



7th International Conference on
RELIABLE SOFTWARE TECHNOLOGIES
ADA-EUROPE 2002



VIENNA, AUSTRIA, JUNE 17-21, 2002

FINAL PROGRAM



SIGAda

<http://www.ada-europe.org/conference2002.html>





PROGRAM

In 2002, the 7th International Conference on Reliable Software Technologies takes place in Vienna, Austria, from June 17th to June 21st. The conference offers a technical program and exhibition, plus a series of tutorials and a workshop.

The conference provides an international forum for researchers, developers and users of reliable software technologies. Presentations and discussions cover applied and theoretical work currently conducted to support the development and maintenance of software systems.

Vienna, a city with about 2 million inhabitants is situated in the heart of Europe. It is a city on

which its ever-changing history has left an indelible mark, manifested also in the rich cultural heritage. Shaped by its hundreds of years as capital of an empire, the city's ultimate fascination nowadays stems from combining imperial grandeur with explosive modernity.

The conference takes place in the Parkhotel Schönbrunn which originated in 1907 as the guest house of Emperor Franz Josef I. The newly renovated hotel is located in the immediate vicinity of the "Schönbrunn Palace" and its beautiful surrounding park, situated close to the center of Vienna.

TUTORIAL & WORKSHOP TIMETABLE

	Monday 17th			Friday 21st		
	Franz-Joseph Saal I	Franz-Joseph Saal II	Maria-Theresien Salon	Franz-Joseph Saal I	Franz-Joseph Saal II	Elisabeth-Saal
9:30–11:00	T1	T2	T3	T5	T6	W
11:00–11:30	Coffee	Coffee	Coffee	Coffee	Coffee	Coffee
11:30–13:00	T1	T2	T3	T5	T6	W
13:00–14:30	Lunch (Französisches Restaurant)					
14:30–16:00	T1	T2	T4	T5	T7	T8
16:00–16:30	Coffee	Coffee	Coffee	Coffee	Coffee	Coffee
16:30–18:00	T1	T2	T4	T5	T7	T8

Monday June 17 th	T 1	full day	SPARK, an "Intensive overview" – <i>Amey/Barnes</i>
	T 2	full day	MaRTE OS: Bringing Embedded Systems and RT POSIX Together – <i>González/Aldea</i>
	T 3	morning	Principles of Physical Software Design in Ada 95 – <i>Heaney</i>
	T 4	afternoon	Implementing Design Patterns in Ada 95 – <i>Heaney</i>
Friday June 21 st	T 5	full day	CORBA 3 and CORBA for Embedded Systems – <i>Oliver</i>
	T 6	morning	Using Open Source Hardware and Software to Build Reliable Systems – <i>Sherrill/Gaisler</i>
	T 7	afternoon	Cleanroom Software Engineering: An Overview – <i>Bail</i>
	W	morning	Workshop: Standard Container Library for Ada – <i>Lamm</i> (by invitation only)
	T 8	afternoon	Exceptions — What You Always Wanted to Know About Exceptions, But Were Afraid to Ask – <i>Colket</i>

Refreshments will be served in the breaks. Lunch is included for those following all-day programs or two half day tutorials on the same day. Additional lunch tickets are on sale throughout the conference.



MEETINGS

Ada-Europe General Assembly (open)

- Tuesday 18th, 17:30-18:15, Franz-Joseph Saal.

ISO/IEC JTC1/SC22/WG9 (by invitation)

- Friday 21st, 9:00-13:00, Maria-Theresien Salon.

Ada Rapporteur Group (by invitation)

- Friday 21st, 13:00-18:00, Maria-Theresien Salon.
- Saturday 22nd, 9:00-18:00, Suite 234.
- Sunday 23rd, 9:00-15:00, TU Vienna, Dept. Automation, Treitlstr. 1-3, 1040 Vienna.

EXHIBITION

The exhibition opens in the mid-morning break on Tuesday and runs until after the Thursday afternoon break. It takes place in the Parkhotel Schönbrunn's "Kaisersalon", where the coffee breaks are held.

The exhibitors are: ACT Europe, Aonix, DDC-I, Green Hills, RainCode, Rational, and TNI Europe.

Each exhibitor has at least one half hour presentation slot during the vendor track.

The mid-morning and almost all mid-afternoon breaks are 60 minutes to give attendees ample opportunity to visit the exhibition.

Also present in the exhibition area is a bookshop.

GUIDE TO THE SOCIAL PROGRAM

Monday Evening: Welcome Reception

ARC Seibersdorf research GmbH is the sponsor of our welcome reception to be held from 18:30-19:30 at the Parkhotel Schönbrunn's "Sissi-Salon". The welcome reception is the ideal place to socialize with other participants before the conference!

Tuesday Evening: Guided City Tour & Civic Reception

The Ada-Europe General Assembly ends at 18:15. At 18:45, you are invited to a guided tour by bus that will provide a first impression of the city and several of its well-known sights, among them the magnificent buildings along the Ringstraße, such as the State Opera House, the Museum of Fine Arts, the Museum of Natural History, the Hofburg Palace, the Parliament, the City Hall, the Burgtheater, and the University as well as the Votivkirche.

Thereafter we will enjoy a cocktail reception at the historic town hall by invitation of the Mayor of Vienna.

At 21:45 the bus will depart from the townhall to take us back to the Parkhotel.

Wednesday Evening: Chamber Music & Banquet

Today's presentations end at 17:30. To start the evening, Ed Schonberg and Maarten Boasson will enjoy us with some light chamber music. The concert will take place in the Parkhotel's Sissi-Salon, it will start at 18:00.

At 19:00 the bus will depart to take us to a famous "Heurigen" in Grinzing where the conference banquet takes place. Heuriger is a word that the Viennese use both for the wine of the latest grape harvest and for the establishments at which it is served. Grinzing is probably Austria's best known wine-growing district, and the Heuriger "Altes Presshaus" has a tradition that dates back as far as 1527.

Over a glass of wine and traditional Viennese cuisine we will have the opportunity to experience several of the mundane ingredients such as "Schrammel-Musik" and "Wiener Gemütlichkeit" that add to the flair of this city.

At 22:30 the first bus will depart and return to the Parkhotel. For those of us who can do with less sleep the second bus will depart at around 23:15.

Thursday Evening: Schönbrunn Palace "Grand Tour"

At 19:00 we will start our short walk from the conference venue through the adjacent baroque-style park of the Schönbrunn Palace that will take us to the palace itself. Between 19:30 and 20:30 we will enjoy an exclusive evening tour through this former summer residence of the Habsburg family.

Schönbrunner Schlosspark

The gate "Hietzinger Tor" to the Schönbrunn Palace Park is diagonally opposite the entrance of Parkhotel Schönbrunn. The park is very well-suited to take a walk or to go for a run.

Entry to the park is free. Visitors must however bear in mind that the gates to the park are kept closed from 21:00 to 6:00.

Additional tickets for the evening events are on sale at the conference reception desk.



CONFERENCE SCHEDULE



	Tuesday 18th		Wednesday 19th	Thursday 20th
9:30–10:30	<p>Invited Talk:</p> <p>Embedded Systems Unsuitable for Object Orientation <i>Maarten Boasson, University of Amsterdam, The Netherlands</i> Chair: Johann Blieberger Franz-Joseph Saal</p>		<p>Invited Talk:</p> <p>On Architectural Stability and Evolution <i>Mehdi Jazayeri, Technical University of Vienna, Austria</i> Chair: Alfred Strohmaier Franz-Joseph Saal</p>	<p>Invited Talk:</p> <p>Indulgent Algorithms: Virtues and Limitations <i>Rachid Guerraoui, Swiss Federal Institute of Technology, Lausanne, Switzerland</i> Chair: Dirk Craeynest Franz-Joseph Saal</p>
10:30–11:30	<p>Exhibition Opening & Coffee Kaisersalon</p>		<p>Exhibition & Coffee Kaisersalon</p>	<p>Exhibition & Coffee Kaisersalon</p>
	<p>Embedded Systems Chair: Albert Llamosi Franz-Joseph Saal</p>	<p>Case Studies Chair: Ehud Lamm Salon Zimmermann</p>	<p>Ada Language Issues Chair: Jean-Pierre Rosen Franz-Joseph Saal</p>	<p>Distributed Systems Chair: Thomas Gruber Franz-Joseph Saal</p>
11:30–12:00	<p>Evaluating Performance and Power of Object-oriented vs. Procedural Programming in Embedded Processors <i>A. Chatzigeorgiou, G. Stephanides</i></p>	<p>Software Development Reengineering — An Experience Report <i>Adrian Hoe</i></p>	<p>How to use GNAT to Efficiently Preprocess New Ada Sentences <i>J. Miranda, F. Guerra, E. Martel, J. Martín, A. González</i></p>	<p>Modelling & Schedulability Analysis of Hard Real-Time Distributed Systems based on Ada Components <i>J. L. Medina, J. M. Drake, M. González Harbour</i></p>
12:00–12:30	<p>OMC-INTEGRAL Memory Management <i>Jose Manuel Pérez Lobato, Eva Martín Lobo</i></p>	<p>Development of a Control System for Teleoperated Robots using UML and Ada95 <i>F. J. Ortiz, A. Martínez, B. Alvarez, A. Iborra, J.M. Fernández</i></p>	<p>Exposing Uninitialized Variables: Strengthening and Extending Run-Time Checks in Ada <i>Robert Dewar, Olivier Hamque, Dirk Craeynest, Philippe Waroquier</i></p>	<p>Transparent Environment for Replicated Ravenscar Applications <i>Luis Miguel Pinho, Francisco Vasques</i></p>
12:30–13:00	<p>Language Issues of Compiling Ada to Hardware <i>M. Ward, N. C. Audsley</i></p>	<p>Using a Secure Java Micro-kernel on Embedded Devices for the Reliable Execution of Dynamically Uploaded Applications <i>W. Binder, B. Lichtl</i></p>	<p>Adding Design By Contract to the Ada Language <i>Ehud Lamm</i></p>	<p>Concurrency Control in Transactional Drago <i>M. Patiño-Martínez, R. Jiménez-Peris, J. Kienle, S. Arévalo</i></p>
13:00–14:30	<p>Lunch & Exhibition Französisches Restaurant & Kaisersalon</p>		<p>Lunch & Exhibition Französisches Restaurant & Kaisersalon</p>	<p>Lunch & Exhibition Französisches Restaurant & Kaisersalon</p>



CONFERENCE SCHEDULE (cont.)



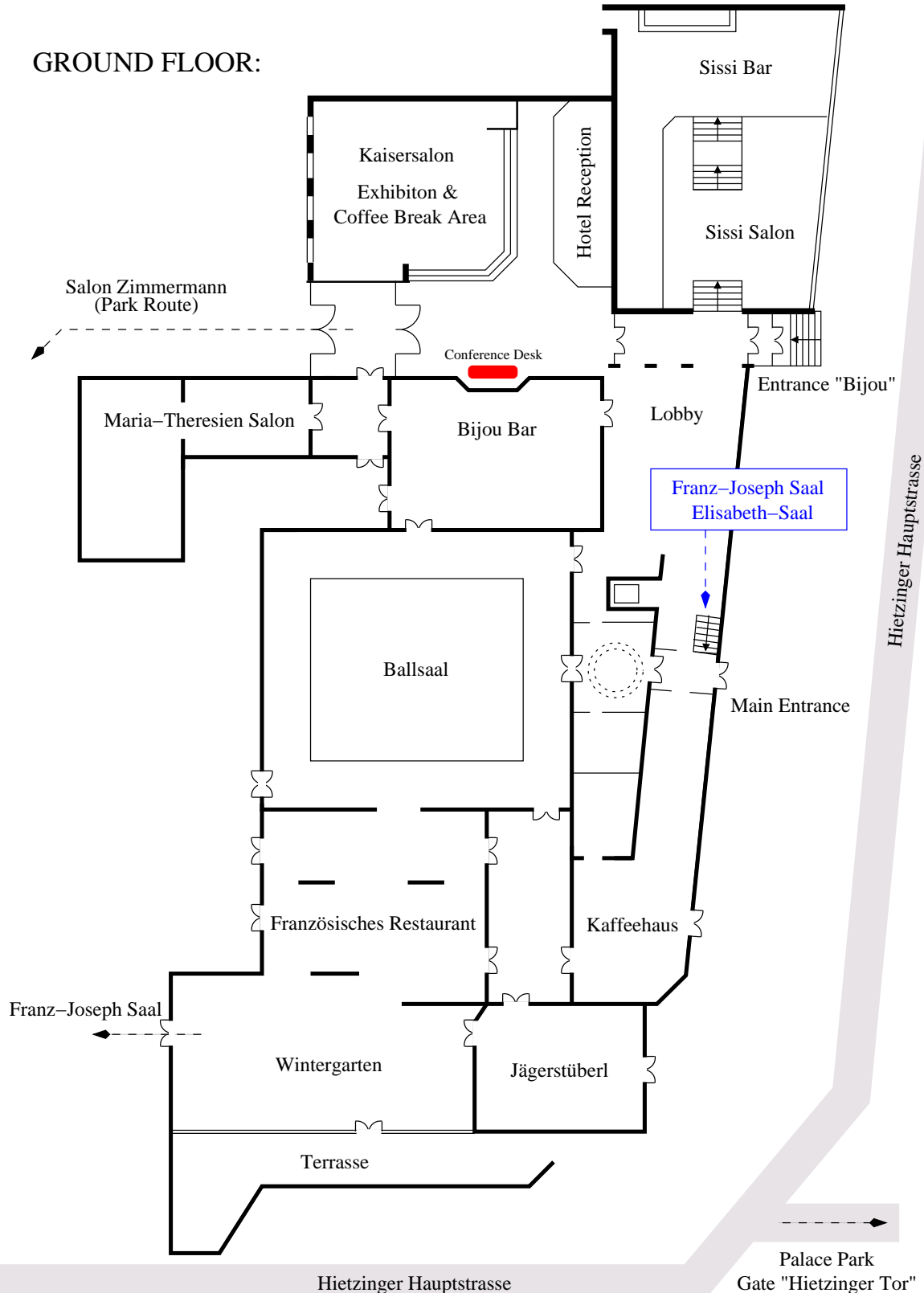
Tuesday 18th		Wednesday 19th		Thursday 20th		
	Real-Time Systems Chair: Helge Hagenauer Franz-Joseph Saal	Vendor Session I Chair: Hubert B. Keller Salon Zimmermann	Program Analysis Chair: Erhard Ploedereder Franz-Joseph Saal	Vendor Session II Chair: Dirk Craeynest Salon Zimmermann	Object-Orientation Chair: Janet Barnes Franz-Joseph Saal	Libraries, APIs, and Bindings Chair: Alejandro Alonso Salon Zimmermann
14:30–15:00	A POSIX-Ada Interface for Application-Defined Scheduling <i>Mario Aldea Rivas, Michael González Harbour</i>	Green Hills Runtime Systems for Safety Critical Applications <i>Frank van den Berg</i>	Static Dependency Analysis for Concurrent Ada 95 Programs <i>Zhenqiang Chen, Baowen Xu, Jianjun Zhao, Hongji Yang</i>	DDC-I DDC-I's SCORE Technology including Integration with OSE RTOS <i>Erik Jensen</i>	Using Object Orientation in High Integrity Applications: A Case Study <i>A. Alonso, R. López, T. Vardanega, J. A. de la Puente</i>	An Ada Binding to the IEEE 1003.1q (POSIX Tracing) Standard <i>Agustín Espinosa Minguet, Ana García Fornes, Alfons Crespo i Lorente</i>
15:00–15:30	The Formal Development of a Real Time Kernel: Kernel Modelling <i>Stephen G. Michell, Douglas J. Howe</i>	Rational Rational APEX — the Only Certified Ada Compiler <i>Gerd Sauermann</i>	DataFAN: A Practical Approach to Data Flow Analysis for Ada 95 <i>K. Czarniecki, M. Himsolt, E. Richter, F. Vieweg, A. Rosskopf</i>	TNI Europe SAFEBUILD — The Future of UML and HOOD Users <i>Tony Elliston</i>	Ada, Interfaces and the Listener Paradigm <i>J-P. Rosen</i>	GNAT Ada Database Development Environment <i>Michael Erdmann</i>
15:30–16:00	Exhibition & Coffee Kaisersalon		Prioritization of Test Cases in MUMCUT Test Sets: An Empirical Study <i>Y. T. Yu, M. F. Lau</i>	ACT Europe The GNAT Programming System IDE <i>Franco Gasperoni</i>	Exhibition & Coffee Kaisersalon	
16:00–16:30			Exhibition & Coffee Kaisersalon			
	High-Integrity Systems Chair: John Barnes Franz-Joseph Saal		Tools Chair: Currie Colket Franz-Joseph Saal			
16:30–17:00	Closing the Loop: The Influence of Code Analysis on Design <i>Peter Amey</i>		About the Difficulties of Building a Pretty-Printer for Ada <i>Sergey Rybin, Alfred Strohmeier</i>		Contextware: Bridging Physical and Virtual Worlds <i>Alois Ferscha, Universität Linz, Austria</i> Chair: Erhard Ploedereder Franz-Joseph Saal	
17:00–17:30	High-Integrity Systems Development for Integrated Modular Avionics using VxWorks and GNAT <i>Paul Parkinson, Franco Gasperoni</i>		A Tailorable Distributed Programming Environment <i>E. Martel, F. Guerra, J. Miranda</i>			
17:30–18:15	Ada-Europe General Assembly				Closing Session Awards: best paper & best presentation	
<i>Cf. Guide to Social Progr.</i>	Guided City Tour & Town-Hall Reception		Chamber Music & Banquet (Heuriger)		Schönbrunn Palace “Grand Tour”	

PARKHOTEL SCHÖNBRUNN

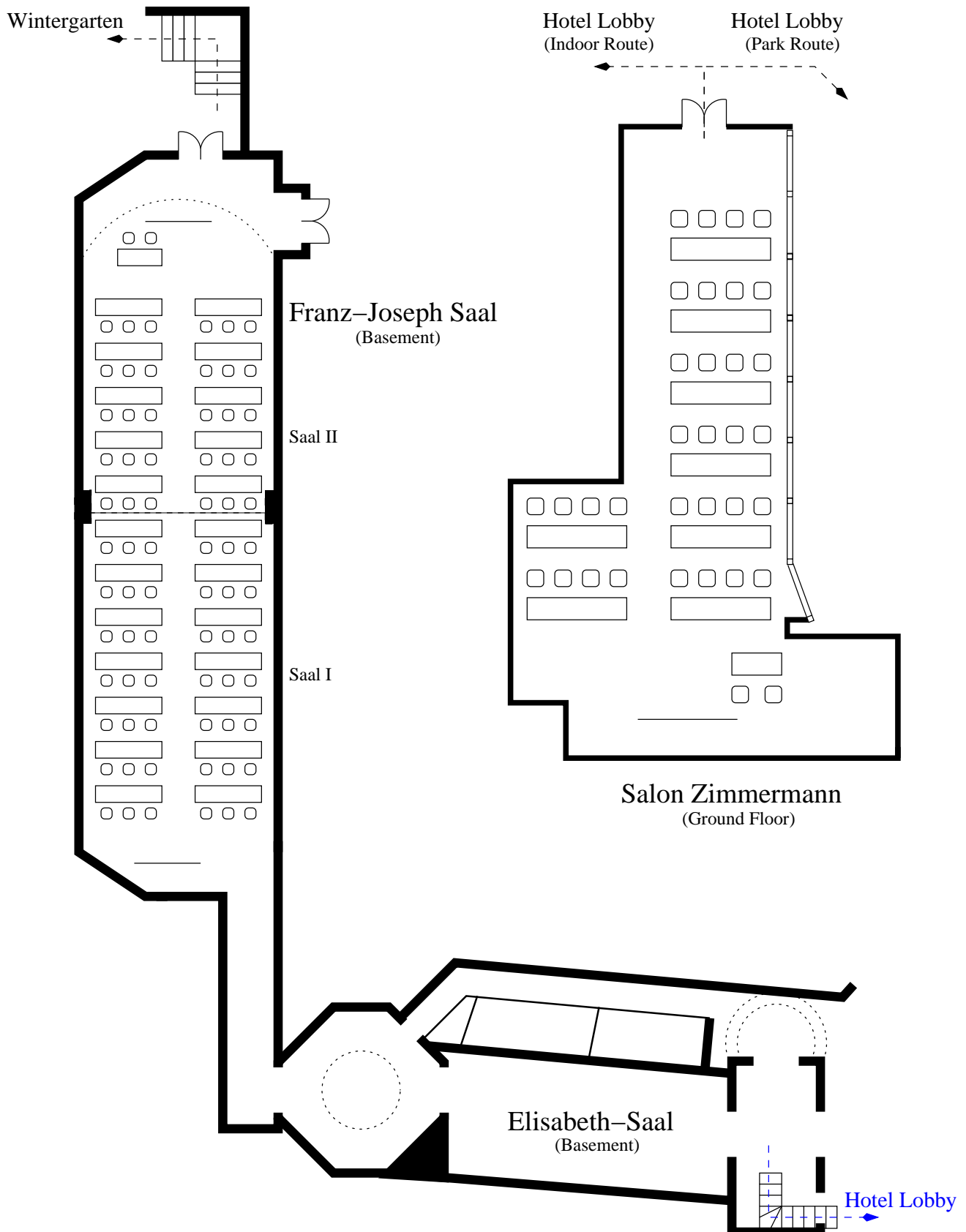
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The organizers thank the exhibitors



and the supporters of the conference.

The City of Vienna

