposal, for facility rental. Trainees are required to bring their own laptop, however, be aware that CIVA is easiest to use with a graphic resolution of at least 1280x1024. EXTENDE delivers all the necessary licenses during the course. EXTENDE will provide lunch each day.
- If the session is organized on a customer’s site, the trainer’s travel fees will be charged at a price defined in the official proposal. The customer is in charge of the organization of the training room (computers, projector, lunch, etc.). EXTENDE delivers all the necessary licenses to use CIVA during the course.

5.6 Reliability in NDE: Inter-company course



Length: 3.5 days

<p>Day 1:</p> <ul style="list-style-type: none"> General introduction Measurements and uncertainties (definitions & statistical tools) To produce a sensitivity analysis & manage the influential parameters 	<p>Day 2:</p> <ul style="list-style-type: none"> Statistical indicators to evaluate reliability in NDE: POD, PFA, NPV, PPV, ROC, Sizing Accuracy, POR
<p>Day 3:</p> <ul style="list-style-type: none"> The standard framework (Deterministic and statistical approaches) Innovative methodologies (About the use of simulation in NDE, MAPOD, “advanced POD” models & perspectives) 	<p>Day 4 (half day):</p> <ul style="list-style-type: none"> Additional application using CIVA simulation: Overall MAPOD approach with CIVA (from sensitivity analysis to POD curves).

Registration deadline: Contact EXTENDE no later than a month before the training. Registration will be validated according to the available places and the conditions and deadlines defined in the commercial offer sent by EXTENDE.

Objectives: The course aims at answering the following needs:

- Get some knowledge on existing processes and methodologies for NDE qualification, standards, reference documents and recommended practices used and how to account for influential parameters/variables
- Understand & master underlying statistical hypotheses & reasoning
- Know how to select and implement these statistical indicators to evaluate the reliability of an inspection (sensitivity analysis, POD, false alarms, etc.)
- Be able to use tools that help you to concretely perform reliability studies in an NDE context, among which simulation can help to reach targets and reduce costs.

Target audience: NDE engineers and practitioners involved or interested in reliability studies: qualification, technical justifications, performance demonstration, POD, etc.

Prerequisite: A minimum knowledge in NDT (level 2 equivalent) and basic knowledge in statistics. For the last half-day, a minimum level of CIVA knowledge is required.

Training documents & tools: The trainees will receive a paper and an electronic copy of the training book and some of the presentations. The workshop will use various tools: "Office" tools, CIVA, and MH1823A-POD (courtesy of Charles Annis).

Price: US\$3,400 /person for the 3.5 days in EXTENDE Inc facilities.

When: See Part 6 for the 2025 schedule. Additional sessions can be organized on demand if enough people are interested.

Organization details: The session will take place near Extende Inc. at:

Work Place Oyster Point
733 Thimble Shoals Blvd #170
Newport News, VA 23606
United States

Trainees are expected to bring their own laptop. Be aware that CIVA is easiest to use with a graphic resolution of at least 1280x1024. EXTENDE delivers all the necessary licenses to use CIVA during the course. It is required to plan a quick remote session with the trainer prior to the training to properly prepare the installation of the other tools (MH1823POD, Open Office).

EXTENDE will provide lunch each day.

5.7 Reliability in NDE: Dedicated course

Length & Agenda: See 5.6

Objectives: See 5.6

Target audience: See 5.6

Prerequisite: See 5.6

Training documents & Tools: See 5.6

Price*: US\$10,500 for the 3.5 days. This price does not include travel fees.

*Price for a group of 6 people maximum. Beyond this number of participants, additional costs will be applied.

When: Organized on demand and depending on availabilities from our trainers.

Organization details:

- If the session is organized in Newport News, VA, U.S.A., additional fees will be charged at a price defined in the official proposal, for facility rental. Trainees are required to bring their own laptop, however, be aware that CIVA is easiest to use with a graphic resolution of at least 1280x1024. EXTENDE delivers all the necessary licenses during the course. EXTENDE will provide lunch each day.
- If the session is organized on a customer's site, the trainer's travel fees will be charged at a price defined in the official proposal. The customer is in charge of the organization of the training room (computers, projector, lunch, etc.). EXTENDE delivers all the necessary licenses to use CIVA during the course.

6. Upcoming Intercompany courses

The dates of the upcoming intercompany training courses for 2025 are provided hereafter.

The costs and the program of these sessions are described in section 5.

If the number of registrations for an inter-company training session is ever not sufficient, EXTENDE reserves the option to cancel this session. The registered participants will be informed 14 days before the planned date of the effective cancellation of this session and will have priority registration to the following session defined in the training catalog.

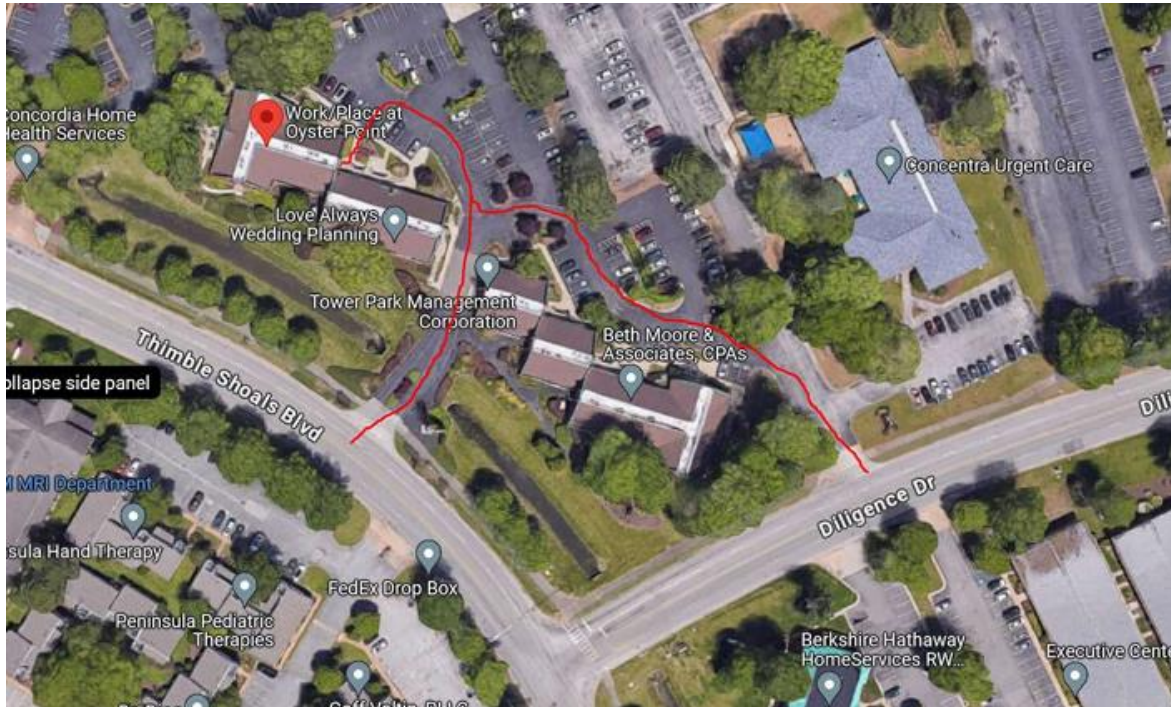
For CIVA training courses, people wishing to only be trained in the UT module would stay for the first 3.5 days.

Training sessions	Dates	Location
Reliability in NDE	March 04 ^h to 07 th	Newport News, Virginia, USA
CIVA UT + CIVA RT/CT	April 07 th to 11 th	Newport News, Virginia, USA
CIVA UT + CIVA Analysis	September 15 th to 19 th	Newport News, Virginia, USA

7. How to reach us?

Training at EXTENDE Inc. facilities (Newport News, Virginia)

Work Place Oyster Point
733 Thimble Shoals Blvd #170
Newport News, VA 23606
United States



Contact us: contactus@extende.com

8. Finding a hotel close to our office

Name	Address	Website	Tel
Newport News Marriott at City Center	740 Town Center Dr Newport News, VA 23606	https://www.marriott.com/en-us/hotels/phfoy-newport-news-marriott-at-city-center/overview/	+1 757-873-9299
Hampton Inn Newport News-Yorktown	151 Ottis St Newport News, VA 23602	https://www.hilton.com/en/hotels/phfhhx-hampton-newport-news-yorktown/	+1 757-989-8977
Hilton Garden Inn Newport News	180 Regal Way Newport News, VA 23602	https://www.hilton.com/en/hotels/orfnwgi-hilton-garden-inn-newport-news/	+1 757-947-1080

9. Airport Recommendations closest to our office

The closest airports in order are the following:

1. Newport News/Williamsburg International Airport
2. Norfolk International Airport
3. Richmond International Airport

You may find that it is easiest to fly into Norfolk or Richmond.